



AGENZIA ITALIANA
PER LA COOPERAZIONE
ALLO SVILUPPO

Sede di Khartoum



SUPPLY CONTRACT

Italian Agency for Development Cooperation (AICS)
Khartoum Office, Street 33, Amarat, Khartoum - Sudan
on behalf of and for the account of the government of Italy
('The contracting authority'),
of the one part,

and

SITEM - PRO SRL
Registration Number: PN104539
Via San Giuliano, 43-33170
Pordenone- Italy
VAT Registration number: IT01787090933, ('the contractor')
of the other part,

have agreed as follows:

CONTRACT TITLE

Supply of Hospital Medical Equipment for Samir Health Centre - Sudan

Master CIG: 941031017A

Article 1 Subject

- 1.1 The subject of the contract shall be:
Supply, delivery, unloading, siting and installation, commissioning, maintenance,
after-sales service of the following supplies:

Item number	Specifications required	Q.ty
LOT 1	A - HOSPITAL FURNITURE - CIG: 941031017A	
04-CAB	Cabinet, Bedside	6
04-CHB	Chair, blood/sample collection	1
04-COE	Couch, Examination/Treatment	5
04-COG	Couch, Gynaecological	1
04-FOR	Folding screen room dividers	12
04-IVP	IV Pole, 2 hooks	6
04-STD	Stool, Dental	1
04-STO	Stool, Operator	3
04-SMF	Stretchers, Patient, Fixed Height	1
04-TRIO2	Trolley, Inox, Operating Room, 90 x 60	1

04-WHE	Wheelchair	2
04-XRW	X-RAY, Film viewer	4
LOT 2	B - LABORATORY EQUIPMENT CIG: 941031124D	
03-AMA	Amalgamator, dental	1
03-ANCL	Analyzer, Clinical Chemistry	1
03-ANELC	Analyzer, Electrolytes	1
03-ANGL	Analyzer, Glucose, Whole Blood	1
03-ANHE	Analyzer, Hematology, Automated	1
03-CET	Centrifuge, Tabletop, non refrigerated	1
03-MICL	Microscope, optic, light	1
03-PIPS	Pipette, Automatic, Set	1
03-SHKV	Shaker, Vortex	1
03-FRT	Temperature, Indicator, Freezer Tag w/ Alarm	1
03-ThDL	Thermometer, Data Logger, w/ display	2
03-WSAB	Weighting System, Analytical Balance	2
31	Water Purifying, Reverse Osmosis	1
LOT 3	MEDICAL DEVICE, MEDICAL EQUIPMENT, INOX MEDICAL TOOLS - CIG 9410312320	
	C - MEDICAL DEVICE	
MDD04	Charts, Eye, Visual Acuity	1
MDD032	Hammer	2
MDD033	Maddox wing	1
MDD37	Ophthalmoscope	1
MDD09	Ophthalmoscope/Otoscope	1
MDD36	Oxygen, Cylinder, w regulator	2
MDD14	Sphygmomanometer, Adult, Pediatric	3
MDD12	Stethoscope, (dualHead)	2
MDD23	Stethoscope, fetal	1
MDD13	Thermometers, Electronic, Infrared, Skin	5
MDD28	Torch for eye examination	5
MDD35	Trial Lens Sets, Ophthalmic	1
MDD08	Weighting System, Adult, with height mes	3
	D - MEDICAL EQUIPMENT	
02-AER	Aerosol Generators	1
02-DES	Defibrillators, semiautomatic	1
02-DEU	Dental Unit	1
02-ECG	Electrocardiographs, Multichannel,	1
02-LISB	Lights, Surgical, mobile, battery	1
02-SSUG	Scanning System, Ultrasonic, General Purpose	1
02-STST	Sterilizing Unit, Steam, Tabletop	1
	E - INOX MEDICAL TOOLS	

10-077	Drum, sterilizing Inox, Large	1
10-077	Drum, sterilizing Inox, Medium	1
10-077	Drum, sterilizing Inox, Small	1
06-070	Forceps, Desmarres Chalazion	1
66	Kidney Dish, Inox, Large, w/out/ Lid	2
67	Kidney Dish, Inox, Medium, w/out/ Lid	2
68	Kidney Dish, Inox, Small, w/out/ Lid	2
71	Retractor, Vaginal, Sim	1
72	Set, Delivery	1
69	Set, Dental, Basic	1
70	Set, Dressing	1
06-070	Set, Ear Syringe	1
06-030	Set, Gynecological examination	1
06-036	Set, Small Fragment/foreign Bodies	1
09-051	Speculum vaginal, Cusco	1
06-059	Tray, Instrument, Inox, small	1
06-059	Tray, Instrument, Inox, Large	1
LOT 4	F - RADIOGRAPHIC DIAGNOSTIC SYSTEMS - CIG 94103133F3	
02-RU-F	Radiographic System, film, conventional	1
02-RU-T	Radiographic Unit, Dental, Intraoral	1
02-XCRS	X-RAY, Computer Radiographic System	1
02-XPRT	X-Ray, Film Printer, Tabletop	1
02-XREP	X-Ray, Film Processor, Dental	1
56	X-Ray, Protection devices, Set x person	2

The place of acceptance of the supplies shall be Samir Health Centre, Khartoum, Sudan, the time limits for delivery shall be 120 days and the Incoterm applicable shall be DDP¹. The implementation period of tasks shall start from the signature of the contract by both parties.

- 1.2 The contractor shall comply strictly with the terms of the special conditions and the technical annex.
- 1.3 The supplies which form the subject of the contract must be accompanied by the spare parts described by the contractor in its tender and by the accessories and other items necessary for using the goods over a period of 1 year, as specified in the instructions to tenderers.

Article 2 Origin

The rules of origin of the goods are defined in Article 10 of the special conditions.

¹ DDP (Delivery Duties Paid- Incoterms 2020 International Chamber of Commerce - <http://www.iccwbo.org/incoterms/>

A certificate of origin for the goods must be provided by the contractor at the latest when it requests provisional acceptance of the goods. Failure to comply with this condition may result in the termination of the contract and/or suspension of payment.

Article 3 Price

- 3.1 The price of the supplies shall be that shown on the financial offer (specimen in Annex IV). The total maximum contract price shall be EUR 239.820,82.

LOT 1 EUR 16.369,09

LOT 2 EUR 60.727,31

LOT 3 EUR 59.828,39

LOT 4 EUR 102.896,03

- 3.2 Payments shall be made in accordance with the general and/or special conditions (Articles 26 to 28).

Article 4 Order of precedence of contract documents

The contract is made up of the following documents, in order of precedence:

- the contract agreement.
- the special conditions
- the general conditions (Annex I).
- the technical specifications (Annex II) including clarifications before the deadline for submission of tenders.
- the technical offer (Annex III) including clarifications from the tenderer provided during tender evaluation.
- the budget breakdown (Annex IV).
- Legal Entity (Annex V);
- Financial Identification (Annex VI).

The various documents making up the contract shall be deemed to be mutually explanatory; in cases of ambiguity or divergence, they shall prevail in the order in which they appear above.

Done in English in two originals, one original being for the AICS and one original being for the contractor.

For the contractor

Name: GIUSEPPE CANALARIO

Title: COMMERCIAL DIRECTOR

Signature:

Date: 05.04.23

For the contracting authority

Name: Michele Morana

Title: Director of AICS Khartoum

Signature:

Date: 03.04.2023

SITEM-PRO SRL
Via San Giuliano, 43/A
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C.U.I. SUBM70N



SPECIAL CONDITIONS

CONTENTS

These conditions amplify and supplement, if necessary, the general conditions governing the contract. Unless the special conditions provide otherwise, those general conditions remain fully applicable. The numbering of the articles of the special conditions is not consecutive but follows the numbering of the articles of the general conditions. In exceptional cases, and with the authorisation of the appropriate Commission departments, other clauses may be added to cover specific situations.

Article 2 Language of the contract

- 2.1 The language used shall be English.

Article 4 Communications

- 4.1 Any Communications about the contract by the contractor to the Contracting Authority will be in writing and addressed to the attention of:
Mr. Wael Haddoush (Procurement Office)
Italian Agency for Development Cooperation (AICS)
Khartoum Office
Street 33, Amarat
Khartoum - Sudan
E-mail: procurement.sudan@aics.gov.it att:
indicating the contract reference number (CIG number).

Article 6 Subcontracting

- 6.3 When selecting subcontractors, the contractor must give preference to natural persons or companies from Sudan States capable of implementing the tasks required on similar terms.

Article 7 Supply of documents

- 7.1 The Contractor takes full responsibility of the implementation of tasks in order to successfully achieve the scope of the contract. So, he could decide to perform a sites survey before the effectiveness of the contract. The Contractor will submit a final plan of activities agreed with the Contracting Authority, stamped and signed by the legal representative. The final activity plan will indicate the human resources and all the other means intended to use. This plan must take into account the operational needs of the Health Facilities where equipment and services are delivered and minimize any inconvenience arising from the execution of the contract. The activity plan should also put in evidence any civil works to be performed by the Health Facilities before the delivery of the equipment. Any needed civil works that are not mentioned in the activity plan and agreed with the Contracting Authority will be at charge of the Contractor, without any reimbursement.
- 7.2 The Contracting Authority shall approve the activity plan after its submission or may propose modifications. If the Contracting Authority will not respond, the activity

plan will be considered approved by silent consent. In the event of request of modification, the contractor could propose modifications to the activity plan. If modifications will not be submitted for approval, the Contractor may incur in the sanctions as provided for in the following Article 21 - Delays in implementation of the tasks and also in the contract General Conditions.

Article 8 Assistance with local regulations

- 8.1 The Contracting Authority will provide the Contractor all the necessary documents/ declaration for the tax exemption and custom clearance despite the delivery terms is DDP.
- 8.2 Customs clearance and its operation should be completed by the contractor or his agent.

Article 9 General obligations

- 9.1 The contractor shall take the necessary measures to ensure the visibility of the Italian Cooperation Financing. These measures must comply with the requirements settled down in the article 29.5

Article 10 Origin

- 10.1 All goods purchased must originate from any country. For these purposes, 'origin' means the place where the goods are mined, grown, produced or manufactured. The origin of the goods must be determined according to the EU Customs Code or to the relevant international agreement applicable.

Article 11 Performance guarantee

- 11.1 The amount of the performance guarantee shall 10 % of the total contract price, including any amounts stipulated in addenda to the contract.
- 11.7 The performance guarantee shall be released within 60 days of the issuing of the signed final acceptance certificate for its total amount except for amounts which are the subject of amicable settlement, arbitration or litigation.

Article 12 Liabilities and insurance

- 12.1 All risks insurance: Subject: "warehouse to warehouse"; Amount: 110% of DDP (Delivery Duties Paid- Incoterms 2020) value in Euro must be included in the DDP prices. Insured parties: Insurance should be made in the name of the Contracting Authority. Coverage period: From the date of commencement of activities to date of provisional acceptance.

Article 13 Programme of implementation of tasks

- 13.2 Within 10 days from the notification signature of the contract the contractor will send to the Contracting Authority a timetable of activities to come, with indication of duration, date, means and units of Human resources appointed to undertake the task. The Project Manager will approve by AICS the Programme of Implementation of tasks.

Article 14 Contractor's drawings

- 14.1 The Contractor will provide the final user with a complete set of technical drawings for installation, including the electrical drawings of every component with service manual in English language.

Article 15 Sufficiency of tender prices

- 15.1 No revision of tender prices is allowed and the Contractor is deemed to have evaluated with diligence every cost component arising from the implementation of contract tasks.

Article 16 Tax and customs arrangements

- 16.1 Delivery conditions are DDP Incoterms 2020.

Article 17 Patents and licences

- 17.1 All Licence for software utilization and updates have to be in the name of the final User.

Article 18 Commencement order

- 18.1 No Commencement order will be issued by the contracting authority.

The implementation of the tasks will commence after the contract signature by both parties.

Article 19 Period of implementation of the tasks

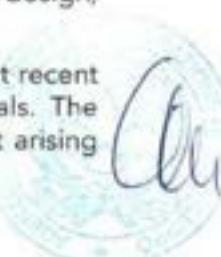
- 19.1 The period of implementation of task is 120 days from the commencement date.

Article 21 Delays of implementation of the tasks

- 21.4 If the authorized local service in charge of the after-sale and maintenance service does not provide the service according to the deadline established in the Technical Specifications, it will be subject to penalties. This penalty for such delay is set to 50 Euro per day and up to a maximum of 1 % of the value of the contract. The amount corresponding of the total delays will be deducted from the Performance Guarantee or any other payment due to the contractor.

Article 24 Qualities of Supplies

- 24.4 The supplies shall have valid FDA approval, CE marked and shall be compliant with IEC 60601 last revision standard, IEC 61010-1 EU Directive 2017/745.
- 24.5 The Tenderer shall warrant that all supplies have no defect arising from design, materials or workmanship.
- 24.6 The Contractor shall warrant that the supplies are new, unused, of the most recent models and incorporate all recent improvements in design and materials. The Contractor shall further warrant that none of the supplies have any defect arising



from design, materials or workmanship.

Article 25 Inspection and testing

- 25.2 The place to inspect and test the goods will be the place of final destination at the presence of the final user, the donor and the contractor representatives.
- 25.4 The Contractor shall test, calibrate and commission the goods, in presence of the Contracting Authority, as appropriate and in such way that, upon installation completion, they are fully operational and ready for use.
- 25.9 the Contractor shall cover all official testing and commissioning procedure costs including costs for instrumentation and materials.
- 25.10 Only specialized and qualified personnel by the contractor will install and test the supplies.
- 25.11 The contractor will submit to the Contracting Authority and the final user the complete set of reports of installation.

Article 26 General principles for payments

- 26.1 Payments shall be made in euros. Payments shall be authorised by AICS Khartoum Office.
- 26.3 The final payment to the contractor of the amounts due shall be made within 90 days after receipt by the contracting authority of an invoice and of the application for the certificate of provisional acceptance.
- 26.5 In order to obtain payments, the contractor must forward to the authority referred to in paragraph 26.1 above:

The invoice of the total amount of the contract together with the request for provisional acceptance of the supplies for each complete Lot.
- 26.9 The contract does not include price revision.

Article 29 Delivery

- 29.1 The Contractor shall bear all risks relating to the goods until final acceptance at destination. The supplies shall be packaged so as to prevent their damage or deterioration in transit to their destination.
- 29.3 The packaging shall remain the property of the contractor subject to environmental considerations.
- 29.4 The Supplier shall mail to the Contracting Authority, with a copy to the Insurance Company all the documents necessary to the delivery of the goods (the list of these documents will be defined at the moment of the contract signature).
- 29.5 Sticker with the Logo of the Donor (see Pattern - Dimension of minimum 20 cm - lower side or if rounded consider the radius) must be placed on each package of the items described in Article 1.1 of the Instruction to the Tenderers, with the words: Grant of AICS.

Article 30 - Verification operations

- 30.6 The Contractor will provide reconstruction of the whole floors, walls, finishing and any other damage or need for adaptation/repair of the rooms/building. This means, but it is not limited to, also the fixed furniture and finishing and the installations (including electrical power, data network, medical gases, air conditioning, water supply and drainage, etc.) possibly affected by the supply, as well as all other damages caused during the installation works.
- 30.7 Any damage to hospital structures, finishing or installations caused by the supplier/installer shall be repaired by the supplier/installer within 2 weeks using the same construction materials of the damaged areas and restoring all the previous services with the same supply quality.
- 30.8 The Contractors shall install, put in perfect operating conditions and ready to use the offered medical equipment, including the calibration of the systems to ensure the best digital images quality.
- 30.9 The Contractor shall perform on the contract with due care and diligence, providing for the delivery, assembly, testing and start-up of the equipment, including correction of any defects. The Contractor must have skilled manpower equipped with appropriate tools to properly execute the contract.

Article 31 Provisional acceptance

The certificate of provisional acceptance must be issued using the template in Annex C11.

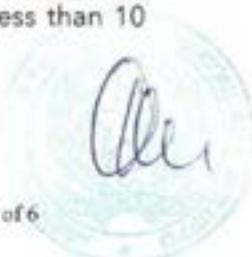
- 31.2. By derogation, the contractor may apply, by notice to the project manager, for a certificate of provisional acceptance when supplies are ready for provisional acceptance. The project manager shall within 45 days of receipt of the contractor's application either:
 - issue the certificate of provisional acceptance to the contractor with a copy to the contracting authority stating, where appropriate, his reservations, and, *inter alia*, the date on which, in his opinion, the supplies were completed in accordance with the contract and ready for provisional acceptance; or
 - reject the application, giving his reasons and specifying the action which, in his opinion, is required of the contractor for the certificate to be issued.

The contracting authority's time limit for issuing the certificate of provisional acceptance to the contractor shall not be considered included in the time limit for payments indicated in Article 26.3.

Article 32 Warranty obligations

- 32.2. Unlimited *On demand* interventions shall be included for any defect covered by the warranty according to the Technical Specification in Annex II. The interventions will include spare parts.
- 32.10 Spare parts, consumables and maintenance services Availability of spare parts, consumables and maintenance services must be guaranteed for not less than 10 years from the date of signature of the contract.

Article 33 After-sales service



- 33.2 The Contractor shall provide, for all the articles supplied, the provision of reliable and regular aftersales and maintenance service at the place of installation, guaranteeing repair of the goods supplies during 12 months period after Provisional Acceptance.
- 33.3 This service has to be conducted according to the requirements indicated in Annex II and III. Such service will make available timely the necessary spare parts, reagents and consumables through a commercial relationship with the producer.
- 33.4 Except for what differently provided in the technical specifications (annex II to the contract), the after sales service is comprehensive of 1 mandatory interventions per year. After Sale service shall include regular preventive maintenance/safety and functionality checks / QA as per Manufacturer's recommendations.

Article 40 Settlement of disputes

- 40.1 Any disputes arising out of or relating to this contract, which cannot be settled, otherwise shall be referred to the exclusive jurisdiction of Italy in accordance with the national legislation of the state of the contracting authority.

Article 44 Data protection

- 44.1 Processing of personal data related to the implementation of the contract by the contracting authority takes place in accordance with the national legislation of the state of the contracting authority and with the provisions of the respective financing agreement.
- 44.2 To the extent that the contract covers an action financed by the European Union, the Contracting Authority may share communications related to the implementation of the contract, with the European Commission. These exchanges shall be made to the Commission, solely for the purpose of allowing the latter to exercise its rights and obligations under the applicable legislative framework and under the financing agreement with the Partner country - contracting authority. The exchanges may involve transfers of personal data (such as names, contact details, signatures and CVs) of natural persons involved in the implementation of the contract (such as contractors, staff, experts, trainees, subcontractors, insurers, guarantors, auditors and legal counsel). In cases where the contractor is processing personal data in the context of the implementation of the contract, he/she shall accordingly inform the data subjects of the possible transmission of their data to the Commission. When personal data is transmitted to the Commission, the latter processes them in accordance with Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC1 and as detailed in the specific privacy statement published at ePRAG.

¹ OJ L 205 of 21.11.2018, p. 39

**ANNEX I: GENERAL CONDITIONS
FOR SUPPLY CONTRACTS**

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PRELIMINARY PROVISIONS

Article 1 - Definitions

- 1.1. The headings and titles in these general conditions shall not be taken as part thereof or be taken into consideration in the interpretation of the contract.
- 1.2. Where the context so permits, words in the singular shall be deemed to include the plural and vice versa, and words in the masculine shall be deemed to include the feminine and vice versa.
- 1.3. Words designating persons or parties shall include firms and companies and any organisation having legal capacity.
- 1.4. The definitions of the terms used throughout these general conditions are laid down in the 'Glossary of terms', Annex A1a to the practical guide, which forms an integral part of the contract.

Article 2 - Language of the contract

- 2.1. The language of the contract and of all communications between the contractor, contracting authority and project manager or their representatives shall be as stated in the special conditions.

Article 3 - Order of precedence of contract documents

- 3.1. The order of precedence of the contract documents shall be stated in the contract.

Article 4 - Communications

- 4.1. Any written communication relating to this contract between the contracting authority or the project manager, and the contractor shall state the contract title and identification number, and shall be sent by post, cable, telex, facsimile transmission, e-mail or personal delivery, to the appropriate addresses designated by the parties for that purpose in the special conditions.
- 4.2. If the sender requires evidence of receipt, it shall state such requirement in its communication and shall demand such evidence of receipt whenever there is a deadline for the receipt of the communication. In any event, the sender shall take all the necessary measures to ensure timely receipt of its communication.
- 4.3. Wherever the contract provides for the giving or issue of any notice, consent, approval, certificate or decision, unless otherwise specified such notice, consent, approval, certificate or decision shall be in writing and the words 'notify', 'consent', 'certify', 'approve' or 'decide' shall be construed accordingly. Any such consent, approval, certificate or decision shall not unreasonably be withheld or delayed.
- 4.4. Any oral instructions or orders shall be confirmed in writing.

Article 5 - Assignment

- 5.1. An assignment shall be valid only if it is a written agreement by which the contractor transfers its contract or part thereof to a third party.
- 5.2. The contractor shall not, without the prior consent of the contracting authority, assign the contract or any part thereof, or any benefit or interest thereunder, except in the following cases:
 - a) a charge, in favour of the contractor's bankers, of any monies due or to become due under the contract; or
 - b) the assignment to the contractor's insurers of the contractor's right to obtain relief against any other person liable in cases where the insurers have discharged the contractor's loss or liability.
- 5.3. For the purpose of Article 5.2, the approval of an assignment by the contracting authority shall not relieve the contractor of its obligations for the part of the contract already performed or the part not assigned.
- 5.4. If the contractor has assigned the contract without authorisation, the contracting authority may, without formal notice thereof, apply as of right the sanction for breach of contract provided for in Articles 35 and 36.
- 5.5. Assignees shall satisfy the eligibility criteria applicable for the award of the contract and they shall not fall under the exclusion criteria described in the tender dossier.

Article 6 - Subcontracting

- 6.1. A subcontract shall be valid only if it is a written agreement by which the contractor entrusts performance of a part of the contract to a third party.
- 6.2. The contractor shall request to the contracting authority the authorisation to subcontract. The request must indicate the elements of the contract to be subcontracted and the identity of the subcontractors. The contracting authority shall notify the contractor of its decision within 30 days of receipt of the request, stating reasons should it withhold such authorisation.
- 6.3. Subcontractors shall satisfy the eligibility criteria applicable for the award of the contract. They shall not fall under the exclusion criteria described in the tender dossier and the contractor shall ensure that they are not subject to EU restrictive measures.
- 6.4. No subcontract creates contractual relations between any subcontractor and the contracting authority.
- 6.5. The contractor shall be responsible for the acts, defaults and negligence of its subcontractors and their agents or employees, as if they were the acts, defaults or negligence of the contractor, its agents or employees. The approval by the contracting authority of the subcontracting of any part of the contract or of the subcontractor to perform any part of the tasks shall not relieve the contractor of any of its obligations under the contract.
- 6.6. If a subcontractor has undertaken any continuing obligation extending for a period exceeding that of the warranty period under the contract towards the contractor in respect of the supplies provided by the subcontractor, the contractor must, at any time after the

expiration of the warranty period, transfer immediately to the contracting authority, at the contracting authority's request and cost, the benefit of such obligation for the unexpired duration thereof.

- 6.7. If the contractor enters into a subcontract without approval, the contracting authority may, without formal notice thereof, apply as of right the sanction for breach of contract provided for in Articles 35 and 36.
- 6.8. If a subcontractor is found by the contracting authority or the project manager to be incompetent in discharging its duties, the contracting authority or the project manager may request the contractor forthwith, either to provide a subcontractor with qualifications and experience acceptable to the contracting authority as a replacement, or to resume the implementation of the tasks itself.

OBLIGATIONS OF THE CONTRACTING AUTHORITY

Article 7 - Supply of documents

- 7.1. Save where otherwise provided in the special conditions, within 30 days of the signing of the contract, the contracting authority shall provide the contractor, free of charge, with a copy of the drawings prepared for the implementation of the tasks and a copy of the specifications and other contract documents. The contractor may purchase additional copies of these drawings, specifications and other documents, in so far as they are available. Upon final acceptance, the contractor shall return to the contracting authority all drawings, specifications and other contract documents.
- 7.2. The contracting authority shall co-operate with the contractor to provide information that the latter may reasonably request in order to perform the contract.
- 7.3. The contracting authority shall notify the contractor of the name and address of the project manager.
- 7.4. Unless it is necessary for the purposes of the contract, the drawings, specifications and other documents provided by the contracting authority shall not be used or communicated to a third party by the contractor without the prior consent of the contracting authority.
- 7.5. The project manager shall have authority to issue to the contractor administrative orders incorporating such supplementary documents and instructions as are necessary for the proper execution of the contract and the remedying of any defects therein.
- 7.6. The special conditions must indicate the procedure used, if necessary, by the contracting authority and the project manager to approve drawings and other documents provided by the contractor.

Article 8 - Assistance with local regulations

- 8.1. The contractor may request the assistance of the contracting authority in obtaining copies of laws, regulations and information on local customs, orders or bye-laws of the country where the supplies are to be delivered which may affect the contractor in the performance of its obligations under the contract. The contracting authority may provide the assistance requested to the contractor at the contractor's cost.

- 8.2. The contractor shall duly notify the contracting authority of details of the supplies so that the contracting authority can obtain the requisite permits or import licences.
- 8.3. The contracting authority will undertake to obtain, in accordance with the special conditions, the requisite permits or import licences within a reasonable period, taking account of the implementation dates for the tasks.
- 8.4. Subject to the provisions of the laws and regulations on foreign labour of the country in which the supplies are to be delivered, the contracting authority provides reasonable assistance to the contractor, at its request, for its application for any visas and permits required by the law of the country in which the supplies are to be delivered, including work and residence permits, for the personnel whose services the contractor and the contracting authority consider necessary, as well as residence permits for their families.

OBLIGATIONS OF THE CONTRACTOR

Article 9 - General obligations

- 9.1. The contractor shall execute the contract with due care, efficiency and diligence in accordance with the best professional practice.
- 9.2. The contractor shall, in accordance with the provisions of the contract, supply (deliver, unload, commission) the supplies and carry out any other work including the remedying of any defects in the supplies. The supply may include, as an incidental matter, siting and installation operations. The contractor shall also provide all necessary equipment, supervision, labour and facilities required for the implementation of the tasks.
- 9.3. The contractor shall comply with administrative orders given by the project manager. Where the contractor considers that the requirement of an administrative order goes beyond the scope of the contract, it shall, give notice with reasons to the project manager. If the contractor fails to notify within 30 days period after receipt thereof, he shall be barred from so doing. Execution of the administrative order shall not be suspended because of this notice.
- 9.4. The contractor shall supply, without delay, any information and documents to the contracting authority and the European Commission upon request, regarding the conditions in which the contract is being executed.
- 9.5. The contractor shall respect and abide by all laws and regulations in force in the country where the supplies are to be delivered and shall ensure that its personnel, their dependants, and its local employees also respect and abide by all such laws and regulations. The contractor shall indemnify the contracting authority against any claims and proceedings arising from any infringement by the contractor, its employees and their dependants of such laws and regulations.
- 9.6. Should any unforeseen event, action or omission directly or indirectly hamper performance of the contract, either partially or totally, the contractor shall immediately and at its own initiative record it and report it to the contracting authority. The report shall include a description of the problem and an indication of the date on which it started and of the remedial action taken by the contractor to ensure full compliance with its obligations under the contract. In such event the contractor shall give priority to solving the problem rather than determining liability.

- 9.7. Subject to Article 9.9, the contractor undertakes to treat in the strictest confidence and not make use of or divulge to third parties any information or documents which are linked to the performance of the contract without the prior consent of the contracting authority. The contractor shall continue to be bound by this undertaking after completion of the tasks and shall obtain from each member of its personnel the same undertaking. However, use of the contract's reference for marketing or tendering purposes does not require prior approval of the contracting authority, except where the contracting authority declares the contract to be confidential.
- 9.8. If the contractor is a joint venture or a consortium of two or more persons, all such persons shall be jointly and severally bound in respect of the obligations under the contract, including any recoverable amount. The person designated by the consortium to act on its behalf for the purposes of the contract shall have the authority to bind the consortium and is the sole interlocutor for all contractual and financial aspects. The composition or the constitution of the joint venture or consortium shall not be altered without the prior consent of the contracting authority. Any alteration of the composition of the consortium without the prior consent of the contracting authority may result in the termination of the contract.
- 9.9. Save where the AICS requests or agrees otherwise, the contractor shall ensure the highest visibility to the financial contribution of the European Union. To ensure such publicity the contractor shall implement among other actions the specific activities described in the special conditions. All measures must comply with the rules in the Communication and Visibility published by the AICS - Khartoum Office
- 9.10. Any records shall be kept for a 7-year period after the final payment made under the contract. In case of failure to maintain such records the contracting authority may, without formal notice thereof, apply as of right the sanction for breach of contract provided for in Articles 35 and 36.

Article 9a - Code of conduct

- 9a.1 The contractor shall at all times act impartially and as a faithful adviser in accordance with the code of conduct of its profession. It shall refrain from making public statements about the project without the prior approval of the contracting authority. It shall not commit the contracting authority in any way without its prior consent and shall, where appropriate, make this obligation clear to third parties.
- Physical abuse or punishment, or threats of physical abuse, sexual abuse or exploitation, harassment and verbal abuse, as well as other forms of intimidation shall be prohibited. The contractor shall also provide to inform the contracting authority of any breach of ethical standards or code of conduct as set in the present Article. In case the contractor is aware of any violations of the abovementioned standards he shall report in writing within 30 days to the contracting authority
- 9a.2 The contractor and its personnel shall respect human rights and applicable data protection rules.
- 9a.3 The contractor shall respect environmental legislation applicable in the country where the supplies have to be delivered and internationally agreed core labour standards, i.e. the ILO core labour standards, conventions on freedom of association and collective bargaining, elimination of forced and compulsory labour, elimination of discrimination in

respect of employment and occupation, and the abolition of child labour, as well as applicable obligations established by these conventions:

- Vienna Convention for the protection of the Ozone Layer and its Montreal Protocol on substances that deplete the Ozone Layer;
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention);
- Stockholm Convention on Persistent Organic Pollutants (Stockholm POPs Convention);
- Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (UNEP/FAO) (The PIC Convention) Rotterdam, 10 September 1998, and its 3 regional Protocols.

- 9.a.4 The contractor or any of its subcontractors, agents or personnel shall not abuse of its entrusted power for private gain. The contractor or any of its subcontractors, agents or personnel shall not receive or agree to receive from any person or offer or agree to give to any person or procure for any person, gift, gratuity, commission or consideration of any kind as an inducement or reward for performing or refraining from any act relating to the performance of the contract or for showing favour or disfavour to any person in relation to the contract. The contractor shall comply with all applicable laws and regulations and codes relating to anti-bribery and anti-corruption.
- 9.a.5 The payments to the contractor under the contract shall constitute the only income or benefit it may derive in connection with the contract. The contractor and its personnel must not exercise any activity or receive any advantage inconsistent with their obligations under the contract.
- 9.a.6 The execution of the contract shall not give rise to unusual commercial expenses. Unusual commercial expenses are commissions not mentioned in the contract or not stemming from a properly concluded contract referring to the contract, commissions not paid in return for any actual and legitimate service, commissions remitted to a tax haven, commissions paid to a recipient who is not clearly identified or commission paid to a company which has every appearance of being a front company. The AICS Khartoum Office may carry out documentary or on-the-spot checks it deems necessary to find evidence in case of suspected unusual commercial expenses.

The respect of the code of conduct set out in the present Article constitutes a contractual obligation. Failure to comply with the code of conduct is always deemed to be a breach of the contract under Article 35 of the General Conditions. In addition, failure to comply with the provision set out in the present Article can be qualified as grave professional misconduct that may lead either to suspension or termination of the contract, without prejudice to the application of administrative sanctions including exclusion from participation in future contract award procedures.

Article 9b Conflict of interest

- 9.b.1 The contractor shall take all necessary measures to prevent or end any situation that could compromise the impartial and objective performance of the contract. Such conflict of interests could arise in particular as a result of economic interest, political or national affinity, family or emotional ties, or any other relevant connection or shared interest. Any conflict of interests which may arise during performance of the contract shall be notified

to the contracting authority without delay. In the event of such conflict, the contractor shall immediately take all necessary steps to resolve it.

- 9.b.2 The contracting authority reserves the right to verify that such measures are adequate and may require additional measures to be taken if necessary. The contractor shall ensure that its personnel, including its management, is not placed in a situation which could give rise to conflict of interests. Without prejudice to its obligation under the contract, the contractor shall replace, immediately and without compensation from the contracting authority, any member of its personnel exposed to such a situation.
- 9.b.3 The contractor shall refrain from any contact which would compromise its independence or that of its personnel.
- 9.b.4 The contractor shall limit its role in connection with the project to the provision of the supplies described in the contract.
- 9.b.5 The contractor and anyone working under its authority or control in the performance of the contract or on any other activity may be excluded from access to other EU budget/EDF funds available under the same project. However, if the contractor is able to prove that his involvement in previous stage of the project does not constitute unfair competition, he may participate, subject to prior approval of the contracting authority.

Article 10 - Origin

- 10.1. Under the Multiannual Financial Framework 2014-2020 (contracts/lots below EUR 100 000 under CIR) and under the Multiannual Financial Framework 2021-2027: All goods purchased can originate in any country.
Under the Multiannual Financial Framework 2014-2020 (contracts/lots above EUR 100 000 under CIR and independently of the value for other instruments):
- 10.2. All goods shall have their origin in any eligible source country as defined in the instructions to tenderers and the special conditions.
- 10.3. The contractor must certify that the goods tendered comply with this requirement, specifying their countries of origin. It may be required to provide more detailed information in this respect.
- 10.4.1. The contractor shall document the origin at the time of provisional acceptance. Failure to comply with this obligation may lead, after formal notice, to termination of the contract and/or suspension of payment.

Article 11 - Performance guarantee

- 11.1. The contractor shall, together with the return of the countersigned contract, furnish to the contracting authority with a guarantee for the full and proper execution of the contract. The amount of the guarantee shall be as specified in the special conditions. It shall be in the range of 5 and 10% of the total contract price, including any amounts stipulated in addenda to the contract.
- 11.2. The performance guarantee shall be held against payment to the contracting authority for any loss resulting from the contractor's failure to perform its contractual obligations under the contract.

- 11.3. The performance guarantee shall be in the format provided for in the contract and may be provided in the form of a bank guarantee, a banker's draft, a certified cheque, a bond provided by an insurance and/or bonding company, an irrevocable letter of credit or a cash deposit made with the contracting authority. If the performance guarantee is to be provided in the form of a bank guarantee, a banker's draft, a certified cheque or a bond, it shall be issued by a bank or bonding and/or insurance company approved by the contracting authority.
- 11.4. The performance guarantee shall be denominated in the currency in which the contract is payable. No payments shall be made in favour of the contractor prior to the provision of the guarantee. The guarantee shall continue to remain valid until the contract has been fully and properly performed.
- 11.5. During the execution of the contract, if the natural or legal person providing the guarantee (i) is not able or willing to abide by its commitments, (ii) is not authorised to issue guarantees to contracting authorities, or (iii) appears not to be financially reliable, the guarantee shall be replaced. The contracting authority shall give formal notice to the contractor to provide a new guarantee on the same terms as the previous one. Should the contractor fail to provide a new guarantee, the contracting authority may terminate the contract.
- 11.6. The contracting authority shall demand payment from the guarantee of all sums for which the guarantor is liable under the guarantee due to the contractor's default under the contract, in accordance with the terms of the guarantee and up to the value thereof. The guarantor shall, without delay, pay those sums upon demand from the contracting authority and may not raise any objection for any reason whatsoever. Prior to making any claim under the performance guarantee, the contracting authority shall notify the contractor stating the nature of the default in respect of which the claim is to be made.
- 11.7. Unless the special conditions provide otherwise, the performance guarantee shall be released within 60 days of the issuing of the signed final acceptance certificate for its total amount except for amounts which are the subject of amicable settlement, arbitration or litigation.

Article 12 - Liabilities and insurance

12.1. Liabilities

The liability rules described below are without prejudice to the possible application of international conventions on the carriage of goods.

a) Liability for damage to supplies

Without prejudice to Article 32 (warranty obligations) and Article 38 (force majeure), the contractor shall assume (i) full responsibility for maintaining the integrity of the supplies and (ii) the risk of loss and damage, whatever their cause, until the final acceptance as foreseen in Article 34.

Compensation for damage to the supplies resulting from the contractor's liability in respect of the contracting authority is capped at an amount equal to one million euros if the contract value is less than or equal to one million euros. If the contract value is greater than one million euros, compensation for damages resulting from the contractor's liability shall be capped to the contract value.

However, compensation for loss or damage resulting from fraud or gross negligence of the contractor, its personnel, its subcontractors and any person for which the contractor is answerable, can in no case be capped.

b) Contractor's liability in respect of the contracting authority

At any time, the contractor shall be responsible for and shall indemnify the contracting authority for any damage caused to the contracting authority by the contractor, its personnel, its subcontractors and any person for which the contractor is answerable.

Compensation for damage resulting from the contractor's liability in respect of the contracting authority is capped at an amount equal to one million euros if the contract value is less than or equal to one million euros. If the contract value is greater than one million euros, compensation for damages resulting from the contractor's liability shall be capped to the contract value.

However, compensation for loss or damage resulting from the contractor's liability in case of bodily injury, including death, can in no case be capped. The same applies to compensation for any damages of any kind resulting from fraud or gross negligence of the contractor, its personnel, its subcontractors and any person for which the contractor is answerable.

c) Contractor's liability in respect of third parties

The contractor shall, at its own expense, indemnify, protect and defend, the contracting authority, its agents and employees, from and against all actions, claims, losses or damage, direct or indirect, of whatever nature (hereinafter 'claim(s)') arising from any act or omission by the contractor, its personnel, its subcontractors and/or any person for which the contractor is answerable, in the performance of its duties.

The contracting authority must notify any third party claim to the contractor as soon as possible after the contracting authority becomes aware of them.

If the contracting authority chooses to challenge and defend itself against the claim(s), the contractor shall bear the reasonable costs of defence incurred by the contracting authority, its agents and employees.

Under these general conditions, the agents and employees of the contracting authority, as well as the contractor's personnel, its subcontractors and any person for which the contractor is answerable are considered to be third parties.

The contractor shall treat all claims in close consultation with the contracting authority

Any settlement or agreement settling a claim requires the prior express consent of the contracting authority and the contractor.

12.2. Insurance

a) Insurance – general issues

At the latest together with the return of the countersigned contract, and for the period of implementation of the tasks, the contractor shall ensure that itself, its personnel, its subcontractors and any person for which the contractor is answerable, are adequately insured with insurance companies recognized on the international insurance market, unless the contracting authority has given its express written consent on a specific insurance company.

At the latest together with the return of the countersigned contract, the contractor shall provide the contracting authority with all cover notes and/or certificates of insurance showing that the contractor's obligations relating to insurance are fully respected. The contractor shall submit without delay, whenever the contracting authority or the project manager so requests, an updated version of the cover notes and/or certificates of insurance.

The contractor shall obtain from the insurers that they commit to personally and directly inform the contracting authority of any event likely to reduce, cancel or alter in any manner whatsoever, that coverage. The insurers shall deliver this information as quickly as possible, and in any event at least thirty (30) days before the reduction, cancellation or alteration of the cover is effective. The contracting authority reserves the right to indemnify the insurer in case the contractor fails to pay the premium, without prejudice to the contracting authority's right to recover the amount of the premium it paid, and to subsequently seek compensation for its possible resulting damage.

Whenever possible, the contractor shall ensure that the subscribed insurance contracts contain a waiver of recourse in favour of the contracting authority, its agents and employees.

The purchase of adequate insurances by the contractor shall in no case exempt it from its statutory and/or contractual liabilities.

The contractor shall fully bear the consequences of a total or partial lack of coverage, and to the full discharge of the contracting authority.

The contractor shall ensure that its personnel, its subcontractors and any person for which the contractor is answerable comply with the same insurance requirements imposed to it under this contract. In case of default of insurance or inadequate insurance of its personnel, its subcontractors or any person for which the contractor is answerable, the contractor shall indemnify the contracting authority from all consequences resulting therefrom.

Under its own responsibility and without prejudice to the obligation to take out all insurance covering its obligations under this contract, the contractor shall ensure that all compulsory insurances are subscribed in compliance with the laws and regulations in force in the country in which the duties are to be performed. It shall also ensure that all possible statutory obligations applying to the coverage are complied with.

The contracting authority shall not bear any liability for the assessment and adequacy of insurance policies taken out by the contractor with its contractual and/or statutory obligations.

b) Insurance – Specific issues

The contractor shall take out all insurance necessary to cover its liability, both with regard to its professional liability and its liability as provided under Article 12.1 'Liabilities'. The contractor shall in particular subscribe a products and after delivery insurance.

Depending on the nature of the contractor's obligations, the contracting authority may require that the carriage of supplies be covered by a 'transportation' insurance policy; the conditions of which may be specified in the special conditions, which may also specify other types of insurance to be taken out by the contractor. This insurance shall in particular cover the loading, intermediate storage, unloading, including stowage and protection, if such operations are included in the contract.

Article 13 - Programme of implementation of the tasks

- 13.1. If the special conditions so require, the contractor shall submit a programme of implementation of the tasks for the approval of the project manager. The programme shall contain at least the following:
 - a) the order in which the contractor proposes to perform the contract including design, manufacture, delivery to place of receipt, installation, testing and commissioning;
 - b) the time limits within which submission and approval of the drawings are required;
 - c) a general description of the methods which the contractor proposes to adopt for executing the contract; and
 - d) such further details and information as the project manager may reasonably require.
- 13.2. The special conditions shall specify the time limit within which the programme of implementation of the tasks must be submitted to the project manager for approval. They may set time limits within which the contractor must submit all or part of the detailed drawings, documents and items. They shall also state the deadline for the project manager's approval or acceptance of the programme of implementation, detailed drawings, documents and items.
- 13.3. The approval of the programme by the project manager shall not relieve the contractor of any of its obligations under the contract.
- 13.4. No material alteration to the programme shall be made without the approval of the project manager. If, however, the progress of the implementation of the tasks does not conform to the programme, the project manager may instruct the contractor to submit a revised programme in accordance with the procedure laid down in Article 13.

Article 14 - Contractor's drawings

- 14.1. If the special conditions so provide, the contractor shall submit to the project manager for approval:
 - a) the drawings, documents, samples and/or models, according to the time limits and procedures laid down in the special conditions or in the programme of implementation of the tasks;
 - b) such drawings as the project manager may reasonably require for the implementation of the tasks.
- 14.2. If the project manager fails to notify its decision of approval referred to in Article 14.1 within the time limits referred to in the contract or the approved programme of implementation of the tasks, such drawings, documents, samples or models shall be deemed to be approved at the end of the time limits specified. If no time limit is specified, they shall be deemed to be approved 30 days after receipt.
- 14.3. Approved drawings, documents, samples and models shall be signed or otherwise identified by the project manager and shall not be departed from except as otherwise instructed by the project manager. Any contractor's drawings, documents, samples or models which the project manager refuses to approve shall be modified to meet the requirements of the project manager and resubmitted by the contractor for approval. Within 15 days of being notified of the project manager's remarks, the contractor shall make the requisite corrections, adjustments etc. to the documents, drawings etc. The corrected or adjusted documents, drawings etc. shall be resubmitted for the project manager's approval under the same procedure.

- 14.4. The contractor shall supply additional copies of approved drawings in the form and numbers stated in the contract or in subsequent administrative orders.
- 14.5. The approval of the drawings, documents, samples or models by the project manager shall not relieve the contractor from any of its obligations under the contract.
- 14.6. The project manager shall have the right at all reasonable times to inspect all drawings, documents, samples or models relating to the contract at the contractor's premises.
- 14.7. Before provisional acceptance of the supplies, the contractor shall supply operation and maintenance manuals together with drawings, which shall be in such detail as will enable the contracting authority to operate, maintain, adjust and repair all parts of the supplies. Unless otherwise stated in the special conditions, the manuals and drawings shall be in the language of the contract and in such forms and numbers as stated in the contract. The supplies shall not be considered completed for the purpose of provisional acceptance until such manuals and drawings have been supplied to the contracting authority.

Article 15 - Sufficiency of tender prices

- 15.1. Subject to any additional provisions which may be laid down in the special conditions, the contractor shall be deemed to have satisfied itself before submitting its tender as to the correctness and sufficiency of the tender and to have taken account of all that is required for the full and proper implementation of the tasks and to have included in its rates and prices all costs related to the supplies, in particular:
 - a) the costs of transport;
 - b) the costs of handling, packing, loading, unloading, transit, delivery, unpacking, checking, insurance and other administrative costs in connection with the supplies. The packaging shall be the property of the contracting authority unless otherwise provided in the special conditions;
 - c) the cost of documents relating to the supplies where such documents are required by the contracting authority;
 - d) execution and supervision of on-site assembly and/or commissioning of the delivered supplies;
 - e) furnishing of tools required for assembly and/or maintenance of the delivered supplies;
 - f) furnishing of detailed operation and maintenance manuals for each unit of the delivered supplies, as specified in the contract;
 - g) supervision or maintenance and/or repair of the supplies, for a period of time stated in the contract, with the stipulation that this service shall not release the contractor from any warranty obligations under the contract;
 - h) training of the contracting authority's personnel, at the contractor's factory and/or elsewhere as specified in the contract.
- 15.2. Since the contractor is deemed to have determined its prices on the basis of its own calculations, operations and estimates, it shall carry out without additional charge any work that is the subject of any item whatsoever in its tender for which it neither indicates a unit price nor a lump sum.

Article 16 - Tax and customs arrangements

- 16.1. Save where otherwise provided in the special conditions, the terms of delivery of the goods shall be DDP (Delivered Duty Paid) – Incoterms 2010, International Chamber of Commerce.

Article 17 - Patents and licences

- 17.1. Save where otherwise provided in the special conditions, the contractor shall indemnify and hold the contracting authority harmless for all damages and cost incurred due to any claim brought by any third party including creators and intermediaries for alleged or actual violations of intellectual, industrial or other property rights of any kind whatsoever based on the contracting authority's use as specified in the contract of patents, licenses, drawings, designs, models, or brand or trademarks, except where such infringement results from compliance with the design or specification provided by the contracting authority.
- 17.2. All industrial, intellectual and other property rights (including but not limited to patent rights and copyright) developed in connection with the tasks by or on behalf of the contractor, including but not limited to any rights in any documents prepared for the purpose of the contract or the tasks, shall remain vested in the contractor but the contracting authority shall have an irrevocable, royalty-free, non-exclusive licence of the above-mentioned rights for the purpose of the contract.

Such licence shall carry the right to grant sub-licences and shall be transferable by the contracting authority to third parties without the consent of the contractor being required.

All industrial, intellectual and other property rights (including but not limited to patent rights and copyright) developed in connection with the tasks by or on behalf of the contracting authority, including but not limited to any rights in any documents prepared for the purpose of the contract or the tasks, shall remain vested in the contracting authority but the contractor shall have the right at its cost to copy, use and obtain communication of these documents for the purpose of the contract.

Upon and notwithstanding any termination of the contract howsoever arising, as well as after completion of the tasks, the contracting authority shall continue to have the benefit of the licence referred to in Article 17.2, first paragraph.

IMPLEMENTATION OF THE TASKS AND DELAYS

Article 18 - Commencement order

- 18.1. Subject to the special conditions, the contracting authority shall fix the date on which implementation of the tasks is to commence and advise the contractor thereof either in the notification of award of the contract or by administrative order.
- 18.2. Save where the parties agree otherwise, implementation of the tasks shall begin no later than 90 days following notification of award of contract. Unless this delay results from the contractor default, after that date the contractor shall be entitled not to implement the contract and to obtain its termination and/or compensation for the damage it has suffered. The contractor shall forfeit this right unless it exercises it within 30 days of the expiry of the 90-day period.

Article 19 - Period of implementation of the tasks

- 19.1. The period of implementation of tasks shall commence on the date fixed in accordance with Article 18 and shall be as laid down in the special conditions, without prejudice to extensions of the period which may be granted under Article 20.
- 19.2. If provision is made for distinct periods of implementation of the tasks for separate lots, in cases where one contractor is awarded more than one lot per contract, the periods of implementation of the tasks for the separate lots shall not be accumulated.

Article 20 - Extension of period of implementation of the tasks

- 20.1. The contractor may request an extension to the period of implementation of the tasks if it is or will be delayed in completing the contract by any of the following reasons:
 - a) exceptional weather conditions in the country of the contracting authority which may affect installation or erection of the supplies;
 - b) artificial obstructions or physical conditions which may affect delivery of the supplies, which could not reasonably have been foreseen by an experienced contractor;
 - c) administrative orders affecting the date of completion other than those arising from the contractor's default;
 - d) failure of the contracting authority to fulfil its obligations under the contract;
 - e) any suspension of the delivery and/or installation of the supplies which is not due to the contractor's default;
 - f) force majeure;
 - g) extra or additional supplies ordered by the contracting authority;
 - h) any other causes referred to in these general conditions which are not due to the contractor's default.
- 20.2. If the contractor considers himself to be entitled to any extension of the period of implementation under the contract, the contractor shall
 - a) give notice to the project manager of its intention to make such a request no later than 15 days after the contractor became aware, or should have become aware of the event or circumstance giving rise to the request.
 - b) If the contractor fails to give notice of a request for extension of the period of implementation within such period of 15 days, the period of implementation shall not be extended and the contracting authority shall be discharged from all liability in connection with the request; and
 - c) submit to the project manager full and detailed particulars of the request, within 30 days from the above notification unless otherwise agreed between the contractor and the supervisor, in order that such request may be investigated at the time.
- 20.3. Within 30 days from the receipt of the contractor's detailed particulars of the request, the project manager shall in agreement with the contracting authority, by notice to the contractor, grant such extension of the period of implementation of the tasks as may be justified, either prospectively or retrospectively, or inform the contractor that it is not entitled to an extension.

Article 21 - Delays in implementation of the tasks

- 21.1. If the contractor fails to deliver any or all of the goods or perform the services within the period of implementation of the tasks specified in the contract, the contracting authority shall, without formal notice and without prejudice to its other remedies under the contract, be entitled to liquidated damages for every day, or part thereof, which shall elapse between the end of the period of implementation of the tasks, or extended period of implementation of the tasks under article 20, and the actual date of completion. The daily rate of liquidated damages is 5/1000 of the value of the undelivered supplies to a maximum of 15% of the total contract price.
- 21.2. If the non-delivery of any of the goods prevents the normal use of the supplies as a whole, the liquidated damages provided for in Article 21.1 shall be calculated on the basis of the total contract price.
- 21.3. If the contracting authority has become entitled to claim at least 15% of the total contract price it may, after giving notice to the contractor:
 - seize the performance guarantee; and/or
 - terminate the contract;
 - enter into a contract with a third party for the provision of the balance of the supplies at the contractor's cost.

Article 22 - Amendments

- 22.1. Contract amendments must be formalised by a contract addendum signed by both parties or by an administrative order issued by the project manager or the contracting authority. Substantial amendments to the contract, including amendments to the total contract price, must be made by means of an addendum. Any contractual amendments must respect the general principles defined in the practical guide.
- 22.2. Subject to the limits of the procedure thresholds set in the practical guide, the contracting authority reserves the right to vary by an administrative order the quantities per lot or per item by +/- 100 % at the time of contracting and during the validity of the contract. The total value of the supplies may not rise or fall as a result of the variation by more than 25% of the tender price. The unit prices quoted in the tender shall be applicable to the quantities procured under the variation.
- 22.3. The project manager and the contracting authority shall have the power to order any amendment to any part of the supplies necessary for the proper completion and/or functioning of the supplies. Such amendments by administrative order may include additions, omissions, substitutions, changes in quality, quantity, form, character, kind, as well as in drawings, designs or specifications where the supplies are to be specifically manufactured for the contracting authority, in method of shipment or packing, place of delivery, and in the specified sequence, method or timing of implementation of the tasks. No administrative order shall have the effect of invalidating the contract, but the financial effect, if any, of all such amendments shall be valued in accordance with Article 22.7.
- 22.4. All administrative orders shall be issued in writing, it being understood that:
 - a) if, for any reason, the project manager or the contracting authority finds it necessary to give an order orally, it shall as soon as possible thereafter confirm the order by an administrative order;
 - b) if the contractor confirms in writing an oral order given for the purpose of Article 22.4.a and the confirmation is not contradicted in writing forthwith by the project

- manager or the contracting authority, the project manager or the contracting authority shall be deemed to have issued an administrative order;
- c) no administrative order is required to increase or decrease the quantity of any incidental siting or installation because the estimates in the budget breakdown were too high or too low.
- 22.5. Save where Article 22.4 provides otherwise, prior to issuing an administrative order, the project manager or the contracting authority shall notify the contractor of the nature and form of such amendment. The contractor shall then, without delay, submit to the project manager a written proposal containing:
- a description of the tasks, if any, to be performed or the measures to be taken and a programme of implementation of the tasks;
 - any necessary amendments to the programme of implementation of the tasks or to any of the contractor's obligations resulting from this contract; and
 - any adjustment to the total contract price in accordance with the rules set out in Article 22.
- 22.6. Following the receipt of the contractor's submission referred to in Article 22.5, the project manager shall, after due consultation with the contracting authority and, where appropriate, the contractor, decide without delay whether or not to accept the amendment. If the project manager accepts the amendment, it shall notify the contractor through an administrative order stating that the contractor shall carry out the amendment at the prices and under the conditions given in the contractor's submission referred to in Article 22.5 or as modified by the project manager in accordance with Article 22.7.
- 22.7. The prices for all amendments ordered by the project manager or the contracting authority in accordance with Articles 22.4 and 22.6 shall be ascertained in accordance with the following principles:
- where the task is of similar character and implemented under similar conditions as an item priced in the budget breakdown, it shall be valued at such rates and prices contained therein;
 - where the task is not of a similar character or is not implemented under similar conditions, the rates and prices in the contract shall be used as the basis for valuation as far as is reasonable, failing which the project manager shall make a fair valuation;
 - if the nature or amount of any amendment relative to the nature or amount of the whole contract or to any part thereof is such that, in the opinion of the project manager, any rate or price contained in the contract for any item of work is, by reason of such amendment, rendered unreasonable, the project manager shall fix such rate or price as he thinks reasonable and proper in the circumstances;
 - where an amendment is required by a default or breach of contract by the contractor, any additional cost attributable to such amendment shall be borne by the contractor.
- 22.8. On receipt of the administrative order, the contractor shall carry out the requested amendment according to the following principles:
- a) The contractor shall be bound by these general conditions as if the amendment requested by administrative order were stated in the contract.
 - b) The contractor shall not delay the execution of the administrative order pending the granting of any extension of time for completion or adjustment to the total contract price.

- c) Where the administrative order precedes the adjustment to the total contract price, the contractor shall keep records of the costs of undertaking the amendment and of the time expended thereon. Such records shall be open to inspection by the project manager at all reasonable times.
- 22.9. The contractor shall notify the contracting authority of any change of bank account, using the form in Annex V. The contracting authority shall have the right to oppose the contractor's change of bank account.

Article 23 - Suspension

- 23.1. The contractor shall, on the order of the contracting authority, suspend the execution of the contract or any part thereof for such time or times and in such manner as the contracting authority may consider necessary. The suspension shall take effect on the day the contractor receives the order or at a later date when the order so provides.
- 23.2. Suspension in the event of presumed breach of obligations or irregularities or fraud:
The contract may be suspended in order to verify whether presumed breach of obligations or irregularities or fraud occurred during the award procedure or the performance of the contract. If these are not confirmed, performance of the contract shall resume as soon as possible.
- 23.3. During the period of suspension, the contractor shall protect and secure the supplies affected at the contractor's warehouse or elsewhere, against any deterioration, loss or damage to the extent possible and as instructed by the project manager, even if supplies have been delivered to the place of acceptance in accordance with the contract but their installation has been suspended by the project manager.
- 23.4. Additional expenses incurred in connection with such protective measures may be added to the total contract price, unless:
 - a) otherwise provided for in the contract; or
 - b) such suspension is necessary by reason of some breach or default of the contractor; or
 - c) such suspension is necessary by reason of normal climatic conditions at the place of acceptance; or
 - d) such suspension is necessary for the safety or the proper execution of the contract or any part thereof insofar as such necessity does not arise from any act or default by the project manager or the contracting authority or
 - e) the presumed breach of obligations or irregularities or fraud mentioned in article 23.2 are confirmed and attributable to the contractor.
- 23.5. The contractor shall only be entitled to such additions to the total contract price if it notifies the project manager, within 30 days after receipt of the order to suspend the contract, of its intention to claim them.
- 23.6. The contracting authority, after consulting the contractor, shall determine such additions to the total contract price and/or extension of the period of performance to be granted to the contractor in respect of such claim as shall, in the opinion of the contracting authority, be fair and reasonable.

- 23.7. The contracting authority shall, as soon as possible, order the contractor to resume the contract suspended or inform the contractor that it terminates the contract. If the period of suspension exceeds 180 days and the suspension is not due to the contractor's breach or default, the contractor may, by notice to the contracting authority, request to proceed with the contract within 30 days, or terminate the contract.

MATERIALS AND WORKMANSHIP

Article 24 - Quality of supplies

- 24.1. The supplies must in all respects satisfy the technical specifications laid down in the contract and conform in all respects to the drawings, surveys, models, samples, patterns and other requirements in the contract, which shall be held at the disposal of the contracting authority or the project manager for the purposes of identification throughout the period of execution.
- 24.2. Any preliminary technical acceptance stipulated in the special conditions shall be the subject of a request sent by the contractor to the project manager. The request shall indicate the reference to the contract, specify the materials, items and samples submitted for such acceptance according to the contract and indicate the lot number and the place where acceptance is to take place, as appropriate. The materials, items and samples specified in the request must be certified by the project manager as meeting the requirements for such acceptance prior to their incorporation in the supplies.
- 24.3. Even if materials or items to be incorporated in the supplies or in the manufacture of components to be supplied have been technically accepted in this way, they may still be rejected if a further examination reveals defects or faults, in which case they must immediately be replaced by the contractor. The contractor may be given the opportunity to repair and make good materials and items which have been rejected, but such materials and items will be accepted for incorporation in the supplies only if they have been repaired and made good to the satisfaction of the project manager.

Article 25 - Inspection and testing

- 25.1. The contractor shall ensure that the supplies are delivered to the place of acceptance in time to allow the project manager to proceed with acceptance of the supplies. The contractor is deemed to have fully appreciated the difficulties which it might encounter in this respect, and it shall not be permitted to advance any grounds for delay in fulfilling its obligations.
- 25.2. The project manager shall be entitled to inspect, examine measure and test the components, materials and workmanship, and check the progress of preparation, fabrication or manufacture of anything being prepared, fabricated or manufactured for delivery under the contract, in order to establish whether the components, materials and workmanship are of the requisite quality and quantity. This shall take place at the place of manufacture, fabrication, preparation or at the place of acceptance or at such other places as may be specified in the special conditions.
- 25.3. For the purposes of such tests and inspections, the contractor shall:

- a) provide the project manager, temporarily and free of charge, with such assistance, test samples or parts, machines, equipment, tools, labour, materials, drawings and production data as are normally required for inspection and testing;
 - b) agree, with the project manager, on the time and place for tests;
 - c) provide access to the project manager at all reasonable times to the place where the tests are to be carried out.
- 25.4. If the project manager is not present on the date agreed for tests, the contractor may, unless otherwise instructed by the project manager, proceed with the tests, which shall be deemed to have been made in the project manager's presence. The contractor shall immediately send duly certified copies of the test results to the project manager, who shall, if it has not attended the test, be bound by the test results.
- 25.5. When components and materials have passed the above-mentioned tests, the project manager shall notify the contractor or endorse the contractor's certificate to that effect.
- 25.6. If the project manager and the contractor disagree on the test results, each shall give a statement of its views to the other within 15 days of such disagreement arises. The project manager or the contractor may require such tests to be repeated on the same terms and conditions or, if either party so requests, by an expert selected by common consent. All test reports shall be submitted to the project manager, who shall communicate the results of these tests without delay to the contractor. The results of retesting shall be conclusive. The cost of retesting shall be borne by the party whose views are proved wrong by the retesting.
- 25.7. In the performance of their duties, the project manager and any person authorised by him shall not disclose to unauthorised persons information concerning the undertaking's methods of manufacture and operation obtained through inspection and testing.

PAYMENTS

Article 26 - General principles

- 26.1. Payments shall be made in euro or national currency as specified in the special conditions. The special conditions shall lay down the administrative or technical conditions governing payments of pre-financing and final payments made in accordance with the general conditions.
- 26.2. Payments due by the contracting authority shall be made to the bank account mentioned on the financial identification form completed by the contractor. The same form, annexed to the invoice, must be used to report changes of bank account.
- 26.3. Pre-financing payment shall be made within 30 days from the date on which an admissible invoice is registered by the contracting authority. The invoice shall not be admissible if one or more essential requirements are not met. Final payment shall be made within 60 days from the date on which an invoice is registered by the contracting authority, together with the request for provisional acceptance as per article 31.2. The date of payment shall be the date on which the paying account is debited.
- 26.4. The period referred to in article 26.3 may be suspended by notifying the contractor that the invoice cannot be fulfilled because the sum is not due, because appropriate

substantiating documents have not been provided or because there is evidence that the expenditure might not be eligible. In the latter case, an inspection may be carried out on the spot for the purpose of further checks. The contractor shall provide clarifications, modifications or further information within 30 days of being asked to do so. The payment period shall continue to run from the date on which a properly drawn-up invoice is registered.

- 26.5. The payments shall be made as follows:
 - a) 40% of the total contract price after the signing of the contract, against provision of the performance guarantee and of a pre-financing guarantee for the full amount of the pre-financing payment, unless otherwise provided for in the special conditions. The pre-financing guarantee shall be provided to the contracting authority following the procedure foreseen for the performance guarantee in accordance with Article 11.3-5, and in accordance with the format annexed to the contract. The pre-financing guarantee must remain valid until it is released 30 days at the latest after the provisional acceptance of the goods. Where the contractor is a public body, the obligation for a pre-financing guarantee may be waived depending on a risk assessment made;
 - b) 60% of the total contract price, as payment of the balance, after receipt by the contracting authority of an invoice and of the application for the certificate of provisional acceptance;
- 26.6. Where only part of the supplies has been delivered, the 60% payment due following partial provisional acceptance shall be calculated on the value of the supplies which have actually been accepted and the security shall be released accordingly.
- 26.7. For supplies not covered by a warranty period, the payments listed above shall be aggregated. The conditions to which the payments of pre-financing and final payments are subject, shall be as stated in the special conditions.
- 26.8. The payment obligations of the AICS - Khartoum Office under this contract shall cease at most 18 months after the end of the period of implementation of the tasks, unless the contract is terminated in accordance with these general conditions.
- 26.9. Unless otherwise stipulated in the special conditions, the contract shall be at fixed prices, which shall not be revised.
- 26.10. The contractor undertakes to repay any amounts paid in excess of the final amount due to the contracting authority before the deadline indicated in the debit note which is 45 days from the issuing of that note. Should the contractor fail to make repayment within the above deadline, the contracting authority may (unless the contractor is a government department or public body of a Member State of the European Union) increase the amounts due by adding interest:
 - at the rediscount rate applied by the central bank of the country of the contracting authority if payments are in the currency of that country;
 - at the rate applied by the European Central Bank to its main refinancing transactions in euro, as published in the Official Journal of the European Union, C series, where payments are in euro,

on the first day of the month in which the time-limit expired, plus eight percentage points. The default interest shall be incurred over the time which elapses between the date of the payment deadline, and the date on which payment is actually made. Any partial payments

shall first cover the interest thus established.

Amounts to be repaid to the contracting authority may be offset against amounts of any kind due to the contractor. This shall not affect the parties' right to agree on payment in instalments. Bank charges arising from the repayment of amounts due to the contracting authority shall be borne entirely by the contractor.

Without prejudice to the prerogative of the contracting authority, if necessary, the AICS - Khartoum Office may as donor proceed itself to the recovery by any means.

- 26.11. If the contract is terminated for any reason whatsoever, the guarantee securing the pre-financing may be invoked forthwith in order to repay the balance of the pre-financing still owed by the contractor, and the guarantor shall not delay payment or raise objection for any reason whatever.
- 26.12. Prior to, or instead of, terminating the contract as provided for in Article 36, the contracting authority may suspend payments as a precautionary measure without prior notice.
- 26.13. Where the award procedure or the performance of the contract proves to have been subject to breach of obligations, irregularities or fraud attributable to the contractor, the contracting authority may in addition to the possibility to suspend the performance of the contract in accordance with Article 23.2 and to terminate the contract as provided for in Article 36, suspend payments and/or recover amounts already paid, in proportion to the seriousness of the breach of obligations, irregularities or fraud. In addition to measures referred above, the contracting authority may reduce the contract value in proportion to the seriousness of the irregularities, fraud or of the breach of obligations, including where the activities concerned were not implemented or were implemented poorly, partially or late. The measures described in this paragraph may equally be adopted by the European Commission in pursuance of its administrative powers under the Financial Regulation (Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018, OJ-L 193/30.07.2018, p.1).

Article 27 - Payment to third parties

- 27.1. Orders for payments to third parties may be carried out only after an assignment made in accordance with Article 5. The assignment shall be notified to the contracting authority.
- 27.2. Notification of beneficiaries of the assignment shall be the sole responsibility of the contractor.
- 27.3. In the event of a legally binding attachment of the property of the contractor affecting payments due to him under the contract, and without prejudice to the time limit laid down in Article 26, the contracting authority shall have 30 days, starting from the day on which it receives notification of the definitive lifting of the obstacle to payment, to resume payments to the contractor.

Article 28 - Delayed payments

- 28.1. The contracting authority shall pay the contractor sums due in accordance with Article 26.3.

- 28.2. Once the time-limit referred to in Article 26.3 has expired, the contractor – unless the contractor is a government department or public body in European Union Member States – shall, within two months of receipt of the late payment, receive default interest:
- at the rediscount rate applied by the central bank of the partner country if payments are in the currency of that country ;
 - at the rate applied by the European Central Bank to its main refinancing transactions in euro, as published in the Official Journal of the European Union, C series, if payments are in euro,
- on the first day of the month in which the time-limit expired, plus eight percentage points. The interest shall be payable for the time elapsed between the expiry of the payment deadline and the date on which the contracting authority's account is debited. However, when the interest calculated in accordance with the first subparagraph is lower than or equal to EUR 200, it shall be paid to the creditor only upon a demand submitted within two months of receiving late payment.
- 28.3. Any default in payment of more than 90 days from the expiry of the period laid down in Article 26.3 shall entitle the contractor either not to perform the contract or to terminate it, according to Article 37.

ACCEPTANCE AND MAINTENANCE

Article 29 - Delivery

- 29.1. The contractor shall deliver the supplies in accordance with the conditions of the contract. The supplies shall be at the risk of the contractor until their final acceptance.
- 29.2. The contractor shall provide such packaging of supplies as is required to prevent their damage or deterioration in transit to their destination as indicated in the contract. The packaging shall be sufficient to withstand, without limitation, rough handling, exposure to extreme temperatures, salt and precipitation during transit and open storage. Package size and weight shall take into consideration, where appropriate, the remoteness of the final destination of the supplies, and the possible absence of heavy handling facilities at all points in transit.
- 29.3. The packaging, marking and documentation inside and outside the packages shall comply with such requirements as shall be expressly provided for in the special conditions, subject to any amendments subsequently ordered by the project manager or the contracting authority.
- 29.4. No supplies shall be shipped or delivered to the place of acceptance until the contractor has received a delivery order from the project manager. The contractor shall be responsible for the delivery at the place of acceptance of all supplies and supplier's equipment required for the purpose of the contract.
- 29.5. Each delivery must be accompanied by a statement drawn up by the contractor. This statement shall be as specified in the special conditions.
- 29.6. Each package shall be clearly marked in accordance with the special conditions.
- 29.7. Delivery shall be deemed to have been made when there is written evidence available to both parties that delivery of the supplies has taken place in accordance with the terms of

the contract, and the invoice(s) and all such other documentation specified in the special conditions, have been submitted to the contracting authority. Where the supplies are delivered to an establishment of the contracting authority, the latter shall bear the responsibility of bailee, in accordance with the requirements of the law applicable to the contract, during the time which elapses between delivery for storage and acceptance.

Article 30 - Verification operations

- 30.1. The supplies shall not be accepted until the prescribed verifications and tests have been carried out at the expense of the contractor. The verifications and tests may be conducted before shipment, at the point of delivery and/or at the final destination of the goods.
- 30.2. The project manager shall, during the progress of the delivery of the supplies and before the supplies are taken over, have the power to order or decide:
 - a) the removal from the place of acceptance, within such time or times as may be specified in the order, of any supplies which, in the opinion of the project manager, are not in accordance with the contract;
 - b) their replacement with proper and suitable supplies;
 - c) the removal and proper re-installation, notwithstanding any previous test thereof or of any installation which in respect of materials, workmanship or design for which the contractor is responsible, is not, in the opinion of the project manager, in accordance with the contract;
 - d) that any work done or goods supplied or materials used by the contractor is or are not in accordance with the contract, or that the supplies or any portion thereof do not fulfil the requirements of the contract.
- 30.3. The contractor shall, with all speed and at its own expense, make good the defects so specified. If the contractor does not comply with such order, the contracting authority shall be entitled to employ other persons to carry out the orders and all expenses consequent thereon or incidental thereto shall be deducted by the contracting authority from any monies due or which may become due to the contractor.
- 30.4. Supplies which are not of the required quality shall be rejected. A special mark may be applied to the rejected supplies. This shall not be such as to alter them or affect their commercial value. Rejected supplies shall be removed by the contractor from the place of acceptance, if the project manager so requires, within a period which the project manager shall specify, failing which they shall be removed as of right at the expense and risk of the contractor. Any works incorporating rejected materials shall be rejected.
- 30.5. The provisions of Article 30 shall not affect the right of the contracting authority to claim under Article 21, nor shall it in any way release the contractor from any warranty or other obligations under the contract.

Article 31 - Provisional acceptance

- 31.1. The supplies shall be taken over by the contracting authority when they have been delivered in accordance with the contract, have satisfactorily passed the required tests, or have been commissioned as the case may be, and a certificate of provisional acceptance has been issued or is deemed to have been issued.

- 31.2. The contractor may apply, by notice to the project manager, for a certificate of provisional acceptance when supplies are ready for provisional acceptance. The project manager shall within 30 days of receipt of the contractor's application either:
- issue the certificate of provisional acceptance to the contractor with a copy to the contracting authority stating, where appropriate, his reservations, and, *inter alia*, the date on which, in his opinion, the supplies were completed in accordance with the contract and ready for provisional acceptance; or
 - reject the application, giving his reasons and specifying the action which, in his opinion, is required of the contractor for the certificate to be issued.
- The contracting authority's time limit for issuing the certificate of provisional acceptance to the contractor shall be considered included in the time limit for payments indicated in Article 26.3, unless otherwise specified in the special conditions.
- 31.3. Should exceptional circumstances make it impossible to proceed with the acceptance of the supplies during the period fixed for provisional or final acceptance, a statement certifying such impossibility shall be drawn up by the project manager after consultation, where possible, with the contractor. The certificate of acceptance or rejection shall be drawn up within 30 days following the date on which such impossibility ceases to exist. The contractor shall not invoke these circumstances in order to avoid the obligation of presenting the supplies in a state suitable for acceptance.
- 31.4. If the project manager fails either to issue the certificate of provisional acceptance or to reject the supplies within the period of 30 days, it shall be deemed to have issued the certificate on the last day of that period, except where the certificate of provisional acceptance is deemed to constitute a certificate of final acceptance. In this case, Article 34.2 below does not apply. If the supplies are divided by the contract into lots, the contractor shall be entitled to apply for separate certificates for each of the lots.
- 31.5. In case of partial delivery, the contracting authority reserves the right to give partial provisional acceptance.
- 31.6. Upon provisional acceptance of the supplies, the contractor shall dismantle and remove temporary structures as well as materials no longer required for use in connection with the implementation of the contract. It shall also remove any litter or obstruction and redress any change in the condition of the place of acceptance as required by the contract.
- 31.7. Immediately after provisional acceptance, the contracting authority may make use of all the supplies delivered.

