



ALL INDIA INSTITUTE OF MEDICAL SCIENCES, VIJAYPUR, JAMMU-184120  
(A Central Autonomous Body under PMSSY, MoH&FW, Government of India)

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F-No.-AIIMS/JMU/BOO/2024/LP/

Dated: 4 June, 2024

Inviting Quotations for Purchase of Equipment for Orthopaedics Department, AIIMS, Vijaypur Jammu.

### QUOTATION NOTICE

Sealed quotations are invited from intending registered Stockiest / Distributors having GST and relevant documents for Purchase of Equipment for **Orthopaedics Department**, AIIMS, Vijaypur, Jammu. The quotation with copy of certificate of GST & other documents should be submitted to Procurement Section at AIIMS, **Vijaypur, District Samba, Jammu (184120)** up to **14-06-2024** till 03:00 pm. The quotations will be opened on the same day at 04:00 pm. Details of item are given as under:-

S. No.	Name of Instrument	Qty.	Packs Size/Unit	HSN Code	Basic Price	GST %	Total Cost Inclusive of GST
A.	Electric Plaster cutting saw with at least 5 spare blades each.	1					
B.	Plaster spreader, Plaster shear and plaster cutter	1					
C.	Manual Plaster cutter	1					
D.	Hand bone drill (closed) with Jacobs chuck	1					
E.	Radiolucent splints for upper limb	1					
F.	Radiolucent Splints for lower limb	1					
G.	Skin traction kit with weight water bag	1					
H.	Skeletal traction kit (BB splint, Steinmann pin, bohler stirrup)	1					
I.	Socket Wrenches (different sizes)	1					
J.	K wire cutter	1					
K.	T handle with Jacobs chuck	1					
L.	Flat nose, round nose, wire extraction, box, slip joint, long jaw, pin puller, screw removing pliers	1					
M.	Minor OT set	1					
N.	Sterile dressing set	1					
O.	Sterile suturing set	1					
P.	Sterile suture removal set	1					



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### Terms & Condition

1. Firm to mention Make/Brand name in their quotation.
2. GST, if any (Kindly mention in above table) should be clearly mentioned in the offer.
3. Document relating to registration of firm i.e., GST number and relevant document should be submitted along with quotation.
4. Supply should be made within 15 days from the date of purchase order.
5. Price should be for Destination basis (i.e., concerned department).
6. Payment will be released after certification from HOD of Concerned Department / Inspection committee of AIIMS, Vijaypur, Jammu.
7. **Quotation Name and No. must be mentioned on top of envelope.**
8. Liquidated damage shall be @ 0.5% for delayed supply per week or part of week for delay subject to maximum of 10%.
9. AIIMS, Vijaypur, Jammu reserves the right to place order for full or part quantity to one or more firms. The AIIMS, Jammu reserves the right to increase/ decrease the number of required quantities all other terms & condition.
10. Sealed quotation should be submitted by speed post/copy courier to Procurement Section, AIIMS, Vijaypur, District Samba, Jammu (184120) up to **14/06-2024 till 03:00 pm.**
11. **Validity of quotation should be 90 days from the date of opening.**
12. **Sample to be submitted as and when required by the institute.**
13. **Firm to submit documentary evidence in support of claim of GST at the time of submission of bills.**
14. **All column given in quotation should be filled otherwise quotation will not be accepted.**
15. **Along with quotation please mentioned Email-id and Contact Number.**

Chairperson,  
Store Purchase Committee,  
AIIMS, Vijaypur, Jammu

1. AIIMS, Vijaypur, Jammu intends to buy the under mentioned items for Department of Orthopaedics at AIIMS, Vijaypur, Jammu (Specifications are attached).

Request forward your quotation.

S. No.	Name of Instruments	Authorised Unit	Quantity
A.	Electric Plaster cutting saw with at least 5 spare blades each.	Nos	1
B.	Plaster spreader, Plaster shear and plaster cutter	Nos	1
C.	Manual Plaster cutter	Nos	1
D.	Hand bone drill (closed) with Jacobs chuck	Nos	1
E.	Radiolucent splints for upper limb	Nos	1
F.	Radiolucent Splints for lower limb	Nos	1
G.	Skin traction kit with weight water bag	Nos	1
H.	Skeletal traction kit (BB splint, Steinmann pin, bohler stirrup)	Nos	1
I.	Socket Wrenches (different sizes)	Set	1
J.	K wire cutter	Nos	1
K.	T handle with Jacobs chuck	Nos	1
L.	Flat nose, round nose, wire extraction, box, slip joint, long jaw, pin puller, screw removing pliers	Nos'	1
M.	Minor OT set	Nos	1
N.	Sterile dressing set	Nos	1
O.	Sterile suturing set	Nos	1
P.	Sterile suture removal set	Nos	1

