



NEUROSURGERY EQUIPMENT

neurosurgery equipment equipo de neurocirugía équipement de neurochirurgie

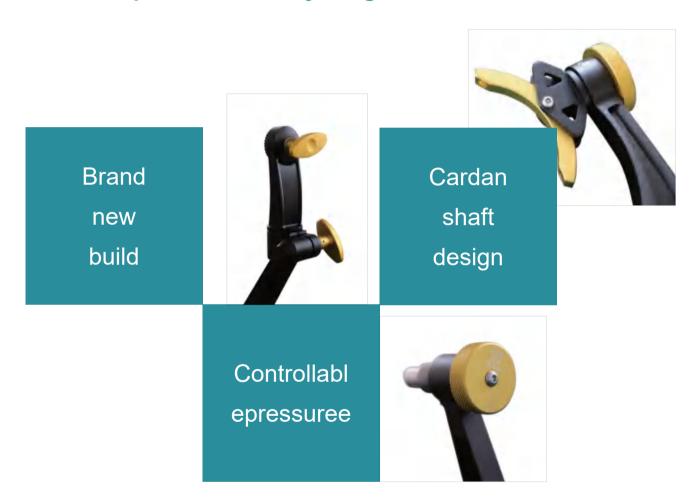
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Texture Speaks For Everything



In a complex neurosurgery operation, the production device of fixed bone isavailable for selection and the operation is carried out smoothly. While fixing, this protects the position of the surgical body, which is the meaning of the surgical head frame.



Cardan shaft design

The cardan shaft design replaces the traditional universal ball design, whichcan make the overall support more stable while ensuring the original range ofmotion.

Brand new build

The high-performance aviation aluminum material is made intelligently, and itsdurability and overall strength are far beyond the traditional similar productsmade by the die-casting process.

Controllable pressure

The visualized operation of head nail compression can make the compression within a controllable range when the brain is fixed during the operation, reducing unnecessary risks.



Explain everything with materials and textures



Direct mining of Germansteel resources Made by famous factories Compatibl with Doro



Head nail compression handwheel

Head nail compression hand wheel with pressure scale, visual operation during the compression process, to ensure the safety of the operation



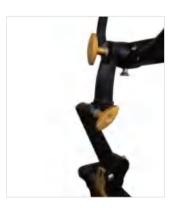
Head clip

The head nail clamping distance is from 12cm-24cm to adapt to the differentneeds of children and adults



Double nail seat fixed handwheel

Swivel at 60°flexibly lock and release the sides of the two nails, and easily adjustthe clamping angle



Universal regulator

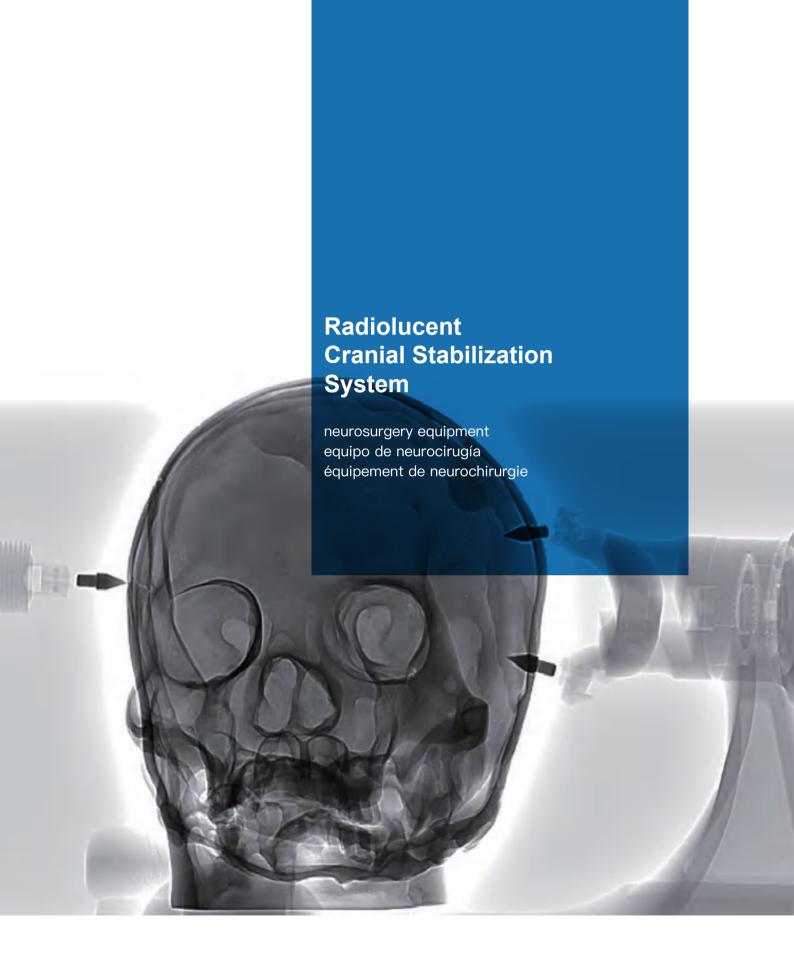
Horizontal adjustment range: 360° Good stability, suitable for intraoperative fine-tuning, durable, goodcorrosion resistance

Children's head frame



According to the different bone hardness of children, the head nailclip is changed to a gel head rest. Stable head support can still be provided in the prone or prone position. At the same time, the angle of the headrest can also be adjusted at multiple angles. The density of the gel and the human tissue are close to effectively reduce the pressure sore of the patient.

