

Specification of General Neurosurgery Instrument

SI No	Description	Qty
1	COATED BRAIN SPATULA SIZE S	3
2	COATED BRAIN SPATULA SIZE M	3
3	COATED BRAIN SPATULA SIZE L	3
4	COATED BRAIN SPATULA SIZE XL	3
5	LUCAE FORCEPS BAYO SERR140MM	2
6	LUCAE FORCEPS BAYO 1X2 140MM	2
7	FERG-FRAZIER SUCT 9FR 3/110MMWRK-LGTH	2
8	FERG-FRAZIER SUCT 7FR110MM WRK-LGT	2
9	FERG-FRAZIER SUCT 12FR 110MM WRK-LGT	2
10	#1 PENFIELD DISSECTOR 175MM	2
11	#2 PENFIELD DISSECTOR 195MM	2
12	#3 PENFIELD DISSECTOR 195MM	2
13	#4 PENFIELD DISSECTOR 205MM	2
14	WEITLANER RETRACTOR 2X3T.BL.110MM	2
15	YASARGIL TUMOR FORCEPS 3MM 220MM	2
16	YASARGIL TUMOR FORCEPS 5MM220MM	2
17	MICRO HOOK SEMI SHARP STR.230MM	2
18	MICRO HOOK BLUNT230MM	2
19	DANDY DELICATE FORCEPS CVD140MM	10
20	ADSON FORCEPS SERR 120MM	2
21	ADSON TISSUE FCPS FINE W/1X2T 120MM	2
22	VENTRICULAR CANNULA DANDY	2
23	VENTRICULAR CANNULA CUSHING CAIRNS	2
24	VENTRICULAR CANNULA CUSHING-CAIRNS	2
25	YASARGIL SCISSORS BAYO ST/B 200MM	2
26	TUNNELING INSTRUMENT 450MM	2
27	TUNNELING INSTRUMENT 300MM	2
28	ADAPTER F/OR TABLE W/BALL/SOCKET JOINT	2
29	HOLDING ROD F/FF280R-84R	2
30	COUPLING HEAD F/1-5 FLEX ARMS FF270R	2
31	COUPLING HEAD LAT OPEN	2
32	FIXATION BASE SKULL MOUNT F/2 FF270R	2
33	FIXATION BASE BAR MOUNT F/1 FF270R	2
34	YASARGIL FLEX ARM/COUPLING HEADS&BASES	2
35	FLEX ARM SUPPORT F/FLAT BRAIN SPATULAS	2
36	BRAIN SPATULA SUPPORT W/RND SHAFT-5.5MM	2
37	FIXATION BASE SKULL MOUNT F/2 FF270R	2
38	MAIER FORCEPS W/RCHT CVD260MM	2
39	TC BABY-METZ SCISSORSDEL CVDB/B145MM	1
40	TC TOENNIS-ADSON SCISS DEL CVD 175MM	1
41	JAMESON TENOTOMY SCISSDEL CVDB/B150MM	1

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42	SCHMIEDEN-TAYLOR DURA SCISSORS 155MM	1
43	TC MAYO-LEXER SCISSORS CVD 165MM	1
44	GERALD TISSUE FCPS STR 1X2 175MM	1
45	GRUENWALD FORCEPS BAYO SERR 200MM	1
46	IRIS SCISSORS CVD S/S 110MM	1
47	KOCHER-OCHSNER FORCEPS STR 1X2 160MM	1
48	TC DE'BAKEY NDL HOLDER DEL SERR 180MM	1
49	MUELLER MICRO-FORCEPS 0.15MM 110MM	1
50	MUELLER MICRO-FORCEPS 0.20MM 110MM	1
51	MUELLER MICRO-FORCEPS 0.30MM110MM	1
52	CERULLO SUCTION REGULATOR	2
53	KERRISON THIN-FT 130DG-UP 1MM 180MM	1
54	KERRISON THIN-FT 130DG-UP 2MM 180MM	1
55	KERRISON THIN-FT 130DG-UP 3MM 180MM	1
56	SCOVILLE LAMINECTOMY RETRACTOR	1
57	ECHLIN BONE RONGEURJAW 2X10MM 230MM	1
58	ECHLIN BONE RONGEUR JAW 3X10MM 230MM	1
59	DISSECTOR LIGHT MODEL	1
60	LUER-STILLE BONE RONGEUR STR 225.MM	1
61	LUER-STILLE BONE RONGEUR CVD 225MM	1
62	LISTON-STILLE BONE-CUTTING FCPS 265MM	1
63	BRUNS CURETTESTRHEX HNDL230MM SZ 000	1
64	BRUNS CURETTESTRHEX HNDL230MM SZ 00	1
65	BRUNS CURETTESTRHEX HNDL230MM SZ 0	1
66	BRUNS CURETTESTRHEX HNDL230MM SZ 1	2
67	BRUNS CURETTESTRHEX HNDL230MM SZ 2	1
68	BRUNS CURETTESTRHEX HNDL230MM SZ 3	1
69	BRUNS CURETTESTRHEX HNDL230MM SZ 4	1
70	BRUNS CURETTESTRHEX HNDL230MM SZ 5	1
71	BRUNS CURETTESTRHEX HNDL230MM SZ 6	1
72	CASPAR LUMBAR RETRACTOR CPL.	1
73	WATSON-CHEYNE DISSECTOR LGTH 127MM	2
74	WATSON-CHEYNE DISSECTOR LGTH 191MM	2
75	ANDERSON-ADSON RETR 4X4 SHARP 190MM	2
76	ADSON RETRACTOR 3X4 SHARP 265MM	1
77	ADSON LAMIN RETR 5X4 SEMI-S 325MM	1
78	ADSON-BABY RETR.3X4 SEMI-S W JOINT 165MM	1
79	DANDY DELICATE FORCEPS CVD140MM	5
80	SKULL TRACTION TONG LARGE	2
81	KOCHER-OCHSNER FORCEPS STR 1X2 200MM	1
82	TC MAYO-HEGAR NDL HOLDERHVYSERR205MM	1
83	TC NEEDLE HOLDER X-DEL SERR200MM	1
84	LOVE NERVE ROOT RETRACTOR BAY-SH.210MM	1
85	PEAN FORCEPS STR 140MM	1

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86	FLAT-NOSED PLIERS PARALLEL 185MM	2
87	SUTURE SCISSORS STR S/S 130MM	2
88	SUTURE SCISSORS CVD S/S 130MM	2
89	SUTURE SCISSORS STR B/B 130MM	2
90	SUTURE SCISSORS CVD B/B 130MM	2
91	JOSEPH SCISSORS STR S/S 150MM	2
92	JOSEPH SCISSORS CVD S/S 150MM	2
93	DE'BAKEY ARTERIOTOMY SCISSORS CVD 175MM	2
94	TOENNIS-ADSON SCISSORS DEL CVD175MM	2
95	MAYO SCISSORS RND BLD STR 200MM	2
96	SCALPEL HANDLE #3 WITH MEASURE 125MM	2
97	ADSON FORCEPS SERR 120MM	2
98	TISSUE FORCEPS SERR 160MM	2
99	DISSECT.FORCEPS W/O T.MED.WIDE 200MM	2
100	FERRIS-SMITH FORCEPS 175MM	2
101	ADSON TISSUE FCPS FINE W/1X2T 120MM	2
102	STANDARD TISSUE FORCEPS 1X2 145MM	2
103	LANE DISSECTING FORCEPS 145MM1X2 TEETH	2
104	MAYO-HEGAR NEEDLE HOLDER150MM	2
105	KOCHER RETRACTOR 1-PRONG SHARP220MM	2
106	VOLKMANN RETRACTOR1-PRONGBLUNT220MM	2

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NEUROENDOSCOPE

4K Camera System

- The system should be Digital endoscopic video camera with maximum Resolution of 3840 X 2160 pixels, progressive scan to guarantee genuine 4K.
- The system should have facility of 3x Digital Zoom Lens or more.
- The system should have facility for capturing 4K UHD HD Stills and FULL HD Videos in External USB drive.
- System should have facility to offer various visualization modes for surgery and diagnosis by shifting the color spectrum like **BLUE & GREEN** light for recognition of the finest tissue Structures and their differentiation.
- Picture in Picture of visualization modes.
- Automatic adjustment of light intensity of light source.