Article 32 - Warranty obligations

- 32.1. The contractor shall warrant that the supplies are new, unused, of the most recent models and incorporate all recent improvements in design and materials, unless otherwise provided in the contract. The contractor shall further warrant that all supplies shall have no defect arising from design, materials or workmanship, except insofar as the design or materials are required by the specifications, or from any act or omission, that may develop under use of the supplies in the conditions obtaining in the country of the contracting authority.
- 32.2. The contractor shall be responsible for making good any defect in, or damage to, any part of the supplies which may appear or occur during the warranty period and which:
- a) results from the use of defective materials, faulty workmanship or design of the

- contractor; and/or
- b) results from any act or omission of the contractor during the warranty period; and/or
 - c) appears in the course of an inspection made by, or on behalf of, the contracting authority.
- 32.3. The contractor shall at its own cost make good the defect or damage as soon as practicable. The warranty period for all items replaced or repaired shall recommence from the date when the replacement or repair was made to the satisfaction of the project manager. If the contract provides for partial acceptance, the warranty period shall be extended only for the part of the supplies affected by the replacement or repair.
- 32.4. If any such defect appears or such damage occurs during the warranty period, the contracting authority or the project manager shall notify the contractor. If the contractor fails to remedy a defect or damage within the time limit stipulated in the notification, the contracting authority may:
- a) remedy the defect or the damage itself, or employ someone else to carry out the tasks at the contractor's risk and cost, in which case the costs incurred by the contracting authority shall be deducted from monies due to or from guarantees held against the contractor or from both; or
 - b) terminate the contract.
- 32.5. In case of emergency, where the contractor cannot be reached immediately or, having been reached, is unable to take the measures required, the contracting authority or the project manager may have the tasks carried out at the expense of the contractor. The contracting authority or the project manager shall as soon as practicable inform the contractor of the action taken.
- 32.6. The warranty obligations shall be stipulated in the special conditions and technical specifications.
- 32.7. Save where otherwise provided in the special conditions, the duration of the warranty period shall be 365 days. The warranty period shall commence on the date of provisional acceptance and may recommence in accordance with Article 32.3.

Article 33 - After-sales service

- 33.1. An after-sales service, if required by the contract, shall be provided in accordance with the details stipulated in the special conditions. The contractor shall undertake to carry out or have carried out the maintenance and repair of supplies and to provide a rapid supply of spare parts. The special conditions may specify that the contractor must provide any or all of the following materials, notifications and documents pertaining to spare parts manufactured or distributed by the contractor:
- a) such spare parts as the contracting authority may choose to purchase from the contractor, it being understood that this choice shall not release the contractor from any warranty obligations under the contract;
 - b) in the event of termination of production of the spare parts, advance notification to the contracting authority to allow it to procure the parts required and, following such termination, provision at no cost to the contracting authority of the blueprints, drawings and specifications of the spare parts, if and when requested.

Article 34 - Final acceptance

- 34.1. Upon expiry of the warranty period, or where there is more than one such period, upon expiry of the latest period, and when all defects or damage have been rectified, the project manager shall issue the contractor a final acceptance certificate and a copy thereof to the contracting authority, stating the date on which the contractor completed its obligations under the contract to the project manager's satisfaction. The final acceptance certificate shall be issued by the project manager within 30 days after the expiration of the warranty period or as soon as any repairs ordered under Article 32 have been completed to the satisfaction of the project manager.
- 34.2. The contract shall not be considered to have been performed in full until the final acceptance certificate has been signed or is deemed to have been signed by the project manager.
- 34.3. Notwithstanding the issue of the final acceptance certificate, the contractor and the contracting authority shall remain liable for the fulfilment of any obligation incurred under the contract prior to the issue of the final acceptance certificate which remains unperformed at the time that final acceptance certificate is issued. The nature and extent of any such obligation shall be determined by reference to the provisions of the contract.

BREACH OF CONTRACT AND TERMINATION

Article 35 - Breach of contract

- 35.1. Either party commits a breach of contract where it fails to perform its obligations in accordance with the provisions of the contract.
- 35.2. Where a breach of contract occurs, the party injured by the breach is entitled to the following remedies:
 - a) damages; and/or
 - b) termination of the contract.
- 35.3. Damages may be either:
 - a) general damages; or
 - b) liquidated damages.
- 35.4. Should the contractor fail to perform any of its obligations in accordance with the provisions of the contract, the contracting authority is without prejudice to its right under Article 35.2, also entitled to the following remedies:
 - a) suspension of payments; and/or
 - b) reduction or recovery of payments in proportion to the failure's extent.
- 35.5. Where the contracting authority is entitled to damages, it may deduct such damages from any sums due to the contractor or call on the appropriate guarantee.
- 35.6. The contracting authority shall be entitled to compensation for any damage which comes to light after the contract is completed in accordance with the law governing the contract.

Article 36 - Termination by the contracting authority

- 36.1. The contracting authority may, at any time and with immediate effect, subject to Article 36.9, terminate the contract, except as provided for under Article 36.2.
- 36.2. Subject to any other provision of these general conditions, the contracting authority may, by giving seven day notice to the contractor, terminate the contract in any of the following cases where:
 - a) the contractor is in serious breach of contract for failure to perform its contractual obligations;
 - b) the contractor fails to comply within a reasonable time with the notice given by the project manager requiring it to make good the neglect or failure to perform its obligations under the contract which seriously affects the proper and timely implementation of the tasks;
 - c) the contractor refuses or neglects to carry out any administrative orders given by the project manager;
 - d) the contractor assigns the contract or subcontracts without the authorisation of the contracting authority;
 - e) the contractor is bankrupt, subject to insolvency or winding up procedures, is having its assets administered by a liquidator or by the courts, has entered into an arrangement with creditors, has suspended business activities, or is in any analogous situation arising from a similar procedure provided for under national law or regulations;
 - f) any organisational modification occurs involving a change in the legal personality, nature or control of the contractor, unless such modification is recorded in an addendum to the contract;
 - g) any other legal disability hindering performance of the contract occurs;
 - h) the contractor fails to provide the required guarantees or insurance, or the person providing the earlier guarantee or insurance is not able to abide by its commitments;
 - i) the contractor has been guilty of grave professional misconduct proven by any means which the contracting authority can justify;
 - j) it has been established by a final judgment or a final administrative decision or by proof in possession of the contracting authority that the contractor has been guilty of fraud, corruption, involvement in a criminal organisation, money laundering or terrorist financing, terrorist related offences, child labour or other forms of trafficking in human beings or circumventing fiscal, social or any other applicable legal obligations, including through the creation of an entity for this purpose;
 - k) the contractor, in the performance of another contract financed by the EU budget/EDF funds has been declared to be in serious breach of contract, which has led to its early termination or the application of liquidated damages or other contractual penalties or which has been discovered following checks, audits or investigations by the European Commission, the contracting authority, OLAF or the Court of Auditors;
 - l) after the award of the contract, the award procedure or the performance of the contract proves to have been subject to breach of obligations, irregularities or fraud;
 - m) the award procedure or the performance of another contract financed by the EU budget/EDF funds proves to have been subject to breach of obligations, irregularities or fraud which are likely to affect the performance of the present contract;

- n) the contractor fails to perform its obligation in accordance with Article 9a and Article 9b;
- o) the contractor fails to comply with its obligation in accordance with Article 10;
- p) the contractor is in breach of the data protection obligations resulting from Article 44 of these general conditions.

The cases of termination under points (e), (i), (j), (l), (m) and (n) may refer also to persons who are members of the administrative, management or supervisory body of the contractor and/or to persons having powers of representation, decision or control with regard to the contractor.

The cases of termination under points (a), (e), (f), (g), (i), (j), (k), (l), (m) and (n) may refer also to persons jointly and severally liable for the performance of the contract.

The cases under points (e), (i), (j), (k), (l), (m), (n) and (p) may refer also to subcontractors.

- 36.3. Termination shall be without prejudice to any other rights or powers under the contract of the contracting authority and the contractor. The contracting authority may, thereafter, conclude any other contract with a third party, at the contractor's own expense. The contractor's liability for delay in completion shall immediately cease when the contracting authority terminates the contract without prejudice to any liability thereunder that may already have arisen.
- 36.4. Upon termination of the contract or when it has received notice thereof, the contractor shall take immediate steps to bring the implementation of the tasks to a close in a prompt and orderly manner and to reduce expenditure to a minimum.
- 36.5. The project manager shall, as soon as possible after termination, certify the value of the supplies and all sums due to the contractor as at the date of termination.
- 36.6. In the event of termination, the project manager shall, as soon as possible and in the presence of the contractor or his representatives or having duly summoned them, draw up a report on the supplies delivered and the incidental siting or installation performed and take an inventory of the materials supplied and unused. A statement shall also be drawn up of monies due to the contractor and of monies owed by the contractor to the contracting authority as at the date of termination of the contract.
- 36.7. The contracting authority shall not be obliged to make any further payments to the contractor until the supplies are completed. After the supplies are completed, the contracting authority shall recover from the contractor the extra costs, if any, of providing the supplies, or shall pay any balance still due to the contractor.
- 36.8. If the contracting authority terminates the contract pursuant to Article 36.2, it shall, in addition to the extra costs for completion of the contract and without prejudice to its other remedies under the contract, be entitled to recover from the contractor any loss it has suffered up to the value of the supply unless otherwise provided for in the special conditions.
- 36.9. Where the termination is not due to an act or omission of the contractor, force majeure or other circumstances beyond the control of the contracting authority, the contractor shall be entitled to claim in addition to sums owed to it for work already performed, an indemnity for loss suffered.

- 36.10. This contract shall be automatically terminated if it has not given rise to any payment in the two years following its signing by both parties.

Article 37 - Termination by the contractor

- 37.1. The contractor may, by giving 14 days' notice to the contracting authority, terminate the contract if the contracting authority:
- fails to pay the contractor the amounts due under any certificate issued by the project manager after the expiry of the time limit stated in Article 28.3; or
 - consistently fails to meet its obligations after repeated reminders; or
 - suspends the delivery of the supplies, or any part thereof, for more than 180 days, for reasons not specified in the contract or not attributable to the contractor's breach or default.
- 37.2. Such termination shall be without prejudice to any other rights of the contracting authority or the contractor acquired under the contract.
- 37.3. In the event of such termination, the contracting authority shall pay the contractor for any loss or damage the contractor may have suffered.

Article 38 - Force majeure

- 38.1. Neither party shall be considered to be in default or in breach of its obligations under the contract if the performance of such obligations is prevented by any circumstances of *force majeure* which arises after the date of notification of award or the date when the contract becomes effective.
- 38.2. The term *force majeure*, as used herein covers any unforeseeable events, not within the control of either party and which by the exercise of due diligence neither party is able to overcome such as acts of God, strikes, lock-outs or other industrial disturbances, acts of the public enemy, wars whether declared or not, blockades, insurrection, riots, epidemics, landslides, earthquakes, storms, lightning, floods, washouts, civil disturbances, explosions. A decision of the European Union to suspend the cooperation with the partner country is considered to be a case of force majeure when it implies suspension of funding this contract.
- 38.3. Notwithstanding the provisions of Articles 21 and 36, the contractor shall not be liable to forfeiture of its performance guarantee, liquidated damages or termination for default if, and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of *force majeure*. The contracting authority shall similarly not be liable, notwithstanding the provisions of Articles 28 and 37, for the payment of interest on delayed payments, for non-performance or for termination by the contractor for default if, and to the extent that, the contracting authority's delay or other failure to perform its obligations is the result of *force majeure*.
- 38.4. If either party considers that any circumstances of *force majeure* have occurred which may affect performance of its obligations, it shall promptly notify the other party and the project manager, giving details of the nature, the probable duration and the likely effect of the circumstances. Unless otherwise directed by the project manager in writing, the contractor shall continue to perform its obligations under the contract as far as is reasonably practicable, and shall seek all reasonable alternative means for performance of its obligations which are not prevented by the *force majeure* event. The contractor shall not put into effect alternative means unless directed so to do by the project manager.

- 38.5. If the contractor incurs additional costs in complying with the project manager's directions or using alternative means under Article 38.4, the amount thereof shall be certified by the project manager.
- 38.6. If circumstances of *force majeure* have occurred and continue for a period of 180 days then, notwithstanding any extension of time for completion of the contract that the contractor may by reason thereof have been granted, either party shall be entitled to serve upon the other with 30 days' notice to terminate the contract. If, at the expiry of the period of 30 days, the situation of *force majeure* persists, the contract shall be terminated and, in consequence thereof under the law governing the contract, the parties shall be released from further performance of the contract.

Article 39 - Decease

- 39.1. Where the contractor is a natural person, the contract shall be automatically terminated if that person dies. However, the contracting authority shall examine any proposal made by the heirs or beneficiaries if they have notified their wish to continue the contract.
- 39.2. Where the contractor consists of a number of natural persons and one or more of them die, a report shall be agreed between the parties on the progress of the contract, and the contracting authority shall decide whether to terminate or continue the contract in accordance with the undertaking given by the survivors and by the heirs or beneficiaries, as the case may be.
- 39.3. In the cases provided for in Articles 39.1 and 39.2, persons offering to continue to perform the contract shall notify the contracting authority thereof within 15 days of the date of decease. The decision of the contracting authority shall be notified to those concerned within 30 days of receipt of such proposal.
- 39.4. Such persons shall be jointly and severally liable for the proper performance of the contract to the same extent as the deceased contractor. Continuation of the contract shall be subject to the rules relating to establishment of any guarantee provided for in the contract.

SETTLEMENT OF DISPUTES AND APPLICABLE LAW

Article 40 - Settlement of disputes

- 40.1. The parties shall make every effort to settle amicably any dispute relating to the contract which may arise between them.
- 40.2. Once a dispute has arisen, a party shall notify the other party of the dispute, stating its position on the dispute and any solution which it envisages, and requesting an amicable settlement. The other party shall respond to this request for amicable settlement within 30 days, stating its position on the dispute. Unless the parties agree otherwise, the maximum time period laid down for reaching an amicable settlement shall be 120 days from the date of the notification requesting such a procedure. Should a party not agree to the other party's request for amicable settlement, should a party not respond in time to that request or should no amicable settlement be reached within the maximum time period, the amicable settlement procedure is considered to have failed.

- 40.3. In the absence of an amicable settlement, a party may notify the other party requesting a settlement through conciliation by a third person. If the Italian Authority/AICS is not a party to the contract, it may accept to intervene as conciliator. The other party shall respond to the request for conciliation within 30 days. Unless the parties agree otherwise, the maximum time period laid down for reaching a settlement through conciliation shall be 120 days from the notification requesting such a procedure. Should a party not agree to the other party's request for conciliation, should a party not respond in time to that request or should no settlement be reached within the maximum time period, the conciliation procedure is considered to have failed.
- 40.4. If the amicable settlement procedure and, if so requested, the conciliation procedure fails, each party may refer the dispute to either the decision of a national jurisdiction or arbitration, as specified in the special conditions.

Article 41 - Applicable law

- 41.1. This contract shall be governed by the law of the country of the contracting authority or, where the contracting authority is the European Commission, by the applicable European Union law complemented where necessary by the law of Belgium.

FINAL PROVISIONS

Article 42 - Administrative sanctions

- 42.1. Without prejudice to the application of other remedies laid down in the contract, a sanction of exclusion from all contracts and grants financed by the EU, may be imposed, after an adversarial procedure in line with the applicable Financial Regulation, upon the contractor who, in particular,
 - a) is guilty of grave professional misconduct, has committed irregularities or has shown significant deficiencies in complying with the main obligations in the performance of the contract or has been circumventing fiscal, social or any other applicable obligations, including through the creation of an entity for this purpose. The duration of the exclusion shall not exceed the duration set by final judgement or final administrative decision or, in the absence thereof, three years;
 - b) is guilty of fraud, corruption, participation in a criminal organisation, money laundering, terrorist-related offences, child labour or trafficking in human beings. The duration of the exclusion shall not exceed the duration set by final judgement or final administrative decision or, in the absence thereof, five years;
- 42.2. In the situations mentioned in Article 42.1, in addition or in alternative to the sanction of exclusion, the contractor may also be subject to financial penalties up to 10% of the total contract price.
- 42.3. Where the contracting authority is entitled to impose financial penalties, it may deduct such financial penalties from any sums due to the contractor or call on the appropriate guarantee.
- 42.4. The decision to impose administrative sanctions may be published on a dedicated internet-site, explicitly naming the contractor.

Article 43 - Verifications, checks and audits by European Union bodies

- 43.1. The contractor shall allow the European Commission, the European Anti-Fraud Office, the European Public Prosecutor's Office and the European Court of Auditors to verify, by examining the documents and to make copies thereof or by means of on-the-spot checks, including checks of documents (original or copies), the implementation of the contract. In order to carry out these verifications and audits, the EU bodies mentioned above shall be allowed to conduct a full audit, if necessary, on the basis of supporting documents for the accounts, accounting documents and any other document relevant to the financing of the project. The contractor shall ensure that on-the-spot access is available at all reasonable times, notably at the contractor's offices, to its computer data, to its accounting data and to all the information needed to carry out the audits, including information on individual salaries of persons involved in the project. The contractor shall ensure that the information is readily available at the moment of the audit and, if so requested, that data be handed over in an appropriate form. These inspections may take place up to 7 years after the final payment.
- 43.2. Furthermore, the contractor shall allow the European Anti-Fraud Office to carry out checks and verification on the spot in accordance with the procedures set out in the European Union legislation for the protection of the financial interests of the European Union against fraud and other irregularities.
- 43.3. To this end, the contractor undertakes to give appropriate access to staff or agents of the European Commission, of the European Anti-Fraud Office, of the European Public Prosecutor's Office and of the European Court of Auditors to the sites and locations at which the contract is carried out, including its information systems, as well as all documents and databases concerning the technical and financial management of the project and to take all steps to facilitate their work. Access given to agents of the European Commission, European Anti-Fraud Office, the European Public Prosecutor's Office and the European Court of Auditors shall be on the basis of confidentiality with respect to third parties, without prejudice to the obligations of public law to which they are subject. Documents must be easily accessible and filed so as to facilitate their examination and the contractor must inform the contracting authority of their precise location.
- 43.4. The contractor guarantees that the rights of the European Commission, of the European Anti-Fraud Office, of the European Public Prosecutor's Office and of the European Court of Auditors to carry out audits, checks and verification will be equally applicable, under the same conditions and according to the same rules as those set out in this Article, to any subcontractor or any other party benefiting from EU budget/EDF funds.
- 43.5. Failure to comply with the obligations set forth in Article 43.1 to 43.4 constitutes a case of serious breach of contract.

Article 44 - Data protection

44.1. Processing of personal data by the contracting authority

Any personal data included in or relating to the contract, including its implementation, shall be processed in accordance with Regulation (EU) 2018/1725. Such data shall be processed solely for the purposes of the implementation, management and monitoring of the contract by the data controller.

The contractor or any other person whose personal data is processed by the data controller in relation to this contract has specific rights as a data subject under Chapter III (Articles 14-25) of Regulation (EU) 2018/1725, in particular the right to access, rectify or erase their personal data and the right to restrict the processing of their personal data or, where applicable, the right to object to processing or the right to data portability.

Should the contractor or any other person whose personal data is processed in relation to this contract have any queries concerning the processing of its personal data, it shall address itself to the data controller. They may also address themselves to the Data Protection Officer of the data controller. They have the right to lodge a complaint at any time to the European Data Protection Supervisor.

Details concerning the processing of personal data are available in the data protection notice referred to in the special conditions.

44.2. Processing of personal data by the contractor

The processing of personal data by the contractor shall meet the requirements of the general conditions and be processed solely for the purposes set out by the controller.

The contractor shall assist the controller for the fulfilment of the controller's obligation to respond to requests for exercising rights of person whose personal data is processed in relation to this contract as laid down in Chapter III (Articles 14-25) of Regulation (EU) 2018/1725. The contractor shall inform without delay the controller about such requests.

The contractor may act only on documented written instructions and under the supervision of the controller, in particular with regard to the purposes of the processing, the categories of data that may be processed, the recipients of the data and the means by which the data subject may exercise its rights.

The contractor shall grant personnel access to the data to the extent strictly necessary for the implementation, management and monitoring of the contract. The contractor must ensure that personnel authorised to process personal data has committed itself to confidentiality or is under appropriate statutory obligation of confidentiality in accordance with the provisions of Article 9.7 of these general conditions.

The contractor shall adopt appropriate technical and organisational security measures, giving due regard to the risks inherent in the processing and to the nature, scope, context and purposes of processing, in order to ensure, in particular, as appropriate:

- (a) the pseudonymisation and encryption of personal data;
- (b) the ability to ensure the ongoing confidentiality, integrity, availability and resilience of processing systems and services;
- (c) the ability to restore the availability and access to personal data in a timely manner in the event of a physical or technical incident;
- (d) a process for regularly testing, assessing and evaluating the effectiveness of technical and organisational measures for ensuring the security of the processing;
- (e) measures to protect personal data from accidental or unlawful destruction, loss, alteration, unauthorised disclosure of or access to personal data transmitted, stored or otherwise processed.

The contractor shall notify relevant personal data breaches to the controller without undue delay and at the latest within 48 hours after the contractor becomes aware of the breach. In such cases, the contractor shall provide the controller with at least the following information:

- (a) nature of the personal data breach including where possible, the categories and approximate number of data subjects concerned and the categories and approximate number of personal data records concerned;
- (b) likely consequences of the breach;
- (c) measures taken or proposed to be taken to address the breach, including, where appropriate, measures to mitigate its possible adverse effects.

The contractor shall immediately inform the data controller if, in its opinion, an instruction infringes Regulation (EU) 2018/1725, Regulation (EU) 2016/679, or other Union or Member State or third country applicable data protection provisions as referred to in the tender specifications.

The contractor shall assist the controller for the fulfilment of its obligations pursuant to Article 33 to 41 under Regulation (EU) 2018/1725 to:

- (a) ensure compliance with its data protection obligations regarding the security of the processing, and the confidentiality of electronic communications and directories of users;
- (b) notify a personal data breach to the European Data Protection Supervisor;
- (c) communicate a personal data breach without undue delay to the data subject, where applicable;
- (d) carry out data protection impact assessments and prior consultations as necessary.

The contractor shall maintain a record of all data processing operations carried on behalf of the controller, transfers of personal data, security breaches, responses to requests for exercising rights of people whose personal data is processed and requests for access to personal data by third parties.

The contracting authority is subject to Protocol 7 of the Treaty on the Functioning of the European Union on the privileges and immunities of the European Union, particularly as regards the inviolability of archives (including the physical location of data and services) and data security, which includes personal data held on behalf of the contracting authority in the premises of the contractor or subcontractor.

The contractor shall notify the contracting authority without delay of any legally binding request for disclosure of the personal data processed on behalf of the contracting authority made by any national public authority, including an authority from a third country. The contractor may not give such access without the prior written authorisation of the contracting authority.

The duration of processing of personal data by the contractor will not exceed the period referred to in Article 9.10 of these general conditions. Upon expiry of this period, the contractor shall, at the choice of the controller, return, without any undue delay in a commonly agreed format, all personal data processed on behalf of the controller and the copies thereof or shall effectively delete all personal data unless Union or national law requires a longer storage of personal data.

For the purpose of Article 6 of these general conditions, if part or all of the processing of personal data is subcontracted to a third party, the contractor shall pass on the obligations referred to in the present article in writing to those parties, including subcontractors. At the request of the contracting authority, the contractor shall provide a document providing evidence of this commitment.

ANNEX II + III:

TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

Contract title: Supply Hospital Medical Equipment for Samir Health Centre - SUDAN

Publication Reference: 8727944

NOTES:

Column 2 and 3 is completed by the contracting authority shows the required specifications (not to be modified by the tenderer),
Column 4 is to be filled in by the tenderer and must detail what is offered (for example the words 'compliant' or 'yes' are not sufficient)
Column 5 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any,
so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offered specifications.



X. ITEM NAME // SPECIFY Manufacturer and Model Name of the item offered

1 Spec Line Technical Specification Required
2 Spec Line

Notes, Deviation, observation

Technical Specification offered by the Tenderer, please complete

1...11
1...11
1...11
1...11
1...11
1...11
1...11
1...11

Please attach to the form the complete technical specifications, as declared by the Manufacturer.

Please Attach to the Form the brochures as released by the manufacturer, with pictures in colour of the equipment

Please Attach to the Form the relevant Technical Document related with the Equipment offered (such as Quality Control Certificate, ISO Standards etc..)

In the case in which the Technical Specification offered do not comply with the Technical Specification required, the tenderer should justify or describe, based on its own experience, the reason of the deviation and which aspect such deviation can affect the overall functioning of the equipment.

Technical Specification to be completed by the tenderer. Please note that for each numeral, the tenderer has to write out the Technical Specification corresponding to the Technical Specification required. It will not be sufficient for the Evaluation Committee an answer with a simple YES or NO.

LOT 1 – CIG 941031017A

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
A	HOSPITAL FURNITURE			
04-CAB	CABINET, BEDSIDE	<p>Bedside cabinet/locker, sheet steel epoxy coated locker with shelf</p> <p>yes</p>	Fazzini//C130106	
		<p>one drawer and one storage cabinet with a door</p> <p>44 x 44 x 77 cm (lxwxh).</p>		
		<p>Overall dimensions ± 50 x 40 x 70 cm (lxwxh).</p> <p>yes</p>		
		<p>On feet.</p> <p>yes</p>		
04-CHB	CHAIR, BLOOD/SAMPLE COLLECTION	<p>Chair/couch for sample collection</p> <p>Fazzini//C150001</p>		
		<p>The frame is made of flat oval steel tubing</p> <p>yes</p>		
		<p>The padded seat, back and armrests provide the patient with comfortable seating.</p> <p>yes</p>		
		<p>The seat height is 500 mm.</p> <p>cm 47</p>		
		<p>The distance between the wedge-shaped padded armrests 500 mm</p> <p>yes</p>		
		<p>Maximum weight load 150 kg</p> <p>130 kg</p>		
04-COE	COUCH, EXAMINATION/TREATMENT	<p>Fazzini//02.358.00</p>		
		<p>Table, examination, 2 section (knock-down construction); 1800 mm (l) x 750 mm (w) x 760 mm (h).</p> <p>180x80x75 (LxWxH)</p>		
		<p>Folding table with top in two sections.</p> <p>yes</p>		
		<p>Drop leaf section (head piece), 490 mm (l) x 750 mm (w).</p> <p>yes</p>		

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL

Via San Giustino, 43/A
 33110 PORDENONE (PN)
 C.F. 018709033
 P.I. 018709033
 E-mail: mem-pro@pec.it
 pec.it
 C.U. SUBM70N

LOT 1 - CIG 941031017A

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
A	HOSPITAL FURNITURE			
		Removable and adjustable by ratchet type frame.	yes	
		Frame made of mild steel tubular or rectangular sections of approx 40mm x 40 mm with minimum 2 mm thickness.	yes	
		With cross bars for stability.	yes	
		Square section ends to be fitted with rubber or plastic bungs.	yes	
		Sheet metal parts minimum 1.5 mm thickness.	yes	
04-COG	COUCH, GYNECOLOGICAL	Fazzini//02.359.00		
		GENERAL DESCRIPTION: Gynaecological Table with accessories, fully mechanical, made in three sections adjustable with ratchet.	cm 195x75x65 h	
		CONFIGURATION: 3 section, Backrest, seat, foot	yes	
		FRAMES:		
		Tube section: Circular	yes	
		Material: Aluminium Alloy Tube (30 mm diameter)	yes	
		BACKREST:		
		Adjustable: 0 to 70°	yes	
		Adj. Mechanism: Ratchet	yes	
		Padded (cm): Yes, 8 cm (High Density Urethane)	yes	
		Upholstery: Yes, leatherette, Colour Blue or Black	yes black	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
VIA SAN GIULIANO, 43/A
33170 PORDENONE (PN)
C.F. P1010700933
PEC: sistem-pro@pec.it
CU: SUBMISSION

LOT 1 – CIG 941031017A

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
A	HOSPITAL FURNITURE			
		Fire Retardant: Yes	yes	
		Chemical Resistant: Yes	yes	
	SEAT:			
		Padded (cm): Yes, 8 cm (High Density Urethane)	yes	
		Upholstery: Yes, leatherette, Colour Green/Blue	yes black	
		Fire Retardant: Yes	yes	
		Chemical Resistant: Yes	yes	
	FOOT:			
		Height adjustment: Yes, with Ratchet	yes	
		Padded (cm): Yes, 8 cm, (High Density Urethane)	yes	
		Upholstery: Yes, leatherette, Colour Green/Blue/Black	yes	
		Fire Retardant: Yes	yes	
		Chemical Resistant: Yes	yes	
	FLOOR FOOTING: Rubber Stopping		yes	
	ACCESSORIES:			
		Knee crutches (qt): 2, Adjustable made in chromed steel	yes	
		Bowl (basin) (qt): 1, Stainless Steel (diameter 320 mm)	yes	
04FOR	FOLDING SCREEN ROOM DIVIDERS			Fazzini//02.825.00 + 02.824.20(x3)

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM - PRO SRL
 Via San Giuliano, 43/A
 33070 RODENO (PN)
 C.F. 091.01.670/0933
 P.IVA 01670933012
 C.U.: SUBM/ON

LOT 1 – CIG 941031017A

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
A	HOSPITAL FURNITURE			
		Mobile, three section, stove enamelled steel or other rustproof finish.	cm 42x150x167 h	
		Flush type hinges.	yes	
		Wide legs to give stability in all positions.	yes	
		3-4 panels, plastic or fabric curtains, foldable, each panel to be 60cm wide and 170cm high.	yes 3 panels	
		On 6cm (rubber tired) castor wheels.	yes 50 mm wheels	
		Including 3 sets of cotton curtains	yes	
				Fazzini/02.694.11special
04-IVP	IV POLE, 2 HOOKS	Movable height adjustable infusion shaft stand, pedestal frame	cm 115/220 h	
		Heavy carriage mounted on 5 swivel castors, of which two anti-static, electrically non-conductive	yes	
		Support column provides with solid manual lever to slide telescopic upper part at the required height.	yes	
		Double hook stainless steel at the top of telescopic rod.	yes	
		High resistance to corrosion (tropical environment).	yes	
		Frame: Austenitic stainless steel 18/10.	yes	
		Wheel base: strong plastic.	yes	
		Dimensions:	yes	
		Height, adjustable: 1200 to 2000mm.	yes cm 115/220 h	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
ASIA
Via Giuliano D'Ascia (PV)
33170 PORDENONE (PV)
C.F. 01770000931
PEC: sitem-pro@pec.it
C.U. 5115M704

LOT 1 – CIG 941031017A

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
A	HOSPITAL FURNITURE			
		Wheel base, diameter: 550mm.	yes	
		Frame, diameter: 25mm.	yes 30x2 mm	
		Swivel castors, diameter: 50mm.	yes	
04-STD	STOOL, DENTAL		Fazzini//02.908.00	
		Stool, height adjustable with gas spring, mobile, on castors		
		Revolving metal stool circular seat 50cm Dia, adjustable height	yes	
		Main Frame made of round chrome plated steel tube	yes	
		Seat fire retardant upholstered and covered with washable plastic material.	yes	
		Dimensions: Ø 30-35 x45-57 cm	yes	
04-STO	STOOL, OPERATOR		Fazzini//02.906.00	
		Metal frame, vinyl wipe down upholstery, padded seat.	yes	
		Rotatable 360°.		
		Seat height adjustable between approx. 60-80 cm, size approx. 40 cm diameter.	yes	
		Swivel castors.	yes	
		Height adjustable padded back support.	yes	
04-SMF	STRETCHERS, PATIENT, FIXED HEIGHT		Fazzini//01.1210.00 + C110923 + 01.1220.00 + 01.1221.00	



ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
 Via San Giuliano, 42/A
 33171 PORDENONE (PN)
 C.F. 018100000933
 PEC: sitem-pro@pec.it
 C.U.: SUBMISSION

LOT 1 – CIG 941031017A

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
A	HOSPITAL FURNITURE			
		Manufactured from tubular steel, base in carbon Steel top in tubular special antibacterial epoxy coated easy to wash and hygienic environment.	patient stretcher fixed top, epoxy painted,adjustable backrest complete with side rails,i.v.island, a/s rubber castors 200mm, two w/brake	
		Mounted on four 200mm anti-static swivel castors all lockable at once.	yes	
		Single drip rod, stainless steel.	yes included	
		Mattress, anti-static and waterproof for the trolley.	yes	
		Handles on both side of the stretcher.	yes	
		Two sections patient plane with adjustable backrest.	yes	
		Approximate dimensions: 2100mm(L) x 550mm(W) x 810mm(H).	yes 201x780x80 h	
04-	TROLLEY, INOX, OPERATING ROOM, 90 X 60	Fazzini/02.863.01		
TRIO2		Size approximately: 600 (L) x 900 (W) x 850 (H) mm	yes cm 93x65x80 h	
		Stainless steel rails to cover three sides of top shelf & four of bottom	yes	
		Provided with a bowl and a bucket; both are made of stainless steel	yes	
		Trolley mounted on four 10 cm swivel castor, of which two have	yes	
				SITEM-PRO SRL
				CONCESSIONARIA Via San Giordano, 10/A 33170 PORDENONE (PN) C.F. e PEC: Sitem-pro@tin.it C.U.: SITEM/101

LOT 1 – CIG 941031017A

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
A	HOSPITAL FURNITURE			
		breaks rubber swivel	yes	
		anti-static castors	yes	
04-WHE	WHEELCHAIR		Fazzini//GR103/46	
		Full-length, fixed or desk-length removable armrests	yes	
		Silver frame.	yes	
		Padded nylon upholstery	yes	
		Comfortable padded arms -	yes	
		Carry pocket on back	yes	
		made to be Easy-to-fold	yes	
		44 x 40cm seat,	yes cm 46x40	
		self propulsion	yes	
		detachable footsteps	yes	
04-XRW	X-RAY, FILM VIEWER	Single viewer	Fazzini//02.040.00	
		Halogen lamp	yes	
		Electric power supply , 220-240 V	yes	
		On/off switch	yes	

SITEM PRO SRL
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 33170 PORDENONE (PN)
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 PEC: sitem-pro@pec.it
 Q.U.: SUBM70N



LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT			
03-AMA	AMALGAMATOR, DENTAL	DeGiorgi//721-00		
		A 220V, 50Hz mono-phase electrical source with line connection plug european or shuko type.	yes Motor power: 70 Watt * Power supply: 220 V - 50 hz	
		Protections against over-voltage and over-current line conditions.	yes	
		Rotational capsule mixer with centrifuge function.	yes	
		Blending speed: not less than 2500 rpm.	Vibration frequency. 4000 pulses / minute	
		Pre-set and programmable timer and procedures, possibility to exclude the centrifugation.	yes Mixing times. variable	
		Compatible with amalgam, GIC and other pre-dosed dental materials.		
03-ANCL	ANALYZER, CLINICAL CHEMISTRY	Ise Logotech//Master T		
		Open system, semi-automatic	yes	
		Batch process determination of routine clinical chemistry parameters	yes	
		Fits with 20 reagent positions of 50ml	yes	
		Throughput up to 60 tests per hour	180	
		Pre-programmed and user programmable routines and profiles	yes	
		With self-test capability	yes	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
Via San Giuliano, 43/A
33170 PORDENONE (PN)
C.F. 04710300933
P.IVA 04710300933
SITEM-PRO SRL
P.C.D.U.: Subito

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT			
		Indication of self-test failures and assistance messages	yes	
		Temperature: 3 thermal zones	yes	
		Incubation 1 minute to 3 hours	<=12 min	
		Preheated reagent transfer arm	no	
		Built-in rinsing and waste reservoirs	external tank	
		Analysis: end point, differential, fixed time, kinetic, multi standard	yes	
		Curve of calibration: 8 points, linear and logarithmic	yes	
		Calculation: linear, exponential and polygon	yes	
		Optical system: interference filter, mono and dichromatic	yes	
		Filters up to 8 per wheel with automatic selection	yes	
		Source: LED	no	
		Absorption: -0.200 to 2.500 D.O. <0.0001 D.O. >	yes	
		Spectrum: 300 to 700nm	340 to 700nm	
		Accuracy: CV<1% at 2.0 D.O.	0: 3.0 O.D.	
		Sample ID, date and time are reported with test results	yes	
		Supplied complete with dedicated data analysis and data management software on external PC	yes	
		Results reportable via external inkjet printer	yes	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

~~SYSTEM-PRO SRL~~

Giuliano
Vita San Giuliano
33170 PORDENONE (PN)
C.F. 017086P933
PEC: system-pro@pec.it
C.U.: SUBM70N

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT			
		Casing, corrosion proof material such as plastic or epoxy coated steel	yes	
		Power requirements: 220V/50Hz, with voltage surge protection	yes	
		Power consumption: approximately 400W	yes	
03-ANE1C	ANALYZER, ELECTROLYTES	Completely automated, microprocessor-controlled analyzer	yes, with automatic sampler	
		Technology used: advanced ISE (Ion Selective Electrode)	yes	
		Samples: whole blood, serum, plasma or urine	yes	
		Sample size Approx: 100 µL Whole Blood, Serum, Plasma, 60 µL capillary or 400 µL diluted (1:10) Urine	yes	60 + 120µL
		Probe wiping: Automatic	yes	Up to 100 samples/hour
		Calibration: Automatic or on-demand	yes	
		Printer: Automatic result printing	yes	
		Low running cost. Compact, easy and safe to use	yes	
		Measurement Combination Options:		
		• Na+/K+	yes	
		• Na+/K+/Cl- Lithium Na+/K+/Li+	yes	

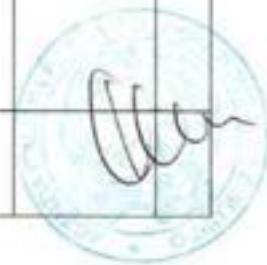
ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

18

Viale SAN GIORGIO 4/A
 33100 PORDENONE (PN)
 C.F. 06.01.0770033
 PEC: system-pro@pec.it
 C.U.: SUBM7UN

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT			
03-ANGL	ANALYZER, GLUCOSE, WHOLE BLOOD	Hemocue/HCH121706 + HCH111716		
	Automated compact hand-held point-of-care device for measuring glucose in capillary whole blood	yes		
	Technology: amperometry, under potentiostatic condition,	yes		
	electro-chemical (Glucose oxidase)	yes		
	Direct current reading through inserted micro-cuvette, containing all required dried reagents pre-applied	yes		
	Direct reading from inserted micro-cuvette; if applicable, contains all dried reagents pre-applied	yes		
	Removable micro-cuvette holder, allows easy cleaning	yes		
	Factory calibrated and built-in auto-self-test, each time the device is switched-on	yes		
	Latest measurement shows when switched-on	yes		
	No pipetting, sample collected directly from skin surface into single-use micro-cuvette	yes		
		yes	Plasma equivalent values: 0–31 mmol/L (0–560 mg/dL)	
			Whole blood values: 0–27.8 mmol/L (0–500 mg/dL)	
	Measuring range, approximately 0 to 500mg/dL			
	Reading time, approximately 10 sec	yes		



ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
 Via San Giuliano, 43/A
 33170 PORDENONE (PN)
 C.F. 012180933
 PEC: sitem-pro@pec.it
 P.U.: SUBMISSION

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT			
		Accuracy, approximately CV <2% (Coefficient of Variation)	yes	
		Display informs: glucose reading [mg/dL or mmol/L], patient ID, reading errors, systems errors, battery status	yes	
		Language display, user selectable: English, French and Spanish	yes	
		Analyzer Easy-to-use touch display Built-in barcode scanner Stores 4,000 Patient/STAT tests, 500 QC tests and 500 Analyzer Logs Compliance with POCT1-A (CLSI standard)		
		Built-in memory, storing approx. 500 measurements		
		Interfaces: USB or equivalent to printer and/or computer.	yes	
		If required, manufacturer's software should be ordered separately.	yes	
		Built-in rechargeable or user-replaceable battery, autonomy, approximately 500 measurements, 3V type CR2032	yes	
		Power consumption, approximately 5W	yes	
		Beckman/DxH520		
03-ANHE	ANALYZER, HEMATOLOGY, AUTOMATED	Fully automatic, auto-calibrating, no sample pre-treatment, auto-sampling, rack with at least 50 samples.	yes	
		Pre-sets and algorithms for various sample types, including "Female", "Neonate", "Baby" and "Child".	yes	
				SITEM-PRO SRL
				43/A Ghibellina (PA) Via San Giorgio 10 090933 33170 PORDENONE (P.D.) C.F. 00000000000000000000 PEC: sitem-pro@spac.it SUBMISSION PECO

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT			
		CBC and CBC-DIFF analytical protocols, possibility to insert and analyze urgent extra samples, work-list with personal data and analytical program.	yes	
		Throughput: Whole Blood Mode ≥60 samples/hour; Body Fluid Mode ≥20 samples/hour.	yes	
		Whole blood or body fluid sample volume ≤200 µL.	yes * Sample Volume : 17 µL of venous or micro-collected whole blood, 20 µL of whole blood for pre-diluted analysis	
		Minimum requirements for measured and calculated parameters: WBC, Hb, Ht, RBC, HGB, HCT, MCV, MCH, MCHC, MPV, PLT, RDW, Monocytes (% and #), Lymphocytes (% and #), Granulocytes Neutrophil, Eosinophil and Basophil (% and #).	yes	
		Minimum accuracy: WBC 5%, RBC 3%, MCV 5%, HGB 4%, PLT 7%.	yes	
		Minimum reproducibility: WBC 5%, RBC 3%, MCV 4%, HGB 4%, PLT 7%.	yes	
		Bar code identification for samples and reagents.	yes include bar code reader + Printer	
		Data storing capacity not less than 200 patient data samples, with all parameters and histograms.	yes	
		Quality control of range, Statistical Tolerance and Coefficient of Variation of all parameters with Levey-Jennings chart, or similar quality chart, at least every month.	yes	
		Built-in or external display and workstation or control panel; input/output devices and data import/export	yes	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM PRO SRL
 VIA SAN GIULIANO, 3/A
 33170 PORDENONE (PN)
 C.F. 01767100933
 PEC: sitem-pro@pec.it
 C.U.: SUBN70H

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT			
		capability in standard formats, for data management and transfer.		
		B/W laser printer.	yes include bar code reader + Printer	
		Software interface for data analysis and reporting and with a printer. Graphs, histograms and/or scattergrams must be available for main parameters (at least WBC, RBC, PLT).	yes	
		Open reagents: the equipment uses reagents of most common brands without exclusive use of reagents produced by a single supplier for at least 85% of all possible equipment tests and analysis.	yes * Mode of Operation Open and closed tube sampling	
		The compatible open reagents shall be available in the markets of Sudan	yes 3 Reagents ONLY: Cleaner, lyse and diluent	
03-CET	CENTRIFUGE, TABLETOP, NOT REFRIGERATED	GENERAL DESCRIPTION: Low-speed, tabletop centrifuges to be used for routine separation of sample volumes. The centrifuge has to be easy to use, with low level vibration and level of noise, digital touchpad display to set time and rpm, robust construction with case resistant to various chemical and physical agent. With Alarms and lock.	Ormascientific/CN0636 + DS4-100 + DS19400043	
		UMDNS: [18-266]	CE MARK (MDD): yes	
		CONFIGURATION: Tabletop Centrifuges	ROTATIONAL SPEED :	
				SITEM-PRO SRL

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations, Observations
B	LABORATORY EQUIPMENT			
		Max rpm : 15000		
		Max RCF, g : > 12000		
		REFRIGERATED : No		
		NUMBER OF ROTORS : 1		
		VARIABLE ANGLE : Yes, preferred		
		ANGLE RANGE: Between 0 and 90 deg		
		ROTOR CAPACITY, samples : 8 to 12 tubes of 15 ml		
		DISPLAY TYPE : Digital		
		TIMER : Yes		
		Range, min : 0 to ≥60		
		Settings : 1 min increments		
		BRAKING, type : Electric preferred		
		ADJUSTMENT & CONTROLS : Manual Touchpad		
		LID INTERLOCK : Yes		
		BRUSHLESS : Yes		
		ALERT INDICATORS : audible, imbalance, lid open, error codes, rotor recognition, end of run		
		NOISE LEVEL, dB : < 60		
		SPECIAL WARRANTY : Required 7 years for rotor		

SITEM-PRO SRL

Via San Giuliano, 1/B/A
33170 PORDENONE (PN)
C.F. e P.I. 01187090933
PEC: sitem-pro@pec.it
C.U.: SUBM70N

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT			
03-MICL	MICROSCOPE, OPTIC, LIGHT	TRAINING: 0,25	Optika/B-159 + M-003x2	
		Microscope, binocular, 4 objectives	yes	
		Binocular, with built-in (6V 10W halogen lamp or 6V 20W)	yes	
		Light source, powered by mains electricity (220- 240V), complete with: pair of 10X widefield eyepieces,	yes	
		pair of 7X or 8X eyepieces (for use with 100X oil immersion objective),	yes	
		objectives 10X, 40X and 100X (oil),	yes	
		precentred Abbe condenser,	yes	
		filter holder,	yes	
		adjustable for height,	yes	
		mechanical stage with slide holder, spring arm, and movement controls,	yes	
		condenser focus control,	yes	
		course and fine focusing and focus tension control,	yes	
		lamp brightness control, on and off switch, mirror	yes	
		(if required can screw into base for use with daylight),	yes	

SITEM-PRO SRL
 Via San Giuliano, 1/A
 33170 TORDEGNONE (PN)
 C.F. 017809833
 PEC: sitem-pro@pec.it
 C.U. SUBM704

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B LABORATORY EQUIPMENT				
03-PIPS	PIPETTE, AUTOMATIC, SET	Ormascientific/V2 + V5		
	Pipette, repeating, 2.5ml and 5.0ml	Variable volume electronic micropipette RANGE 0.5 - 10 µl		
	Automatic system for pipetting and serial distribution of precise variable volumes	yes		
	Material: polypropylene	yes		
	Volume adjuster lever 5 positions (volumes)	yes		
	Mechanical bolt for syringe/tip	yes		
	Filling plunger	yes		
	Distribution lever	yes		
	Non sterile	yes		
03-SHAKR	SHAKER, VORTEX	Ormascientific//AGM		
	Device mixing effect obtained by vortexes creation.	yes		
	Microprocessor controlled equipment	yes		
	Maintenance-free shaking motor.	yes		
	Adjustable speed up to a maximum value not lower than 2200 rpm.	0-2500		
	Capability to shake tubes with diameters up to at least 30 mm.	yes		

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
 Via San Giuliano, 43/A
 33170 PORDENONE (PN)
 C.F. 02800833
 P.IVA 02800833
 P.D.Q.: sitem-pro spec.it
 D.U.: SUBM70N

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT			
		At least continuous and "touch start" operating modes.	yes	
		Capability to work with standard tubes, flasks, beakers and micro-plates (not specifically designed or sold by just one-single brand/producer).	yes	
		Equipment provided with specific adaptors, holders, racks and/or platforms for mixing at least the following laboratory fluids/media containers:	not applicable for the model requested	
		a) Flasks.	not applicable for the model requested	
		b) Beakers.	not applicable for the model requested	
		c) Micro-plates.	not applicable for the model requested	
03-FRT	TEMPERATURE, INDICATOR, FREEZER TAG W ALARM	Berlinger/307_TS_FREEZE-TAG		
		Freeze-tag® - Electronic temperature monitoring of the freezing point (0°C)	yes	
		OK - Display Alarm - Display	yes ALARM LIMITS 0°C / +32°F yes Display 10 x 10 mm	
		long shelf life	yes OPERATING LIFETIME AND SHELF LIFE Up to 5 years - expiry date printed on label	
		Simple handling	yes	
03-ThDL	THERMOMETER, DATA LOGGER, W/ DISPLAY	TESTO/0572 2001-TESTO SAVERIS 2-T1		

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
 Via San Giuliano, 1/A
 33170 ORDENONE (PN)
 C.F. 01700560093
 PEC: Sitem-pro@pec.it
 C.U. SUBMAT01

LOT 2 - CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT	Sensor measures temperature over the range of -9.9 to 30 °C	yes Measuring range -30 to +50 °C	
03-WSAB	WEIGHTING SYSTEM, ANALYTICAL BALANCE	<p>yes Battery life 12 months (typical value, depending on the wireless LAN infrastructure) at +25 °C, 15 mins measurement rate and standard communication rate at -30 °C, 15 mins measurement rate and standard communication rate with Energizer batteries 0515 0572</p> <p>Voltage supply 4 x AA AlMn Mignon batteries, mains unit optional; for temperatures under -10 °C please use Energizer batteries 0515 0572</p> <p>with internal battery</p>		
31	WATER PURIFYING, REVERSE OSMOSIS	<p>Screen display</p> <p>yes</p> <p>Ormascientific//AL220S</p> <p>Uni block Transducer</p> <p>yes</p> <p>220-240 V</p> <p>yes</p> <p>50/60 Hz</p> <p>yes</p> <p>Ecoplus//NEW ROS + 24 TANK</p> <p>yes This product has already a system of automatic water control, called shut off which actives the machine only when the tank is empty.</p>		

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

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SI-EM-PRO SRL
Viale San Giuliano, 43/A
33170 PORDENONE (PN)
C.F. 0167060035
P.I. 0167060035
PEQ: sitem-pro@pec.it
C.U.: SUBM70N

LOT 2 – CIG 941031124D

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
B	LABORATORY EQUIPMENT			
		18 liter	yes 24 lt	
		stainless steel storage tank	yes painted (outside) steel tank [H38cm, D29cm]	
		Connects easily to any source water line for automatic filling	yes. The machine is already provided with an easy kit of installation and a faucet for the outgoing water.	
			Furthermore, this machine doesn't need electric power because it works only with the water pressure.	
		220-240 V		

SITEM-PRO SRL
 Via San Giuliano, 42/A
 33170 PORDENONE (PN)
 C.F. 01700933
 PEC: sitem-pro@pec.it
 U: SUBM70N

LOT 3 – CIG 9410312320

1	2	3	4	5
ITEM CODE	DESCRIPTION	TECHNICAL SPECIFICATIONS	SPECIFICATIONS OFFERED	NOTES, DEVIATIONS OBSERVATIONS
C	MEDICAL DEVICE		GIMA/31310	
MDD04	CHARTS, EYE, VISUAL ACUITY	<p>Snellen, alphabet/ literate</p> <p>reading distance 20 feet. 6.1 meter</p> <p>Should be made of durable white plastic with suspender</p> <p>Test Type, Ophthalmic, for children</p> <p>Bishop Harmon's, with pictures.</p> <p>size 30 x 20 cm ± 5%.</p> <p>in high quality printing on a thick paper enveloped in transparent plastic.</p> <p>distances marked in meters.</p> <p>White washable vinyl plastic card, 280x540 mm ± 5%, with eyelet on top for hanging.</p>	<p>yes</p> <p>yes</p> <p>yes</p> <p>yes</p> <p>yes</p> <p>yes</p> <p>yes</p> <p>yes</p> <p>yes</p>	
MDD032	HAMMER	Hammer for reflexology	Fazzini//08.914	
MDD033	MADDOX WING	<p>Handle made of Nickel</p> <p>Plastic rubber head</p> <p>with Handle</p> <p>with Eye-piece lens holder</p>	<p>yes</p> <p>yes</p> <p>yes</p> <p>yes</p>	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
 Via San Giustino, 43/A
 33171 PORDENONE (PN)
 C.F. e P.I. 07870933
 PEC: sitempro2000@pec.it
 Q.U.: subm70n

LOT 3 – CIG 9410312320

1	2	3	4	5
ITEM CODE	DESCRIPTION	TECHNICAL SPECIFICATIONS	SPECIFICATIONS OFFERED	NOTES, DEVIATIONS OBSERVATIONS
C	MEDICAL DEVICE			
		with Eye Piece	yes	
		with Septa	yes	
		with Scale Card	yes	
		Torsion Lever	yes	
MDD37	OPHTHALMOSCOPE	Fazzini//680100.01 + 680100.10		
		Battery operated, rechargeable: works with 2 AA-batteries (1.5 V / LR6 alkaline).	yes	
		Sealed optics to keep out dust and dirt to allow years of maintenance-free operation.	yes	
		Durable and shock-resistant, easy to clean.	yes	
		Handle-based rheostat for quick light-intensity adjustment. Handle with on/off switch.	yes	
		Wide range of practical apertures	yes	
		Cobalt blue filter for corneal exams, fixation target, or silt	yes	
		Cradle with built in charger	yes	
		Halogen bulb, 2.5 V provides with bright white light. (including Spare Bulbs)	yes	
		Supplied with:	yes	
		- 1 x spare 2.5 V halogen bulb.	yes	

SITEM-PRO SRL
 Via San Giuliano 43/A
 33170 PORDENONE (PN)
 C.F. 03P1V1CZ
 PEC: ~~sitem-pro@pec.it~~
 C.U.: SUBM70N

LOT 3 – CIG 9410312320

1	2	3	4	5
ITEM CODE	DESCRIPTION	TECHNICAL SPECIFICATIONS	SPECIFICATIONS OFFERED	NOTES, DEVIATIONS OBSERVATIONS
C	MEDICAL DEVICE			
		A 220V-50Hz mono-phase electrical source with line connection European or SCHUKO plug	yes european	
MDD09	OPHTHALMOSCOPE/OTOSCOPE	Fazzini//672055 + 8.823 +100005		
		High quality metal construction for strength and durability	yes	
		Knurled surface making the handle non-slip and hygienic.	yes	
		The set contains the followings:	yes	
		Handle with battery (Uses 2 x C size batteries)	yes	
		Filters : (2) at least	yes	
		Otoscope head with:	yes	
		reusable ear speculum (2) for Adults and (2) for children	yes 3 pieces	
		Magnification: (1, 5 x) at least.	yes	
		Suitable bellows to detect movement in the Tympanic membrane	yes	
		Nasal speculum (sterilizable)	yes	
		Throat Lamp (halogen)	yes	
		(2) Laryngeal mirrors stainless steel and sterilizable for Adults and for children	yes	

SITEM-PRO SRL
 Via San Giuliano, 43/A
 33170 PORDENONE (PN)
 C.F. P10105100933
 PEC: sitem-pro@pac.it
 Q.U.: SUBM70N

LOT 3 – CIG 9410312320

1	2	3	4	5
ITEM CODE	DESCRIPTION	TECHNICAL SPECIFICATIONS	SPECIFICATIONS OFFERED	NOTES, DEVIATIONS, OBSERVATIONS
C	MEDICAL DEVICE			
		Tongue depressor holder (for reusable tongue depressor) + reusable (sterizable) tongue depressor	yes 100 pcs	
		Tongue depressor holder (for disposable tongue depressor) + (50) wooden tongue depressor	yes 100 pcs	
		Battery (3 ,5) v.	Yes 2.5V	
		Spare Parts: Halogen bulbs (4).	yes	
		The set must be in a suitable and durable case.	yes	
		Option alternative : Rechargeable handle with probable charger (power supply 220 v - 50 Hz)	yes	
MDD36	OXYGEN, CILINDER, W REGULATOR		Oxystore//OC40LT + Gimma//CRM031+ 34581	
		Oxygen cylinder complete with valve;	yes	
		Rechargeable	yes	
		Seamless	yes	
		Made of alloy of drawn steel which is suitable for oxygen cylinder.	yes	
		Test hydraulic pressure 300 bar	yes	
		True safety operation pressure at least 200 bar.	yes	
		Cylinder volume 40 L H2O or 6 m ³ O2 under pressure 15 bar approx.	yes	
		Cylinder weight (45-50) kg ± 10%	yes	
		STEM-PRO SRL		STEM-PRO SRL SOCIETÀ SAN GIULIANO (VR) ITALIA Via San Giuliano, 41/A (P.N.) 33170 PORDENONE (VR) 0433 C.F. 0821.004.004 P.I.C. sitem-pro@prospec.it C.U.: SUBMT04

LOT 3 – CIG 9410312320

1 ITEM CODE	2 DESCRIPTION	3 TECHNICAL SPECIFICATIONS	4 SPECIFICATIONS OFFERED	5 NOTES, DEVIATIONS OBSERVATIONS
C MEDICAL DEVICE				
		Cylinder neck fitted with side nozzle, bull nose valve for connecting oxygen regulator	yes	
		Color-coded - BSS specifications and coloring standard	yes	
		Value with hand wheel for safety opening / closing.	yes	
		Cylinder with bottom.	yes	
		Duly tested by authorized company.	yes	
		Accessories supplied to fit oxygen cylinder value :	yes	
		With Oxygen pressure regulator	yes pin index	
		High pressure manometer to indicate pressure level in the cylinder	yes	
		Oxygen flow meter tube calibrated from 0 – 15 liters per minute, with tube nipple outlet.	yes	
		Humidifier, bubble through type, couples directly to flow meter autoclavable.	yes	
		Trolley :	yes	
		Complete with trolley and cylinder holding bracket/ chain. For transporting oxygen cylinder.	yes	
		Metal steel construction, epoxy coated – powder with two antistatic rubber wheels.	yes	
		Set of key spanner and spare parts	yes	
MDD14	SPHYGMOMANOMETER, ADUL, PEDIATRIC	Gimal/32800 +32825		SITEM-PRO SRL

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

33

Viale San Giuliano, 43/A
 33110 PORDENONE (PN)
 C.F. e P.I. 01787900933
 PEC: sitem-pro@pec.it
 C.U.: SUBM70N

LOT 3 – CIG 9410312320

1	2	3	4	5
ITEM CODE	DESCRIPTION	TECHNICAL SPECIFICATIONS	SPECIFICATIONS OFFERED	NOTES, DEVIATIONS OBSERVATIONS
C	MEDICAL DEVICE			
		Sphygmomanometer Mercury type (preferred)	yes	
		desktop model	yes	
		Range of measurement shall be 0 to 300mmHg	Yes 20-280 mmHg	
		as standard with at least a precision of +/-3mmHg (static measure)	yes	
		complete with washable cloth cuffs,	yes	
		with or without velcro fastenings.	yes	
		hand inflation bulb and valve,	yes	
		Rubber tube shall be UV and Ozone resistant.	yes	
		Mercury compartment with locking safety device	yes	
		carrying case.	yes	
		Cuff sizes:	yes	
		Adult: 57X14.5cm. N° 1	yes (22-32 cm)	
		child: 53X10.5cm N° 1	yes (16-22 cm)	
		Spare: blubs, cuffs, tubing, valves	yes	
		Shall comply with EN 1060-1. CE marked	yes	
MDD12	STETHOSCOPE, (DUALHEAD)		Fazzini//08.711.00	
		Bowles type	Yes	
		Chest piece with diaphragm	yes	SITEM-PRO SRL SITEM (Giuliano Lanza) Viale BORDEN 20/A 33100 BORGARO (PV) 010/9090909 C.F. 0887.000.029 PEC: sitem-pro@pac.it C.U.: SUBMISSION

LOT 3 – CIG 9410312320

1	2	3	4	5
ITEM CODE	DESCRIPTION	TECHNICAL SPECIFICATIONS	SPECIFICATIONS OFFERED	NOTES, DEVIATIONS OBSERVATIONS
C	MEDICAL DEVICE			
		Dual head, pivoting, aluminum, stainless steel or chrome-plated brass	yes	
		Double cup, dual-use (adult and pediatric auscultation)	yes	
		chest piece in stainless steel or chromed brass.	yes	
		Adult diaphragm 43mm;	yes 47 mm Ø	
		pediatric diaphragm 28mm.	yes 35 mm Ø	
		Sensitivity 3.2dB in a range from 50 to 500Hz for cardiology.	yes	
		Sensitivity 8.1dB in a range from 600 Hz to 1,500Hz for pneumology.	yes	
		Y tube treated rubber with large diameter: 10 mm.	yes	
		Arms: stainless steel or chrome brass,	yes	
		with spring treated to give lasting spring and maximum reliability and comfort.	yes	
		Removable plastic ear-pieces.	yes	
		supplied with spare diaphragms, earpiece	yes	
MDD23	STETHOSCOPE, FETAL	Fazzini//08.900		
		Specifications Overall length +/- 15 cm	yes	
		Instrument may be in either single or two pieces, with a foot that unscrews	yes	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL

San Giuliano, 43/A
33170 PORDENONE (PN)
C.F.: 01791090933
P.I.C.: sitem-pro@spac.it
C.U.: SUBM70N

LOT 3 – CIG 9410312320

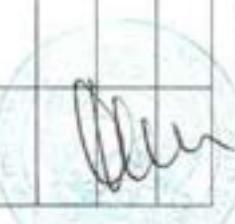
1	2	3	4	5
ITEM CODE	DESCRIPTION	TECHNICAL SPECIFICATIONS	SPECIFICATIONS OFFERED	NOTES, DEVIATIONS, OBSERVATIONS
C	MEDICAL DEVICE			
MDD13	THERMOMETERS, ELECTRONIC, INFRARED, SKIN	<p>Description: Thermometer, clinical, digital, 32 - 430C</p> <ul style="list-style-type: none"> Digital thermometer Celsius scale with switch to Fahrenheit Safe to use,atraumatic, no glass, no mercury Measurement range: 32°C to 43°C Accurate measurement: +/- 0.1°C between 35°C to 41°C Liquid crystal display, easy to read Beep sound and switch off Water proof for ease of cleaning Battery powered <p>Conforms to EN 12470-3</p>	<p>Material aluminium</p> <p>yes</p> <p>Fazzini//UFR103</p> <p>yes</p>	
MDD28	TORCH FOR EYE EXAMINATION		<p>Torch/flashlight, pre-focused.</p> <p>Heavy-walled plastic case or metal case.</p> <p>Splash waterproof, sealed with o-ring.</p> <p>Lamp head approx. 40mm.</p>	<p>yes</p> <p>yes</p> <p>yes</p> <p>yes</p>

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

STEM-**P**RO SRL
 Via San Giuliano, 43/A
 33070 PORDENONE (PN)
 Cap. e P.I. 01767090933
 PEC: stem-pro@pec.it
 C.U.: SUBM70N

LOT 3 – CIG 9410312320

1	2	3	4	5
ITEM CODE	DESCRIPTION	TECHNICAL SPECIFICATIONS	SPECIFICATIONS OFFERED	NOTES, DEVIATIONS OBSERVATIONS
C	MEDICAL DEVICE			
		Sturdy long-lasting mechanical switch.	yes	
		Light bulb 2.5 V Xenon.	yes	
		Batteries required, 2 x standard alkaline, dry cell batteries (type AA, 1.5V).	yes included	
		Supplied with one spare light bulb (2.5V Xenon).	yes	
MD35	TRIAL LENS SETS, OPHTALMIC		Clom/H - 232 lense	
		TRIAL LENSES/GLASS PRISMS/FRAME SET		
		Plastic rim with leather case	Yes	
		Small-aperture trial lens of high quality 266 pieces in aluminum alloy /leather case.	Yes	
		The color of the plastic ring: Red with the concave white black with convex.	Yes	
		The powers are carved on both sides of the handles according to the power label.	Yes	
		Spheres: 40 pairs of each concave and convex	Yes 34 pairs	0.12
		0.25D to 6.00D in 0.25 steps	Yes	0.25 to 4.00 in step of 0.25D
		6.50D to 10.00D in 0.50 steps	Yes	4.50 to 7.00 in step of 0.50D
		11.00D to 15.00D in 1.00 steps	Yes	8.00 to 16.00 in step of 1.00D
		16.00D to 20.00D in 2.00 steps	Yes	18.00 to 20.00 in step of 2.00D
		Cylinders: 20 pairs each of concave and convex	Yes 19 pairs	0.12

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
 A/A
 Via San Giuliano 43/A
 33171 RIVIERA DEL GARDONE (PN)
 C.F. 02170440033
 P.IVA 02170440033
 E-mail: sitem-pro@spec.it
 PEC: sitem-pro@pec.it
 U: SUBM70N

LOT 3 – CIG 9410312320

1	2	3	4	5
ITEM CODE	DESCRIPTION	TECHNICAL SPECIFICATIONS	SPECIFICATIONS OFFERED	NOTES, DEVIATIONS OBSERVATIONS
C	MEDICAL DEVICE			
		0.25D to 4.00D in 0.25 steps	Yes	0.25 to 3.50 in step of 0.25D
		4.50D to 6.00D in 0.50 steps	Yes	4.00 to 5.00 in step of 0.50D
		Prisms: 14 pieces	Yes 10 pairs	from 1° to 10°
		0.5 (2)	Yes	
		1.0 (2)	Yes	
		2.0 (2)	Yes	
		3.0 (2)	Yes	
		4.0 (2)	Yes	
		5.0	Yes	
		6.0	Yes	
		8.0	Yes	
		10.0	Yes	
		Accessories: 12 pieces	Yes	
		Cross cylinder (2),	Yes 10 pieces	
		white lens (2),	Yes	red filter,
		intersecting lens,	Yes	green filter,
		frosted lens,	Yes	stereopsis slit,
		wicker lens,	Yes	pin hole,
			Yes	STEM - PRO 9R Under.