NAME	NUMBER	DESCRIBE	LEGEND
Surgical head frame	1	Imported high-performance aviation aluminum alloy material, ultra-lightweight, total weight <5.5kg. The outer surface istreated with anodic oxidation, matt and non-reflective, hardcoating, corrosion-resistant and wear-resistant. The shaft lengthof the headstock base is 500mm, the maximum adjustable widthof the plunger is 560mm, the forward and backward movementis 400mm, the left and right movement is 450mm, and the upand down movement is 850mm. Rotary universal joint shaft isstandard, which can be adjusted by 360rotation. Three-topfixed. A set of adult head nails, a set of children's head nails, anda set of polymer gel head holders are standard. CE certification.EU EN ISO certification.	2
Connect the base	1	The standard diameter of the bed plunger is 14mm. In addition12mm, 16mm, 18mm, 20mm and other sizes are available, whichare suitable for different styles of operating beds. The maximum distance between the two pins is 56cm. Connect the base toquickly tighten the wrench, and easily lock the base and the connecting shaft joint.	111
Rotary cardan shaft	1	Adjustment range: 360°. Good stability, suitable forintraoperative fine-tuning. Durable coating, good corrosionresistance.	J.
U-shaped arm	1	With pressure scale, maximum pressure value: 360N/80LBSAdjust the pressure through the jacking handwheel. The headnail clamping distance is 12-24cm, suitable for adults andchildren. The screwing range of the quick lock handwheel is 60°with a quick lock function.	U
Adult nail	1	A set of three. reusable. Stainless steel material.	
Children nails	1	A set of three reusable. Stainless steel material.	1,800
Head rest	1	Blue polymer material. The left and right head pads can beadjusted for exercises, suitable for adults and children.	17







Head Clamp

Pressure visualized. Easy lock dual pin holder. Whole material is metal free.



Adjustable on both horizontal and vertical planes. Whole material is metal free.



Transitional Member

Length 20cm. Make more distance between base unit and swivel adaptor. Use with extension member HA84116. Whole material is metal free.

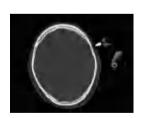


Length 15cm. Used when need more length of base and more Angle adjustment range. Use with 20cm transitional member HA84026. Whole material is metal free.



Radiolucent Skull Pins

Titanium pin tip plus composite material base, good imaging performance.



Under CT version



Base Unit

Universal table clamp, could match with both US&Europe model side rail. Adjustable on width, pitch angle. Table clamp part is aluminum and stainless steel, others metal free.





Headrest & Traction

Whole material is metal free.
Gel pad provide good hemodynamic performance.



Length 15cm. Used when no request on the extension distance.





Sterilizing Container (for Skull Pins)

Made of polymer material.

Protect the pins tip when sterilizing.



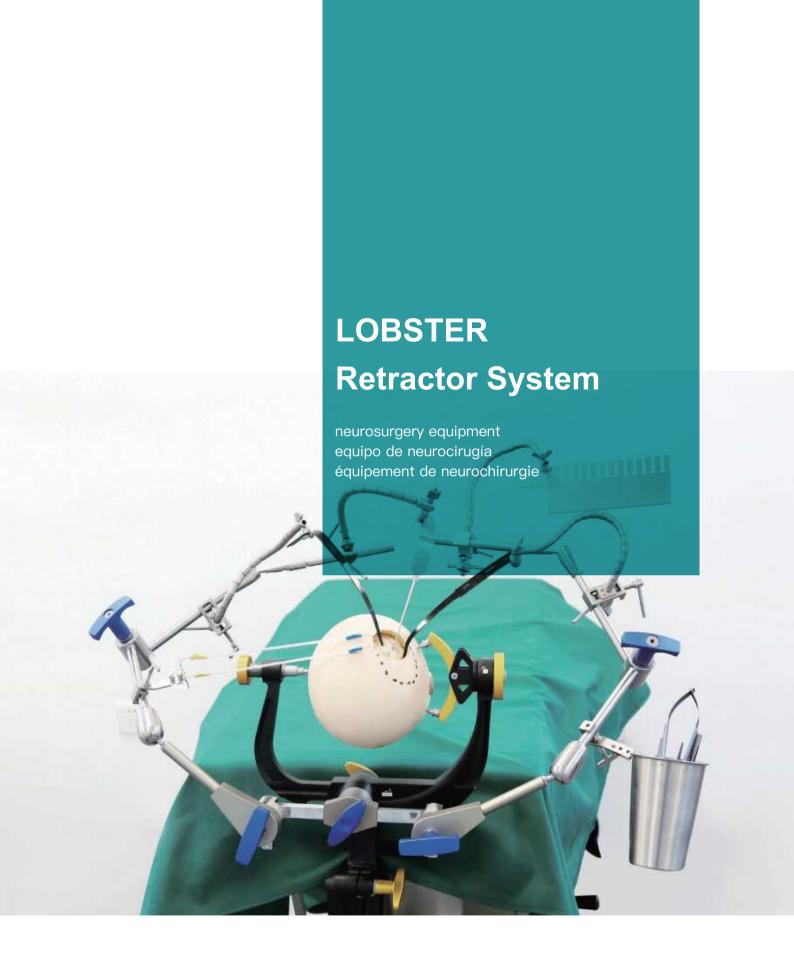
The standard fixation with OT table



Could provide connect solution for different DSA table



Radiolucent Headrest Traction System



LOBSTER

Retractor System

Hotry new design LOBSTER retractor system the was increased based on features including snake arm retractors, scalp hooks, hand rest handle, Fukushima Neuro Pattie Tray and bipolar cup. Two brand new modules was create which is "tumor retractor" and "endoscopic support", LOBSTER retractor system still continuing to maintain the features of installing rapid and change freedom, provide comprehensive and efficient intraoperative support of neurosurgery.