Technical Specifications:

Pixels: 3840 X 2160 Pixels

AGC: Microprocessor controlled

Lens: Integrated Zoom Lens f = 18 mm

Color Space: BT.2020 emulation

Control buttons: 3 (2 of them freely programmable).

Video output: 1 Display Port 1.2 ,1 x DVI-D output, 1 x 12G-SDI output,
3 x camera input for communication with compatible camera
modules, LAN connection, 4 x USB connection (2 x front, 2 x back).

Input: Keyboard input for character generator.

Power Supply: 200-240 VAC 50/60 Hz

Certified to: IEC 601-1, 601-2-18, CSA 22.2 No. 601, UL 2601 and CE

31 Inch & 55 inch - 4K Monitor 1 each

The monitor should have:

Color Space – BT.2020 emulation, Adobe RGB 97%

Aspect ratio: 16:9

Screen Diagonal: 31.1”

Effective Resolution: 3840 X 2160 Pixels

Brightness: 350cd/ m²

Max. observation angle: 178° vertical/horizontal.

Inputs: 1 x DP 1.2 ,2xDVI-D ,4 x 3G-SDI / 1X 12G SDI

Outputs: 1 x DVI-D ,4 x 3G-SDI/1X 12GSDI

Contrast ratio: 1500:1.

Certified to: ANSI/AAMI ES60601-1:2005, UL 60601-1, CAN/CSA C22.2 NO.60601-1:14

CE label according to MDD, class I.

Power LED 300 with Fiber optic cable

Should have touch display which provides an intuitive & user-friendly interface that directly displays relevant data

Cold Light Fountain LED Light Source

Lumens : 2100 and above


Color Temperatures 6000K

Light Outlets – 1

Lamp life of approx. 30,000 hrs

4.8mm Fiber Optic Cable and 300cm Long

Certified To: - IEC 601-1 & UL 544 CE According to MDD, protection class 1/CF


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IMAGE/VIDEO RECORDING AND DATA ARCHIVING SYSTEM

- State of the art user friendly Medical grade system (certified to be used in OT) should be offered with following features,
- User should have full control of the system from the sterile field via camera head buttons, optional touch screen, optional foot switch.
- Parallel (synchronic or independent) recording of two image sources.
- Still images and videos (optional with audio) in 2D, 3D or 4K.
- Internal memory 2 TB
- Playback of 2D, 3D and 4K content
- Viewable Diagonal (inches):12.5".
- Type approval: IEC 60601-1-1, EN60601-1, EN60601-2.
- Classification: CE, MDD, CSA.

Imported Endoscopic Trolley

Endoscopic Trolley Comaptible with the above system from the same manufacturer should be provided.

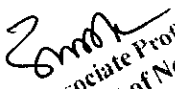
Instrumentation Set for Percutaneous Lumbar Interlaminar and Transforaminal Endoscopic surgery without GA (General Anaesthesia)


Telescope & Sheath

1. Wide Angle Telescope 25" oblique view, outer diameter 6.6 mm, working channels diameter 3.6 mm, length 18 cm, autoclavable, fiber optic light transmission incorporated - 1
2. Operating Sheath, distal 45" oblique, integrated irrigation adaptor, outer diameter 7.5 mm, inner diameter 6.8mm, length 17 cm. - 1
3. Dilation Sleeve, with two ports, outer diameter 6.5 mm, inner diameter 1.4 mm, length 22 cm, color code : red - 1
4. Punch Sleeve, for use with operating sheaths - 1
5. Fixation Handle, for adjustment of dilation sleeves with outer diameter 2.5– 6.5 mm

Hand Instruments

6. Purcture Needle, including stylet, diameter, diameter 1.2 mm, working length 25 cm, with 0.8 mm opening for guide wire - 1
7. Guide wire, blunt on both sides, \emptyset 0.7 mm, working length 41 cm, package of 5 pc. - 1
8. X-ray Ruler, with special marking for midline and 2 mm and cm-slots for radiologic measurement, total length 30 cm - 1
9. Mallet, with Nylon replacement, length 22.5 cm -1
10. Palpation Hook, rotating, dismantling, not insulated, without connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, with distal ball, bendable


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to 90°, diameter 2.7 mm, working length 36 cm consisting of: Metal handle, without ratchet, with plastic rings with larger contact area Outer Sheath with Palpation Hook Working Insert. - 1
11. Palpation Hook, with distal ball, bendable to 90o, with irrigation connector for cleaning, diameter 3.5mm, working length 36cm, consisting of: metal Handle, without ratchet, Outer Sheath with palpation Hook Working Insert.-1
12. Palpation Hook, distally angled 45 o, diameter 2 mm, working length 34 cm. - 1
13. Dissector, 2.6mm, working length 36 cm, distally 45° bended.- 1
14. Forceps with distal hook, rotatable, single action jaws, size 3.5mm, working length 36cm, consisting : Plastic Handle, without ratchet with connector pin for unipolar coagulation, Biopsy forceps insert with distal hook, working length 36 cm, diameter 3.5 mm - 1
15. Grasping forceps with 90° opening, single action jaws, 3.5mm, working length 36mm - 1
16. Grasping Forceps, double action jaws, diameter 2.7 mm, length 36 cm. - 1
17. Grasping Forceps, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with-Lock-adaptor for cleaning, single action jaws, fenestrated, size 3 mm, length 36 cm consisting of: Plastic Handle, without ratchet, Outer Sheath, with forceps insert - 1
18. Deflectable punch, 3.5mm, working length 360 mm.
19. Trephine, inner diameter 1.6 mm, outer diameter 2.7mm, working length 30 cm with edged handle. - 1
Bipolar & cords
20. Angled bipolar probe, 2.5 mm, working length 36 cm consisting of Bipolar probe insert, Sheath for probe, Bipolar Spring Handle. -1
21. Bipolar High Frequency Cord with 2 x 4 mm banana-plug, length 300 cm. - 1
22. Bipolar High Frequency Cord, Length 300 cm. - 1
Containers for Sterilization
23. Plastic Container for Sterilizing and Storage, perforated, with transparent lid, with insert for two angled rigid telescopes, external dimensions (w x dx h): 515 x 240 x 84 mm - 1
24. Plastic container for Sterilizing and storage, perforated, with lid, for twolevel storage, for use with 30 cm and 36 cm Click Line – instruments, external dimensions (w x d x h): 600 mm x 145 mm x 260 mm
Endoscopic Lumber Disectomy & Root decompression for all types if disc herniation from Central to Far – lateral disc and for treatment of Lumber stenosis along with bi –

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lateral decompression using Unilateral Approach	
Telescope	
1.	Forward - Oblique Telescope 30°, eyepiece angled 45°, diameter 4mm, length 9.5 cm, autoclavable, fiber optic light transmission incorporated - 1
Localizer	
2.	Puncture Needle, including stylet, diameter 1.8 mm, working length 18 cm, with 1.3 mm opening for guide wire. -1
3.	Guide wire, not sterile, diameter 1.2 mm, length 31 cm, package of 10 - 1
Dilation sleeves	
4.	Dilation Sleeve, OD5.2 mm, ID 1.5 mm, graduated, length 23 cm, colour code white - 1
5.	Dilation Sleeve, OD 8.9 mm, ID 5.3 mm, graduated, length 21 cm, colour code yellow -1
6.	Dilation Sleeve, graduated, inner diameter 9 mm, outer diameter 12.7 mm, length 19 cm, color code : orange -1
7.	Dilation Sleeve, OD 14.9 mm, ID 12.9 mm, graduated, length 17 cm, colour code red -1
8.	Dilation Sleeve, OD 16.9mm, ID 15.1mm, graduated, length 15 cm, colour code green - 1
9.	Dilation Sleeve, OD 18.9mm, ID 17.1mm, graduated, length 14cm, colour code blue - 1
10.	Dilation Sleeve, OD 20.9mm, ID 19 mm, graduated, length 13 cm, colour code black -1
Trocar & Attachments diameter 15 cm	
11.	Trocar, diameter 15 mm, working length 70 mm, for use with Attachment and Telescope 30°. -1
12.	Attachment diameter 15 mm for use with Trocar and telescope -1
13.	Telescope sheath, movable, for use with Telescope 30° and attachments. -1
14.	Telescope Sheath - 1
Trocar & Attachments diameter 19 mm	
15.	Trocar, diameter 19 mm, working length 74 mm, for use with Attachment and Telescope - 1
16.	Trocar, diameter 19 mm, working length 97 mm, for use with Attachment and Telescope 30°. -1
17.	Attachment, diameter 19 mm, for use with Trocars and Telescopes 30°- 1
Trocar & Attachments diameter 23 mm	
18.	Trocar, diameter 23mm, working length 76 mm, color code : black, for use with


