

Orthopedics

Pneumatic Drill

No.	Item Specifications
1	Description of Function
1.1	The drill system is required to saw, cut dissect, curette, abrade, carve and shape the skull bones and the vertebral bodies, bio-metal, bio-plastics, methacrylate, ceramics and the like.
2	Operational Requirements
2.1	The drill system must be able to saw, cut dissect, curette, abrade, carve and shape the skull bones and the vertebral bodies, bio-metal, bio-plastics, methacrylate, ceramics and the like. A wide range of attachments and dissecting tips both for routine and microsurgical work required.
2.2	Must run on N2 gas, compressed air, electricity.
3	System Configuration
3.1	Pneumatic Drill Machine for Neurosurgery with complete accessories.
4	Technical Specifications
4.1	Motor speed must be at least 80,000 rpm, operating pressure up to 100-200 psi (variable).
4.2	Motor must be light weight (preferably less than 70 grams).
4.3	Main motor unit must be detachable from air supply hose.
4.4	Straight and angled attachments of various lengths must be available for Cranial and Spinal surgery.
4.5	Keyless Change of hand piece with mounted tool must be possible.
4.6	Motor must be converted to an angulated position with or without an adaptor.
4.7	Sound level must be very low less than 85db close to the operating field
4.8	Quick coupling attachment must be available.
4.9	Sterilization through Flash or Regular steam autoclave.
4.1	Perforator driver with cutter must be available.
4.11	Must have Saw hand piece (reciprocating, oscillating and sagittal with saw blades) with same system. Foot control for variable speed.
4.12	Compatible low noise medical grade air compressor to run the machine optimally at the required psi.
4.13	Irrigation pump must be available.
5	Accessories, spares and consumables
5.1	Shall supply all accessories including:
	Handpieces:
	☐ Straight hand piece 120mm: 01 no.
	☐ Straight hand piece 90mm: 01 no.
	☐ Straight hand piece 160mm: 01 no.
5.2	Craniotomy Attachment:
	☐ Craniotome hand piece: 01 no.
	☐ Fixed Duraguard adult: 01 no.
	☐ Fixed Duraguard paediatrics: 01 no.
5.3	Craniotome Cutter (Bits):
	☐ Craniotome cutter (bits) paediatrics: 20 nos.
	☐ Craniotome cutter (bits) adult: 20 nos.
5.4	Perforator:
	☐ Perforator driver: 01 no.
	☐ Cranial perforator, 9X12mm, Hudson type: 02 nos.
	☐ Cranial perforator, 6/9mm, Hudson type: 02 nos.
	☐ Hudson chuck: 01 no.
5.5	Burrs:
	☐ Rosen burr for medium hand piece: 10 nos.
	☐ Diamond burr for medium hand piece: 10 nos.
	☐ Diamond burr for large hand piece: 5 nos.
	☐ Barrel burr for medium hand piece: 10 nos.
	☐ Barrel burr for large hand piece: 05 nos.
	☐ Acorn burr for small hand piece: 10 nos.
	☐ Pin Point burr for medium hand piece: 25 nos.
	☐ Twist drill for small hand piece: 10 nos.

5.6	Micro Sagittal Saw Attachment:
	☐ Micro sagittal saw pencil shape: 01 no.
	☐ Saw blade for micro sagittal saw 9/13/0.3/0.3mm: 04 nos.
5.7	Storage & Maintenance:
	☐ Oil spray for high speed motor and hand pieces: 50 nos.
	☐ Oil spray for perforator: 05 nos.
	☐ Autoclaveable perforated basket with covering lid with holders for motors, all other accessories
5.8	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.
6	Operating Environment
6.1	The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature, Humidity, etc. for Sudan.
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.
6.3	Suitable UPS with maintenance free batteries with voltage regulation and spike protection for minimum 30 min. back-up shall be supplied with the system.
7	Standards and Safety Requirements
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.
7.3	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.
8	User Training
8.1	Must provide user training (including how to use and maintain the equipment).
9	Warranty
9.1	Comprehensive warranty for 2 years.
10	Maintenance Service During Warranty Period
10.1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.
11	Documentation
11.1	User (Operating) manual in English.
11.2	Service (Technical / Maintenance) manual in English.
11.3	List of important spare parts and accessories with their part numbers and costing.
11.4	Certificate of calibration and inspection from factory.