A Retractor System Designed For Modern Microsurgery J

Fine

Based on the surgical progress, it can focus on different depth and direction to pull or strip

the "" tumor ""thus it able to do many fine processing operations

Variety

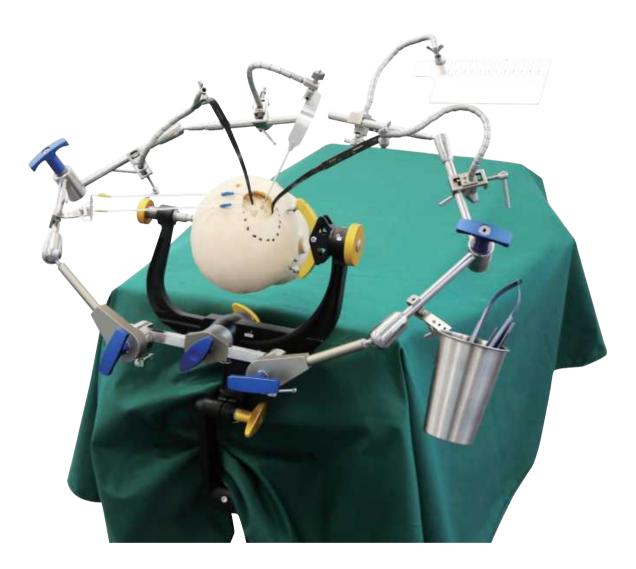
Support devices used during neurosurgery, like endoscopy, common instruments etc.

These can be normalized on retraction systems placement, with concomitant use.

Quick

Depending on the procedure with different approaches, directions, and require needs, it can be performed quickly

Switch the retractor position or retractor state

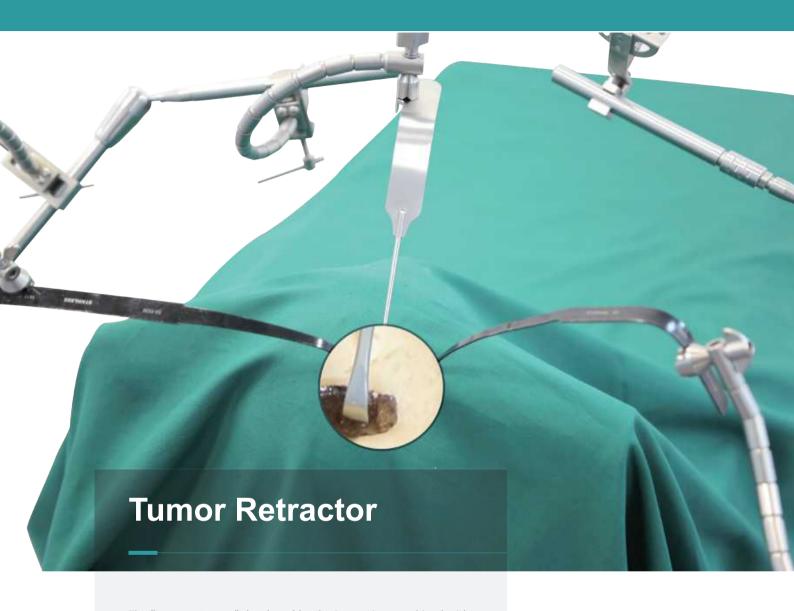


An Incredible

Micro Retractor System

- ☑ Support for composite and combined neurosurgery and modern medical devices
- oxdots Provide innovation support for modern microscopic neurosurgical delicate subtumoral manipulation
- ☑ Provide multi stance, comprehensive, and stable distraction support for more approaches versus surgical approaches
- ☐ The features were aligned, the retractor were stabilized, and structure the "around operating table's solution" with construction of microscopic head frame, retractor system combine together

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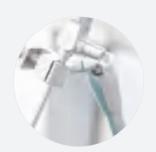


The "tumor retractor" developed by the innovation, combined with the "LOBSTER" retractor system, it can stably pull and retract the tumor at 360 $^\circ$,so that the fine treatment of the tumor under the tumor and the tumor capsule can be carried out calmly and efficiently.





Provide Endoscopic Support For Combined Neurosurgery



The specially designed guide arm can not only provide traction for microsurgery It can also provide support for endoscopy, navigation needle, in combined surgery



LOBSTER Retractor System

01

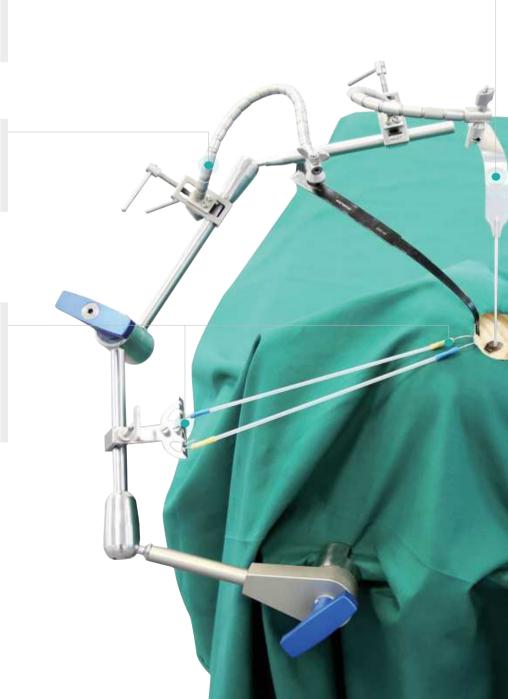
Tumor retractor - pull and retract the tumor, let the operation under the tumor become more efficient and precise.

02

Provide fast and stable traction for any position during the operation

03

Scalp hooks - six tooth belt keyhole design, it can be used to hold the scalp hook and adjust its position





LOBSTER Retractor System

Variety of use forms, according to different surgical approaches, different directions and different using require, it can quickly switch the retraction position or retraction state

State 1.