## Instruments Specifications

S. No	Name of the Instrument	Quantity	Estimated Cost	Final Cost	Warranty	Specifications
1	Electric Plaster cutting saw with at least 5 Spare Blades				5 years	Given Below
2	Plaster cutter, plaster spreader, plaster shear				5 years	Given Below
3	Manual plaster cutter				5 years	Given below
4	Hand Bone Drill (closed) with Jacobs chuck				5 years	Given below
5	Radiolucent Splint for Upper limb				5 years	Given below
6	Radiolucent Splint for Lower limb				5 years	Given below
7	Dennis Brown Splint				5 years	Given below
8	Thomas splint				5 years	Given below
9	Skin Traction Kit with Weight Water bag				5 years	Given below
10	Skeletal Traction Kit (BB splint , Steinman Pin , Bohler stirrup )				5 years	Given below
11	Socket Wrenchs (Different sizes)				5 years	Given below
12	K wire Cutter (Self holding )				5 years	Given below
13	T Handle with Jacobs chuck				5 years	Given below
14	Pliers including :- Flat Nose , Round Nose, wire Extraction Box , Slip joint, Pin puller , Screw Removing Plier.				5 years	Given below
15	Minor OT Set				5 years	Given Below

16	Sterile Dressing Set				5 years	Given Below
17	Sterile suturing Set				5 years	Given Below
18	Sterile suture removal Set				5 years	Given Below

Orthopedic OPD Requirements

Set	Contents	Cost (in Rs)	Total Cost (in Rs)
Minor OT Set	Bone Holder Size – 100mm		
	Bone Holder Size – 170mm		
	Bone cutter		
	Bone chisel		
	Bone Rasp		
	Retractors (Langenbeck's Pattern)		
	Gigli pattern wire saw		
Sterile Dressing Set	Gauge Pack		
Sterile suturing Set	Scissors		
	Curved Artery Forceps		
	Detachable Blade Handles (Bard Parker Type)		
	Gauge Pack		
Sterile suture removal Set	Curved Artery Forceps		
	Gauge Pack		
	Suture Pin removal		

Technical Specifications for OPD Orthopedic Instruments –

1. Company should have relevant experience in successful execution of similar work at least in three Institutes of national importance and central government Institutes.
2. Company should be at least in its 5 years of operations at the date of Submission of tender.
3. Bidder must enclose original literatures & technical data sheet in the support of the technical bid.

4. Physical demo may preferably be arranged at the time of requirement.
5. Instruments quality should meet the international standard.
6. Company should have European CE certificates / USFDA certificates of International standard and ISO Certification.
7. Company should provide material certificates.
8. Material – Stainless Steel
9. Grade - ISO 5832 – 1

#### **1. Plaster Cutting saw with blades (cast cutter with dust extraction system)**

Power Source: Electric

Usage/Application: Orthopedic Surgery

Voltage: 220V AC

Speed Control: 15000 cpm

Feature: Corrosion Proof

Current: 5 Amp

Cutting saw

Material - Stainless steel conforming to designation 30Cr13 or 40Cr13 of IS : 6603-1972 'Stainless steel bars and flats'.

It should work within a voltage range of 80-270 VAC with 200VA power and 50-60Hz

The device is powered by safe low voltage of 24V

It should have a 45-minute cycle with 15 min cut off time

It should be ergonomic in design, light weight of less than 900 grams and less than 230 mm in length, diameter less than or equal to 58 mm.

It should have a speed of 14,500 rpm

The noise levels should be less than 70db

It should follow safety directive of EN 60601 class 1 European directive 2007/47/CE

Should be USFDA / CE with 4 digit notified body / ISO 13485 from Notified body of CDSCO and NABCB certified, for Plaster cutter, suction as well as blades.

ISO 9001 from CDSCO approved Notified Body

Demonstration should be available

The power cord length should be 1-1.25 mtrs and 24v DC cable length is 3 mtr .

It should have following types of blades

Stainless steel blade, hardened steel blade, titanium blades, nitride coated and Ceramic and Teflon coated blades to be available

Prices for blades and consumables to be mentioned in price bid.

Specs for Aspirator / Vacuum suction

It should be a vacuum cleaner with adjustable suction power, mounted on 4Wheels.

Robust construction

The HEPA filters to provide standard filtration of 99.97% of particles of 0.3 microns.

The vacuum cleaner to start automatically upon activation of saw.

Adjustable Power from 300-1000 watt.

Noise level should be between 60-70 db.

BOQ

Plaster cutter Complete 1 pc

Vacuum suction Complete 1 pc

Blade Lock Nut 2 pc

Hardened Stainless steel blade 10pc

Titanium coated Blade 10pc

Ceramic / Teflon Coating Blade 5pc

Weight should be less than or equal to 12Kg.

Capacity of steel tank should be minimum 20 liters.

Length of Suction hose to be 2.5meters.