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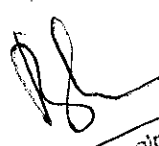
Attachment. - 1
19. Trocar, diameter 23 mm, working length 99 mm, color code : black, for use with Attachment and Telescope 30°. -1
20. Attachment, diameter 23 mm, for use with Trocars, and Telescopes 30°. -1
Bone Punches
21. Bone Punch, dismantling, 90° upbiting, not through-cutting, 2 mm, working length 24 cm - 1
22. Bone Punch 40° upbiting forward, size 2 mm, working length 24 cm -1
23. Punch, dismantling, bayonet-shaped, fixed, downbiting 40° forward, 2 mm, working length 17 cm. - 1
24. Punch, dismantling, bayonet-shaped, fixed, upbiting 40° forward, 2 mm, working length 17 cm -1
Hand Instruments
25. Spoon Forceps, dismantling, robust, oval, spoon size 3 x10mm, single action jaws, working length 20 cm - 1
26. Spoon Forceps, dismantling, curved 30°, robust, oval, spoon size 3 x 10 mm, single action jaws, working length 20 cm. - 1
27. Surgical handle, bayonet-shaped with working length 15 cm for blades -1
28. Suction tube, with cut-off hole and stylet, LUER, working length 15 cm, 2.5 mm -1
29. Suction tube, with distal nerve retractor, with cut-off hole, LUER-Lock connector, diameter 2.7 mm, working length 15 cm -1
30. Tube, with cut-off hole and stylet, LUER, diameter 4 mm, working length 15 cm -1
31. Palpation Hook, bayonet-shaped, distally angled 90°, with ball end, with round handle, working length 20 cm. -1
32. Dissector dead hand, bayonet shaped, 3 mm, curved upwards, with round handle, sharp, working length 16 cm -1
33. Nerve Hook, distal width 3 mm, bayonet-shaped, working length 16 cm -1
34. Nerve Retractor, hook length 2 mm, diameter 4 mm, angled sheath, working length 20cm -1
35. Nerve Retractor, angled 30°, distal width 5 mm, working length 17 cm - 1
36. Curette, small, curette size (l x w) :2.7 x 4 mm, bajonet-shaped, distal angled 45°, working length 20 cm - 1
Bipolar & Cords


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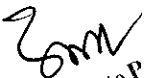

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37. Take-apart Bipolar Forceps, width 1 mm delicate jaws, distally angled 45°, horizontal closing, outer diameter 3.4 mm, working length 20 cm, consisting of: handle, Outer Tube, Inner tube, Bipolar Insert. -1
38. Bipor High Frequency Cord, Length 300 cm -1
Accessories to perform Spinal endoscopy
39. Articulated Stand, reinforced version, only, L-shaped, with one mechanical central clamp for all live joint functions, height 48 cm, operating range 52 cm, with fastene. -1
40. Socket to clamp on the operating table, for use with European and United States standard rails, also suited for rails from 25 x 10 up to 35 x 8 mm, with lateral clamping element for height adjustment of the articulated stand. -1
Exoscope – Telescope for visualization magnification and broadcasting of all neuro and spine surgical procedures
Telescope
1. Exoscope with Integrated Illuminator, working distance 25-75 cm, length 11 cm, autoclavable, with fiber optic light transmission incorporated and condenser lenses. -1
2. Fiber Optic Light Cable, size 4.8 cm, length 300 cm, heat-resistant -1
3. Clamping Cylinder, folding, for flexible mounting of 10 mm telescopes to telescope sheath, autoclavable. The clamping cylinder allows vertical movement and rotation of the telescope. For use Clamping Jaw. -1
Retractor System
4. Spine Retractor, complete, with retractor frame, 2 retractor arms, X-ray transparent blades in 3 different lengths, light carrier with corresponding tools, consisting of : retractor Frame, Retractor Arm, Drive Screw, Retractor Arm, extra Retractor Blade, 70mm, Retractor blade, 50 mm Retractor Blade, 30mm Holder, for blades, Light Carrier, Holder. - 1
Holding device
5. Articulated Stand, reinforced version, only, L-shaped, with one mechanical central clamp for all five joint functions, height 48 cm, operating range 52 cm. - 1
6. Socket to clamp on the operating table, for use with European and United States standard rails, also suited for rails from 25 x10 up to 35x8 mm, with lateral clamping element for height adjustment of the articulated stand - 1
7. Clamping jaw, metal, for use with all square headed Telescopes, clamping range 16.5 up to 23 mm. - 1


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Endoscopic Lumbar Disectomy & Root Decompression for all types of Disc Herniation
Product Description
1. Localization Device, for fluoroscopic determination of the point of incision
2. Straight Forward Telescope 0o, enlarged view, diameter 4 mm, length 18 cm, autoclavable. Fiber optic light transmission incorporated
3. Obturator, blunt, for use with operating tube
4. Operating Tube, oval, with obturator, for use with working insert
5. Working Insert with positioning detend, for use with operating tube working channel diameter 8 mm, with irrigation channel
6. Nerve Protector, adjustable, width 5 mm, length 112 mm, for use with working Insert
7. Suction Tube, angled, with cut-off hole, diameter 3.7 mm, working length 11 cm
8. Chisel, flat, straight, with handle, distal width 15 mm, working length 9 cm
9. Spoon Forceps, dismountable, robust, oval, single action jaws, spoon size 3 x 10 mm, working length 15 cm
10. Bone Punch 45 degree, upbiting, 3 mm, working length 18 cm
11. Bone Punch, 90 degree, upbiting, 3 mm, working length 18 cm
12. Take-apart Bipolar Coagulating Forceps, width of jaws 1 mm, diameter 5 mm, working length 20 cm, consisting of: Ring Handle, Outer tube, insert Forceps.
13. Trepine, diameter 3mm, working length 22 cm
14. Elevator, spatual slightly curved, distal width 5 mm, working length 13 cm
15. Palpation Hook, blunt, distally angled 90°, hook length 5.5 mm, working length 13 cm
16. Bipolar High Frequency Cord with 2 x 4 mm banana-plug to coagulator, length 300 cm
17. Sterilization tray
Specification
Neuro Endoscopy Set for the Treatment of Obstructive Hydrocephalus, Marsupilization of thr Archanoid Cysts, Colloid Cyst, Verticular Biopsy
1. Venticuloscope with Wide Angle Straight Forward Telescope 6°, angled eyepiece, outer diameter 6.1 mm, length 18 cm, working channel diameter 2.9 mm, irrigation/suction channel diameter 1.6, autoclavable, fiber optic light transmission incorporated. -1
2. Forward Oblique- telescope 0°, enlarged view, diameter 2 mm, length 26 cm, autoclavable, fiber optic light transmission incorporated -1
3. Telescope 45°, enlarged view, 3.3 mm, length 25 cm, autoclavable, fiber optic light transmission incorporated -1


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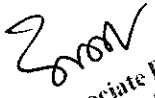