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

ANNELEX
 Via San Giuliano (BON)
 33170 PORDENONE (IT)
 C.F. 01717000233
 PEC: ~~SPEDIZIONE@PORDENONE.GOV.IT~~
 C.O.: SUBM704

LOT 3 - CIG 9410312320

1	2	3	4	5
ITEM CODE	DESCRIPTION	TECHNICAL SPECIFICATIONS	SPECIFICATIONS OFFERED	NOTES, DEVIATIONS OBSERVATIONS
C	MEDICAL DEVICE			
		red lens,	Yes	frosted lens,
		green lens,	Yes	maddox,
		dark lens,	Yes	2 centering cross,
		hole lens,	Yes	neutral lens
		crack lens	Yes	
MD008	WEIGHTING SYSTEM, ADULT, WITH HEIGHT MES	Fazzini/S7200HR		
		Weighing scale, adult, physician, metric, 200Kgx100g	yes	
		Scale, physician, adult, metric, 6-200 kg - with altimeter	yes	
		Personal with height scale, heavy duty.	yes	
		To weigh up to 200kg x 100 gr.	yes	
		Personal weighing scale with column linking the weighting platform	yes	
		Features: - Mobile	yes	
		Persons / patients on scale can easily weigh themselves.	yes	
		Platform weighing unit with abase 30 x 35 cm (approx).	yes	
		Covered with or made of anti-slip material.	yes	
		Reading : Large with pointer in a strong casing.	yes	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

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SITEM-PRO SRL

Via San Giustino, 4/A
 33170 TORRENTE (PN)
 C.F. & P.I. 01757090933
 PEC: sitem-pro@tin.it
 C.U.: SUBM714



1	2	3	4	5	
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations	
D	MEDICAL EQUIPMENT				
02-AER	AEROSOL GENERATORS	Fazzini/F-205 + 05.5009 + 05.5010			
		Portable, compressor-driven nebulizer pump	yes		
		Easy to operate with sturdy design for use in demanding environment	yes		
		Positive pressure up to 0.9bar	yes		
		Cup capacity minimum 3ml to maximum 10ml	yes		
		Nebulization, approximately 0.1 to 0.2ml/minute	yes 2cc / 7min.		
		Residual volume maximum 2ml	yes		
		Flow delivery range (under load) 0.5 to maximum 15 L/minute	yes		
		Median Mass Aerodynamic Diameter (MMAD) of particles 0.5 to 4 um	yes		
		Operating temperature range 5 to 50C	yes		
		Operating relative humidity range up to 65%	yes		
		Compressor requires no maintenance and delivers oil-free flow	yes		
		Device, with carry handle, is provided with accessory storage compartment	yes		
		Power supply: A 220V-50Hz mono-phase electrical source with line connection European or SCHUKO plug	yes european		
		SITEM-PRO SRL			
		Via 39/A - 33170 PORDENONE (PN)			
		C.F. 02840100033			
		PEC: sitem-pro@tin.it			
		PEC U: SUBMISSION			
		ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER			

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SITEM-PRO SRL
 Via 39/A - 33170 PORDENONE (PN)
 C.F. 02840100033
 PEC: sitem-pro@tin.it
 PEC U: SUBMISSION

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
		Power consumption, approximately 80W	yes 185W	
		Supplied with:	yes	
		1 x Nebulizer atomiser body piece (dome)	yes	
		1 x Reusable mouth piece, paediatric size (fitting atomiser body piece)	yes	
		1 x Reusable mouth piece, adult size (fitting atomiser body piece)	yes	
		2 x Air delivery tubing, diameter approximately 6/9mm (inner/outer), length approximately 1m	yes	
		2 x Dosage cup	yes	
		1 x Reusable mask, size paediatric	yes box of 50 pcs	
		1 x Reusable mask, size adult	yes box of 50 pcs	
		5 x Spare inlet filters	yes	
		5 x Spare particle bacterial filters	yes	
		1 x Set of spare fuses	yes	
		1 x Instructions for assembly, use and maintenance in English language	yes	
02-DES	DEFIBRILLATORS, SEMIAUTOMATIC	Gima/353376		
		Max Energy discharge (up to 360J)	yes	
		Monitor Function, Pacing function	yes	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
 Via San Giuliano, 1
 33110 RONZONE (UD)
 C.F. 0187020037
 PEC: sitempro@pec.it
 C.U.: SUBM70N



LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
		Discharge from Paddles and from console 3-lead, AED, and Pacing with all accessories.	yes	
		Accessories Included:	yes	
		Rechargeable Battery, 3-lead ECG Cables w/ package of Electrodes, Multifunction Therapy Cable for "Hands Free" Defibrillation and pacing. External Hard Paddles, 50mm printer with paper, A/C Power Cord	yes	
02- DEU	DENTAL UNIT		Swidient/SW7701A + PR8701A + PR6002A + PR7051A + PR7074A +	
		Dental chair with Compressor (oil less, 24ltr air tank capacity.	air compressor Gentilin Smart 1.25	
		A modern, robust and reliable dental chair unit complete with the doctor unit and the assistant unit.	yes	
		The unit is to include in its design the hygiene center. The chair is to feature:		
		Electric driven chair (Preferable)	Yes with Trendelenburg	
		High density foam rubber upholstery	Yes, with seamless antibacterial upholstery	
		Auto zero position with at least four programmable positions	yes	
		Up/down backrest	yes	
		Built in safety switches	Yes, 3 safety switches; armchair pantograph PRO SRL	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

GREEN-PRO SRL
Via D. Giustiniani, 43/A
VIA DELLA FORTEZZA (IPN)
33110 UDINE (UD) Italy
C.F. 0100190033
P.IVA 0100190033
C.F. 0100190033
PEC: greenpro@pec.it
E.U.: SUBMISSION

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
		Multi function foot-switch	yes	
		Low heat halogen light with removable handle for sterilization	LED lamp with adjustable color temperature and intensity up to 50,000 lux	
		Two dental stools, 5 castors, revolvable, height adjustable with backrest	yes	
		The Dentist element is to have fibre optic light built in the handsets, and to feature;		
		High speed turbine, > 200,000 rpm with quick coupling	yes, power 28W - 320k rpm	
		Low speed micro-motor with two hand pieces, contra angle 1:1, straight 1:1	yes	
		High power ultrasonic scalar, regulated	yes with f.o. led	
		Three way water and air syringe	yes	
		Curing light	yes	
		Instrument tray	yes	
		Built in x-ray light viewer	yes	
		The assistant element is to feature:		
		Assistant control key switches	yes	
		High volume suction	yes	
		Low volume suction	yes	
		Cup filler	yes, timed	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
 Via San Giuliano, 43/A
 33170 PORDENONE (PN)
 C.F. e P.I. CIG 0290933
 PEC: sitem-pro@pec.it
 C.U.: SUPM70N

LOT 3 - CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
	Rinsing cuspidor	yes, timed		
	Built in automatic separator to be connected with a dry suction system	yes	bottle where to insert the disinfectant to be turned in the unit. From the operator tablet the electric switch is controlled to switch from mains water to bottled water	
	Automatic disinfection unit			
	Power line : 220 V ± 20% , 50 Hz.	yes		
02- ECG	ELECTROCARDIOGRAPHS, MULTICHANNEL,	Fazzini ECG1200A + F9060 + 2103025045 + ECG1200.04 (x5)		
	Mucichannel Electrocardiographic system	yes		
	Digital display, at least 100 Patient data storage.	yes 1/22 types of diagnostic results		
	Automatic/ Manual operation mode.	yes		
	Performs 12 standard leads analysis.	yes		
	Complete digital filters.	yes		
	Built in rechargeable battery working at least 2 hours.	yes		
	Electrode patient cable (4 clamps + 6 suction)	yes		
	Battery Back up	yes		
	Thermal head printer, 80 mm thermal paper (Z shape type).	yes Recording Z-folded paper for ECG1200/A 210mm*295mm-100 pages block		
	AC input voltage: 220 V ±20 % 50Hz.	yes		

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

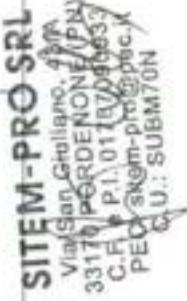
~~SITEM-PRO SRL~~

44

Sp. Giuliano (P.N.)
via Sp. Giuliano 3/A
33171 PORDENONE (P.N.)
tel. 0434/09333
P.T. 011/640690933
C.F. PEC: sitem-pro@pec.it
PEC: sitem-pro@ton
C.U.: SUBMISSION

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
		ANV alarm. Power failure , paper empty , electrode off,	yes	
		Standard speed and amplitudes	yes	
	ACCESSORIES:		yes	
	Power cord,		yes	
	Electrodes (for at least 500 examinations)		yes	
	Straps,		yes	
	paper (for at least 500 examinations)		yes	
	ECG gel (10 bottle 250 ml each)		yes	
	ECG cables with individually replaceable leads.		yes	
	Dedicated mobile cart, metal antistatic structure, with shelves and drawer, on wheels.		yes	
02-LISB	LIGHTS, SURGICAL, MOBILE, BATTERY	Technomed/TMI OMEGA 200 Mobile + battery		
		Mobile examination light with sturdy construction and easily moveable.	yes	
		Shall have heavy base with 5 swivelling casters	yes	
		Low centre of gravity for optimal stability and reach.	yes	
		Shall be single head LED light.	yes	

SITEM-PRO SRL

 Via San Giuliano, 1/A
 33117 PORDENONE (PN)
 C.F. P.I. 01180960353
 PED Sitem-pro@pic.it
 U. SUBM70N

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
		LED shall have life time more than 20,000 hours of operation.	yes >50000 Hrs.	
		Field-of-view diameter, approximately. 0.15m.	yes	
		Homogeneous illumination across entire field-of-view, approx. 60.000 lux (at 0.5m).	yes 80.000 Lux ±10%	
		Colour temperature, approximately: 4500K.	yes	
		Light head mounted on spring loaded articulating arm, height approx. 1.60m.	yes	
		On/off switch incorporated in base or spring loaded articulating arm.	yes	
		Dimming control knob	yes	
		Double wall lamp head housing ensure low surface temperature.	yes	
		Anti Shatter screen fitted to the front of the lamp housing.	yes	
		Accessories, spares parts	yes	
		· 1 x spare set of fuses.	yes	
		· 1 x spare of LED Lamp.	yes	
		Power supply	yes	
		Input power supply: 220/240 V AC , 50Hz single phase schuko plug	yes	
		Reversible overload and short circuit protection	yes	
				SITEM-PRO SRL
				SITEM-PRO SRL - A3/A Via San Giacomo 10 - 33100 Udine (PN) C.F. 010PDRD0U - P.I. 0290933 PEC: sitem-pro@pec.it PEC: sitem-pro@pec.it PEC: SUBMITON

LOT 3 - CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
02-SSUG	SCANNING SYSTEM, ULTRASONIC, GENERAL PURPOSE		Essoote/iMyLabTM Sigma	
		High performance, general Purpose ultrasound scanner	yes	
		System integrates scanner, 2 probes, matching trolley and video-printer	yes	
		Compact and lightweight, easy to transport and position	yes	Approximately 6.4 Kg with AC/DC power supply
		Alphanumeric keyboard with trackball and time gain control (TCG)	yes	8 TGC slide controls
		Piezoelectric probes, electronically scanned; convex and linear	yes	
		Imaging display modes: B, dual B, M, B and M	yes	B-Mode o M-Mode o 3D/4D o CFM o PW o CW
		Adjustable field-of-view, 6 level zoom	yes	Auto fit of composite image • Image Zoom • Merging Level – realigning • Frame marker • Colorize • Distance measurement • VPAN measurement capability > 60 cm • Images can be saved to the patient's file • CFM capability • Rotation/Pan/Zoom

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

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STEM-PRO SRL

Via San Giovanni, 43/A
 31100 PORDENONE (PN)
 O.F. P.I. 02200933
 PEC: stem-pro@pec.it
 C.U.: SUBMISSION



LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
		Imaging technologies: dynamic frequency imaging, multi-stage focusing, aperture control	yes	
		Depth range selection: convex sector image and linear image, 3 steps	yes	
		Image orientation: lateral and vertical inversion (in B mode)	yes image area fullscreenmode: 12,9° + image area standardmode: 9,7°	
		Freeze function with storage of approximately 25 images	yes	
		Self-test is performed each time the machine is switched on	yes	
		System reports, with audio-visual alert on: operational status and malfunctions	yes	
		Measurements and analysis:	yes	
		Calibre control: trackball	yes Trackball with two keys - PC mouse logic	
		B-mode image: distance, area and circumference by ellipse and trace	yes	
		method, volume, ratio, gestational age, foetal weight, angle	yes	
		Gestational table: user programmable	yes	
		M-mode: velocity, time interval, depth, heart rate, LV function	yes	
		Alpha-numerics & graphics:	yes	
		Text annotations and body markers	yes	SITEM-PRO SRL Via San Giuliano, 10/A 33171 PORDENONE (PN) C.F. n. P.I. 01740040332 Pec: ammpro@pabl.it C.U.: SUBM70N

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
		Automatic display of: date and time, focal point setting, image orientation indicator, image scrolled position, distance scale mark,	yes	
		M-mode time mark, grey scale for calibration	yes	
		Automatic display adjustment for settings: gain, near gain, far gain,	yes	
		frequency probe, puncture guide line	yes	
		High resolution BW monitor, approximately 25cm diagonal (across),	yes Monitor • 15,6" 16:9 Wide Screen full HD monitor • Resolution: 1920x1080 32bit • Colors: 16.7M • image area fullscreenmode: 12,9" • image area standardmode: 9,7" • Image Resolution o Ultrasound Image Matrix: 1120*800 o Brightness digital adjustment	
		equals to 10 inch, fit with reflection filter	yes	
		Image grey scale: 256 levels	yes 256 gray levels or B-color levels	
		Video output: 625 lines/frame	yes	
		Two transducer ports leave 2 probes permanently available, electronic switch between probes	yes	SITEM-PRO SRL

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations, Observations
D	MEDICAL EQUIPMENT			
		Data communication interface: RS232, BNC, IEEE, USB or equivalent	yes Connectivity • Compatibility with External 5T USB Hard disk • I/Os connectors o LAN RJ45 o 4 USB:	
		Power supply: 220V/50Hz	yes	
		Power consumption, system approximately: 1000W	yes Power consumption: ≤200 VA	
		Supplied with:		
		1 x Convex abdominal probe, frequency range: 2.5/3.5/5.0MHz	AC2541 - Convex Probe, iQ-appleprobe, Multifrequency, Wide Band	
		1 x Convex trans-vaginal probe, frequency range: 4.5/6.5/8.0MHz	SE3133 - Endocavity Probe, iQ, Multifrequency, Wide Band	
		2 x Bottle of ultrasound gel, approximately 350ml	3x Bottle of gel 250g	
		1 x Set of spare fuses	yes	
		1 x Plastic protective dustcover	yes	
		1 x Instructions for assembly, use and maintenance in English language	yes	
		Supplied with:		
		1 x Digital B/W video printer with data connection cable to ultrasound scanner:	Thermal B&W (USB,Composite) Printer SONY UP-X898 MD	
		Thermal printing head	yes	
		Resolution, approx.: 400dpi	325 dpi	
				SITEM-PRO SRL Via San Giudonio, 1/A 33110 RODENIGO (PN) C.F. 91231010090933 P.I. 010090933 E-mail: sitem-pro@pec.it Q.U.: SUBM70N

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
		Grey level gradations: 256	yes print quality with 325 dpi and grey level of 256 steps.	
		1 x Printer head cleaning sheet	yes	
		1 x Set 10 video printer paper rolls, length approx. 20m	yes	
		1 x Instructions for assembly, use and maintenance in English language	yes	
		Trolley	Trolley for MyLabOmega-Sigma	
02-	STERILIZING UNIT, STEAM, TABLETOP		Tecnogazi/2033S2 + 01001NPU + 2165S + SXBA349 + DANA049 +	
		GENERAL DESCRIPTION: Steam sterilizers that use pressurized steam to generate moist heat to eliminate viable microbes from non-heat-sensitive medical devices and products used for surgical and general patient care. Typical items to be sterilized include surgical instrument packs, surgical implants, irrigation fluids, devices intended for use by patients in isolation, and obstetric and dental instruments. Integral steam generators included, to be used within the hospital in operating suites and delivery areas.	yes	
		UMDNS: 16-142	yes	
		MODEL : Tabletop Steam Sterilizers	yes	
		CE MARK: Yes	yes	
		WATER RESERVOIR CAPACITY, L : 20	yes 18 liter	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
 San Giuliano, 43/A
 Via PORDENONE (PN)
 33170 (P.I.) 0434/930033
 C.F. 0434/930033
 PEC: sitempro@tin.it
 C.U.: SLGMI/124

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT	CONTROLLER:		
		Type: Automatic	yes	
		Programmable : Yes	yes	
		PREPROGRAMMED CYCLES : Wrapped, unwrapped	yes	
		CYCLE NUMBER, TYPE : Minimum 4; Wrapped, Unwrapped, flat, phons	yes	
		MINIMUM CYCLE TIME, min : 3	yes	
		AUTOMATIC CYCLE SHUTOFF : Yes	yes	
		TEMPERATURE RANGE, °C: 100-134	yes	
		OVERHEAT SHUTOFF: Yes	yes	
		AIR REMOVAL METHOD : Vacuum Pump	yes	
		PRESSURE PURGE : Yes	yes	
		CHAMBER:		
		Tray type : Perforated or mesh trays	yes	
		Number of trays : 2	yes	
		Material: Stainless steel 316	yes	
		DOOR:		
		Material: Stainless Steel	yes	
		Automatic Locking system: Yes	yes	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
SITEM-PRO SRL
Via Giardino 43/A
33170 BORDENPE (PN)52
C.F. 0176709003
PEC: item-pro@pec.it
G.U.: SUBMISSION

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
		ALARM CONDITIONS : Various	yes	
		Indicator type : Audible, visual	yes	
		DATA MANAGEMENT :		
		Recorder : Yes	yes	
		Data type : Temperature, pressure, time, date	yes	
		Printer : Preferably in built	yes	
		DISPLAY: LCD	yes	
		INSTALLATION : Yes	yes	
		POWER REQUIREMENTS: 220 V , 50 Hz	yes	
		ACCESSORIES:		
		Thermosealer: 1	yes 2165S ONE manual heat sealer	
		Reverse Osmosis system powered by the Autoclave: 1	yes O1001NPU PURE osmosis system	
		Rack, removable: 1	yes	
		Trays, large, removable: 2	yes	
		Power cord with European plug & suitable length: 1	yes	
		Paper rolls for data logger: 12 Rolls	yes ST800ZST THERMAL PAPER ROLL pack of 10	
		Packing rolls 15 cm with indicator: 4 Packs	yes packs 12 rolls (19 mm x 50 m)	SHEM - PRO SRL

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

VIA SAN GIULIANO, 4/1A
33170 PORDENONE (PN)
C.F. e P.I. 01167090023
PEC: sitempro@pac.it
E-mail: sitempro@pac.it

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	Description	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	MEDICAL EQUIPMENT			
		DOCUMENTATION: User and service manual's, two copies, hard and Soft, EN	yes	
		WARRANTY: 12 months warranty period	yes	
		AFTERSALE SERVICE:		
		Mandatory intervention per year: 3	yes	
		Spare parts availability: 5 years minimum	yes	
		TRAINING:		
		Duration, Days: 1	yes	
		Target groups: Technician, Nurses	yes	

SITEM-PRO SRL
 Via San Giuliano, 43/A
 33170 PORDENONE (PN)
 C.F. 032100000933
 PEC: sitem-pro@pec.it
 C.U.: SUBM7U4

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
E	INOX MEDICAL TOOLS			
10-077	DRUM, STERILIZING INOX LARGE	Drum, st. st., sterilizing , Large size stainless steel, cylindrical drum with perforated sides and airtight sliding shutter to cover perforations, hinged lid with lifting handle and lateral eclipses size approximately (35*36)cm	Fazzini//03.1035	
10-077	DRUM, STERILIZING INOX, MEDIUM	Drum, st. st., sterilizing , Medium size stainless steel, cylindrical drum with perforated sides and airtight sliding shutter to cover perforations, hinged lid with lifting handle and lateral eclipses. size approximately (25*36) cm	Fazzini//03.1021	
10-077	DRUM, STERILIZING INOX, SMALL	Drum, st. st., sterilizing , small size stainless steel, cylindrical drum	Fazzini//03.1008	

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
E	INOX MEDICAL TOOLS			
		with perforated sides and airtight sliding shutter to cover perforations,	yes	
		hinged lid with lifting handle and lateral eclipses,	yes	
		size approximately (15*36)cm	yes mm. ø 150 x 190 h	
06-070	FORCEPS, DESMARRES CHALAZION		Redai/RD-1798	
		Stainless steel, antirust, passivated Forcep Sterilized by autoclave	yes	
66	KIDNEY DISH, INOX, LARGE, WOUT/ LID		Fazzini//03.5282.00	
		Kidney Tray		
		Kidney-shaped bowls,	yes	
		Stainless steel kidney bowls 18/10.	yes	
		Sterilized by autoclave	yes	
		Size 20 x 8 x 4.5 cm.	yes without lid mm 250 ml. 550	
67	KIDNEY DISH, INOX, MEDIUM, WOUT/ LID		Fazzini//03.5281.20	
		Kidney-shaped bowls,	yes	
		Stainless steel kidney bowls 18/10.	yes	
				SITEM-PRO SRL

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

LOT 3 - CIG 9410312320

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
E	INOX MEDICAL TOOLS			
		Sterilized by autoclave	yes	
		Size 17 x 8 x 4.5 cm.	yes without lid mm 200 ml. 400	
68	KIDNEY DISH, INOX, SMALL, WOUT/LID		Fazzini//3.5281.00	
		Kidney-shaped bowls,	yes	
		Stainless steel kidney bowls 18/10,	yes	
		Sterilized by autoclave	yes	
		Size 10 x 6 x 4.5 cm.	yes with out lid mm 160 ml. 100	
71	RETRACTOR, VAGINAL, SIM		Fazzini//11.5120 + 11.5121 + 11.5122	
		Sim retractor, vaginal, set of 3 sizes, basic examination, suitable for EMOC service		
		• 1 x Sims vaginal speculum, small,	Fig.1 11.5120 60x25/30mm	
		• 1 x Sims vaginal speculum, medium,	Fig.2 11.5121 70x30/35mm	
		• 1 x Sims vaginal speculum, large,	Fig.3 11.5122 80x35/40mm	
		Stainless steel medical grade	yes	
72	SET, DELIVERY		Fazzini//11.1093 + 11.1172 + 11.2211 + 03.2183	
		Two Kocher forceps to clamp the umbilical cord (time needed to tie up)		
		1 pair of "episiotomy scissors"		
		1 pair of scissors to cut the umbilical cord.		

SITEM-PRO SRL

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U.: SUBMITON

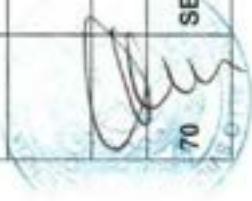
LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
E	INOX MEDICAL TOOLS	Kit contents:		
		1 x Scissors, Mayo, 140mm, cvd, blb	11.1093 mayo operating scissors curved cm 14,5	
		1 x Scissors,gyneco, 200mm, cvd, blb	11.1172 sims gynaecological scissors curved cm 20	
		2 x Forceps, artery, Kocher, 140mm, str	11.2211 rochester-ochsner haemostatic forceps straight toothed 1:2 cm 14	
69	SET, DENTAL, BASIC	Hand piece High-Speed Handpiece	Asidental & various	
		Low-Speed Handpiece	1 High-Speed Handpiece LY-H601 each 1	
			2 Low-Speed Handpiece SDI001637 each 1	
		Ball-Bearing Contra Angle Assembly (Latch)	3 Ball-Bearing Contra Angle Assembly (Latch) SDI001600 each 1	
			4 Prophy Contra Angle Head Assembly SDI000094 each 1	
		Prophy Contra Angle Head Assembly	5 Contra Angle Sheath CX235C3-8 each 1	
		Contra Angle Sheath	6 Straight Attachment 201SH-R4 each 1	
		Straight Attachment	7 Spray and Clean Handpiece Lubricant DT 10044207 each 1	
		Spray and Clean Handpiece Lubricant	Laryngeal Mirror	
			8 Dental Mirror #5 for Exam Kits 220E-5 each 1	
		Laryngeal Mirror	9 Mirror Handles for Exam Kits ML2101 each 1	
		Dental Mirror #5 for Exam Kits	10 Forceps Collins seizing 0560 each SITEM-PRO SRL	VIA SAN GIORGIO, 43/A 33100 PORDENONE (PN) C.R. 001.01.01000933 PEC: sitem-pro@pec.it P.C.U.: SUBM70N

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

58
 VITTO - San Giorgio, 43/A
 33100 PORDENONE (PN)
 C.R. 001.01.01000933
 PEC: sitem-pro@pec.it
 P.C.U.: SUBM70N

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
E	INOX MEDICAL TOOLS			
	Dental Scaler, double, hand instruments	11 Dental Scaler, double, hand instruments 1900-M23 each 1		
	Plaster Spatula, single, wood handle	12 Plaster Spatula, single, wood handle 5400-6 each 1		
	Plaster Spatula, double	13 Plaster Spatula, double 5113 each 1		
	Gum Scissors	Gum Scissors		
		14 Gum Scissors fox, serrated blade 13 cm 0304-3 each 1		
		15 Scissors, Iris 4 1/2" Straight, Economy 0305-1 each 1		
		16 Wax Knife, double 3 size 1804-D each 1		
	Other	Other		
	Cement Spatulas #24	17 Cement Spatulas #240900-2 each 1		
	Aspirating Syringe CW Type	18 Aspirating Syringe CW Type 0480-3 each 1		
	Composite Instruments, Set of 3	19 Composite Instruments, Set of 3 S1222-7 each 1		
	Rubber Dam Punch	20 Rubber Dam Punch 3032 each 1		
	Rubber Dam Clamps, Starter Kit	21 Rubber Dam Clamps, Starter Kit S2731-12 each 1		
	Plaster Double Spatula	22 Plaster Double Spatula 5400-2 each 1		
70	SET, DRESSING	Fazzinii/11.2211+ 11.2061+11.2464+11.2111+11.2411+11.1090 +  PRO SRL		

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEMA-PRO SRL
 Via Giuliano, 43/A
 33170 PORDENONE (PN)
 C.R.E.P.I. 0783/0092/0
 PEI - Stabilimento Spec. II
 SUDMI - ON

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
E	INOX MEDICAL TOOLS			
	Dressing Set			
	Forceps artery, approx. 12.5-14cm, 1 x 2 teeth, box joint, SS, e.g. Kocher straight 1	11.2211 rochester-ochsner haemostatic forceps straight toothed 1:2 cm 14, Q.ly... 1		
	Forceps, dissecting, Straight, 1x2 teeth, 130 mm 2	11.2061 thumb and tissue forceps toothed 1:2 cm 13..... Q.ly... 2		
	Forceps, sinus, 180mm 1	11.2464 lister sinus swab forceps cm 18 Q.ly... 1		
	Forceps, Dissecting, Straight, Plain, spring type, rounded tips, SS 115 mm 2	11.2111 adson thumb and tissue forceps toothed 1:2 cm 15, Q.ly... 2		
	Forceps, Sponge holding, straight, 200mm 1	11.2411 foester sponge holding forceps straight cm 20..... Q.ly... 1		
	Scissors, Mayo, Straight, 150mm 1	11.1090 mayo operating scissors straight cm 14.5..... Q.ly... 1		
	Scissors, dressing, Straight, 165mm 1	11.1252 lister bandage scissors cm 18..... Q.ly... 1		
	Scissors, ligature, Spencer, 110mm 1	11.1214 spencer ligature scissors cm 11..... Q.ly... 1		
	Bowl's, lotion, s/s, 5 liter 1	03.5260.00 round bowl diam.250 mm., 3500 ml Q.ly... 1		
	Bowl's, lotion, s/s, 0.2 liter 2	03.5255.00 round bowl diam.100 mm., 250 ml Q.ly... 2		
	Kidney Dish, 24cm 1	03.5282.00 kidney bowl's 250 mm., 550 ml Q.ly... 1		

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LOT 3 - CIG 9410312320

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
E	INOX MEDICAL TOOLS	Instrument container, s/s with cover, 300x200x50mm 1	03.2186 instr.boxes 320x150x60 mm. - capacity for bowls..... Q.ly... 1	
06-070	SET, EAR SYRINGE	<ul style="list-style-type: none"> • Ear syringe - stainless steel, 4oz capacity 100 ml, 2nozzles of varying sizes and plate. • Ear syringe piston ring to be renewal and should not have sharp edges. 	yes	Fazzini /11.9500
06-030	SET, GYNECOLOGICAL EXAMINATION	<ul style="list-style-type: none"> • 1 x Sponge holding forceps, 25 cm • 2 x Female catheters - straight and curved - each • 2 x Tissue forceps, teeth 1x2 - 25 cm • 2 x Dressing forceps, thumb standard tip, 25 cm 	<p>Fazzini /11.2412 + 11.6502 + 11.6503 + 11.2041 + 11.2005 + 3.2185</p> <p>11.2412 foester sponge holding forceps straight cm 25 - each 1</p> <p>11.6502 metal female catheter charm/g. 14 straight - each 1 + 11.6503 metal female catheter charm/g. 16 straight- each 1</p> <p>11.2041 potts-smith thumb and tissue forceps toothed 1:2 cm 21- each 2</p> <p>11.2005 thumb and tissue forceps cm 20 - each 2 +</p> <p>3.2185 instr.boxes 300x150x60 mm - each 1</p>	Fazzini/SET601
06-036	SET, SMALL FRAGMENT/FOREIGN BODIES		Forces for extraction of small fragments from eye; 4 pieces various shape and size indicative length from 7 cm to 15 cm	Bowman Decision Needle Curved 1

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
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 U. SLBM 7721

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
E	INOX MEDICAL TOOLS			
		Sterilized by autoclave	Bowman Decision Needle Straight 1 Meyhofer Curette 2 mm 1	
09-051	SPECULUM VAGINAL, CUSCO	Cusco speculum, instrument, set of 3 sizes, s/s	Fazzini//08.681 + 08.682 + 08.683	
		• 1 x Cusco vaginal speculum, large,	08.681 "CUSCO VAGINAL SPECULUM LATERAL SCREW MM 75X32, FIG. 1	
		• 1 x Cusco vaginal speculum, medium,	08.682 "CUSCO VAGINAL SPECULUM LATERAL SCREW MM 85X35, FIG. 2	
		• 1 x Cusco vaginal speculum, small, c/s	08.683 "CUSCO VAGINAL SPECULUM LATERAL SCREW MM 100X35, FIG. 3	
06-059	TRAY, INSTRUMENT, INOX, SMALL		Fazzini//03.2136	
		Approx. 17 x 13 x 0.5 mm	with two handles, side. mm 240x160x50 h	
		Rectangular with rounded corners.	yes	
		Stainless steel	yes	
		Smooth surface	yes	
06-059	TRAY, INSTRUMENT, INOX, LARGE		Fazzini//03.2137	
		General Information		
		To carry miscellaneous objects: surgical instruments, dressing materials, injection materials, etc.	yes	
		Specifications: Rectangular tray with rounded corners.	yes	
				SITEM-PRO SRL

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

DATA
 Via San Giustino 11 (P.N.)
 33170 PORDENONE (P.D.) 33
 C.F. 01017800269
 PEC: ~~Sitepro~~ PROSPER
 PEC: ~~Sitepro~~ SUBMISSION

LOT 3 – CIG 9410312320

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
E	INOX MEDICAL TOOLS			
		Stainless steel	yes	
		Smooth surface	yes	
		Recommended dimensions:	yes	
		- Length: 32cm	yes 30	
		- Width: 22cm	yes 18	
		- Height: 0.5cm	yes 0.65	
		Non-sterile	yes	

SITEM-PRO SRL
 Via San Giuliano, 43/A
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 C.F. n. RI-011800933
 PEC: sitem-pro@pec.it
 C.U.: SUBM70N

LOT 4 – CIG 94103133F3

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	RADIOGRAPHIC DIAGNOSTIC SYSTEMS			
02-RU-F	RADIOGRAPHIC SYSTEM, FILM, CONVENTIONAL			
1		GENERAL DESCRIPTION: Basic Radiographic System to provide high-quality images and to be safe to use, reliable, easy to maintain	Yes	
2		UMDNS 18-428		
3		CE MARK (MDD) Yes	Yes	
4		SYSTEM Basic Radiographic System, Analogic	Yes	
5		AEC Yes	yes, AEC	
6		EXAMINATION TABLE		
7		Radiography table shall be fixed height, 4-way floating top type with foot switch control.	Yes, fixed table, table top 4 floating way with foot switch controls	
8		Come with grid and cassette tray, with grid ratio: approx 8:1 or more. Grid line number: 40 line/cm. Focus distance: 15cm.	Yes, GRID R12/L110/F120	
9		Cassette size: accept all sizes from cassette 5" x 7" cm to 14" x 17" type.	Yes, Cassette size: accept all sizes from cassette 5" x 7" cm to 14" x 17" type.	
10		Table top dimension: approx. 2000 x 800 mm (LxW)	Yes, Dimension 220 x 80 cm	
11		Table movement arrested by electromagnetic brakes.	Yes, arrested by electromagnetic brakes	
12		EXAMINATION STAND		
13		Focus film distance (FFD) Variable from 100 to 200 cm approx.	Yes, on vertical wall stand bucky	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL

Giovanni Lanza
Via San Giorgio 10 (PN)
33040 ODERZO (PN)
C.R.B.: Sitem-pro Spec. It
P.C.C.: Sitem-pro Spec. It
I.U.: SUBM70N

LOT 4 – CIG 94103133F3

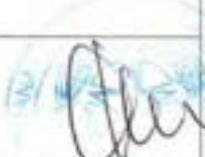
1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	RADIOGRAPHIC DIAGNOSTIC SYSTEMS			
14	Arm rotation ± 90° from vertical direction.	Yes, Manual, with pedal, stops every 90° (Slide x-rays with lateral cassette support.)		
15	Brakers Electromagnetic brakes for vertical and rotational movements.	Yes, Electromagnetic for all movements		
16	Light beam collimator Continuously variable from 18x18cm to 43x43cm	Yes, Light beam collimator Continuously variable from 18x18cm to 43x43cm		
17	Cassette size 14"x17", 10"x12", 8"x10"	Yes, Cassette size 14"x17", 10"x12", 8"x10"		
18	VERTICAL POTTER BUCKY			
19	Floor Standing	Yes, wall stand bucky with column on floor		
20	Grid Vibrating Grid with Aluminium as interspacig material: ratio 10:1, 40 lines/cm (103 lines/inch).	Yes, 110 Linch; 12:1; SID 180 cm		
21	Variable eight Yes	Yes, variable eight		
22	Lockable with brakes Yes	Yes, Electromagnetics		
23	Film to skin distance in cassette holder 2.6cm	4 cm		
24	X-RAY GENERATOR			
25	Type Multi-pulse X-ray generator with energy storage in a large capacitor located on the primary side of high-tension transformer.	yes		
26	High tension Rating, KV 40-125	Yes 40-125		
27	Nominal power rating, kW 30	Yes, kW 40		
28	Max Tube current 400 mA	Yes, 400 mA		
29	Shortest exposure time (s) 0.001s	Yes, 1 - 6300 ms		

LOT 4 - CIG 94103133F3

1 Item Code	2 DESCRIPTION	3 Technical Specifications	4 Specifications offered	5 Notes, Deviations Observations
D RADIOGRAPHIC DIAGNOSTIC SYSTEMS				
30	Exposure - mAs Values relation According to renard-10 series		Yes, 0.1 -500	
31	High Tension Ripple @ 100kV and 100 mA, % < 4		Yes, <1 kV @ 110 kV	
32	Tube Overload Protection system Yes (heating and tension)		yes	
33	Flash Over Protection Yes		yes	
34	X-RAY TUBE			
35	Type Rotating anode with rhenium-tungsten alloy.	Yes		
36	Nominal Voltage, KV 75		Yes 75 KV	
37	Focal spot, mm 0.6-1.2		Yes, 0.6-1.2	
38	Anode angle, ° 12/15		Yes, 12,5°	
39	Power rating @ 0.1s and 90/100 KV, kW 20/50		Yes, KW 20/50	
40	Filtration, mm Al 2.5		Yes, collimator Filtration, mm Al 2, 5	
41	GENERATOR CONTROL PANEL			
42	ON/OFF selector Yes	yes		
43	kV Selector Yes	yes		
44	mAs Selector Yes	yes		
45	Anode Rotation Yes	yes		
46	Exposure selector Yes	yes		

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

LOT 4 – CIG 94103133F3

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	RADIOGRAPHIC DIAGNOSTIC SYSTEMS			
47	Tube loading Light Yes		power LED	
48	Self standing Yes		yes	
49	POWER REQUIREMENT 1 phase 208/240 VAC ± 10%, 50/60 Hz		Yes, 1 phase 220 VAC ± 10%, 50/60 Hz	
50	Cables All connection cables included		yes	
51	ACCESSORIES			
52	Compression bands Yes		yes	
53	Handgrips Yes		yes	
54	Head clamps Yes		yes	
55	Footrest Yes		we considered the leg supports, because the "foot-rest" is needed only with remote controlled tables with tilt.	
56	Spare collimator bulbs Yes		Led light	
57	DOCUMENTATION User and service manuals, two copies, hard and Soft, EN		yes	
58	WARRANTY 12 months warranty period		yes	
			Option included; module Energy Assist A Power Source Evolution Power Assist allows users to employ high power generators using low power single phase power supply lines - ease of installation and ease on set-up cost.	
			CMR X-Ray, LLC Power Assist Unit Power Assist by CMR X-Ray (Patent US 9031198B2) allows users in multiple environments (e.g., hospitals,  PRO SRL	
			Option included:	Guarantees, 43/A Via San Giorgio, 10932 31100 PORDENONE (PN) C.F. 010093200932 PEC: silent-pro@pec.it U: SUBMITON

LOT 4 – CIG 94103133F3

1 Item Code	2 DESCRIPTION	3 Technical Specifications	4 Specifications offered	5 Notes, Deviations Observations
D	RADIOGRAPHIC DIAGNOSTIC SYSTEMS			
			mobile units, and more) easy access to power their high power generator with low power supply lines.	
59	AFTERSALE SERVICE			
60	Mandatory intervention per year Minimum of 1	yes		
61	Spare parts availability 5 years minimum	yes		
62	TRAINING			
63	Duration, Days 3 at the moment of installation	yes		
64	Target groups Technician, Radiographist, Medical Doctor, Nurses			
02-RU-T	RADIOGRAPHIC UNIT, DENTAL, INTRAORAL	TRIDENT//RIX-70 DC		
1	A 220V, 50Hz mono-phase electrical source with line connection plug european or Shuko type.	yes	230 V	
2	Protections against over-voltage and over-current line conditions.	yes		
3	Compliance with applicable medical international standards and medical device regulations.	yes		
4	Operational characteristics	yes		
5	Mounted on at least four antistatic castor wheels with at least two brakes.	yes		
6	Shall be light weight and compact.	yes		
7	Support arm shall be flexible, stable, with wide operating radius.	yes		

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
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PEGLI: SUBW7UN

LOT 4 – CIG 94103133F3

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	RADIOGRAPHIC DIAGNOSTIC SYSTEMS			
8		Equipped with focal cone of approximately 20 cm.	yes	
9		The unit shall be protected from leakage radiation in accordance with international standards and the high voltage transformer shall be fully insulated.	yes	Leakage radiation at 1 m <0,1 mGy/h
10		A control unit with a command cable of not less than 4m; this unit shall contain a power indicator light, an x-ray indicator light, an exposure time scale selector and an on/off switch.	yes	3MT CABLE, can be replaced with a longer one
11		The control shall have pre-programmed exposure time which can be adjusted to suit all standard commercially available film speed categories.	yes	
12		Optical focal point no greater than 0,8 x 0,8 mm.	yes	0,7 mm
13		Total inherent filtration: Equivalent to 2 mmAl.	yes	≥2,1mmAl
14		X-Ray generator with highest voltage not less than 70Kvp.	yes	70 KV
15		Exposure current at least 7 mA.	yes	
16		Wide exposure time range, not less than from 0,04 to 3,2 s.	yes	0,06 - 2 s
17		AFTERSALE SERVICE		
18		Mandatory intervention per year Minimum of 1	supplied by dealer	
19		TRAINING	supplied by dealer	
20		Duration, Days 1 per facility at the moment of installation	supplied by dealer	

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
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 U: SUBMISSION

LOT 4 - CIG 94103133F3

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	RADIOGRAPHIC DIAGNOSTIC SYSTEMS			
02-XCRS	X-RAY, COMPUTER RADIOGRAPHIC SYSTEM			
1		Computed Radiographic System for visualization of X ray cassette obtained from BRS. High-resolution output, anatomic algorithms, easy to use, complete with monitor, keyboard and Mouse and capable to network connections.	CR 30-Xm + Set cassettes AGFA/CR 30-Xm + Set cassettes	
2		Cassette sizes :14"x17"/14"x11"x14"x10"x12"x8"x10"/18x24cm/24x30cm/15x30cm	yes	
3		Maximum resolution 4020 x 4892	4.710 x 5.844	
4		Throughput 25 or 45 plates per hour (14" x 17")	60	
5		Server platform	NX is not a server by definition even if can store the images	
		Image Access time: < 35s	yes timing depends on type of image	
6	CONSOLLE			
7		Display: 19 " touch screen monitor, keyboard, mouse	Display: 22 " touch screen monitor, keyboard, mouse	
8		Hard device capacity 5000GB (1x500GB)	1TB	
9		RAM 4GB	8GB	
10		OS Windows 7 Professional 32-bit	Windows 10	
11		Workflow: Image to Printer, Image to DVD Writer	yes	
12		DVD Writer: Included in the system	yes	
13		Connectivity: capable to connect to PACS	yes	
				SITEM-PRO SRL

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
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 Q.U.: SUMMIT

LOT 4 - CIG 94103133F3

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	RADIOGRAPHIC DIAGNOSTIC SYSTEMS			
14	Image processing : Automatic Gradation Processing (G processing)	yes		
15	Frequency Processing (F processing)	yes		
16	Equalization Processing (E processing)	yes		
17	Hybrid Processing (H processing)	yes		
18	Image storage capacity : Approximately 5,000 images	16000		
19	Power source PC: AC 100–240V; 50/60 Hz	yes		
20	Heat generation :PC: Approximately 160 Watts or 548.8 BTU	132 BTU/HR		
21	Operation condition : Temperature 20°C – 35°C	CR: 15-30°C Console: 10-40°C		
22	AFTERSALE SERVICE			
23	Mandatory intervention per year Minimum of 1	Only spare parts for 1 year with delivery in Italy		
24	TRAINING			
25	Duration, Days 1 per facility at the moment of installation	ok		
02-XPRX	X-RAY, FILM PRINTER, TABLETOP	AGFA/DRYSTAR AXYS		
1	Laser exposure thermal development system	Thermal printer		
2	Applicable film, DI-HL (blue base)	yes		
3	35 x 43 cm (14" x 17")	yes		
4	35 x 35 cm (14" x 14")	yes		

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

SITEM-PRO SRL
 Via Giuliano, 1/A
 33170 PORDENONE (PN)
 C.F. 01700933012
 PEC: sitem-pro@pec.it
 C.C.: SUBM7IN

LOT 4 – CIG 94103133F3

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	RADIOGRAPHIC DIAGNOSTIC SYSTEMS			
5		Daylight film loading	yes	
6		2 trays (5 sizes of film are available by changing film trays)	yes	
7		Processing capacity : Approx. 80 sheets/hour 35 x 43 cm (14" x 17")	75 sheets/hour 35 x 43 cm (14" x 17")	
8		Automatic density adjustment	yes	
9	AFTERSALE SERVICE			
10	Mandatory intervention per year Minimum of 1	Only spare parts for 1 year with delivery in Italy		
11	TRAINING			
12	Duration, Days 1 per facility at the moment of installation	ok		
02-XREP	X-RAY, FILM PROCESSOR, DENTAL			<p>VELOPEX/INTRA-X Processor</p> <p>Processes all sizes of film from intra-oral, (size 0 22 x 35mm), to panoramic and cephalometric (full skull size 240 x 300mm). High quality, achievable radiographs are delivered dry in five minutes. Endodontic films may be viewed wet after only two minutes 30 seconds. Easy-to-use daylight loader (optional) eliminates the need for a darkroom. Films are processed automatically on insertion of the film.</p> <p>Unique film transport system ensures consistently excellent results. Electronic management system shows machine status and help codes. Compact dimensions, simple installation and minimal servicing.</p> <p>SITEM-PRO SRL</p> <p>Via San Giuliano, 4/A 33110 PORDENONE (PN) C.F. P-B-917010000933 PEC: sitem-pro@pec.it C.U.: SUBM70N</p>

LOT 4 – CIG 94103133F3

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	RADIOGRAPHIC DIAGNOSTIC SYSTEMS			
2		1000x600mm, 900x600mm	Width 60 cm length 100 cm	

SITEM-PRO SRL
 Via San Giuliano, 3/A
 33070 PORDENONE (PN)
 C.F. e P.I. 07770000033
 P.I.G.-sitempro@tin.it
 C.U.: SUBM70N

LOT 4 – CIG 94103133F3

1	2	3	4	5
Item Code	DESCRIPTION	Technical Specifications	Specifications offered	Notes, Deviations Observations
D	RADIOGRAPHIC DIAGNOSTIC SYSTEMS			
1	A 220V, 50Hz mono-phase electrical source with line connection plug european or Shuko type.			
2	Protections against over-voltage and over-current line conditions.	yes		
3	Compliance with applicable medical international standards and medical device regulations.	yes		
4	Operational characteristics			
5	Shall be compact and easy to operate	yes		
6	Shall be tabletop model.	yes		
7	To handle intraoral films only.	yes		
8	Shall not require darkroom, with daylight loader integrated.	yes		
9	Auto-start X-ray film processor	yes		
10	AFTERSALE SERVICE			
11	Mandatory intervention per year Minimum of 1	yes		
12	TRAINING			
13	Duration, Days 1 per facility at the moment of installation	yes		
56	X-RAY PROTECTION DEVICES, SET X PERSON			
	Lead Apron -0.5 thickness			
56	CABLAS//KGB10-100	Front protection PB 0.50 mm rear protection PB 0.25 mm		
56	PRO SRL			

ANNEX II + III. TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

73

SITEM-PRO SRL
 Giuliano (1971) A
 Via San Giordano 15/PN
 33170 PORDENONE (PN)
 C.F. e P.I. 01780560932
 PEC: sitem-pro@ec.it
 C.U. SUBM70N



Mirka Family

Fully-automated Clinical Chemistry Analysers
Catalogue of Products

ISE

CUSTOMISED SOLUTIONS
FOR YOUR LABORATORY



Mira Family

Fully-automated Clinical Chemistry Analyser

Mira One

Fully-automated
Clinical Chemistry Analyser
up to 180 tests/hour



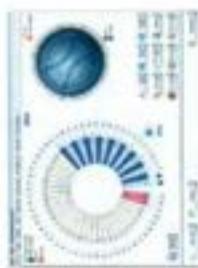
Mira 200

Fully-automated
Clinical Chemistry Analyser
up to 420 tests/hour



Mira

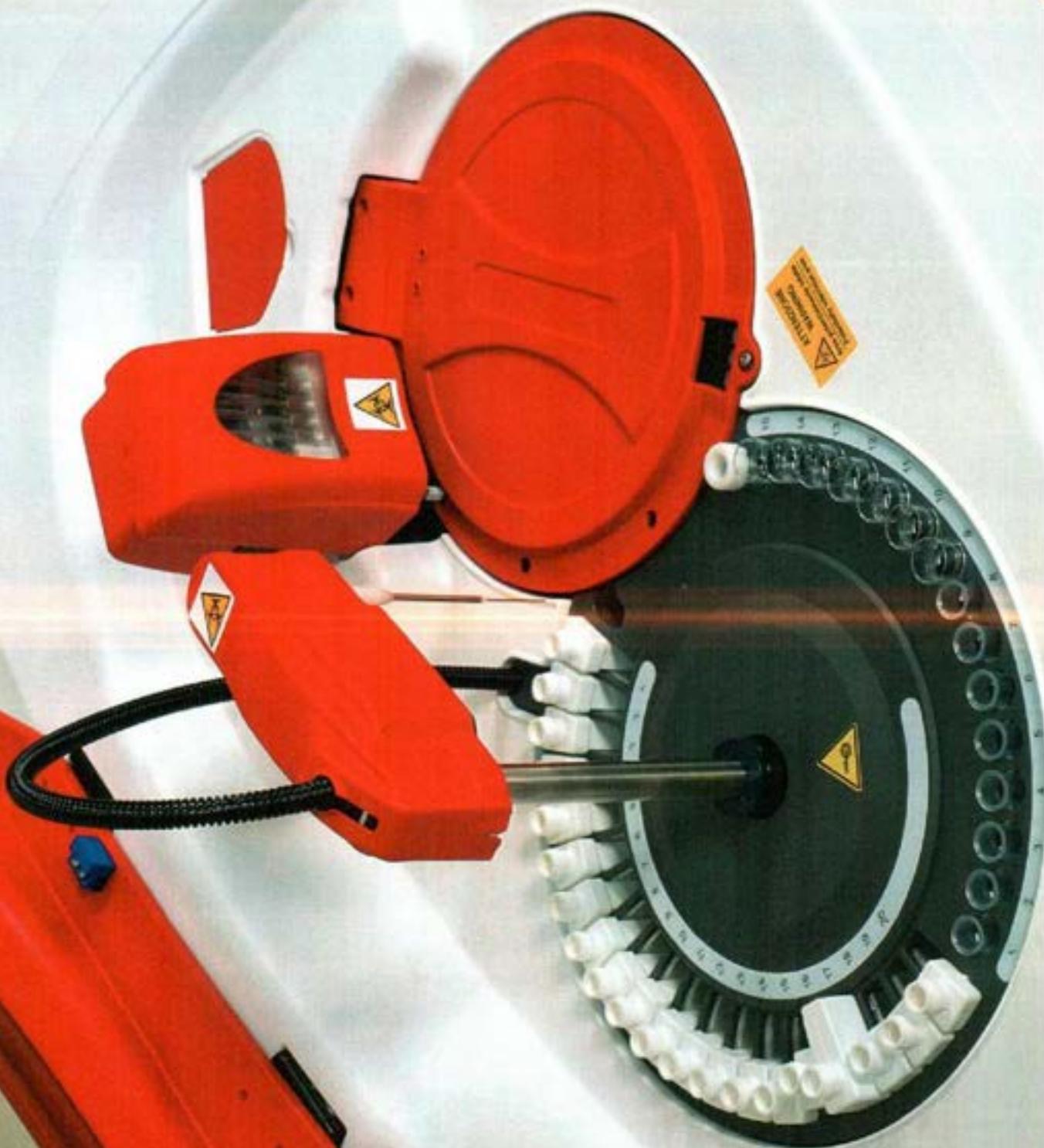
Fully-automated
Clinical Chemistry Analyser
up to 500 tests/hour



SOFTWARE

REAGENTS

MIURA ONE



Alen

PURE RANDOM ACCESS

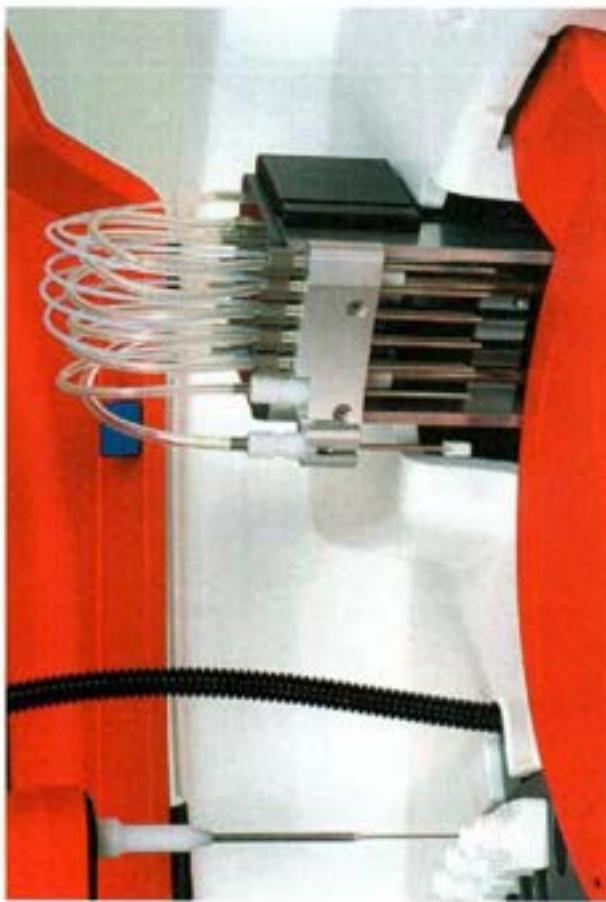
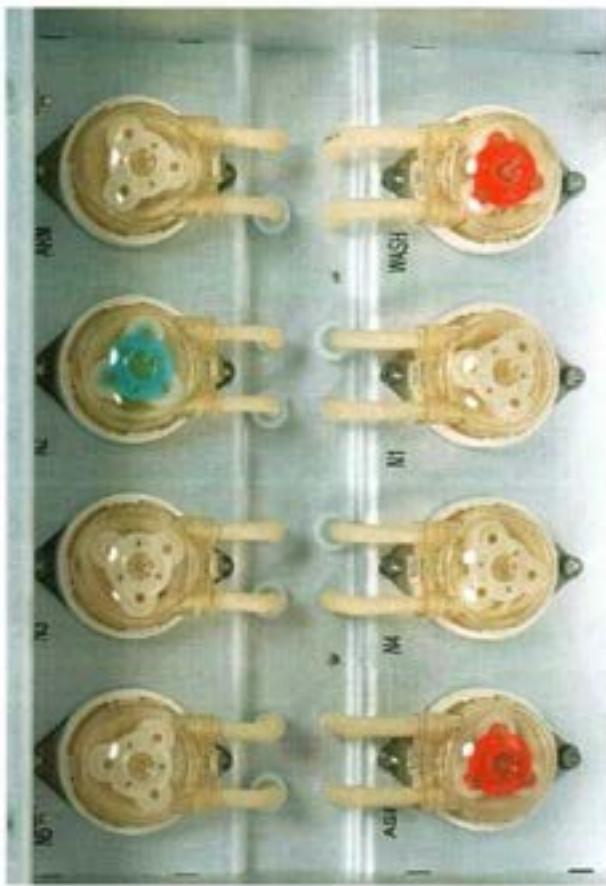


Miura One

Fully-automated Clinical Chemistry Analyser
up to 180 tests / hour with ISE module on board

- Miura One is a small yet smart random access, fully automated analyser.
- Miura One is designed to meet the requests of labs, doctor offices, clinics and veterinary labs.
- 2 different reagents/samples configuration.
- 19 reagents on board with 50ml R1 vials and/or 20ml R2 vials plus 9 samples plus diluent.
- 19 reagents on board with 35ml vials and/or 15ml R2 vials plus 15 samples plus diluent.
- Integrated ISE module for Na⁺, K⁺, Li⁺, Cl⁻ in serum, plasma and diluted urine (optional).
- Integrated washing station.
- Integrated level and shock sensor for samples and reagents.
- Integrated positive identification for samples and reagents.
- Integrated micro metering diluter.
- No glass syringe.
- 2 years warranty.
- Miura One is 100% developed and produced in Italy.

MIURA ONE



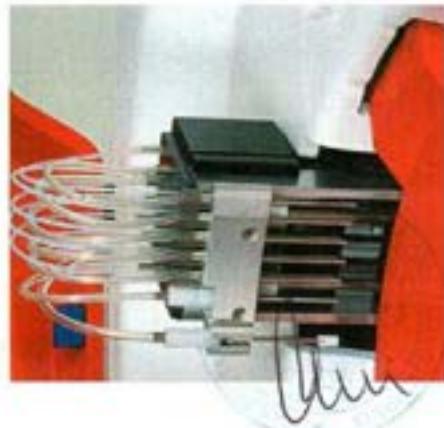
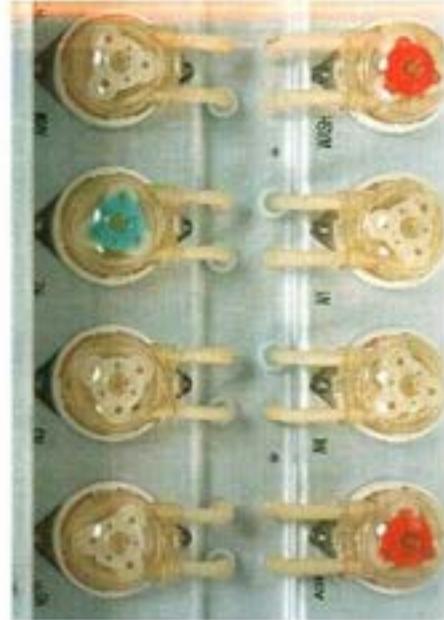
TECHNICAL SPECIFICATIONS

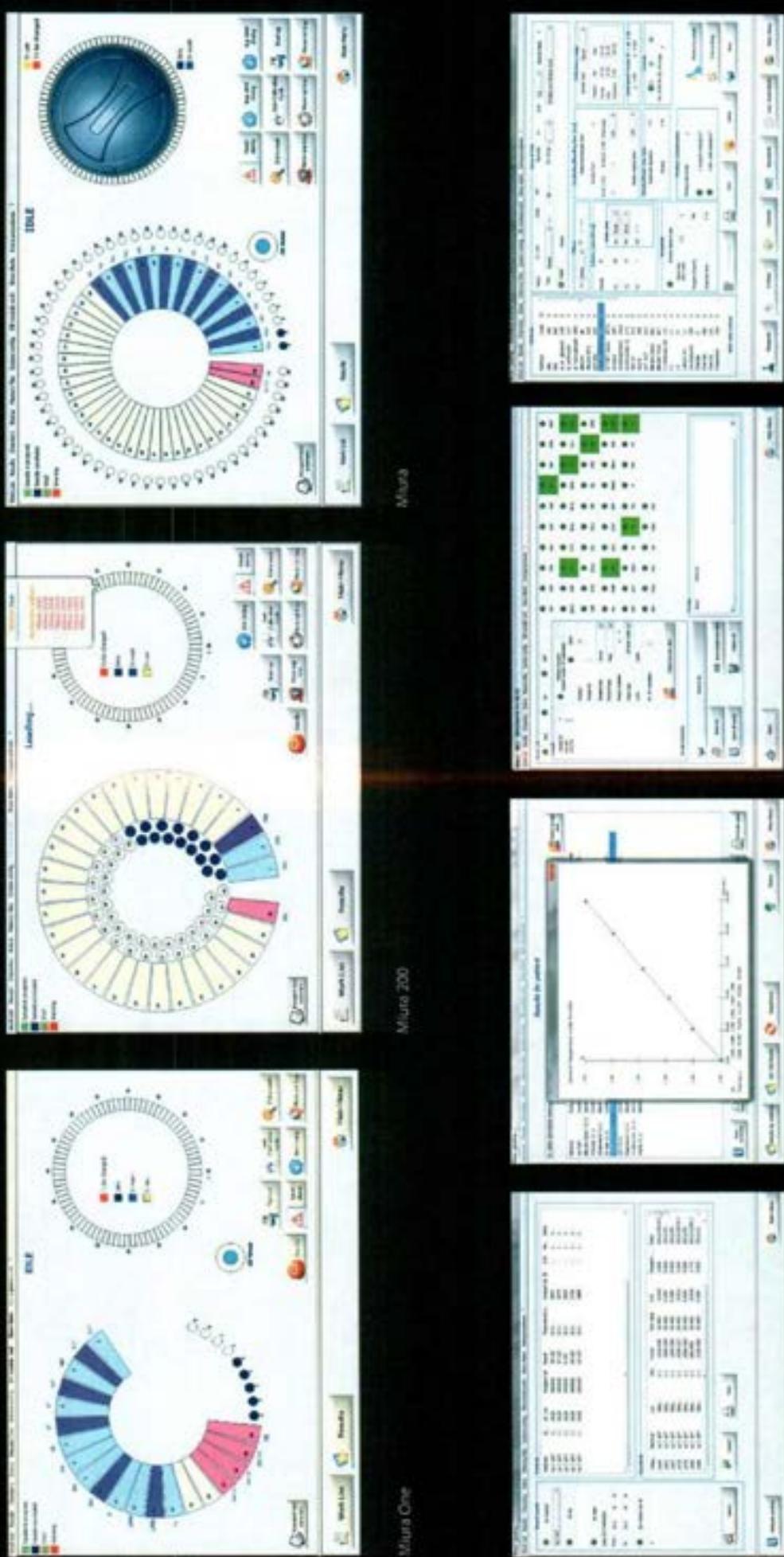


- Up to 180 tests per hour with ISE module on board.
- Up to 100 photometric tests per hour.
- Analytical methods: end point mono or bichromatic, fixed time, kinetic, differential sample blank.
- ISE module for: Na⁺, K⁺, Li⁺, Cl⁻ in serum, plasma and diluted urine (optional).
- 19 parameters on line plus diluent with 50ml R1 / 20ml R2 vials.
- 19 parameters on line plus diluent with 35ml R1 / 15ml R2 vials.
- Mono, double, triple reagents method.
- Reaction temperature: +37°C ± 1°C.
- 9/15 sample/calibrator/control positions on primary tubes (Ø12+13mm x 75/85mm) and sample cups (3ml).

- Automatic dilution of the samples.
- Calibration with linear/non linear curves up to 8 points, auto dilution of the calibration curve (linear regression, linear piece-wise, cubic spline, polynomial).
- Control menu with Levy-Jennings plot.
- Barcode reader integrated for samples and reagents (optional).
- Arm equipped with liquid level detector (capacitive) and shock sensor.
- High Precision Micro-mechanical pump to dispense reagents and samples (no syringe).
- Reagent volume: 1+400 microliters.
- Sample volume: 1+300 microliters.
- Typical reaction volume: 200-250 microliters.
- Wavelengths on-board: 8 from 340nm to 700nm plus one free position.
- Light source: Long life halogen lamp (2000 hours).
- Photometric linearity: 0+3.0 OD.
- Reading cuvette: 80 on-board re-washable made in Bioneer®.
- Cuvette washing: automatic washing station.
- Water consumption: 1½ liters per hour.
- Reagent cooler: 14°C below ambient temperature.
- All in one touch screen computer.
- LIS: Bi-directional connection.
- Operative system: MS Windows®.
- Environment temperature 16-32°C.
- Dimensions: 83x62x64 cm.
- Weight: 42 kg.

Miura ONE





MIURA FAMILY SOFTWARE

MAKES YOUR LIFE EASIER IN THE LAB

Miura Family software, developed by ISE Group, is MS Windows® based software that is designed to give you an 'ease of use experience' with all our fully automated Miura analysers.

Miura software provides you with instant flexibility, fast programming sample routine in combination with different test profiles next to monitoring of daily test routines as well for fast lookup about patient history test data, it are all standard features in this straightforward and undemanding operator software.

Visualization of work sessions will give you an easy and clear insight in a split second. Combined with maximum flexibility in programming, the user can have a fast introduction of new methods and applications to a maximum grade of freedom. A virtually unlimited number of test protocols and test data is automatically storable and accessible to the Miura system. Neat panel draw ups provide the operator a maximum choice for his needs.

Only One training session on Miura operational software, will be sufficient for understanding and getting started with smoothly operating all models of our Miura automated analysers: a training session that reduce your service costs!

Main software characteristics:

- Programmable instrument stand-by and wake-up functionality.
- Intuitive, modern and 'ease of use' graphical user interface that guides the user hassle free through all operations.
- Display of quality control levels with Levy-Jennings graphics.
- Fully bidirectional LIS support with or without Host/Query.
- Smart visualization from all types of calibrations.
- Self-diagnosis and alarm procedures are an integral part of the Miura software.
- Custom made profiles for easy operation.
- Powerful and expandable archive for patients test result, including standards and QC results.
- Active monitoring of reagents and main instrument liquid levels.
- Compact maintenance module active on demand.



STABLE LIQUID REAGENTS



- The Miura family wants to simplify your routine work.
ISE Group offers a complete CE marked reagent panel (mono or bi-reagent) ready to use.
- Positive identification of reagents gives the end user the assurance to work without compromises on quality.
- Twenty-eight parameters for enzymes and substrates, with application on serum, plasma and urine, based on the most advanced research in clinical chemistry following international recommendations (IFCC).
- Twenty-eight parameters for specific protein, with application on serum, plasma and urine, standardized with 5-point calibration curve.

CLINICAL CHEMISTRY REAGENT KITS

A-RD100000001	ALBUMIN BCG	A-RD20000003401	CK MB SL	A-RD2000000500	IRON
A-RD2000001001	ALT / GPT SL	A-RD2000000301	CK NAC SL	A-RD2000000801	MAGNESIUM
A-RD2000000001	ALP (DEA) SL	A-RD2000000501	CREATININE	A-RD1000000701	PHOSPHOROUS UV
A-RD2000000001	AMYLASE	A-RD2000000601	GAMMA GT SL	A-RD1000000801	TOTAL PROTEIN
A-RD2000001101	AST / GOT SL	A-RD1000000601	GLUCOSE PAP	A-RD1000000901	TRIGLYCERIDES
A-RD1000002001	BILIRUBIN DIRECT	A-RD2000001301	HDL CHOLESTEROL	A-RD2000000901	UREA UV SL.
A-RD1000001001	BILIRUBIN TOTAL	A-RD200001401	LDL CHOLESTEROL	A-RD1000011001	URIC ACID
A-RD1000003001	CALCIUM ARSENazo	A-RD200001201	LDH-P SL	A-RD200000400	CHOLINESTERASE
A-RD1000005001	CHOLESTEROL PAP				

TURBIDIMETRY REAGENT KITS

A-RI100000101	ALBUMIN	A-RI1000002001	CERULOPLASMIN	A-RI1000003601	IgM
A-RI100001401	ALFA-1 - ACID GLYCOPROTEIN	A-RI1000002601	COMPLEMENT C3	A-RI1000003701	KAPPA LIGHT CHAIN
A-RI100001301	ALFA-1 - ANTITRYPSIN	A-RI1000003201	COMPLEMENT C4	A-RI1000003801	LAMBDA LIGHT CHAIN
A-RI100002201	ALFA-2 MACROGLOBULIN	A-RI1000004001	CRP	A-RI1000002901	LIPOPROTEIN (A)
A-RI100002501	ANTITHROMBIN III	A-RI1000003301	FIBRINOGEN	A-RI1000003901	MICROALBUMIN
A-RI1000002001	APOLIPO PROTEIN A1	A-RI1000000601	HAPTOGLOBIN	A-RI1000003001	PREADBUMIN
A-RI1000003001	APOLIPO PROTEIN B	A-RI1000003401	IgA	A-RI100004201	TRANSFERRIN
A-RI100001901	C1 ESTERASE INHIBITOR	A-RI1000003501	IgG		

LATEX REAGENT KITS

A-RI100004401	ANTI-STREPTOLYSIN O	A-RD2000000900	HBsAg
A-RI100001801	BETA 2 - MICROGLOBULIN	A-RD4000000006	MULTICALIBRATOR
A-RI100004301	FERRITIN	A-RD4000000006	NORMAL CONTROL SERUM
A-RI100004101	RHEUMATOID FACTOR	A-RD400000106	PATHOLOGICAL CONTROL SERUM

HI-ABC REAGENT KIT

A-RD3000000006	MULTICALIBRATOR
A-RD4000000006	NORMAL CONTROL SERUM
A-RD400000106	PATHOLOGICAL CONTROL SERUM

GENERIC CALIBRATORS & CONTROLS

A-RD3000000006	MULTICALIBRATOR
A-RD4000000006	NORMAL CONTROL SERUM
A-RD400000106	PATHOLOGICAL CONTROL SERUM

R&D and Production:

I.S.E. S.r.l.
Via Luigi Einaudi, 7
Guidonia Montecelio
00012 Rome, Italy

Tel: +39 0774 579 365
Fax: +39 0774 353 085

I.S.E. is a dynamic company specialised in development and manufacturing of Laboratory Analysers and associated Reagents.

I.S.E. is an ISO 9001:2015 and ISO 13485:2016 certified company and all our products are CE marked. Several other certifications available.



www.logotech-ise.com

I.S.E. have thousands of solutions installed worldwide. I.S.E. provides to our customers high end, high quality and reliable solutions of Analysers and Reagents.

Ease of use, combined with minimal operating requirements makes I.S.E. systems the best choice for any laboratory.



We are dedicated to customer satisfaction and will do the utmost to respond quickly to your needs.



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Fax: +39 0774 579 085

Technical service:
service@logotech-ise.com
Tel: +39 0774 579 364

AS950

Electrolyte Analyzer



FEATURES

AS950

Electrolyte Analyzer

Quickest to the Best

Main Features

Throughput: 100 samples/hour
Sample type: Whole blood, serum, plasma, urine(diluted)
Principle: ISE(Direct Ion Selective Electrode)
7-inch color touch screen
Simple work-flow
Auto loader (optional)

Auto sampler (optional)

32 positions in total
(1 for deprotein, 3 for QC, 5 for STAT)
Built-in barcode scanner
Applicable for various tubes



Reagent

All-in-one solution pack
(150test/kit, 300test/kit, 450test/kit)
Long shelf-life up to 2 years

Urine dilution
3-level QC

Technical Specifications

Sample volume: 60-200 μ L
Calibration Mode: two-point and single-point
Closed system, real-time monitoring reagent
Auto cleaning for probe interior and exterior
Liquid level detection
Printer: Internal thermal printer
Storage: Up to 50,000 results
Interface: RS-232, LAN, USB

Other Specifications

Working temperature: 15-30°C
Humidity: 20%-80%
Device dimension: 330mm×235mm×439mm
Auto sampler dimension: 245mm×230mm×125mm
Power: AC 100-240V, 50/60 Hz, 200VA
Device net weight: 7.5kg
Auto loader net weight: 2.0kg

Various Item Combination

K⁺, Na⁺
K⁺, Na⁺, Cl⁻
K⁺, Na⁺, iCa²⁺
K⁺, Na⁺, Cl⁻, Li⁺
K⁺, Na⁺, Cl⁻, iCa²⁺
K⁺, Na⁺, Cl⁻, iCa²⁺, pH
K⁺, Na⁺, Cl⁻, iCa²⁺, Li⁺, Mg²⁺, pH

Performance

Ion	Measurement (mmol/L)	Linearity (mmol/L)
K ⁺	0.3-20.0	1.5-7.5
Na ⁺	20.0-200.0	100-180
Cl ⁻	20.0-200.0	80-160
iCa ²⁺	0.1-6.0	0.5-2.5
Li ⁺	0.2-5.0	0.5-2.5
Mg ²⁺	0.1-6.0	0.7-2.5
pH	3.0-11.0	6.8-7.8

ASSEL S.r.l.

Add: Via E. Barsanti, 8-13/A Guidonia-Montecelio 00012 (RM)
Tel: 0774.357492 - 0774.374176 Fax: 0774.372179 - 0774.379190
Email: info@asseitaly.eu Website: www.asseitaly.eu



HemoCue® Glucose 201 DM RT System



Efficient and Secure Workflow with Data Management and Connectivity

With its unique cuvette technology, the HemoCue® Glucose 201 DM RT system gives you the highest accuracy at the point of care while reducing the risk of spreading infection. Plus, you have the added controls and productivity means made possible with advanced data management. With instant data connection, customizable prompts and more, you gain tighter control of authorized use and higher efficiency in everything from patient management to billing.

Accuracy Starts With Us



To learn more about HemoCue® Glucose 201 DM RT System, please scan the QR-code with your smartphone or visit hemocue.com

Enables the Highest Accuracy With the Lowest Risk

- Used for screening, monitoring and diagnosis of diabetes mellitus
- Microcuvette technology means no need to bring analyzer near patients, reducing the risk of spreading infection
- Individually wrapped microcuvettes to avoid contamination and maximize shelf-life

Safeguards Patient Testing and Data

- Customizable automatic prompts for patient ID, operator ID, lot numbers, etc.
- User login and lockout functions
- Quality control tests, including QC lockout, linearity and proficiency testing

Offers Convenience and Efficiency

- Handheld and battery-operated system with room temperature microcuvette storage, ideal for mobile settings
- Automatic transfer of results
- Reduced manual entry errors

HEMO^{CUE}

Oliver

HemoCue® Glucose 201 DM RT System

Components

- Analyzer
- Docking station (primary, secondary)
- Microcuvettes (individually packed)

Patient Safety Features

- Certified operator log-in
- Barcode scanning of Patient ID, etc.
- QC management such as lockout
- STAT test
- Duplicate sampling
- Automatic result transfer
- Patient list from Middleware/LIS/HIS
- Supervisory lockout

Workflow Features

- Operator management
- Barcode scanning
- Supervisory lockout
- Middleware integration
- Docking station flexibility
- E-learning integration
- QC management incl. linearity and proficiency testing
- Detailed result management

Analyzer

- Easy-to-use touch display
- Built-in barcode scanner
- Stores 4,000 Patient/STAT tests, 500 QC tests and 500 Analyzer Logs
- Compliance with POCT1-A (CLSI standard)

Docking Station

- Network communication with a pre-defined destination (PC or Data Management Server) via the primary docking station
- Recharges analyzer battery while analyzer is docked
- Allows measurements to be performed while analyzer is docked
- Up to 4 secondary docking stations can be connected to one primary docking station
- Only one LAN connector per up to five analyzers

Software

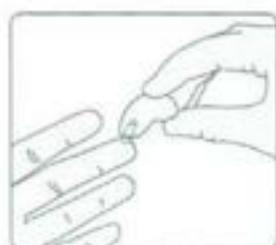
- Generates Patient and QC reports
- Remote management of analyzer
- Allows downloading of patient and QC data
- Management of operator lists, control lots, etc.
- Allows downloading of analyzer configurations
- Can forward measurements to host system using CLSI POCT1-A

Training

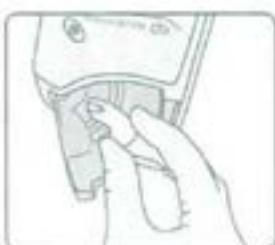
- Interactive E-learning for operator certification
- Integration with analyzer and software for seamless workflow
- Customizable certification quiz



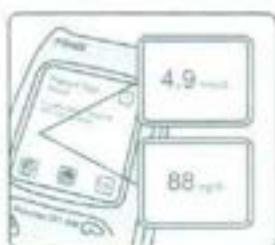
A Few Simple Steps



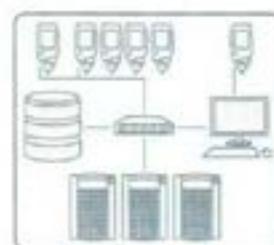
1 Fill microcuvette.



2 Place microcuvette into analyzer.



3 View results (either in mmol/L or mg/dL).

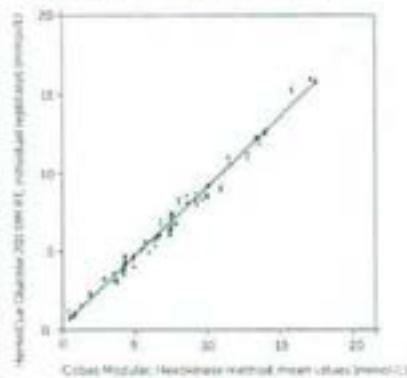


4 Seamlessly interface with your network.

Technical Specifications

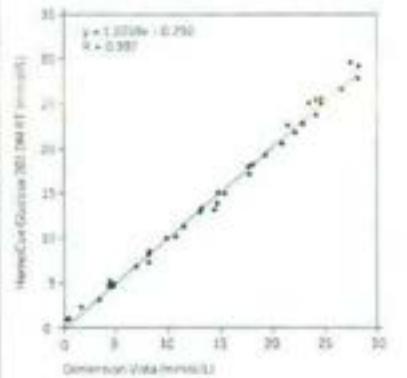
Principle	Modified glucose dehydrogenase in which the total amount of glucose is measured at the end point photometrically
Calibration	Factory calibrated and traceable to the ID GC-MS method; needs no further calibration and no coding
Sample Material	Capillary, venous or arterial whole blood
Measurement Range	Plasma equivalent values: 0–31 mmol/L (0–560 mg/dL) Whole blood values: 0–27.8 mmol/L (0–500 mg/dL)
Results	Including data entry, within one minute for normal glucose levels
Sample Volume	< 4 µL
Dimensions	Analyzer: 170 x 93 x 50 mm (6.70 x 3.66 x 1.97 inches) Docking Station: 206 x 135 x 61 mm (8.10 x 5.30 x 2.40 inches)
Weight	Analyzer: 350 g (0.77 pounds) with batteries installed Docking Station: 566 g (1.24 pounds)
Storage Temp.	Analyzer: 0–50 °C (32–122 °F) Microcuvettes: 0–30 °C (32–86 °F)
Operating Temp.	15–27 °C (59–80 °F)
Power Options	Internal rechargeable Li-ion batteries or docking station with AC adapter
Interface	USB/LAN POCT1-A
Quality Control	Built-in "selftest"; system can be verified using liquid controls

Comparison of the HemoCue Glucose 201 DM RT system with Cobas Modular (Roche).



Individual replicates vs mean values Cobas Modular
No. of replicates = 100. Hospital District of Southwest Finland, TYSKLAB

Comparison of the HemoCue Glucose 201 DM RT system with Dimension Vista(Siemens).



HemoCue Glucose 201 DM RT vs Dimension Vista.
Individual replicates. No. of replicates=80. Origin from
ref Ros et al., Clin Chem Lab Med 2012;50(9):1573-1580



Oliver

Because when it comes
to caring for people,
we refuse to compromise.



Hemoglobin | HbA1c | Glucose | Urine Albumin | WBC / WBC DIFF

HemoCue AB | PO Box 1204 | SE-262 23 Ängelholm | Sweden
Phone: +46 77 570 02 10 | Fax: +46 77 570 02 12 | info@hemocue.se | hemocue.com

HemoCue has been a leader in point-of-care medical diagnostics for over 30 years.
We specialize in giving healthcare providers lab-quality accuracy with results comparable
to that of a clinical lab.

 **HEMO^{CUE}**



DxH 520 ➤

5-part differential closed tube
hematology analyzer





DxH 520 HEMATOLOGY ANALYZER

Minimum footprint. Maximum productivity.

The new closed tube 5-part differential analyzer—because great things come in small packages

Spend more time on patient care and less on operational tasks with the powerful, compact DxH 520 closed tube hematology analyzer, the latest in a legacy of low-volume solutions. With the DxH 520 closed tube system, laboratories can deliver critical first results accurately, with as little as 375 µL microtainer fill-volume and an aspiration of only 17 µL.

Experience safety without compromise by using closed tube technology. The DxH 520 analyzer provides optimal security against blood-borne pathogens due to its closed tube aspiration. Laboratories can enhance operational flexibility by selecting from an extensive number of tube types and accommodate cap-pierceable microtainers, such as MAP tubes. The system streamlines the analysis of puncture samples from infant, child, geriatric, oncology and critical-care patients. Laboratories can also choose the open tube mode for even smaller draws and non-cap-pierceable collection tubes.

Provide comprehensive care with less than a drop of blood to test the most precious patient samples. Technologists can perform 5-part differential testing with ease, using just a finger-prick amount of blood. This is ideal for pediatric patients, who routinely provide small sample volumes at collection. Tests can be added or repeated while using less blood and without collecting another sample.



› **The DxH 520 enables laboratories to:**

- Maximize laboratory productivity
- Reduce overall operating costs
- Deliver high-quality clinical results



MAXIMIZE LABORATORY PRODUCTIVITY

The DxH 520—designed for high reliability—delivers automated tasks, efficient reagent usage, easy reagent replacement, and powerful patient and QC data-management tools. All of this means increased productivity and maximum uptime for laboratories.