Workmanship and Finish: Blade portion shall be of uniform thickness, free from burrs, rust, scales and other defects. 1.2 Blade shall be reasonably straight to shape and size. 4.3 Blade shall be inserted in the slot of the handle and fixed with two points riveted

Teeth shall be clean and uniform along the toothed edge. Blade shall have a smooth surface and even edges except for its toothed edge which shall be sharp. Handle portion shall be free from burrs, cracks, scales and other surface defects. Handle shall be rounded. plaster saw shall be finished smooth and passivated. j, Heat Treatment- All edges of the Plaster saw shall be evenly hardened and tempered to give a hardness of 430 :O 430 HV when measured as near to the tip of the tooth as possible. i. Tests i.1 Corrosion boiling and autoclaving Test - Test the plaster saw in accordance with IS: 7531-1975 'Method for Resistance test for corrosion resistance of stainless steel surgical instruments'. 10 sign of corrosion after the test

## **2. Plaster Cutter, Plaster spreader**

Company should provide material certificates.

Material--Stainless Steel

Grade-ISO5832-1



Material - Stainless steel conforming to designation 30Cr13 or 40Cr13 of IS : 6603-1972~'Specification for stainless steel bars and flats'.

Workmanship and Finish: Jaws shall open and close freely. Joints shall function smoothly. All edges shall be rounded. The spreader shall be free from rough edges, blemish, burrs, scales, rust or any other surface defects. The serrations for proper holding of the plaster cast shall be clear and clean. The spreader shall be finished smooth and passivated.

Heat Treatment-Spreader to 430 HV.

#### Tests

Corrosion Resistance Test -Test end autoclaving test for corrosion resistance -of stainless steel surgical instruments'. the spreader in accordance with IS: 7531-1975 'Method for boiling The spreader shall show no sign of corrosion after the test.

Rigidity size Test - Take a piece of hard wood of suitable dimensions preferably 100 x 200 x 40 mm Make a slit of 15 mm wide and 25 mm deep in the middle of 200 mm dimension. block at a suitable Fix the wooden place and put the jaws of the spreader in the slit. Apply a compressive force of 1 000 N to the handles of the spreader at a point of maximum convexity. Allow two minutes. the force to act for On completion of the test the spreader shall show no sign of damage or permanent set.

Marking -The spreader shall be legibly and indelibly marked with the manufacturers name, initials or recognised trade-mark

ISI Certification

Packing -As Mark - Details available with the Indian Standards Institution. agreed to between the purchaser and the supplier.

### **3. Manual plaster cutter**

Blade Material: Stainless Steel

Surface Recommendation: Acrylic

Power Source: manual

Special Feature: Brake

Speed 4500 RPM

Item Weight 200 g

Package Dimensions 15 x 5 x 5 cm; 200 g

Cutting saw

Material - Stainless steel conforming to designation 30Cr13 or 40Cr13 of IS: 6603-1972 'Stainless steel bars and flats'.

Workmanship and Finish

Blade portion shall be of uniform thickness, free from burrs, rust, scales and other defects.

Blade shall be reasonably straight to shape and size.

Blade shall be inserted in the slot of the handle and fixed with two points. Teeth shall be clean and uniform along the toothed edge.

Blade shall have a smooth surface and even edges except for its toothed edge which shall be sharp.

Handle portion shall be free from burrs-cracks, scales and other surface defects. handle shall be rounded.

plaster saw shall be finished smooth and passivated.

Heat Treatment- All edges of the Plaster saw shall be evenly hardened and tempered to give a hardness of 430 :O 430 HV when measured as near to the tip of the tooth as possible.

Tests

Corrosion Boiling and autoclaving Test - Test the plaster saw in accordance with IS : 7531-1975 'Method for Resistance test for corrosion resistance of stainless steel surgical instruments'. 10 sign of corrosion after the test

#### **4 Hand Bone Drill with Jacobs chuck**

Material — The materials used for the construction of the hand drills shall satisfy the requirements

1. Shall be light in weight. The approximate weight for Universal and Micro hand drills shall be 570 g and for Kirschner 1 kg
2. The gearing and bushing systems shall be made from wear resistance materials like bronze.
3. The materials shall be corrosion resistant or shall have protective finish.

#### 4. Workmanship and Finish

All components of the hand drill shall be smoothly and neatly finished with all burrs and sharp corners removed.

They shall be free from cracks, draw-marks, pits and other defects.

The gear teeth shall be machine cut, precision cast or precision forged. ^

The chuck shall be self-centering within guided jaws.

The chromium and nickel plating where necessary shall be done according to Service Grade 2 of IS : 1068-1968 'Specification for electroplated coatings of nickel and chromium on iron and steel

Surfaces liable to corrosion shall be enamel painted. Prior to painting, the surface shall be degreased, rust-proofed by phosphating and then suitably protected by anti-corrosive primer either by brushing or spraying and then finished by spraying in enamel or air-drying enamel of the specified shade. In every instance, each coat shall be separately stoved or air-dried as the case may be.