Single Support Hand Support Mode

Clip on expand connector, four link universal support arm



State 2.

Single Support And Retractor Mode

Clip on expand connector, four link universal support arm, snake arm retractors

State 3.

Single Support And Retractor Mode + Hand Support Mode A

Clip on expand connector, four link universal support arm, snake arm retractors



State 4.

Single Support And Retractor Mode + Hand Support Mode

Clip on expand connector, four link universal support arm, snake arm retractors, Neuro Pattie Tray, Bipolar forceps cup



State 5.

Single Support Retractor + Endoscopic Mode

Clip on expand connector, four link universal support arm, snake arm retractors, endoscope holding arm

State 6.

Two Arms Retractor Mode

Clip on expand connector, four link universal support arm, snake arm retractors, Brain tumor retractor, snake arm retractorsr, connector, Neuro Pattie Tray, Bipolar forceps cup,scalp hooks



LOBSTER Retractor System

Code	Parts	Description	Picture
HQ01-01	Universal Support Arm	Four link structure, double universal joints, double fixed joints, stainless steel. The total length is 750mm and the arm diameter is 12mm. Including: base fixed arm x1, arm length 180mm; Guide arm X2, single section length 185mm; The distal extension arm X1 is 180cm long; The distal extension arm can be replaced with a lendoscopy holding arm.	
HQ01-02	Expand Connector	Aluminum alloy material, gear plate structure, single side slide rail arm span 120mm, with fixed device.	
HQ01-03	Converter	Stainless steel. It is used to connect the Bipolar forceps cup and the plug-in snake arm retractors.	
HQ01-250	Retractor	Exclusively developed flexible retractor, made of stainless steel, 250mm / 450mm two specifications are available.	

Code	Parts	Description	Picture
HQ01-04	Pattie Tray	Stainless steel.	
HQ01-05	Bipolar Forceps Cup	Stainless steel material, capacity 500ml, diameter 88mm, height 125mm.	
HQ01-06	Scalp Hooks	Stainless steel. The fixed end is 50mm, 6 teeth, and the tooth pitch is 4mm. Used for fixing scalp hook, etc.	
HQ01-07	Quick Connect Clamp	Stainless steel material, clamping range: 6-10mm.	
HQ01-08	Brain Tumor Retractor	Stainless steel, length 200mm, front hook width 2mm, used to pull tumor.	



Touch Scan Controler









Fliping touch screen, visual operating on it, working parameters can be displayed at same time



Standard configuration rinse



Adjusted-Speed peristaltic pump and matching leakage



Swiss native 80,000 rpm



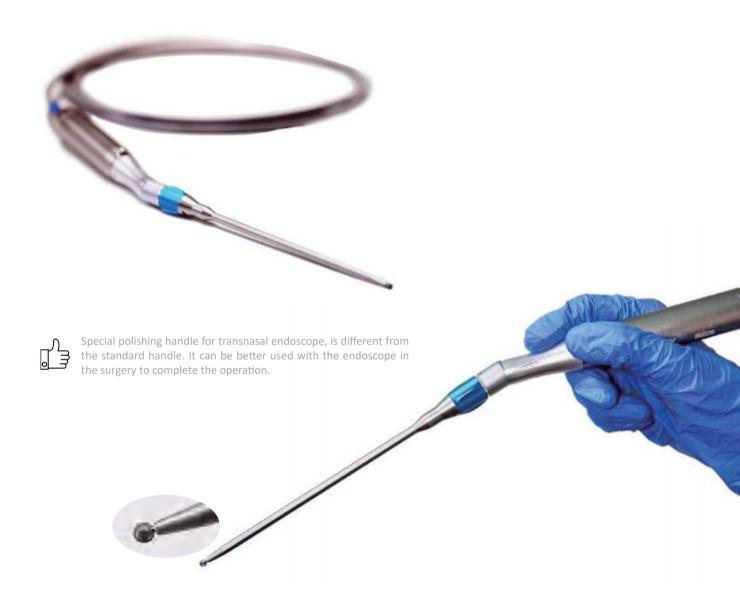
The controller works automatically identifying the connected motor and adjusts the speed from 0 to 80000 rpm with constant speed and complementary torque





Prompt tone for Manual/ foot control switch and positive and negative speed and swing speed Druing the driving handle is working, the motor can stop at once antime

Endoscope Handpiece





The slimmer burrs provide better vision for endoscopic surgery. The burr close to shaft is connected with the handle to reduce the connection distance, which can prevent surgical injury other intracranial tissues during the operation, less to reduce damage.



Working speed 0-80000 stepless speed regulation.

Quick operation is safe and stable.

Light alloy material, surface anti-corrosion and wear-resistant treatment, low temperature, low vibration and low noise. Can be sterilized at high temperature.



A variety of straight and curved handles are available



01

The structure design is light, comfortable and maneuverable.

02

Operating speed 0-40000r/min stepless speed regulation; Low temperature, low vibration, low noise

03

The two parts are connected in the center, rotating at the same time, safe cutting

04

Low temperature, low vibration, low noise



Perforator



Perforator Adaptor

05

The cutter quick loading and unloading structure design, straight slot the cutter to lock without pressing, effectively save the time of operation preparation

06

Ergonomic design, stable handle grip.