Enhance uptime and system maintenance

› Ensure uptime with proven system reliability

Know that results will be delivered precisely when needed. A global, multisite reliability study of the analyzer's platform, using more than 36,000 samples, showed an emergency service-call rate of less than one call per year. With high reliability and a low number of operational tasks, the DxH 520 analyzer is able to achieve an uptime rate greater than 98.5%.

› Discover task automation

Apply the programmable power-up and start-up features with background checks. Users are able to set the system to activate automatically, before the beginning of a shift, so it is ready to work when they arrive. Cleaning can also be programmed and automated to minimize daily maintenance.

› Benefit from quick and infrequent reagent replacement

Use only three reagents, requiring only five minutes or less for replacement, to keep analysis running smoothly throughout the day.



Each reagent can be changed out individually in less than two minutes.

► Designed for uptime

Greater than 98.5% uptime
(analysis based on global
reliability study)

>98.5%
uptime

Optimize laboratory performance

› Achieve fast analysis—in 60 seconds or less

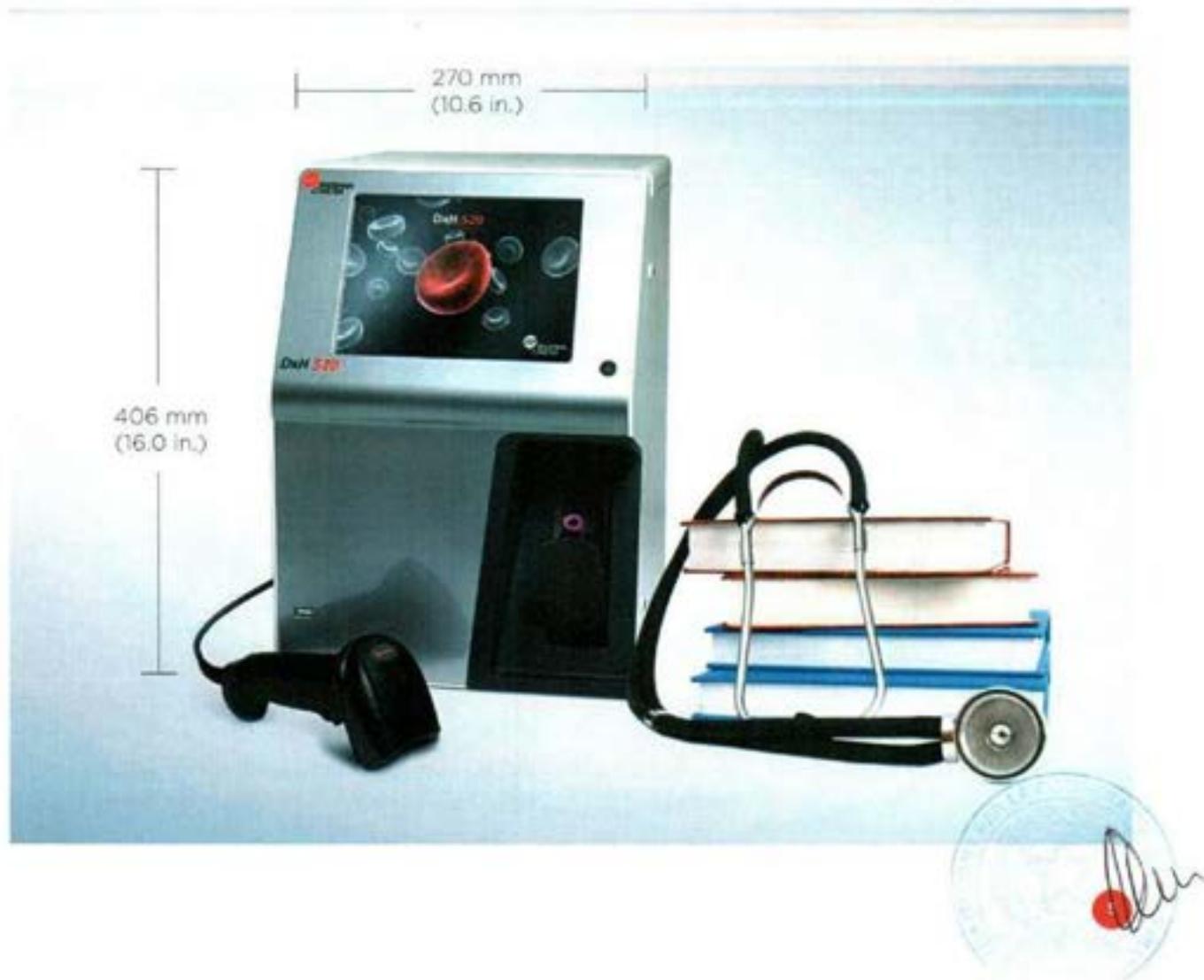
Simplify work processes and allow rapid turnaround of specimens with intuitive and powerful software, helping to minimize patient wait times.

› Create valuable space

Maximize available space with an analyzer that is smaller than a standard microwave and does not require a separate PC or monitor. The DxH 520 analyzer's compact design gives laboratories the flexibility to place instrumentation in optimal locations—closer to the patient, for example—to create a leaner workflow for greater efficiency.

› Execute any command in three touches or less

Learn how to use the system in less than one hour due to the DxH 520 analyzer's intuitive software. Complete any system operation in three steps or less and access all major functions quickly from any screen.



Improve data and quality control management

› Gain powerful patient data-management tools

- Reduce clerical errors, inefficiencies and risk with a bidirectional interface
- Expand sample storage capacity—up to 30,000 patient samples—for easy delta checks and file retrieval
- Upload records quickly and easily with a front-side USB connection port
- Ensure patient privacy and security with customizable user login and automated timeouts with full traceability

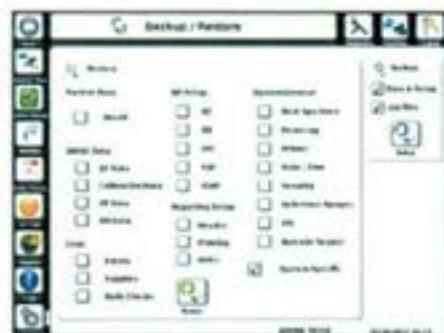
› Achieve trusted performance with a robust QC management-tool package

- View Levy-Jennings limits and quality control (QC) results with easy-to-interpret graphs
- Access online peer-review expertise and support
- Upload new QC lot details with an easy-to-use handheld barcode reader
- Automate daily checks and keep up to 50 data points stored for easy viewing
- Expand QC monitoring with additional techniques, such as the XM, XB and eQC methods

Patient result screen



Easy backup to restore patient test results, QC reports and consumable event logs



Preprogrammed daily and background checks



Easy-to-read QC charts



REDUCE OVERALL OPERATING COSTS

The efficiently designed DxH 520 can reduce overall operating costs through the use of non-toxic reagents and low power consumption for efficient management of the laboratory's bottom line.

Preserve valuable resources

› Reduce reagent usage

Use 50% less reagent volume per sample, compared to other low-volume analyzers. A single reagent bottle can support hundreds of tests.

› Lower the cost of disposal

Utilize cyanide-, azide- and formalydehyde-free reagents, reducing the cost of disposal as well as helping to meet environmental and regulatory compliance standards.

› Optimize power consumption

Consume less power by using fewer moving parts and energy-efficient components. A low-energy light source promotes longer life, and a highly reliable auto-voltage-switching power supply, which regulates voltage fluctuations.



DELIVER HIGH-QUALITY RESULTS

The DxH 520 low-volume system provides accuracy through Coulter Principle technology and Axial Light Loss (ALL) for a 5-part white blood cell (WBC) differential. Proprietary dynamic gating increases the automated differential accuracy, delivering more reportable results with less unnecessary flagging. Hemoglobin is read accurately using the cyanide-free oxyhemoglobin methodology at 545 nm. Counting and sizing is performed in duplicate, also using the Coulter Principle, for greater precision.

Apply optical analysis—Axial Light Loss (ALL)—and Coulter Principle innovation to WBC testing

› Combine ALL and Coulter Principle technologies to complete an accurate 5-part leukocyte differential

Gain accurate cellular information, measured by preserving cells in their native states. The DxH 520 analyzer does not alter blood cells through staining, shrinkage or WBC lysis, which can induce fragility in the cells and distort results (Figures 1a and 1b). The digital information obtained from the WBC blue LED analysis is processed through the WBC differential algorithm. This information is represented on a 2D scatter plot, according to Coulter Principle volume, plotted on the Y-axis and ALL¹. Users can easily identify cells by color.

Figure 1a: Optimal measurement zone

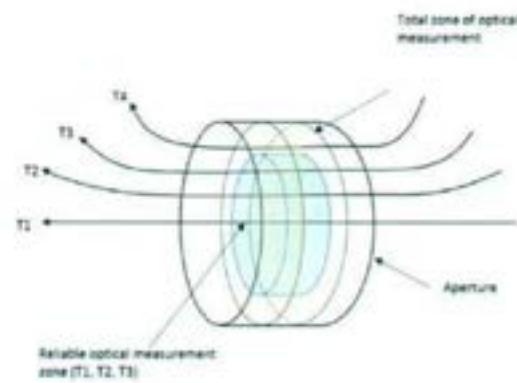
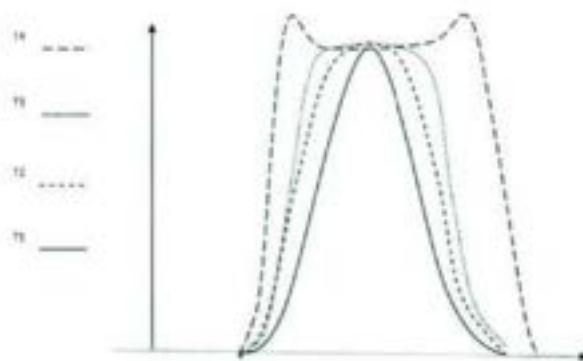


Figure 1b: Optimal cell pulses identified



Improve flagging and reduce WBC differential slide reviews—while maintaining effective clinical sensitivity—with proprietary dynamic-gating technology

› Improve confidence in the accuracy of the 5-part leukocyte differential with proprietary dynamic-gating technology compared to a static gate

Take advantage of sophisticated gating technology that improves the identification of cell populations by adjusting the thresholds between cell-cluster arrangements. The unique dynamic-gating technology in the DxH 520 analyzer provides multiple layers of adjustable gates; unlike the static or simple dynamic gates available in other technologies. With Beckman Coulter's proprietary method, the gates move to more proper cutoffs between cell clusters in a series of steps (Figures 2a and 2b). Improvement is seen in more challenging cell populations, such as lymphocytes and eosinophils, giving a more accurate 5-part leukocyte differential than static gating.

Figure 2a: Static-gating technology

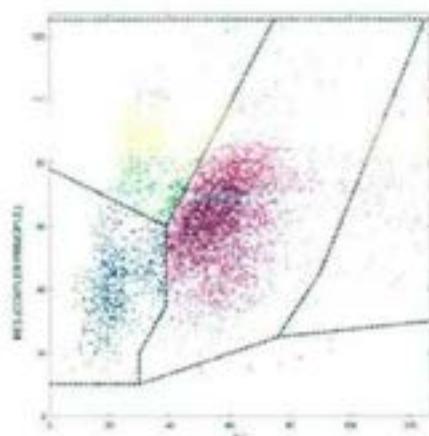
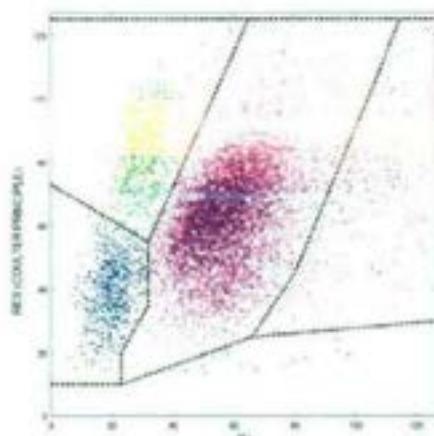
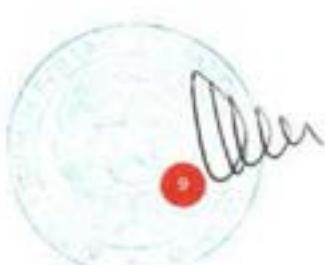


Figure 2b: Dynamic-gating technology



› Reduce unnecessary flagging, compared to static- or less-effective gating techniques

Conduct fewer slide reviews, while maintaining effective clinical sensitivity, and achieve excellent agreement with manual slide reviews and good predictive values.

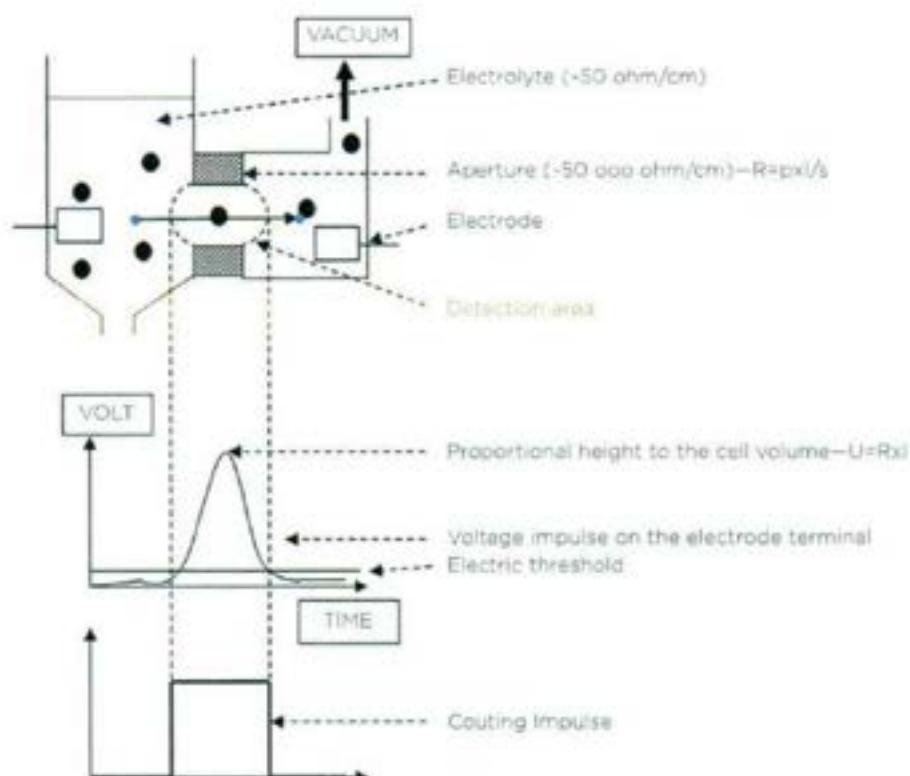


Secure quality CBC results and eliminate guesswork

- Provide fast, accurate CBC analysis using the Coulter Principle and digital pulse processing

Achieve accurate WBC, red blood cell (RBC), and platelet counting and sizing with the proprietary Coulter counting method (Figure 3). Digital pulse processing enables the recognition of data points that fall outside the optimal counting zone. Removing these unreliable data points enhances count accuracy (Figures 1a and 1b). Quality results are further improved with dual-count apertures and a wider linearity range for a more comprehensive patient-care experience.

Figure 3: Coulter impedance for size and counting



Beckman Coulter Diagnostic Difference

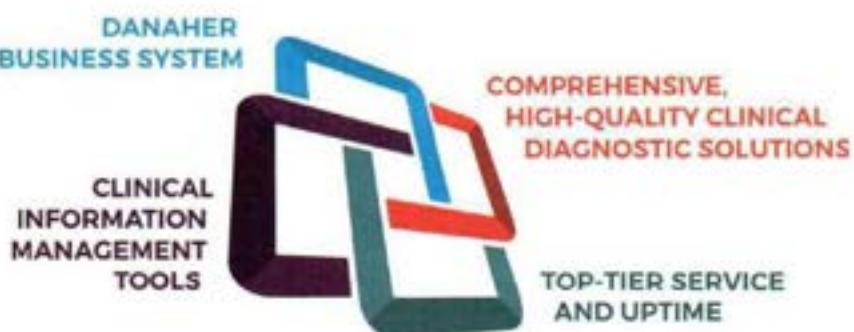
Partnering Today for a Stronger Tomorrow

Delivering high-quality hematology analyzers such as the DxH 520 system is part of Beckman Coulter's vision to advance care for every person. It is one component of a larger, integrated solution called the Beckman Coulter Diagnostics Difference, the company's commitment to partnering with clinical laboratories to:

- Improve patient care with comprehensive, high-quality clinical diagnostic solutions, including scalable and reliable systems, advanced workflow automation and assays designed for quality and accuracy
- Strengthen confidence in clinical and operational decision making through clinical information-management tools that put people first
- Maximize staff effectiveness and laboratory uptime through top-tier service and instrument uptime
- Drive an achievable and sustainable culture of continuous improvement through the Danaher Business System (DBS)

Partnering with Beckman Coulter gives laboratories access to this unique, integrated solution to achieve desired clinical effectiveness and operational efficiencies.

Discover the difference.



DxH 520 Hematology Analyzer Specifications

Mode of Operation	Open and closed tube sampling		
Sample Volume	17 µL of venous or micro-collected whole blood 20 µL of whole blood for pre-diluted analysis		
Throughput	55 closed tube samples per hour; 60 open tube samples per hour		
Menu/Test Parameters	WBC, RBC, HGB, HCT, MCV, MCH, MCHC, RDW-SD, RDW-CV, PLT, MPV, LY%, LY#, MO%, MO#, NE%, NE#, EO%, EO#, BA%, BA#		
RUO Parameters	IMM%, IMM#, LHD, MAF, PCT, PDW		
Data Storage	30,000 patient results, including graphics, flags, codes and messages; 12 control files, each with a maximum of 150 runs		
User Interface	Touch screen; Handheld barcode scanner		
Power Requirements	100-240 VAC 50-60 Hz/Single phase with ground		
Power Consumption	Less than 120W		
Operational Ambient Temperature	18-32°C (64.4-89.6°F)		
Humidity	80% relative humidity (non-condensing) at 32°C (89.6°F)		
Altitude	Up to 3,000 meters (9,843 feet)		
External Storage	Supports USB 2.0 (five ports)		
LIS	Supports serial (RS-232) and Ethernet communication		
Printer	Optional USB printer		
Languages	Czech, English, French, German, Iberian Portuguese, Italian, Japanese, Romanian, Spanish		
Weight and Dimensions	Width	Height	Depth
	270 mm (10.6 in.)	406 mm (16.0 in.)	430 mm (16.9 in.)

Ordering Information	Part Number	Ordering Information	Part Number
DxH 520 Hematology Analyzer	B40602	DxH 500 Series Cleaner (500 mL each)	B36868
DxH 500 Series Diluent (10 L each)	B36845	DxH 500 Series Calibrator (2 x 2.0 mL)	B36880
DxH 500 Series Lyse (500 mL each)	B36846	DxH 500 Series Control (6 x 2.3 mL, tri-level sets)	B36872



DxH 500 Series



DxH 600



DxH 900



DxH 900-25



DxH 900-35

Low-volume	Medium-volume	Medium- to high-volume	High-volume	Ultra-high-volume
Up to 60 samples/hour	Up to 100 samples/hour	Up to 100 samples/hour	Up to 200 samples/hour	Up to 300 Samples/Hour

Discover the difference Beckman Coulter's DxH 520 can make in the laboratory.
Visit www.beckmancoulter.com/DxH520

1. Beckman Coulter DxH 520 Instructions for Use v2.

DxH 520 is CE marked. Not available for sale in all countries. Pending clearance by the United States Food and Drug Administration, not yet available for in vitro diagnostic use in the U.S.

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For Beckman Coulter's worldwide office locations and phone numbers, please visit www.beckmancoulter.com/contact

BENCHTOP CENTRIFUGE

— ROTINA 380 | 380 R

HIGH SPEED WITH SPACE SAVING DESIGN

High performance unit supporting a wide array of accessories for multiple applications in just one rotor. Its size and performance make it the ideal bench top centrifuge for most clinical, research and industrial laboratories.

This unit is available with refrigeration and a temperature range from -20 °C to +40 °C (ROTINA 380 R).

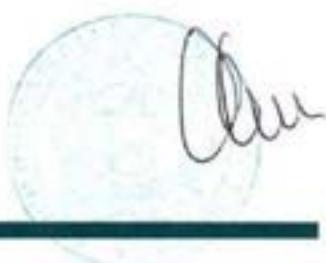


— HIGHLIGHTS

- RPM: 50 - 15,000 min⁻¹
Adjustable in increments of 10
- RCF: 50 - 24,400
Adjustable in increments of 1
- max. capacity: 4 x 290 ml
- choice of 9 rotors
- IVD-conform according to directive 98/79/EC
- max. noise level of 54 dB(A) with rotor 1760
- easy operation with keypad and control knob
- 98 program memories for more individuality
- 9 individual acceleration and 10 deceleration stages
- model 380 R coolable from -20 to +40 °C with pre-cooling function

— FEATURES

- metal housing and lid
- viewing port in the lid
- powered one-hand lid lock
- lid dropping protection
- emergency lid lock release
- stainless steel chamber
- automatic rotor recognition
- brushless drive
- error display
- display in °C and °F possible
- imbalance switch-off
- backlit panel with actual values of all parameters
- auditory message after completion of the centrifugation run



— TECHNICAL DATA

	ROTINA 380 non-refrigerated	ROTINA 380 R refrigerated
voltage *)	200 – 240 V 1 –	200 – 240 V 1 –
frequency	50 – 60 Hz	50 – 60 Hz
consumption	650 VA	1,300 VA
emission, immunity	EN/IEC 61326-1, class B	EN/IEC 61326-1, class B
max. capacity	4 x 290 ml	4 x 290 ml
max. RPM	15,000 min ⁻¹	15,000 min ⁻¹
max. RCF	24,400	24,400
running time	1 – 99 h: 59 min: 59 sec, ≈ continuous run, short cycle mode	1 – 99 h: 59 min: 59 sec, ≈ continuous run, short cycle mode
dimensions (WxDxH)	457 x 600 x 418 mm	457 x 750 x 418 mm
weight	approx. 51 kg	approx. 81 kg
noise level	54 dB (A) with rotor 1760	54 dB (A) with rotor 1760
temperature control, infinitely variable	–	from -20 to +40 °C
Cat. No.	1701	1706
100 – 127 V 1 – / 50 – 60 Hz *)	1701-01	1706-01
consumption	700 VA	1,400 VA
emission, immunity	FCC class B	FCC class B
weight	approx. 58.5 kg	approx. 88.5 kg

*) Other voltages on request

— AVAILABLE ROTORS

SWING-OUT ROTORS	angle	max. RPM	max. capacity	Cat. No.	page
	90°	5,000 min ⁻¹	4 x 290 ml	1754	3
	90°	4,000 min ⁻¹	4 x 290 ml	1798	5
	90°	4,000 min ⁻¹	6 x 50 ml	1726	8
	90°	4,000 min ⁻¹	10 plates	1760	9
	90°	5,100 min ⁻¹	12 plates	1770	9
ANGLE ROTORS					
	45°	10,000 l 11,000 min ⁻¹	6 x 94 ml	1720	10
	45°	10,000 l 11,000 min ⁻¹	6 x 94 ml	1792	11
	45°	15,000 min ⁻¹	30 x 2 ml	1789-A	12

— SWING-OUT ROTOR, 4-PLACE | 1754

Rotor

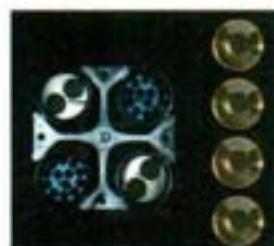
max. RPM / max. RCF	5,000 rpm / 4,800
max. capacity	4 x 290 ml
run-up / run-down, break-in sec.	42/27
angle / max. noise level	90° / 60 dB (A)
temperature in °C*	0

Cat. No.



1754

Bucket

Id bucket^a
Cat. No.1751
1752

Vessels

capacity in ml	1.5	2.0	3	4	5	6	7	9	15	20	25	45	50	94	100
D x L in mm	11x38	11x38	10x50	12x60	12x75	12x92	12x100	14x100	17x100	21x100	24x100	31x100	34x100	38x102	40x115
max. RCF ^b	3,779	3,656	4,779	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,807	4,640
radius in mm	125 / 125	125 / 125	171	167	167	167	167	167	167	167	167	167	167	172	166

Cat. No.

	micropipette tubes	tubes ^c													

Adapter

boring D x L in mm	112x85	112x85	112x85	12.5x56	12.5x56	12.5x56	12.5x56	17.5x62	17.5x62	25.5x81	25.5x81	35.5x81	35.5x81	38.5x80	41x87
vessels per rotor	144	144	72	96	96	96	96	52	52	24	24	12	12	8	4
Cat. No.	1761	1761	1761	1762-A	1762-A	1762-A	1762-A	1763-A	1763-A	1764	1764	1765	1765	1777	1767

Vessels

capacity in ml	100	250	1.1-1.4	2.6-3.4	2.7-3	4-5.5	4.5-5	4.5-5	4.9	4.9	7.5-8.8	9-10	10	1.5-5	4-7
D x L in mm	44x100	65x115	8x66	13x65	11x66	15x75	11x92	11x92	13x90	13x90	15x92	15x92	15x102	13x75	13x100
max. RCF ^b	4,640	4,640	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668
radius in mm	166	166	167	167	167	167	167	167	167	167	167	167	167	167	167

Cat. No.

	tubes ^c														

Adapter

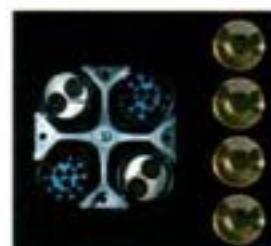
boring D x L in mm	45x87	66x104.5	9x49	13.5x54	12.5x56	17.5x62	12.5x56	13.2x72	13.5x54	13.2x72	17.5x62	17.5x62	13.5x54	13.5x54
vessels per rotor	4	4	96	64	96	52	96	76	54	76	52	52	64	64
Cat. No.	1766	1768	1781	1783-A	1782-A	1763-A	1762-A	1787	1783-A	1787	1763-A	1763-A	1783-A	1783-A

^a Per versioni refrigerate: Temperature più basse raggiungibili con preraffreddamento e max. velocità^b Si noti che i valori RCF indicati si riferiscono solo alle prestazioni del rotore. Il max. RCF consentito per i tubi utilizzati deve essere verificato con i singoli produttori.^c I max. RCF per i tubi con la rete -2) è 4,000.^d Testato dal TÜV in conformità a DIN EN 61310, sezione 2 - G20.

■ SWING-OUT ROTOR, 4-PLACE | 1754

Rotor	
max. RPM / max. RCF	5.000 rpm / 14.000
max. capacity	4 x 200 ml
run-up / run-down, break-in sec.	42 / 27
angle / max. noise level	90° / 60 dB (A)
temperature in °C	0
Cat. No.	1754

Bucket	
lid bucket	1751
Cat. No.	1752



Vessels	
capacity in ml	4-7
D x L in mm	13x100
max. RCF	4.660
radius in mm	167
Cat. No.	1754
	blood collection tubes / urine tubes
	-
	tubes with screw cap
Adapter	
boring D x L in mm	13,2x72
vessels per rotor	76
Cat. No.	1767
	1763-A
	1763-A
	1763-A
	1758
	1771-A
	1772-A
	1773
	1779
	1779
	1774-A
	1774-A
	1763-A
	1763-A
	1775

Vessels	
capacity in ml	50
D x L in mm	29x107
max. RCF	4.752
radius in mm	170
Cat. No.	1754
	tubes with screw cap
	Falcon
	Nalge®
	Hung®
	Falcon
	5127 H
	- 14
Adapter	
boring D x L in mm	30 x 80
vessels per rotor	16
Cat. No.	1774-A
	1777
	1777
	1782
	1778
	1778
	1782
	1769
	1769

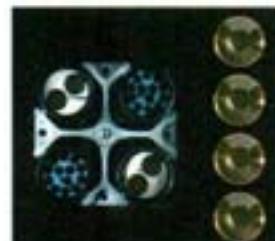
- (1) Per versioni refrigerate: Temperature più basse raggiungibili con preraffreddamento e max. velocità.
 (2) Si noti che i valori RCF indicati si riferiscono solo alle pressazioni del rotore. Il max. RCF consentito per i tubi utilizzati deve essere verificato con i singoli produttori.
 E' max. RCF per i tubi con la nota (2) è 4.000.
 (3) Quando si usano questi tubi le banchette 1752 o 5253 non possono essere chiuse con il coperchio 1753 o 5254.
 (4) Testato dal TÜV in conformità a DIN EN 61300, sezione 2 - 020.
 (5) Tubo No. 0538 disponibile anche con tappo a vite. Dimensione con tappo: 38 x 150 mm, Cat. No. 0538.
 (6) L'adattatore deve essere cambiato come illustrato.
 (7) A temperature superiori a +40 °C e / o se non riempita al massimo, le bottiglie possono deformarsi durante la centrifugazione.

— SWING-OUT ROTOR, 4-PLACE | 1754

Rotor	
max. RPM / max. RCF	5,000 min ⁻¹ / 4,063
max. capacity	4 x 290 ml
run-up / run-down, break-in sec	42 / 27
angle / max. noise level	90° / 60 dB (A)
temperature in °C ^a	0
Cat. No.	1754



Bucket	
id. borsone ^b	1751
Cat. No.	1752



Vessels	
capacity in ml	1.5
D x L in mm	11x38
max. RCF ^c	3,664
radius in mm	125 / 171
Cat. No.	microtiter tubes



1.5	2.0	3	4	5	6	7	9	15	20	25	45	50	94	100
11x38	11x38	10x60	12x60	12x75	12x82	12x100	14x100	17x100	21x100	24x100	31x100	34x100	38x102	40x115
3,664	3,664	4,779	4,779	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,667	4,640
4,779	4,779	4,779	4,779	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,667	4,640

+ **tubes^d**

Adapter	
boring D x L in mm	112x85
vessels per rotor	144
Cat. No.	1761

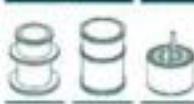


112x85	112x85	112x95	12.5x56	12.5x56	12.5x56	12.5x56	17.5x62	17.5x62	25.5x81	25.5x81	35.5x81	35.5x81	38.5x80	41x97
112x85	112x85	112x95	12.5x56	12.5x56	12.5x56	12.5x56	17.5x62	17.5x62	25.5x81	25.5x81	35.5x81	35.5x81	38.5x80	41x97
144	144	72	96	96	96	96	52	52	24	24	12	12	8	4

Vessels	
capacity in ml	100
D x L in mm	44x100
max. RCF ^c	4,640
radius in mm	166
Cat. No.	tubes^d

**blood collection tubes / urine tubes**

Adapter	
boring D x L in mm	45x87
vessels per rotor	4
Cat. No.	1766



45x87	60x104.5	9x48	13.5x54	12.5x56	17.5x62	12.5x56	13.2x72	13.5x54	13.2x72	17.5x62	17.5x62	17.5x62	13.5x54	13.5x54
45x87	60x104.5	9x48	13.5x54	12.5x56	17.5x62	12.5x56	13.2x72	13.5x54	13.2x72	17.5x62	17.5x62	17.5x62	13.5x54	13.5x54
4	4	96	64	96	52	96	76	64	76	52	52	64	64	64

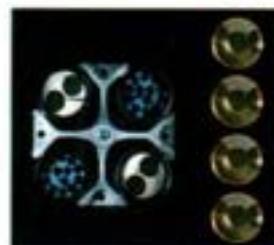
- (1) Per versioni refrigerate: Temperature più basse raggiungibili con preraffreddamento e max. velocità
 (2) Si noti che i valori RCF indicati si riferiscono solo alle prestazioni del rotore. Il max. RCF consentito per i tubi utilizzati deve essere verificato con i singoli produttori.
 (3) max. RCF per i tubi con la nota: 2) è 4,000.
 (4) Testato dal TÜV in conformità a DIN EN 50710, versione 2 - Q30.

■ SWING-OUT ROTOR, 4-PLACE | 1754



Rotor	
max. RPM / max. RCF	5.000 min ⁻¹ / 4.863
max. capacity	4 x 290 ml
run-up / run-down, break-in sec.	43 / 37
angle / max. noise level	90° / 60 dB (A)
temperature in °C	0
Cat. No.	1754

Bucket	
id basal	1751
Cat. No.	1752



Vessels	
capacity in ml	4-7
D x L in mm	13x100
max. RCF	4.668
radius in mm	167
Cat. No.	1754
	blood collection tubes / urine tubes
	-
	tubes with screw cap
Adapter	
boring D x L in mm	13.2x72
vessels per rotor	76
Cat. No.	1787
	1763-A
	1763-A
	1763-A
	1738
	1771-A
	1772-A
	1773
	1779
	1779
	1774-A
	1774-A
	1763-A
	1763-A
	1775

Vessels	
capacity in ml	50
D x L in mm	29x107
max. RCF	4.752
radius in mm	170
Cat. No.	1754
	tubes with screw cap
	Falcon
	Nalgene
	Nunc[®]
	Falcon
	5127[®]
	-
Adapter	
boring D x L in mm	30x80
vessels per rotor	16
Cat. No.	1774-A
	1777
	1777
	1782
	1778
	1778
	1782
	1782
	1769
	1769

13) Per versioni refrigerate: Temperature più basse raggiungibili con preaffreddamento e max. velocità

23) Si noti che i valori RCF indicati si riferiscono solo alle prestazioni del rotore. Il max. RCF consentito per i tubi utilizzati deve essere verificato con i singoli produttori. È max. RCF per i tubi con la nota 2) è 4.863

33) Quando si usano questi tubi le bocchette 1752 e 1051 non possono essere chiuse con il coperchio 1751 o 5053.

32) Testato dal TÜV in conformità a DIN EN 60210, sezione 2 - G20

33) Tubo N° 0538 disponibile anche con tappo a vite. Dimensione con tappo: 38 x 130 mm. Cat. No. 0538

31) L'adattatore deve essere caricato come illustrato.

24) A temperature superiori a +40 °C e / o se non riempito al massimo, le bottiglie per urino deformarsi durante la centrifugazione.

BENCHTOP CENTRIFUGE

— ROTINA 380 | 380 R

ALTA VELOCITÀ CON DESIGN COMPATTO

Centrifuga ad alte prestazioni che supporta un'ampia gamma di accessori per molteplici applicazioni anche con un solo rotore.

Le sue dimensioni e prestazioni la rendono la centrifuga da banco ideale per la maggior parte dei laboratori clinici, di ricerca e industriali.

Questa unità è disponibile con refrigerazione e con un intervallo di temperatura da -20 °C a +40 °C (ROTINA 380 R).



— PUNTI SALIENTI

- RPM: 50 - 15.000 giri/min
- Regolabile con incrementi di 10
- Accelerazione RCF: 50 - 24.400 (g)
- Regolabile con incrementi di 1
- Max. capacità: 4 x 290 ml.
- scelta di 9 rotori
- Conformità IvO secondo la direttiva 98/79 / CE
- Max. livello di rumore di 54 dB (A) con rotore 1760
- Facile utilizzo con tastiera e manopola di controllo
- 98 memorie di programma per una maggiore individualità
- 9 singole fasi di accelerazioni
- 10 singole fasi di decelerazione
- Modello 380 R refrigerato da -20°C a +40°C con funzione di pre-raffreddamento

— CARATTERISTICHE

- struttura e coperchio in metallo
- oblò di visualizzazione nel coperchio
- blocco del coperchio con una sola mano
- protezione contro la caduta del coperchio
- sblocco del coperchio di emergenza
- camera in acciaio inossidabile
- riconoscimento automatico del rotore
- motore esente da manutenzione
- visualizzazione dell'errore
- visualizzazione temperatura in °C e °F
- sensore automatico di sbilanciamento
- pannello retroilluminato con valori effettivi di tutti i parametri
- messaggio acustico al termine della centrifugazione

— DATI TECNICI

	ROTINA 380 non-refrigerated	ROTINA 380 R refrigerated
Alimentazione	200 – 240 V 1 –	200 – 240 V 1 –
Frequenza	50 – 60 Hz	50 – 60 Hz
Assorbimento	650 VA	1,300 VA
Classe	EN/IEC 61326-1, class B	EN/IEC 61326-1, class B
Capacità massima	4 x 290 ml	4 x 290 ml
Velocità massima: giri/min.	15,000 min ⁻¹	15,000 min ⁻¹
Velocità accelerazione massima (RCF)	24,400	24,400
Temporizzatore	1 sec – 99 h: 59 min: 59 sec, ≈ continuous run, short cycle mode	1 sec – 99 h: 59 min: 59 sec, ≈ continuous run, short cycle mode
Dimensioni (LxPxH)	457 x 600 x 418 mm	457 x 750 x 418 mm
Peso	approx. 51 kg	approx. 81 kg
Rumorosità	54 dB (A) with rotor 1760	54 dB (A) with rotor 1760
Campo di temperatura regolabile	–	from -20 to +40 °C
Cat. No.	1701	1706
100 – 127 V 1 – / 50 – 60 Hz *)	1701-01	1706-01
consumption	700 VA	1,400 VA
emission, immunity	FCC class B	FCC class B
weight	approx. 58.5 kg	approx. 88.5 kg

*) Altri Voltaggi a Richiesta

— ROTORI DISPONIBILI

SWING-OUT ROTORS	angle	max. RPM	max. capacity	Cat. No.	page	
	swing-out rotor, 4-place	90°	5,000 min ⁻¹	4x290 ml	1754	3
	swing-out rotor, 4-place	90°	4,000 min ⁻¹	4x290 ml	1798	5
	swing-out rotor, 6-place	90°	4,000 min ⁻¹	6x50 ml	1726	7
	swing-out rotor, 2-place	90°	4,000 min ⁻¹	10 plates	1760	9
	swing-out rotor, 2-place	90°	5,100 min ⁻¹	12 plates	1770	9
ANGLE ROTORS						
	angle rotor, 6-place	45°	10,000 l 11,000 min ⁻¹	6x94 ml	1720	10
	angle rotor, 6-place inclusive lid biased	45°	10,000 l 11,000 min ⁻¹	6x94 ml	1792	11
	angle rotor, 30-place	45°	15,000 min ⁻¹	30x2 ml	1789-A	12
	angle rotor, 8-place	45°	4,500 min ⁻¹	8x50 ml	1721	12

— CERTIFICATIONS / REGISTRATIONS

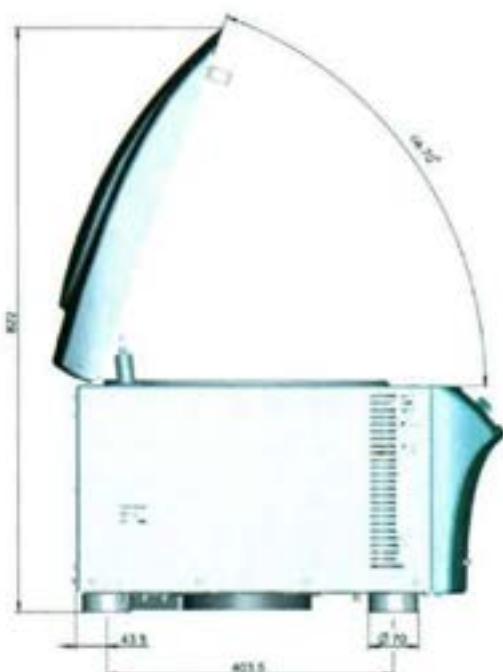
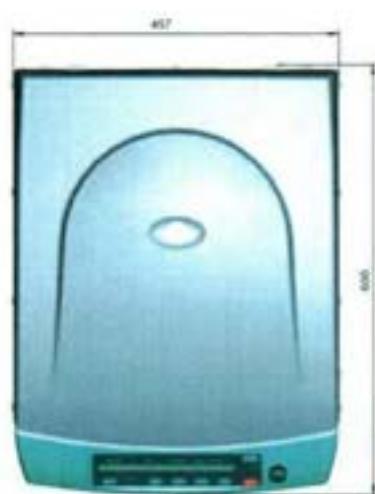
Product certification:



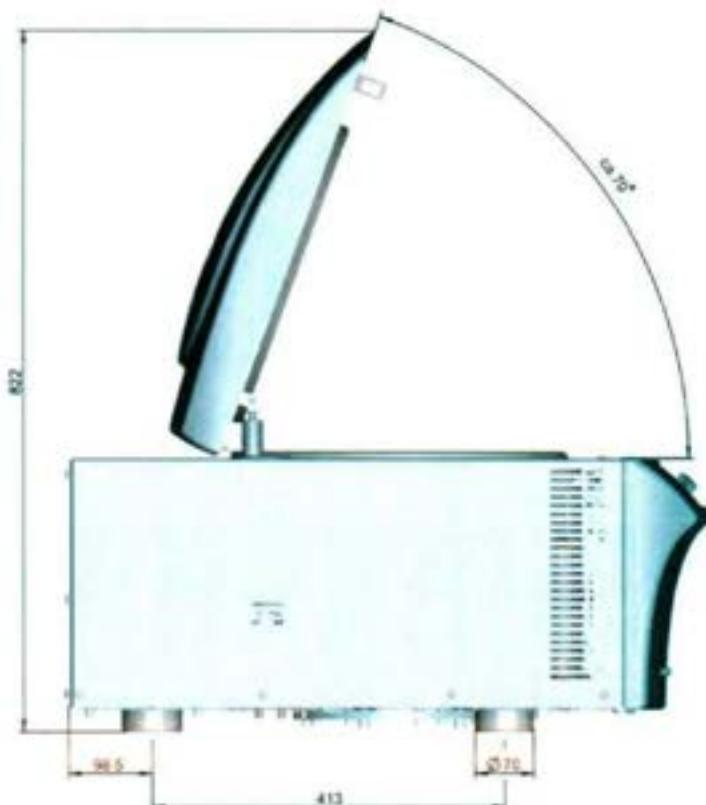
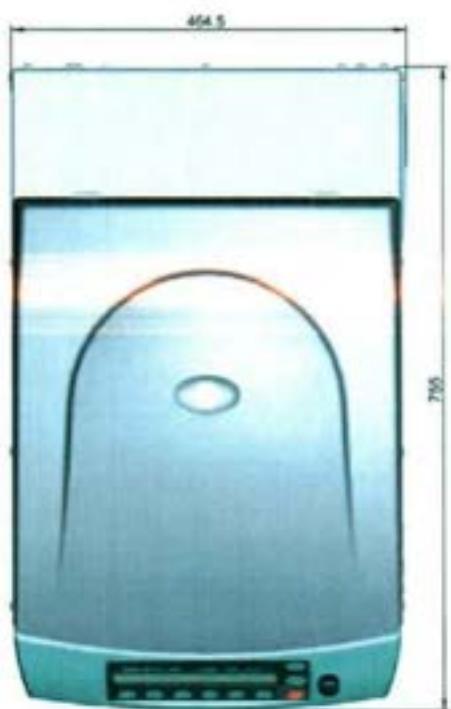
Product registration:



Company certifications:

**— DIMENSIONI**

— DIMENSIONI



■ SWING-OUT ROTOR, 4-PLACE | 1754

**Rotor**

max. RPM / max. RCF	5,000 min ⁻¹ / 4,863
max. capacity	4 x 290 ml
run-up / run-down, braked in sec.	42 / 27
angle / max. noise level	90° / 60 dB (A)
temperature in °C ¹	0

Cat. No.

1754

Bucket

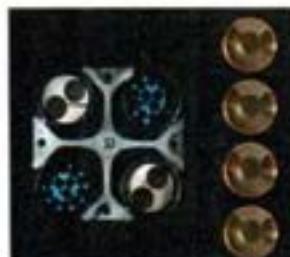
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Cat. No.



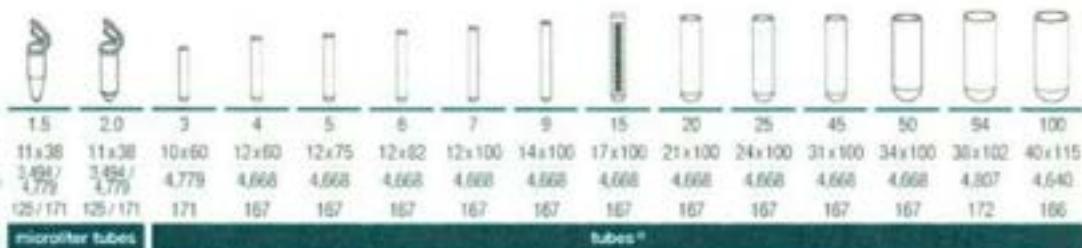
1751

1752

**Vessels**

capacity in ml	1.5	2.0	3	4	5	6	7	8	9	15	20	25	31	45	50	54	100
D x L in mm	11 x 38	11 x 38	10 x 60	12 x 60	12 x 75	12 x 82	12 x 100	14 x 100	17 x 100	21 x 100	24 x 100	31 x 100	34 x 100	38 x 102	40 x 115		
max. RCF ²	3,694 / 4,779	3,694 / 4,779	4,779	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,807	4,640	
radius in mm	125 / 171	125 / 171	171	167	167	167	167	167	167	167	167	167	167	167	172	166	

Cat. No.

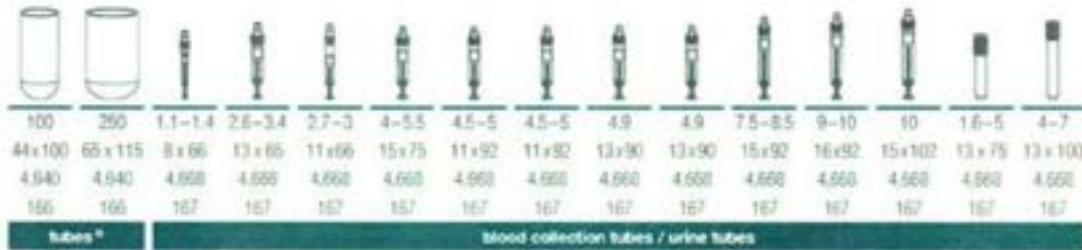
**Adapter**

boring D x L in mm	112 x 85	112 x 85	112 x 85	12.5 x 56	12.5 x 56	12.5 x 56	12.5 x 56	17.5 x 62	17.5 x 62	25.5 x 81	25.5 x 81	35.5 x 81	35.5 x 81	38.5 x 80	41 x 97
vessels per rotor	144	144	72	96	96	96	96	52	52	24	24	12	12	8	4
Cat. No.	1761	1761	1761	1762-A	1762-A	1762-A	1762-A	1763-A	1763-A	1764	1764	1765	1765	1777	1767

Vessels

capacity in ml	100	250	1.1-1.4	2.6-3.4	2.7-3	4-5.5	4.5-5	4.5-5	4.9	4.9	7.5-8.5	9-10	10	16-5	4-7
D x L in mm	44 x 100	65 x 115	8 x 66	13 x 65	11 x 66	15 x 75	11 x 92	11 x 92	13 x 90	13 x 90	15 x 92	16 x 92	15 x 102	13 x 75	13 x 100
max. RCF ³	4,640	4,640	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668	4,668
radius in mm	166	166	167	167	167	167	167	167	167	167	167	167	167	167	167

Cat. No.

**Adapter**

boring D x L in mm	45 x 17	66 x 104	61 x 42	13.5 x 54	12.5 x 56	17.5 x 62	12.5 x 56	13.5 x 72	13.5 x 54	13.2 x 72	17.5 x 62	17.5 x 62	17.5 x 62	13.5 x 54	13.5 x 54
vessels per rotor	4	4	6	6	10	12	9	7	6	7	8	8	8	8	8
Cat. No.	1766	1766	1781	1783-A	1762-A	1763-A	1762-A	1787	1783-A	1787	1763-A	1763-A	1763-A	1783-A	1783-A

¹ Per servizio raffrigerato - Temperature più basse raggiungibili con porta aperta elettricamente e mai: -20°C

² Si noti che i valori RCF indicati si riferiscono solo alle gittate dei rotori. Si noti: RCF (centrifugazione) è il prodotto della velocità di rotazione con la legge (1000²)

³ Si noti: RCF per 1 tubo con a metà: 20 x 4.000

Testato dal TÜV in conformità a DIN EN 14011, numero 2 - 0199



BENCHTOP CENTRIFUGE

— ROTINA 380 | 380 R

ALTA VELOCITÀ CON DESIGN COMPATTO

Centrifuga ad alte prestazioni che supporta un'ampia gamma di accessori per molteplici applicazioni anche con un solo rotore.

Le sue dimensioni e prestazioni la rendono la centrifuga da banco ideale per la maggior parte dei laboratori clinici, di ricerca e industriali.

Questa unità è disponibile con refrigerazione e con un intervallo di temperatura da -20 °C a +40 °C (ROTINA 380 R).



— PUNTI SALIENTI

- RPM: 50 - 15.000 giri/min
- Regolabile con incrementi di 10
- Accelerazione RCF: 50 - 24.400 (g)
- Regolabile con incrementi di 1
- Max. capacità: 4 x 290 ml.
- scelta di 9 rotori
- Conformità IVD secondo la direttiva 98/79 / CE
- Max. livello di rumore di 54 dB (A) con rotore 1760
- Facile utilizzo con tastiera e manopola di controllo
- 98 memorie di programma per una maggiore individualità
- 9 singole fasi di accelerazione
- 10 singole fasi di decelerazione
- Modello 380 R refrigerato da -20°C a +40°C con funzione di pre-raffreddamento

— CARATTERISTICHE

- struttura e coperchio in metallo
- oblo di visualizzazione nel coperchio
- blocco del coperchio con una sola mano
- protezione contro la caduta del coperchio
- sblocco del coperchio di emergenza
- camere in acciaio inossidabile
- ricopriportello automatico del rotore
- motore esente da manutenzione
- visualizzazione dell'errore
- visualizzazione temperatura in °C e °F
- sensore automatico di sbilanciamento
- pannello retroilluminato con valori effettivi di tutti i parametri
- messaggio acustico al termine della centrifugazione





ORMA SRL

Via Rimembranze 93 – int.56
20099 - Sesto San Giovanni (MI) – Italy
Tel. 02.39321840
Fax 02.39321491

ORMA **Eurotek**
www.ormascientific.com

ISO 9001
EN ISO 13485
MANAGEMENT SYSTEM CERTIFIED
ACCORDING TO ISO 9001:2000



MicroPette plus

121°C
FULLY
Autoclavable

Features

- Fully autoclavable
- Ergonomic design provides excellent operating experience
- Easy-to-read volume display
- The pipettes cover the volume range from 0.1µL to 5mL
- Easy calibration and maintenance
- Manufactured from innovative materials
- Each MicroPette Plus supplied with an individual calibration certificate according to ISO8655
- Online calibration is available



MicroPette plus multi-channel

121°C
FULLY
Autoclavable

Features

- Dispensing head rotates for effortless pipetting convenience
- Individual piston and tip core assembly allow for easy repair and maintenance
- Compound material-made tip core secures high sealing performance
- Compatible with most universal tip brands
- Online calibration is available



www.ormascientific.com – info@ormascientific.com

ORMA srl

Cap. Sociale € 10.400,00 i.v.
P.I. e Cod. Fisc. 11222970151 – R.E.A MI 1447038

Sede Legale:

Via Catone 19 – 20158 Milano

Sede Amministrativa:

Via Rimembranze 93 Int.56 – 20099 Sesto San Giovanni (MI)

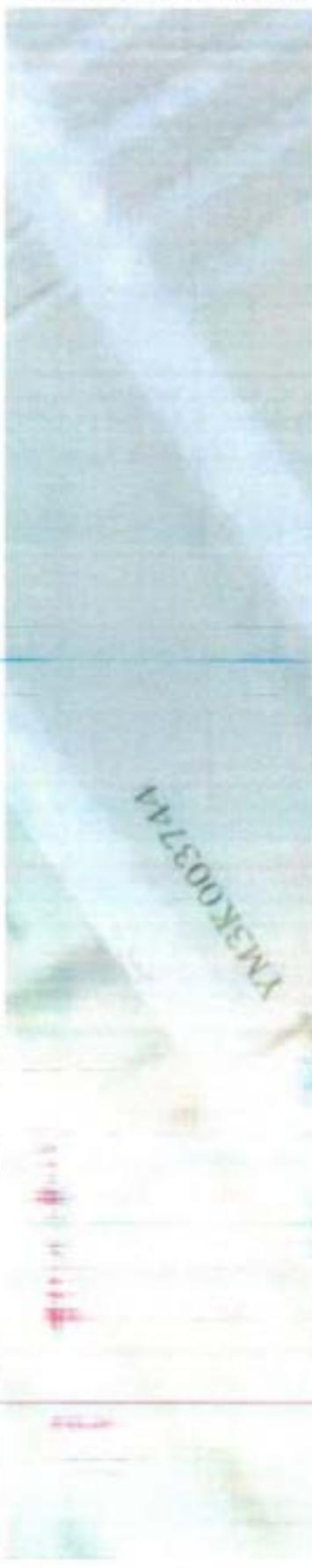
ORMA SRL

Via Rimembranze 93 – int.56
20099 - Sesto San Giovanni (Mi) – Italy
Tel. 02.39321840
Fax 02.39321491

ORMA **Eurotek**
by ORMA

www.ormascientific.com

ISO 9001 MANAGEMENT SYSTEM CERTIFIED
ACCORDING TO ISO 9001:2000



Fully autoclavable

The MicroPette Plus pipettes are fully autoclavable, enable easy cleaning and reduce the risk of contamination. Steam autoclaving can be performed at 121°C, 1 bar for 20 minutes. After autoclaving, the pipette must be cooled down and left to dry for 12 hours before use.

It is recommended to check the performance of the pipette after each autoclaving. Greasing and sealing of the pipette piston after every 10th autoclaving will secure an enhanced function.



ORMA srl

Cap. Sociale €.10.400,00 i.v.
P.I. e Cod. Fisc. 11222970151 – R.E.A MI 1447038

Sede Legale:

Via Catone 19 – 20158 Milano

Sede Amministrativa:

Via Rimembranze 93 Int.56 – 20099 Sesto San Giovanni (Mi)

Specifications

This list is appropriate for MicroPette and MicroPette plus
(Adjustable and Fixed volume)

Single-channel Adjustable Volume Pipettes

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
0.1-2.5µL	0.05µL	2.5µL	2.50%	0.0625	2.00%	0.05
		1.25µL	3.00%	0.0375	3.00%	0.0375
		0.25µL	12.00%	0.03	6.00%	0.015
0.5-10µL	0.1µL	10µL	1.00%	0.1	0.80%	0.08
		5µL	1.50%	0.075	1.50%	0.075
		1µL	2.50%	0.025	1.50%	0.015
2-20µL	0.5µL	20µL	0.90%	0.18	0.40%	0.08
		10µL	1.20%	0.12	1.00%	0.1
		2µL	3.00%	0.06	2.00%	0.04
5-50µL	0.5µL	50µL	0.60%	0.3	0.30%	0.15
		25µL	0.90%	0.225	0.60%	0.15
		5µL	2.00%	0.1	2.00%	0.1
10-100µL	1µL	100µL	0.80%	0.8	0.15%	0.15
		50µL	1.00%	0.5	0.40%	0.2
		10µL	3.00%	0.3	1.50%	0.15
20-200µL	1µL	200µL	0.60%	1.2	0.15%	0.3
		100µL	0.80%	0.8	0.30%	0.3
		20µL	2.00%	0.6	1.00%	0.2
50-200µL	1µL	200µL	0.60%	1.2	0.15%	0.3
		100µL	0.80%	0.8	0.30%	0.3
		50µL	1.00%	0.5	0.40%	0.2
100-1000µL	5µL	1000µL	0.60%	6	0.20%	2
		500µL	0.70%	3.5	0.25%	1.25
		100µL	2.00%	2	0.70%	0.7
100-1000µL	5µL	1000µL	0.60%	6	0.20%	2
		500µL	0.70%	3.5	0.25%	1.25
		100µL	2.00%	2	0.70%	0.7
1000-5000µL	50µL	5000µL	0.50%	25	0.15%	7.5
		2500µL	0.60%	15	0.30%	7.5
		1000µL	0.70%	7	0.30%	3
2-10mL	0.1mL	10mL	0.60%	60	0.20%	20
		5mL	1.20%	60	0.30%	15
		2mL	3.00%	60	0.60%	12

DIN specifications are used as guidelines and the user calibration should refer to the industrial standard ISO 8655.

Sede Legale:

Via Catone 19 – 20158 Milano

Sede Amministrativa:

Via Rimembranze 93 Int.56 – 20099 Sesto San Giovanni (Mi)



MANAGEMENT SYSTEM CERTIFIED
ACCORDING TO ISO 9001:2000**8-channel Adjustable Volume Pipettes**

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
0.5-10µL	0.1µL	10µL	1.50%	0.15	1.50%	0.15
		5µL	2.50%	0.125	2.50%	0.125
		1µL	4.00%	0.04	4.00%	0.04
5-50µL	0.5µL	50µL	1.00%	0.5	0.50%	0.25
		25µL	1.50%	0.375	1.00%	0.25
		5µL	3.00%	0.15	2.00%	0.1
50-300µL	5µL	300µL	0.70%	2.1	0.25%	0.75
		150µL	1.00%	1.5	0.50%	0.75
		50µL	1.50%	0.75	0.80%	0.4

12-channel Adjustable Volume Pipettes

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
0.5-10µL	0.1µL	10µL	1.50%	0.15	1.50%	0.15
		5µL	2.50%	0.125	2.50%	0.125
		1µL	4.00%	0.04	4.00%	0.04
5-50µL	0.5µL	50µL	1.00%	0.5	0.50%	0.25
		25µL	1.50%	0.375	1.00%	0.25
		5µL	3.00%	0.15	2.00%	0.1
50-300µL	5µL	300µL	0.70%	2.1	0.25%	0.75
		150µL	1.00%	1.5	0.50%	0.75
		50µL	1.50%	0.75	0.80%	0.4

Fixed Volume Pipettes

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			(Accuracy error)		(Precision error)	
			%	µL	%	µL
5µL	-	5µL	1.3%	0.045	1.2%	0.06
10µL	-	10µL	0.8%	0.08	0.8%	0.08
20µL	-	20µL	0.6%	0.12	0.5%	0.1
25µL	-	25µL	0.5%	0.125	0.3%	0.075
50µL	-	50µL	0.5%	0.25	0.3%	0.15
100µL	-	100µL	0.5%	0.5	0.3%	0.3
200µL	-	200µL	0.4%	0.8	0.2%	0.4
250µL	-	250µL	0.4%	1.0	0.2%	0.5
500µL	-	500µL	0.3%	1.5	0.2%	1.0
1000µL	-	1000µL	0.3%	3.0	0.2%	2.0
2000µL	-	2000µL	0.3%	6.0	0.15%	3.0
5000µL	-	5000µL	0.3%	15	0.15%	7.5

IQAS specifications are used
for guidelines and the user
calibration should refer to
the industrial standard ISO
8655.

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NEW ROS

REVERSE OSMOSIS SYSTEM EQUIPPED TO FEED AUTOMATICALLY 1 BIG AUTOCLAVE

Designed to produce high quality demineralized water by reverse osmosis and ion Exchange, this equipment can be directly connected to a big Autoclave.

DESCRIPTION

- Made in Italy
- It automatically provides water directly to a big Autoclave
- It does not require any electrical connection
- It works by the incoming water pressure
- Filter kit included can provide from 900 up to 1.200 liters of demineralized water
- Filters replacement at least once a year, it's quite easy and it can be done by the operator



SOME ADVANTAGES: SAVING MONEY MACHINE!

SAVING MONEY: STOP buying demineralized water and STOP stocking it

The cost of a sterilization cycle is almost zero compared to other manual or automatic systems

SAVING COSTS FOR STAFF: as autoclaves are supplied automatically, you can save working time. Reverse osmosis filtration system is universally recognized as

THE MOST ECONOMICAL AND ENVIRONMENTALLY FRIENDLY to produce demineralized water

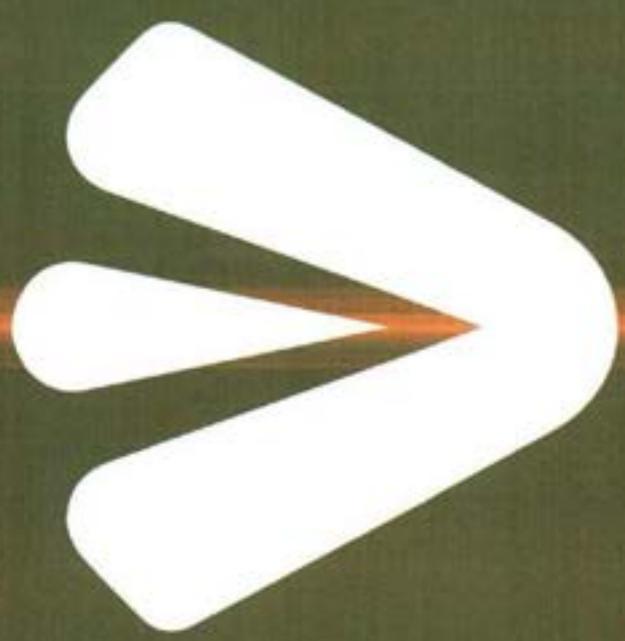
SPECIFICATION AND DIMENSION



EQUIPMENT DIMENSION			SPECIFICATION		
Height	cm	43	Maximum incoming water pressure	bar-kPa	8 - 800
Width	cm	40	Minimum incoming water pressure	bar-kPa	2,5 - 250
Depth	cm	16	Minimum incoming water flow	l/h	300
Weight	kg	4,3	Production average rate 20°	l/h	30







MK-DENT



Oliver



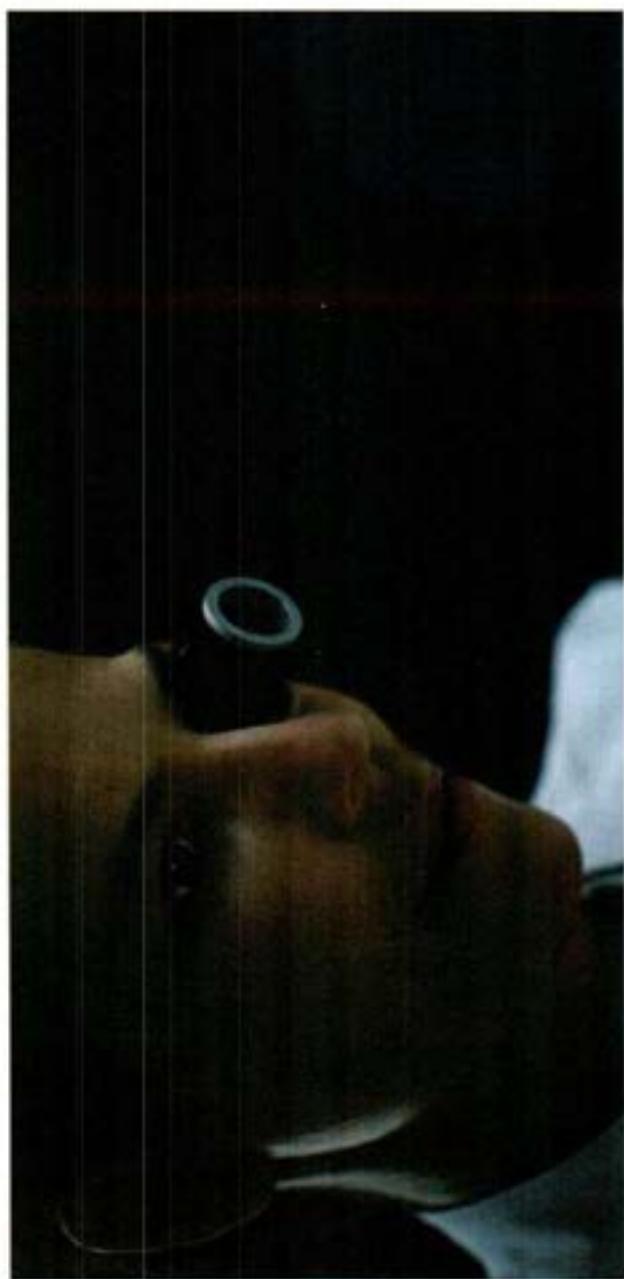
DISCOVER THE
ADVANTAGE

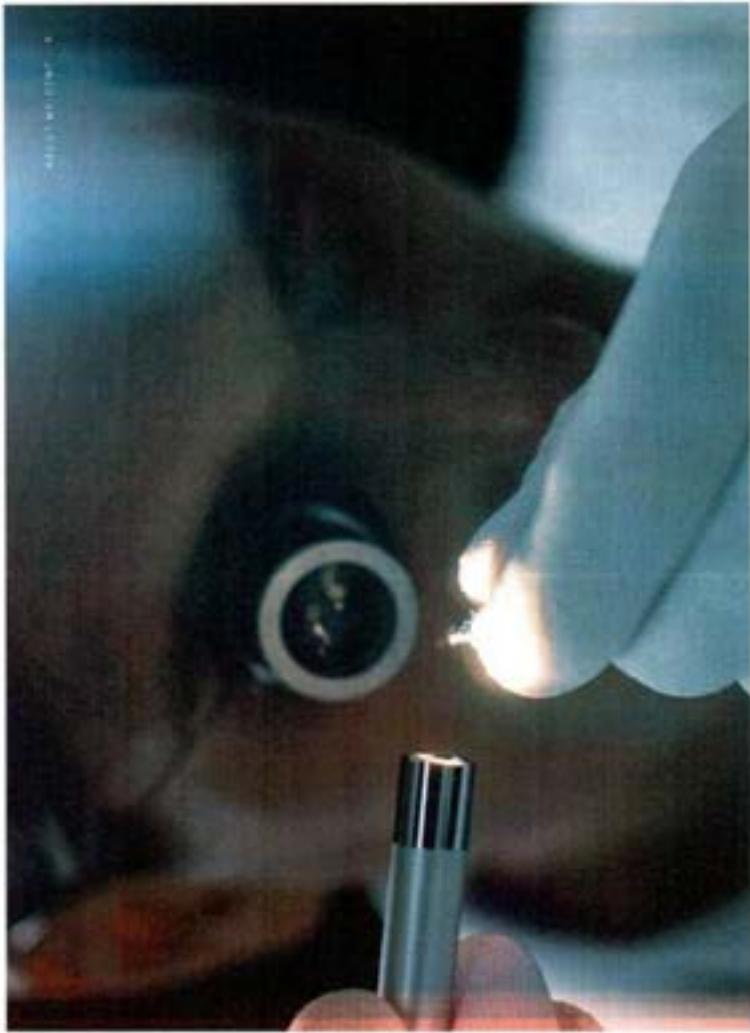
THE COLLECTION

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MK-DENT SERVICE	68



ABOUT
MK-DENT





About MK-dent

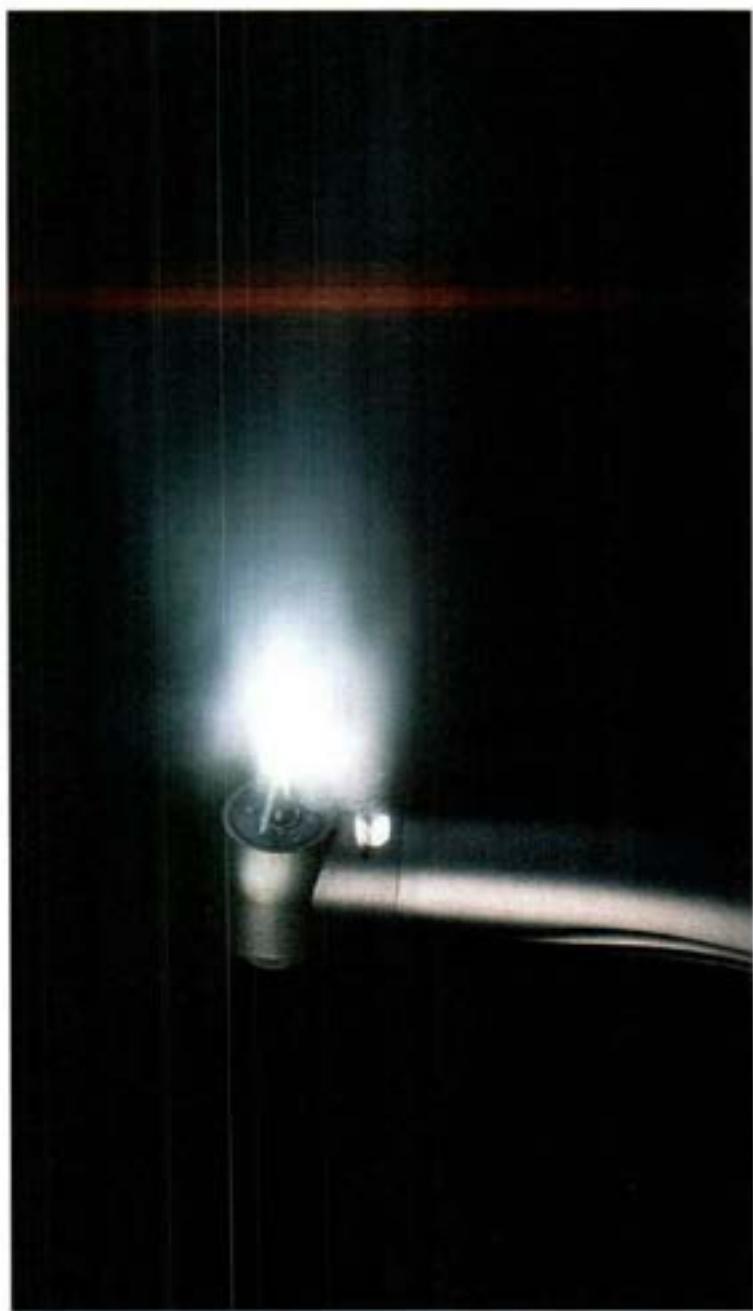
Founded in 1975 in Garmisch, MK-dent has grown into one of the leading manufacturers of dental instruments. Today, our portfolio includes a large range of dental instruments available in more than 110 countries around the world, through a distribution network of approximately 100 authorized dealers. At MK-dent, we are striving to offer a broad instrument portfolio to dentistry. We strive to produce by hand every dental instrument and help professionals of dentistry in their daily work.

In Pursuit of Excellence: What does it take to make a masterpiece?

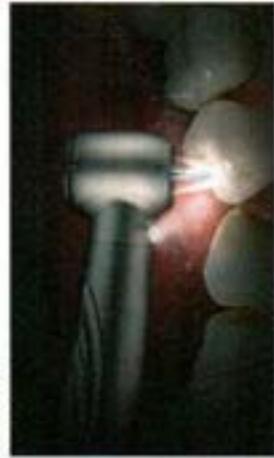
To achieve the company's 25th anniversary, we are launching the global campaign "In Pursuit of Excellence". At MK-dent, we are now a manufacturer of a complete catalogue of dental instruments, instruments and techniques with a commitment to create unique and everlasting bonds between us and our customers, thus making the pursuit of mastery the best of their work.



TURBINES



AUTOMATIC PRESSURE REGULATION



ADJUST TO ANY SITUATION.

NEXT LEVEL AERODYNAMICS.

With the introduction of our new generation of turbines, designed and engineered to fit every unique application, we're taking the next level of aerodynamics to a new level. By increasing the efficiency of the flow, there's less energy required to move air through the system, which in turn reduces the required power output of the engine. This allows for more efficient, faster and smoother operation of the engine, resulting in lower fuel consumption and reduced emissions. The new generation of turbines is designed to be more efficient and reliable than ever before, making them the perfect choice for any application.

REVERSE FLOW PROTECTION



PROTECTION FROM START TO FINISH.

The introduction of our new generation of turbines, designed and engineered to fit every unique application, we're taking the next level of aerodynamics to a new level. By increasing the efficiency of the flow, there's less energy required to move air through the system, which in turn reduces the required power output of the engine. This allows for more efficient, faster and smoother operation of the engine, resulting in lower fuel consumption and reduced emissions. The new generation of turbines is designed to be more efficient and reliable than ever before, making them the perfect choice for any application.

AERODYNAMIC BLADES



QUALITY PRECISELY BUILT FOR RELIABILITY.

The introduction of our new generation of turbines, designed and engineered to fit every unique application, we're taking the next level of aerodynamics to a new level. By increasing the efficiency of the flow, there's less energy required to move air through the system, which in turn reduces the required power output of the engine. This allows for more efficient, faster and smoother operation of the engine, resulting in lower fuel consumption and reduced emissions. The new generation of turbines is designed to be more efficient and reliable than ever before, making them the perfect choice for any application.

HEAT-GEN CERAMIC BLADES



PERFECT CONCENTRATORS, UNPARALLELED ATTENTIVENESS.