#### Tests

1. Accuracy of the Hand Drill Assembly — The dimensional accuracy of the components shall be such that the complete assembly functions efficiently and the total variations in reading of a dial indicator applied 25 mm in front of the chuck nose on a test bar 5 mm diameter which is rotated with the tool shall not exceed 0.5 mm.

2. Performance Test— A twist drill conforming to IS: 5803-1970 'Specification for twist drill used in Orthopedic surgery' of 4 mm diameter shall be fitted in the jaws of the chuck and a hole 20 mm deep shall be made in a bone. The hole so made shall be clean. There shall not be any jamming of the gears or back-lash during the drilling operation. The drill shall run smoothly. The gearing shall remain positively locked in mesh under all working conditions and the action of changing gear shall be smooth and positive.

Marking — The hand drill shall be marked with the manufacturer's name, initials or registered trade-mark.

ISI Certification Marking — Details available with the Indian Standards Institution.

Packing --- As agreed to between the purchaser and the supplier.

\*The Cannulated Pneumatic Drill handpiece - Compatible with

existing attachments

Cannulation with 3.2 mm diameter

Operating pressure : 6 - 7 bars (maximum 10 bars)

Weight of handpiece 600-800grams without any attachments

Power 120 w

Variable Speed from 0-900 rpm

Noise Level of max 75 db

Separate forward and reverse triggers

Safety Device to cut off air supply to drill on handpiece

Handpiece is compatible with radiolucent drive

Instant change between clockwise and counterclockwise rotation

Offers reliable protection of soft tissues with oscillating drill

attachment

Fully Autoclavable

Fully machine washable

All Attachments can be fitted on single handpiece

The reverse trigger automatically locks when the oscillating saw

and the reduction drive attachments are attached to handpiece

Jacob's Chuck attachment

Chuck capacity up to 0 to 6.5 mm

Cannulation of 3.2 mm diameter

Maximum Speed of 900rpm

Torque of 4-5 Nm

## **5. Radiolucent Splint for Upper limb**

splint can be bend easily at any angle ensures to keep lower or upper limb in surgeons desire position. it is Used as a temporary immobilizer of while shifting patient from any place to the hospital.

It is used as emergency splintage

Material:- Made of moldable wire and vinyl coated for a soft pliable surface finish

Weight :- Light weight and malleable

Sizes :- 2x24, 3x24 4x36 ,5x36,6x36

## **6. Radiolucent Splint for Lower limb**

Type: Splint

Limb: Upper limb

Material: Radiolucent material for X-ray transparency

Size: Available in various sizes for different patients

## **7. Thomas splint**

Material :-Carbon Fiber

Type Adult/Child

Folding size

900x220x180mm/800X180X170mm

Unfold size

1360x220x180mm/1180X180X170mm

Weight(Adult)

G.W. 11.5kg /25.3lbs

N.W. 2kg /4.3lbs

Weight(Child)

G.W. 9kg /19.1.8lbs

## **8. Dennis brown splint**

Brand:- Unbranded

Usage/Application:- Foot Deformity

Material:- leather and plastic

Mobility:- Adjustable

Size :- Small/ large for Paediatric age

### **9. Skin Traction**

Skin Traction is modified version of Buck's Extension. It is used for providing indirect traction to extremities.

Skin Traction Set pack consists of:

Foam Line

Spreader Block

Elastic compression roll

Traction Cord

### **10. Skeletal Traction**

This consists of BB splint, Steinmann Pin / ( K wire ), Bohlar stirrup

A. Steinmann pins

Material and mechanical requirements are covered under ISO 5838-1

Dimension :- diameters of the pins are with diameters of 3.5,4.5, 5 and length of 125 to 300

Ends

General :- one end of the pin shall be formed into point and other end round.

Marking of the packages

Length and diameter of Steinman skeletal pin and shape of the end (circular, square, triangular) shall be stated on the packaging

B. Kirschner wire / Steinmann pin

Material --- Shall be austenitic stainless steel, wrought cobalt chromium alloy or titanium alloy

#### Austenitic Stainless Steel

Composition — The composition of the material shall be in accordance with A-1.1 of IS : 5347-1969 ' General requirements of metal surgical implants \

Condition — The wires shall be in the cold drawn condition but may have received stress relieving treatment at a temperature not exceeding 450°C.

Tensile strength — The minimum tensile strength shall be 1 550 N/mm<sup>2</sup> .

#### Cobalt Chromium Alloy

Composition — The composition of the alloy shall be in accordance with A-3.1 of IS : 5347-1969

Condition — The wires shall be in the cold drawn condition but may have received stress relieving heat treatment in inert atmosphere.

Tensile strength — The minimum tensile strength shall be 1 280 N/mm<sup>2</sup> .

#### Titanium Alloy

Composition — The composition of the alloy shall be in accordance with A-4.1 of IS: 5347-1969.