Electric Drill

No.	Item Specifications
1	Description of Function
1.1	Drilling machines are used in a number of orthopaedics surgical procedures, for example, in making holes in bones for bone screws and in drilling out the medulla or marrow areas of bones.
2	Operational Requirements
2.1	Electric driven, autoclaveable, versatile, forward & reverse mode with oscillating saw hand pieces.
3	System Configuration
3.1	Electric Operated Drill & Saw, complete unit.
4	Technical Specifications
4.1	Driving unit shall include motor, sturdy stand with wheels.
4.2	Flexible shaft: Minimum length, 2 metres, autoclaveable quick connection.
4.3	Hand Piece for Drill:
	☐ Cannulated autoclaveable pistol type.
	☐ Speed-1200 to 1500 RPM.
	☐ Jacob chuck.
	☐ Quick coupling chuck (Synthesis type).
	☐ Hudson's chuck.
	☐ Chuck for K-wire.
	☐ Forward & reverse options.
4.4	Hand Piece for Reamers:

	☐ Cannulated autoclaveable pistol type.
	☐ Speed-400 RPM, non-damaging to the bone endosteal blood supply.
	☐ Chuck for cannulated reamers.
	☐ Forward & reverse options.
4.5	Sagittal Saw:
	☐ Autoclaveable pistol type.
	☐ Easy Attachments of blades (without Instrument).
	☐ 2 Blades each of different size routinely used in Orthopaedic surgery (Total nos. 10).
	☐ ACL Blades for commonly used sizes.
5	Accessories, spares and consumables
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.
6	Operating Environment
6.1	The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature, Humidity, etc. for Sudan.
6.2	Power supply: 220 – 240 VAC, 50Hz fitted with appropriate plug. The power cable must be at least 3 metre in length.
7	Standards and Safety Requirements
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
7.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
7.3	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.
8	User Training
8.1	Must provide user training (including how to use and maintain the equipment).
9	Warranty
9.1	Comprehensive warranty for 2 years.
10	Maintenance Service During Warranty Period
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.
11	Documentation
11.1	User (Operating) manual in English.
11.2	Service (Technical / Maintenance) manual in English.
11.3	List of important spare parts and accessories with their part numbers and costing.
11.4	Certificate of calibration and inspection from factory.

Manual Orthopedic Drill

No.	Specifications
1	Description of Function
1.1	Drilling machines are used in a number of orthopaedics surgical procedures, for example, in making holes in bones for bone screws and in drilling out the medulla or marrow areas of bones.
2	Operational Requirements
2.1	Orthopaedics manual cannulated hand drill with chuck & key.
3	System Configuration
3.1	Manual Cannulated Hand Drill, complete unit.
4	Technical Specifications
4.1	Orthopaedics hand drill with chuck & key length 28cm approx.
4.2	Chuck must be such that it can be tightened without the key.
4.3	Aluminium handle with tilt facility.
5	Accessories, spares and consumables
5.1	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).
6	Operating Environment
	The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature, Humidity, etc. for Sudan.
7	Standards and Safety Requirements
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND

7.2	CE (93/4 2 EEC Directives) or USFDA approved product certificate.
8	User Training
8.1	Must provide user training (including how to use and maintain the equipment).
9	Warranty
9.1	Comprehensive warranty for 2 years after acceptance.
10	Maintenance Service During Warranty Period
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.
11	Installation and Commissioning
11.1	Supplier must accomplish proper installation & commissioning of equipment onsite.
12	Documentation
12.1	User (Operating) manual in English.
12.2	Service (Technical / Maintenance) manual in English.
12.3	List of important spare parts and accessories with their part numbers and costing.

Dynamic condylar Screw (DCS) Set

No.	Item Specifications
1	Technical Specifications
	Standard specifications
2	Operating Environment
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4	Warranty
4.1	Comprehensive warranty for 2 years after acceptance.