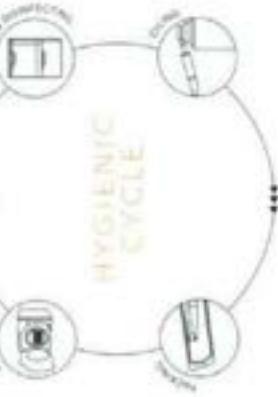
The introduction of our new generation of turbines, designed and engineered to fit every unique application, we're taking the next level of aerodynamics to a new level. By increasing the efficiency of the flow, there's less energy required to move air through the system, which in turn reduces the required power output of the engine. This allows for more efficient, faster and smoother operation of the engine, resulting in lower fuel consumption and reduced emissions. The new generation of turbines is designed to be more efficient and reliable than ever before, making them the perfect choice for any application.

HIGHLIGHTS TURBINES



**Special care for
an enhanced lifetime.**

With Hygienic Care you can help to enhance the lifetime of your dental implants. The accuracy of your hygienist's surgical instruments and implants' maintenance is highly important. Our high performance dental tools ensure a secure fit throughout the entire lifetime and provide ease of instruments use during surgery and cleaning. The active elements of the above instruments are made from titanium. This is ideal material especially for implants as it does not irritate and causes no reaction to your body.



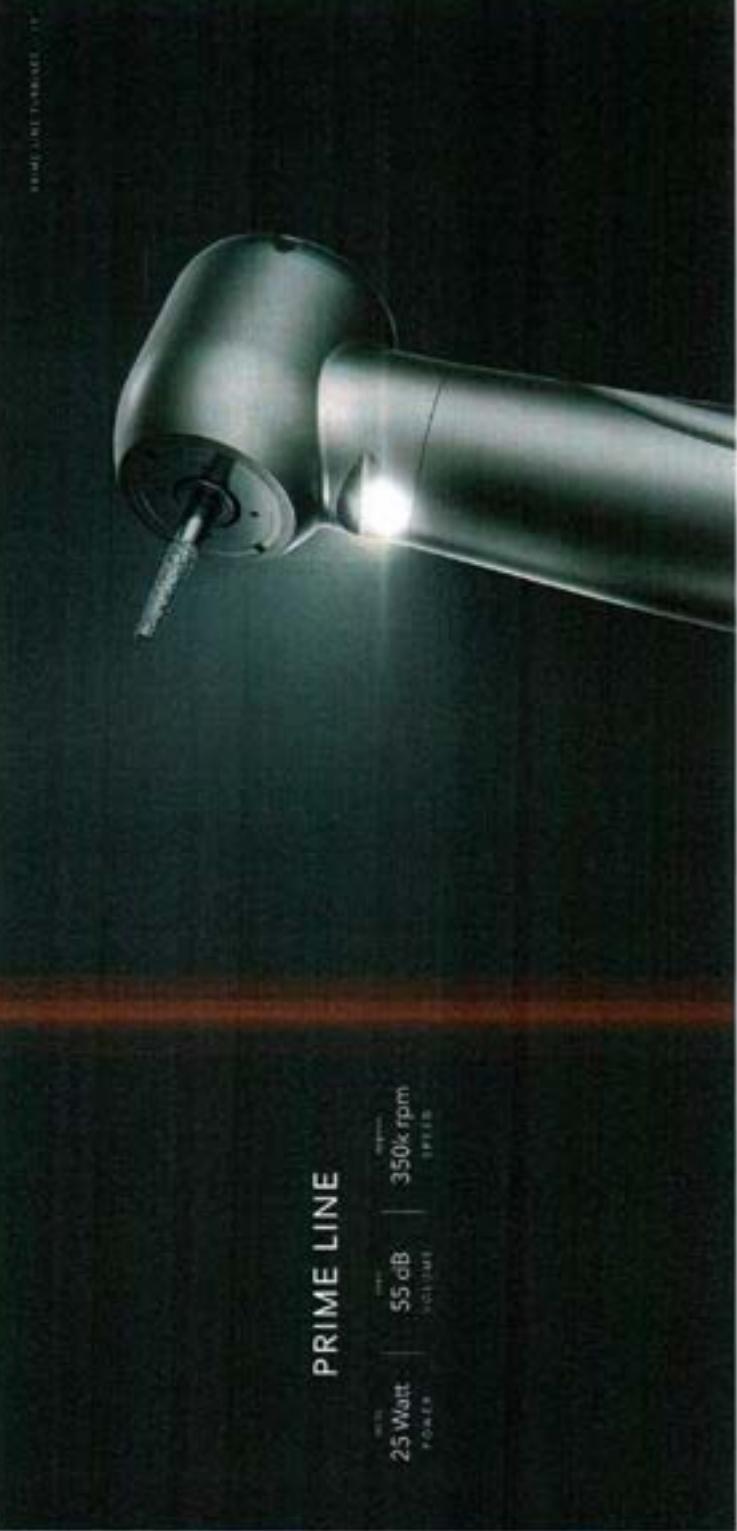
www.hygienic.com

* Standard ** Optional *** Not available



* Standard ** Optional *** Not available

* Standard ** Optional *** Not available



PRIME LINE

25 Watt | 55 dB | 350k rpm
POWER | NOISE | SPEED

-  AUTOMATIC BLACK
-  AUTOMATIC PRESSURE REGULATION
-  SCRATCH-RESISTANT TITANIUM COATING
-  DURABLE AND THERMO-RESISTANT
-  REVERSIBLE PROTECTION
-  INTEGRAL
-  REVERSIBLE BLACK
-  REVERSIBLE PROTECTION
-  INTEGRAL





**Perfect concentricity,
unrivaled retention force.**

The secret of drilling control lies in the unique airflow vehicle. Powered with 12 liters of pressure and heated to 320°F, it achieves the best concentric dispersion - the result of dual material - in fact no metal is forced against a rotating nozzle. This resulting concentric motion is faster than both heat and pressure. By creating a free spindle with concentric air, vibration, air leakage and vibration of the entire unit of the system is reduced by 50% to 70%. The result of having a smooth, linear working surface and exact force distribution can be held in full control. Perfect concentricity and superior retention force - unmatched long-term precision, during repeated use of unrivaled superior patient safety.

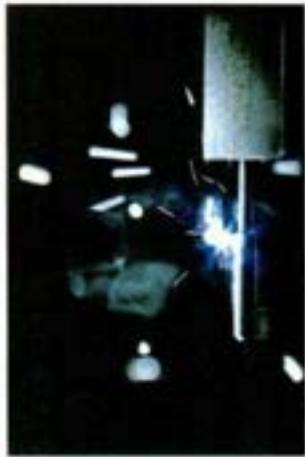


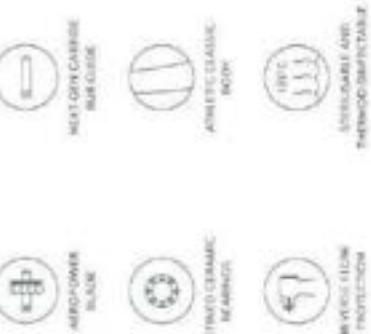
PRIME LINE TURBINE

REF ID: PRIMELINE[®], MACHINERIA
REF ID: PRIMELINE[®], MACHINERIA

PRIME LINE TURBINE
REF ID: PRIMELINE[®], MACHINERIA

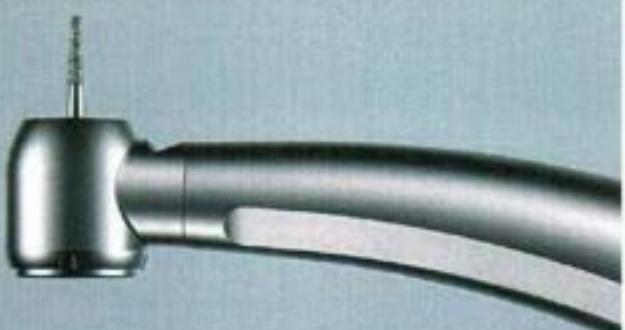
PRIME LINE TURBINE, machined head
Heated spray cones at 12.5 L/min 320°F
Pulse spray cone 320°F
Concentric spray cone 320°F





CLASSIC LINE

20 Watt | 27 dB | 375k rpm | 1.6 Nm | 1.6 Nm





Curved corners, powerful stance.

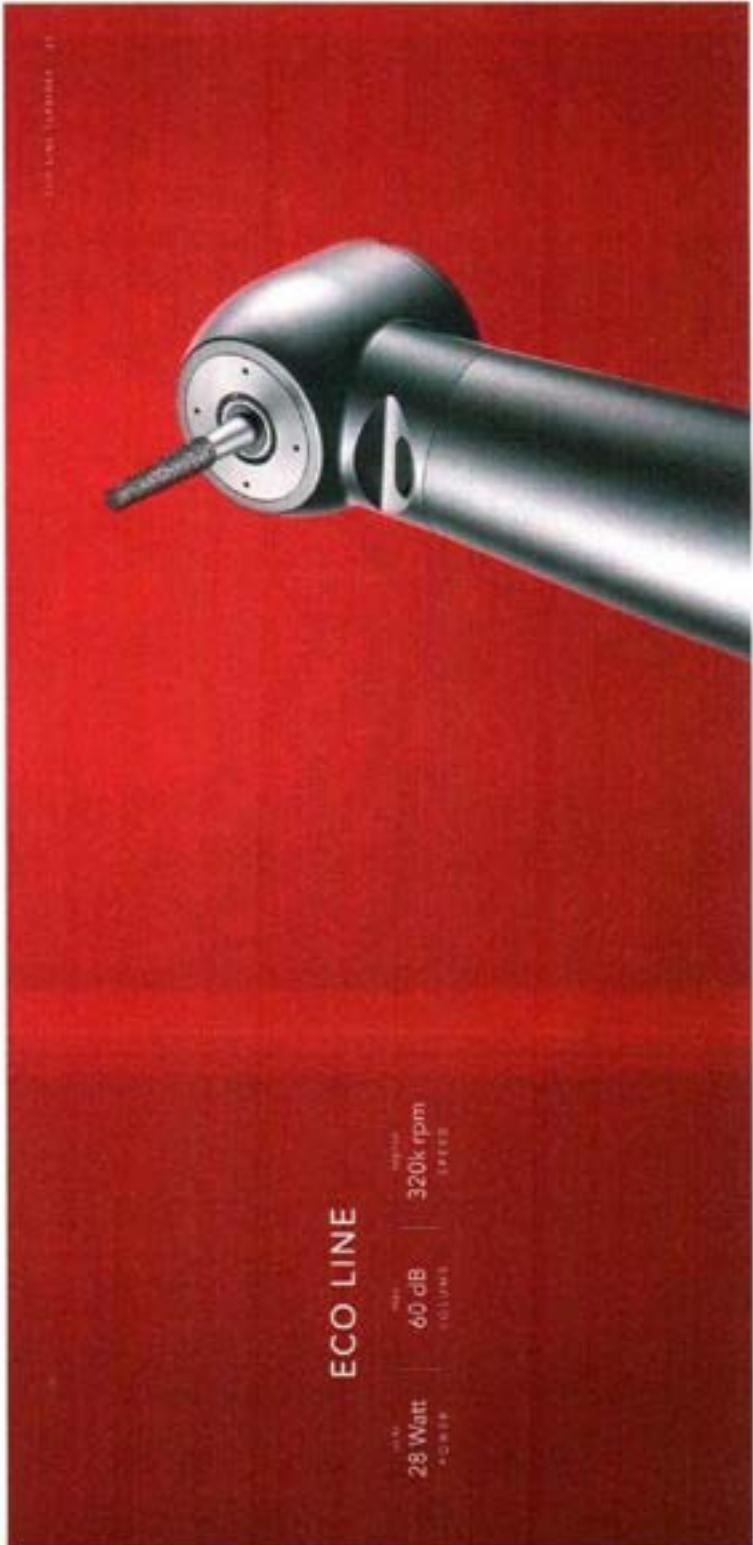
The ergonomic design, uncompromising functional simplicity, straightforward assembly and an array of unique features from the newest members of the Classic Line to new design continuations on the much-favored, well-used Turbine heads contribute to establishing the industry's strongest, growing family of dental instruments. Please explore our website.

CLASSIC LINE TURBINE
HEXAGONAL TURBINE HEAD

hexagonal hexagon, 1/4" (6.35 mm)
hexagonal hexagon, 6.35 mm (1/4")
hexagonal hexagon, 6.35 mm (1/4")

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ECO LINE

28 Watt | 60 dB | 320k rpm

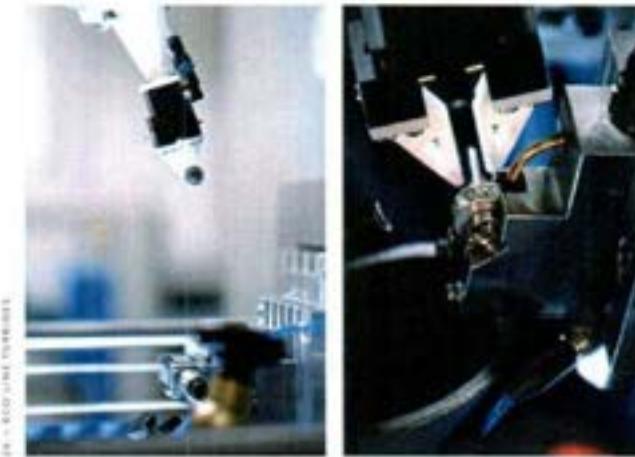
-  **ALUMINUM
BATTERY**
-  **REFINED CERAMIC
DISCS**
-  **GLASS FIBER
HOLDERS**
-  **REFINED CERAMIC
DISCS**
-  **STERILIZABLE
THERMO-DISINFECTABLE**



Aerodynamic innovations

In the front of every ECO LINE turbine is a aerodynamically balanced impeller. Balancing the front case is the key to balancing the entire unit. Incremental weights ensure the best possible performance.

The blade has a slight camber at the nose, an aerodynamically balanced base and thin profile, creating accompanying harmonics. This results in an optimal balance that minimizes vibration while minimizing fan noise and noise levels in an environment-friendly range.



28 - ECO LINE TURBINE

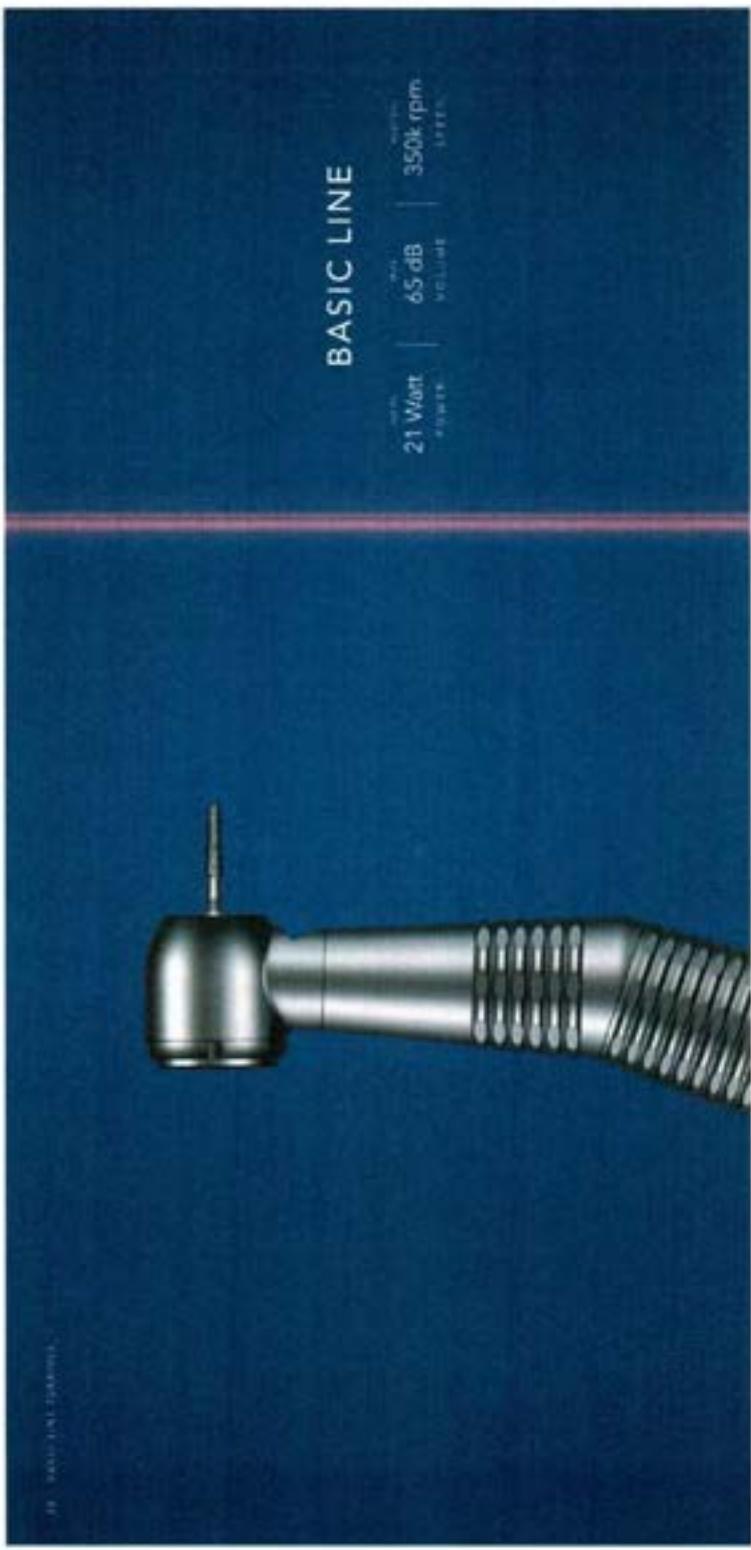


ECO LINE TURBINE

(ECO LINE TURBINE) (Model: 100)

ECO LINE TURBINE
100 (ECO LINE TURBINE) (Model: 100)
dimensions (mm): height: 1000 mm
width: 1000 mm depth: 1000 mm
power: 1000 W
current: 10 A
voltage: 230 V
frequency: 50 Hz
maximum air flow: 100 m³/h
maximum pressure: 100 Pa

—with fan blade (fan protection and protection)



Refined formular, silent rotations

Dental instruments have the most extreme requirements. That's why high-quality and accurate models by hand-honed can be used in demanding fields. Equipped with a compact, integrated trigger as well as the extremely robust handle of the turbine, they remove teeth with a long, sweeping, almost silent stroke.



BASIC LINE TURBINE

refined line with light, small head

standard turbine	refined line
head hole diameter: 1.5 x 4 mm	head hole diameter: 1.5 x 4 mm
handle: 100 mm, soft tip	handle: 100 mm, soft tip
standard trigger, open slot	standard trigger, open slot
standard handle, 1.5 mm thick, 100 mm	standard handle, 1.5 mm thick, 100 mm
maximum rpm: 15,000	maximum rpm: 15,000

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MK-dient couplings

The series cover the temperature spectrum from -196 °C down to 1000 °C in standard versions. An extensive range of options and variants for all conceivable sensors and cables give you the choice. Integrated with flexible microconnection cable and sensor cables, MK-dient couplings offer a space or weight advantage. MK-dient couplings with integrated sensors and sensor cables are available in standard dimensions within the range of all standard tendons. Please, however, note that the integrated sensors have a light load effect on the available measuring principle. With a glass fibre light guide, a lower temperature of 1000 °C, the glass fibre and holder are designed for cable temperatures of 1000 °C. The protection class of the component is IP67.

Coupling

Welded design

Temperature range: -196 °C to 1000 °C
Protection class: IP67
Weight: approx. 10 g
Material: stainless steel, PTFE, Viton
Tension force: 10 N
Material resistance: 1000 °C
Material resistance: 1000 °C
Material resistance: 1000 °C
Material resistance: 1000 °C



Two views of a coupling

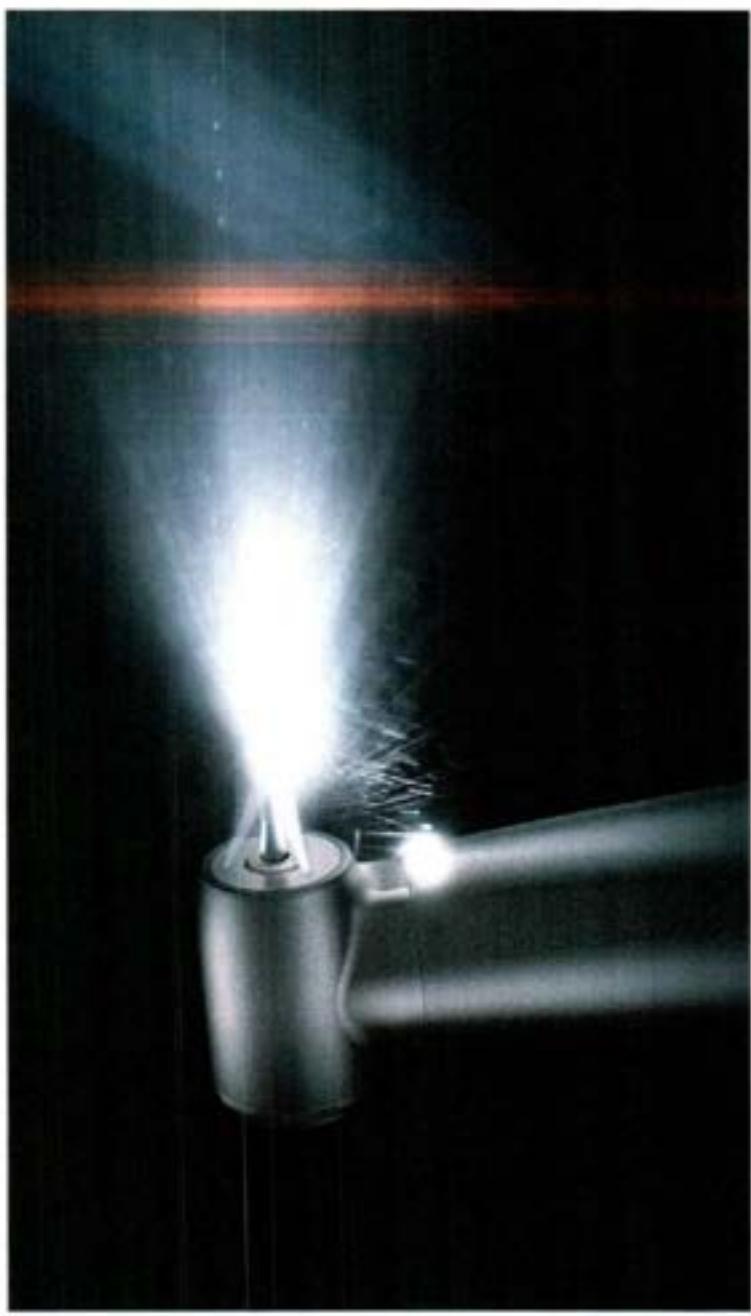
Coupling

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Material resistance: 1000 °C



CONTRA-ANGLE
HANDPIECES



HIGHLIGHTS CONTRA-ANGLES

THE RESULT OF
25 YEARS EXPERIENCE



UNDAUNTED PASSION, IMPECCABLE QUALITY

We value quality, reliability, performance, innovation, and creativity. Our passion for precision machining has been the driving force behind our success. We have always strived to push the boundaries of what is possible, constantly seeking ways to improve our processes and products. Our commitment to quality and precision is unwavering, and we are dedicated to providing our customers with the highest level of service and support.

INTERCHANGABLE
HEADS



DEVELOPED FOR VERSATILITY, HARMONIZED SUSTAINABILITY

Developed for versatility, our contra-angle heads are designed to accommodate a wide range of applications. Our harmonized sustainability approach ensures that our products are manufactured with environmental responsibility in mind. We strive to minimize waste and maximize efficiency, while maintaining the highest standards of quality and performance.

RANGE OF
TRANSMISSION
HEADS



SIMPLIFIED FOR USE TECHNOLOGY,

Harmonized technology is at the heart of our contra-angle heads. Our advanced software and systems ensure that our products are easy to use and maintain. We offer a range of training and support services to help you get the most out of your investment.

Glass rod
light conductor



GLASS ROD LIGHT CONDUCTOR

Our glass rod light conductor is designed to provide bright, focused illumination in tight spaces. It features a durable, flexible glass rod that can be easily bent to reach difficult-to-access areas. The light source is a compact LED, which provides long-lasting, energy-efficient illumination. Our glass rod light conductor is perfect for inspecting small parts, performing delicate assembly work, and more.





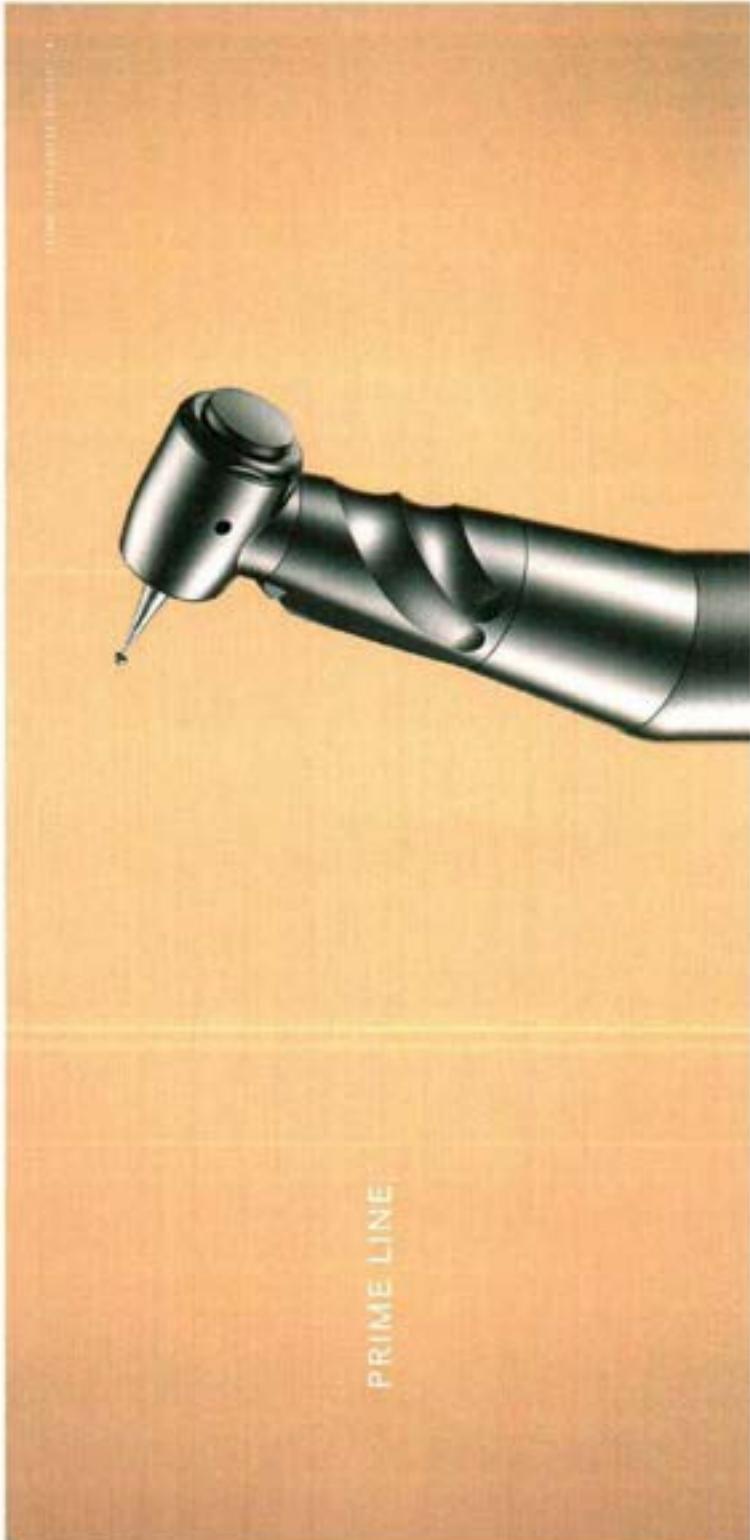
Explore MK-dent accessories

The wide range of instruments offers an ideal solution for every dental procedure. An extensive range of tools for all common tasks and specific procedures has been developed. The aim is to provide the best quality and the widest range of oral instruments. The accuracy of your technique largely depends on high performance instruments specifically developed by MK-dent to accommodate the most difficult areas of treatment.

FIND THE RIGHT ONE FOR YOU

Instrument name	Tip size	Tip size	Tip size	Tip size
High tip	No. 12	No. 12	No. 10	No. 10
Flaring	Medium	Medium	Large	Large
Rock tip	Rock	Rock	Rock	Rock
Pointed Rock tip	Pointed Rock	Pointed Rock	Pointed Rock	Pointed Rock
Chamfering bur	21	21	21	21
Interdental	②	②	②	②
Microdrill accessories	③	③	③	③

* Standard ** Optional
** optional accessories for use in combination



PRIME LINE

-  INTEGRATION
OF
PRIME LINE
SYSTEMS
-  LIGHT SOURCE
CONNECTION
-  HIGH-QUALITY
FOCUSING SYSTEM
-  STERILE AND
THREE-DIMENSIONAL
BALANCE
-  RANGE OF
TRANSMISSION
-  LIGHT WEIGHT
AND
PORTABLE DESIGN
-  OPTIMAL
BALANCE





LINE CONTRA-ANGLE
WITH LIP



PRIME LINE HANDPIECE
100% HSS, Nitro-Treated
100%  



PRIME LINE HEAD
LAWYER



PRIME LINE HEAD
100% COTTON


J. Child Psychol. Psychiatr. 2000; 41: 169–180



CLASSIC LINE





**CLASSIC LINE CONTRA ANGLE
L/C/L WITH STRAIGHT SHANK**

CONTRA ANGLE
L/C/L WITH STRAIGHT SHANK
CLASSIC LINE
L/C/L
STRAIGHT
SHANK

**CLASSIC LINE CONTRA ANGLE
L/C/L WITH CONTRA SHANK**

CONTRA ANGLE
L/C/L WITH CONTRA SHANK
CLASSIC LINE
L/C/L
CONTRA
SHANK



**CLASSIC LINE CONTRA ANGLE
L/C/L WITH CONTRA SHANK**

CONTRA ANGLE
L/C/L WITH CONTRA SHANK
CLASSIC LINE
L/C/L
CONTRA
SHANK



CLASSIC LINE HANDPIECE

CONTRA ANGLE
L/C/L WITH CONTRA SHANK
CLASSIC LINE
L/C/L
CONTRA
SHANK

**CLASSIC LINE HEAD
L/C/L**

CONTRA ANGLE
L/C/L WITH CONTRA SHANK
CLASSIC LINE
L/C/L
CONTRA
SHANK



**CLASSIC LINE HEAD
L/C/L**

CONTRA ANGLE
L/C/L WITH CONTRA SHANK
CLASSIC LINE
L/C/L
CONTRA
SHANK

**CLASSIC LINE HEAD
L/C/L**

CONTRA ANGLE
L/C/L WITH CONTRA SHANK
CLASSIC LINE
L/C/L
CONTRA
SHANK



**CLASSIC LINE HEAD
L/C/L**

CONTRA ANGLE
L/C/L WITH CONTRA SHANK
CLASSIC LINE
L/C/L
CONTRA
SHANK



INTERCHANGEABLE
FLUSS



MANUAL
TRANSMISSION



SMOOTH CHROMED
COUNTERBALANCE



OPTIMAL
BALANCE



LIGHTPIPE

CEAM



LEADS RELEASING
CONNECTOR



LIGHTPIPE

FOR INTRINSIC
ILLUMINATION



STAINLESS AND
THERMODUCTABLE

LEADS



ECO LINE





ECO LINE CONTRA ANGLE
SYSTEM WITH LOCATOR, 15° INSTRUMENT
#150000000000



ECO LINE CONTRACTILE

1000



E. CENTER-ANGLE
RIGHT-LEFT-WORD-UNITS

卷之三



ECO LINE CONTRA-ANGLÉ

Ward, J. (1992). The concept of 'cultural capital'. In J. Ward (Ed.), *Cultural capital: A reader* (pp. 1-16). London: Sage.



EICO Line CONTRA-MODEL

卷之三



ECHO LINE CONTRA-ANGLE
LINEAR WHITE LIGHT LEVEL 4000 K

卷之三



LINE CONTRA-ANGLE
6746 10110000 1374 10000000

Journal of Health Politics, Policy and Law
Vol. 27, No. 1, January 2002
DOI 10.1215/03616878-27-1
© 2002 by The University of Chicago

ECO LINE HANDPIECE
LEVEL WITH LIPPIE

COMPONENTS: 1x ECO LINE
HANDPIECE, 1x
LIPPIE, 1x
INTERCHANGEABLE
SPRAY NOZZLE, 1x
CERAMIC SPRAY, 1x
NOSE SPRAY, 1x
NOSE SPRAY PLATE, 1x
INTERCHANGEABLE
SPRAY NOZZLE, 1x



ECO LINE HANDPIECE
LEVEL WITH LIPPIE

COMPONENTS: 1x ECO LINE
HANDPIECE, 1x
LIPPIE, 1x
INTERCHANGEABLE
SPRAY NOZZLE, 1x
CERAMIC SPRAY, 1x
NOSE SPRAY, 1x
NOSE SPRAY PLATE, 1x
INTERCHANGEABLE
SPRAY NOZZLE, 1x



Powerful housing. timeless design.

The unique design incorporates several elements that define the look and feel of a classic dental handpiece. From the elegant curves of the handle, through the curved lines of the handpiece on the end, every detail has been carefully considered.

The unique design incorporates several elements that define the look and feel of a classic dental handpiece. From the elegant curves of the handle, through the curved lines of the handpiece on the end, every detail has been carefully considered.





BALANCE
EASY BALANCE



OPTIMAL
BALANCE



ERGONOMIC
DESIGN



LIGHTWEIGHT
EASY TO HANDLE



ERGONOMIC
HANDLE AND
THREE POSITIONABLE

BASIC LINE



36 - BASIC LINE CONTRA-ANGLE



BASIC LINE CONTRA-ANGLE
LAT. 15° ANTRICOR. LUM.

[View Product Details](#)

• Cylindrical body (15°)
• Head with contra-angle (15°)
• Double-sided (two sides at 15°)
• Special contra-angle
• Non-Lewis straight coupling, 10 mm
• Receptacle P10
• Maintenance instructions: 1

BASIC LINE CONTRA-ANGLE
LAT. 15° ANTRICOR. LUM.

[View Product Details](#)

• Cylindrical body (15°)
• Head with contra-angle (15°)
• Double-sided (two sides at 15°)
• Special contra-angle
• Non-Lewis straight coupling, 10 mm
• Receptacle P10
• Maintenance instructions: 1

BASIC LINE STANDARD HANDPIECE



BASIC LINE HANDPIECE
LAT. 15° ANTRICOR. LUM.

[View Product Details](#)

• Cylindrical body (15°)
• Head with contra-angle (15°)
• Double-sided (two sides at 15°)
• Special contra-angle
• Non-Lewis straight coupling, 10 mm
• Receptacle P10
• Maintenance instructions: 1

BASIC LINE HANDPIECE
LAT. 15° ANTRICOR. LUM.

[View Product Details](#)

• Cylindrical body (15°)
• Head with contra-angle (15°)
• Double-sided (two sides at 15°)
• Special contra-angle
• Non-Lewis straight coupling, 10 mm
• Receptacle P10
• Maintenance instructions: 1

• 100% one piece titanium tool housing construction





BASIC LINE HEAD
13411C

COMPACT HEAD. COMPACT DESIGN
FOR HIGH SPEED, 40,000 RPM.
TURBO DRIVE. TURBO DRIVE FOR HIGH
POWER AND DURABILITY. 40,000 RPM.
REVERSE MODE. REVERSE MODE FOR
VERSATILITY AND DURABILITY.

BASIC LINE HEAD
13411P

COMPACT HEAD. COMPACT DESIGN
FOR HIGH SPEED, 40,000 RPM.
TURBO DRIVE. TURBO DRIVE FOR HIGH
POWER AND DURABILITY. 40,000 RPM.
REVERSE MODE. REVERSE MODE FOR
VERSATILITY AND DURABILITY.

Proportional line, chrome surface.

This precision Proxio® blade series belongs to M&P dental instruments of the world's leading manufacturers of professional instruments. Its distinctive design and uncompromising quality characterize it from well-known dental firms throughout the world. The unique curved handle is extremely comfortable.



MK-dent motors

The MK-dent motor range is one of the largest on the dental market. Electric and air motors are available with multiple working systems. Depending on your clinical needs, an electric or air motor will be the right choice for both heavier bone resection and more often required for teeth preparation or extraction under general anaesthesia.



AIR MOTOR

• Motor • 10000 RPM • 1.5 Nm torque
• Standard • 10000 RPM • 1.5 Nm torque
• High Torque • 10000 RPM • 1.5 Nm torque
• Low Noise • 10000 RPM • 1.5 Nm torque
• High Torque • 10000 RPM • 1.5 Nm torque
• Standard • 10000 RPM • 1.5 Nm torque
• Low Noise • 10000 RPM • 1.5 Nm torque
• Standard • 10000 RPM • 1.5 Nm torque
• Low Noise • 10000 RPM • 1.5 Nm torque



air tools series

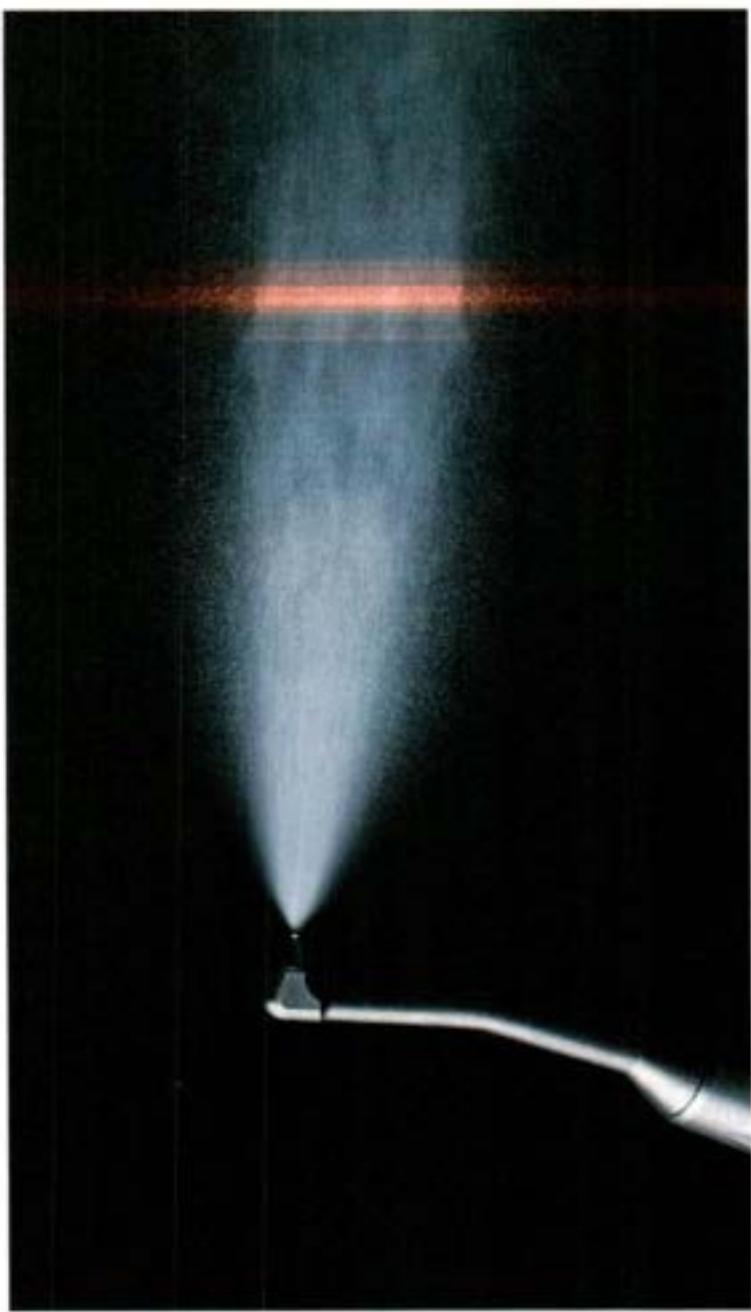


ELECTRIC MOTOR

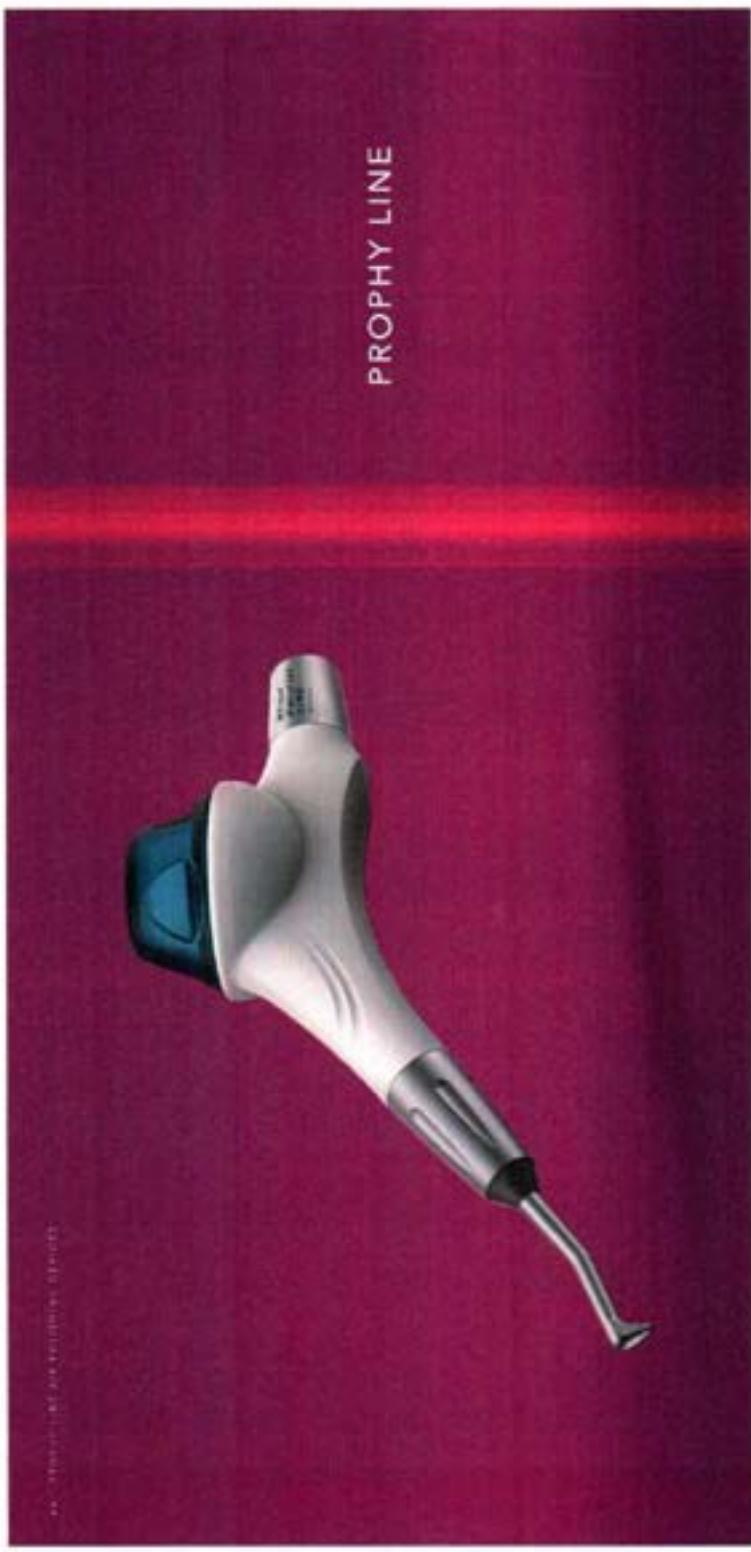
• Motor • 10000 RPM • 1.5 Nm torque
• Standard • 10000 RPM • 1.5 Nm torque
• High Torque • 10000 RPM • 1.5 Nm torque
• Low Noise • 10000 RPM • 1.5 Nm torque
• Standard • 10000 RPM • 1.5 Nm torque
• Low Noise • 10000 RPM • 1.5 Nm torque
• Standard • 10000 RPM • 1.5 Nm torque
• Low Noise • 10000 RPM • 1.5 Nm torque



PROPHYLAXIS



DR. CHRISTIANE FRIEDRICH



PROPHY LINE

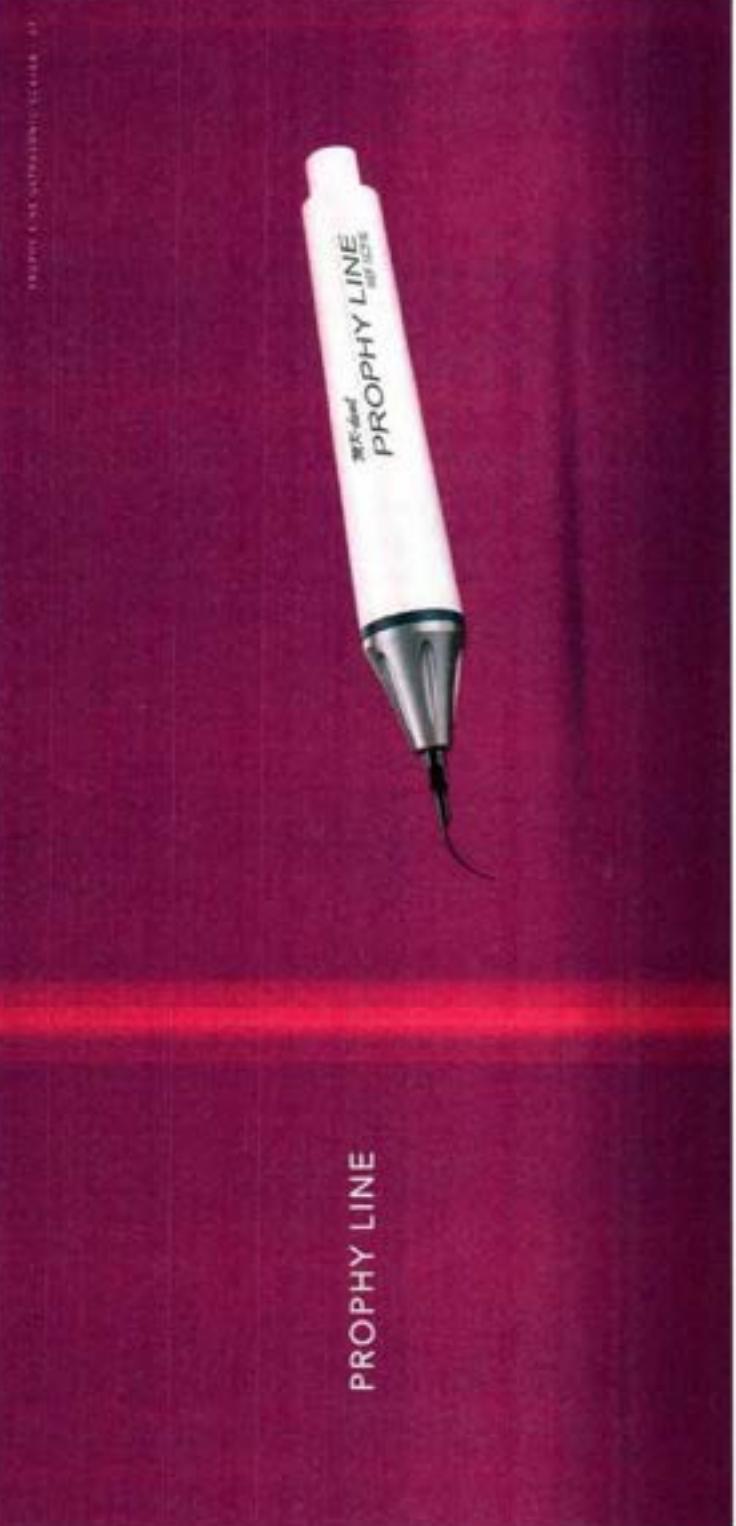
FACILE AND EASY POLISHING DEVICE



Stainless steel, durable, safe, low noise, low vibration, quick tool, efficient for the removal of calculus and soft tissue, simple to use, no need to change tips or tools, no need to remove the unit from the mouth.

www.dental-dream.com
info@dental-dream.com





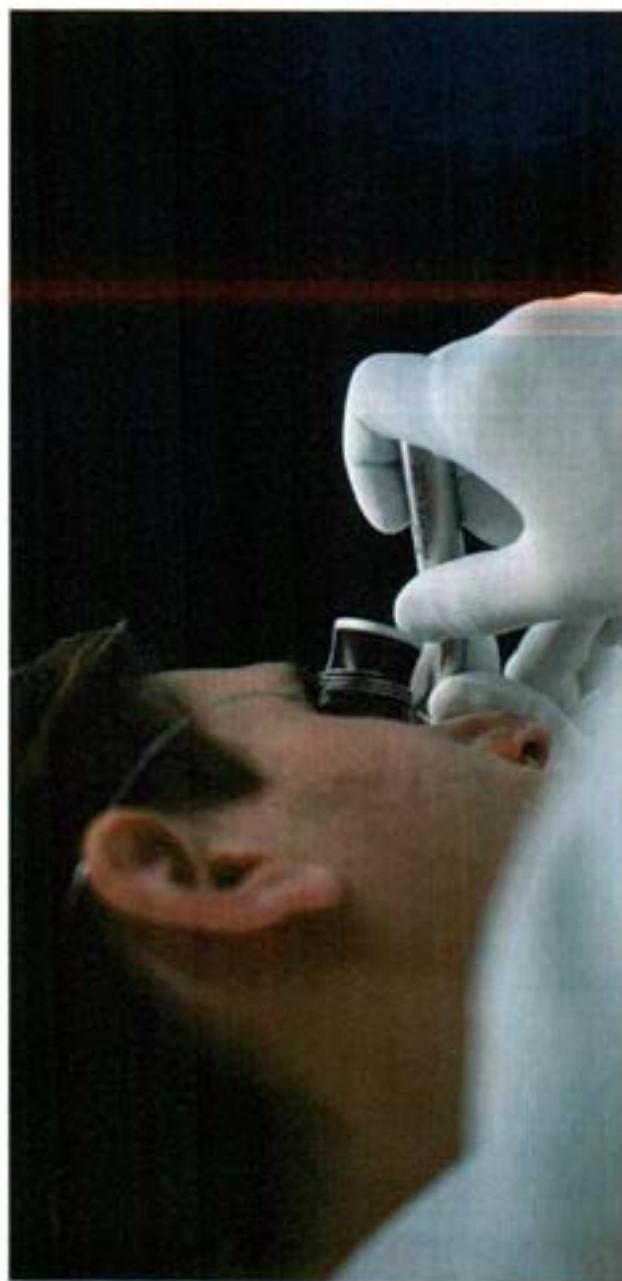
PROPHY LINE

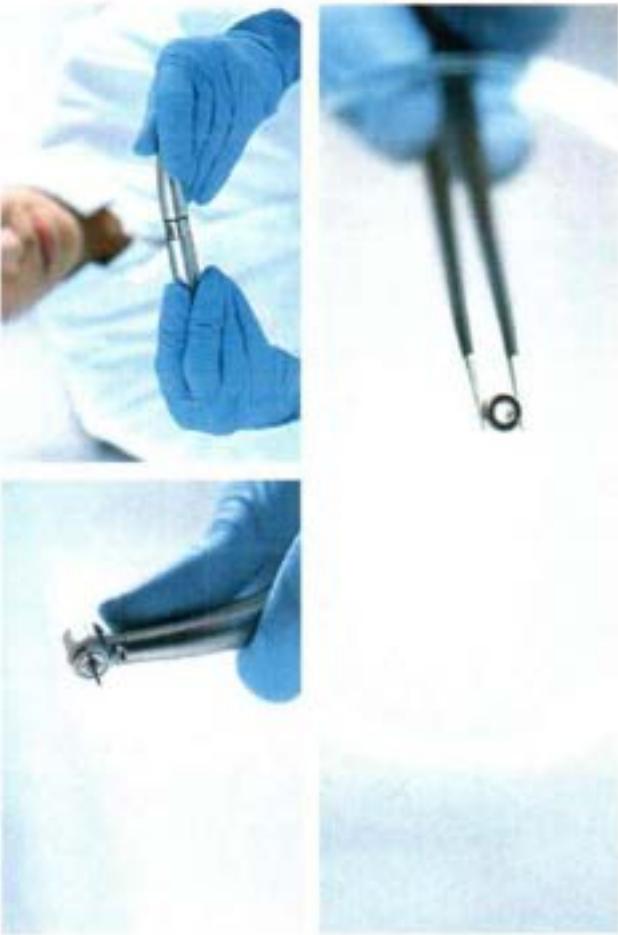
- STYLISH
STEEL CAP
- STERILISABLE AND
DISINFECTION-PROOF
- VERSATILE
AND
DURABLE
- SYNTHETIC MATERIAL
NEEDLELESS

U.S.A.: 4000 North Service Drive, Suite 100, Dallas, TX 75241 • 800/225-2000
CANADA: 1000 Lakeshore Road, Mississauga, Ontario L5J 2M2 • 905/629-1000
INTERNATIONAL: 1000 Lakeshore Road, Mississauga, Ontario L5J 2M2 • 905/629-1000
www.dentalcare.com

1-800-225-2000 • FAX: 972-248-1497 • E-mail: info@dc.com
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MK-DENT
SERVICE



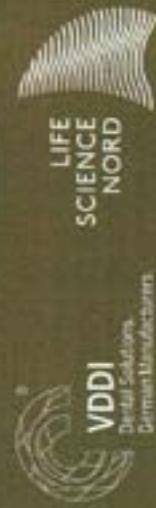


MK-dent Service

MK-dent Service offers our own professional instruments during operations, which are used in our dental clinics and clinics. These tools are designed for dental clinics and used for the treatment of carious teeth, removal of implants, removal of teeth, and orthodontic. All the instruments are made of high-quality materials and are designed to meet the needs of dentists, all of whom are well-trained and experienced professionals. Their quality instruments provide precision to the medical instruments, and bring lasting satisfaction to the patient.



MK-dent is a member of



positive, aesthetic and functional prosthetic restorations and orthodontic treatments for patients of all ages. The company's core products are veneers, crowns, bridges, implants, orthodontics, braces, fixed orthodontic, removable orthodontic and orthopedic devices.

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Name-Circle-Str. 2, 22941 Bargteheide, Germany. mk-dent.com.
Marketing Communications. All illustrations and specifications
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formation available at the time of publication. MK-dent reserves
the right to make changes at any time, without notice, to colour,
materials, equipment, specifications and models. Any variations
in colour shown are due to reproduction variations of the printing
process; illustrations may exclude test situations. Some handpieces
may be shown with non-U.S. equipment. Some handpieces are
shown with optional equipment.

MK-22-01-A



swident

WE SUPPORT YOUR PROFESSION

PARTNER



THE OPTIMUM WORK PARTNER

PARTNER was designed to facilitate dental teamwork and alleviate stress for the dentist, assistant and patient by ensuring maximum performance, comfort and safety. Dedicated to professionals that demand the best from the available technology and up-to-the-minute design, it is the "work partner" that enables you to express your professionalism in a personalized way.

LE PARTENAIRE DE TRAVAIL OPTIMAL

Le modèle PARTNER a été conçu pour faciliter l'intégration de l'équipe dentaire dans le cabinet de travail des bureaux et faciliter l'interaction entre les patients et les professionnels. Il permet d'assurer un maximum de disponibilité des outils et de sécurité. D'autre part, il répond à vos besoins en termes de technologie et de design fonctionnel et est parfaitement adapté à votre environnement de travail et à vos préférences.

EL COMPÁÑERO DE TRABAJO IDEAL

Partner ha sido diseñado para facilitar la integración de los equipos dentales y mejorar la relación entre el personal y los pacientes en el consultorio, garantizando el máximo rendimiento, seguridad y funcionalidad. Dedicado a su trabajo profesional, tiene espacio a medida tecnológico y diseño de una alta calidad. Es un "asistente de trabajo" que le permite expresar su forma personalizada de trabajar.

SWISS PRECISION AND RELIABILITY

If a dental unit is Swiss-made, you can rest assured. It's a sure sign it's an reliable, safe and precise as a watch. From design to assembly, from the choice of materials to quality control, every stage is carefully monitored to construct the perfect mechanism. It is Swiss, so you can trust it.



PRECISO, FIABLE, PROPRIO SWIZZERO

Se un apparecchio dentale è marchiato con il nome di Svizzera, puoi essere sicuro che è fatto con la massima precisione, affidabilità, sicurezza e durata. Cosa vuol dire? È un segnale di qualità, di precisione, di durata e di affidabilità. Come ogni orologio svizzese, ogni parte del meccanismo è controllata e controllata da esperti. Non c'è nulla di più sicuro che un orologio svizzese. È questo il motivo per cui i prodotti Partner sono così affidabili e duraturi.

PRECISO, CONFIDABILE, TIPLICAMENTE SVIZZO

Sie ein Instrument dental wird als marke Schweiz aufgedruckt, kann man sicher sein, dass es eine hochwertige Qualität und eine lange Lebensdauer hat. Das ist kein Zufallsfall, sondern ein Ergebnis der sorgfältigen Arbeit und Kontrolle von Experten. Keine andere Marke kann mit einer solchen Sicherheit und Langlebigkeit verglichen werden.

IL PARTNER DI LAVORO OTTIMALE

Partner è stato progettato per favorire l'integrazione dei team professionali, offrendo lo stesso di comodità, sicurezza e precisione ad ambedue i membri dell'equipaggio. Grazie al progetto ergonomico disponibile a 360°, design attuale e l'appoggio di "Swiss Quality" che garantisce di raggiungere un livello professionale in ogni funzionalità, la nostra

PRECISO, AFFIDABILE, PRODUKT EIGEN

Wer Sie ein Modell PARTNER auf einer Messe oder später kaufen möchte, kann sich beruhigt sein. Denn es handelt sich um eine Anwendungssicherheit und -präzision. Eine Maschine wie eine Schraube oder die Spülung eines Zahnschmelzes, von der Man steuert und kontrolliert, kann nicht fehlerhafter sein. Ein Produkt aus der Schweiz ist ein Produkt, das den höchsten Standard von Qualität und Zuverlässigkeit aufweist.

PRECISO, CONFIDABILE, PARTNER DE TRABAJO

Siempre nos esforzamos por la integración óptima de los equipos dentales en el consultorio, ofreciendo un diseño funcional y una alta calidad. Es un "asistente de trabajo" que le permite expresar su forma personalizada de trabajar.



DER IDEALE ARBEITSPARTNER

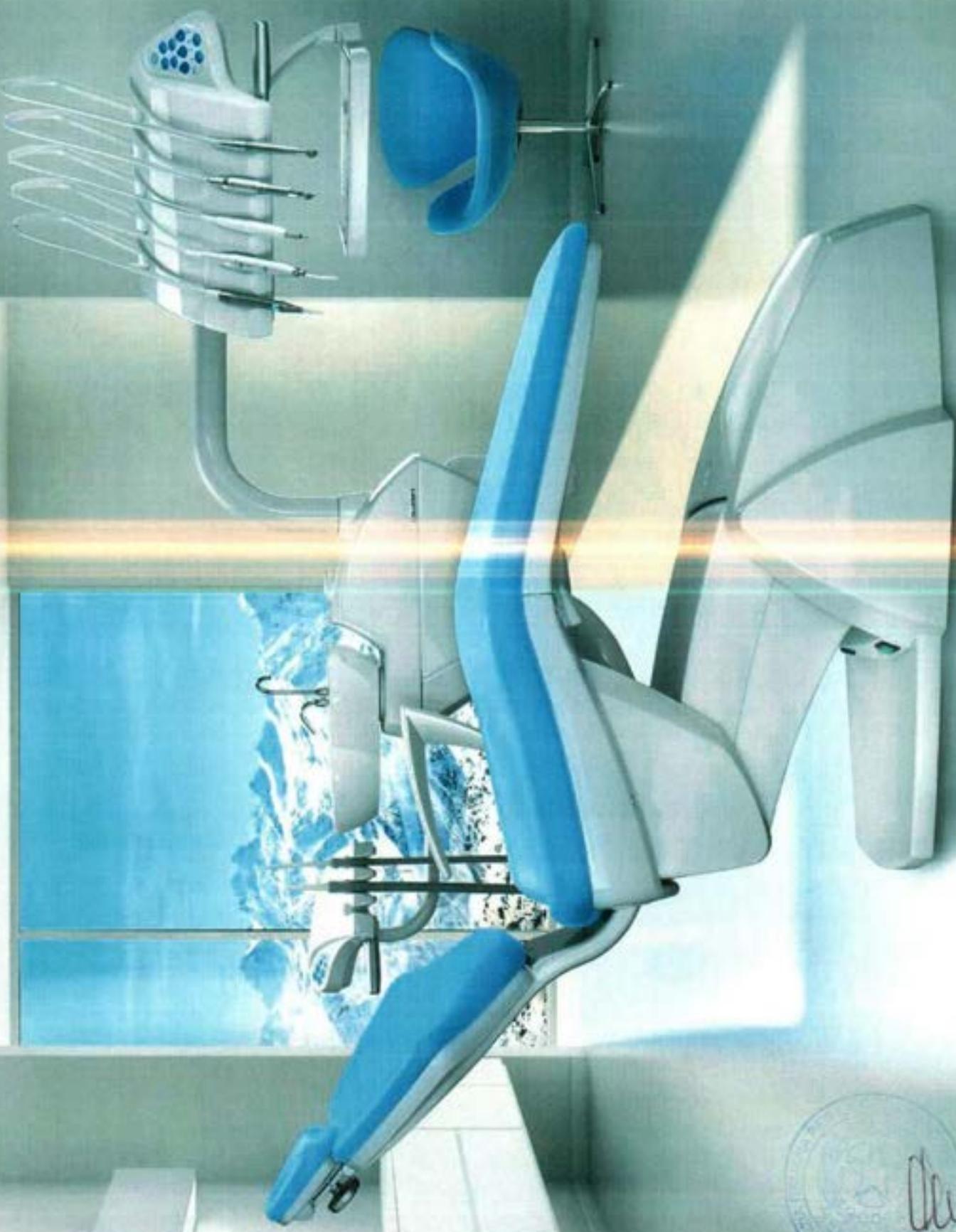
Partner wurde entwickelt, um die Integration aller Zahnärzte und Beratungen, der Assistenten und des Patienten zu erleichtern und dabei gleichzeitig funktionale Leistung, Komfort und Sicherheit zu gewährleisten. Die beste High-Tech Technologie in modernem Design fördert die "Vielzahlität", die bei ihrer hochwertigen Präzision und Zuverlässigkeit ein großes Maßstab ist.

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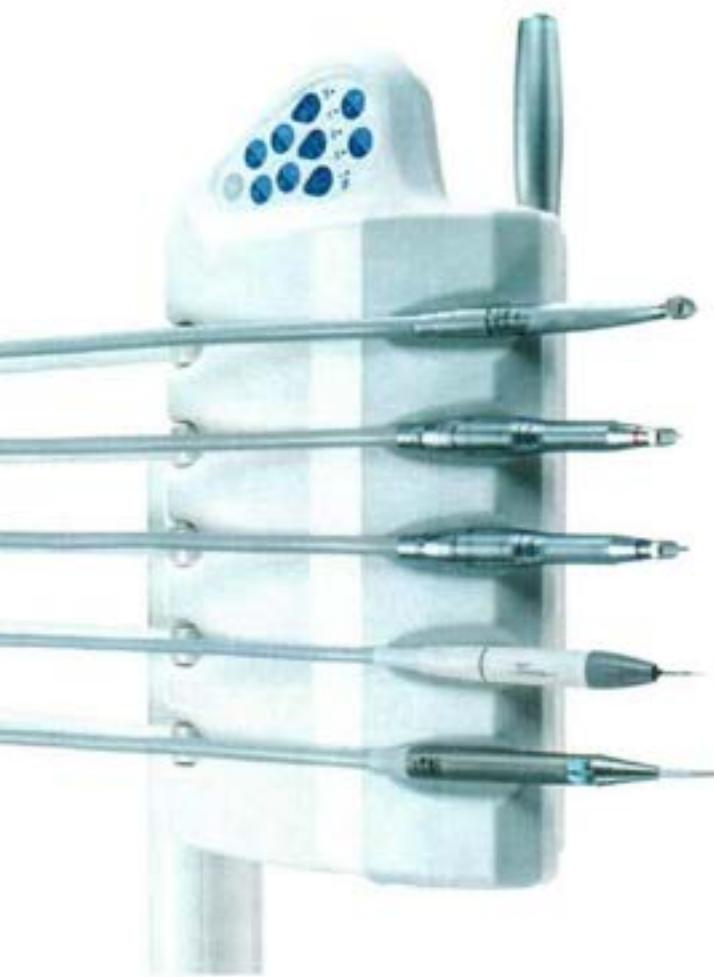
BRUNNEN





EVERYTHING IN ITS PLACE

Phather is the result of a painstaking study of the dentist's work and movements. The instruments are positioned exactly where required and are easy to reach. Each instrument is individually and perfectly balanced. Work becomes a pleasure.



CHOQUE CHOQUE A SA PLACE

Phather es la relación entre el trabajo y el entorno de trabajo que se ha establecido. Los instrumentos tienen posiciones específicas que facilitan su uso. Los instrumentos tienen una posición estable que les permite acceder a las zonas más profundas sin tener que moverse. Cada uno tiene su propia función y su propia función. Los instrumentos están diseñados para ser utilizados de forma individualizada. El trabajo es un placer.

CADA COSA EN SU LUGAR

Phather es el resultado de un extenso estudio del trabajo y los instrumentos del odontólogo. Los instrumentos están ubicados en su lugar, donde se necesitan. Cada uno tiene su propia función y su propia función. Y trabajar es un placer.

ALLES AN SEINEM PLATZ

Phather es das Ergebnis einer sorgfältigen Studie der Arbeit und den Bedürfnissen des Zahnarztes. Die Instrumente sind so positioniert, dass sie leichter zu erreichen sind, wenn sie gebraucht werden. Jedes Instrument hat eine eigene Funktion und jedes ist einzeln für eine bestimmte Zahnregion konzipiert. Ein Instrument kann nicht ohne das andere funktionieren. Es funktioniert auf seine Weise.

CADA COSA EN SU LUGAR

Phather es el resultado de un extenso estudio del trabajo y los instrumentos del odontólogo. Los instrumentos están ubicados en su lugar, donde se necesitan. Cada uno tiene su propia función y su propia función. Y trabajar es un placer.

Can be configured with hanging arms.
Konfigurierbar auch mit hängenden Armen.
Configurable aussi avec les conditions suspendus.
Configurabile anche con sospensioni pendenti.
Konfigurierbar auch mit Hängarmen, anhängen.
Configurabile también con suspensiones colgantes.

GUIDING LIGHT

Everything will be clear. And simple. A Swidert lamp provides uniform lighting over the entire treatment area. Cool white light with a constant colour temperature. Ideal conditions for a great day at work.



LA LUZ QUE NOS GUÍA

Todo será claro. Y sencillo. Una lámpara Swidert proporciona iluminación uniforme sobre el área de tratamiento. Luz blanca fría con una temperatura constante. Ideal para un día de trabajo perfecto.

Swidert dental lamp provides uniform lighting over the entire treatment area. Ideal conditions for a great day at work.

LA LUCE CHE NOS GUIDA

Tutto sarà chiaro. E semplice. Si accende una lampada Swidert e illuminare tutta l'area del trattamento. La luce è bianca fredda, la temperatura di illuminazione costante. Condizioni ottimali per una giornata lavorativa di qualità.

Swidert dental lamp provides uniform lighting over the entire treatment area. Ideal conditions for a great day at work.

KEYWORD: OPTIMISE

Partner is the perfect partner for your work. It could easily integrate its performance. With optimised instruments, the professional technical know-how you work on will become even more efficient. An optimised workflow and efficient safety measures.



MEILLEURER OPTIMISER

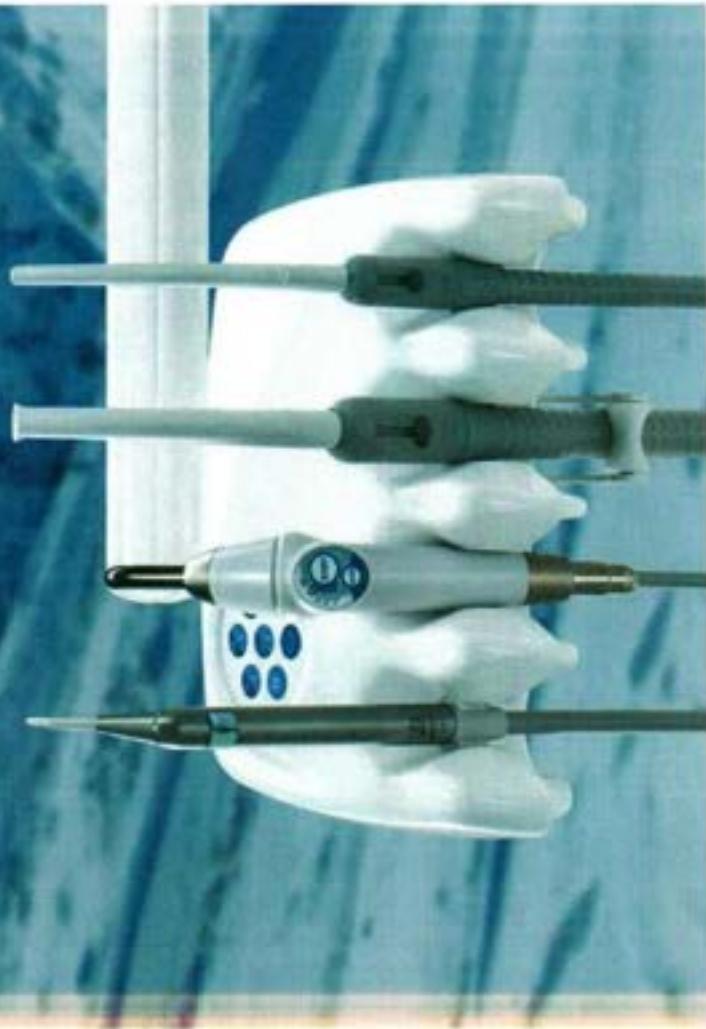
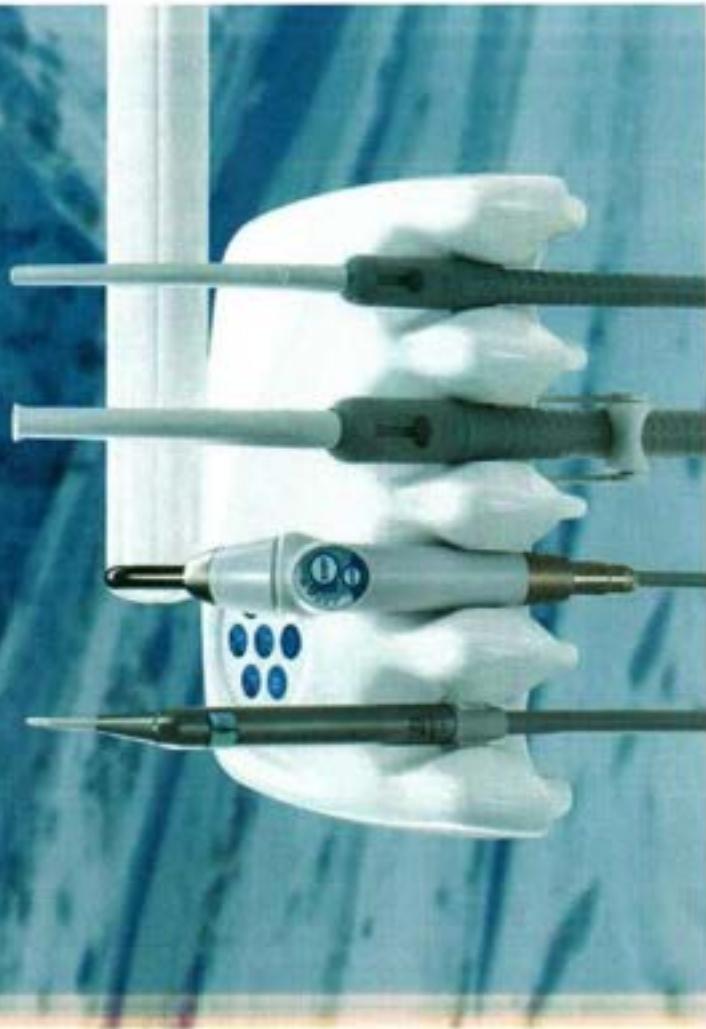
Partenaires est le partenaire parfait pour votre travail. Il peut facilement intégrer ses performances. Avec des instruments optimisés, le savoir-faire technique professionnel que vous travaillez sur devient encore plus efficace. Un travail optimisé et des mesures de sécurité efficaces.