#### C. Guide wire

Material — Shall be austenitic stainless steel, wrought cobalt-chromium alloy or titanium alloy in

Austenitic Stainless Steel — Shall be in accordance with A-1.1 of IS : 5347-1 969 ' General requirements of metal surgical implants "' and shall meet the requirements of the corrosion resistance test as given in 6.1.1 of IS : 5347-1969.

Condition — The wires shall be in the cold drawn condition but may have received stress relieving treatments a temperature not exceeding 450° C.

Tensile strength — The minimum tensile strength shall be 1 550 N/mra<sup>2</sup> .

Wrought Cobalt-Chromium Alloy — Shall be in accordance with A-3.1 of IS : 5347-1969.

Relieving heat treatment in inert atmosphere. 3.2.2 Tensile strength — The tensile strength of guide wires shall not be less than 1 280 N/mm<sup>2</sup> .

Condition — The guide wires shall be in the cold drawn condition and centreless ground.

Tensile strength — The tensile strength shall be between 1 150 N/mm<sup>2</sup> and 1 400 N/mm<sup>2</sup>.

#### Hardness

The guide wires shall have a hardness of 200 to 300 HV

#### Workmanship and Finish

The guide wires shall be free from seams, laps, draw marks, cracks, pits, etc. The guide wires shall not be brittle.

- Unless otherwise stated, the wires shall be well polished.

#### D. Threaded Pin

Shape and dimensions:- deviation of  $\pm 2.5$  percent shall be allowed on dimensions where not otherwise specified.

Ends — The point shall be conical or trocar in shape having a diameter not greater than the diameter of the pin. The end opposite to the point shall have a three faced shank suitable for fitting to a 3-jaw chuck. The length of the triangular portion of the shank shall be  $15 \pm 2$  mm.

When threaded fixation pins are used, the conical point is recommended in order to facilitate removal as the trocar point tends to become locked in the bone preventing rotation.

Diameter — The diameter of the pins and wires shall be 2.50 mm and 3.15 mm ( see IS : 1137-1969 Specification for thicknesses of sheet and diameters of wire ).

Length — Shall be 90 mm to 130 mm in 10 mm steps as specified by the purchaser.

Screw Threads — Screw threads used with pins of 2.50 mm and 3.15mm diameter respectively shall be M 2.5 x 0.45 and M 3 x 0.50 ( medium class fit, isometric screw threads in accordance with IS : 4218 ( Part II )-1967 ' ISO metric screw threads: Part II Pitch diameter combinations

Nuts — If nuts are used with threaded pins, the external form of the nuts shall be hexagon and the width across flats shall be 8 mm. Internal threads of the nuts shall match the threads on the appropriate pins or wires.

Material — Shall be austenitic stainless steel, wrought cobalt-chromium alloy or titanium alloy in accordance with the requirements specified in 3.1 to 3.3.2.

Austenitic Stainless Steel — Shall be in accordance with A-1.1 of IS : 5347-1969 ' General requirements of metal surgical implants 1 and shall meet the requirements of the corrosion resistance test given in 6.1.1 of IS : 5347-1969.



Condition --- The pins and wires shall be in the cold drawn condition but may have received stress relieving treatment at a temperature not exceeding 450°C.

Tensile strength --- The minimum tensile strength of pins and wires shall be 1 550 N/mm<sup>2</sup>.

Wrought Cobalt-Chromium Alloy --- Shall be in accordance with A-3.1 of IS : 5347-1969.

Condition --- The pins and wires shall be in the cold drawn condition but may have received stress relieving heat treatment in inert atmosphere

#### Marking

The packet containing guide wires shall be clearly and indelibly marked with the following:

- a) Manufacturer's name, initials or recognized trade-mark;
- b) Name of the material; and
- c) Size.

ISI Certification Marking--- Details available with the Indian Standards Institution.

### 11. Socket wrench

It is made from high grade steel, forged and accurately machined. Hardened and tempered to give long trouble free service.

Appropriate surface protection for rust prevention.

Socket Type Impact Socket

Material Stainless Steel 316 L., Aluminum, Carbon Fiber

Color Silver

Weight 40-80 gm

### 12. K wire cutter (specifically Self holding type)

Material --- For pliers stainless steel conforming to Designation 30Cr13 of Schedule V of IS;

1 570-1961 ' Schedules for wrought steels for general engineering purposes

For screw stainless steel conforming to Designation 22Cr13 of Schedule V of IS: 1570-1961.

Self-holding of broken fragment should be available with the cutter.

Preferably carbide cutting edges.

#### Workmanship and Finish

The two halves of the cutter shall move freely about the joint without any play and shall open fully. The instrument shall be balanced, the movement shall be even and the jaws shall register accurately.

The surfaces of the cutters shall be finished smooth except the outside surface of handles which shall have matt finish. The edges shall be even, free from pits and rounded except the cutting edge which shall be sharp.