Craniotomy Adaptor



Craniotome

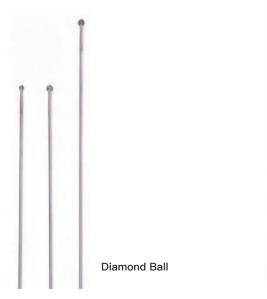




LENGTH Dia	45	88	108	128
Ф1тт	C22-45-1	C22-88-1	C22-108-1	C22-128-1
Ф2тт	C22-45-2	C22-88-2	C22-108-2	C22-128-2
Ф3тт	C22-45-3	C22-88-3	C22-108-3	C22-128-3
Ф4mm	C22-45-4	C22-88-4	C22-108-4	C22-128-4
Ф5mm	C22-45-5	C22-88-5	C22-108-5	C22-128-5
Ф6тт	C22-45-6	C22-88-6	C22-108-6	C22-128-6



LENGTH Dia	45	88	108	128
Ф1mm	C21-45-1	C21-88-1	C21-108-1	C21-128-1
Ф2mm	C21-45-2	C21-88-2	C21-108-2	C21-128-2
Ф3тт	C21-45-3	C21-88-3	C21-108-3	C21-128-3
Ф4mm	C21-45-4	C21-88-4	C21-108-4	C21-128-4
Ф5mm	C21-45-5	C21-88-5	C21-108-5	C21-128-5
Ф6тт	C21-45-6	C21-88-6	C21-108-6	C21-128-6





Cutting Ball

HOTRY motor system²Choose from a variety of configurations²

Host system

NO.	Name	Description
1	Touch Scan Controler	Equipped with peristaltic pump and scouring accessories. Color touch screen, support operation with gloves. Adjust the speed from 0-80000 rpm. With constant speed and complementary torque
2	Stepless Foot Switch	IPX68

Craniotomy system

NO.	Name	Description
1	Cranial motor	Working rotation speed 20-40000 RPM
2	Perforator Adaptor	Working rotation speed®0-1500RPM
3	Crainiotomy Adaptor	Working rotation speed 20-40000 RPM

Grinding system

NO.	Name	Description
1	High speed motor	Working rotation speed: 0-80000RPM
2	Standard High Speed Handpiece(straight)	φ6.5 Working length 45mm
3	Standard High Speed Handpiece(straight)	ф5 Workinglength 88mm
4	Standard High Speed Handpiece(straight)	φ5 Workinglength 108mm
5	Standard High Speed Handpiece(straight)	φ5 Workinglength 128mm
6	Standard High Speed Handpiece(curved)	φ6.5 Working length 45mm
7	Standard High Speed Handpiece(curved)	φ5 Working length 88mm
8	Standard High Speed Handpiece(curved)	φ5 Working length 108mm
9	Endoscope Handpiece(curved transnasal)	φ5 Workinglength 128mm

Grinding system

NO.	Name	Description
1	Perforator (S)	11/7 mm
2	Perforator (M)	13/9 mm
3	Perforator (L)	14/11 mm

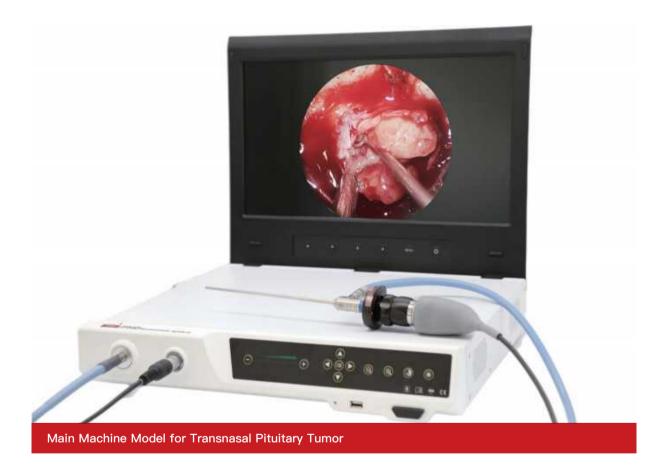
Grinding system

NO.	Name	Description
1	Mobile trolley	





HOTRY Full HD Integrated Neuroendoscopy System



1920*1080P high-definition imaging

Currently widely used in the fields of transnasal sphenoid and ventriculoscopy

FHD super sampling 2.5K vision and true color reproduction, don't miss every detail

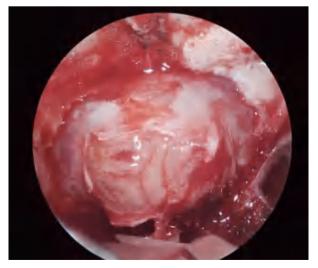
Support multiple screens, 0 delay HD output

Small size, one-key boot, quickly start neurosurgery endoscopic surgery

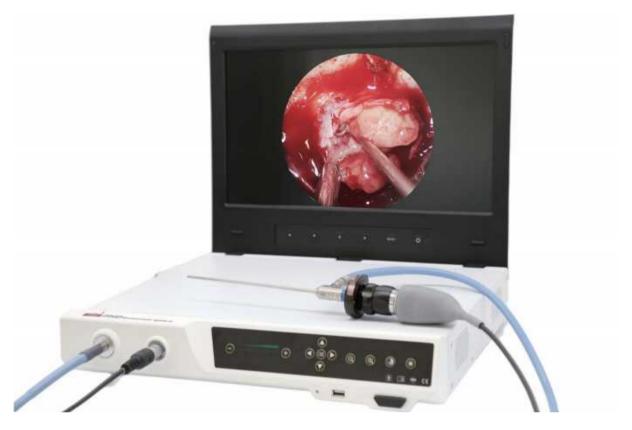
Full HD Integrated Neuroendoscopy System



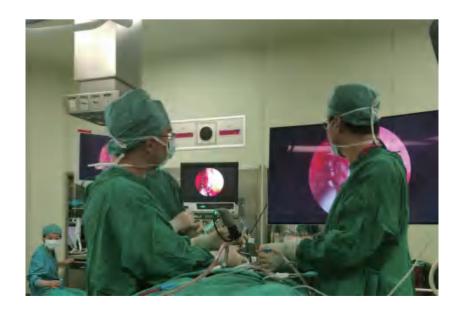
Digital full HD camera handle
2.5 times lossless zoom magnification function







Portable Mode: quick start, essential for consultation



Super Sampling 1080 output, accurate presentation of each lesion

Assistant can watch the portable screen and operate accurately

HD Neuroendoscope

High-definition lens body, clear surgical field, no need to say more.