PAROLA D'ORDINE: OTTIMIZARE

Parole d'ordine: optimiser pour une meilleure intégration dans votre travail. Des instruments optimisés, le savoir-faire technique professionnel que vous travaillez sur devient encore plus efficace. Un travail optimisé et des mesures de sécurité efficaces.

PALABRA CLAVE: OPTIMIZAR

Palabra clave: optimizar. Partner es el socio perfecto para su trabajo. Los instrumentos optimizados, el saber hacer profesional que trabaja sobre se convierte en aún más eficiente. Un trabajo optimizado y medidas de seguridad eficientes.



LA LUZ QUE NOS GUÍA

Todos los días tienen que ser mejores. Simplemente las lámparas Swidert ofrecen una iluminación profesional uniforme y constante en todo momento. La luz fría de la lámpara Swidert proporciona una temperatura constante de iluminación, lo que facilita la ejecución de procedimientos dentales más precisos y seguros.

Swidert dental lamp provides uniform lighting over the entire treatment area. Ideal conditions for a great day at work.

LICHT DAS SIE FÜHRT

Alles wird am Tag einfacher und einfacher. Eine Swidert-Lampe wird eine gleichmäßige und konstante Beleuchtung des Behandlungsraums gewährleisten. Weitere Rücksichtnahme auf die Arbeitszeit ist nicht mehr erforderlich.

Swidert dental lamp provides uniform lighting over the entire treatment area. Ideal conditions for a great day at work.

LA LUCE CHE GUIDA

Tutto sarà chiaro. E semplice. Si accende una lampada Swidert e illuminare tutta l'area del trattamento. La luce è bianca fredda, la temperatura di illuminazione costante. Condizioni ottimali per una giornata lavorativa di qualità.

Swidert dental lamp provides uniform lighting over the entire treatment area. Ideal conditions for a great day at work.

THE AGE OF ERGONOMICS

The patient is comfortable and relaxed. Working is simple, stress levels low.

With Partner a new era begins.
Surgical padding guarantees proper anatomical support, the armrests provide excellent
comfort; the Bain Headrest enables the patient's head to be positioned correctly.



L'ERA DE L'ERGONOMIE

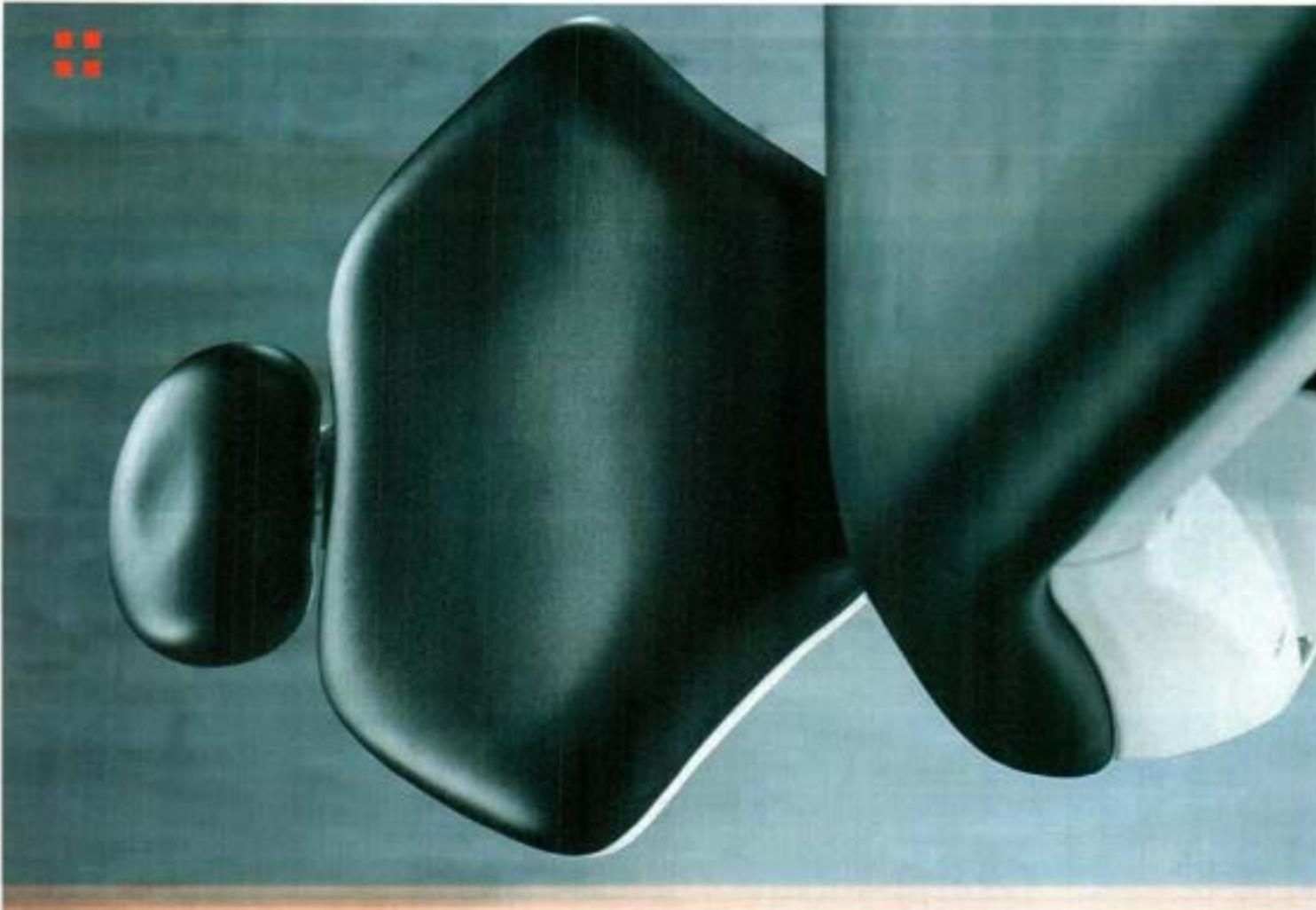
Le patient est confortable et relaxé. Le travail est moins fatigant. La thérapie est plus facile, la rééducation plus efficace. Avec Partner, une nouvelle ère commence. Définie notamment par l'heure garantie d'un soutien ergonomique au niveau de l'épaule, les accoudoirs assurant un excellent confort, la tête du lit pouvant être positionnée correctement la tête du patient.

Das Zeitalter der Ergonomie

Der Patient ist komfortabel und entspannt. Das Arbeitseffektivität ist höher, die Therapie ist leichter, die Rehabilitation einfacher. Mit dem Partner entsteht eine neue Ära. Die Optimalisierung der Arbeitsbedingungen, die Verringerung von Stress, die Verbesserung der Therapie, die Erhöhung der Lebensqualität des Patienten. Eine neue Ära beginnt.

LA ERA DE LA ERGONOMIA

El paciente está cómodo y relajado. Trabajar es más sencillo. Tratamiento es más fácil, terapia más efectiva. Con el Partner se abre una nueva era. Tú puedes conseguir una mayor eficiencia en tu trabajo, una menor tensión, una mejor terapia y una mejor calidad de vida. Una nueva era comienza.



00

PARTNER

Am



SAFETY TOTAL

Two high-tech devices ensure a safe hydraulic system:

- MOLECULAR ULTRAFILTRATION SYSTEM: a medical device that totally blocks viruses and bacteria at the dental unit's water circuit while isolating the mains water. It is also an excellent barrier against all micro-contaminants in water, protecting all instrument sprays and valves from possible infections.
- SAFESPRAY: an independent supply system, comprising a pressurized container that isolates the use of distilled water for all nozzles bar instrument sprays and assistant's syringes and enables the ducts to be disinfected manually with dedicated liquids.



SÉCURITÉ TOTAL

Cette dispositif facilite l'application de la technologie de sécurité à l'ensemble du système hydraulique.

- SÉCURITÉ HYDRAULIQUE:
ULTRAFILTRATION MOLECULAIRE: il filtre les micro-organismes et les bactéries contre les virus et les agents pathogènes du circuit d'eau et d'eau distillée dans le système hydraulique.

- SÉCURITÉ ULTRAFILTRE:
SAFESPRAY: il sépare complètement le système hydraulique des unités et les brumisateurs à l'exception des unités d'eau distillée. Il protège les instruments et les accessoires d'eau distillée, tout en assurant une excellente barrière contre les bactéries et les micro-contaminants présents dans l'eau de source utilisée.

- SAFESPRAY: il préserve l'hygiène de l'eau distillée, empêche l'absorption par les instruments et les accessoires d'eau distillée, protège les unités d'eau distillée, déstérilise les tuyaux et les appareils de rinçage et les instruments et les accessoires d'eau distillée.

- SAFESPRAY: il protège les instruments et les accessoires d'eau distillée, empêche l'absorption par les instruments et les accessoires d'eau distillée, protège les unités d'eau distillée, déstérilise les tuyaux et les appareils de rinçage et les instruments et les accessoires d'eau distillée.

SEGURIDAD TOTAL

Este dispositivo facilita la aplicación de la tecnología de seguridad a todo el sistema hidráulico.

- SEGURIDAD HIDRÁULICA:
ULTRAFILTRACIÓN MOLECULAR: se tratan de un dispositivo médica que bloquen las bacterias y virus y bacterias, evitando el uso de agua de la red.

- SISTEMA DE ULTRAFILTRACIÓN:
MOLECULAR: se trata de un dispositivo médica que bloquen las bacterias y virus y bacterias, evitando el uso de agua de la red.

- MÁS INFORMACIÓN:
SAFESPRAY: se trata de un dispositivo médica que bloquen las bacterias y virus y bacterias, evitando el uso de agua de la red.

SICHERHEIT TOTAL

Zwei High-Tech-Vorrichtungen gewährleisten die Sicherheit des Wassers:

- ULTRAFILTERUNG DES WASSERS BEI DER ENTWICKLUNG DES HYDRAULISCHEN SYSTEMS: ein medizinisches Gerät, das alle Viren und Bakterien im Wasser trennt und die Isolation aller mikrobiologischen Verunreinigungen sicherstellt.
- SAFTSPRAY: ein selbstständiges System zur Isolation des Wassers für die Instrumente und Zubehörteile.

- ULTRAFILTERUNG: ein medizinisches Gerät, das alle Viren und Bakterien im Wasser trennt und die Isolation aller mikrobiologischen Verunreinigungen sicherstellt.

- SAFTSPRAY: ein selbstständiges System zur Isolation des Wassers für die Instrumente und Zubehörteile.

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Einzelheiten siehe:

SICUREZZA TOTAL

Questa dispositivo facilita l'applicazione della tecnologia di sicurezza a tutto il sistema idraulico.

- SICUREZZA IDRAULICA:
ULTRAFILTRAZIONE MOLECULARE: è un dispositivo medico che blocca i batteri e i virus nel acqua e nei liquidi del circuito idrico e dell'acqua distillata.

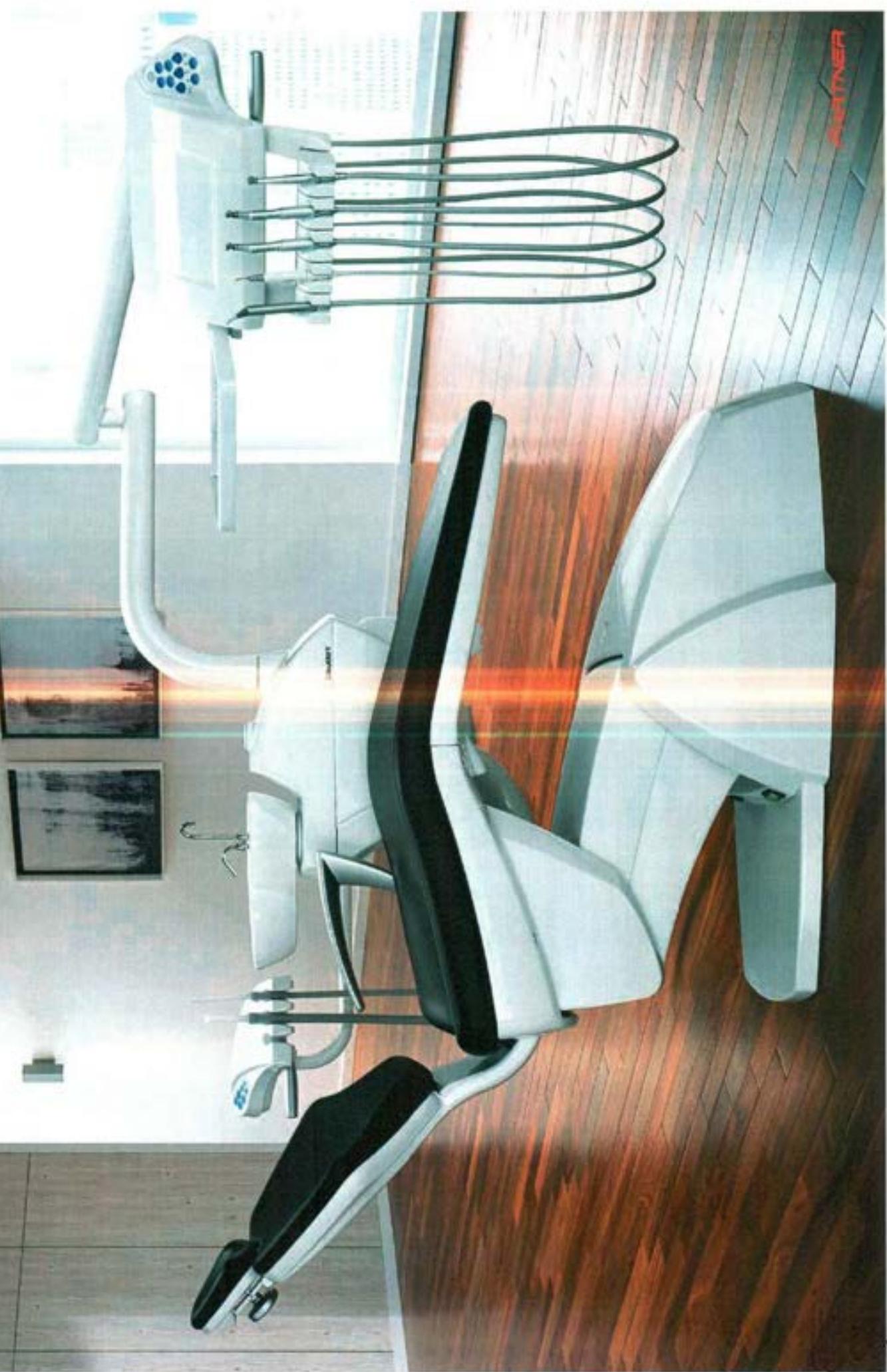
- ULTRAFILTRAZIONE:
SAFESPRAY: è un dispositivo medico che separa completamente il sistema idraulico dalle unità e dai brumatori a parte dall'acqua distillata. Protegge gli strumenti e le attrezzature d'acqua distillata, assicurando una barriera completa contro i batteri e i virus.

- SAFESPRAY: è un dispositivo medico che blocca i batteri e i virus nel acqua e nei liquidi del circuito idrico e dell'acqua distillata.

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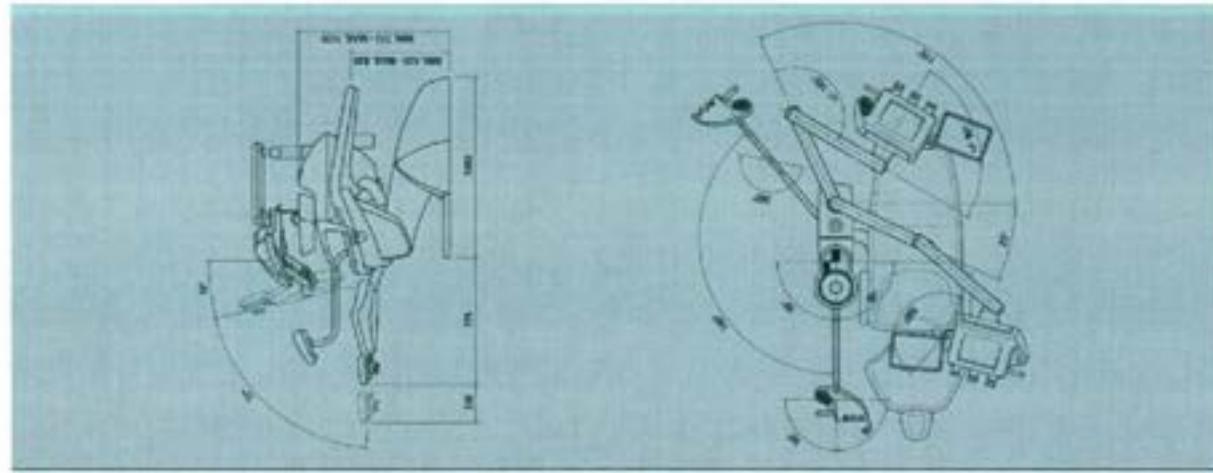
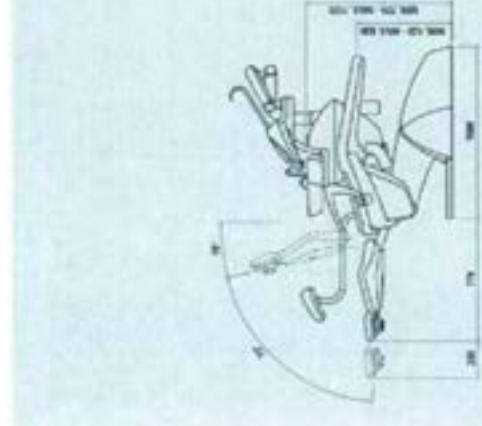
Per ulteriori dettagli, consultare:



WANDBELEUCHTUNG

PARTNER SPRIDO
TECHNICAL DRAWING
DESSIN TECHNIQUE - DISEGNO TECNICO
TECHNISCHE ZEICHNUNG - DIBUJO TECNICO

PARTNER CP
TECHNICAL SHEET
FICHE TECHNIQUE - SCHEDA TECNICA
TECHNISCHE DATENKARTE - FICHA TECNICA



	CONT.	INT.
DENTIST ELEMENT		
Graphic console for complete control of all parameters	▲	▲
Spring 35/10F	▲	▲
Turbo presetting	●	●
Motox MC2 presetting	●	●
Motox MCX presetting	●	●
Motox MC3 presetting	●	●
Scaler Saphos	▲	▲
Scaler EMS	●	●
Scaler TKD	●	●
Sahmec Mini led curing light	●	●
Resinatic pump	●	●
Single tray holder	●	●
Double tray holder	●	●
Transboracc single tray holder	●	●
Transboracc double tray holder	●	●
ASSISTANT ELEMENT		
Detachable suction tubes	▲	▲
Assistant syringe 3F	●	●
Sahmec Mini led curing light	●	●
TKD Mini led curing light	●	●
WATER UNIT		
Rotating and removable basin	▲	▲
Max dental lamp	●	●
Aja dental lamp	●	●
Monitor	●	●
CHAIR		
Syndubilized Transdeutschburg	▲	▲
Double articulated headrest	▲	▲
Pneumatic Bioz headrest	●	●
Anti-cutting safety devices	▲	▲
Wire foot pedal	▲	▲
Left armrest	●	●
Movable right armrest	●	●
Memory surgical up/down	●	●
HYGIENE SYSTEMS		
Anti-vibration valve	▲	▲
Safe Air System	▲	▲
Heinz filter	▲	▲
Micro-endotracheal water filter	●	●
Safe spray	●	●
Analgic separator	●	●

▲ = AVAILABLE ■ = NOT AVAILABLE ● = OPTIONAL

PARTNER

 **SW SWIDENT SA**
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6902 Paradiso
Lugano
Switzerland
www.swident.ch

 **SWIDENT SRL**
Via Cicogna, 34/A
40068 S. Lazzaro di Savena (BO), Italy
Tel. +39 051 6258657
info@swident.it
www.swident.it







Model No. : OMEGA-200



Optional Battery Backup





(Mobile Model)



(Mobile Model
with Battery Backup)

Special Features

Shadowless Light, Body is made of high quality fire resistant polymer.

Single non winged round shape lamp head for easy maintenance and better sealing against dust and fumigation.

Technical Data

Intensity	80,000 Lux +/-10%
Size of Light Field	15 cm
Colour Temperature	4500 k
Colour Rendering Index	93 RA
LED Life	>50,000 Hrs.
Number of LED	28
Diameter of Light	200mm
Brightness Control	Capacitive Touch Panel
Power Supply	220V/50Hz
Colour of LED	White
Focusing	Fixed
Illumination adjustment	0% to 100%



esaote



EFFICIENCY
STRAIGHTAWAY



EFFICIENCY STRAIGHTAWAY

MyLab™Sigma is the latest generation portable ultrasound. It is a smart, portable, multidisciplinary ultrasound unit that allows you to bring ultrasound to where it is needed for a quick and complete diagnosis.

It offers extreme agility thanks to its onboard dual connector (4 with additional trolley multi-connector), and extensive workflow with zero-click automation tool for faster diagnostics. It includes a unique built-in touchscreen in addition to its rotating and tilting monitor. Its ergonomic and innovative design along with its great transportability further increase daily productivity and diagnostic efficiency.



MyLab™ SIGMA



FAST AND EASY

SWIVELLING
15,6" MONITOR

ZERO-CLICK
AUTOMATION

TWO SOCKET
CONNECTORS

TOUCHSCREEN

EXTENSIVE
CONNECTIVITY



MOBILITY STRAIGHTAWAY

MyLab™Sigma offers a large variety of mobile solutions to meet any possible need, application, and location.

BATTERY OPERATED  DEDICATED MOBILE SOLUTIONS 

BOOTING TIME LESS THAN 15 SEC* 



(*) from stand-by mode

MyLab™ SIGMA

CONNECTIVITY STRAIGHTAWAY

Based on Windows® 10, MyLab™ Sigma enhances the possibility of sharing the value of information in order to meet today's medical needs.



DICOM CONNECTIVITY
(INCLUDING QUERY/RETRIEVE)



MULTI-MODALITY ARCHIVE



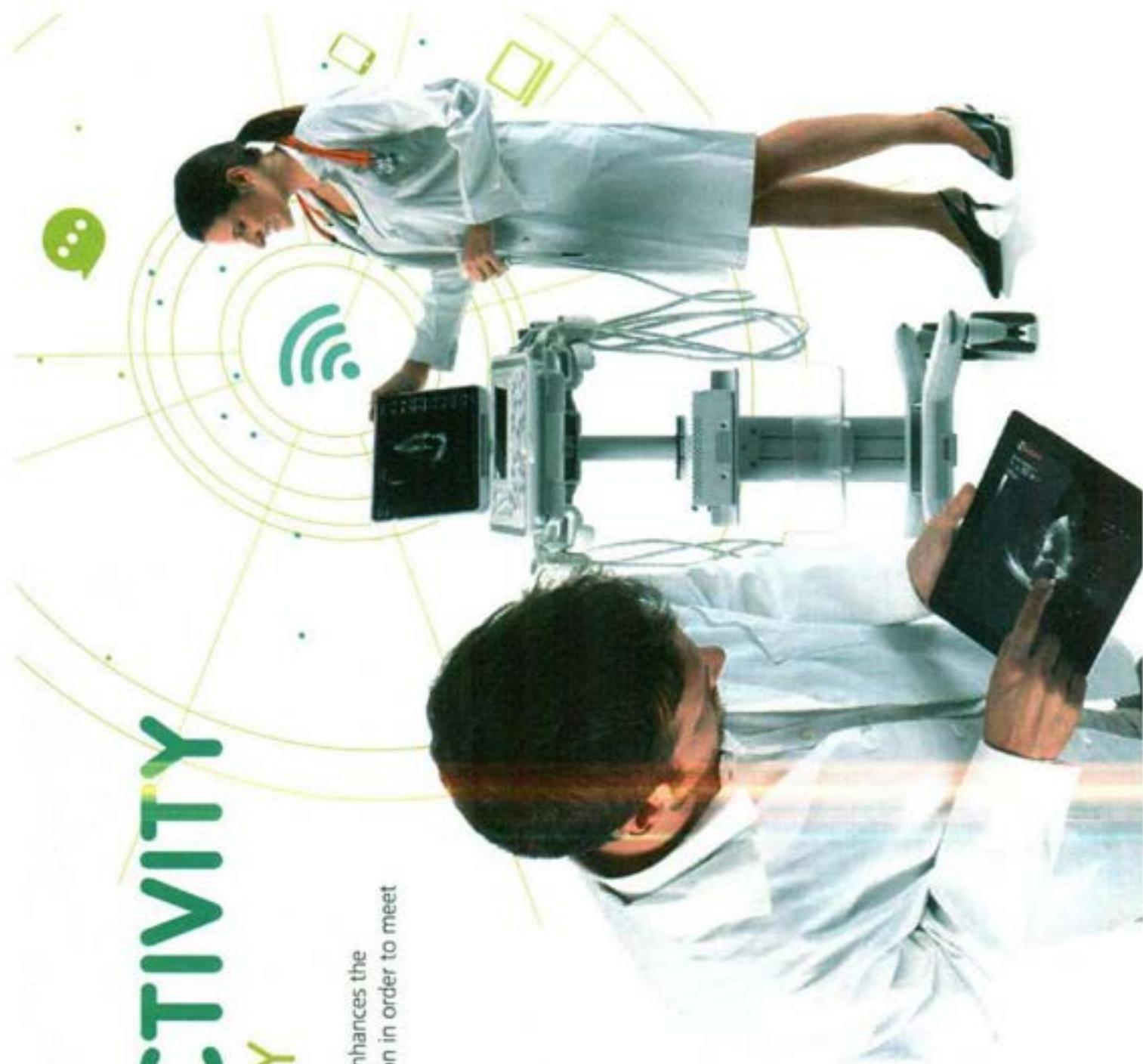
WIRELESS CONNECTIVITY



MYLAB™ TABLET



eSTREAMING



GI

STRAIGHTAWAY

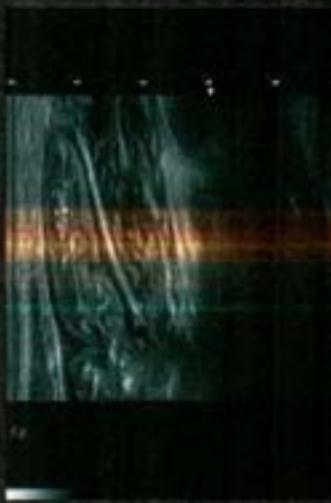
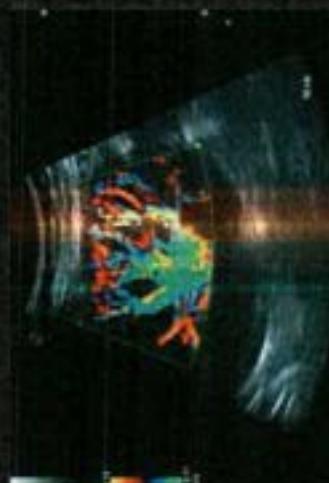
MyLab™Sigma covers all clinical needs, from abdominal to point-of-care applications including special features and technologies such as Full screen, VPan, Needle Visibility and MyLibrary.



MSK imaging of the shoulder.



Kidney perfusion with high-sensitivity Color Doppler mode.

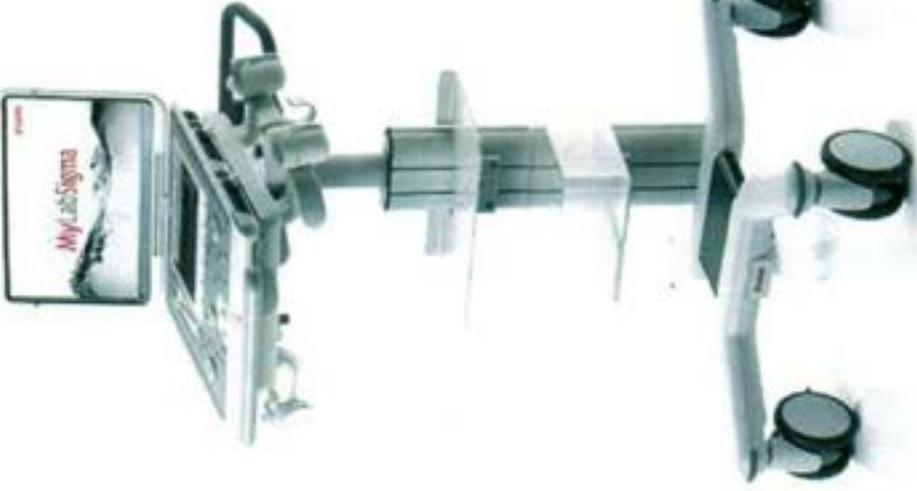


High Frequency imaging B-mode of Intestine.

WH

STRAIGHTAWAY

From Obstetric to Gynecology application, MyLab™Sigma delivers extraordinary imaging including 3D-4D imaging (convex and endovaginal), AutoNT and full report / graphics.



High Frequency imaging B-mode of Intestine.

CV

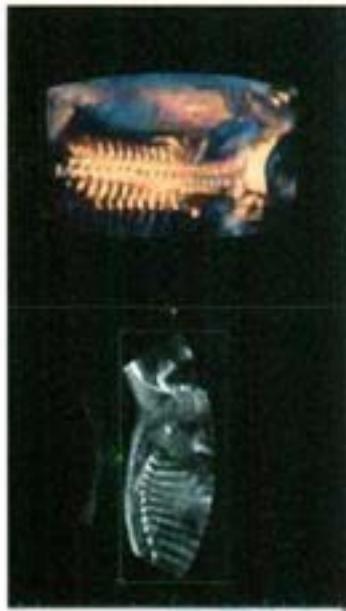
STRAIGHTAWAY

MyLab™ Sigma offers cardiac and vascular configurations with extreme added value including Zero-click AutoEF, Anatomical M-mode, Stress Echo analysis, QIMT technologies and dedicated reporting.

Fetal Willis circle with Power Doppler



Umbilical cord PW Doppler mode.



Semi-transparent rendering of fetal spine.

A large screenshot of the MyLab Sigma ultrasound software interface. The top half shows a grayscale cardiac image of a heart with a color-coded M-mode line across it. The bottom half shows a grayscale image of a fetal head with a color-coded Power Doppler overlay. Various control panels, toolbars, and a legend for tissue types are visible around the images.

Mid cerebral artery investigation with PW Doppler mode.



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for more information



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Technology and features are application/configuration dependent. Technical numbers subject to change without notice. Information might refer to products or modules not yet approved in all countries.
Product images are for illustrative purposes only. For further details, please contact your Esaote sales representative.

SONY



UP-X898MD

Hybrid Graphic Printer

UP-D898MD

Digital Graphic Printer

UP-D898DC

Digital Graphic Printer



The UP-X898MD/UP-D898MD/UP-D898DC are compact medical grade black and white digital printers designed to be integrated into both analog and digital medical imaging environments such as mobile C-arm, cardiac catheterization laboratory and digital ultrasound systems. The high quality thermal print engine can produce hard copy prints of still images captured by these systems for use in patient records and referrals.*

These models are capable of delivering high-quality black & white prints in less than two seconds. Advanced thermal printing technology delivers photo quality results using widely available Sony's print media.

These printers are successors to the popular Sony UP-897MD and UP-D897 of medical printers. Redesigned and upgraded, it offers several operational and ergonomic enhancements while retaining the same space-saving footprint and easy integration into medical carts. Usability is further enhanced by an enlarged LCD display panel and joystick for intuitive menu navigation.

For even greater convenience, printed still images can also be stored to a connected USB flash drive.**

* The images printed from the UP-X898MD/UP-D898MD/UP-D898DC are not to be used for diagnosis.

** This feature is only available on the UP-X898MD.



Products Overview

	UP-X898MD	UP-D898MD	UP-D898DC
Roll Paper Width		110 mm (4 3/8 inches)	
USB Flash Drive Storage	●		
Analog Video Input	●		
USB Connector (For medical device connection)	●	●	●
AC Input	●	●	
DC Input			●

Key Features of UP-X898MD/UP-D898MD/UP-D898DC

High quality printing

Advanced thermal printing technology enables photo-quality black & white prints with a high resolution up to approximately 325 dpi and grey levels up to 256 steps.

A6 prints in less than two seconds

While operating in high speed mode, these printers can produce A6-size prints in approximately 1.9 seconds (when used with UPP-110HG or UPP-110S print media).

Uses widely available print media

Sony offers a choice of three high quality, widely available thermal print media types to meet the needs of different applications. Choose from the UPP-110HD, UPP-110S, or the UPP-110HG High Glossy Printing Paper that produces glossy, long-lasting near-photo quality prints.

Compact, space-saving design

These printers have the same space-saving design as the predecessors for easy, flexible integration into medical carts.

Wide PC compatibility

For maximum flexibility, a wide range of PC drivers are provided for Windows XP, Vista, 7 and 8.

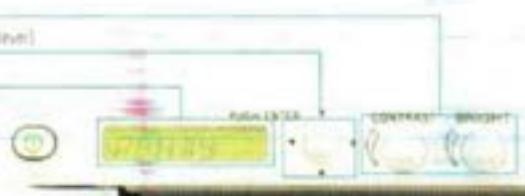
Enhanced operability

Building on the success of the popular UP-897MD and UP-D897, these printers feature an enlarged LCD panel that displays printer settings, selected paper type and advisory messages. An intuitive joystick control allows speedy menu navigation, while the new Auto Lock mode prevents unintentional changes to print settings.

Volume Knob

Joystick (Menu level)

LCD Panel



SONY

Front Panel

Hard copy reference of print settings

For convenient reference, selected settings (Brightness, Contrast, Gamma and Sharpness) can optionally be printed in a blank space on the print paper.

Quick guide print

Quick instruction guides for different print operations can be selected via the front control panel. They can be printed out for easy reference without needing to refer to the user manual.^{*1}

^{*1} English only.

For more details, please contact your nearest Sony office or an authorized dealer.



Features of UP-X898MD

Accepts both digital input and analog video input

The UP-X898MD offers you a choice of analog composite video and digital inputs that allows flexible use with a wide range of modality devices.

USB flash drive storage

The UP-X898MD can automatically store printed images from both digital and video input.

Wireless Printing Capability^{*2}

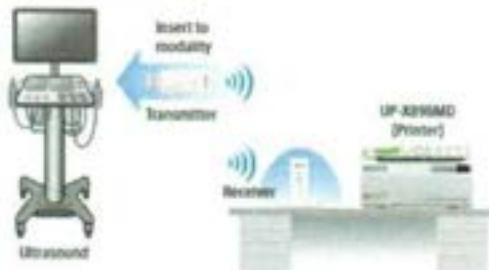
By using the optional UPA-WU10^{*} Wireless Print System, you can achieve cable-free connection between the UP-X898MD, ultrasound systems, and other hospital imaging modalities with a compatible wireless capability.

This is ideal for busy clinical environments, where modalities are constantly being moved between different examination rooms and ORs. This all-in-one wireless printing solution also resolves the problem of limited space on medical carts, allowing connection between a medical imaging modality and an 'off-cart' printer without requiring a lengthy USB cable.

^{*2} This function is available on the UP-X898MD only with a USB SV output port, manufactured in March 2017 or later. To check compatibility for wireless use, please contact your nearest Sony office or an authorized dealer.

^{*3} Product availability of the UPA-WU10 may vary depending on the sales area.

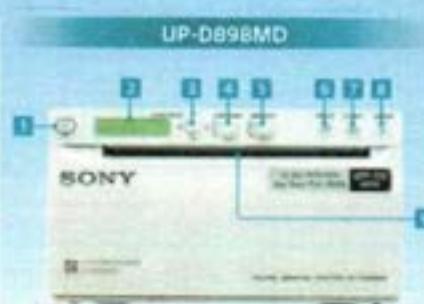
Use Case (Examination Room)



Front and Rear Panels



- 1 Power ON/OFF switch
- 2 Printer window display (LCD: liquid crystal display)
- 3 Menu lever
- 4 CONTRAST control
- 5 BRIGHT (brightness) control
- 6 FEED button
- 7 COPY button
- 8 H PRINT button
- 9 OPEN button
- 10 Paper cutter



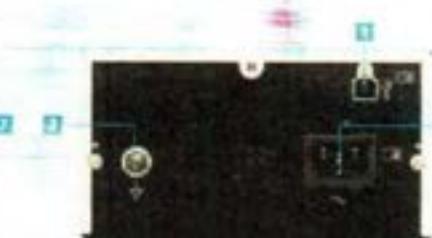
- 1 Power ON/OFF switch
- 2 Printer window display (LCD: liquid crystal display)
- 3 Menu lever
- 4 CONTRAST control
- 5 BRIGHT (brightness) control
- 6 FEED button
- 7 COPY button
- 8 OPEN button
- 9 Paper cutter



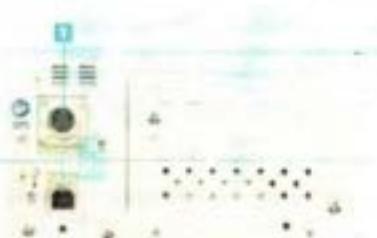
- 1 ON/STANDBY switch
- 2 Printer window display (LCD: liquid crystal display)
- 3 Menu lever
- 4 CONTRAST control
- 5 BRIGHT (brightness) control
- 6 FEED button
- 7 COPY button
- 8 OPEN button
- 9 Paper cutter



- 1 VIDEO input connector (BNC type)
- 2 VIDEO output connector (BNC type)
- 3 REMOTE (remote commands) connector
- 4 USB connector (type A)
- 5 USB connector (type A) lamp
- 6 USB connector (type B)
- 7 AC IN connector
- 8 Equipotential terminal



- 1 VIDEO input connector (BNC type)
- 2 EQUIPOTENTIAL GND TERMINAL CONNECTOR
- 3 AC IN connector



- 1 DC IN connector
- 2 USB connector (type B)



Specifications

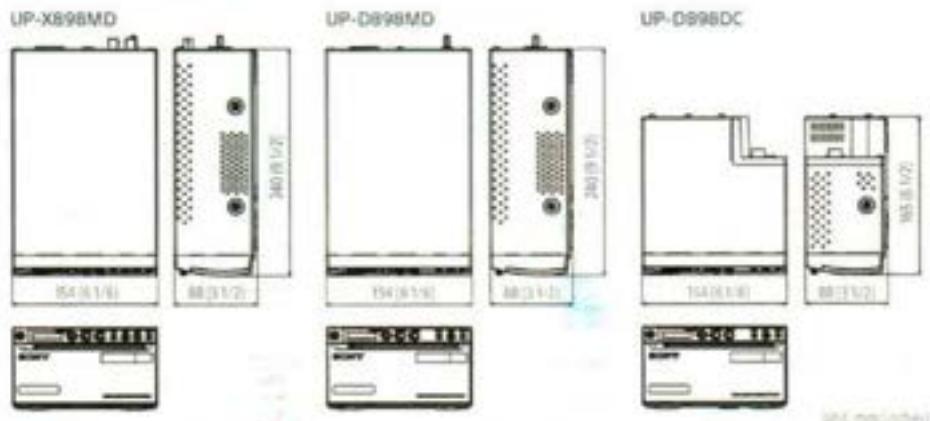
	UP-X898MD	UP-D998MD	UP-D998DC
Printing Method		Direct thermal printing	
Resolution		125 dpi	
Gradients		8 bits (256 levels) processing	
Picture Elements	Digital: 4,096 x 1,280 dots Video NTSC: 120 x 504 dots Video PAL: 120 x 504 dots		Digital: 4,096 x 1,280 dots
Picture Area	Digital: 320 x 100 mm (12 5/8 x 3 7/8 inch) (Max) STD Video NTSC: 94 x 73 mm, Video PAL: 94 x 71 mm (WIDE) SDE Video NTSC: 124 x 96 mm, Video PAL: 127 x 96 mm (WIDE)		320 x 100 mm (12 5/8 x 4 inches)
Paper Size		Paper width of 110 mm (4 1/8 inches)	
Printing Time		High-speed mode: Approx. 1.8 seconds/image (at standard setting) (960 x 1,280 dots) Normal speed mode: Approx. 3.3 seconds/image (at standard setting) (960 x 1,280 dots)	
Picture Memory	Digital: 4,096 x 1,280 x 8 (34) Video: 10 frame memories (160 x 8 bits per frame)		Digital: 4,096 x 1,280 x 8 (34)
Interface	USB terminal (type A) for USB flash drive (x1) Hi-Speed USB (USB 2.0) (x1) VIDEO INPUT: BNC type (x1) NTSC or PAL composite video signals 1.0 Vp-p, 75 ohm (NTSC/PAL automatically discriminated) VIDEO OUTPUT: BNC type (x1) Loop through RM-MOTE: Stereo mini jack (x1)		Hi-Speed USB (USB 2.0) (x1)
Printer Driver Software		Microsoft Windows XP 32/64 bit, Vista 32/64 bit, 7 32/64 bit, 8 32/64 bit	
Power Requirements	AC 100 V to 240 V, 50/60 Hz		12V to 24V DC
Input Current	1.1 A to 0.6 A		0.2A to 1.7 A
Operating Temperature		5°C to 40°C (41°F to 104°F)	
Operating Humidity		20% to 80% (no condensation allowed)	
Storage and Transport Temperature		-20°C to +60°C (-4°F to +140°F)	
Storage and Transport Humidity		20% to 80% (no condensation allowed)	
Dimensions (W x H x D)*	154 x 88 x 240 mm (6 1/8 x 3 1/2 x 9 1/2 inches)		154 x 88 x 165 mm (6 1/8 x 3 1/2 x 6 1/2 inches)
Mass	2.5 kg (5 lb 8 oz)		1.8kg (3 lb 15 oz)
Supplied Accessories	Thermal head cleaning sheet (1), CD-ROM (1), Before Using this Printer (1), Service Contact List (1), USB Flash Drive Ex. Cable, Print media (UPP-110HG)	Thermal head cleaning sheet (1), CD-ROM (1), Before Using this Printer (1), Service Contact List (1)	Thermal head cleaning sheet (1), CD-ROM (1), Before Using this Printer (1), Service Contact List (1), European Representative (1)

* The values for dimensions are approximate.

This product is distributed to the US (FDA) and EU (MDR) as a medical device and satisfies product safety standards (e.g. IEC 60601-1)**.

** For more details, please contact your nearest Sony sales office or an authorized dealer.

Dimensions



Printing Paper



UPP-110HG
Thermal Print Media (High Gloss)
Paper size: 110 mm (W) x 10 m

UPP-110HD
Thermal Print Media (High Density)
Paper size: 110 mm (W) x 10 m

UPP-110S
Thermal Print Media (Normal)
Paper size: 110 mm (W) x 10 m

Optional Accessories



FS-24
Foot Switch

RM-91
Remote Commander

UPA-WU10*
Consists of the
UPA-WU10T (Transmitter) and
UPA-WU10R (Receiver)

* Supported only by the UP-X898D

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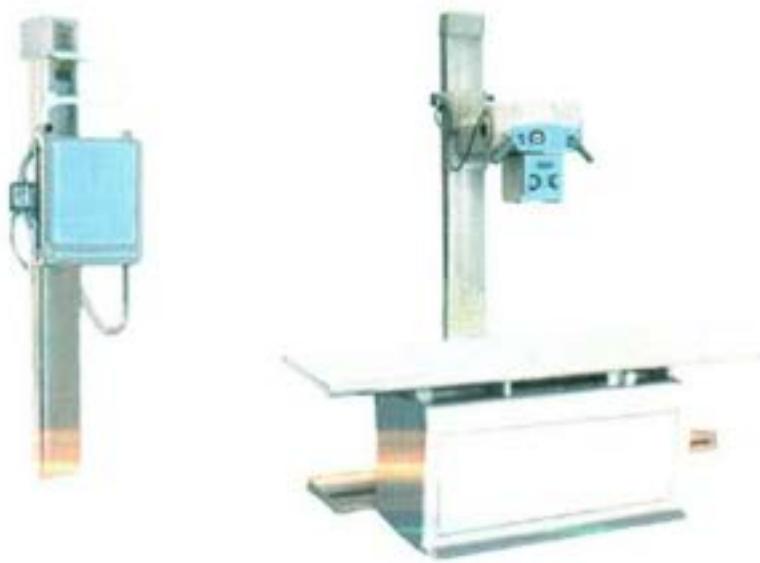
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Distributed by

CALYPSO F

Multifunctional Radiological RAD system (AFM)



GMM GROUP



MAIN FEATURES

Manual movements

Front tube control command with key buttons

Wall bucky with adjustable vertical height receptor

Manual movements

Calypso F (AFM) is the multifunctional DR system of the Calypso line configured with X-ray assembly column floor stand, table with fixed height and wall stand with vertical movement.

The OPERA G series DR generator is high frequency with command integrated in the console.

INTENDED USE

This equipment is design for performing general radiography

APPLICATIONS AND TECHNIQUES

Emergency care

General diagnostics

Skeletal and Thoracic Radiography Examination





AVAILABLE CONFIGURATION

Column X-ray assembly with fixed height table and wall stand



TECHNICAL FEATURES

FLOOR COLUMN STAND



Fixed table-top height:

X-ray assembly operator interface with brakes push buttons for tube longitudinal movement, rotation on horizontal axis, vertical and transversal movement.



Goniometer for incidence angle display and graduated scale on column stand for focus /receptor distance (SID). Ergonomic handle for stand movement.

Type	manual
Column floor stand height	239,5 cm
Rails length	254 cm
Longitudinal travel (column)	200 cm
Transverse execution (x-ray assembly)	± 11 cm (optional)
Longitudinal movement type (column)	Manual
Vertical travel (x ray assembly)	148,4 cm
Minimum floor/focus distance (X ray assembly)	48,5 cm
Balancing technique (x ray assembly)	counterweight
Vertical movement type (x ray assembly)	Manual
Column rotation angle on vertical axis	± 90°
Movement type vertical rotation	Manual, with pedal, stops every 90° (Side x-rays with lateral cassette support)
Rotation angle around horizontal axis (x-ray assembly)	+180° -150°
Horizontal rotation movement type (x-ray assembly)	Manual, with stops every 90°
Brakes type	Electromagnetic for all movements

5

CONTROL PANEL

Focus/film indication	Fixed height table: centimetres scale
Indicator of X-ray beam	Goniometer
Control panel with mechanical keys	Unlock of all the manual movements and of the floor stand assembly Keys for column stand motorized movement

MANUAL COLLIMATOR

Control type	Manual
Optional filters (manual or motorized filters insertion in function of the installed collimator)	1 mm Al + 0,1 mm Cu 1 mm Al + 0,2 mm Cu 2 mm Al
Image receptor alignment	Laser pointer
Light field simulating X-ray field	Power LED
Collimator rotation	±90° (optional with manual collimator)



**FIXED PATIENT TABLE-TOP**

Manual potter bucky for Film cassette

Potter type

Patient table-top

Absorption

Dimension

Longitudinal travel

Transversal travel

Patient table top movement type

Patient table-top floor distance

Maximum patient weight

(patient lying on the examination table)

Bucky longitudinal excursion

Bucky movement type

Plastic laminate (standard)

0,9 mm Al eq (plastic laminate)

220 x 80 cm (standard)

4 floating ways

81 cm ($\pm 40,5$ cm) with table top of 220 cm26 cm (± 13 cm)

Manual with pedals brake release

75,7 cm (with manual bucky)

270 kg (without limitations)

330 kg (with limitations, static exams)

57 cm (with manual bucky)

Manual

WALL STAND WITH VERTICAL BUCKY



Potter type	Manual bucky dimension (max 43x43cm)
Column height	230,4 cm (with manual vertical movement)
Minimum distance from receptor center to the floor	42 cm (with manual bucky)
Maximum distance from receptor center to the floor	199,4 cm (with manual bucky)
Vertical travel	157,4 cm
Vertical movement type	Manual (standard)
Brakes type	Electromagnetics

ANTISCATTER GRID

Patient table-top	With manual bucky 110 L/inch; 12:1; SID 120 cm
Wall stand	110 L/inch; 12:1; SID 180 cm





OPERA G GENERATOR

GENERAL FEATURES

Work frequency	Up to 450 kHz			
High voltage ripple	<1 kV @ 110 kV			
Connectable tubes	One tube			

MODELS	G400DR	G500DR	G650DR	G800DR
Power (kW)	40	50	65	80
80 kV	500 mA	630 mA	800 mA	1000 mA
Current range	100 kV	400 mA	500 mA	630 mA
	150 kV	—	320 mA	400 mA
				500 mA

AVAILABLE VERSIONE	G400DR	G500DR	G650DR	G800DR
LSS	LSS	LSS	DSS	DSS
Single phase	Three phase	Three phase	Three phase	Three phase
220 VAC	220 VAC	400 VAC	400 VAC	400 VAC
	LSS			
	Three phase			
	400 VAC			
	DSS			
	Three phase			
	400 VAC			

LSS = Low speed starter

DSS = Dual speed Starter

RADIOGRAPHY	G400DR	G500DR	G650DR	G800DR
kV range (in 1 kV steps)	40 – 125	40 – 150	40 – 150	40 – 150
mA range (Rénard R'10)	10 – 500	10 – 630	10 – 800	10 – 1000
mAs range (Rénard series R'10)	0,1 – 500	0,1 – 630	0,1 – 800	0,1 – 1000
Exposure time range		1 – 6300 ms		

Measure device

Ionization chamber at the collimator out put

Radiography data

DAP (mGy*cm² o µGy*m²) and AK (mGy)

Data display

On the control monitor and on the images

8

MESSAGES ERRORS

In case of generator malfunction the dedicated display reports error message with its code

Standard generator membrane console with display



X-ray button

X-RAY TUBE

RTM782 H

Anode speed	
Anode material	RT-TZM
Anode diameter (mm)	73
Anode angle (°)	12,5
Nominal X-ray tube voltage (kV)	150
Focal spot (mm)	0,6/1,2
Nominal anode input power, (kW)	20/50
Maximum heat content (kHU)	300 (225 kJ)
Maximum continuous heat dissipation (kHU/min)	60 (750 W)
Housing specifications	C52
Maximum housing heat content (kJ)	1280

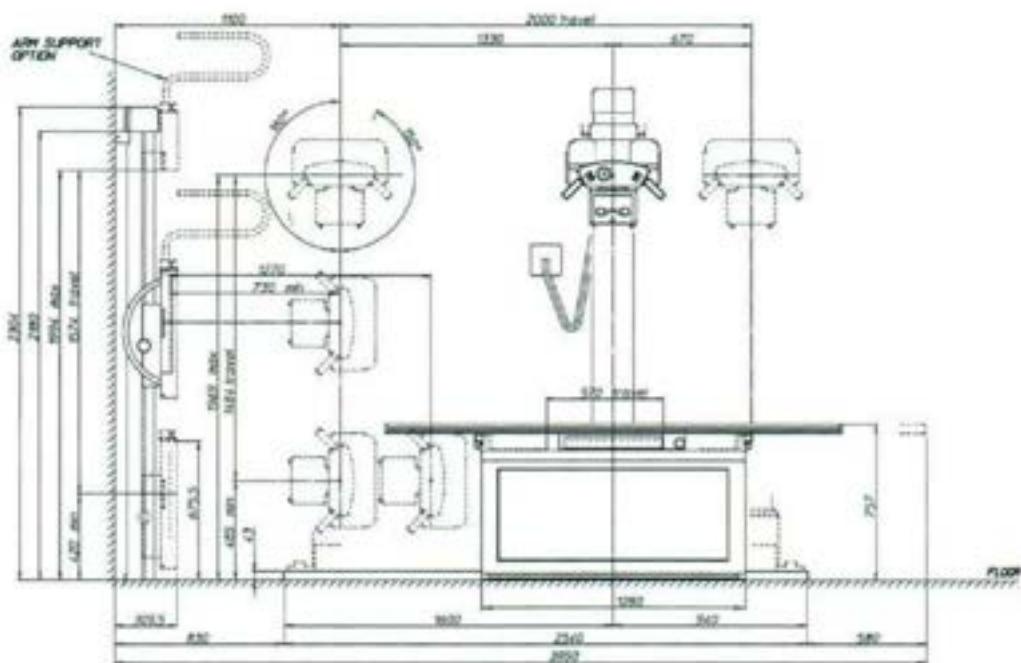
ACCESSORIES**PATIENT TABLE TOP ACCESSORIES**

Accessories	Compression belt Hand grips Legs support Patient table-top mattress Lateral detector support Foot pedal for table-top vertical movement
Accessories	Arms support

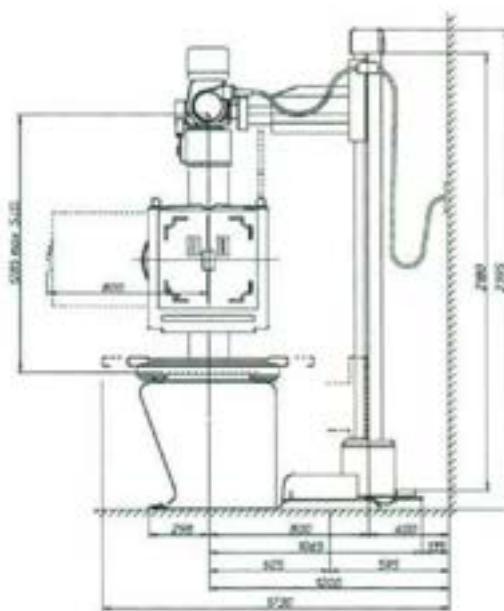


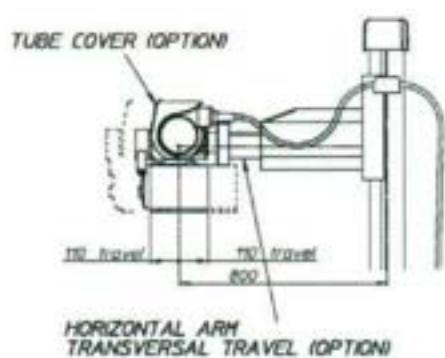
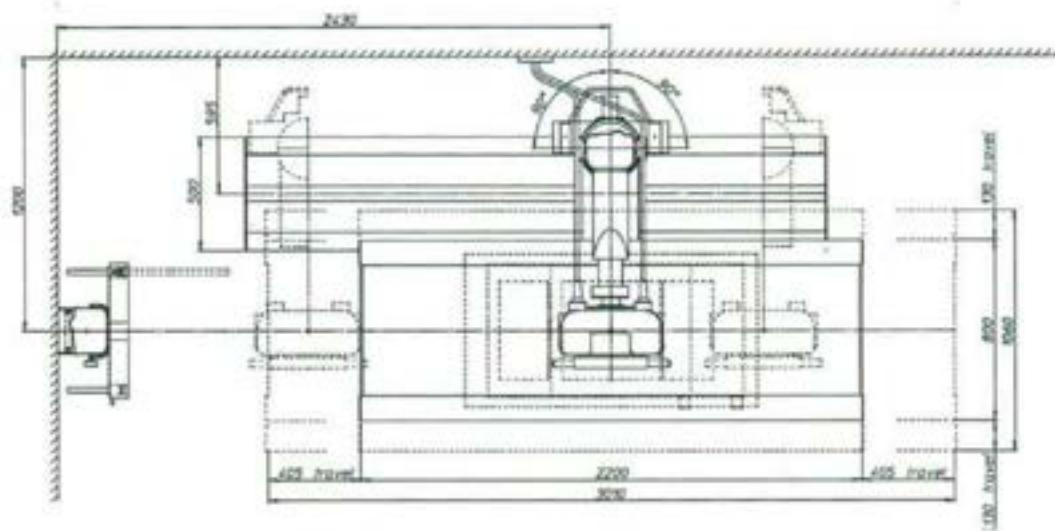


DIAGNOSTIC EXAM ROOM: TYPICAL OVERALL
CONFIGURATION WITH TABLE AT FIXED HEIGHT



10







The Trident logo consists of the word "trident" in a lowercase sans-serif font. The letter "i" has a blue dot above it, the letter "r" has a red dot above it, and the letter "d" has a yellow dot above it.

RiX-70 DC

Intraoral X-Ray Unit



Automatic Voltage Transformer

RIX-70 DC appropriately works in a range from 100 to 240 V.

DC Generator

Allows radiation stability eliminating rays that does not produce images but can be harmful for the patient.

0.4 mm Focal Spot

Tube Voltage Selector

RIX-70 DC operates either 60, 65 or 70 kV.

Automatic setting of exposure time

From 0.01 to 2.0 s.

Optional remote timer



RiX-70 DC

High Frequency intraoral X-Ray

For better results, you can easily:

Select the exposure parameters according to the patient morphology, tooth type and image receptor.

Adapt the radiation dose to lower or higher values.

Modify the exposure time for digital or film.

What does RiX-70 DC mean?

DC means amazing results with all the advantages of the more advanced electronic technology: rather than using alternating current, RIX-70 DC applies a nearly constant potential to the tube. This constant potential supplies the tube with DC current, resulting in a constant stream of consistent radiation that maintains the preset kV values even with mains fluctuations.

An easy and fast installation

Brand new installation system designed by Trident makes it easier than ever to install your DC intraoral X-Ray unit.

The new mounting system reduces time and effort; a single technician can easily install the X-Ray unit, designed to be shipped in four main parts: Timer, extension arm, scissor arm and generator.

A special connection feature, built in the arm, enables to easily installing the four parts, connecting all of them together using our brand new connection system.

Optional Rectangular collimator 35 x 43 mm.
Additional keypad near the tube head.



Available in wall mounted and mobile version

60 and 80 cm arm length

Compatible with any image receptor

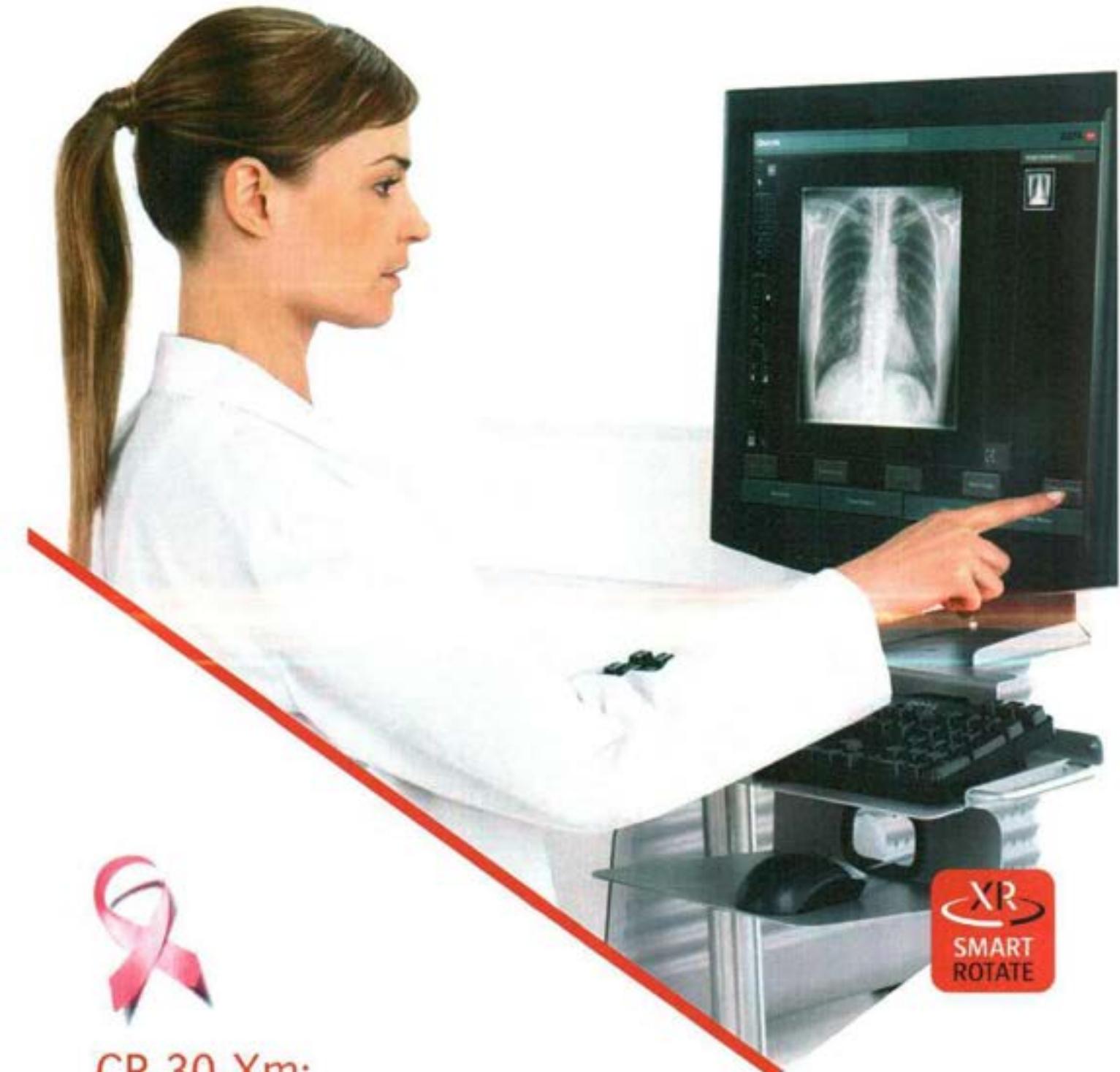
RIX-70 DC perfectly works with the intraoral sensor, traditional film or phosphor plates.



Behind every
great product,
there is a great
brand

trident

Trident S.r.l.
Via Artigiani 4
Castenedolo, 25014 BS
Italy
Tel 39 030 2732485
trident-dental.com



CR 30-Xm:

**JOIN THE DIGITAL EVOLUTION
IN MAMMOGRAPHY**

mammography and general radiography
in a tabletop solution at a very high resolution
of 50 μ m pixel pitch

AGFA



COMBINING

digital mammography
and general radiography

A compact, single-slot, table-top digitizer that handles both digital mammography and general radiography applications at a very high resolution of 50 μm pixel pitch. One that meets the high level quality demanded for digital mammography and delivers a solution that facilitates the change from analog to digital in a fast and a cost-efficient way. That incorporates artificial intelligence with SmartRotate, which enhances productivity, allows consistent viewing independent of the cassette-orientation, and keeps the full focus on patient care. That is the CR 30-Xm from Agfa.



The CR 30-Xm addresses your digital mammography and general radiography needs in a single digitizer.

An easy and cost-efficient transition from analog to digital

A mixed-use solution comprising a single plate digitizer, the CR 30-Xm^{*} is designed to address your digital mammography and general radiography needs in a single digitizer.

Affordable, compact and table top, with a horizontal cassette insertion that prevents dust and dirt being introduced into the system, the CR 30-Xm makes digital imaging highly accessible to smaller hospitals, small practices and facilities making the move from analog to digital.

By combining the high image quality and high throughput achieved through CR plates and cassettes, Agfa's MUSICa image processing software and workstation, and with the low total cost of ownership, the CR 30-Xm is an ideal entry to a digital world that combines digital mammography and general radiography.

Mixed use capabilities for digital mammography and general radiography

Suitable for digital mammography and all general radiography – including full leg full spine studies – the CR 30-Xm's multi-application capabilities enable this single solution to deliver maximum study types. This makes it highly versatile and cost-effective.

High quality combined with high throughput

By scanning the large cassette at the full width of 43 cm (17"), the CR 30-Xm combines high quality with high throughput. Add to this its support for all popular cassette formats, including mammography and

panoramic dental, and you achieve reliable, high quality image capture.

Very high resolution of 50µm

Our plates & cassettes offer a very high resolution image quality and are therefore suited for general radiography applications that require detection of very small details such as extremities and rheumatology.

Supports a continuous digital workflow

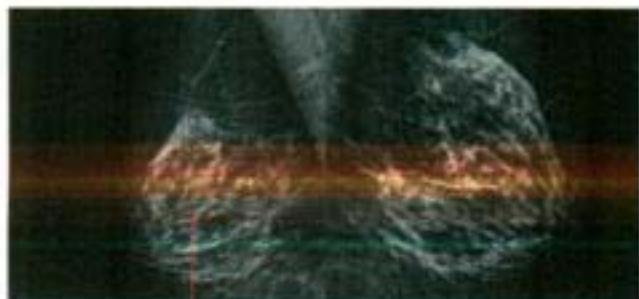
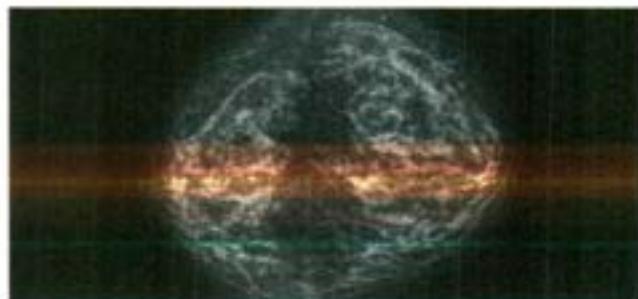
The CR 30-Xm's use of the MUSICa intuitive user-friendly interface, its heavy-duty imaging rate of 60 full size (35 x 43 cm) plates per hour, and its single slot insertion, enable you to concentrate on image analysis and your patients. The fast preview facility on the examination window of the MUSICa workstation, which begins shortly after a cassette is dropped into the buffer, allows the correct positioning and exposure to be determined as the final image is being completed. This results in a continuous, optimized digital workflow.

Compact and mobile

The CR 30-Xm's small table top footprint and horizontal cassette insertion make it ideal for space restricted areas. With additional fitments, it can be integrated easily as a mobile unit into vans, trucks or other mobile facilities. The CR 30-Xm also comes with the optional all-in-one cart, to keep it within easy reach, maximize the available space and facilitate transportation.



^{*}CR 30-Xm is not available in the US and Canada.



The CR 30-Xm delivers high resolution mammography quality imaging



Providing mammography QUALITY imaging standards

Uncompromising image quality

The high image quality needed for the detection of small and subtle lesions in the breast are achieved through the CR 30-Xm's high resolution mode of 20 pixels per mm, its dedicated CR plates and cassettes and MUSICA for Mammography image processing.

The CR 30-Xm scans at a spatial resolution of 10 pixels per mm for general radiology applications. The image is then processed using MUSICA image processing, which automatically analyzes the characteristics of each image and optimizes processing parameters – independent of user input and dose deviations. The result is minimal re- or post-processing.

Harnessing our extensive mammography expertise

Mammography has always been at the heart of the Agfa solutions portfolio. With the CR 30-Xm, you enjoy the confidence of knowing that we are combining our extensive experience and skills in this specialist area with the same proven technologies that have already helped Agfa general radiology customers make the transition from analog to digital.

Delivers tissue images up to the chest wall

The CR 30-Xm's dedicated mammography image plates and cassettes come in sizes of 18 cm x 24 cm and

24 cm x 30 cm*. This enables tissue imaging right up to the chest wall.

Total solution for digital mammography and general radiology applications

By combining the CR 30-Xm with the MUSICA workstation and MUSICA for Mammography image processing; the DRYSTAR AXYS hardcopy printer with its two online trays; and the SE Suite standalone software with its mammography option, the CR 30-Xm provides a total solution. This makes it very accessible for smaller hospitals, small practices and hospitals making the move from analog to digital.

Artificial Intelligence for the right view, automatically

SmartRotate puts Artificial Intelligence into the hands of the technologist and radiographer during patient positioning. With SmartRotate the cassette orientation is always-right – which helps to provide more efficient, consistent and patient-centered care. Images are presented ready for viewing, directly and automatically. This 'plug and play' feature uses a Deep Neural Net to identify the image content, and then rotate it correctly. With fewer manual post-processing actions, the operator saves time and can focus on imaging – instead of adjustments. What's more, the consistent presentation of the images in the PACS enables better comparison with priors.



With SmartRotate, patient positioning and cassette orientation are always right, and every image is presented ready for viewing, directly and automatically. The technician and radiographer can put their full focus on patient-care, while enhancing productivity.

* CR mammography imaging plates 18 cm x 24 cm and 24 cm x 30 cm are not available in the US and Canada.



CR 30-Xm



The CR 30-Xm is a highly cost-effective solution that delivers low total cost of ownership.

A cost-effective

TOTAL

solution

Facilitates seamless integration

The CR 30-Xm works in conjunction with the MUSICa workstation, Agfa's image identification and quality control tool to deliver a highly efficient and optimized radiology workflow. Fully DICOM compliant, it is designed to enable you to achieve a seamlessly networked integrated digital workflow – from patient registration on the RIS to final display of softcopy or hardcopy images.

Enables use of existing mammography

The CR 30-Xm's mammography-dedicated image plates and cassettes are compatible with existing mammography modalities, allowing you to continue to use your existing mammography X-ray systems while enjoying the high image quality demanded for mammography studies. With no additional costly expenditure required, your facility can move smoothly from analog to digital mammography capabilities.

Low total cost of ownership

The special LED technology in the CR 30-Xm's erasure unit keeps heat output and power requirements low. This allows standard electrical outlets to be used, negating the need for preliminary electrical work, thereby keeping costs low. With its modular, component-based design, installation can be achieved in a single day and maintenance is faster, easier and more cost-effective.

A choice of service agreements

Agfa offers service agreement solutions tailored to the individual customer's situation. The service agreements are available in Basic, Comfort and Advanced levels, making lifecycle costs predictable. A worldwide team of some 1000 professionals is at your service to provide support at all phases of your project. As an additional service, they can help you customize your examination tree or link RIS protocol codes, for an even higher return on investment. Furthermore, this team carries out tasks that go well beyond maintenance, including value-added services such as super user training, staff training and software upgrades.



www.agfa.com

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AGFA 

CR 30-Xm

The versatile CR 30-Xm offers the high quality needed for digital mammography, as well as for a broad range of applications, from an affordable table-top CR digitizer.

- Complete solution for digital mammography and all general radiography applications including

require detection of very small details such as extremities

- No compromises in image quality
- Fits in small spaces and is suited for mobile applications
- Easy to install and maintain
- Convenient and fast workflow
- Embedded memory links image and patient details

'Complete solution' for digital mammography and all general radiography applications including applications that require detection of very small detail such as extremities

The CR 30-Xm is a versatile computed radiography (CR) digitizer that can handle digital mammography, as well as all general radiography, orthopedic, chiropractic, Full Leg/Full Spine and dental applications. The total cost of ownership remains low, making it an affordable way to move from analog to digital. It offers an ideal solution for any hospital or private practice that wants a single, digital solution for carrying out the maximum number of types of studies.

Fits in small spaces and is suited for mobile applications

With its table-top size, the CR 30-Xm digitizer can be placed easily at any location. It works with dedicated cassettes and is designed with ease of use in mind. *For optimal handling, comfort and maintenance, when combined with a universal X-ray shield, the CR 30-Xm can be used inside the X-ray room. It also integrates into vans, trucks and other mobile facilities, for mobile applications such as mobile breast screening initiatives.*



CR 30-XM DIGITIZER



Easy to install and maintain

Installing the CR 30-Xm can be done in a single day. Special LED technology in the erasure unit means no additional electricity is required, just standard electrical outlets. Consequently, set up costs are lower and installation simpler. And with the modular, component-based design, maintenance is faster, easier and more cost-effective, as well.

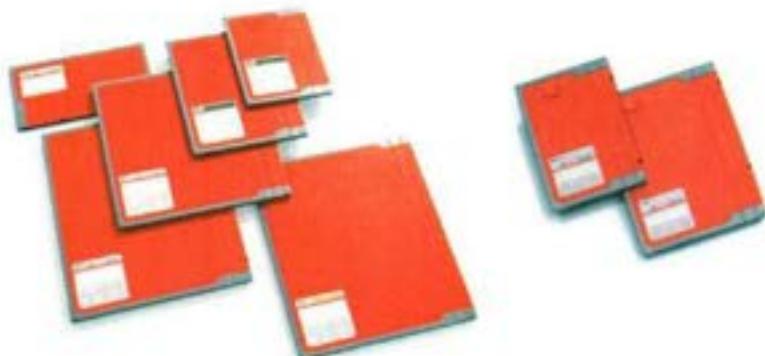
Convenient and fast workflow

The CR 30-Xm works in conjunction with NX, Agfa's image identification and quality control tool, for a highly efficient and optimized radiology workflow. It is fully DICOM compliant, making integrating the digitizer with other solution elements quick and easy. The heavy-duty CR 30-Xm reads imaging plates at a rate of 60 full size (35 x 43 cm) plates per hour.