Screw joint conforming to 6 of IS:3642-1966 'General requirements for surgical instruments  
The screw used shall be of slotted raised cheese head pattern

The profile of the screw-thread shall conform to IS: 421 8 (Part I) -'ISO Metric screw threads—Basic and design profiles'. The thread shall be of such length as to allow sufficient shank for proper bearing surface and to adequately secure component parts of the cutters with proper tension for cutting\* The screw shall retain proper position after setting without binding or loosening. The ends of the screw in the joint shall be finished flush with the surface.

The cutter shall be suitably passivated and polished. ,

Heat Treatment --- The cutter shall be uniformly hardened and tempered to 600 to 600 W.

#### Tests

Practical Test --- The cutter shall be tested by cutting 0\*50 mm diameter orthodontic stainless steel wire ( hard drawn ). The wire shall be cut easily and cleanly. The test shall be carried out six times at the same place on the cutting edge of the cutter. On completion of the test, the cutter, in particular the cutting edge, shall show no sign of damage.

Corrosion Resistance Test --- As given In 8 of IS : 3887-1 966 ' General requirements for cutting type dental instruments '.

Marking --- Each cutter shall be legibly and Indelibly marked with the manufacturer's name, trade-mark; the letters 'SS '; and the country of manufacture.

ISI Certification Details available from the Indian Standards Institution,

### 13. T handle with Jacobs chuck

Design : Ergonomic T-shaped handle for controlled rotation and enhanced grip.

Visibility: Slender shaft design for an optimal visual field during procedures.

Material: Constructed from premium grade materials for long-lasting reliability.

Versatility: Includes a chuck key for secure attachment of K-wires and drill bits.

Application: Ideal for bone surgeries, particularly in treating and repairing fractures.

#### **14.. Pliers**

Material;- stainless steel conforming to designation 20Cr13 of IS; 6603-1972

Workmanship and finish

Two halves of pliers must shall move freely about the joint without any play and shall open fully. The movement of instrument should be even and the jaws shall register accurately.

Surfaces of the plier shall be finished smooth except the outside surface of handle which shall have matt finish, edges shall be even round free from pits.

Plier shall be passivated and polished bright.

Heat treatment: plier shall be uniformly hardened and tempered to 370 - 410 HV

Corrosion resistance test: scrub the sample with soap and warm water, rinse in hard water and dip in 95 percent ethyl alcohol. Dry the sample and immerse in copper sulfate solution at room temperature for 5 minutes and wash off with fresh water or wipe with wet cotton wool.

Marking : each plier shall be legibly and indelibly marked with manufacturers name initials or trade mark, Letter SS and country of manufactures.

ISI Certification marking: Details available with Indian standard institution.

Flat Nose type

Flat-nose, or duckbill, pliers have long, narrow, flat jaws.

Locking type

Locking pliers can be locked into position with use of a bolt positioned on one handle, which is used to control the spacing of the jaws.

Needle Nose type

Needle-nose, or long nose, pliers have long, narrow jaws that are used in small areas.

Punch type

Punch pliers have a hole punch that are used to make small holes in soft materials.

Retaining-Ring type

Retaining-ring pliers have pointed, narrow jaws that are used to manipulate retaining-rings.

Round-Nose type

Round-nose pliers have pointed, narrow jaws that are used for working with small objects.

Slip Joint

Slip joint pliers have flat jaws and adjustable size setting for use with different size objects

**15,16,17,18 Minor ot, sterile dressing, sterile suturing, suture removal sets**

S. no.	Instruments	Specifications
	Bone Holder Size – 100mm Size – 170mm	<p><b>MATERIAL:</b> The material shall be stainless steel conforming to Designation X30Cr13 of IS 1570 (Part 5).</p> <p><b>WORKMANSHIP AND FINISH:</b> The teeth, threads, and knurling, wherever provided, shall be well formed and clean. The instrument shall be symmetrical and well balanced. It shall be free from cracks, burrs, pits, flaws, seams, and other surface defects. The clamping screw shall move smoothly and shall not come off the detachable jaw. The guide recess shall be uniform and sliding motion of the detachable jaw shall be smooth and free from jerks. The detachable jaw shall be capable of being detached from the main part and when tightened it shall have no side play.</p> <p>The instrument shall be passivated and polished bright.</p> <p><b>HEAT TREATMENT:</b> The instrument shall be hardened and tempered to 410 to 460 HV.</p> <p><b>Corrosion Resistance Test :</b> The forceps shall satisfy the requirements when tested in accordance with IS 7531.</p>