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4. Operating Sheath, graduated, rotating, outer diameter 6.8 mm, working length 13 cm for use with Ventriculoscope. -1
5. Obturator for use with Operating Sheath -1
6. Obturator for use with optic. -1
Hand Instruments
7. Scissors, pointed, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, single action jaws, diameter 2 mm, working length 30 cm consisting of: Metal handle, without ratchet, Outer Sheath, with scissors insert. -1
8. Biopsy Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, double action jaws, diameter 2 mm, working length 30 cm consisting of: Metal Handle, without ratchet Outer Sheath, with forceps insert. -1
9. Ventriculostomy Forceps, rotating, dismantling, with LUER- Lock irrigation connector for cleaning, single action jaws, diameter 2 mm, working length 30 cm consisting of: Metal handle, without ratchet Outer Sheath, with forceps insert -1
10. Grasping Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, single action jaws, diameter 2mm, working length 30 cm consisting of: Metal handle, without ratchet Outer Sheath, with grasping forceps insert-1
11. Biopsy Forceps, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, single action jaws, diameter 2.7mm, working length 30 cm consisting of: Metal handle, without ratchet Outer Sheath, with forceps insert -1
12. Ventriculostomy Forceps, diameter 1.7 mm, working length 30 cm -
13. Forceps, for ventriculostomy, flexible, double action jaws, diameter 1 mm, working length 30cm -1
14. Biopsy Forceps, double action jaws, flexible, diameter 1 mm, working length 30 cm -1
15. Scissors, pointed, lightly curved jaws, double action jaws, diameter 1.7 mm, length 30 cm -1
16. Ventriculostomy Forceps, diameter 1.7 mm, working length 30 cm -1
17. Scissors, single action jaws, pointed, diameter 1.3 mm, length 30 cm -1
18. Puncture Needle -1
Monopolar, Bipolar & cords
19. Spatula Electrode, unipolar, flexible, diameter 1mm, working length 45 cm -1
20. Bipolar Coagulation Electrode, diameter 1.7 mm, working length 30 cm -1
21. Bipolar Forceps, long, flat jaws, outer diameter 2.4 mm, consisting of Bipolar Ring handle,


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Outer Sheath, Bipolar Insert, for single use, package of 5. -1
22. Unipolar High Frequency Cord, with 4 mm plug, length 300 cm. For use with HF units. -1
23. Bipolar High Frequency Cord, with 2 x 4 mm banana-plug to Coagulator, length 300 cm -1
24. Bipolar High Frequency Cord, length 300cm. -1
Accessories to perform Cranial endoscopy
25. Articulated Stand, reinforced version, only, L-shaped, with one mechanical central clamp for all five joint functions, height 48 cm, operating range 52 cm, with fastener. -1
26. Socket to clamp on the operating table, for use with European and United States standard rails, also suited for rails from 25x10 up to 35x8 mm, with lateral clamping element for height adjustment of the articulated stand. -1
27. Clamping Jaw, metal, for use with instrument and telescope sheaths, clamping range 4.8 up to 12.5 mm, with fastener -1
28. Adaptor autoclavable, permits telescope changing under sterile conditions -1
Container for Sterilization
29. Plastic Container for Sterilizing and Storage, perforated, with lid, for two-level storage, for use with 30 cm and 36 cm Click Line-instruments, external dimensions (w x d x h) 600 mm x 145 mm x 260 mm -1
Neuro Endoscopy Set for the Treatment of Obstructive Hydrocephalus, Marsupialization of the Arachnoid Cysts, Colloid Cyst, Verticular Biopsy
Telescope & Sheath
1. Venticuloscope small, Wide Angle Straight Forward Telescope 6°, angled eyepiece, outer diameter 3.6 mm, length 18 cm, working channel diameter 1.6 mm, with suction and irrigation channel diameter 0.8 mm, autoclavable, with irrigation adapter, fiber optic light transmission incorporated, for use with : small operating sheath. -1
2. Forward Oblique- Telescope 0°, enlarged view, diameter 2 mm, length 26 cm, autoclavable, fiber optic light transmission incorporated. -1
3. Obturator, for use with operating sheath. -1
4. Obturator, for use with operating sheath and optic -1
5. Operating Sheath, small, outer diameter 4.5 mm, working length 13.3 cm. -1
Hand Instruments
6. Biopsy Forceps, double action jaws, diameter 1.3 mm, working length 30 cm
7. Scissors, single-action jaws, semi-rigid, diameter 1.3 mm, working length 30 cm
8. Unipolar Coagulating electrode, semi-rigid, diameter 1.3 mm, working length 30 cm


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9. Bipolar Coagulation Electrode, diameter 1.3 mm, working length 30 cm
10. Grasping Forceps, double-action jaws, semi-rigid, diameter 1.3 mm, working length 30 cm
11. Forceps, for ventriculostomy, flexible, double action jaws, diameter 1 mm, working length 30 cm
Monopolar, Bipolar & cords
12. Bipolar Coagulation Electrode, semi - rigid, O.D. 1.3 mm.
13. Spatula Electrode, unipolar, flexible, diameter 1mm, working length 45 cm
14. Unipolar High Frequency Cord, with 4 mm plug, length 300 cm.
15. Bipolar High Frequency Cord, with 2 x 4 mm banana-plug, length 300 cm
16. Bipolar High Frequency Cord, Length 300cm.
Accessories to perform Cranial endoscopy
17. Articulated Stand, reinforced version, only, L-shaped, with one mechanical central clamp for all five joint functions, height 48 cm, operating range 52 cm, with fastener. -1
18. Socket to clamp on the operating table, for use with European and United States standard rails, also suited for rails from 25x10 up to 35x8 mm, with lateral clamping element for height adjustment of the articulated stand. -1
19. Clamping Jaw, metal, for use with instrument and telescope sheaths, clamping range 4.8 up to 12.5 mm, with fastener. -1
20. Adaptor autoclavable, permits telescope changing under sterile conditions -1
Container for Sterilization
21. Plastic Container for Sterilizing and Storage, perforated, with transparent lid, with insert for two angled rigid telescopes, external dimensions (w x d x h) 515 x 240 x 84 mm -1
22. Plastic Container for Sterilizing and Storage, perforated, with lid, for two-level storage, for use with 30 cm and 36 cm Click Line-instruments, external dimensions (w x d x h) 600 mm x 145 mm x 260 mm -1
Scope
1. Video Neuro-Endoscope, steerable, direction of view 0°, angle of view 90°, working channel 3.6 Fr., sheath size 8.5 Fr., working length 70 cm. Following accessories are included : Case, Pressure compensation Cap, Leakage Tester, Cleaning Brush, Adaptor, with seal -1
Hand Instruments
2. Biopsy Forceps, double action jaws, flexible, 1.0mm, length 110 cm -1


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3. Grasping Forceps, double actions jaws, flexible, 1.0mm, length 110 cm -1
Monopolar & cords
4. Coagulating Electrode, unipolar, flexible 1.0 mm, length 73 cm - 1
5. Unipolar High Frequency Cord, with 4 mm plug, length 300 cm - 1
Containers for Sterilization
6. Plastic Container for flexible endoscopes, suitable for gas and hydrogen peroxide sterilization as well as storage, external dimensions (w x d x h): 550 x 260 x 90 mm, for use with one flexible endoscope - 1
Shunt Scope – For the Optical Placement of shunt for the treatment of Hydrocephalous
Scope
1. Shunt- Scope : Miniature Straight Forward Telescope 0°, diameter 1 mm, length 16 cm, semi-rigid, with remote eyepiece and light connection, LUER-Lock adaptor, fiber optic light transmission incorporated
2. Examination Sheath, O.D. 1.3 mm, working length 16 cm, with blunt obturator, 1 LUER-lock adaptor, for use with miniature endoscope.
Containers for Sterilization
3. Metal Tray, for sterilization and storage of Miniature Straight Forward Telescope, perforated, lid with silicone bridges, external dimensions (w x d x h): 373 x 178 x 35 mm.
Endoscopic management of CSF rhinorea, Optic Nerve decompression, pituitary macro and micro adenomas, transclival cordomas and for extended approaches for all lesions from Ciste gliae to CVJ junction using transclival, transplanum transcribriform & transspenoidal approach
Telescope & Sheath
1. Straight Forward Telescope 0°, enlarged view, diameter 4 mm, length 18 cm, autoclavable. Fiber optic light transmission incorporated. -1
2. Suction and Irrigation Sheath 0° for endoscopic diagnosis and surgery of the paranasal sinuses and anterior skull base, vertical oval, diameter 4.8 mm x 6 mm, with separate channel for suction and irrigation, for use with Irrigation and Suction Handles -1
3. Forward-Oblique Telescope 45°, enlarged view, diameter 4 mm, length 18 cm, autoclavable, Fiber optic light transmission incorporated. -1
4. Suction and Irrigation Sheath 45°, for endoscopic diagnosis and surgery of the paranasal sinuses and skull base, oval, O.D. 4.8 mm x 6 mm, with separate channel for suction and