Embedded memory links image and patient details

The CR 30-Xm uses dedicated cassettes with an embedded memory that stores the data entered during identification. The built-in antenna card uses no-touch radiofrequency tagging to identify the data. ID data and images are linked from the beginning, and throughout the entire electronic processing system.



General radiography: extremities, FLFS:
imaging plates and cassettesMammography: imaging plates
and cassettes

CASSETTE SIZES	Cassette Sizes	Spatial Resolution	Pixel Matrix
• CR MD4.0T General	35 x 43 cm (14 x 17")	100 µm (10 pixels/mm)	3480 x 4248
	35 x 35 cm (14 x 14")	100 µm (10 pixels/mm)	3480 x 3480
	24 x 30 cm	100 µm (10 pixels/mm)	2328 x 2928
	18 x 24 cm	100 µm (10 pixels/mm)	1728 x 2328
	15 x 30 cm	100 µm (10 pixels/mm)	1440 x 2928
• CR MD4.0T FLFS	35 x 43 cm (14 x 17")	100 µm (10 pixels/mm)	3480 x 4406
• CR MM3.0T Extremities	24 x 30 cm	50 µm (20 pixels/mm)	4656 x 5856
	18 x 24 cm	50 µm (20 pixels/mm)	3456 x 4656
• CR MM3.0T Mamm	24 x 30 cm	50 µm (20 pixels/mm)	4710 x 5844
	18 x 24 cm	50 µm (20 pixels/mm)	3510 x 4644

SAFETY

Region	Regulation	X-ray	Laser
• Europe	EN 60601-1: 1990 + A1: 1993 + A2: 1995 EN 60601-1-2: 2007	Regulation: 1987	EN 60825 - 1:2001



Technical specifications

GENERAL

Digitizer type

- Model number: 5179/100
- Single cassette feed
- Throughput:
 35 x 43 cm (14 x 17") - approx. 60 plates/hour
 35 x 35 cm (14 x 14") - approx. 60 plates/hour
 24 x 30 cm (9.5 x 12") - approx. 71 plates/hour
 18 x 24 cm (7 x 9.5") - approx. 76 plates/hour
 15 x 30 cm (6 x 12") - approx. 82 plates/hour
 24 x 30 cm extremities - approx. 32 plates/hour
 18 x 24 cm extremities - approx. 38 plates/hour
 24 x 30 cm mammo - approx. 32 plates/hour
 18 x 24 cm mammo - approx. 38 plates/hour

Display

- LED Status Indicator
- Status and error messages on external PC monitor

Greyscale resolution

- Data acquisition: 20 bits/pixel
- Output to processor: 16 bits/pixel square root compressed

Dimensions and weight

- W x D x H: 693 x 701 x 546 mm
(27.2 x 27.6 x 21.5")
- Depth including input tray: 769 mm (30.3")
- Weight: approx. 72 kg (158 lbs)

Power

- 220 - 240 V, 1.0 A/50-60 Hz
- 100 - 120 V, 2.0 A/50-60 Hz

Minimum requirements

- CR MD4.0T GENERAL CASSETTE
- CR MD4.0T FULL LEG/FULL SPINE CASSETTE
- CR MD4.0 GENERAL PLATE
- CR MM3.0T EXTREMITIES CASSETTE & PLATE
- CR MM3.0T MAMMO CASSETTE & PLATE
- NX

Environmental conditions

- Temperature: 15 - 30° C (59 - 86° F)
- Humidity: 15 - 80% Rh
- Magnetic fields: max. 3.8 µT in conformance with EN 61000-4-8; level 2
- Rate of change of temperature: 0.5° C/minute (0.9° F)

Environmental effects

- Noise level: max. 65 dB (A)
- Heat dissipation: standby 80 W, max. 200 W

Transport details

- Temperature: -25 to +55° C (-4 to 131° F),
-25° C for max. 72 hours,
+55° C for max. 96 hours
- Humidity: 5 - 95% Rh

SAFETY

Approvals

- CE, UL

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* CR 30-XM is not available in the US and Canada.

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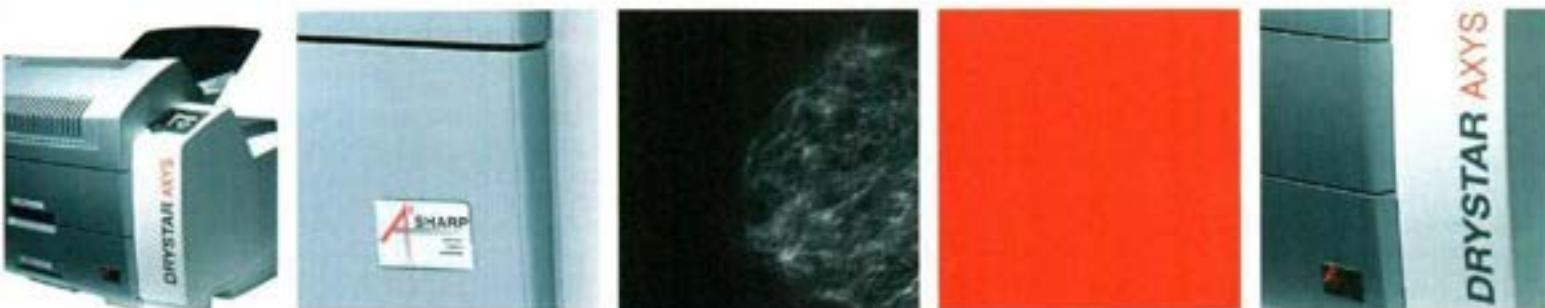
871929-04-00000000

AGFA 

IMAGER

DRYSTAR AXYS

The all-round, table-top imager, even for mammography



DRYSTAR AXYS
AGFA

The **'AXYS'** of your department

The compact imager with full flexibility

DRYSTAR AXYS is the new axis for digital radiography workflows, including for mammography imaging. Its small footprint covers a wealth of potential. Whether you need a centralized or a dedicated printer, the DRYSTAR AXYS will fit right in. It has two on-line media trays that can handle all types of media in all sizes available, while the daylight media handling makes it easy and convenient to load.

The compact size lets you use it wherever you need it, but the smart modular design provides the reliability you have come to expect from all Agfa imagers. It is also the only table-top imager available capable of printing Mammography quality images. And wait until you see how quickly you get your images! You will be holding your first print only seconds after the image is taken. With the DRYSTAR AXYS, every department can enjoy the benefits of a reliable, flexible, compact imager.

Mammography quality, really fast

Finally, high-quality Mammography images from a compact, table-top imager! The DRYSTAR AXYS gives you a high resolution of 508 ppi, which perfectly matches the 50 µm modality resolution of the highest resolution CR digitizers. This one-to-one ratio provides that the imager resolution is equal to the digitizer's scan resolution, so no image interpolation is necessary, and no image artifacts are introduced. It is the most efficient resolution possible, providing the excellent image quality required for diagnostic Mammography images.

And with the ultra-short access time for the first four prints, plus the efficient throughput, even the Mammography department can enjoy increased productivity along with all the benefits of table-top imaging.

A smart technology choice and a true family resemblance

The DRYSTAR AXYS may be compact, but it is a full-fledged member of the Agfa DRYSTAR family, and has all the family characteristics. These include the highly reliable modular design, as well as the Direct Digital Imaging Technology (DDI) that provides fast, clean, environmentally-friendly usage, with no complex or expensive moving parts to maintain. It is easier to use, with no wet processing, darkroom, complicated adjustments or cleaning procedures, and more reliable, for greater availability whenever you need it.

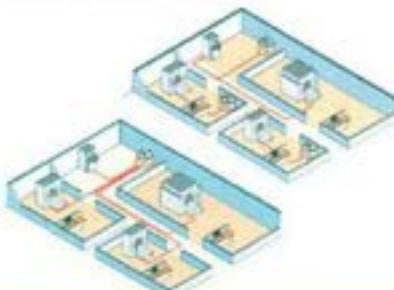
Direct Digital Imaging is also one of the best ways of combining the quality of 508 ppi at a spot size of 50 µm within a compact imager, providing the mammography-level image quality of this tabletop imager. And with the AirSharp technology included, the enhanced imaging capability of the Direct Digital Imaging provides sharper image quality across all your applications.

The combination of its small size, ease of use, reliability, quality and flexibility make it the right imager to use – anywhere you need it.

Fits anywhere and everywhere

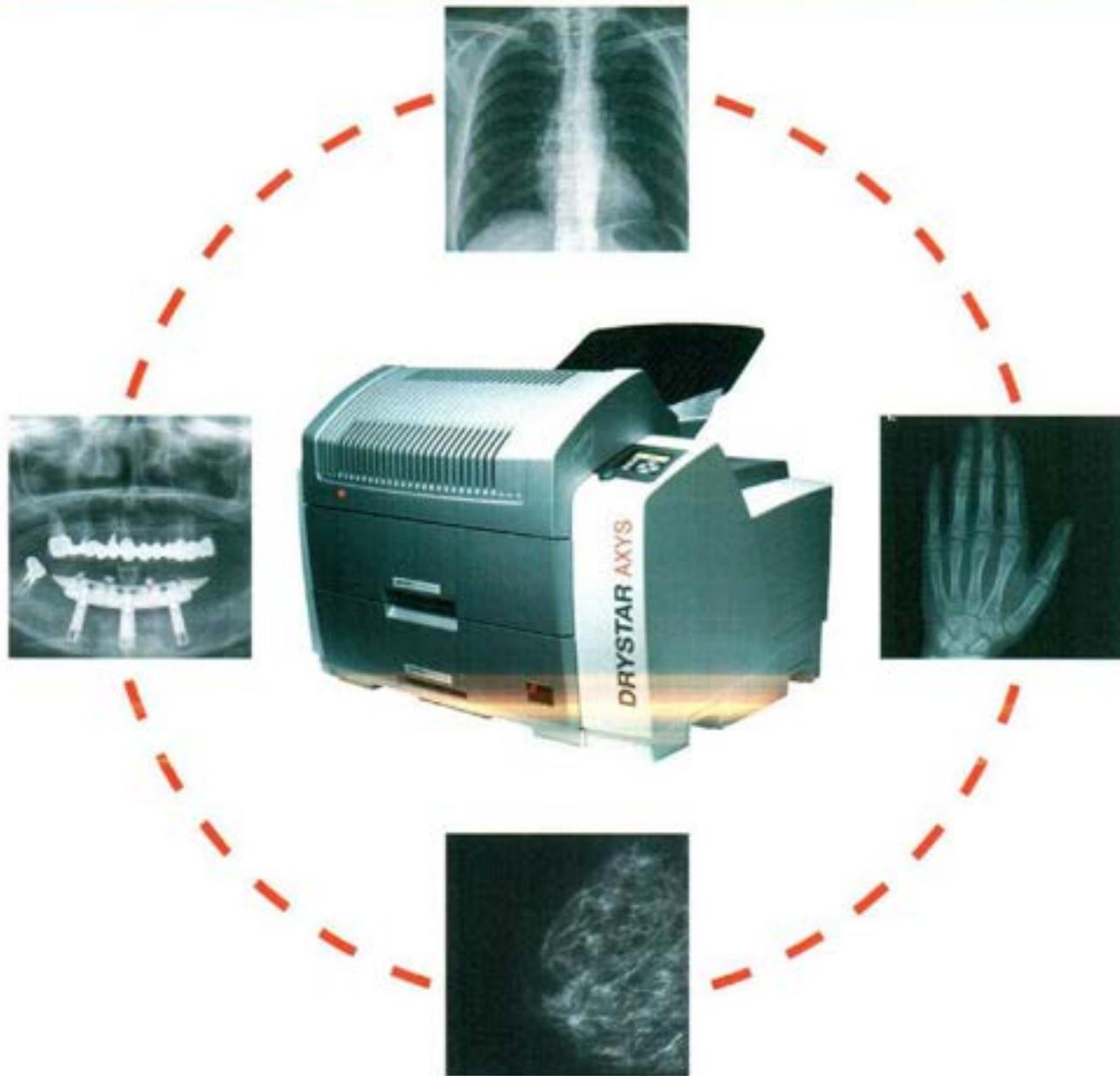
DRYSTAR AXYS fits perfectly into any type of facility, from smaller clinics with limited space, to larger hospitals with many departments. Use it in a centralized imaging environment to support a broad range of applications, including CT, MR, DSA and US, as well as CR/DR applications for GenRad, Mammography, Orthopaedics, Dental Imaging and more.

Or use it as a dedicated departmental imager, so that any department can take advantage of its many benefits. With the DRYSTAR AXYS, the question is not whether to use it, but how to use it – and all the choices are yours!



Networked or dedicated... it always fits in

DRYSTAR AXYS is the heart of the centralized or decentralized department, supporting a broad range of applications.

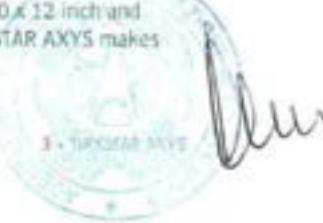


The right connection

DRYSTAR AXYS not only fits in almost any space, it also integrates right into your facility. The DICOM-native imager makes network connectivity easy. It will blend in with your facility so quickly, you won't feel the slightest bump or interruption.

The media type and size you need, with daylight handling

The DRYSTAR AXYS's two on-line media trays provide you greater flexibility and usability. Both handle all media types and sizes, when and where you need them, with easy daylight handling. You can use blue base (Agfa dry film) and clear base (Agfa dry film) media in five different sizes: 8 x 10 inch, 10 x 12 inch, 11 x 14 inch, 14 x 14 inch and 14 x 17 inch. The imager can also handle Agfa dry Mammography film in 8 x 10 inch, 10 x 12 inch and 11 x 14 inch. Whatever media you need, DRYSTAR AXYS makes it convenient and accessible!



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AGFA 

DRYSTAR AXYS

IMAGER

Flexible, table-top imager delivering mammography-quality images. DRYSTAR AXYS is a dual film size, Direct Digital imager with excellent image quality.

- Multi-application hardcopy solution
- Mammography-quality images, with 508 dpi image resolution
- Very short access time, for fast delivery of first 5 prints
- Convenient imaging, with two film sizes on-line
- Reliable, flexible and affordable

Small footprint, enormous potential

DRYSTAR AXYS offers a great range of possibilities, despite its compact size. It can be used in both centralized workflows and with multiple applications. Fitting a full range of applications, it also features daylight handling for the two on-line media trays, with five media sizes and three different media types available. The imager thus offers enhanced flexibility and convenience, and the ability to use multiple media sizes makes the DRYSTAR AXYS suitable for all applications. In addition, its ultra-short access time for the first five prints, as well as its efficient throughput, provide increased productivity.

Direct Digital Imaging: More reliability, for more availability

As with all of Agfa's DRYSTAR family of imagers, DRYSTAR AXYS features Direct Digital Imaging (DDI). This solid-state technology avoids the use of complex optical components, for an imager that is more reliable and durable by design. In addition, DRYSTAR AXYS is ecological and user-friendly, requiring no wet processing, darkroom, complicated adjustments or cleaning procedures. The chemicals, waste handling and disposal costs of darkroom film processing are things of the past.





High-quality mammography images from a table-top imager

With DRYSTAR AXYS, the mammography department can enjoy all the convenience of a table-top, digital imager. Its high resolution of 508 dpi perfectly matches the 50 µm modality resolution, without interpolations. The result is the excellent image quality required for diagnostic mammography images. Yet the DRYSTAR AXYS offers the same reliability, affordability and convenient size of all the Agfa DRYSTAR table-top imagers.

The right fit for both centralized and dedicated environments

DRYSTAR AXYS is the right solution for both smaller facilities with limited space and lower patient volume, and larger facilities with many departments. As a centralized imager, it supports a wide range of applications, including CT, MR, DSA and US, as well as CR/DR applications for GenRad, Mammography, Orthopaedics, Dentistry, etc. Equally, its compact design makes it the ideal dedicated departmental imager, for example, for the digital mammography department.

Easy connectivity for maximum flexibility

DRYSTAR AXYS is a DICOM-compliant imager, which makes network connectivity easy.

A#Sharp: Enhancing imaging quality

As part of our continual drive to provide you with excellent image quality, our award winning Direct Digital Imaging (DDI) technology has been enhanced to include A#Sharp technology. This technology intensifies imaging capability, enabling DDI to provide sharper image quality across all applications.



Technical Specifications

GENERAL

Dimensions & weight

- Dimensions (W x D x H): 72,8 x 71,5 x 53,6 cm
(H = 67,6 cm with output tray)
(28,7 x 28,1 x 21,1"
(H = 26,6" with output tray))
- Weight (without film): 90 kg (198 lbs)

Power requirements

- Auto ranging 100 - 240 V: 50/60 Hz

Power consumption

- Printing: 250 Watt
- Peak: 530 Watt
- Standby: 70 Watt

Capacity of supply tray

- 100 sheets per supply tray

Heat dissipation

- Standby power: 70 Watt
- Average printing power: 250 Watt
- Peak power: 530 Watt

ENVIRONMENTAL REQUIREMENTS

Operation

- Temperature: +15 ° +30° C (59 - 86° F)
- Humidity: 20 - 75% Rh (non condensing)

Storage and transportation

- Temperature: -25 ° +55° C (-13 to 131° F),
for transport: -40 ° +70° C (-40 to 158° F)
- Humidity: 10 - 95% Rh (non condensing)

PERFORMANCE

- Throughput:
 - 14 x 17": 75 sheets/hour
 - 8 x 10": 130 sheets/hour for mammography
- Access time first sheet:
 - 14 x 17": 65 sec
 - 8 x 10" MAMMO: 45 sec
- Diagnostic area:
 - General Radiography
 - 8 x 10": 3852 x 4880 pixels
 - 14 x 17": 6922 x 8368 pixels
 - Mammography
 - 8 x 10": 3828 x 4958 pixels
 - 10 x 12": 4892 x 5810 pixels

Printing resolution

- Geometrical: 508 dpi
- Pixel depth architecture: 14 bit

MEDIA

- Types:
 - Agfa dry film: blue base
 - Agfa dry film: clear base
 - Agfa dry Mammo film
- Sizes:
 - Agfa dry film: 8 x 10", 10 x 12",
11 x 14", 14 x 14" and 14 x 17"
 - Agfa dry Mammo film: 8 x 10", 10 x 12",
11 x 14"
 - Two on-line sizes, any type or size

SAFETY

Standard

- IEC 60601-1;
- UL 60601-1;
- CSA 22.2, Nr. 601.1 - M90;
- VDE 0750;
- Safety labels UL, cUL, TÜV-Mark

DRYSTAR AXYS

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100-14-02 Rev 000001

AGFA 

DRYSTAR DT 2 B

HARDCOPY SYSTEMS

DRYSTAR DT 2 is Agfa's second-generation direct digital greyscale medium. DRYSTAR DT 2 offers high contrast, high density and higher throughput for DRYSTAR 5503, DRYSTAR 5500, DRYSTAR 5302, DRYSTAR 5301, DRYSTAR 5300 and DRYSTAR AXYS imagers, producing excellent quality hardcopies.

- Second-generation, higher-throughput, dry processing greyscale medium
- Specially designed for DRYSTAR 5503, DRYSTAR 5500, DRYSTAR 5302, DRYSTAR 5301, DRYSTAR 5300 and DRYSTAR AXYS imagers
- Clear and sharp images
- Excellent image stability
- Secure archiving for a minimum of 15 years

Easy handling for convenient radiology exams

Agfa has put several years of experience with Direct Digital printing into designing the DRYSTAR 5x0x and DRYSTAR AXYS imagers, in order to produce the high diagnostic quality greyscale hardcopies. To support these top-of-the-line imagers, a special medium, DRYSTAR DT 2, was developed. It is capable of coping with the higher throughput of the advanced imagers.

Agfa's leading-edge Direct Digital dry imaging technology produces greyscale hardcopies with high Dmax and contrast. It gives the same clear, high-quality results as wet laser film, but offers all the advantages of dry technology. Superb quality images are generated more quickly and more conveniently.



DRYSTAR DT 2

DRYSTAR 5503



Ecological technology in an easy-to-use system

The p-iect® Digital dry imaging technology provides DRYSTAR DT 2 is built on a 168µm-thick PET base, coated with silver salts and covered with a protective lacquer for resistance to scratches and moisture. The PET base has rounded corners, to allow the medium to be handled in the same way as regular X-ray film. The silver-based imaging layer is heat-sensitive rather than light-sensitive, providing low fog and high contrast, combined with excellent image stability.

characteristics of DRYSTAR DT 2 make daylight reading effortless. Image processing is more efficient and cost-effective. The DRYSTAR DT 2 packaging is fully recyclable and, combined with the elimination of processing chemicals, provides a more environmentally friendly solution.

Consistently clear and sharp images

DRYSTAR DT 2 is built on a 168µm-thick PET base, coated with silver salts and covered with a protective lacquer for resistance to scratches and moisture. The PET base has rounded corners, to allow the medium to be handled in the same way as regular X-ray film. The silver-based imaging layer is heat-sensitive rather than light-sensitive, providing low fog and high contrast, combined with excellent image stability.



DRYSTAR 5302
DRYSTAR AXYS

Technical Specifications

USAGE

- For medical printing of greyscale images on 168µm PET
- Blue base
- Maximum optical density: ≥ 3.1
- Fully recyclable packaging
- Daylight loading

DEDICATED IMAGERS

- DRYSTAR 5503
- DRYSTAR 5500
- DRYSTAR 5302
- DRYSTAR 5301
- DRYSTAR 5300
- DRYSTAR AXYS

AVAILABLE SIZES

- DRYSTAR 5503, DRYSTAR 5500:
 - 20 x 25 cm (8 x 10")
 - 25 x 30 cm (10 x 12")
 - 28 x 35 cm (11 x 14")
 - 35 x 35 cm (14 x 14")
 - 35 x 43 cm (14 x 17")
- DRYSTAR 5302, DRYSTAR 5301:
 - 20 x 25 cm (8 x 10")
 - 25 x 30 cm (10 x 12")
 - 28 x 35 cm (11 x 14")
 - 35 x 35 cm (14 x 14")
 - 35 x 43 cm (14 x 17")
- DRYSTAR 5300:
 - 28 x 35 cm (11 x 14")
 - 35 x 43 cm (14 x 17")
- DRYSTAR AXYS:
 - 20 x 25 cm (8 x 10")
 - 25 x 30 cm (10 x 12")
 - 28 x 35 cm (11 x 14")
 - 35 x 35 cm (14 x 14")
 - 35 x 43 cm (14 x 17")

STORAGE

- 100 sheets per box
- Shelf life: 36 months after manufacturing date
- Storage before use:
 - Temperature between 4 to 25 °C
- Storage after printing:
 - Archiving facility complies with ISO 18911:2010 and ISO 18919:1999, extended term
 - Storage minimum 15 years
 - Recommendations & Carriage to avoid image loss or increased density or discoloration:
 - avoid storage for a long period of time at > 35 °C
 - avoid dry media on view boxes for a long period of time
 - avoid exposure to excessive high temperatures and intense light, store the images in the original packaging or other appropriate protective film envelopes at max. 25 °C



DRYSTAR DT 2

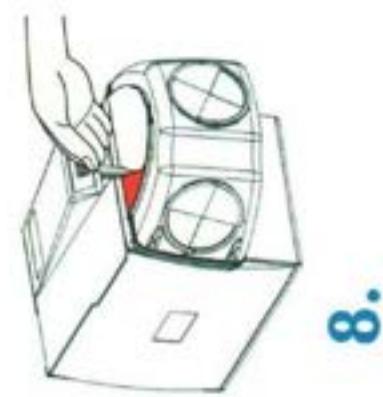
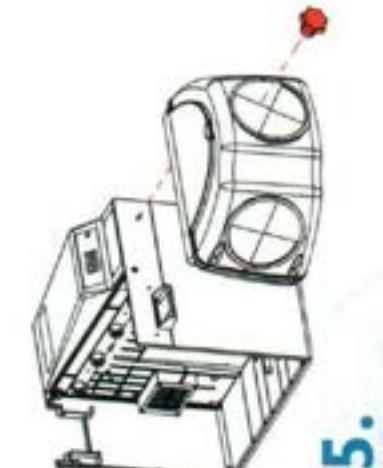
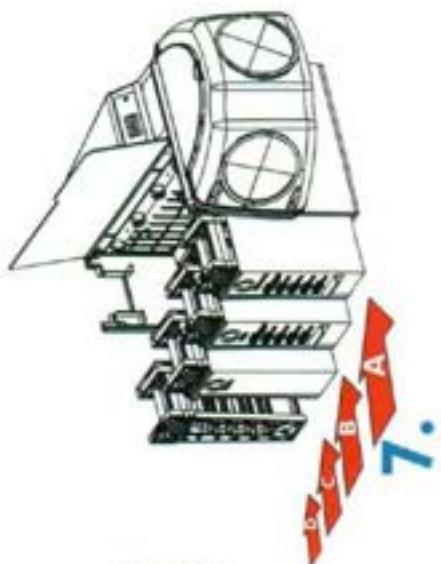
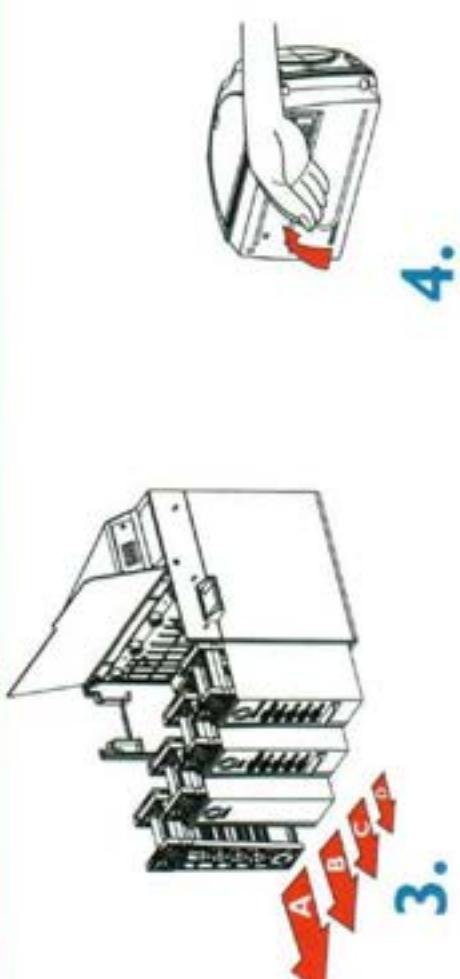
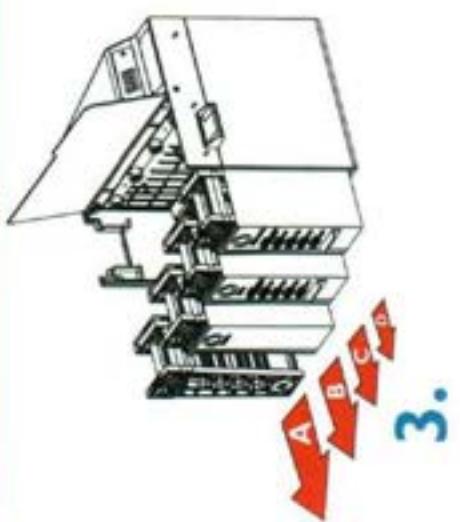
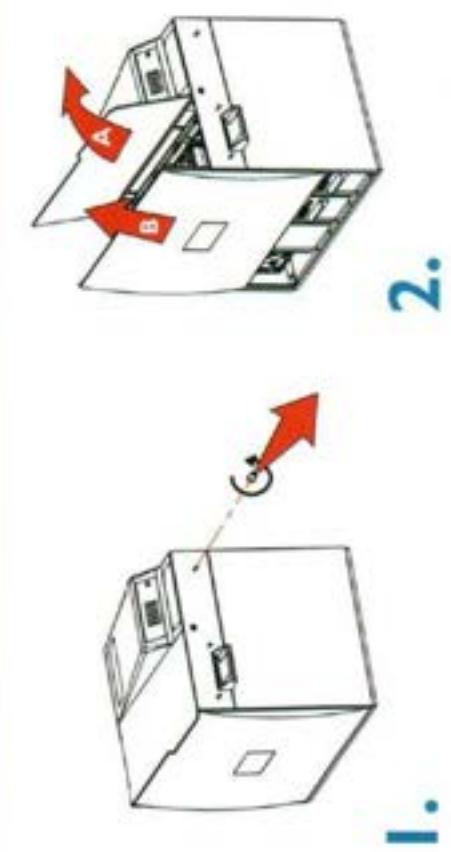
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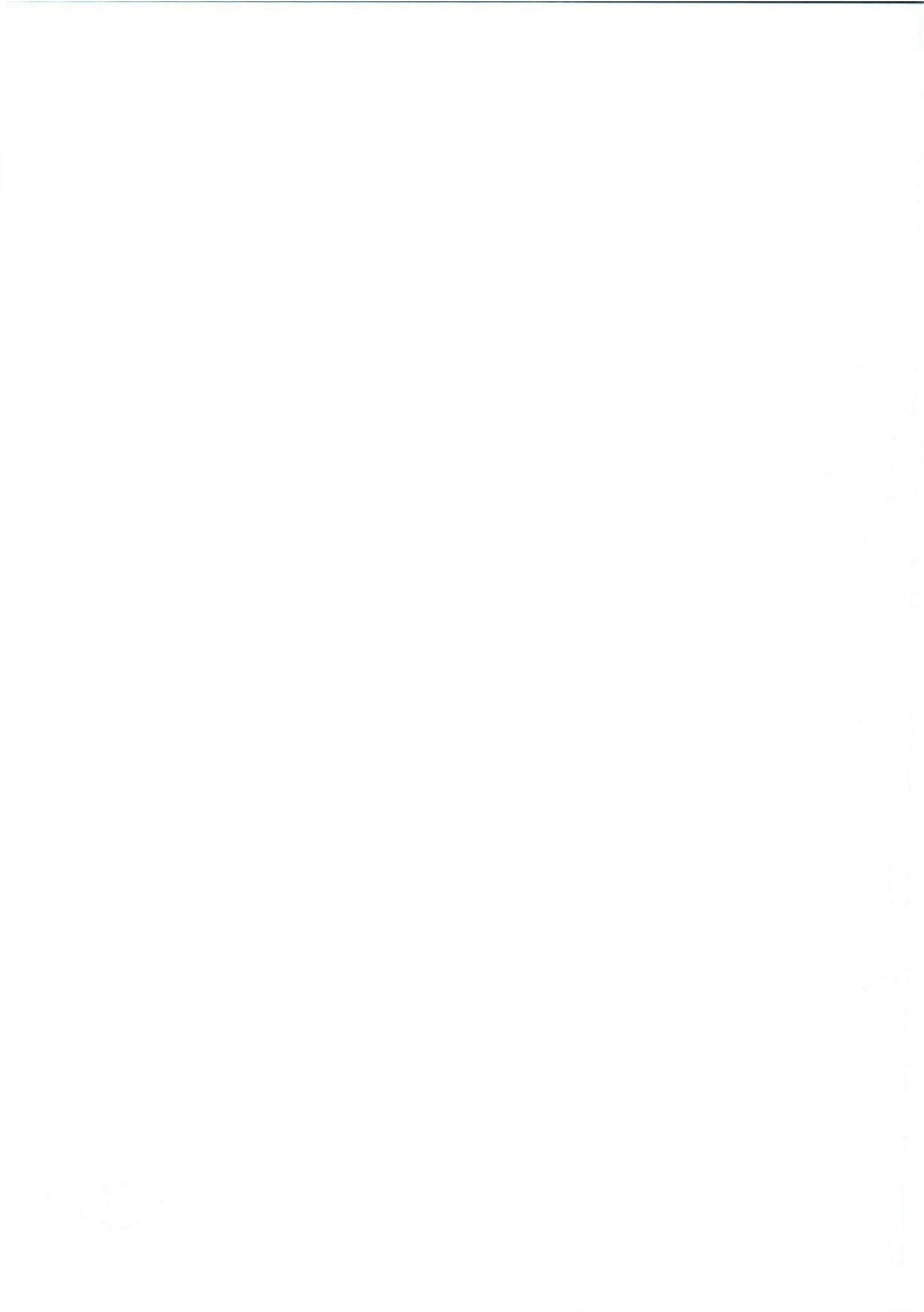
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AGFA 





Contents/Contenu/Contenuto/Packungsinhalt/Contenido/Составные части



Display/Écran/Pantalla/Дисплей



Lid	The lid is not closed correctly/Le couvercle n'est pas correctement fermé/Il coperchio non è chiuso correttamente/Der Deckel ist nicht richtig geschlossen/La tapa no está cerrada correctamente/Неправильно закрыта крышка
ELo	The machine is warming up/La machine est en train de chauffer/La macchina è in fase di riscaldamento/Das Gerät ist am aufwärmen/La máquina se está calentando/Аппарат нагревается
- - -	Ready to use/Prêt pour l'utilisation/Pronto all'uso/Betriebsbereit>Listo para usar/Готов к использованию
- -	Cooling down/Refroidissement/Raffreddamento in corso/Abkühlen/Enfriamiento/Охлаждение

Installation / Installazione / Instalación / Установка

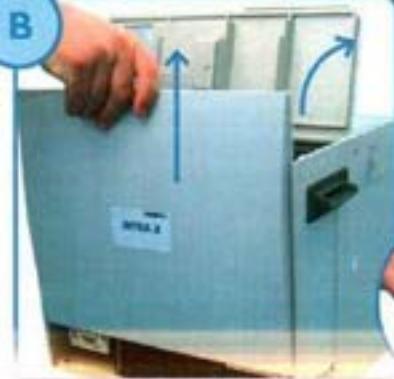
Daylight Loader / Chargeur lumière du jour / Caricatore luce diurna / Tageslichtvorsatz / Cámara oscura / Загрузчик дневного света

A



Remove black stud covers from the front panel, and peel protective tape off the loader. Slide the loader over the film guide / Retirez les recouvreurs noirs du panneau frontal et tirez de la bande protectrice du chargeur. Glissez le chargeur dans la glissière du rouleau / Rimuovere le copertura dei montanti neri dal pannello frontale e il nastro di protezione dal caricatore. Scorrere il caricatore sulla guida della pellicola / Die schwarzen Abdeckungen der Stiftschrauben und das Schutzband des Ladeteils entfernen. Das Ladeteil über die Filmsteuerung schieben / Retire los recubridores negros de los topes del panel frontal y tire de la cinta protectora del cargador. Deslice el cargador en la guía del carrete / Открутите винт, закрепляющий переднюю панель, и снимите защитную крышку. Установите загрузочное устройство на направляющую пленочного канала

B



Lift the lid and remove the side panel. Slide out the modules and remove all the packaging / Levez le couvercle et retirez le panneau latéral. Retirez les modules en les faisant glisser et retirez les emballages / Sollevare il coperchio e rimuovere il pannello laterale. Rimuovere i moduli e gli imballaggi / Den Deckel heben und das Seitenteil entfernen. Die Module herausziehen und die Verpackung entfernen / Levante la cubierta y retire el panel lateral. Saque los módulos deslizándolos y retire los envoltorios / Поднимите крышку и снимите боковую панель. Потяните модули кверху и вытащите все упаковки.

C



Thread the two retaining screws through the front panel. Inside the loader, screw the black knob onto the stud / Vissez les deux vis de fixation au travers du panneau frontal. À l'intérieur du chargeur, vissez le bouton noir au boulon / Avvitare le due viti di supporto sul pannello frontale. All'interno del caricatore, avvitare la manopola nera sul perno / Beide Halteschrauben in das Vorderteil schieben. Im Innern des Ladeteils die schwarzen Knöpfe an die Stiftschrauben anschrauben / Atornille los dos tornillos de sujeción a través del panel frontal. Dentro del cargador, atornille el botón negro al perno / Пропустите резьбу двух фиксирующих винтов через переднюю панель. Внутри загрузочного устройства прикрутите к винтам черные ручки

Warning: Never mix the chemicals together / Avertissement : Ne mélangez jamais les produits chimiques / Avvertenza: Non mischiare mai le sostanze chimiche / Warnung: die Chemikalien auf keinen Fall mischen / Precaución: No mezcle nunca los productos químicos / Предупреждение! Никогда не смешивайте химические продукты!



Check with your local authority on how to dispose of chemical / Consultez les autorités locales concernant le recyclage des produits chimiques / Rivolgersi alle autorità locali per informazioni sullo smaltimento delle sostanze chimiche / Informieren Sie sich bei den örtlichen Behörden über die Entsorgung der Chemikalien / Consulte con las autoridades locales la recogida de productos químicos / Установите через местные власти, куда можно выливать отходы химических продуктов



Processor / Développeuse / Sviluppatrice / Filmentwickler / Reveladora / Процессор

1



Fill up the tanks to the lowest edge of the tank window. / Remplissez les réservoirs jusqu'à l'extrémité inférieure de la fenêtre du réservoir / Riempire i serbatoi fino all'estremità inferiore della finestra del serbatoio / Die Tanks bis zur obersten Kante am Tankfenster füllen. / Rellene los depósitos hasta el extremo inferior de la ventana del depósito / Заполните резервуары по самую нижнюю отметку окошка

A = Developer / Révélateur / Rivelatore / Entwickler / Revelador / Проявитель

B = Fixer / Fixateur / Fissatore / Fixiertank / Fijador / Закрепитель

C = Water / Eau / Acqua / Wasser / Agua / Вода

D = DO NOT FILL / NE PAS REMPLIR / NON RIEMPIRE / NICHT FÜLLEN / NO RELLENAR / НЕ ЗАПОЛНЯТЬ

2

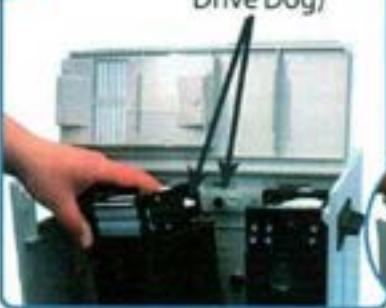


Apply silicon grease to the heaters / Appliquez la graisse de silicone aux réchauffeurs / Applicare grasso al silicone sui riscaldatori / Silikonfett auf die Heizkörper geben / Aplique la grasa de silicona en los calentadores / Нанесите силиконовую смазку на обогреватели



3

(Drive Pin & Drive Dog)



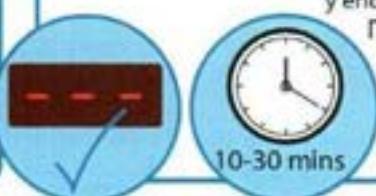
Slide the tanks back into the machine. Make sure the drive pin on the module slides into the recess. Replace the side panel and lid / Glissez de nouveau les réservoirs dans la machine. Assurez-vous que le boulon guide glisse dans les modules jusqu'à la cavité. Replacez le panneau latéral et le couvercle. / Riposizionare i serbatoi sulla macchina. Assicurarsi che il perno guida sui moduli scorra sulla cavità. Riposizionare il pannello laterale e il coperchio / Die Tanks wieder in das Gerät einführen. Versichern Sie sich, dass die Führungsstifte der Module in die Nische gleiten. Seitenteil und Deckel wieder einsetzen. / Deslice de nuevo los depósitos en la máquina. Asegúrese de que el perno guía se desliza en los módulos hasta la cavidad. Sustituya el panel lateral y la tapa / Поставьте резервуары в аппарат. Убедитесь, что направляющие стержни модулей вошли в углубление. Закройте боковую панель и крышку.



4



Plug in the machine using the electric cord and switch on. Wait until the "Ready" symbol is displayed / Branchez la machine via le câble d'alimentation et allumez-la. Patientez jusqu'à l'apparition du symbole "prêt" / Collegare la macchina con il cavo di alimentazione e accenderla. Attendere finché non viene visualizzato il simbolo "pronto" / Das Stromkabel des Gerätes an das Netz schließen und das Gerät einschalten. Warten bis das Symbol "betriebsbereit" erscheint / Enchufe la máquina por el cable de alimentación y enciéndala. Espere hasta que aparezca el símbolo de "listo" / Подсоедините аппарат к сети с помощью электрического кабеля и включите его. Подождите пока появится сигнал "Готово"



5



Put your hands through the loader gloves and place the film inside the loader / Glissez vos mains dans les gants du chargeur et placez le film à l'intérieur du chargeur / Infilare le mani all'interno del caricatore e posizionare la pellicola / Hände durch die Öffnungen des Ladeteils einführen und den Film einlegen / Ponga las manos en los guantes del cargador y sitúe el carrete dentro del cargador / Поместите ваши руки в рукава аппарата, и разместите пленку внутри загрузочного устройства

6



Feed the film squarely into the film slot. Do not remove hand from Daylight Loader until the film has completely entered the machine. Keep the lid CLOSED / Insérez le film directement dans la rainure du rouleau. Un bip indiquera que le film a été détecté. Maintenez le couvercle du chargeur FERMÉ lors de son utilisation / Infilare in modo uniforme la pellicola nella feritoia. Non togliere la mano dal caricatore finché la pellicola non è completamente entrata nella macchina. Tenere il coperchio del caricatore CHIUSO quando in uso / Den Film direkt in den Filmslot einführen. Nehmen Sie Ihre Hand nicht vom Tageslichtvorsatz, solange der Film nicht vollständig in das Gerät eingezogen wurde. Den Deckel bei Betrieb des Gerätes GESCHLOSSEN lassen / Inserte el carrete directamente en la ranura del carrete. No retire las manos de la cámara oscura hasta que la placa haya entrado por completo en la reveladora. Mantenga la tapa del cargador CERRADA cuando esté en uso / Вставьте пленку лицевой стороной в щелевое отверстие. не вытаскивайте руки из загрузчика, пока пленка полностью не скроется внутри аппарата. Во время работы аппарата держите крышку ЗАКРЫТОЙ

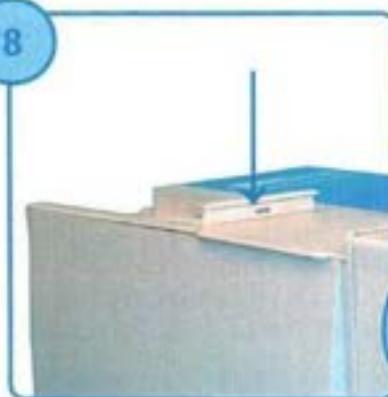
7



After 5 minutes the processed film will exit into the film collector / Après un délai de 5 minutes, le film développé sortira dans le récepteur du rouleau / Dopo 5 minuti, la pellicola elaborata viene posizionata nel raccoglitore / Nach 5 Minuten wird der verarbeitete Film im Collector herauskommen / Tras 5 minutos, el carrete procesado saldrá del receptor del carrete / Через 5 минуты готовый снимок выпадет в лоток

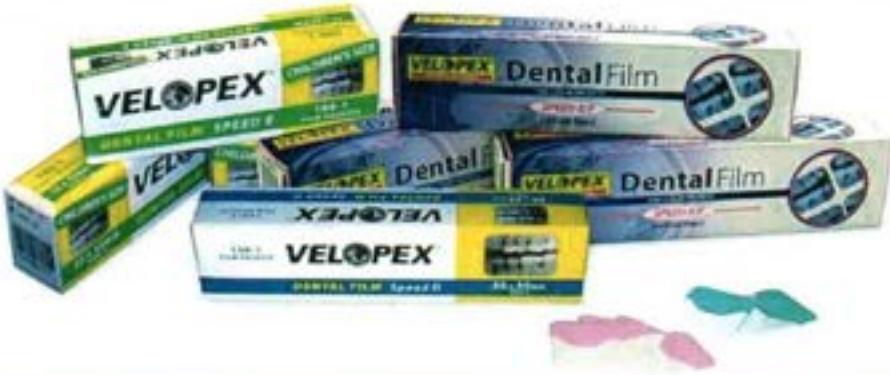


8



For quick viewing of wet films, press down the Endo slide. This will halve the processing time to 2.5 minutes / Pour une visualisation rapide des pellicules mouillées, appuyez sur la rainure Endo. Cela réduira le temps de développement à 2.5 minutes / Per una rapida occhiata alle pellicole umide, premere la lastrina Endo. I tempi di elaborazione si dimezzano a 2.5 minuti / Für eine schnelle Ansicht von nassen Filmen, den Endo-Schieber nach unten schieben, dies wird die Verarbeitungszeit auf 2.5 Minuten kürzen / Para una visualización rápida de las películas mojadas, pulse la ranura Endo. Esto disminuirá el tiempo de procesamiento a 2.5 minutos / Для срочного просмотра влажных снимков, нажмите ЭНДО. Это сократит время процесса до 2.5 минут





VELOPEX



VELOPEX

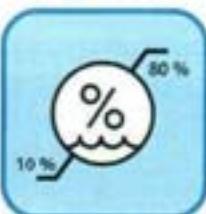
VISCHECK™



VELOPEX



Properties/Propriétés/Proprietà/Eigenschaften/Propiedades/Характеристики



Safety/Sécurité/Sicurezza/Sicherheitshinweise/Seguridad/Безопасность



Don't place in sunlight
Ne l'exposez pas à la lumière directe du soleil! Nor Sonneninstrahlung schützen! Non exposer directement alla luce del sole! No expone al sol!
Не переворачивайте в режиме естественного освещения



Don't leave machine on overnight
Ne laissez pas la machine allumée pendant la nuit! Non lasciare la macchina accessa la notte! Das Gerät über Nacht nicht eingeschaltet lassen! No deje la máquina encendida por la noche! Не оставляйте аппарат включенным на ночь

Use Velopex parts

VELOPEX

Utilisez des pièces Velopex! Es müssen Velopex Ersatzteile verwendet werden! Usare i componenti Velopex! Utilice piezas Velopex!

Используйте детали Velopex.

Manual/Manuel/Manuale/Handbuch/Manual/Руководство



For further information on installation, operation, maintenance and service, see the manual on the enclosed CD, DVD or USB drive / Pour plus d'informations concernant l'installation, l'opération, l'entretien et le service, consultez le manuel sur le CD, DVD ou la mémoire USB / Per ulteriori informazioni sull'installazione, il funzionamento, la manutenzione e l'assistenza, leggere il manuale sul CD, DVD o unità USB allegati / Weitere Informationen über die Installation, Handhabung, Wartung und Service finden Sie im Handbuch auf der beigelegten CD, DVD oder USB-drive / Para más información sobre la instalación, operación, mantenimiento y servicio, consulte el manual en el CD, DVD o memoria USB / Для дополнительной информации по установке, эксплуатации, техническому обслуживанию и сервису, см. руководство, прилагаемое на CD, DVD или USB-драйве

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Fax: +44 (0) 20 8963 1270
enquiries@velopex.com

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Florida 34769
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Intra Quick Start Guide Iss. J
I/LIT0140P Issued 12/11/14
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Medivance Instruments Limited.



Hi-Tech
Diagnostics
Service

02-XCRS	CM+6059300	CASSETTE FIXATION UNIT	9.249,72 €
02-XCRS	CM+9517049603	PMI Power Distribution II	2.917,34 €
02-XCRS	CM+9517514110	BRUSH COMPL.SMALL	153,76 €
02-XCRS	CM+9517515400	HOOD INSTALLED	912,50 €
02-XCRS	CM+9517515601	CR30 DISTRIBUTION BOARD	573,40 €
02-XCRS	CM+9517516200	FRONT COVER DIGITIZER SILVER	1.647,72 €
02-XCRS	CM+9517516302	FRONT COVER	1.518,00 €
02-XCRS	CM+9517516500	FRONT COVER DIGITIZER WHITE	1.303,70 €
02-XCRS	CM+9517516600	TOP COVER DIGITIZER SILBER	1.117,86 €
02-XCRS	CM+9517521202	SLOWSCAN Board CR 30	2.825,64 €
02-XCRS	CM+9517521704	PMI3-BOARD	6.052,20 €
02-XCRS	CM+9517523100	BRUSH STRIP INSTALLED	276,60 €
02-XCRS	CM+9517524005	SLOWSCAN COMPLETE	17.904,58 €
02-XCRS	CM+9517524521	LIGHT COLLECTOR MANTLE	433,22 €
02-XCRS	CM+9517524709	CAL-BOARD COMPLETE	1.813,94 €
02-XCRS	CM+9517527003	CR30 OPTIC MOODULE LC	17.125,48 €
02-XCRS	CM+9517527504	OPTIC MOODULE CR30-X	18.734,30 €
02-XCRS	CM+9517529404	TOOLKIT LASERBEAM OETECTION	1.503,88 €
02-XCRS	CM+9517536004	ERASURE UNIT	4.982,30 €
02-XCRS	CM+9517545190	Motor Cassette Opener	1.067,02 €
02-XCRS	CM+9517552004	CASSETTE OPENER	5.606,68 €
02-XCRS	CM+9517552308	IP-HANOLING PCB	2.927,26 €
02-XCRS	CM+9517552601	POWER SEQUENCER BOARD	862,86 €
02-XCRS	CM+9517554300	CASSETTE OETECTION HOOK	125,26 €
02-XCRS	CM+9517556004	CASSETTE UNLOCKING UNIT	1.103,98 €
02-XCRS	CM+9517558101	Motor Cassette Fixing	858,84 €

SITEM-PRO
 Via S. Giovanni 10 - 33110 PORDENONE (PN)
 C.R.E.P.I. D.O. 00933
 PEC: sitem-pro@pec.it
 C.U.: SUISUM70N

02-XCRS	CM+9517560012	ORAWER ADJUSTMENT TOOL	153,84 €
02-XCRS	CM+9517561009	ORAWERUNIT	2.571,36 €
02-XCRS	CM+9517561250	SOLENOIO , BONOEO (3 pcs)	152,00 €
02-XCRS	CM+9517561400	SLEOERS OF ORAWER UNIT	196,36 €
02-XCRS	CM+9517563400	BEARING FOR CONNECTING LINK	185,98 €
02-XCRS	CM+9517563500	Motor Roller	1.066,92 €
02-XCRS	CM+9517585150	CR30-X/ Cable 25 Pin Sub-O	217,18 €
02-XCRS	CM+9517585901	IP-Handling Erasure Cable	17,68 €
02-XCRS	CM+9517586800	Motor Roller Clamping	715,64 €
02-XCRS	CM+9517586902	ORAWER MOTOR	792,24 €
02-XCRS	CM+9517590107	PMT+LIGHT COLLECTOR	18.512,28 €
02-XCRS	CM+9517590304	SET INPUT ROLLERS (4 pcs)	1.106,68 €
02-XCRS	CM+9517590500	TOOTHEO BELT FOR CASS.UNIT	108,40 €
02-XCRS	CM+9517590801	Postscan ESO Brush	267,76 €
02-XCRS	CM+9517598901	SIDE PLATES INPUT ROLLERS	186,18 €
02-XCRS	CM+9517626501	UPPER SCAN ROLLERS (2 PIECES)	941,56 €
02-XCRS	CM+9517686100	CASSETTE REAOER CABLE	19,06 €
02-XCRS	CM+9518012201	CR M04.01 FLFS CASSETTE35X43CM	1.119,90 €
02-XCRS	RF+6059300	CASSETTE FIXATION UNIT	5.995,22 €
02-XCRS	RF+9517049603	PMI Power Distribution II	2.876,10 €
02-XCRS	RF+9517521202	SLOWSCAN Board CBR 30	1.977,94 €
02-XCRS	RF+9517521704	PMI.3-BOARD	4.303,86 €
02-XCRS	RF+9517524005	SLOWSCAN COMPLETE	12.913,04 €
02-XCRS	RF+9517524709	CAL-BOARD COMPLETE	1.687,16 €
02-XCRS	RF+9517552308	IP-HANOLING PCB	3.127,78 €
02-XCRS	RF+9517590106	PMT+LIGHT COLLECTOR	9.376,60 €

02-XCRS	CM+6041061	REFLECTOR WITH BRUSH CR30-NM	6,763,60 €
02-XCRS	CM+6041074	PMT WITH LIGHT COLLECTOR CR 30-NM	18,831,78 €
02-XCRS	CM+6041082	OPTICS MODULE CR30-NM	26,098,08 €
02-XCRS	CM+6041101	ERASURE UNIT CR 30-NM	28,424,94 €
02-XCRS	CM+6041910	FRONT COVER WHITE FOR 5179/100	4,437,04 €
02-XCRS	CM+6042095	CASSETTE OPENER ASSEMBLY (CR30-NM)	18,718,98 €
02-XCRS	CM+6042101	INPUT TRAY (CR30-NM)	30,446,06 €
02-XCRS	CM+6042131	SLOW-SCAN COMPLETE	18,597,06 €
02-XCRS	CM+6042320	GEAR BOX WITH MOTOR AND SCAN ROLLERS	14,448,74 €
02-XCRS	CM+6042851	CASSETTE OPENER SENSOR	1,067,66 €
02-XCRS	CM+6042860	HANOLING CONTROL BOARD	6,630,36 €
02-XCRS	CM+6044202	RF-TAG READER	3,651,06 €
02-XCRS	CM+6048590	ROLLER LIFT ASSEMBLY LEFT CR30-NM	1,216,08 €
02-XCRS	CM+6048600	ROLLER LIFT ASSEMBLY RIGHT CR 30-NM	1,216,08 €
02-XCRS	CM+6049090	UPPER SCAN ROLLERS CR30-NM	2,118,18 €
02-XCRS	CM+6049481	LIMIT PATTERNS FOR CR30-NM	554,36 €

ITEM 02-XPRT: X-RAY, FILM PRINTER, TABLETOP

ITEM NUMBER	CODE	DESCRIPTION	UNIT COST DDP KHARTOUM, SUDAN
02-XPRT	CM+3097371	FILM SENSOR (ROHS) - (S5)	238,80 €
02-XPRT	CM+3097911	LIGHT BARRIER (ROHS) - (S9)	210,12 €
02-XPRT	CM+3433501	TPI FILTER MODULE (ROHS)	338,94 €
02-XPRT	CM+3433521	MAIN DRIVE PULLEY & DRUM BELT (ROHS)	1,123,08 €
02-XPRT	CM+3492663	LOWER TRAY WO TAG (ROHS)	4,870,26 €

ITEM 02-XPRT: X-RAY, FILM PRINTER, TABLETOP
 SITEUM-PRO® SRL
 Via Bolognese 100/A - 20090 Segrate (PN)
 Tel. +39 02 07000000 - Fax +39 02 07000001
 E-mail: siteum-pro@siteum.it
 C.P.C.U.: SUBMISSION
 PEC: siteum-pro@pec.it

IMAGER

DRYSTAR AXYS

The all-round, table-top imager, even for mammography



DRYSTAR AXYS
AGFA 

The **'AXYS'** of your department

The compact imager with full flexibility

DRYSTAR AXYS is the new axis for digital radiography workflows, including for mammography imaging. Its small footprint covers a wealth of potential. Whether you need a centralized or a dedicated printer, the DRYSTAR AXYS will fit right in. It has two on-line media trays that can handle all types of media in all sizes available, while the daylight media handling makes it easy and convenient to load.

The compact size lets you use it wherever you need it, but the smart modular design provides the reliability you have come to expect from all Agfa imagers. It is also the only table-top imager available capable of printing Mammography quality images. And wait until you see how quickly you get your images! You will be holding your first print only seconds after the image is taken. With the DRYSTAR AXYS, every department can enjoy the benefits of a reliable, flexible, compact imager.

Mammography quality, really fast

Finally, high-quality Mammography images from a compact, table-top imager! The DRYSTAR AXYS gives you a high resolution of 508 ppi, which perfectly matches the 50 µm modality resolution of the highest resolution CR digitizers. This one-to-one ratio provides that the imager resolution is equal to the digitizer's scan resolution, so no image interpolation is necessary, and no image artifacts are introduced. It is the most efficient resolution possible, providing the excellent image quality required for diagnostic Mammography images.

And with the ultra-short access time for the first four prints, plus the efficient throughput, even the Mammography department can enjoy increased productivity along with all the benefits of table-top imaging.

A smart technology choice and a true family resemblance

The DRYSTAR AXYS may be compact, but it is a full-fledged member of the Agfa DRYSTAR family, and has all the family characteristics. These include the highly reliable modular design, as well as the Direct Digital Imaging Technology (DDI) that provides fast, clean, environmentally-friendly usage, with no complex or expensive moving parts to maintain. It is easier to use, with no wet processing, darkroom, complicated adjustments or cleaning procedures, and more reliable, for greater availability whenever you need it.

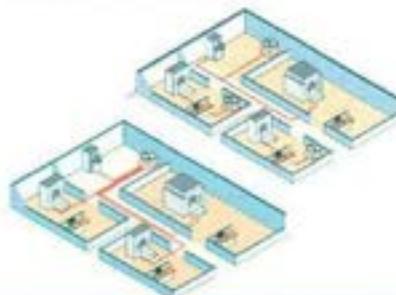
Direct Digital Imaging is also one of the best ways of combining the quality of 508 ppi at a spot size of 50 µm within a compact imager, providing the mammography-level image quality of this tabletop imager. And with the AiSharp technology included, the enhanced imaging capability of the Direct Digital Imaging provides sharper image quality across all your applications.

The combination of its small size, ease of use, reliability, quality and flexibility make it the right imager to use – anywhere you need it.

Fits anywhere and everywhere

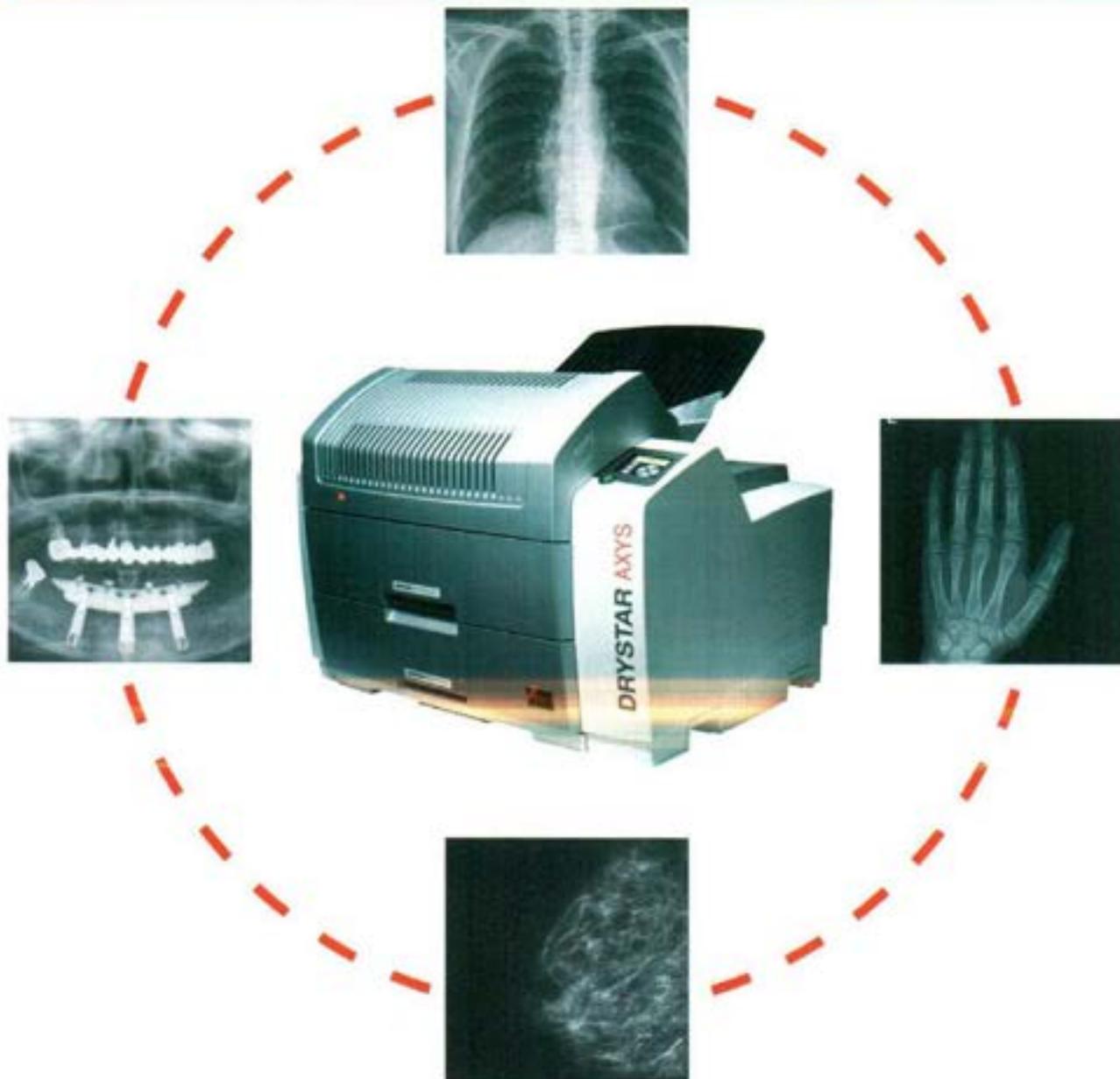
DRYSTAR AXYS fits perfectly into any type of facility, from smaller clinics with limited space, to larger hospitals with many departments. Use it in a centralized imaging environment to support a broad range of applications, including CT, MR, DSA and US, as well as CR/DR applications for GenRad, Mammography, Orthopaedics, Dental Imaging and more.

Or use it as a dedicated departmental imager, so that any department can take advantage of its many benefits. With the DRYSTAR AXYS, the question is not whether to use it, but how to use it – and all the choices are yours!



Networked or dedicated... it always fits in

DRYSTAR AXYS is the heart of the centralized or decentralized department, supporting a broad range of applications



The right connection

DRYSTAR AXYS not only fits in almost any space, it also integrates right into your facility. The DICOM-native imager makes network connectivity easy. It will blend in with your facility so quickly, you won't feel the slightest bump or interruption.

The media type and size you need, with daylight handling

The DRYSTAR AXYS's two on-line media trays provide you greater flexibility and usability. Both handle all media types and sizes, when and where you need them, with easy daylight handling. You can use blue base (Agfa dry film) and clear base (Agfa dry film) media in five different sizes: 8 x 10 inch, 10 x 12 inch, 11 x 14 inch, 14 x 14 inch and 14 x 17 inch. The imager can also handle Agfa dry Mammo film in 8 x 10 inch, 10 x 12 inch and 11 x 14 inch. Whatever media you need, DRYSTAR AXYS makes it convenient and accessible!



For more information on Agfa, please visit our website on www.agfa.com ■

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1257P-BE-DIGITAL

AGFA 

DRYSTAR AXYS

IMAGER

Flexible, table-top imager delivering mammography-quality images. DRYSTAR AXYS is a dual film size, Direct Digital imager with excellent image quality.

- Multi-application hardcopy solution
- Mammography-quality images, with 508 dpi resolution
- Very short access time, for fast delivery of first 5 prints
- Convenient imaging, with two film sizes on-line
- Reliable, flexible and affordable

Small footprint, enormous potential

DRYSTAR AXYS offers a great range of possibilities, despite its compact size. It can be used in both **radiological workflow** and **with difficult applications**. Fitting a full range of applications, it also features daylight handling for the two on-line media trays, with five media sizes and three different media types available. The imager thus offers enhanced flexibility and convenience, and the ability to use multiple media sizes makes the DRYSTAR AXYS suitable for all applications. In addition, its ultra-short access time for the first five prints, as well as its efficient throughput, provide increased productivity.

Direct Digital Imaging: More reliability, for more availability

As with all of Agfa's DRYSTAR family of imagers, DRYSTAR AXYS features Direct Digital Imaging (DDI). This solid-state technology avoids the use of complex optical components, for an imager that is more reliable and durable by design. In addition, DRYSTAR AXYS is ecological and user-friendly, requiring no wet processing, darkroom, complicated adjustments or cleaning procedures. The chemicals, waste handling and disposal costs of darkroom film processing are things of the past.





High-quality mammography images from a table-top imager

With DRYSTAR AXYS, the mammography department can enjoy all the convenience of a table-top, digital imager. Its high resolution of 508 dpi perfectly matches the 50 µm modality resolution, without interpolations. The result is the excellent image quality required for diagnostic mammography images. Yet the DRYSTAR AXYS offers the same reliability, affordability and convenient size of all the Agfa DRYSTAR table-top imagers.

The right fit for both centralized and dedicated environments

DRYSTAR AXYS is the right solution for both smaller facilities with limited space and lower patient volume, and larger facilities with many departments. As a centralized imager, it supports a wide range of applications, including CT, MR, DSA and US, as well as CR/DR applications for GeoRad, Mammography, Orthopaedics, Dentistry, etc. Equally, its compact design makes it the ideal dedicated departmental imager, for example, for the digital mammography department.

Easy connectivity for maximum flexibility

DRYSTAR AXYS is a DICOM source imager which makes network connectivity easy.

A#Sharp: Enhancing imaging quality

As part of our continual drive to provide you with excellent image quality, our award winning Direct Digital Imaging (DDI) technology has been enhanced to include A#Sharp technology. This technology intensifies imaging capability, enabling DDI to provide sharper image quality across all applications.



Technical Specifications

GENERAL

Dimensions & weight

- Dimensions (W x D x H): 72,8 x 71,5 x 53,6 cm
(H = 67,6 cm with output tray)
(28,7 x 28,1 x 21,1"
(H = 26,6" with output tray))
- Weight (without film): 90 kg (198 lbs)

Power requirements

- Auto ranging 100 - 240 V: 50/60 Hz

Power consumption

- Printing: 250 Watt
- Peak: 530 Watt
- Standby: 70 Watt

Capacity of supply tray

- 100 sheets per supply tray

Heat dissipation

- Standby power: 70 Watt
- Average printing power: 250 Watt
- Peak power: 530 Watt

ENVIRONMENTAL REQUIREMENTS

Operation

- Temperature: +15 ° +30° C (59 - 86° F)
- Humidity: 20 ° 75% Rh (non condensing)

Storage and transportation

- Temperature: -25 ° +55° C (-13 to 131° F),
for transport: -40 ° +70° C (-40 to 158° F)
- Humidity: 10 ° 95% Rh (non condensing)

PERFORMANCE

- Throughput:
 - 14 x 17": 75 sheets/hour
 - 8 x 10": 130 sheets/hour for mammography
- Access time first sheet:
 - 14 x 17": 65 sec
 - 8 x 10" MAMMO: 45 sec
- Diagnostic area:
 - General Radiography
 - 8 x 10": 3852 x 4880 pixels
 - 14 x 17": 6922 x 8368 pixels
 - Mammography
 - 8 x 10": 3828 x 4958 pixels
 - 10 x 12": 4892 x 5810 pixels

Printing resolution

- Geometrical: 508 dpi
- Pixel depth architecture: 14 bit

MEDIA

- Types:
 - Agfa dry film: blue base
 - Agfa dry film: clear base
 - Agfa dry Mammo film
- Sizes:
 - Agfa dry film: 8 x 10", 10 x 12",
11 x 14", 14 x 14" and 14 x 17"
 - Agfa dry Mammo film: 8 x 10", 10 x 12",
11 x 14"
 - Two on-line sizes, any type or size

SAFETY

Standard

- IEC 60601-1;
- UL 60601-1;
- CSA 22.2, Nr. 601.1 - M90;
- VDE 0750;
- Safety Labels UL, cUL, TÜV-Mark

DRYSTAR AXYS

For more information on Agfa, please visit our website on www.agfa.com ■

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www.agfa.com

AGFA 

DRYSTAR DT 2 B

HARDCOPY SYSTEMS

DRYSTAR DT 2 is Agfa's second-generation direct digital greyscale medium. DRYSTAR DT 2 offers high contrast, high density and higher throughput for DRYSTAR 5503, DRYSTAR 5500, DRYSTAR 5302, DRYSTAR 5301, DRYSTAR 5300 and DRYSTAR AXYS imagers, producing excellent quality hardcopies.

- Second-generation, higher-throughput, dry processing greyscale medium
- Specially designed for DRYSTAR 5503, DRYSTAR 5500, DRYSTAR 5302, DRYSTAR 5301, DRYSTAR 5300 and DRYSTAR AXYS imagers
- Clear and sharp images
- Excellent image stability
- Secure archiving for a minimum of 15 years

Easy handling for convenient radiology exams

Agfa has put several years of experience with Direct Digital printing into designing the DRYSTAR 5x0x and DRYSTAR AXYS imagers, in order to produce the high diagnostic quality greyscale hardcopies. To support these top-of-the-line imagers, a special medium, DRYSTAR DT 2, was developed. It is capable of coping with the higher throughput of the advanced imagers.

Agfa's leading-edge Direct Digital dry imaging technology produces greyscale hardcopies with high Dmax and contrast. It gives the same clear, high-quality results as wet laser film, but offers all the advantages of dry technology. Superb quality images are generated more quickly and more conveniently.



DRYSTAR DT 2

DRYSTAR 5503



Ecological technology in an easy-to-use system

The Direct Digital dry Imaging technology provides direct, high-quality digital images. The unique characteristics of DRYSTAR DT 2 make daylight loading effortless. Image processing is more efficient and cost-effective. The DRYSTAR DT 2 packaging is fully recyclable and, combined with the elimination of processing chemicals, provides a more environmentally friendly solution.

Consistently clear and sharp images

DRYSTAR DT 2 is built on a 168µm-thick PET base, coated with silver salts and covered with a protective top-layer for resistance to scratches and moisture. The PET base has rounded corners, to allow the medium to be handled in the same way as regular X-ray film. The silver-based imaging layer is heat-sensitive rather than light-sensitive, providing low fog and high contrast, combined with excellent image stability.