		<p>The clamp shall be legibly and indelibly marked with the identification of the source of manufacture; designation of the instrument and letters 'SS' to indicate that the instruments are made of stainless steel.</p> <p>BIS Certification Marking : The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the Bureau of Indian Standards Act, 2016 and the Rules and Regulations framed there under, and the product(s) may be marked with the Standard Mark.</p>
	Bone cutter	<p>MATERIAL : The material shall be stainless steel conforming to Designation X30Cr13 of IS 1570 (Part 5).</p> <p>The two halves of the cutter shall move freely about the joint without any play and shall open fully. The instrument shall be balanced, the movement shall be even and the jaws shall register accurately.</p> <p>The surfaces of the cutters shall be finished smooth except the outside surface of handles which shall have matt finish. The edges shall be even, free from pits and rounded except the cutting edge which shall be sharp.</p> <p>Joint - Screw joint conforming to 6 of IS : 3642-1 960 ' General requirements for surgical instruments . The screw used shall be of slotted raised cheese head pattern. The profile of the screw-thread shall conform to IS : 4218 ( Part I ) - 1967 ' ISO Metric screw threads - Basic and design profiles . The thread shall be of such length as to allow sufficient shank for proper bearing surface and to adequately secure component parts of the cutters with proper tension for cutting. The screw shall retain proper position after setting without binding or loosening. The ends of the screw in the joint shall be finished flush with the surface.</p> <p>The cutter shall be suitably passivated and polished</p> <p>Marking - instrument shall be legibly and indelibly marked with the manufacturer's name, initials or recognized trade marks.</p>
	Bone chisel	<p>MATERIAL : The material shall be stainless steel conforming to Designation X30Cr13 of IS 1570 (Part 5).</p> <p>The chisels shall be free from pittings, burrs, cracks, seams and other surface defects.</p> <p>The surface of the chisels shall be passivated and finished smooth and bright.</p> <p>The edges shall be even and rounded except the cutting edge which shall be semi-sharp, and shall be free from nicks, feathers when viewed at a magnification of 10 X.</p>

		<p>The cross cuts shall be uniform and regular and shall provide a firm grip to the hand.</p> <p>Performance Test -By holding the straight chisel in one hand and a 1 kg hammer in the other, try to shape by chiselling a block of well-seasoned teak wood along with the grain of the timber in 12 to 20 blows. For chiselling, hold the chisel at 75 degree to the block. On completion of the test, the edge shall not show any sign of damage when viewed under a magnification of 10 X. To test the rectangular chisel try to scrape the block of teak wood in 10 to 12 strokes using a moderate pressure of the hand. The chisel shall do this smoothly and cleanly and shall show no sign of damage to the edge when viewed under a magnification of 10 X.</p> <p>Corrosion Resistance Test-Scrub the sample with soap and warm water, rinse in hot water and then dip in 95 percent ethyl alcohol. Dry the sample. Immerse in copper sulphate solution at room temperature for 6 minutes and wash off with fresh water or swab with wet cotton wool.</p> <p>Marking - The chisels shall be legibly and indelibly marked with the manufacturer's name, initials or recognized trade-mark and the letters ' SS '.</p>
	Bone Rasp	<p>MATERIAL : The material shall be stainless steel conforming to Designation X30Cr13 of IS 1570 (Part 5).</p> <p>The surfaces of the rasps except for the tines and threads shall be smooth and free from pitting. The edges shall be even and rounded. The tines shall be well formed. The form and pitch of the threads shall be correct. The male part of rasp shall screw accurately into the female parts of rasp. The male rasp of one set shall fit accurately into the female rasps of any other set in the same supply and vice versa.</p> <p>The surface of the working ends shall be free from all defects like burrs, pits, cracks, nicks and waviness when examined under x 10 magnification. All surfaces shall be free from pores, crevices and grinding marks.</p> <p>The rasps shall be supplied free from residual scales, acid, grease and grinding and polishing materials. Compliance with these requirements shall be checked under x 2 magnification.</p> <p>Hardness - Rasp shall be accurately and evenly hardened and tempered to give a hardness of 650 to 750 HV.</p> <p>Marking - rasp shall be legibly and indelibly marked with the manufacturer's name, initials or recognized trade marks.</p>
	Retractors	<p>Instrument should meet the IS 8855 : 1978 standards.</p> <p>The retractor shall be well and evenly finished.</p>