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irrigation, for use with handles. -1
5. Straight Forward Telescope 0°, enlarged view, diameter 4mm, length 30 cm, autoclavable, Fiber optic light transmission incorporated. -1
6. Suction and Irrigation Sheath 0°, for endoscopic diagnosis and surgery of the paranasal sinuses and anterior skull base, vertical oval, diameter 4.8 mm x 6 mm, with separate channel for suction and irrigation, for use with irrigation and Suction handles 28161 TD/TT/JD/JT, 723630, Cleaning Accessories 28160 TK – TLL and HOPKINS® II Telescope 28164 AA -1
7. Forward-Oblique Telescope 30°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, Fiber optic light, transmission incorporated. -1
8. Suction and Irrigation Sheath 30°, for endoscopic diagnosis and surgery of the paranasal sinuses and anterior skull base, vertical oval, diameter 4.8 mm x 6 mm, with separate channel for suction and irrigation, for use with Irrigation and Suction handle -1
9. Irrigation and Suction handle, with push button valve consisting of : handle, with ergonomic ring handle and finger grip plate, for use with Irrigation and Suction Sheaths -1
Hand Instrument
10. Cleaning adaptor for irrigation channel of suction and irrigation sheath, length 3.5 cm -1
11. Cleaning tube for suction/telescope channel of suction and irrigation sheath, length 23 cm -1
12. Nasal Scissors, medium, (standard model), working length 9.5 cm -1
13. Nucleus Cutting Forceps single action jaws, movable jaw opening upwards, diameter 3.5 mm, working length 20 cm -1
14. WILDE Nasal Forceps 45°, upturned, size 1, working length 11 cm -1
15. Nasal Forceps, straight, size 1, working length 11 cm -1
16. Mushroom punch - 2
17. Mucosal debrider-1
Round Knife
18. Round Knife 0°, width 1 mm, working length 10 cm, total length 20 cm
19. Round Knife 0°, width 1 mm, working length 13 cm, total length 23 cm
20. Round Knife 45°, width 1 mm, working length 10 cm, total length 20 cm
21. Round Knife 45°, width 1 mm, working length 13 cm, total length 23 cm
22. Round Knife 90°, width 1 mm, working length 10 cm, total length 20 cm


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23. Round Knife 90°, width 1 mm, working length 13 cm, total length 23 cm
24. Round Knife 0°, width 2 mm, working length 0 cm, total length 20 cm
25. Round Knife 0°, width 2 mm, working length 13 cm, total length 23 cm
26. Round Knife 5°, width 2 mm, working length 10 cm, total length 20 cm
27. Round Knife 45°, width 2 mm, working length 13 cm, total length 23 cm
28. Round Knife 90°, width 2 mm, working length 10 cm, total length 20 cm
29. Round Knife 90°, width 2 mm, working length 13 cm, total length 23 c
Dissector
30. Dissector, tip 45°, width 1 mm, working length 13 cm, total length 23 cm -1
31. Dissector, tip 90°, width 1 mm, working length 10 cm, total length 20 cm -1
32. Dissector, sharp, round spatula, tip angled 45°, size 2 mm, with round handle, length 25 cm -1
33. Dissector, sharp, round spatula, tip angled 45°, size 3 mm, with round handle, length 25 cm -1
34. Elevator, sharp, slightly curved spatula, straight, size 3 mm, with round handle, length 25 cm - 1
35. Hook, 90°, blunt, length 25 cm, with round handle - 1
36. Seeker, 90°, with ball end, diameter 1 mm, length 25 cm -1
37. Micro Raspajtory, single curved to right, width 2 mm, length 25 cm -1
38. Elevator, sharp, flat long spatula, tip angled 15° downwards, size 1.5mm, with round handle, length 25 cm -1
39. Dissector, bayonet-shaped, sharp, curved to left, length 24 cm -1
40. Dissector, bayonet-shaped, sharp, curved to right, length 24 cm -
Scissor
41. Scissors, straight, with small handle, with cleaning connector, working length 18 cm -1
42. Scissors, curved to right, with small handle, with cleaning connector, working length 18 cm -1
43. Scissors, curved to left, with small handle, with cleaning connector, working length 18 cm -1
44. Scissors, curved upwards, with small handle, with cleaning connector, working length 18 cm -1
45. Scissors, upturned 45°, delicate, sheath 360° rotatable, with cleaning connector, working length 18 cm -1


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Forceps
46. Forceps, round cupped jaws, diameter 0.6mm, extra delicate, straight, working length 18 cm -1
47. Forceps, oval cupped jaws, 0.6 mm, extra delicate, curved to right, working length 18 cm -1
48. Spoon Forceps, spoon size 3 x10 mm, single action jaws, working length 17 cm - 1
49. Miniature Grasping Forceps, serrated, straight, working length 18 cm -1
50. Miniature Forceps, through-cutting, with fine flat jaws, bite 1 mm, curved up, working length 18 cm -1
51. Nasal forceps, with extra line flat jaws, through-cutting, tissue sparing, width of cut 1.5 mm, straight sheath, jaws angled upwards 45°, with cleaning connector, working length 18 cm -1
Curette
52. Curette, round spoon, tip slightly angled, size 2 mm, with round handle, length 25 cm - 1
53. Curette, round spoon, tip angled, size 2 mm with round handle, length 25 cm -1
54. Curette, round wire, ID 3 mm, tip angled 45°, with round handle, length 25 cm -1
55. Ring-curette, round wire, ductile, ID 3 mm, tip angled 45°, with round handle, length 25 cm -1
56. Curette, round wire, ID 3 mm, distally curved shaft, with round handle, length 25 cm -1
57. Curette, stirrup-shape, blunt, with round handle, length 25 cm -1
Monopolar, Bipolar & Cord
58. Take-apart Bipolar Forceps, width 1mm delicate jaws, distally angled 45°, horizontal closing, outer diameter 3.4 mm, working length 20 cm, consisting of: handle, Outer Tube, Inner Tube, Bipolar Insert. -1
59. Bipolar Insert -1
60. Bipolar high Frequency Cord with 2 x 4 mm banana-plug to, length 300 cm -1
Suction Tube
61. Suction Tube, with cut-off hole, drop-shaped, with distance markings, LUER, conical distal end, 6 Fr., working length 15 cm -1
62. Suction Tube, with cut-off hole, drop-shaped, with distance markings, LUER, conical distal end, 8 Fr., working length 15 cm - 1
63. Suction Tube, with cut-off hole, drop-shaped, with distance markings, LUER, conical distal end, tip curved upwards, ball end, 2.4 mm, working length 15 cm - 1


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64. Suction Tube, with cut-off hole, drop-shaped, with distance markings, LUER, conical distal end, malleable, 6 Fr., working length 15 cm - 1
65. Suction Tube, with cut-off hole, drop-shaped, with distance markings, LUER, conical distal end, malleable, 8 Fr., working length 15 cm -1
66. Insulated Cannula for suction and coagulation, O.D :3mm, 90° curved, working length 16 cm -1
Punch
67. Bone Punch, detachable, rigid, upbiting 60° forward, size 1 mm, working length 17 cm -1
68. Bone Punch, detachable, rigid, upbiting 60° forward, size 2 mm, working length 17 cm -1
69. Bone Punch, detachable, rigid, downbiting 60° forward, size 1 mm, working length 17 cm -1
70. Bone Punch, detachable, rigid, downbiting 60° forward, size 2 mm, working length 17 cm -1
Micro Neuro Surgery Instrumtents
Needle Holder
1. Micro Needle Holder, bayonet-shaped, straight jaws, 2 x 6 mm, working length 10 cm -1
2. Micro Needle Holder, bayonet-shaped, jaws curved to left, 1 x 6 mm, working length 10 cm -1
Forceps
3. Micro Grasping Forceps, bayonet-shaped, straight jaws, smooth, 0.5 mm, working length 10 cm -1
4. Forceps, bayonet-shaped, spoon, 2 mm, working length 10 cm -1
5. Micro Grasping forceps, bayonet-shaped, straight jaws, serrated, 3 mm, working length 10 cm -1
6. Micro Grasping forceps, bayonet-shaped, jaws curved to left, 0.75 mm, working length 10 cm -1
7. Forceps, bayonet shaped, 4 mm, spoon, working length 10 cm -1
8. Forceps, bayonet shaped, 6 mm, spoon, working length 10 cm - 1
9. Forceps, bayonet shaped, 2 mm, spoon horizontal, working length 10 cm -1
10. Forceps, bayonet shaped, 4 mm, spoon horizontal, working length 10 cm
11. Forceps, bayonet shaped, 6 mm, spoon horizontal, working length 10 cm
12. Micro Scissors, bayonet-shaped, sharp/sharp, cutting edges straight, working length 10 cm