DRYSTAR 5302
DRYSTAR AXYS

Technical Specifications

USAGE

- For medical printing of greyscale images on 168 μ m PET
- Blue base
- Maximum optical density: ≥ 3.1
- Fully recyclable packaging
- Daylight loading

DEDICATED IMAGERS

- DRYSTAR 5503
- DRYSTAR 5500
- DRYSTAR 5302
- DRYSTAR 5301
- DRYSTAR 5300
- DRYSTAR AXYS

AVAILABLE SIZES

- DRYSTAR 5503, DRYSTAR 5500:
 - 20 x 25 cm (8 x 10")
 - 25 x 30 cm (10 x 12")
 - 28 x 35 cm (11 x 14")
 - 35 x 35 cm (14 x 14")
 - 35 x 43 cm (14 x 17")
- DRYSTAR 5302, DRYSTAR 5301:
 - 20 x 25 cm (8 x 10")
 - 25 x 30 cm (10 x 12")
 - 28 x 35 cm (11 x 14")
 - 35 x 35 cm (14 x 14")
 - 35 x 43 cm (14 x 17")
- DRYSTAR 5300:
 - 28 x 35 cm (11 x 14")
 - 35 x 43 cm (14 x 17")
- DRYSTAR AXYS:
 - 20 x 25 cm (8 x 10")
 - 25 x 30 cm (10 x 12")
 - 28 x 35 cm (11 x 14")
 - 35 x 35 cm (14 x 14")
 - 35 x 43 cm (14 x 17")

STORAGE

- 100 sheets per box
- Shelf life: 36 months after manufacturing date
- Storage before use:
 - Temperature between 4 to 25 °C
- Storage after printing:
 - Archiving facility complies with ISO 18911:2010 and ISO 18919:1999, extended term
 - Storage minimum 15 years
 - Recommendations & Carriage to avoid image loss or increased density or discoloration:
 - avoid storage for a long period of time at $> 35^{\circ}\text{C}$
 - avoid dry media on view boxes for a long period of time
 - avoid exposure to excessive high temperatures and intense light, store the images in the original packaging or other appropriate protective film envelopes at max. 25 °C



DRYSTAR DT 2

For more information on Agfa, please visit our website on www.agfa.com ■

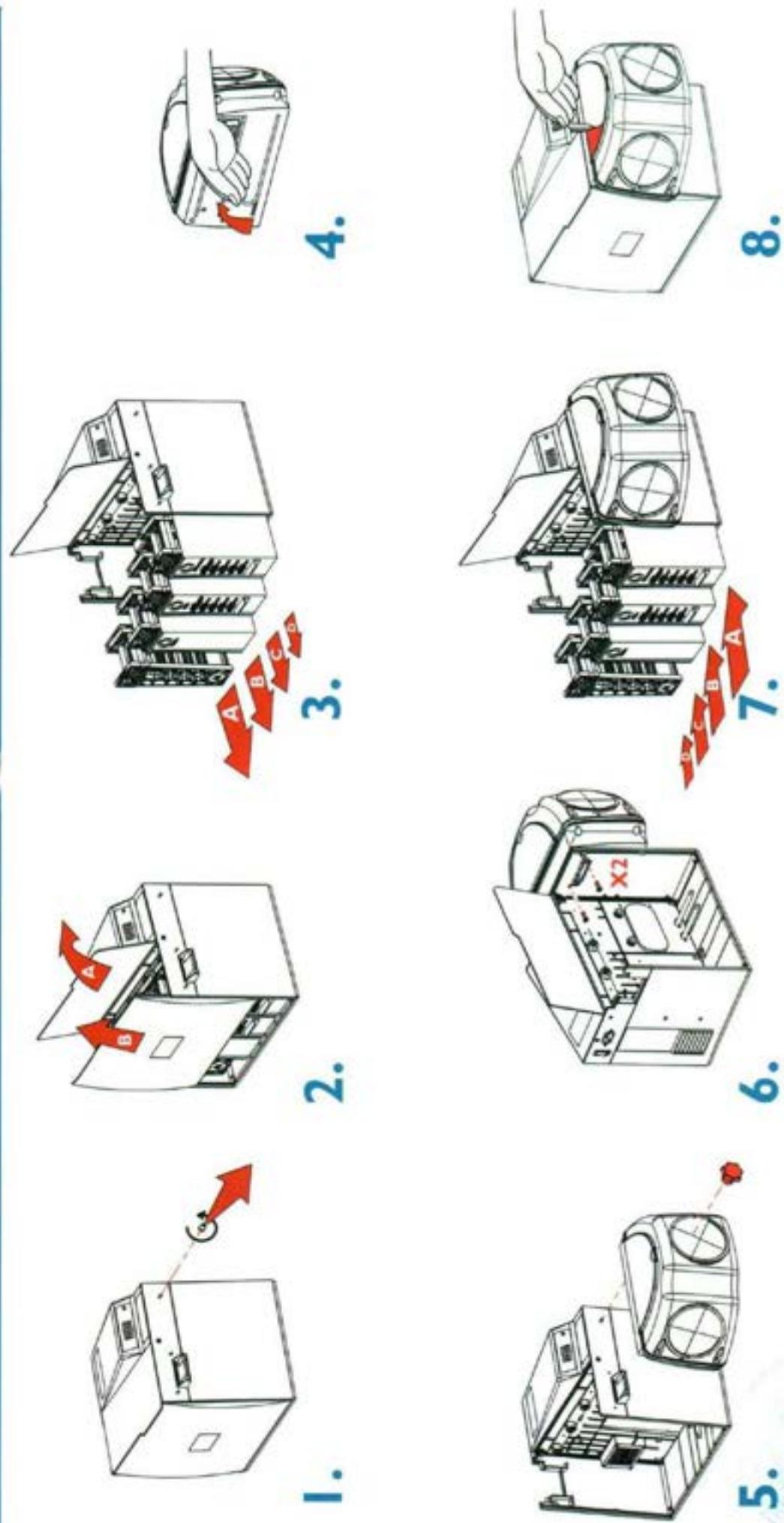
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04/02/02

AGFA 

Daylight Loader Installation





Contents/Contenu/Contenuto/Packungsinhalt/Contenido/Составные части



Display/Écran/Pantalla/Дисплей



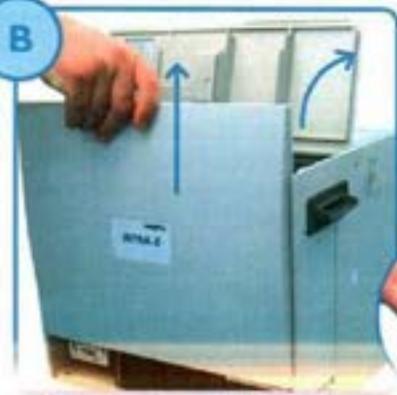
Lid	The lid is not closed correctly/Le couvercle n'est pas correctement fermé/Il coperchio non è chiuso correttamente/Der Deckel ist nicht richtig geschlossen/La tapa no está cerrada correctamente/Неправильно закрыта крышка
Ello	The machine is warming up/La machine est en train de chauffer/La macchina è in fase di riscaldamento/Das Gerät ist am aufwärmen/La máquina se está calentando/Аппарат нагревается
---	Ready to use/Prêt pour l'utilisation/Pronto all'uso/Betriebsbereit>Listo para usar/Готов к использованию
-/-	Cooling down/Refroidissement/Raffreddamento in corso/Am Abkühlen/Enfriamiento/Охлаждение

Installation / Installazione / Instalación / Установка

Daylight Loader / Chargeur lumière du jour / Caricatore luce diurna /
Tageslichtvorsatz / Cámara oscura / Загрузчик дневного света



Remove black stud covers from the front panel, and peel protective tape off the loader. Slide the loader over the film guide / Retirez les recouvreurs noirs du panneau frontal et tirez de la bande protectrice du chargeur. Glissez le chargeur dans la glissière du rouleau / Rimuovere le copertura dei montanti neri dal pannello frontale e il nastro di protezione dal caricatore. Scorrere il caricatore sulla guida della pellicola / Die schwarzen Abdeckungen der Stiftschrauben und das Schutzband des Ladeteils entfernen. Das Ladeteil über die Filmsteuerung schieben / Retire los recubridores negros de los topes del panel frontal y tire de la cinta protectora del cargador. Deslice el cargador en la guía del carrete / Открутите винт, закрепляющий переднюю панель, и снимите защитную крышку. Установите загрузочное устройство на направляющую пленочного канала



Lift the lid and remove the side panel. Slide out the modules and remove all the packaging / Levez le couvercle et retirez le panneau latéral. Retirez les modules en les faisant glisser et retirez les emballages / Sollevare il coperchio e rimuovere il pannello laterale. Rimuovere i moduli e gli imballaggi / Den Deckel heben und das Seitenteil entfernen. Die Module herausziehen und die Verpackung entfernen / Levante la cubierta y retire el panel lateral. Saque los módulos deslizándolos y retire los envoltorios / Поднимите крышку и снимите боковую панель. Потяните модули кверху и вытащите все упаковки.



Thread the two retaining screws through the front panel. Inside the loader, screw the black knob onto the stud / Vissez les deux vis de fixation au travers du panneau frontal. À l'intérieur du chargeur, vissez le bouton noir au boulon / Avvitare le due viti di supporto sul pannello frontale. All'interno del caricatore, avvitare la manopola nera sul perno / Beide Halteschrauben in das Vorderteil schieben. Im Innern des Ladeteils die schwarzen Knöpfe an die Stiftschrauben anschrauben / Atornille los dos tornillos de sujeción a través del panel frontal. Dentro del cargador, atornille el botón negro al perno / Пропустите резьбу двух фиксирующих винтов через переднюю панель. Внутри загрузочного устройства прикрутите к винтам черные ручки

Warning: Never mix the chemicals together / Avertissement : Ne mélangez jamais les produits chimiques / Avvertenza: Non mischiare mai le sostanze chimiche / Warnung: die Chemikalien auf keinen Fall mischen / Precaución: No mezcle nunca los productos químicos / Предупреждение! Никогда не смешивайте химические продукты!



Check with your local authority on how to dispose of chemical / Consultez les autorités locales concernant le recyclage des produits chimiques / Rivolgersi alle autorità locali per informazioni sullo smaltimento delle sostanze chimiche / Informieren Sie sich bei den örtlichen Behörden über die Entsorgung der Chemikalien / Consulte con las autoridades locales la recogida de productos químicos / Установите через местные власти, куда можно выливать отходы химических продуктов



Processor / Développeuse / Sviluppatrice / Filmentwickler / Reveladora / Процессор

1



Fill up the tanks to the lowest edge of the tank window. / Remplissez les réservoirs jusqu'à l'extrémité inférieure de la fenêtre du réservoir / Riempire i serbatoi fino all'estremità inferiore della finestra del serbatoio / Die Tanks bis zur obersten Kante am Tankfenster füllen. / Rellene los depósitos hasta el extremo inferior de la ventana del depósito / Заполните резервуары по самую нижнюю отметку окошка

- A = Developer / Révélateur / Rivelatore / Entwickler / Revelador / Проявитель
- B = Fixer / Fixateur / Fissatore / Fixiertank / Fijador / Закрепитель
- C = Water / Eau / Acqua / Wasser / Agua / Вода
- D = DO NOT FILL / NE PAS REMPLIR / NON RIEMPIRE / NICHT FÜLLEN / NO RELLENAR / НЕ ЗАПОЛНЯТЬ

2



Apply silicon grease to the heaters / Appliquez la graisse de silicone aux réchauffeurs / Applicare grasso al silicone sui riscaldatori / Silikonfett auf die Heizkörper geben / Aplique la grasa de silicona en los calentadores / Нанесите силиконовую смазку на обогреватели

3

(Drive Pin & Drive Dog)



Slide the tanks back into the machine. Make sure the drive pin on the module slides into the recess. Replace the side panel and lid / Glissez de nouveau les réservoirs dans la machine. Assurez-vous que le boulon guide glisse dans les modules jusqu'à la cavité. Replacez le panneau latéral et le couvercle. / Riposizionare i serbatoi sulla macchina. Assicurarsi che il perno guida sui moduli scorra sulla cavità. Riposizionare il pannello laterale e il coperchio / Die Tanks wieder in das Gerät einführen. Versichern Sie sich, dass die Führungsstifte der Module in die Nische gleiten. Seitenteil und Deckel wieder einsetzen. / Deslice de nuevo los depósitos en la máquina. Asegúrese de que el perno guía se desliza en los módulos hasta la cavidad. Sustituya el panel lateral y la tapa / Поставьте резервуары в аппарат. Убедитесь, что направляющие стержни модулей вошли в углубление. Закройте боковую панель и крышку.

4



Plug in the machine using the electric cord and switch on. Wait until the "Ready" symbol is displayed / Branchez la machine via le câble d'alimentation et allumez-la. Patientez jusqu'à l'apparition du symbole "prêt" / Collegare la macchina con il cavo di alimentazione e accenderla. Attendere finché non viene visualizzato il simbolo "pronto" / Das Stromkabel des Gerätes an das Netz schließen und das Gerät einschalten. Warten bis das Symbol "betriebsbereit" erscheint / Enchufe la máquina por el cable de alimentación y enciéndala. Espere hasta que aparezca el símbolo de "listo" / Подсоедините аппарат к сети с помощью электрического кабеля и включите его. Подождите пока появится сигнал "Готово"

5



Put your hands through the loader gloves and place the film inside the loader / Glissez vos mains dans les gants du chargeur et placez le film à l'intérieur du chargeur / Infilare le mani all'interno del caricatore e posizionare la pellicola / Hände durch die Öffnungen des Ladeteils einführen und den Film einlegen / Ponga las manos en los guantes del cargador y sitúe el carrete dentro del cargador / Поместите ваши руки в рукава аппарата, и разместите пленку внутри загрузочного устройства

6



Feed the film squarely into the film slot. Do not remove hand from Daylight Loader until the film has completely entered the machine. Keep the lid CLOSED / Insérez le film directement dans la rainure du rouleau. Un bip indiquera que le film a été détecté. Maintenez le couvercle du chargeur FERMÉ lors de son utilisation / Infilare in modo uniforme la pellicola nella feritoia. Non togliere la mano dal caricatore finché la pellicola non è completamente entrata nella macchina. Tenere il coperchio del caricatore CHIUSO quando in uso / Den Film direkt in den Filmslot einführen. Nehmen Sie Ihre Hand nicht vom Tageslichtvorsatz, solange der Film nicht vollständig in das Gerät eingezogen wurde. Den Deckel bei Betrieb des Gerätes GESCHLOSSEN lassen / Inserte el carrete directamente en la ranura del carrete. No retire las manos de la cámara oscura hasta que la placa haya entrado por completo en la reveladora. Mantenga la tapa del cargador CERRADA cuando esté en uso / Вставьте пленку лицевой стороной в щелевое отверстие. не вытаскивайте руки из загрузчика, пока пленка полностью не скроется внутри аппарата. Во время работы аппарата держите крышку ЗАКРЫТОЙ

7



After 5 minutes the processed film will exit into the film collector / Après un délai de 5 minutes, le film développé sortira dans le récepteur du rouleau / Dopo 5 minuti, la pellicola elaborata viene posizionata nel raccoglitore / Nach 5 Minuten wird der verarbeitete Film im Collector herauskommen / Tras 5 minutos, el carrete procesado saldrá del receptor del carrete / Через 5 минуты готовый снимок выпадет в лоток



5 mins

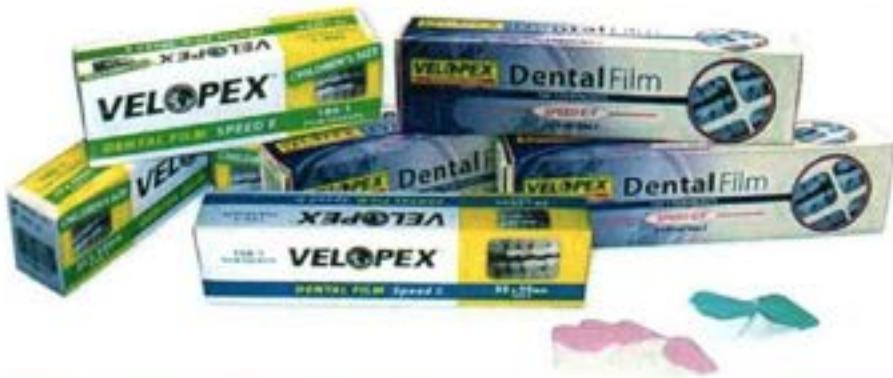
8



For quick viewing of wet films, press down the Endo slide. This will halve the processing time to 2.5 minutes / Pour une visualisation rapide des pellicules mouillées, appuyez sur la rainure Endo. Cela réduira le temps de développement à 2.5 minutes / Per una rapida occhiata alle pellicole umide, premere la lastrina Endo. I tempi di elaborazione si dimezzano a 2.5 minuti / Für eine schnelle Ansicht von nassen Filmen, den Endo-Schieber nach unten schieben, dies wird die Verarbeitungszeit auf 2.5 Minuten kürzen / Para una visualización rápida de las películas mojadas, pulse la ranura Endo. Esto disminuirá el tiempo de procesamiento a 2.5 minutos / Для срочного просмотра влажных снимков, нажмите ЭНДО. Это сократит время процесса до 2.5 минут



2.5 mins



VELOPEX



VELOPEX

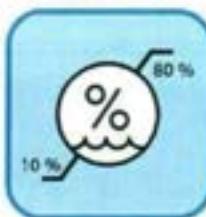
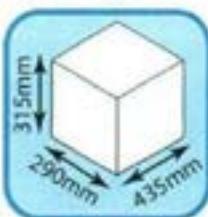
VISCHECK™



VELOPEX



Properties/Propriétés/Proprietà/Eigenschaften/Propiedades/Характеристики



Safety/Sécurité/Sicurezza/Sicherheitshinweise/Seguridad/Безопасность



No l'exposez pas à la lumière directe du soleil! Nor Sonneninstrahlung schützen! Non esponga direttamente alla luce del sole! No exponga al sol! Не переносите в режим естественного освещения!



Ne laissez pas la machine allumée pendant la nuit! Non lasciare la macchina accesa la notte! Das Gerät über Nacht nicht eingeschaltet lassen! No deje la máquina encendida por la noche! Не оставляйте аппарат включенным на ночь!

Use Velopex parts

VELOPEX

Utilisez des pièces Velopex! Es müssen Velopex Ersatzteile verwendet werden! Usare i componenti Velopex! Utilice piezas Velopex! Используйте детали Velopex.

Manual/Manuel/Manuale/Handbuch/Manual/Руководство



For further information on installation, operation, maintenance and service, see the manual on the enclosed CD, DVD or USB drive / Pour plus d'informations concernant l'installation, l'opération, l'entretien et le service, consultez le manuel sur le CD, DVD ou la mémoire USB / Per ulteriori informazioni sull'installazione, il funzionamento, la manutenzione e l'assistenza, leggere il manuale sul CD, DVD o unità USB allegati / Weitere Informationen über die Installation, Handhabung, Wartung und Service finden Sie im Handbuch auf der beigefügten CD, DVD oder USB-drive / Para más información sobre la instalación, operación, mantenimiento y servicio, consulte el manual en el CD, DVD o memoria USB / Для дополнительной информации по установке, эксплуатации, техническому обслуживанию и сервису, см. руководство, прилагаемое на CD, DVD или USB-драйве

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Intra Quick Start Guide Iss. J
I/LT0140P Issued 12/11/14
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Hi-Tech
Diagnostics
Service

Wael Haddoush

Da: Procurement Sudan
Inviato: lunedì 27 marzo 2023 10:09
A: INFO SITEM-PRO
Cc: Raimondo Cocco; Aurora Leo; Stefano Vida; Lena Mohammed Elhassan Hamid Osman; Maurizio Maranzana
Oggetto: RE: Contract CIG 941031017A - suggested alternative

Dear Sir/madam,

This is to confirm you that the item suggested is accepted.

Please proceed with item substitution.

Best regards,
Procurement office

From: INFO SITEM-PRO <info@sitem-pro.com>
Sent: Friday, March 24, 2023 4:19 PM
To: Procurement Sudan <procurement.sudan@aics.gov.it>
Cc: Raimondo Cocco <raimondo.cocco@aics.gov.it>; Aurora Leo <aurora.leo@aics.gov.it>; Stefano Vida <stefano.vida@aics.gov.it>; Lena Mohammed Elhassan Hamid Osman <lena.hamid@aics.gov.it>; Maurizio Maranzana <maurizio.maranzana@aics.gov.it>
Subject: Re: Contract CIG 941031017A - suggested alternative

Dear Sirs,

in relation to article 02-XCRS of lot 4 of the contract in question, please see the attached declaration.

The manufacturer suggests an alternative that has the same functions with some improvements. However, you can verify it from the attached compliances.

We remain at your disposal for any clarifications.

Best regards

Sitem-Pro

Il 20/03/23 08:29, Procurement Sudan ha scritto:

Dear Mr. Cavallaro,

Greetings.

The performance guarantee draft is fine, you can proceed.

Best regards,



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Via Dante Alighieri, n. 58
33170 PORDENONE PN

Data 23/03/2023
N°. riferimento PODS/kf-IM102022HE0085
Vs. riferimento Rif 22206
Oggetto OFFERT FOR DIGITIZER SYSTEM

Dear customer,

regarding the offer in subject, our Head Quarter has informed us that, currently, we do not have availability of CR 30-Xm Systems and we are not able to provide a delivery time.

Therefore, as an alternative to what is offered, we propose the CR 15-X system.

Here attached, you can find the Systems brochure and datasheet for comparison purposes.

We look forward to know which system could best meet your needs.

We remain available in case of need.

Best regards

AGFA NV - Filiale Italiana

Paola Oriana Di Salvia

Sales Director



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Cod.Fisc.P.IVA IT 08271110960





AGFA
RADIOLOGY
SOLUTIONS

CR 15-X
**Choose optimum
versatility**

Versatile, high image quality and cost-effective
Computed Radiography offering substantial dose reduction

AGFA 

When you go digital, you want a solution that does things your way. A solution that is versatile and flexible. That offers high image quality and substantial dose reduction* of up to 60% when used with cesium needle-based detectors. That is compact and fast, and supports a complete range of applications. That eases workflow and lets you keep your full focus on patient care, with SmartRotate, an artificial intelligence plug-and-play tool that automatically presents images ready for viewing, independent of cassette orientation. All while allowing you to define your own workflow and adapt it whenever you want, quickly and easily. That's the CR 15-X.



- Dose reduction for all studies such as pediatrics, neonatal, FLFS.
- MUSICa automatically analyzes the characteristics of each image and optimizes processing parameters - independent of body part and dose deviations.
- SmartRotate enhances productivity and keeps the focus on patient care, with automatic, 'always right' patient-positioning and cassette orientation, and every image presented ready for viewing, directly and automatically.
- For a broad range of digital radiography applications.



Speed, flexibility and quality

Discover how this ingenious modular yet robust solution is your optimum choice in digital imaging

Built on proven Agfa technology, the tabletop CR 15-X uses a new, simple and smart design that gives it the flexibility to meet your evolving needs – in imaging and in workflow. Sounds expensive? Get ready to be surprised by this cost-effective answer to your digital imaging requirements...

Define your own workflow

Designed to address the diverse needs of decentralized general radiography environments, private practices, small clinics, general orthopaedic and chiropractic offices, the CR 15-X allows you to optimize your choice of throughput versus

resolution. Delivering up to 102 plates per hour (depending on cassette size and resolution), with the CR 15-X you can choose your preferred resolution for each examination, placing you firmly in control of how best to optimize your workflow.

Up to 60% dose reduction*

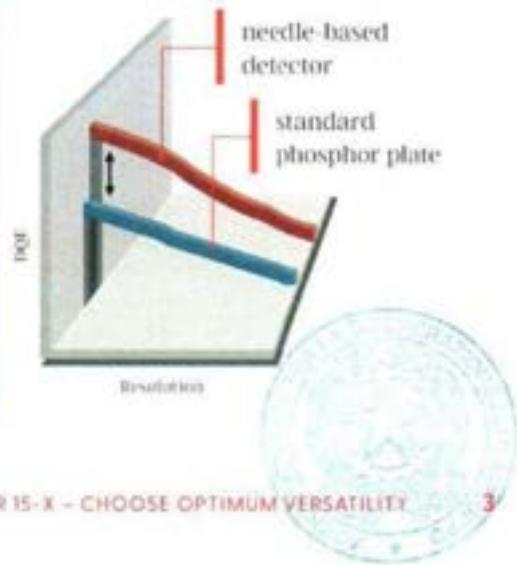
By supporting both standard phosphor plates and needle-based detectors, CR 15-X unites complete convenience with top image quality, while leveraging the radiography department's existing investments. With standard phosphor plates, CR 15-X delivers excellent image quality.

When used with cesium needle-based detectors, however, the CR 15-X provides superb image quality and offers substantial dose reduction of up to 60%.

No compromise on image quality

The CR 15-X's use of MUSICA image processing delivers high image quality. MUSICA automatically analyzes the characteristics of each image and optimizes processing parameters – independent of body part and dose deviations. The result is minimal retakes, re- or post-processing and no body part dependent configuration or customization required. In addition, MUSICA provides a consistent look and feel on the CR images, when combined with Agfa's DR system, providing extra diagnostic confidence. Because MUSICA is completely automated, and does all the calibration and processing, there is no lengthy training required and technical experience is not necessary. Furthermore, SmartRotate is available with the CR 15-X, putting Agfa's proven imaging expertise into play by automatically presenting images ready for viewing.

Testing with board-certified radiologists has determined that Cesium Bromide (CR) and Cesium Iodide (DR) detectors, when used with MUSICA image processing, can provide dose reductions of 50 to 60%, compared to traditional Barium Fluoro Bromide CR systems. Contact Agfa for more details.



Versatility and seamless integration

Making your existing solutions work harder for you is a driving force in today's economically challenging environment. With the CR 15-X's versatility and integration delivering increased workflow, you will maximize your return on investment.

Versatile and cost-effective multiple study capabilities

Suitable for general radiology, orthopaedics, chiropractic and full leg/full spine applications, the CR 15-X's broad range of application capabilities – thanks to its four different cassette sizes – makes it highly versatile and cost-effective. With this single product capable of delivering multiple applications, investment is kept to a minimum while workflow is eased.

Ideal for space restricted environments

The CR 15-X's table top footprint makes it ideal for space restricted areas. With additional fitments, it can be integrated easily as a mobile unit into cars, vans, trucks or other mobile facilities.

Low total cost of ownership

Total cost of ownership is a key measure when choosing new solutions. The CR 15-X's simple, modular, component-based design makes installation fast and easy. Weighing in at just 31 kg, it can be handled by a single person. Special LED technology in the erasure unit means the CR 15-X requires low power, making standard electrical outlets sufficient, while mobile installation is easily achieved via a converted connection to your vehicle's battery.

Priced for the cost-conscious

The simple yet smart new design concept of the CR 15-X creates an affordable entry to the digital radiography environment. By addressing your need for both workflow efficiency and resolution, it is the ideal choice for the cost conscious organisation.

Networking capabilities deliver seamless integration

The CR 15-X is fully DICOM compliant, making integrating the digitizer with other solution elements quick and easy.

Delivering a complete solution

The CR 15-X, when combined with the MUSICA workstation, the DRYSTAR 5302 hardcopy imager and/or the SE Suite software, delivers a complete CR solution at an affordable price. The DRYSTAR 5302 with dry film offers a reliable and flexible hardcopy solution. The SE Suite software is a multi-modality solution for diagnostic viewing, reporting and archiving of medical imaging data and provides seamless integration.





Artificial Intelligence for the right view, automatically

SmartRotate puts Artificial Intelligence into the hands of the technologist and radiographer during patient positioning. With SmartRotate the cassette orientation is always right – which helps to provide more efficient, consistent and patient-centered care. Images are presented ready for viewing directly and automatically. This ‘plug and play’ feature uses a Deep Neural Net to identify the image content, and then rotate it correctly. With fewer manual post-processing actions, the operator saves time and can focus on imaging - instead of adjustments. What's more, the consistent presentation of the images in the PACS enables better comparison with priors.



A solution that offers up to 60% dose reduction when used with cesium needle-based detectors.



Choose your preferred resolution for each examination.



The CR 15-X, MUSICA workstation and SE software suite deliver a seamlessly integrated solution.

CR 15-X and DRYSTAR 5302 – the perfect combination.

Short installation times. A modular design that facilitates maintenance. Minimal intervention due to robust yet streamlined design. Looking after the CR 15-X is fast and easy.



The CR 15-X's simple design makes installation fast and easy. Its horizontal cassette insertion prevents dust and dirt being introduced into the system.

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RADIOLOGY
SOLUTIONS

Get up and running quickly

Fast and simple service and maintenance

The modular technology within the CR 15-X shortens installation and service time. Its single slot cassette and plate handling uses only two motors, resulting in minimal intervention. Covers, modules and parts are easy to replace, with a single tool making service and maintenance fast and simple. In addition, smartcard technology (USB) stores the up-to-date site-specific settings and service information. This simplifies access to service data and on-site replacement.

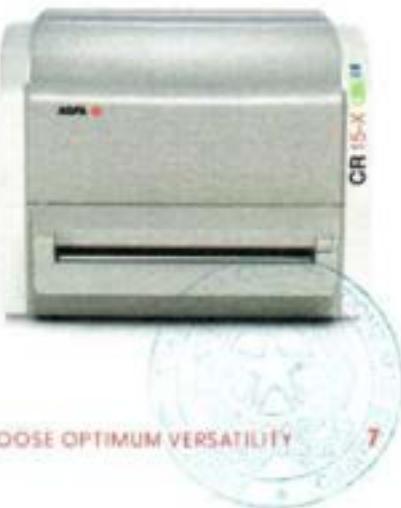
A robust and reliable solution

The CR 15-X's streamlined yet robust design, comprising minimal moving parts, means it can withstand harsh environments and temperature changes. Its horizontal cassette insertion prevents dust and dirt from being introduced into the system.

A choice of service agreements

Agfa offers service agreement solutions tailored to the individual customer's situation. The service agreements are available in Basic, Comfort and Advanced levels, making lifecycle costs predictable.

A worldwide team of some 1000 professionals is at your service to provide support at all phases of your project. As an additional service, they can help you customize your examination tree or link RIS protocol codes, for an even higher return on investment. Furthermore, this team carries out tasks that go well beyond maintenance, including value-added services such as super user training, staff training and software upgrades.



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SE-N019N 0226231

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CR 15-X

Highly versatile and compact computed radiography solution offering high speed and high image quality by the convenience of being able to combine standard phosphor plates and cesium needle-based detectors on a tabletop CR.

- Up to 60% Dose Reduction with cesium needle-based detectors*
- Affordable for a broad range of applications
- Convenient and fast workflow, with user-controllable speed and resolution
- Robust yet easy to install and maintain
- Fits in small spaces and is suited for mobile applications
- Networking capabilities deliver seamless integration
- Highly versatile, compact CR 15-X offers an ideal solution for decentralised hospital environments, clinics and private practices

The tabletop CR 15-X digitizer is based on proven Agfa technology, with a modular yet robust design combining affordability with high image quality, adjustable speed and a user-tuned workflow.

Versatile, this computed radiography (CR) digitizer can handle a broad range of digital radiography applications.

The total cost of ownership remains low, thanks to its ease of installation, maintenance and use, making it an affordable way to move from analog to digital. With the CR 15-X, decentralised hospital environments, clinics and private practices can take advantage of the convenient and fast workflow offered by digital radiography.

Up to 60% Dose Reduction*

By supporting both standard phosphor plates and needle-based detectors, CR 15-X unites complete convenience with top image quality, while leveraging the radiography department's existing investments. With standard phosphor plates, CR 15-X delivers excellent image quality. When used with cesium needle-based detectors, however, the CR 15-X provides superb image quality and offers substantial dose reduction of up to 60%.

* Testing with board certified Radiologists has determined that Cesium Bromide (CB) and Cesium Iodide (CI) Detectors when used with MUSICA processing can provide dose reductions between 50 to 60% when compared to traditional Barium Fluoride (BF) CR systems. Contact Agfa for more details.

Balancing speed and resolution

With the CR 15-X, the user can choose to adjust speed and resolution depending on the needs of the exam. The user can easily overwrite the default settings for each exam, depending on the specific speed/quality priorities, study by study. Agfa's Intelligent MUSICA image processing automatically optimizes image quality.



CR 15-X DIGITIZER



Robust yet easy to install and maintain

Installing the CR 15-X is fast and easy. With its 'one screwdriver' concept and modular, component-based design, maintenance is faster, easier and more cost-effective, as well. Consequently, set up costs are lower and installation simpler. Horizontal cassette insertion prevents dust and dirt from being introduced during normal operation.

Fits in small spaces and is suited for mobile applications

With its table-top size, the CR 15-X digitizer can be placed easily at any location, no matter how small, and was designed with ease of use in mind.

The CR 15-X can also be fitted into cars, vans, trucks and other mobile facilities, for mobile applications. Due to the low power consumption, connection to battery can be easily realized.

Networking capabilities deliver seamless integration

The CR 15-X is fully DICOM-compliant, to easily integrate with other solution elements; we recommend combining it with Agfa's SE software suite for a complete softcopy solution, or with the DRYSTAR 5302 imager for a hardcopy solution.

Cassette Sizes

■ CR H05.05 GENERAL (Cesium)	35 x 43 cm (14 x 17") 24 x 30 cm (9.44 x 11.81") 18 x 24 cm (7.08 x 9.44")
---------------------------------	--

■ CR MD1.0 GENERAL	35 x 43 cm (14 x 17")
--------------------	-----------------------

35 x 35 cm (14 x 14")	35 x 35 cm (14 x 14")
24 x 30 cm (9.44 x 11.81")	24 x 30 cm (9.44 x 11.81")
18 x 24 cm (7.08 x 9.44")	18 x 24 cm (7.08 x 9.44")
15 x 30 cm (5.90 x 11.81")	15 x 30 cm (5.90 x 11.81")

■ CR MD1.0F GENERAL	35 x 43 cm (14 x 17")
---------------------	-----------------------

■ CR DD1.0 VET (*)	35 x 43 cm (14 x 17")
	15 x 30 cm (5.90 x 11.81")

Plate Sizes

35 x 43 cm (14 x 17")	35 x 43 cm (14 x 17")
24 x 30 cm (9.44 x 11.81")	24 x 30 cm (9.44 x 11.81")
18 x 24 cm (7.08 x 9.44")	18 x 24 cm (7.08 x 9.44")

35 x 43 cm (14 x 17")	35 x 43 cm (14 x 17")
-----------------------	-----------------------

35 x 35 cm (14 x 14")	35 x 35 cm (14 x 14")
24 x 30 cm (9.44 x 11.81")	24 x 30 cm (9.44 x 11.81")
18 x 24 cm (7.08 x 9.44")	18 x 24 cm (7.08 x 9.44")
15 x 30 cm (5.90 x 11.81")	15 x 30 cm (5.90 x 11.81")

35 x 43 cm (14 x 17")	15 x 30 cm (5.90 x 11.81")
-----------------------	----------------------------

35 x 43 cm (14 x 17")	s0, s1, s2, s3, s4, equine1:63 x 180 mm, equine2:63 x 210 mm, equine3:90 x 230 mm
15 x 30 cm (5.90 x 11.81")	s0, s1, s2, s3, s4, equine1:63 x 180 mm, equine2:63 x 210 mm, equine3:90 x 230 mm

Spatial Resolution

10 pixels/mm, 5 pixels/mm (including for Full Leg / Full Spine)
10 pixels/mm, 5 pixels/mm
10 pixels/mm, 5 pixels/mm

10 pixels/mm (including for Full Leg / Full Spine)
--

6.6 pixels/mm
5 pixels/mm (including for Full Leg / Full Spine)
10 pixels/mm, 6.6 pixels/mm, 5 pixels/mm

10 pixels/mm, 6.6 pixels/mm, 5 pixels/mm
--

10 pixels/mm, 6.6 pixels/mm, 5 pixels/mm

(*) for veterinary use only

Technical Specifications

GENERAL

Digitizer type

- Single cassette feed
- Throughput: Up to 102 plates/hour* (depending on size and resolution)

Display

- LED Status Indicator
- Status and error messages on external PC monitor

Greyscale resolution

- Data acquisition: 20 bits/pixel
- Output to processor: 16 bits/pixel square root compressed

Dimensions and weight

- W x D x H: 580 x 700 x 471 mm (22.83 x 27.55 x 18.54")
- Depth without cassette unit and extension: 380 mm (14.96")
- Weight: 31 kg

Power

- Autoranging external power supply (24V output)
- Input:
 - 100V - 240V
 - < 2A
 - 50/60 Hz
- fuse: Europe max 16A; USA max 15A

Minimum requirements

- CR HD5.05 GENERAL DETECTOR
- CR HD5.05 GENERAL CASSETTE
- CR MD1.0 GENERAL PLATE
- CR MD1.0 GENERAL CASSETTE
- CR MD1.0F GENERAL PLATE
- CR MD1.0F GENERAL CASSETTE
- CR DD1.0 VET PLATES
- CR DD1.0 VET CASSETTE
- NX

Environmental conditions

- In line with: IEC 721-3-3 (1997): class 3K2, with the following extension:
 - Temperature: 15 - 35° C

Environmental effects

- Noise level: max. 65 dB (A)
- Heat dissipation: standby 30 W, max. 140 W

Mobile use

- In line with IEC721-3-3 (1997): 3K2 with the following restrictions:
 - Temperature: +15° C to +35° C
 - Humidity: 15 - 75% Rh (non-condensing)
 - During transport with mobile kit: in line with IEC721-3-5: 5K1 and 5M3

Transport

- In line with: IEC 721-3-2 (1997): class 2K2, with the following restrictions: -25 to +55° C (-4 to 131° F)

Storage

- Packed device shall withstand the following mechanical conditions: IEC 721-3-1: class 1M2 and IEC 721-3-2 (1993): class 2M3; including sea transport
- In line with IEC721-3-1: class 1K4

SAFETY

Approvals

- CE, cNRTLus

This comprises cassette exchange time of 2s

COMPLIANCE

General

- ISO 13485
- IEC 62366
- IEC 62304
- ISO 14971

Electromagnetic Compatibility

- IEC 60601-1-2
- FCC Rules 47 CFR part 15 subpart B
- CAN/CSA C22.2 NO 60601-1-2

Safety

- IEC 60601-1
- CAN/CSA C22.2 NO 60601-1
- ANSI/AAMI ES 60601-1

Laser Safety

- IEC 60825-1

Environmental Compliance

- WEEE 2012/19/EU
- RoHS 2 Directive 2011/65/EU



CR 15-X DIGITIZER

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52140 CR 05201518

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Specifications required	Specifications Offered CR 30-Xm (not more available)
X-RAY, Computer Radiographic System	
Computed Radiographic System for visualization of X ray cassette obtained from BRS. High-resolution output, anatomic algorithms, easy to use, complete with monitor, keyboard and Mouse and capable to network connections.	CR 30-Xm complete with PC, mouse, keyboard, monitor and postprocessing software
Cassette sizes :14"x17"/14"x14"/11"x14"/10"x12"/8"x10"/18x24cm/24x30cm/15x30cm	YES
Maximum resolution 4020 x 4892	4.710 x 5.844
Throughput 25 or 45 plates per hour (14" x 17")	60
Server platform:	NX is not a server by definition even if can store the images
Image Access time: < 35s	YES timing depends on type of image
CONSOLLE	
Display: 19" touch screen monitor, keyboard, mouse	Display: 22" touch screen monitor, keyboard, mouse
Hard device capacity 500GB (1x500GB)	1TB
RAM 4GB	8GB
OS Windows 7 Professional 32-bit	Windows 10
Workflow: Image to Printer, Image to DVD Writer	YES
DVD Writer: Included in the system	YES
Connectivity: capable to connect to PACS	YES
Image processing : Automatic Gradation Processing (G processing)	YES
Frequency Processing (F processing)	YES
Equalization Processing (E processing)	YES
Hybrid Processing (H processing)	YES
Image storage capacity :Approximately 5,000 images	16000
Power source PC: AC 100-240V; 50/60 Hz	YES
Heat generation :PC: Approximately 160 Watts or 548.8 BTU	132 BTUHR
Operation condition : Temperature 20°C - 35°C	CR: 15-30°C Console: 10-40°C
AFTERSALE SERVICE	
Mandatory intervention per year Minimum of 1	Only spare parts for 1 year with delivery in Italy
TRAINING	
Duration, Days 1 per facility at the moment of installation	ok



**Specifications Offered CR 15-X
(alternative)**

CR 15-X complete with PC, mouse,
keyboard, monitor and postprocessing
software

14" x 17" / 14" x 14" / 10" x 12" / 18 x 24 cm / 24 x 30 cm /
15 x 30 cm

3.420 x 4.380

60

NX is not a server by definition even if can
store the images

YES timing depends on type of image

Display: 22 " touch screen monitor,
keyboard, mouse

1TB

8GB

Windows 10

YES

YES

YES

YES

YES

YES

YES

16000

YES

132 BTU/Hr

CR: 15-30°C Console: 10-40°C

Only spare parts for 1 year with delivery in
Italy

ok.

ANNEX IV : Budget breakdown (Model financial offer)

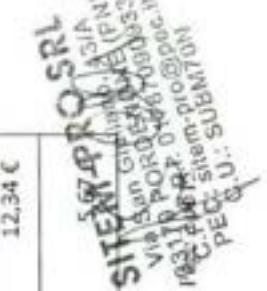
Page No 1 [of 15]
PUBLICATION REFERENCE: 8727944 **NAME OF TENDERER: SITEM-PRO SRL**

A	B	C	D	E
Item number	Quantity	SPECIFICATIONS OFFERED (INCL. BRAND/MODEL)	Unit costs DDP Khartoum, Sudan [EUR]	Total [EUR]
LOT 1	CHG 941031017A			
A	HOSPITAL FURNITURE			
04-CAB	6	Cabinet, Bedside	378,18 €	2.269,07 €
04-CHB	1	Chair, blood/sample collection	678,11 €	678,11 €
04-COE	5	Couch, Examination/Treatment	327,97 €	1.639,87 €
04-COG	1	Couch, Gynaecological	693,61 €	693,61 €
04-FOR	12	Folding screen room dividers	359,70 €	4.316,46 €
04-IVP	6	IV Pole, 2 hooks	78,20 €	469,22 €
04-STD	1	Stool, Dental	62,77 €	62,77 €
04-STO	3	Stool, Operator	102,40 €	307,21 €
04-SMF	1	Stretchers, Patient, Fixed Height	2.018,77 €	<i>SPRINT PSL</i>

December 2021
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A	B	C	D	E
Item number	Quantity	SPECIFICATIONS OFFERED (INCL. BRAND/MODEL)	Unit costs DDP Khartoum, Sudan [EUR]	Total [EUR]
04-TRIO2	1	Trolley, Inox, Operating Room, 90 x 60	568,10 €	568,10 €
04-WHE	2	Wheelchair	253,66 €	507,33 €
04-XRW	4	X-RAY, Film viewer	209,67 €	838,69 €
		TRAINING, INSTALLATION, TESTING AND COMMISSIONING	1.000,00 €	1.000,00 €
		WARRANTY (1 YEAR)	INCLUDED	INCLUDED
		AFTER SALE (1 YEAR)	1.000,00 €	1.000,00 €
		TOTAL LOT 1	7.731,15 €	16.369,19 €
LOT 2				
CIG 941031124D				
B		LABORATORY EQUIPMENT		
03-AMA	1	Amalgamator, dental	509,77 €	509,77 €
03-ANCL	1	Analyzer, Clinical Chemistry	15.571,96 €	15.571,96 €
03-ANELC	1	Analyzer, Electrolytes	4.141,90 €	4.141,90 €
03-ANGL	1	Analyzer, Glucose, Whole Blood	2.224,68 €	2.224,68 €
03-ANHE	1	Analyzer, Hematology, Automated*	19.674,03 €	19.674,03 €
03-CET	1	Centrifuge, Tabletop, Not refrigerated	8.337,17 €	8.337,17 €
03-MICL	1	Microscope, optic, light	406,22 €	406,22 €

A	B	C	D	E
Item number	Quantity	SPECIFICATIONS OFFERED (INCL. BRAND/MODEL)	Unit costs DDP Khartoum, Sudan [EUR]	Total [EUR]
03-PIPS	1	Pipette, Automatic, Set	167,27 €	167,27 €
03-SHKV	1	Shaker, Vortex	124,26 €	124,26 €
03-FRT	1	Temperature, Indicator, Freezer Tag w Alarm	11,63 €	1,162,92 €
03-ThDL	2	Thermometer, Data Logger, w/ display	243,73 €	487,47 €
03-WSAB	2	Weighting System, Analytical Balance	1.087,25 €	1.087,25 €
31	1	Water Purifying, Reverse Osmosis	1.396,46 €	1.396,46 €
		TRAINING, INSTALLATION, TESTING AND COMMISSIONING	3.000,00 €	3.000,00 €
		WARRANTY (1 YEAR)	INCLUDED	INCLUDED
		AFTER SALE (1 YEAR)	2.500,00 €	2.500,00 €
		TOTAL LOT 2	59.396,33 €	60.791,20 €
LOT 3				
		MEDICAL DEVICE, MEDICAL EQUIPMENT, INOX MEDICAL TOOLS		
		C	MEDICAL DEVICE	
MDD004	1	Charts, Eye, Visual Acuity	12,34 €	12,34 €
MDD032	2	Hammer	2,84 €	 Stefan Pro Srl Via Sun 04670933 0311110010 e-mail: pio@poc.it pec: pec.srl@pec.it I.C.P.E.C. U.: SUMM70N

December 2021
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A	B	C	D	E
Item number	Quantity	SPECIFICATIONS OFFERED (INCL BRAND/MODEL)	Unit costs DDP Khartoum, Sudan [EUR]	Total [EUR]
MDD033	1	Maddox wing	133,53 €	133,53 €
MDD37	1	Ophthalmoscope	122,20 €	122,20 €
MDD09	1	Opthalmoscope/Otoscope	95,94 €	95,94 €
MDD36	2	Oxygen, Cylinder, w regulator	1.291,98 €	2.583,95 €
MDD14	3	Sphygmomanometer, Adult, Pediatric	61,99 €	185,96 €
MDD12	2	Stethoscope, (dualHead)	12,44 €	24,89 €
MDD23	1	Stethoscope, fetal	2,84 €	2,84 €
MDD13	5	Thermometers, Electronic, Infrared, Skin	16,93 €	84,65 €
MDD28	5	Torch for eye examination	5,57 €	27,83 €
MDD35	1	Trial Lens Sets, Ophthalmic	1.036,17 €	1.036,17 €
MDD08	3	Weighting System, Adult, with height mes	193,14 €	579,42 €
D				
02-AER	1	Aerosol Generators	310,79 €	310,79 €
02-DES	1	Defibrillators, semiautomatic	6.476,08 €	6.476,08 €
02-DEU	1	Dental Unit	15.741,80 €	15.741,80 €


SISTEM-PRO SRL
 Via San Giuliano, 43/A
 33170 PORDENONE (PN)
 Cap. Soc. € 1.000.000,00 i.v.
 PEC: sistempro.srl@pec.srl
 C.F. 03830930033
 IVA: 03830930033

A	B	C	D	E
Item number	Quantity	SPECIFICATIONS OFFERED (INCL. BRAND/MODEL)	Unit costs DDP Khartoum, Sudan [EUR]	Total [EUR]
02-ECG	1	Electrocardiographs, Multichannel,	2.134,18€	2.134,18€
02-LISB	1	Lights, Surgical, mobile, battery	511,92€	511,92€
02-SSUG	1	Scanning System, Ultrasonic, General Purpose	15.872,75€	15.872,75€
02-STST	1	Sterilizing Unit, Steam, Tablettop	4.419,40€	4.419,40€
E				
INOX MEDICAL TOOLS				
10-077	1	Drum, sterilizing Inox Inox, Large	97,34€	97,34€
10-077	1	Drum, sterilizing Inox Inox, Medium	64,10€	64,10€
10-077	1	Drum, sterilizing Inox, Small	36,64€	36,64€
06-070	1	Forceps, Desmarres Chalazion	43,37€	43,37€
66	2	Kidney Dish, Inox, Large, w/out/ Lid	7,74€	15,48€
67	2	Kidney Dish, Inox, Medium, w/out/ Lid	5,37€	10,73€
68	2	Kidney Dish, Inox, Small, w/out/ Lid	4,98€	9,96€
71	1	Retractor, Vaginal, Slim	30,33€	30,33€
72	1	Set, Delivery	34,63€	34,63€
69	1	Set, Dental, Basic	2.683,01€	2.683,01€
70	1	Set, Dressing	111,42€	111,42€



PRO SRL
Ghianina (PN)
DGD/2021/09/14
33/T/13/01/2021
S/33/01/2021
SUBMITTAL
Page 5 of 5

A	B	C	D	E
Item number	Quantity	SPECIFICATIONS OFFERED (INCL BRAND/MODEL)	Unit costs DDP Khartoum, Sudan [EUR]	Total [EUR]
06-070	1	Set, Ear Syringe	15,82 €	15,82 €
06-030	1	Set, Gynecological examination	61,15 €	61,15 €
06-036	1	Set, Small Fragment/foreign Bodies	163,24 €	163,24 €
09-051	1	Speculum vaginal, Cusco	29,62 €	29,62 €
06-059	1	Tray, Instrument, Inox, small	24,44 €	24,44 €
06-059	1	Tray, Instrument, Inox, Large	34,75 €	34,75 €
TRAINING, INSTALLATION, TESTING AND COMMISSIONING				
WARRANTY (1 YEAR)				
AFTER SALE (1 YEAR)				
TOTAL LOT 3				
LOT 4				
CIG 94103133F3				
F RADIOGRAPHIC DIAGNOSTIC SYSTEMS				
02-RU-F	1	Radiographic System, film, conventional	39,629,57 €	39,629,57 €
02-RU-T	1	Radiographic Unit, Dental, Intraoral	1,905,27 €	1,905,27 €
02-XCRS	1	X-RAY, Computer Radiographic System	32,923,03 €	32,923,03 €
02-XPRT	1	X-Ray, Film Printer, Tabletop	7,621,07 €	7,621,07 €

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00153 Roma
33170 Belpoggio 15100532
C.F. 01610000000
PEC: sistema.pia@pec.it
C.U.: SUBM704

A	B	C	D	E
Item number	Quantity	SPECIFICATIONS OFFERED (INCL. BRAND/MODEL)	Unit costs DDP Khartoum, Sudan [EUR]	Total [EUR]
02-XREP	1	X-Ray, Film Processor, Dental	3.200,85 €	3.200,85 €
56	2	X-Ray, Protection devices, Set x person	308,12 €	616,24 €
		TRAINING, INSTALLATION, TESTING AND COMMISSIONING	10.000,00 €	10.000,00 €
		WARRANTY (1 YEAR)	INCLUDED	
		AFTER SALE (1 YEAR)		7.000,00 €
		TOTAL LOT 4	102.587,90 €	102.896,02 €

*for this item (03-ANHE), training is unlimited (Technical and Application) inside Sudan

TOTAL ADDITIONAL 12-MONTH WARRANTY: € 14.000,00

SITEM-PRO SRL
 Via San Giuliano 3/A
 33170 TORDEGNANO (PN)
 C.F. & N.I. 017670900933
 PEC: sitem-pro@pec.it
 C.U.T. SUBMITON

LIST OF SPARE PARTS

ITEM 02-RU-F: RADIOGRAPHIC SYSTEM, FILM, CONVENTIONAL

ITEM NUMBER	CODE	DESCRIPTION	UNIT COST DDP KHARTOUM, SUDAN
02-RU-F	85174	Push button TH504108.100 18 mm black	102,00 €
02-RU-F	85173	Transparent cap for TH504108	40,00 €
02-RU-F	78561	Microswitch AM 1107	50,00 €
02-RU-F	126327	Microswitch AH3226	40,00 €
02-RU-F	96207 (N)	Microswitch AM1108-11 0°	82,00 €
02-RU-F	78430	Flat push-button	572,00 €
02-RU-F	46475	24 VDC electromagnetic brake	146,00 €
02-RU-F	85673	24VDC Relay HP3	74,00 €
02-RU-F	85322	24VDC Relay HC2	47,50 €
02-RU-F	685-041110 (N)	PCB 411 - Switching power supply	1.125,00 €
02-RU-F	168553	PCB 411 Non switching power supply	858,00 €
02-RU-F	78440	PCB 413 -FFD reading	880,00 €
02-RU-F	40866	FFD Translator complete of pot. 1K 3 turns	1.182,50 €
02-RU-F	78419	Translator	745,00 €
02-RU-F	78618	Translator for column position 2200+200 mm	1.496,00 €
02-RU-F	78471	FFD Potentiometer 1K 3t	150,00 €
02-RU-F	619-04025	Bridge rectifier 400V 25A	90,00 €
02-RU-F	168735	Mylar under panel cover	40,00 €
02-RU-F	85010	Plastic top panel l=2200mm	340,00 €
02-RU-F	21E900	Patient table top (complete)	

December 2021
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SITEM - PROJET
 GOVERNMENT OF SUDAN
 GOVERNMENT OF P.N.
 33/170/P/2021/0033
 C.F.e.R. : siteenprojec.R
 PEC: siteenprojec.R
 C.U.: SUMM04

02-RU-F	78487		PC.B 546 - Elevating table	1.230,00 €
02-RU-F	85711		Emergency push button actuator	52,50 €
02-RU-F	85712		Emergency push button switch	42,50 €
02-RU-F	87149		24 VDC power supply module inside cabinet	342,00 €
02-RU-F	30264		24 VDC electromagnetic brake	102,00 €
02-RU-F	100254		Flat spring for electrom. brake 170 x 0,8 mm	40,00 €
02-RU-F	85378		Flat spring for electrom. brake 80 x 60 x 0,3 mm	50,00 €
02-RU-F	85036		Washer 0,8 mm of thickness	40,00 €
02-RU-F	78529		Toothed disk (arm rotation locking device)	220 €
02-RU-F	78525		Toothed lever (arm rotation locking device)	74 €
02-RU-F	067-12540		Hand grip	275 €
02-RU-F	121543		Locking block	40 €
02-RU-F	121547		Locking plate	72 €
02-RU-F	100-683		Push button fixing support (under the window of the tube)	1.496 €
02-RU-F	78598		Interface plate	150 €
02-RU-F	607-534103		FFD Potentiometer 10K 10t	125 €
02-RU-F	061-00103		Rail 1 = 3 m cable support trolley L=3 m	350 €
02-RU-F	88220		Trolley for cable support and movement	40 €

(X) for elevating table MTOE only

ITEM 02-XCRS: X-RAY, COMPUTER RADIOGRAPHIC SYSTEM

ITEM NUMBER	CODE	DESCRIPTION	UNIT COST DDP KHARTOUM, SUDAN
02-XCRS	CM+6018180	LEFTCOVER	3.889,18 €
02-XCRS	CM+6024700	LIFTING EQUIPMENT DRIVE	SITENY-P 8409,99 €

02-XCRS	CM+6027470	ADAPTOR BASE PLATE		873,14 €
02-XCRS	CM+6030600	FRONT COVER GREY		3.034,28 €
02-XCRS	CM+6030610	TOP COVER GREY		1.291,00 €
02-XCRS	CM+6037436	USB FLASH DRIVE WITH SW- CIR_2003		868,28 €
02-XCRS	CM+6037500	FRONT COVER (TYPE 5175/208)		3.409,94 €
02-XCRS	CM+6049732	CASSETTE OPENER ASSEMBLY WITH -SENSOR		13.889,38 €
02-XCRS	CM+6135160	MODIFICATION KIT SLOW SCAN UNIT		2.397,20 €
02-XCRS	CM+9047711120	USB.CABLE		248,04 €
02-XCRS	CM+9048644202	POWER SUPPLY		2.722,46 €
02-XCRS	CM+9517514101	BRUSH COMPL.		380,74 €
02-XCRS	CM+9517515031	PANELING LHS, VARNISHED		459,32 €
02-XCRS	CM+9517515041	PANELING RHS, VARNISHED		764,04 €
02-XCRS	CM+9517515800	USERINTERFACE		622,32 €
02-XCRS	CM+9517558302	CASSETTE FIXATION STEEL BAND		289,68 €
02-XCRS	CM+9517815150	FRONTCOVER		2.989,72 €
02-XCRS	CM+9517815250	TOPCOVER		5.182,42 €
02-XCRS	CM+9517821702	CPMI BOARD		9.614,62 €
02-XCRS	CM+9517824132	PANE IN SCANNER		3.147,36 €
02-XCRS	CM+9517824451	REAR SCANNER BRUSH		697,06 €
02-XCRS	CM+9517824702	CALIBRATION BOARD		2.974,18 €
02-XCRS	CM+9517824840	GUIDE PLATE SCANNER INPUT		1.193,26 €
02-XCRS	CM+9517825002	GEAR BOX WITH MOTOR AND SCAN ROLLERS		16.681,80 €
02-XCRS	CM+9517825800	MOTOR M2 (SLOW SCAN)		2.801,94 €
02-XCRS	CM+9517827503	OPTIC MODULE		20.855,28 €
02-XCRS	CM+9517830203	REFLECTOR WITH BRUSH		4.166,80 €
02-XCRS	CM+9517831407	PMT DETECTOR WITH LIGHT COLLECTOR		15.496,98 €

02-XCRS	CM-9517836001	ERASURE UNIT	12.772,64 €
02-XCRS	CM-9517840003	INPUT TRAY	21.980,38 €
02-XCRS	CM-9517840050	SET OF TOOTHED BELTS	303,24 €
02-XCRS	CM-9517840100	SAFETY SWITCH	528,14 €
02-XCRS	CM-9517845100	HANDLING CONTROL BOARD	4.075,02 €
02-XCRS	CM-9517845101	HANDLING CONTROL BOARD	5.111,52 €
02-XCRS	CM-9517845190	MOTOR MS (TRANSPORT ROLLER)	914,20 €
02-XCRS	CM-9517845500	CPMI POWER DISTRIBUTION BOARD	4.248,88 €
02-XCRS	CM-9517852003	CASSETTE OPENER ASSEMBLY WITH MECH STOPP	7.032,18 €
02-XCRS	CM-9517856001	CASSETTE UNLATCH ASSEMBLY	1.600,84 €
02-XCRS	CM-9517858002	CASSETTE FIXATION UNIT	10.646,79 €
02-XCRS	CM-9517858100	MOTOR M1 (CASSETTE FIXING)	891,68 €
02-XCRS	CM-9517860130	GUIDE PLATE ERASURE UNIT	535,26 €
02-XCRS	CM-9517860250	MOTOR MS (ROLLER CLAMPING)	919,14 €
02-XCRS	CM-9517860550	MOTOR M4 (DRAWER UNIT)	721,52 €
02-XCRS	CM-9517863250	SET INPUT ROLLERS	1.245,88 €
02-XCRS	CM-9517864001	UPPER ROLLER ASSEMBLY	5.835,16 €
02-XCRS	CM-9517867002	DRAWERUNIT	3.651,40 €
02-XCRS	CM-9517867650	SET PERMANENT MAGNET	431,02 €
02-XCRS	CM-9517885300	MOTOR M3 (CASSETTE OPENER)	866,24 €
02-XCRS	CM-9517885851	MAIN SWITCH WITH WIRE HARNESS	1.467,22 €
02-XCRS	CM-9517886101	TAG READER CABLE	266,14 €
02-XCRS	CM-9517886200	IP SENSOR CABLE	291,48 €
02-XCRS	CM-9517886300	USER INTERFACE CABLE	299,42 €
02-XCRS	CM-9949969500	REFLECTED LIGHT SENSOR AC	967,48 €
02-XCRS	CM-60288881	DIGITIZER SOFTWARE CRE-1908	SITEM-PL88881



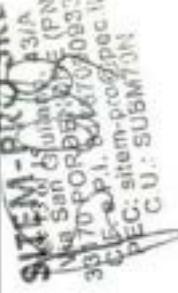
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PE U. Sistem-Profil

02-XCRS	CM+6059300	CASSETTE FIXATION UNIT	9.249,72 €
02-XCRS	CM+9517049603	PMI Power Distribution II	2.917,34 €
02-XCRS	CM+9517514110	BRUSH COMPL.,SMALL.	153,76 €
02-XCRS	CM+9517515400	HOOD INSTALLED	912,50 €
02-XCRS	CM+9517515601	CR30 DISTRIBUTION BOARD	573,40 €
02-XCRS	CM+9517516200	FRONT COVER DIGITIZER SILVER	1.647,72 €
02-XCRS	CM+9517516302	FRONT COVER	1.518,00 €
02-XCRS	CM+9517516500	FRONT COVER DIGITIZER WHITE	1.303,70 €
02-XCRS	CM+9517516600	TOP COVER DIGITIZER SILBER	1.117,86 €
02-XCRS	CM+9517521202	SLOWSCAN Board CR 30	2.825,64 €
02-XCRS	CM+9517521704	PMI3-BOARD	6.052,20 €
02-XCRS	CM+9517523100	BRUSH STRIP INSTALLED	276,60 €
02-XCRS	CM+9517524005	SLOWSCAN COMPLETE	17.984,58 €
02-XCRS	CM+9517524321	LIGHT COLLECTOR MANTLE	433,22 €
02-XCRS	CM+9517524709	CAL-BOARD COMPLETE	1.813,94 €
02-XCRS	CM+9517527003	CR30 OPTIC MOODULE LC	17.125,48 €
02-XCRS	CM+9517527504	OPTIC MOODULE CR30-X	18.734,30 €
02-XCRS	CM+9517529404	TOOLKIT LASERBEAM OETECTION	1.503,88 €
02-XCRS	CM+9517536004	ERASURE UNIT	4.982,30 €
02-XCRS	CM+9517545190	Motor Cassette Opener	1.067,02 €
02-XCRS	CM+9517552904	CASSETTE OPENER	5.606,68 €
02-XCRS	CM+9517552308	IP-HANOLING PCB	2.927,26 €
02-XCRS	CM+9517552601	POWER SEQUENCER BOARD	862,86 €
02-XCRS	CM+9517554300	CASSETTE OETECTION HOOK	125,26 €
02-XCRS	CM+9517556004	CASSETTE UNLOCKING UNIT	1.103,98 €
02-XCRS	CM+9517558101	Motor Cassette Fixing	858,84 €

SITEM-PRO

 Via Savoia, 10/A
 33110 PORDENONE (PN)
 C.F. e P.I. 02610933
 PEC: sitem-pro@pec.it
 C.U.: SLIBM70N

02-XCRS	CM+9517560012	ORAWER ADJUSTMENT TOOL	153,84 €
02-XCRS	CM+9517561009	ORAWER UNIT	2.571,36 €
02-XCRS	CM+9517561250	SOLENOIO , BONOEO (3 pes)	152,00 €
02-XCRS	CM+9517561400	SLEVERS OF ORAWER UNIT	196,36 €
02-XCRS	CM+9517563400	BEARING FOR CONNECTING LINK	185,98 €
02-XCRS	CM+9517563500	Motor Roller	1.066,92 €
02-XCRS	CM+9517585150	CR30-X/ Cable 25 Pin Sub-O	217,18 €
02-XCRS	CM+9517585901	IP-Handling Erasure Cable	17,68 €
02-XCRS	CM+9517586800	Motor Roller Clamping	715,64 €
02-XCRS	CM+9517586902	ORAWER MOTOR	792,24 €
02-XCRS	CM+9517590107	PMT+LIGHT COLLECTOR	18.512,28 €
02-XCRS	CM+9517590304	SET INPUT ROLLERS (4 pes)	1.106,68 €
02-XCRS	CM+9517590500	TOOTHEO BELT FOR CASS.UNIT	108,40 €
02-XCRS	CM+9517590801	Postscn ESO Brush	267,76 €
02-XCRS	CM+9517598901	SIDE PLATES INPUT ROLLERS	186,18 €
02-XCRS	CM+9517626501	UPPER SCAN ROLLERS (2 PIECES)	941,56 €
02-XCRS	CM+9517686100	CASSETTE REAOER CABLE	19,06 €
02-XCRS	CM+9518012201	CR M04,07 FLFS CASSETTE35X43CM	1.119,90 €
02-XCRS	RF+6059300	CASSETTE FIXATION UNIT	5.995,22 €
02-XCRS	RF+9517049603	PMI Power Oisribution II	2.876,10 €
02-XCRS	RF+9517521202	SLOWSCAN Board CR 30	1.977,94 €
02-XCRS	RF+9517521704	PMI3-BOARD	4.303,86 €
02-XCRS	RF+9517524005	SLOWSCAN COMPLETE	12.913,04 €
02-XCRS	RF+9517524709	CAL-BOARD COMPLETE	1.687,16 €
02-XCRS	RF+9517552308	IP-HANOLING PCB	3.127,78 €
02-XCRS	RF+9517590106	PMT+LIGHT COLLECTOR	9.376,60 €



SITEM-PRO SRL
 San Giuliano Terme (PI)
 Via San Giorgio, 10/12/14/16/18/20/22/24/26/28/30
 56055 - S.P.L. Spec. V.
 SPEC: sitem-pro/
 C.U.: SUBM/3N

02-XCRS	CM+6041061	REFLECTOR WITH BRUSH CR30-NM	6.763,60 €
02-XCRS	CM+6041074	PMT WITH LIGHT COLLECTOR CR 30-NM	18.831,78 €
02-XCRS	CM+6041082	OPTICS MODULE CR30-NM	26.098,08 €
02-XCRS	CM+6041101	ERASURE UNIT CR 30-NM	28.424,94 €
02-XCRS	CM+6041910	FRONT COVER WHITE FOR 5179/100	4.437,04 €
02-XCRS	CM+6042095	CASSETTE OPENER ASSEMBLY (CR30-NM)	18.718,98 €
02-XCRS	CM+6042101	INPUT TRAY (CR30-NM)	30.446,06 €
02-XCRS	CM+6042131	SLOW-SCAN COMPLETE	18.597,06 €
02-XCRS	CM+6042320	GEAR BOX WITH MOTOR AND SCAN ROLLERS	14.448,74 €
02-XCRS	CM+6042851	CASSETTE OPENER SENSOR	1.067,66 €
02-XCRS	CM+6042860	HANOLING CONTROL BOARD	6.630,36 €
02-XCRS	CM+6044202	RF-TAG READER	3.651,06 €
02-XCRS	CM+6048590	ROLLER LIFT ASSEMBLY LEFT CR30-NM	1.216,08 €
02-XCRS	CM+6048600	ROLLER LIFT ASSEMBLY RIGHT CR 30-NM	1.216,08 €
02-XCRS	CM+6049090	UPPER SCAN ROLLERS CR30-NM	2.118,18 €
02-XCRS	CM+6049481	LIMIT PATTERNS FOR CR30-NM	554,36 €

ITEM 02-XPRT: X-RAY, FILM PRINTER, TABLETOP

ITEM NUMBER	CODE	DESCRIPTION	UNIT COST DDP KHARTOUM, SUDAN
02-NPRT	CM+3097371	FILM SENSOR (ROHS) - (S5)	238,80 €
02-NPRT	CM+3097911	LIGHT BARRIER (ROHS) - (S9)	210,12 €
02-NPRT	CM+3433501	TPH FILTER MODULE (ROHS)	338,94 €
02-NPRT	CM+3433521	MAIN DRIVE PULLEY & DRUM BELT (ROHS)	1.123,08 €
02-NPRT	CM+3492663	LOWER TRAY WO TAG (ROHS)	4.870,26 €

STEM-PRO SRL
 Via Bolognese, 100/A
 33049 Cividale del Friuli (PN)
 Tel. +39 0434 00933
 e-mail: stem-pro@psc.it
 PEC: stem-pro@pec.it
 U. SUBMISSION

02-XPRT	CM+3492673	UPPER TRAY WO TAG (ROHS)	5.279,90 €
02-XPRT	CM+3492702	DRUM DRIVE MODULE (ROHS)	3.169,70 €
02-XPRT	CM+3492711	PRINT DRUM MODULE (ROHS)	3.211,30 €
02-XPRT	CM+3492872	TPH FLAT CABLE (ROHS)	1.073,50 €
02-XPRT	CM+3585782	THERMAL HEAD DS AXYS	8.872,68 €
02-XPRT	CM+3585783	THERMAL HEAD DS AXYS	8.796,98 €
02-XPRT	CM+3585792	DEVILTHANOSRAM MODULE	20.517,16 €
02-XPRT	CM+3585800	THANOS WO RAM	13.247,52 €
02-XPRT	CM+3585810	512MB DDR2 SDRAM MODULE	1.396,98 €
02-XPRT	CM+6007170	Upper Lower Pickup Unit: axle D=24mm	987,52 €
02-XPRT	CM+6009740	SATA HDD CABLE	66,16 €
02-XPRT	CM+6009751	512MB DDR2 RAM	2.095,66 €
02-XPRT	CM+6009763	DEVIUS PCB	12.453,02 €
02-XPRT	CM+6114730	DISPLAY CABLE	73,70 €
02-XPRT	CM+6119040	TOOTHED BELT (ROHS)	86,12 €
02-XPRT	CM+6168356	DEVNIX PCB (B)	8.437,34 €
02-XPRT	CM+6168361	POWER SUPPLY V2	2.926,44 €
02-XPRT	CM+6168371	OUTPUT MODULE V2	5.524,30 €
02-XPRT	CM+6168381	PICK UP MODULE V2	7.219,18 €
02-XPRT	CM+6168391	KEYPAD DISPLAY V2	1.849,86 €
02-XPRT	CM+6168411	SO CARD DEVNIX PCB	789,44 €
02-XPRT	CM+6259180	MOTOR OF PICK UP MODULE	628,54 €
02-XPRT	CM+6259190	GEARS OF GEAR BOX	441,12 €
02-XPRT	CM+6268450	CABLE SET DRYSTAR 5302/AXYS	2.114,34 €
02-XPRT	CM+6269050	CABLE SET DRYSTAR 5302/AXYS (SN>151000 / SN>751000)	1.956,94 €

SITEM-PRO SRL
 Via E. De Mattei 1/A
 33170 Udine (PN)
 C.F. 01700000083
 PEC: Sitem-pro@pec.it
 C.C. SUBM701

December 2021
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PLEASE COMPLETE AND SIGN THIS FORM AND ATTACH COPIES OF OFFICIAL SUPPORTING DOCUMENTS (REGISTER(S) OF COMPANIES, OFFICIAL GAZETTE, VAT REGISTRATION, ETC.)

LEGAL ENTITY

PRIVACY STATEMENT

http://ec.europa.eu/budget/contracts_grants/info_contracts/legal_entities/legal_entities_en.htm

Please use CAPITAL LETTERS and LATIN CHARACTERS when filling in the form.

PRIVATE/PUBLIC LAW BODY WITH LEGAL FORM

OFFICIAL NAME ①	SITEM-PRO SRL		
BUSINESS NAME (if different)			
ABBREVIATION			
LEGAL FORM	LIMITED		
ORGANISATION TYPE	FOR PROFIT	<input checked="" type="checkbox"/>	
	NON FOR PROFIT	<input type="checkbox"/> NGO ② YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
MAIN REGISTRATION NUMBER ③	PN104539		
SECONDARY REGISTRATION NUMBER (if applicable)			
PLACE OF MAIN REGISTRATION	CITY	PORDENONE	
	COUNTRY	ITALY	
DATE OF MAIN REGISTRATION	20	07	2015
VAT NUMBER	IT01787090933		
ADDRESS OF HEAD OFFICE	VIA SAN GIULIANO, 43		
POSTCODE	33170	P.O. BOX	
COUNTRY	ITALY		PHONE +39 0434456652
E-MAIL	info@sitem-pro.com		

DATE 7/12/2022

STAMP

SIGNATURE OF AUTHORISED REPRESENTATIVE

SITEM-PRO SRL

Via San Giuliano, 43/A
33170 PORDENONE (PN)
C.F. e P.I. 01787090933
PEC: sitem-pro@pec.it
C.U.: SUBM70N

① National denomination and its translation in EN or FR if existing.

② NGO = Non Governmental Organisation, to be completed if NFPO is indicated.

③ Registration number in the national register of companies. See table with corresponding field denomination by country.





FINANCIAL IDENTIFICATION

PRIVACY STATEMENT

http://ec.europa.eu/eustat/contracts_grants/info_contracts/financial_id/financial_id_en.cfm#en

Please use CAPITAL LETTERS and LATIN CHARACTERS when filling in the form.

BANKING DETAILS ①

ACCOUNT NAME ②	SITEM-PRO SRL		
IBAN/ACCOUNT NUMBER ③	IT76D0708464950000000400510		
CURRENCY	EUR		
BIC/SWIFT CODE	ICRAITRRU40	BRANCH CODE ④	64950
BANK NAME	BANCA DELLA MARCA - CREDITO COOPERATIVO		
ADDRESS OF BANK BRANCH			
STREET & NUMBER	VIA ROVEREDO, 14		
TOWN/CITY	PORCIA (PN)	POSTCODE	33080
COUNTRY	ITALY		

ACCOUNT HOLDER'S DATA

AS DECLARED TO THE BANK

ACCOUNT HOLDER	SITEM-PRO SRL		
STREET & NUMBER	VIA SAN GIULIANO, 43		
TOWN/CITY	PORDENONE	POSTCODE	33170
COUNTRY	ITALY		
REMARK			

BANK STAMP + SIGNATURE OF BANK REPRESENTATIVE ⑤	DATE (Obligatory) 7/12/2022
 Banca della Marca CREDITO COOPERATIVO Fil. Portia	SIGNATURE OF ACCOUNT HOLDER (Obligatory)

- ① Enter the final bank data and not the data of the intermediary bank.
- ② This does not refer to the type of account. The account name is usually the one of the account holder. However, the account holder may have chosen to give a different name to its bank account.
- ③ Fill in the IBAN Code (International Bank Account Number) if it exists in the country where your bank is established
- ④ Only applicable for US (ABA code), for AU/NZ (BSB code) and for CA (Transit code). Does not apply for other countries.
- ⑤ It is preferable to attach a copy of RECENT bank statement. Please note that the bank statement has to confirm all the information listed above under 'ACCOUNT NAME', 'ACCOUNT NUMBER/IBAN' and 'BANK NAME'. With an attached statement, the stamp of the bank and the signature of the bank's representative are not required. The signature of the account-holder and the date are ALWAYS mandatory.



F.A.O. To whom it may concern.

Orsago, 30th June 2022

Reference: BANK STATEMENT

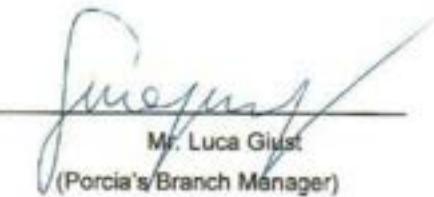
Dear Sir/Madam,

As per our customer request, we, Banca Della Marca – Credito Cooperativo Soc.Coop., addressed in Via G. Garibaldi, 46 31010 Orsago (TV) Italy, certify that Messrs. SITEM-PRO SRL, currently domiciled in Via S. Giuliano, 43 – 33170 Pordenone Italy, holds a commercial bank account and has been in business relationship with our bank since August 2015, c/o our Porcia's Branch, .

As far as we are informed, the Company has adequate financial resources at its disposal both to sustain its activities and duly meet the commitments undertaken.

In accordance with common banking practice, the present information is released without any engagement or responsibility on our side.

Yours faithfully,



Mr. Luca Giust
(Porcia's Branch Manager)