The blessing of advanced coating technology, reduce the fogging in the operation, high brightness and strong transparency.

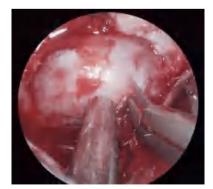
Ultra-high color reproduction, vivid images without distortion.













Good combination and variability, each part can be combined arbitrarily according to functional needs
Made of excellent steel, the product is more durable
Easy to assemble, small packaging volume, easy to transport
Adjustable shelf height

4k Neuroendoscopy System





Hotry 4K ultimate Neuro Endoscopic Host

Exceed the standard 4k screen, shocking delicate surgery screen

3840*2160 definition, the acme of output

REC2020 Color gamut, High color reproduction

HOTRY Scan Technologyeasily distinguish blood vessels and small tissues in the blood

HOTRY Dark area improve function, No blind spots during surgery

Meet the needs of any neurosurgery operation and enter the era of 4K surgery complete



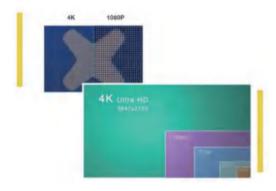
Neurosurgery global industry benchmark 4K endoscope

Meet the demanding needs of all neurosurgery operations Give the new surgical experience with the finest texture and 2020 REC super color gamut

4 times sharper upgrade

One 4k picture can be cut out 4 high definition1080P pictures

Under the same area, 4K shadow density ismuch higher than HD

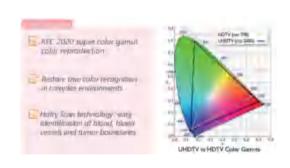


Restore true color gamut

Raise the color gamut of REC709 to REC2020

And compare the overall REC and color contrast

Parameter coding according to Shenwai&ENTclinical environment







HOTRY helps you quickly enter the era of true 4K surgery

Ultra HD neuroendoscopy

Ultra-high-definition lens body, clear surgical field

Advanced coating process blessing reduces intraoperative fogging, high brightness and strong transparency

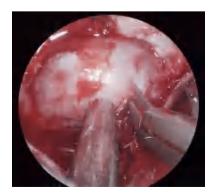
Ultra-high color reproduction, lifelike images without distortion





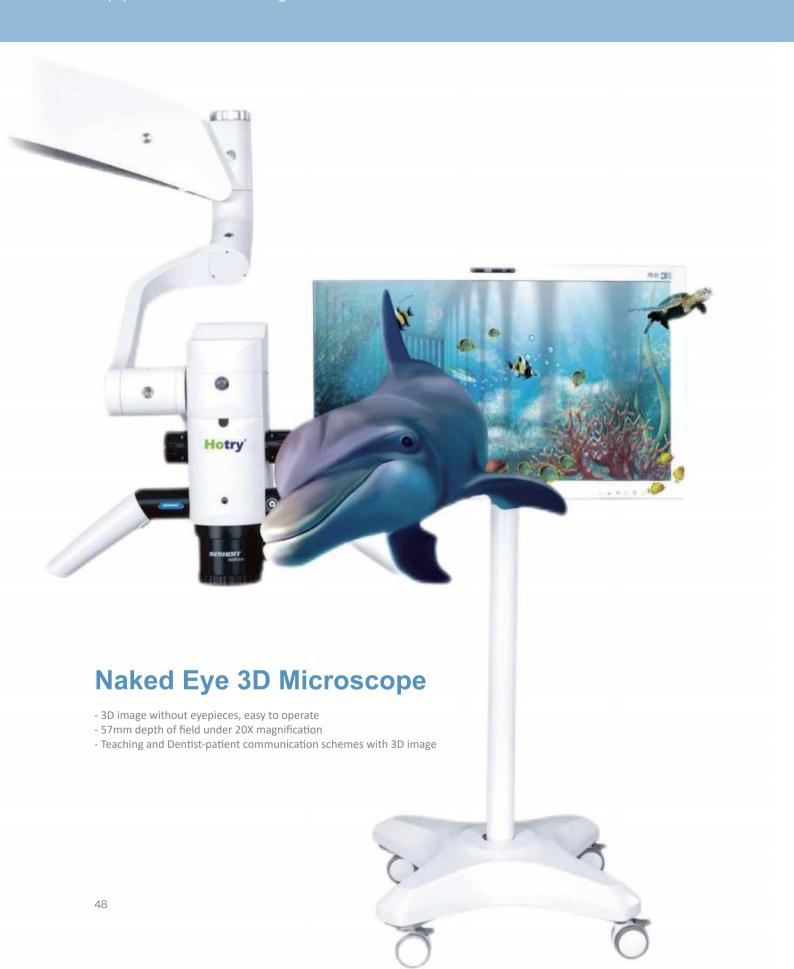








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Technical parameters of Naked Eye 3D Microscope

Technical requirements

Optical system

Zoom magnifications(F250mm): 3.6X-23.3X

PD adjustable range:55mm~75mm

Diopter range: +_7D

Objective lens: WD180-460mm Diameter of FOV: 9.8mm-62.5mm

Zoom factor: 0.45x~2.91x

Illumination system

Light source: Built-in high-reliability medical LED light source, with continuously adjustable luminance.