Dynamic Hip Screw (DHS) Set

No.	Item Specifications	Qty.
1	Rasp for Austin Moore-Standard Stem	1
2	Rasp for Austin Moore -Broad Stem	1
3	Rasp For Thompson - Standard Stem	1
4	Murphy Lane Bone Skid	1
5	Rasp for Austin Moore -Narrow Stem	1
6	Rasp for Austin Moore - Extra Long Stem	1
7	Rasp For Thompson - Narrow Stem	1
8	Moore Hollow Chisel	1
9	Moore Hollow Chisel with Fibre Handle - Standard	1
10	Judet Auger Extractor	1
11	Impactor- Nylon Faced	1
12	Extractor with Two Hooks	1
13	Moore Hollow Chisel with Fibre Handle - Extra Large	1
14	Measuring Gauge for Prosthesis	1
15	Impactor - nylon Faced, Large Tip	1
16	Spare Hook For Extractor	1
17	Rasp with Tommy Bar for Bipolar Prosthesis	1
18	Pencil Reamer - For Bipolar Prosthesis	1
19	Tapered Reamer -For Bipolar Prosthesis	1
20	Slotted Reamer -For Bipolar Prosthesis	1
21	Bipolar Trial Stem S.S	1
22	Trial Cup	1
23	Trial Cup Holder	1
24	Impactor - For Bipolar Prosthesis	1
25	Hook for Extraction of Bipolar Stem	1
26	Charnley's TH cup holder with pusher	1

27	Charnley slotted reamer	1
28	Charnley tapered reamer	1
29	Charnley's retractor with weight and chain	1
30	Charnley's pin retractor	3
31	Charnley's cup gauge	1
32	Charnley's Long curette-spoon, ring	1 each
33	Acetabular reamer-43,45,47,49,51,53,55,57,59 with shaft	1 each
34	Femoral rasp five sizes	1 each
	Warranty	
	Comprehensive warranty for 2 years after acceptance.	

Orthopedic Table with Traction

No.	Item Specifications
1	Description of Function
1.1	Mechanical Fracture table to use in orthopaedic surgical procedures.
2	Operational Requirements
2.1	Watson Jones type design fracture table.
3	System Configuration
3.1	Fracture Table with all attachments.
4	Technical Specifications
4.1	The table must confirm to Watson Jones type design.
4.2	Dimensions:
	Approx.(+/- 10%): 762mm height, 1829mm length, 762mm breadth, with leg size 76x76 mm & cross bar 76x25mm.
4.3	Material: Mild steel
4.4	The table shall have epoxy powder coated washable paint finish or Better.
4.5	The table must be provided with all necessary attachments.
	Bidder shall specify the details of attachments.
5	Accessories, spares and consumables
5.1	All standard accessories/consumables/parts required for the proper operation of the above item shall be included in the offer.
6	Operating Environment
6.1	The product offered shall be designed to be stored and to operate normally under Climate, Temperature, Humidity, etc. for Sudan.
7	Standards and Safety Requirements
7.1	Must submit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices AND
7.2	CE or USFDA approved product certificate.
8	Warranty
8.1	Comprehensive warranty for 2 years.
9	Maintenance Service During Warranty Period
9.1	Standard warranty conditions are applicable.
10	Installation and Commissioning
10.1	The supplier must accomplish proper commissioning of the item onsite.
11	Documentation
11.1	User and/or service manual shall be supplied in English.

Interlocking Set

No.	Item Specifications
1	Technical Specifications
	Standard specifications
2	Operating Environment
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.

4	Warranty
4.1	Comprehensive warranty for 2 years after acceptance.

K wire Set

No.	Item Specifications
1	Technical Specifications
	Standard specifications
2	Operating Environment
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4	Warranty
4.1	Comprehensive warranty for 2 years after acceptance.

K-Nails Set

No.	Item Specifications
1	Technical Specifications
	Standard specifications
2	Operating Environment
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4	Warranty
4.1	Comprehensive warranty for 2 years after acceptance.