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13. Micro Applying Forceps, Yasargil - Clips, working length 10 cm
14. Micro Applying Forceps, Yasargil-Mini Clips, working length 10 cm
15. Micro Grasping Forceps, straight jaws, smooth, diameter 1 mm, working length 11 cm
16. Micro Grasping Forceps, jaws curved upwards 45°, smooth, diameter 1 mm, working length 11 cm
17. Micro Grasping Forceps, straight jaws, serrated, diameter 1 mm, working length 11 cm
18. Micro Grasping Forceps, straight with smooth jaws, diameter 2.2 mm, working length 11 cm -1
19. Micro Grasping Forceps, 45° angled, with smooth jaws, diameter 2.2 mm, working length 11 cm -1
20. Micro Grasping Forceps, straight, with serrated jaws, diameter 2.2 mm -1
Scissor
21. Micro Scissors, bayonet-shaped, sharp/sharp, cutting edges curved to left, working length 10 cm -1
22. Micro Scissors, bayonet-shaped, blunt/blunt, cutting edges straight, working length 10 cm -1
23. Micro Scissors, bayonet-shaped, sharp/sharp, cutting edges curled to right, working length 10 cm -1
24. Micro scissors, bayonet-shaped, sharp/sharp, cutting edges horizontal, working length 10 cm -1
25. Micro Scissors, cutting edges straight, diameter 1 mm, working length 11 cm -1
26. Micro Scissors, cutting edges angled 30°, diameter 1 mm, working length 11 cm -1
27. Micro Scissors, cutting edges angled 60°, diameter 1 mm, working length 11 cm -1
28. Micro Scissors, straight, diameter 2.2 mm, working length 11 cm -1
29. Micro Scissors, 30° angled, diameter 2.2 mm, working length 11 cm -1
30. Micro Scissors, 60° angled , diameter 2.2 mm, working length 11 cm -1
Endoscopy assisted micro Neuro Surgery Instruments
Telescope & Sheath
1. Straight Forward Telescope 0°, diameter 2.7 mm, length 15 cm, autoclavable, proximally angled eyepiece and light connection, fiber optic light transmission incorporated.
2. Forward-Oblique Telescope 30°, diameter 2.7mm, working length 15 cm, with viewing direction 6 o'clock , autoclavable, proximally angled eyepiece, fiber optic light transmission incorporated.


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3. Forward-Oblique Telescope 30°, diameter 2.7 mm, working length 15 cm, with viewing direction 12 o'clock , autoclavable, proximally angled eyepiece, fiber optic light transmission incorporated.
4. Clearvision sheath 0°, 3.5 x 4.7 mm, working length 12 cm, for use with Hopkins optic
5. Clearvision sheath 30°, 3.5 x 4.7 mm, working length 12 cm, for use with Hopkins optic
6. Clearvision sheath 30°, 3.5 x 4.7 mm, working length 12 cm, for use with Hopkins optic
Hand Instruments
7. Dissector, bajonet-shaped, curved downwards, working length 13.5 cm -1
8. Dissector, bajonet-shaped, curved downwards, working length 11.5 cm -1
9. Dissector, bajonet-shaped, curved upwards, working length 13.5 cm -1
10. Dissector, bajonet-shaped, curved upwards, working length 11.5 cm -1
11. Micro Hook, bajonet-shaped, smooth, working length 11.5 cm -1
12. Micro Hook, bajonet-shaped, smooth, working length 13.5 cm -1
13. Suction Tube, with grip plate, elongated out-off hole, LUER, with distal lateral holes, O.D. 3 mm, length 15 cm -1
14. Suction Tube, with grip plate, elongated out-off hole, LUER, with distal lateral holes, O.D. 1.7 mm, length 15 cm -1
15. Suction Tube, with grip plate, elongated out-off hole, LUER, with distal lateral holes, O.D. 2.5 mm, length 15 cm -1
Bipolar & Cord
16. Bipolar Forceps, insulated, bayonet shape, blunt, tips 0.7 mm, working length 12 cm, total length 23 cm -1
17. Bipolar Forceps, insulated, bayonet shape, blunt, tips 0.7 mm, working length 14 cm, total length 25 cm -1
18. Bipolar Forceps, insulated, bayonet shape, blunt, tips 0.3 mm, working length 12 cm, total length 23 cm - 1
Holding System
19. Articulated Stand, reinforced version, only, L-shaped, with one mechanical central clamp for all five joint functions, height 48cm, operating range 52 cm, with fastener -1
20. Rotation Socket to clamp on the operating table with one already mounted butterfly nut, for use with European and United States standard rails, with lateral clamping element for height and angle adjustment of the articulated stand -1
21. Clamping jaw, metal, for use with instrument and telescope sheaths, clamping range 4.8


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up to 12.5 mm, with fastener. - 1
Telescope with multiple angles of view
1. Telescope, diameter 4 mm, length 18 cm, autoclavable, variable direction of view from 15° – 90°, adjustment knob for selecting the desired direction of view, fiber optic light transmission incorporated with suction and irrigation sheath.
Perforator
2. Perforator Handpiece, max. speed 1200 rpm, without perforator blade, Hudson connector, for use with High-Speed Micro-Motor
3. Motor System with color display touch screen two motor output integrated irrigation pump and integrated scb module 100-240 50-60 HZ consisting of mains cord irrigator rod two pedal footswitch two stage with proportional functions silicon tubing set for irrigation sterilizable clip set for use with tubing set connecting cable length 100 cm single used tubing set sterile high speed micro motor max speed 60,000 rpm including connecting cable.
Craniotome
4. Craniotome Handpiece, maximum speed 60,000 rpm, including medium dura protector for use with High-Speed Micro-Motor as well as 3.17 mm Craniotome Burrs and Dura Protector
5. Pediatric Dura Protector, for use with Craniotome Handpiece
6. High-Speed Craniotome Burr, pediatric, shaft diameter 3.17 mm, for single use, sterile, package of 5, for use with 60,000 rpm Craniotome Handpiece and Pediatric Dura Protector
7. Medium Dura Protector, for use with Craniotome Handpiece
8. High - Speed Craniotome Burr, medium, shaft diameter 3.17 mm, for single use, sterile, package of 5, for use with 60,000 rpm Craniotome Handpiece and Medium Dura Protector
9. Long Dura Protector, for use with Craniotome Handpiece
10. High-Speed Craniotome Burr, long, shaft diameter 3.17 mm, sterile, package of 5 for use with 60,000 rpm Craniotome Handpiece and Long Dura Protector
Shaver Handpiece & Suction burr
11. Spine Handpiece -1
12. Shaver Handpiece -1
13. Handle for Shaver Handpiece - 1