Minimum illuminance of object surface (f=250mm): ≥50,000lx

Spot diameter: ≥60mm

Color temperature: 5500K, closer to natural light and colors

Color rendering index (Ra): ≥85

Support system

Maximum arm spread: 1390mm; turning radius of cross arm: 460mm, 360° rotation; spring arm: 700mm, ±160° rotation, vertical displacement

Base size: 516mm×516mm, which reduces consulting room space occupancy

The support is protected with antibacterial nano silver ion coating to ensure no cross contamination

Built-in UHD camera system

Video definition: 3840×2160 (4K, switchable to 2.7K, 1440P, 1080P, 960P and 720P)

Video frame rate: 25fps@4K

Storage medium: External USB flash disk

Playback function: Timely play back videos and picture files through camera module

3D image module

Video definition: 4K, 1080P, 960P, 720P

Frame rate: 60fps@1080P (recommended), available for 30fps@4K output

Output channel: Two-way

Output interface: Two-way micro HDMI

Image sensor: Sony high-end image sensor (x2)

Glasses-free 3D surgical intelligent display system

Image performance:

01. Display screen size: 28in

02. Effective image size: 648.9mm (H)*369.3mm (V)03. Screen definition:

3840*2160

04. Pixel pitch: 0.16*0.16mm

06. Luminance: 3000cd/m² (typical)

05. Contrast ratio: 1000:1 (typical)

07. Aspect ratio: 16:9

08. Color depth: 10bit

09. Color: Appox 1.073 billion colors

10. Color gamut: 72%NTSC

11. Backlight: LED

12. Visual angle: 85°/85°/80°/80° (typical)

13. HDMI input: HDMI 2.0×2/available for 4K@60Hz

06. Storage temperature) -20- 60℃

Glasses-free 3D parameters:

01. Input voltage: 220V 50Hz

03. Standby power: ≤1W

04. Operating temperature: 0-35℃

05. Operating humidity: 20%-90%, no condensation

07. Storage humidity: 10%-90%, no condensation

05. Mask identification: Available (blue, white and green)

02. Maximum power: ≤86W

Electrical parameters: 01. View distance: 60cm-130cm

02. Optimal view angle: 50° (horizontal)

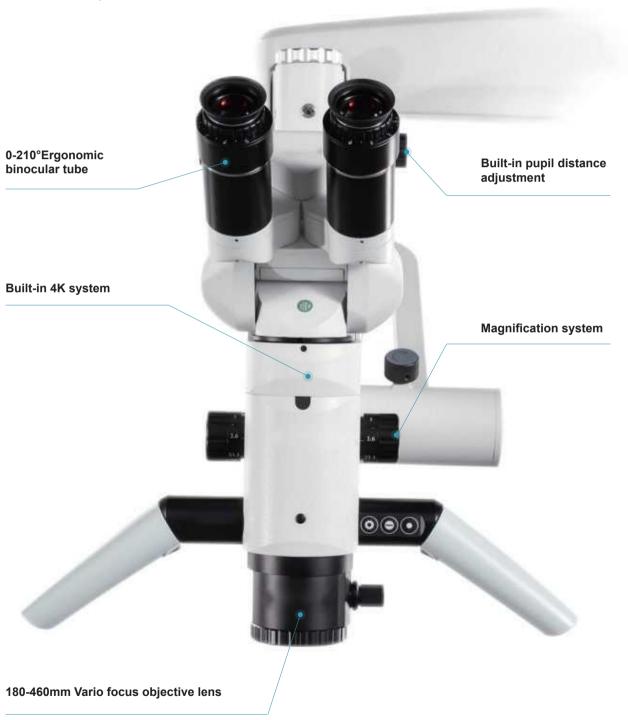
03. Human eye tracking: Available/Available for mask and surgical cap

04. Grating technique: Lenticular grating

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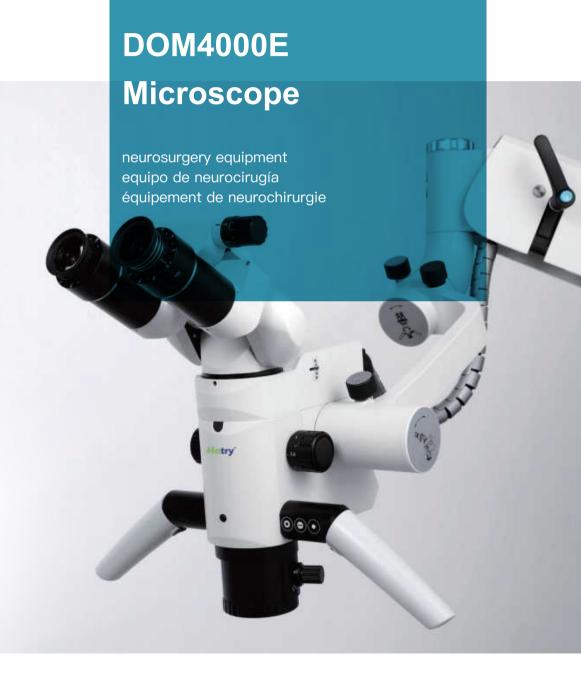