Plaster Saw

No.	Item Specifications
1	Description of Function
1.1	These instruments are used in orthopaedic surgery for cutting of plaster of paris/synthetic cast applied for fractured bones.
2	Operational Requirements
2.1	System complete with essential items like one plaster spreader, shear shall be supplied.
3	System Configuration
3.1	Plaster Cutting Saw, complete unit with all standard accessories.
4	Technical Specifications
4.1	Shall have light weight & heavy duty.
4.2	Must have shock proof fibre glass body.
4.3	Must be capable of cutting pop & fibre glass (synesthetic).
4.4	Shall have long life Teflon coated blade.
4.5	Must be supplied with 63mm diameter blade.
5	Accessories, spares and consumables
5.1	Accessories:
	☐ Blade 63mm: 10 nos.
	☐ Storage case to accommodate the plaster cutter and other accessories.
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer.
6	Operating Environment
6.1	The product offered shall be designed to be stored and to operate normally under Power Supply, Climate, Temperature, Humidity, etc. for Sudan.
6.2	Power supply: 220 – 240 VAC, 50Hz Single Phase fitted with appropriate plug. The power cable must be at least 3 metre in length.

7	Standards and Safety Requirements
7.1	Must submit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices AND
7.2	CE or USFDA approved product certificate.
7.3	Electrical safety conforms to standards for electrical safety IEC 60601-1 General requirement for Electrical safety of Medical Equipment.
8	User Training
8.1	Must provide user training (including how to use and maintain the equipment).
9	Warranty
9.1	Comprehensive warranty for 2 years.
10	Maintenance Service During Warranty Period
10.1	During warranty period supplier must ensure preventive maintenance & corrective/breakdown maintenance whenever required.
11	Documentation
11.1	User (Operating) manual in English.
11.2	Service (Technical / Maintenance) manual in English.
11.3	List of important spare parts and accessories with their part numbers and costing.
11.4	Certificate of calibration and inspection from factory.

Plaster trolley

No.	Item Specifications
1	Technical Specifications
	Standard specifications
2	Operating Environment
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4	Warranty
4.1	Comprehensive warranty for 2 years after acceptance.

Plates Set

No.	Item Specifications
1	Technical Specifications
	Standard specifications
2	Operating Environment
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4	Warranty
4.1	Comprehensive warranty for 2 years after acceptance.

Screws set

No.	Item Specifications
1	Technical Specifications
	Standard specifications
2	Operating Environment
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4	Warranty

4.1	Comprehensive warranty for 2 years after acceptance.
-----	---

Splint

No.	Item Specifications
1	Technical Specifications
	Standard specifications
2	Operating Environment
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4	Warranty
4.1	Comprehensive warranty for 2 years after acceptance.

Traction Bed

No.	Item Specifications
1	Technical Specifications
	Standard specifications
2	Operating Environment
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4	Warranty
4.1	Comprehensive warranty for 2 years after acceptance.

Drill Tourniquet

No.	Item Specifications
1	Technical Specifications
	Standard specifications
2	Operating Environment
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4	Warranty
4.1	Comprehensive warranty for 2 years after acceptance.

Tourniquet Electronic (Automatic)

No.	Specifications
1	Description of Function
1.1	Tourniquet used to control venous and arterial circulation to an extremity for a period of time.
2	Operational Requirements
2.1	Electronic automatic tourniquet with cuffs for paediatric & adult size.
3	System Configuration
3.1	Electronic automatic tourniquet with cuffs for paediatric & adult size.
4	Technical Specifications
4.1	Shall have facility to use single and dual cuff tourniquet.
4.2	Shall not require any external high pressure air.
4.3	Must have continuous and bright display for actual cuff pressure, set pressure and time.
4.4	The cuff pressure must not be released on power failure.

4.5	Must be possible to increase and decrease the set cuff pressure online
4.6	Must have facility to release cuff pressure without disconnecting the cuffs from the machine.
4.7	Must have a cuff pressure from 10 to 400 mmHg.
4.8	Must have a timer setting from 10 minute to 3 hours.
4.9	Must have audible and visual alarm for pressure increase and decrease from the set value.
4.1	Must have audible and visual alarm for reaching the set time.
5 Accessories, spares and consumables	
5.1	Accessories:
	• Two sets of good quality cuffs (Upperlimb-2, Lower limb-2) for paediatric and adult size
5.2	All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).
6 Operating Environment	
6.1	The system offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Power Supply, Climate, Temperature, Humidity, etc.
6.2	Power supply: 220 – 240 V AC, 50Hz Single Phase fitted with appropriate plug. The power cable must be at least 3m in length.
7 Standards and Safety Requirements	
7.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
7.2	CE (93/42 EEC Directives) or USFDA approved product certificate.
7.3	Shall meet IEC 60601-1 general requirements of electrical safety.
8 User Training	
8.1	Must provide user training (including how to use and maintain the equipment).
9 Warranty	
9.1	Comprehensive warranty for 2 years after acceptance.
10 Maintenance Service During Warranty Period	
10.1	During warranty period supplier must ensure corrective/breakdown maintenance whenever required.
11 Installation and Commissioning	
11.1	Supplier must accomplish proper installation and commissioning of the equipment on site.
12 Documentation	
12.1	User (Operating) manual in English
12.2	Service (Technical / Maintenance) manual in English
12.3	List of important spare parts and accessories with their part numbers and costing.
12.4	Certificate of calibration and inspection from factory.