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14. Suction Burr, with integrated irrigation, straight, sterilizable, cylindrical cutter head with lateral and distal protection, shaft diameter 3.5 mm, length 30 cm for use with Drill -1
High Speed Handpiece – 100000rpm & Burrs
15. High - Speed Handpiece, long, angled 100,000 rpm, for use with High – Speed Micro - Motor - 1
16. High-Speed Standard Burr, long, diameter 3 mm, shaft diameter 3.17mm, package of 5, for use with 100,000 rpm High-Speed Handpiece -1
17. High- Speed Diamond Burr, long, diameter 3mm, shaft diameter 3.17 mm, sterile, package of 5, for use with 100,000 rpm High-Speed Handpiece - 1
18. High- Speed Coarse Diamond Burr, long, diameter 3mm, shaft diameter 3.17 mm, sterile, package of 5, for use with 100,000 rpm High-Speed Handpiece -1
19. High-Speed Handpiece, medium, angled, 100,000 rpm, for use with High-Speed Micro-Motor - 1
20. High- Speed Acom, medium, diameter 7.5 mm, shaft diameter 3.17mm, sterile, package of 5, for use with 100,000 rpm High-Speed Handpiece -1
21. High- Speed Barrel Burr, medium, diameter 6 mm, shaft diameter 3.17mm, sterile, package of 5, for use with 100,000 rpm High-Speed Handpiece - 1
22. High- Speed Neuro Fluted Burr, medium, diameter 1.8 mm, shaft diameter 3.17mm, sterile, package of 5, for use with 100,000 rpm High- Speed Handpiece - 1
High Speed Straight & Angled Handpiece – 60000 rpm & Burrs
23. High - Speed Handpiece, medium, angled, 60,000 rpm, for use with High - Speed Micro - Motor -1
24. High - Speed Handpiece, medium, straight, 60,000 rpm, for use with High - Speed Micro - Motor. - 1
25. High-Speed Standard Burr, medium, diameter 2 mm, shaft diameter 2.35 mm, sterile, package of 5, for use with 60,000 rpm High-Speed Handpiece -1
26. High-Speed Diamond Burr, medium, diameter 3 mm, shaft diameter 2.35 mm, sterile, package of 5, for use with 60,000 rpm High-Speed Handpiece. -1
27. High-Speed Coarse Diamond Burr, medium, diameter 3 mm, shaft diameter 2.35 mm, sterile, package of 5, for use with 60,000 rpm High- Speed Handpiece. -1
High Speed Malleable Handpiece & Burr


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28. High-Speed Handpiece, super long, malleable, slim, angled, 60,000 rpm, for use with High-Speed Micro-Motor.- 1
29. High-Speed Diamond Burr, super long, diameter 3 mm, shaft diameter 1 mm, sterile, package of 5, for use with 60,000 rpm High-Speed Handpiece - 1
30. High-Speed Coarse Diamond Burr, super long, diameter 3 mm, shaft diameter 1 mm, sterile, package of 5, for use with 60,000 rpm High-Speed Handpiece -1
All neruo endoscope + spine + skull base items should be from same manufacturers and should be medical grade.
all item should be USFDA and European CE Approved
*Company should quote latest model which comply above mentioned technical specification


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High End Heads-Up Surgical Microscope with accessories for Neuro Surgery

General specifications and terms

- All units/ items including accessories should have quality certificate such as BIS/ISO/USFDA or European CE certified.
- 5 year warranty should be included.
- Principal Company should have registered Office and Service Network in India, preferably Central India for better service support.
- User manuals should be in English. Provision of trained manpower support for at least for initial 3 months after installation or up to a period when the staff/technicians at AIIMS Raipur are trained in handling, storage and proper sterilization methods of supplied equipment has to be ensured by the bidder.
- Compliance statement should be submitted in a tabulated and point wise manner.
- Price of essential consumables should be fixed for next 5 years.
- All firms are required to submit their catalogue along with tender clearly marking the quoted items and number with highlighter. If necessary demonstration will be taken to ensure product quality.
- All items under particular serial number will be purchased together from single manufacturer.
- Product quality certificate required.

Annexure 1: Technical specification

Apochromatic Optics

Motorized focus; with working distance (200-600mm) (± 25 mm), Motorized zoom; zoom ratio 1:6, magnification factor $\gamma = 0.4x - 2.4x$. 10x wide field eyepieces with integrated eyecups. Total systems Magnification 12X or more, one touch Auto-Focus with 2 visible laser dots.

Illumination


2 x 300 W Xenon, with automatic lamp exchange. Facility for adjusting the illumination to the field of view. Individual light threshold setting Facility for working distance controlled light intensity.

System Operation

Multifunctional programmable handgrips & Foot control, Magnetic clutches for all system axes. Central user interface with full-screen video XY robotic movement.

Focus Lock

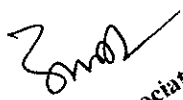
Focus-Lock function. Surgeon should be able change the microscope head at any working distance the focus will remain fix.


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X- Y Movement	Motorized XY lateral and Curve linear movement,
System Setup	Automatic Balancing system
Video	Fully integrated FULL HD 3D Integrated HD video Camera (No Camera or Cable visible from outside). So that optional 3 binocular can be attached with the system. 24" or more Integrated FULL HD 3D medical display Along with recording and editing facility. Preinstalled DICOM must be offered.
Image-guided surgery	The system enables automated positioning to pre-defined anatomical landmarks based on pre-operative data planning. Compatibility with leading Navigation systems.

Annexure II: Accessories

Fluorescence System	All three type of fluorescence (ICG, Sodium Fluorescence & 5 ALA) available in the systems which can be use as per requirement. The other fluorescence features are:
Vascular Fluorescence	: ICG Module should have Auto Gain technology means the ICG image cannot be under expose or over expose.
	: IR Camera must be fully integrated into head to get optimum images.
	: ICG image can be injected in FULL HD resolution in eye pieces and can be control/ monitor by the navigation system side by side.
Tumor Sodium Fluorescence	Visualizes green-yellowish fluorescence for additional fields of research application. It is the first intraoperative fluorescence module to highlight the fluorescence-stained structures while visualizing non-stained tissue in its natural-like color.
	: The fluorescence mode, where fluorescence objects are emphasized in a greenish –yellow colour and the fluorescence can be observed looking through the eyepiece while simultaneously object that are not fluorescent almost completely keep their natural color.
5-aminolevulinic acid	: Supports Intraoperative visualization of tumor tissue. It was the only systems integrated fluorescence module to prove its efficiency in a successfully conducted Phase III multi-center study.


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Specification for Hyper Light Disinfection system

- The system should consists of 6 amalgam UV lamps and patented rotational reflector technology to effectively distribute UV-C output to the surroundings to inactivate and kill microorganisms.
- The technology should provides an easy, fast, environmentally-safe and low maintenance operation for the operator throughout the lifetime of the product.
- Hyper Light should be clinically proven with capability of eradicating more than 99.99% of microorganisms including bacteria viruses and pathogens within 3 meter radius in 15 minutes
- The Hyper Light Disinfection should emits no ozone and leaves no residuals so it is completely ecofriendly.
- Hyper Light should improve the environmental hygiene, but also protects patients and healthcare workers from cross infection. Ultimately, reducing healthcare-associated infection can result in better quality of care.
- The Hyper Light Disinfection should be designed robot made to prevent Healthcare Associated Infection (HAI) for any healthcare facilities by means of UVGI disinfection method. The germicidal UV (254nm UVC) is capable of killing and inactivating microorganisms by destroying nucleic acids and disrupting DNA or RNA, leaving them unable to replicate and repair
- Hyper Light should equip with all-around multi-motion sensor system to prevent potential injuries from accidental entry during the disinfection process. The system will automatically terminate the procedure seamlessly in association with the tablet to minimize injuries from UV-C exposure.
- Should have rotational protective reflector technology for multiple purposes. While the automatic rotational movement provides protection against dust contamination and accidental damage to the lamp, the high reflectance coating allows UV-C energy to be distributed uniformly in a constant high level and also increase the range in distance for disinfection.
- Should ergonomically designed handle has a LCD screen display and buttons for easy use. The thin handle design does not obstruct the UV irradiation
- The system should have amalgam lamps offer high power, low pressure and ozone-free features; these special properties allow the lamps to operate at high temperature (up to 90°C), produce no ozone gas, leave no toxic residues, generate low thermo-sensitivity and possess long lifetime compared with conventional low-pressure mercury lamps.
- Hyper Light should have four 4 inch unidirectional wheels, enabling it to be pushed to any location in a hospital setting. Only 3.2kg of force is needed to move Hyper Light, conforming to AORN standards.
- Should have Input: 100 - 240 Vac, 50/ 60 Hz, Max 1800 Watt Dimension: 71 cm * 71 cm * 195 cm Weight: 85 Kg UVC Bulbs: 6 High Output Amalgam lamps Bulb Lifetime: 12000 hrs Temperature: 10° to 40°C Relative Humidity: 10 to 80% Atmospheric: 700 - 1060hPa
- Wireless Control tablet System Hyper Light should records and documents your disinfection data automatically to the tablet system. The intuitive tablet control provides user-friendly interface and real time documentation for all your validation and verification processes
- For easy validation should have Check allows for quick visualization on the disinfection performance. Simply placing the check to the area of disinfection with the color change from yellow to green or other colour as per record (250 mJ/ cm²) which verifies 99.99% performance of the disinfection process.
- The System should be CE Certified
- Warranty of the product should be 5