ERGONOMIC DESIGNEASE OFUSE, COMFORT



DOM3000E Microscope Technical Data

Fuerieses	10V/22D high avanciate equipment had received to the FOV
Eyepieces	10X/22B high eyepoint ocular help receive larger FOV
Binoculars	0~210° Inclinable extended tube
PD adjustable range	55mm-75mm
Diopter Range	±7D
Magnifications	ZOOM magnification
Zoom magnifications	3.6x-23.3x
Objective Lens	180mm-460mm
Diameter of FOV(*)	132mm-9.7mm
Illumination System	
Light source	Built-in high-reliability medical LED light source , with continuously adjustableluminance life span over 60,000 hours
Minimum illumination intensity (f=250)	280000lx
Diameter ofillumination spot Color Filter	≥60mm
Color Filter	Yellow , green
Color temperature	5700K, closer to natural light
Support System	
Bracket type	Suspension type bracket
Big arm	460mm,360°rotation
Spring arm	700mm,+160° rotation, vertical displacement ±315mm
Maximum arm spread	1390mm
Base size	516mm*516mm
Surface Materia	Protected with antibacterial nano silver ion coating to ensure no cross contamination
Built-in 4K camera system	
Video definition	3840x2160 (4K.switchable to 2.7K, 1440P, 080P, 960P and 720P)
Video frame rate	30fps@4k
Storage medium	External TF flash disk 128G TF
Screencasting Program	Play back video and picture files online
Shooting support mode	JPG\RAW (image format), MP4 (video)
4k pedal	Control 4K video system shooting
Control mode	Control 4K video system shooting Wireless remote control: mobile phone, tablet an other terminalsButtons on handle



DOM4000E Microscope

New Generation Optical System

Using a new optical lens technology and apochromatic optical structure, it provides a better depth of field image and a detailed picture with bright, clear and high color reproduction for deep space surgical operations, so that the subtleties of the deep are fully revealed.

Aerostatic 4000 Damped Balance Arm

With just two fingers, you can easily control the free movement of the entire microscope in three-dimensional space and stable and accurate stagnation.

4K Video Recording System

Save 4K ultra-high-definition image data for precious surgical cases, which can be transmitted and managed through wireless data. Make surgical data management and real-time academic sharing easy.

Continuous Zoom System

Provides continuous magnification from 3.6x to 23.3x

Super Objective Lens

The longest working distance can reach 460MM

LED Lighting Source

Provide 5500K color temperature and high brightness pure white light source





Stronger visualization capabilities

HOTRY DOM4000E adopts a new optical lens technology, which greatly increases the aperture angle value of the sapphire objective lens, thereby significantly increasing the light flux entering the lens within the same working distance, providing surgeons with a clearer optical image and a deeper visualization space.



Microsurgery

The DOM4000E still has excellent clarity when operating in deep space, without the need to adjust the microscope or adjust the focus frequently, allowing you to focus more on delicate surgical operations.

Spine Surgery

The large depth of field of the DOM4000E can provide a larger operating space for instruments than other microscope systems when operating on the same position of the lesion, thus providing excellent convenience for spine surgery.

Light, Stable, more Comfortable



The adjustment and repositioning of the microscope often involves yourattention and energy. The Aerostatic 4000 damping balance system is specially developed for this purpose. With a light pinch of two fingers, the entire microscope can move freely in three-dimensional space with lightness and ease. Stable and precise hovering at any angle.

The DOM4000E follows the ergonomic design, and you only need one finger to select functions and zoom in on the microscope during surgery. During surgery, you can perform all operations on the DOM4000E, including positioning and adjustment, without leaving the surgical field.

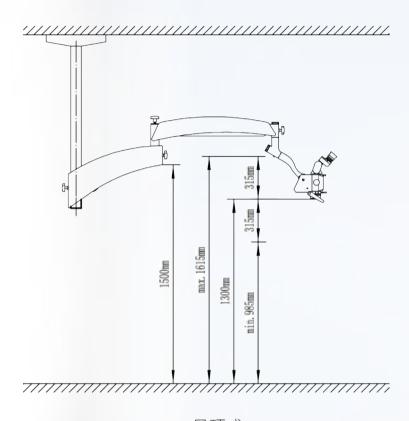
Technical Parameters

DOM4000E Microscope

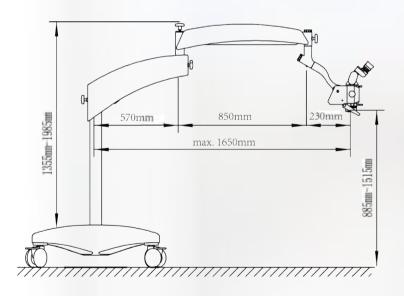
Optical System:	Apochromatic Optical Structure
Zoom System:	Continuous Zoom System
Zoom Range:	3.6x ~ 23.3x
Work Distance:	180mm-460mm
Lighting Source:	LED high-brightness pure white light source
Field of View Diameter:	132mm-9.7mm
Binocular Tube:	0-210° continuously adjustable angle binocular tube
Interpupillary distance adjustment range:	55mm-75mm
Eye Lens:	12.5x/10x (optional) wide-angle Eye Lens, diopter adjustment range ±7D
Assistant Lens:	Assistant Lens solution (optional): 0-210°continuously adjustable angle binoculartube beam splitter, 10x/12.5x Eye Lens
Camera System:	Built-in 4K ultra-high-definition video recording system, which can be managed and stored via wireless network
Arm System:	Aerostatic 4000 damped balance arm for easy manipulation of the microscope with one hand The maximum arm span is 1650mm, the turning radius of the cross arm: 570mm (360°rotation); the turning radius of the spring arm: 850mm, ±100°rotation, the up and down movement range of the spring arm: ±300mm
Bracket System:	floor-standingmobile, ceiling-mounted

Technical Parameters

DOM4000E Microscope



Ceiling-Mounted 吊顶式



Floor-Standingmobile 地面移动式

HOTRY ® NEUROSURGERY EQUIPMENT

Global Marketing Manager: Tel: +86 156 0075 3360

E-mail: menghan@hotryneuro.com

R&D Center: HOTRY Medical, 3rd Floor, Building 21,LIANDONGU VAL-LEY, No.50 Huatuo Road, Daxing District, Beijing, China

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