Manual Orthopedic Tornequet

No.	Item Specifications
1 Technical Specifications	
	Standard specifications
2 Operating Environment	
2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3 Standards and Safety Requirements	
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4 Warranty	
4.1	Comprehensive warranty for 2 years after acceptance.

Drill bits

No.	Item Specifications
1 Technical Specifications	
	Standard specifications
2 Operating Environment	

2.1	The product offered shall be designed to be stored and to operate normally Temperature, Humidity, etc. for Sudan.
3	Standards and Safety Requirements
3.1	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
3.2	CE (93/42 EEC Directives) or USFDA or TUV approved product certificate.
4	Warranty
4.1	Comprehensive warranty for 2 years after acceptance.

Drill Tap size 2.5 mm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Drill Tap size 2.5 mm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Drill Tap size 2.7 mm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Drill Tap size 2.7 mm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Drill Tap size 3.2 mm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Drill Tap size 3.2 mm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Drill Tap size 3.5 mm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Drill Tap size 3.5 mm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Drill Tap size 4.5 mm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .

	Technical Specifications
	Drill Tap size 4.5 mm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 14 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 14 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 16 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 16 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 18 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 18 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 20 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 20 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 22 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 22 cm.

	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 24 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 24 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 26 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 26 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 28 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 28 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 14 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 14 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 16 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 16 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND

	CE (93/42 EEC Directives) or USFDA approved product certificate.
--	--



Cortical Screw size 3.5 mm long 18 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 18 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.



Cortical Screw size 3.5 mm long 20 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 20 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.



Cortical Screw size 3.5 mm long 22 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 22 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.



Cortical Screw size 3.5 mm long 24 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 24 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.



Cortical Screw size 3.5 mm long 26 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 26 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 3.5 mm long 28 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 3.5 mm long 28 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 18 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 18 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 20 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 20 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 22 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 22 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 24 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 24 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 26 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 26 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 28 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 28 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 30 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 30 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 32 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 32 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 34 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 34 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 36 cm.

No.	Specifications
	Operational Requirements

	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 36 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 38 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 38 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 40 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 40 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 42 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 42 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 44 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 44 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 46 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications

	Cortical screw size 4.5 mm long 46 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 48 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 48 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 50 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 50 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 52 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 52 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 54 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 54 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 56 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 56 cm.
	Standards and Safety Requirements

	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Cortical Screw size 4.5 mm long 58 cm.

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Cortical screw size 4.5 mm long 58 cm.
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 3.5 mm - (4 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 3.5 mm - (4 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 3.5 mm - (5 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 3.5 mm - (5 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 3.5 mm - (6 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 3.5 mm - (6 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 3.5 mm - (7 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 3.5 mm - (7 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 3.5 mm - (8 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 3.5 mm - (8 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 3.5 mm - (9 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 3.5 mm - (9 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 3.5 mm - (10 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 3.5 mm - (10 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 3.5 mm - (11 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 3.5 mm - (11 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 3.5 mm - (12 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 3.5 mm - (12 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 4.5 mm - (4 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 4.5 mm - (4 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 4.5 mm - (6 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 4.5 mm - (6 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 4.5 mm - (7 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 4.5 mm - (7 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 4.5 mm - (8 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 4.5 mm - (8 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 4.5 mm - (9 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 4.5 mm - (9 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 4.5 mm - (10 Holes)

No.	Specifications
-----	----------------

	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 4.5 mm - (10 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 4.5 mm - (11 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 4.5 mm - (11 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 4.5 mm - (12 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 4.5 mm - (12 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Plate size 4.5 mm - (13 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Plate size 4.5 mm - (13 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Narrow Plate size 4.5 mm - (4 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	D.C.P Narrow Plate size 4.5 mm - (4 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

D.C.P Narrow Plate size 4.5 mm - (5 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .

	Technical Specifications
	D.C.P Narrow Plate size 4.5 mm - (5 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Tubular External Fixator

No.	Item Specifications
1	Description of Function
	1.1 These instruments are used in orthopaedic surgery for fixation of open fractures/comminuted fractures externally by pins and rods.
	2 Operational Requirements
	2.1 Must be made of stainless steel, rust free, long lasting, Tubular External Fixator system.
	3 System Configuration
	3.1 Tubular External Fixator, complete unit.
	4 Technical Specifications
	4.1 Tubular External Fixator System:
	☐ Universal clamp.
	☐ Tubular rods with caps 15-45cm (6"-18") with 5cm increment.
	☐ Two pin clamps (twin clamps).
	☐ Tube to tube clamp.
	☐ 3.2/3.5mm extra-long drill bit.
	☐ Schanz pin 4.5mm Cortical.
	☐ Schanz pin 5mm Cancellous.
	☐ Schanz pin 6.5mm Cancellous.
	☐ Transverse clamp.
	☐ Inter connecting rod assorted sizes.
	☐ Spanner (size: 10-11).
	☐ Hinged box spanner.
	☐ Triple trocar with sleeves 6.5mm.
	☐ T handled with chuck (A.O. type).
	4.2 Radial Distractors/ Fixators for Forearm:
	☐ Drill bits 2.5mm.
	☐ Schanz pin 3.5mm Cortical.
	☐ Schanz pin 2.5mm Cortical.
	☐ Allen key of suitable size.
	☐ Universal clamp for above Schanz screws and rods/distractor for forearm fixator 3-8 inch.
	4.3 Mini Distractor/small fixators for Metacarpal and Phalanges:
	☐ Drill bits 1.5mm.
	☐ Allen key of suitable size.
	☐ Threaded & non threaded K wires/small distractor 1.5, 2mm.
	☐ Link joints for above wires.
	5 Accessories, spares and consumables
	5.1 All standard accessories, consumables and parts required to operate the equipment, including all standard tools and cleaning and lubrication materials, to be included in the offer. Bidders must specify the quantity of every item included in their offer (including items not specified above).
	6 Operating Environment
	6.1 The product offered shall be designed to be stored and to operate normally under the conditions of the purchaser's country. The conditions include Climate, Temperature, Humidity, etc.
	7 Standards and Safety Requirements
	7.1 Must submit ISO 9001 or ISO13485:2003/AC:2007 for Medical Devices AND ISO5832
	Implants for surgery -- Metallic materials

	7.2 CE or USFDA approved product certificate.
	8 User Training
	8.1 Must provide user training (including how to use and maintain the equipment).
	9 Warranty
	9.1 Comprehensive warranty for 1 year after acceptance.
	10 Maintenance Service During Warranty Period
	10.1 Standard warranty conditions are applicable.
	11 Installation and Commissioning
	11.1 Supplier must accomplish proper commissioning of instruments onsite.
	12 Documentation
	12.1 User (Operating)/ Technical/Maintenance manual(s) shall be supplied in English.

K wire size 1.5 mm long 40 cm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	K wire size 1.5 mm long 40 cm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

K wire size 1.6 mm long 40 cm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	K wire size 1.6 mm long 40 cm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

K wire size 1.7 mm long 40 cm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	K wire size 1.7 mm long 40 cm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

K wire size 1.8 mm long 40 cm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	K wire size 1.8 mm long 40 cm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

K wire size 1.9 mm long 40 cm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	K wire size 1.9 mm long 40 cm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

K wire size 2.0 mm long 40 cm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	K wire size 2.0 mm long 40 cm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

K wire size 2.5 mm long 40 cm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	K wire size 2.5 mm long 40 cm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

K wire size 3.0 mm long 40 cm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	K wire size 3.0 mm long 40 cm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

K wire size 3.5 mm long 40 cm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	K wire size 3.5 mm long 40 cm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Laminectomy Surgery Instrument Set