Technical Specification for Lumber Retractor Set

Lumber Retractor – 1 No

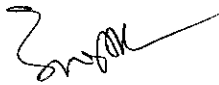
- Retractor with four teeth (Sizes)-1 No Each
 - 30 x 20 mm-2
 - 40 x 20 mm 2
 - 60 x 20 mm-2
 - 70x 20 mm-2
 - 80 x20 mm-2
- Retractor with Six teeth (Sizes)-1 Nos Each
 - 30 x 27 mm-2
 - 40 x 27mm-2
 - 60 x 27 mm-2
 - 70x 27 mm-2
 - 80 x27 mm-2
- Retractor with one teeth (Sizes) along with attach four Prongs -1 Nos Each
 - 20 x 2mm-1
 - 30 x 2mm 1
 - 40 x 2mm-1
 - 50 x 2mm-1
 - 60 x 2mm-1
 - 70 x 2mm-1
- Retractor with one teeth (Sizes) along without Prongs -1 Nos Each
 - 20 x 2mm-1
 - 30 x 2mm-1
 - 40 x 2mm-1
 - 50 x 2mm-1
 - 60 x 2mm-1
 - 70 x 2mm-1
- Should provide Container for set
- Quality should be CE and USFDA



Specification for Carbon Fiber Lumber retractor set with Container

Lumber Retractor Carbon Fiber – 1 No

- Retractor with four teeth (Sizes)-1 No Each
 - 40 x 20 mm- 1
 - 50 x 20 mm-2
 - 60 x 20mm-2
 - 70x 20 mm-2
- Retractor with six teeth (Sizes)-1 No Each
 - 30 x 27 mm-2
 - 40 x 27 mm-2
 - 50 x 27 mm-2
 - 60 x 27 mm-2
 - 70x 27 mm-2
- Quality should be CE and USFDA
- Should provide Container for the set



Specification for Cervical Retractor with container

- Cervical Retractor Left and right side
- Handle with Tip point without hole
- Handle with three hole
- Blade Sizes with four Teeth and hole at the ~~at the~~ plate
 - a) 34 x22.5mm-2
 - b) 40 x22.5mm-2
 - c) 45 x22.5mm-2
 - d) 50 x22.5mm-2
 - e) 55 x22.5mm 2
 - f) 60 x22.5mm-2
 - g) 70 x22.5mm-2
 - h) 85 x22.5mm-2
- Blade Sizes with Single broad and elongated Teeth and hole at the ~~at the~~ plate
 - a) 34 x22.5mm-2
 - b) 40 x22.5mm-2
 - c) 45 x22.5mm-2
 - d) 50 x22.5mm-2
 - e) 55 x22.5mm-2
 - f) 60 x22.5mm-2
 - g) 70 x22.5mm2
- Blade Sizes with four Teeth and hole at the at the plate slight deviation near the four teeth
 - a) 34 x26.5mm-2
 - b) 47 x26.5mm-2
 - c) 55 x26.5mm-2
- Blade Sizes with Single broad and slightly deviation near the Teeth and hole at the plate
 - a) 34 x26.5mm-2
 - b) 47 x26.5mm-2
 - c) 55 x26.5mm- 2
- Depth Gauge
- Extension Radc
- Pointed retractor
- T shape retractor
- shape tip retractor
- Locker
- Container for the complete set
- Quality should be CE and USFDA Certified

Zome

Kirk

Specification for Suction Pump for use at Neurosurgery

- A suction unit specially designed for common use as well as for both Operation Theater and intensive care.
- The system should be used for long-term up to 30 days continuous drainage.
- Suction should be enables full suction output even during drainage
- Should have very less noise than PC
- Should have system of noise and vibration dampening for an extremely quiet and smooth operation with an incredibly low noise level of 39,4 dB reliable and vibration- free run
- Casing should be made of very sturdy, unbreakable, fire retardant material with UV protection
- Pump Body should be made of Aluminum alloy
- Pump should be cooled by extra fan
- Should be colour coded gauge for safe vacuum management
- Should have overflow protection with safety vacuum regulator
- Should be illuminated on/off switch - meets EU norm EN ISO 10079-1
- Grip for comfortable handling, stainless eurorail ensures maximum flexibility with attach up to four jars of any size and/or any other accessories needed (limiting water valve, suction circuit holder)
- Should be able to change-over switch - shift the vacuum from one bottle to the other with a single move with Integrated catheter container or storage basket
- Footswitch should be Air-operated
- Should be non-marking casters with safety brakes-Antistatic casters
- Should be designed for right and left hand operation
- Suction jar 2 l with screw cover
- Suction jar holder for 2 l jar for euro rail
- PVC suction circuit with stop valve
- Mobile stand should be provided from same manufacturer
- Limiting water valve should be provided
- Suction capacity nominal $\pm 5\%$ 43 l/min
- Suction capacity effective $\pm 5\%$ 38 l/min
- Vacuum 0-90 kPa (0-680 mmHg)
- Drainage 0 - 40 cmH₂O
- Input Voltage put Power 110 VA
- Dimensions (w x h x l) in millimeters 480 x 900 x 460
- Weight (without accessories) 24 kg (52,9 lb)
- Certification should be European CE
- Warranty should be 5 years

Zonon

Vish

Specification for Ultra low air disinfectant for Isolation and OT

- Should have rapid remediation in large spaces and situations with high risk of infection
- Should deactivate bacteria at the DNA level
- Should have ultra-low energy plasma technology combined with a triple-stage filter system to provide a combined solution for air dis-infection and particle removal.
- Area coverage should be 18.6 – 92.9 m² (4 air changes per hour) 37.2 – 185.8 m² (2 air changes per hour)
- Volume treatment should be 45 – 226 m³ (4 air changes per hour) 90 – 452 m³ (2 air changes per hour)
- Should have 2-wheeled base with handle, 5-speed fan setting
- Electrical rating should be Single phase, 230 VAC, 50 Hz
- Power consumption should be 137 – 331 W
- Dimension and weight should be 93.0 cm (h) x 58.0 cm (w) x 48.0 cm (d) 51 kg
- Airflow should be 181 – 906 m³/hr (107 – 533 CFM)
- Noise level should be 47.9 – 75.1 dBA at unit 38.5 – 62.9 dBA at 1m away
- Should be Free-standing unit can be wheeled easily to point of care and plugs into any outlet



Specification for Ultra low continuous air dis-infection and odour control in ICU & medium indoor spaces

- Should have rapid remediation continuous air dis-infection and odour control with high risk of infection
- Should deactivate bacteria at the DNA level
- Should have ultra-low energy plasma technology combined with a triple-stage filter system to provide a combined solution for air dis-infection and particle removal with a 2-speed fan
- Area coverage should be 18.6 – 92.9 m² (4 air changes per hour) 37.2 – 185.8 m² (2 air changes per hour)
- Volume treatment should be 45 – 226 m³ (4 air changes per hour) 90 – 452 m³ (2 air changes per hour)
- Should have 2-wheeled base with handle, 5-speed fan setting
- Electrical rating should be Single phase, 230 VAC, 50 Hz
- Power consumption should be 20 W
- Construction and Color precision-cut fabricated metal casing in a white anti-bacterial powder coat finish
- Dimension and weight should be = 220 m³ /hr Speed II = 260 m³ /hr
- Airflow should be 181 – 906 m³/hr (107 – 533 CFM)
- Noise level should be 40 dB speed 45 db
- Should be Free-standing unit can be wheeled easily to point of care and plugs into any outlet
- Quality and Safety Manufactured under ISO 9001, ISO 14001 & OHSAS 18001. CONFORMS to the Medical Device Directive