	(Langenbeck's Pattern )	<p>The retractor shall be free from burrs, pits . cracks and other surface defects.</p> <p>The edges of blades should be properly rounded.</p> <p>Hardness – Retractors shall be accurately and evenly hardened and tempered to give a hardness of 380 to 430 HV.</p> <p>Marking - retractor shall be legibly and indelibly marked with the manufacturer's name, initials or recognized trade marks.</p>
	Curved Artery Forceps	<p>MATERIAL : The material shall be stainless steel conforming to Designation X30Cr13 of IS 1570 (Part 5).</p> <p>The joint of the forceps shall be box type, conforming to 13.2.2 of IS 3642 ( Part 1 ) : 1990.</p> <p>he serrations shall be transverse type, conforming to Section 2 of IS 3642 ( Part 1 ) : 1990.</p> <p>The working ends shall be shaped as shown in Fig. 1. The teeth at the tip and the serrations on the working portion shall fit accurately. The engagement shall commence at the tip of the working ends and shall progress along the serrations.</p> <p>Ratchet teeth shall be of combination 3 in 3 and shall conform to the requirements of Section 4 of IS 3642 ( Part 1 ) : 1990.</p> <p>Marking - instrument shall be legibly and indelibly marked with the manufacturer's name, initials or recognized trade marks.</p>
	Detachable Blade Handles (Bard Parker Type)	<p>The thickness of the blade shall be between 0°37 and 0-42 mm. Both surfaces of the blade and all the sides of the slot shall be uniform and free from roughness and waviness, when inspected with normal or corrected vision.</p> <p>WORKMANSHIP AND FINISH The cutting edge of the blade shall be central with respect to the thickness of the blade and it shall be in one plane, when examined with normal or corrected vision. The - blade shall fit to the corresponding mount of ' the handle snugly. The blade shall be flat and shall not be sprung.</p> <p>The handle surface shall be finished smooth with bright or matt finish. The handles shall be provided with suitable grips for good hold. The grips shall have their edges suitably rounded so as not to injure the hands of the user. The handle shall be free from burrs, sharp or rough edges, pits, cracks and other surface defects. The edges of the handle shall be chamfered. Handles shall be passivated</p> <p>NOTE — The commonly used commercial designations for blades are No. 10, 11, 12, 15, 20, 21, 22, 23, 24 and 25; and for handles are No. 3, 3L, 4, 5, and 7.</p>

		<p>Marking - instrument shall be legibly and indelibly marked with the manufacturer's name, initials or recognized trade marks.</p>
	<p>Gigli pattern wire saw (sizes 30, 40, 50, 60 and 70 cm.)</p>	<p>Main Wire - Conforming to Grade 1 of Section II of IS : 4454-1967 Specification for steel wires for cold formed springs ;  Cross Wire - Conforming to Grade 3 of Section II of IS : 4454-1967.  Loop Wire -Conforming to Grade 1 of Section II of IS : 4454-1967  Workmanship -Winding of cross wire over main wire and intertwining of main wires shall be Uniform . The loop wire shall be interwoven at end with the main wires and soldered with tin-lead solder conforming to Grade Sn 65 of IS : 193-1966. Soldering shall be done carefully so as not to weaken the loop ends. Finish - The wire saw shall be chromium-plated to give a minimum thickness of 0.3 um.  Performance Test -The wire saw shall cut a piece of fresh sheep bone of at least 10 mm thickness without sticking or slipping. After the test the wire saw shall not show any sign of damage. It is recommended that the wire saws should be packed individually in transparent polyethylene bags and each bag should contain a label marked with the length of the wire saw, manufacturer's name and country of origin.</p>
	<p>Scissors</p>	<p>Screw used shall be of a slotted cheese head. The profile of the screw thread shall conform to IS : 4218 ( Parts 1 to V) '150 metric threads'. The threads shall be of such length as to allow sufficient shank for proper bearing and adequately secure the two halves of scissors with proper tension for cutting. Screw shall retain position after setting, without binding or loosening during use and shall be flush with the surface of the blades.  The distance across the face of the cutting bevel edge shall be not less than 0.5 mm, except at the extreme tip of sharp-pointed blades where it shall not exceed 0.5 mm.  Material - The scissors shall be made of stainless steel conforming to Designation 30Cr13 or 40Cr13 of IS : 6603-1972 'Specification for stainless steel bars and flats'.  Workmanship and Finish: The scissors shall be free from rough edges, cracks, seams, burrs and other defects. The edge shall be even and rounded except for the cutting edge which shall be sharp. The cutting edges shall be free from nicks, feathers, jags, waviness and burrs.  The scissors shall be made symmetrical.</p>



		<p>The joints shall work smoothly and shall not have any play. They shall also satisfy the requirements given in Section 2 of IS : 3642-1978 'General requirements for surgical instruments ( first revision )'.</p> <p>Heat Treatment - The scissors shall be hardened and tempered to give a hardness of 500 to 600 HV</p> <p>Performance : The scissors shall cut from pinch to tip wet tissue paper, teased out cotton wool, fine hair and frayed lint accurately and cleanly. The tip shall cut chamois leather neatly. The test shall be carried out with both right and left hand. The scissors shall cut 5 layers of dressing cloth in lengthwise direction for a total length of 1 km cleanly. The scissors shall not be damaged, when examined after the test.</p> <p>Corrosion Resistance -The instruments shall show no sign of corrosion when put to boiling and autoclaving test in accordance with IS : 7531-1975 'Method for boiling and autoclaving test for corrosion resistance of -stainless steel surgical instruments.'</p> <p>Marking -The scissors shall be clearly and indelibly marked with the following:</p> <p>a) Manufacturer's name, initials or recognized trade-mark; and b) The words 'Stainless Steel' or 'SS'.</p>
	Gauge Pack	Cotton with bandage , size 4 X 2 inches
	Suture Pin removal	Metallic with plier action