No.	Item Specifications
-----	---------------------

1	Technical Specifications
	1 Scalpel Handle #3
	1 Scalpel Handle #4
	1 Scalpel Handle #7
	1 Mayo Diss Scissors Straight 6 3/4
	1 Mayo Diss Scissors Curved 6 3/4"
	1 Metzenbaum Scissors Straight 7"
	1 Op Scissors 5 1/2" Straight Sh/bl
	1 Op Scissors 5 1/2" Curved Sh/bl
	1 Serrated Dressing Forceps 5 1/2"
	2 Serrated Dressing Forceps 8"
	1 Tissue Forceps 1x2 5 1/2"
	2 Tissue Forceps 1x2 8"
	1 Cushing Brain Delicate Forceps Serrated 7"
	1 Cushing Brain Delicate Forceps 1x2 7"
	1 Adson Forceps Delicate Bayonet 7 1/2"
	12 Halsted Mosquito Forceps Straight 5"
	12 Halsted Mosquito Forceps Curved 5"
	12 Crile Forceps Straight 6 1/4"
	12 Crile Forceps Curved 6 1/4"
	4 Allis Tiss Forceps 5x6 6"
	2 Beckman-adson Retractor Shrp 12.5"
	2 Weitlaner Retractor Sh 3x4 8"
	12 Backhaus Towel Clamp 5 1/4"
	6 Foerster Sponge Serrated Straight 91/2"
	1 Love-kerri Ronguer 6" Up Bite 5mm
	1 Love Kerr Schl Rongeur 6" 5mm
	1 Love-gruenwald Ronguer B 3x10mm5"
	1 Love-gruen Ronguer Straight 7" 3x10
	1 Love-gruen Ronguer Up Ang 7" 3x10
	1 Love-gruen Ronguer Dwn Ang 7"3x10
	1 Bruns Bone Curette Oval #000
	1 Bruns Bone Curette Oval #00
	1 Bruns Bone Curette Oval #0
	1 Bruns Bone Curette Oval #1
	1 Bruns Bone Curette Oval #2
	1 Bruns Bone Curette Oval #3
	1 Bruns Bone Curette Oval #4
	1 Bruns Bone Curette Oval #5
	1 Bruns Bone Curette Oval #6
	1 Luer Bone Ronguer 7"cvd 8x10mm
	1 Leksell Rongeur Curved 9" 8x16mm
	1 Stille-hors Bone Forceps 10 1/2"
	1 Stille-luer Bone Ronguer Straight 81/2
	1 Stille-luer Rongeur Ang 8 1/2"
	1 Stille-list Bone Forceps Straight 101/2
	Operating Environment
	The system offered shall be designed to store and to operate normally under the conditions include Climate, Temperature, Humidity, etc. for Sudan
	Standards and Safety Requirements
	The manufacturer must have ISO certification for quality of the products.
	Warranty
	Warranty for 2 years.
	Maintenance Service During Warranty Period
	Standard warranty conditions are applicable.

Semi Tubular size 1/4 (5 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Semi Tubular size 1/4 (5 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Semi Tubular size 1/4 (6 Holes)

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Semi Tubular size 1/4 (6 Holes)
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Shanz Screw size 1 m

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Shanz Screw size 1 m
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Shanz Screw size 2 m

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Shanz Screw size 2 m
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Shanz Screw size 3 m

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Shanz Screw size 3 m
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.

Shanz Screw size 4 m

No.	Specifications
	Operational Requirements

	To be made of certified Stainless Steel .
	Technical Specifications
	Shanz Screw size 4 m
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.



Shanz Screw size 4.5 m

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Shanz Screw size 4.5 m
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.



Stiemann Pin size 3 mm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Stiemann Pin size 3 mm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.



Stiemann Pin size 4 mm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Stiemann Pin size 4 mm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.



Stiemann Pin size 5 mm

No.	Specifications
	Operational Requirements
	To be made of certified Stainless Steel .
	Technical Specifications
	Stiemann Pin size 5 mm
	Standards and Safety Requirements
	Must submit ISO13485:2003/AC:2007 for Medical Devices AND
	CE (93/42 EEC Directives) or USFDA approved product certificate.