EXPERIENCE INTERVENTIONAL PULMONOLOGY



TOTAL SOLUTION SYSTEM

530 & 580 SCOPES

PROCESSORS

SYNAPSE 3D

SONOSITE

BRONCHOSCOPY PRODUCT LINE-UP

SU-1 EBUS

> MINI PROBE



HEALTHCARE

Fujifilm is renowned as one of the world's largest imaging companies, pioneering highdefinition diagnostic imaging and information systems for healthcare facilities and medical institutions.

Our clinically proven products and technologies are constantly being developed and refined to make the work of health professionals more effective and efficient.

At Fujifilm we are constantly innovating, creating new solutions that address the practical needs of our global customers in various business fields including healthcare, graphics systems, optical devices, recording media and photographic technologies.

Every year we invest around seven per cent of our consolidated turnover in research and development including dedicated research and the nurturing of close working relationships with international specialists. This ensures that we not only meet the highest quality requirements but also contribute to the advancement of culture, science, industry and technology as well as improved health and environmental protection in society.

At Fujifilm, we are continuously developing new technologies, products and services that inspire and excite people everywhere and offer the potential to expand the horizons of tomorrow's businesses and lifestyles.

ENDOSCOPY

As one of the leading companies in the development of endoscope technology, Fujifilm is constantly elaborating new opportunities to provide top quality products, excellent services and highly customised business solutions in the world of endoscopy.

We regularly set new benchmarks in the industry, for example, with the development of the new 4-LED Multi Light[™] technology and endoscopic ultrasound systems.

The focus at Fujifilm is firmly on holistic patient care which means that our service portfolio includes expert technical assistance, a comprehensive range of hygiene products and individual consulting.

Today Fujifilm operates in over 50 companies in Europe, employing more than 5,000 people engaged in R&D, manufacturing, sales, and service support. INTERVENTIONAL PULMONOLOGY

DEVELOPING UNIQUE TECHNOLOGIES

Our overarching aim is to help to improve the quality of life of people worldwide through the early detection and successful treatment of disease.

Fujifilm's comprehensive portfolio of advanced solutions meets a wide range of diagnostic and therapeutic endoscopic requirements and by linking state-of-the-art technologies we can provide you with some unique possibilities. The continuous enhancement of imaging technologies ensures high precision and excellent quality.



SELECTION OF INNOVATIVE TECHNOLOGIES



MULTI-LIGHT TECHNOLOGY™ This new high performance 4-LED Multi Light technology™

This new high performance 4-LED Multi Light technology^{1,m} illumination system is the latest innovation in Fujifilm's medical device portfolio. Optimal illumination using variable LED light intensity for highest standards in brightness and contrast.



BLI TECHNOLOGY The combination of special light wavelengths results in improved and accurate contrast imaging.



LCI TECHNOLOGY Increased contrast in red colour leads to improved visibility of mucosal colour changes.



FICE TECHNOLOGY

FICE can enhance slight colour differences such as vascular and mucosal patterns without tissue staining. The procedure digitally selects three wavelengths of light and displays reconstructed images.



SUPER CCD TECHNOLOGY

The Super CCD and high performance optical system ensures high quality images. It provides brilliant images which can facilitate procedures for detection and treatment of lesions.



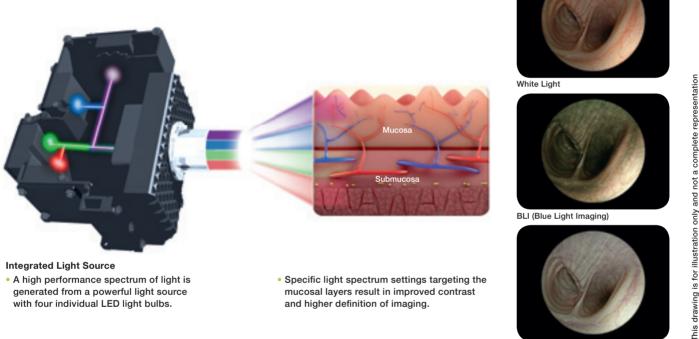
HD TECHNOLOGY This component offers premium endoscopy in HDTV (High Definition Television) quality resulting in detailed sharo pictures.



MULTI-LIGHT TECHNOLOGY

See More. Detect More. This new high performance illumination system is the latest innovation in Fujifilm's medical device portfolio, and ensures that the quality of imaging meets the highest standards in brightness and contrast providing the innovative observation modes BLI and LCI. The ELUXEO[™] in combination with the 500 series bronchoscopes provide detailed high-resolution imaging for both diagnosis and pre-therapeutic assessment.

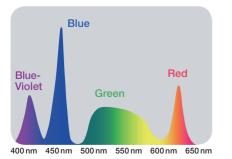
OPTIMAL ILLUMINATION USING VARIABLE LED LIGHT INTENSITY



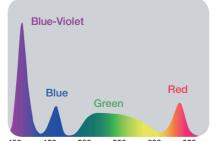
LCI (Linked Color Imaging)

High-intensity illumination based on 4-LED Multi Light technology[™] creates high-quality images with White Light and the new observation modes BLI (Blue Light Imaging) and LCI (Linked Color Imaging). With the involvement of numerous clinical experts, the ideal composition of four LEDs for each observation mode has been developed to achieve the optimal results in illumination. With a simple push of a button, you can easily switch between the following observation modes:

WHITE LIGHT MODE

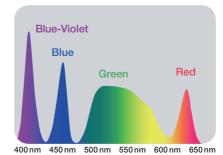


BLI MODE



400 nm 450 nm 500 nm 550 nm 600 nm 650 nm

LCI MODE



VIDEO BRONCHOSCOPY, ENDOSCOPIC ULTRASONOGRAPHY, FIBEROPTIC BRONCHOSCOPY ADVANCING IN ENDOSCOPIC BRON

Fujifilm's electronic bronchoscopes can meet all your requirements for enhanced endoscopic bronchial care.

Incorporation of leading endoscopic technologies means that these series can provide you with:

- High quality images to enhance efficiency in diagnosis
- Straight forward operability
- Improved insertability
- High levels of durability

Complemented by our video and image processors, our comprehensive range of endoscopes is suited to a wide variety of applications.

CHIAL CARE



EB-580 SERIES

Electronic Video Bronchoscopes

- High resolution 580 super CCD with close focus for advanced observation
- Larger working channel suitable for various treatments

ELUXEO[™] 7000 / EPX-3500

Video Processors & Light Source

- Full HD output and Super CCD technology produce high definition images
- Anti-blur function extracts the best still image from multiple images

NEW

• Advanced workflow enables intuitive and straightforward work processes

EB-530US & SU-1

Ultrasonic Bronchoscopes EB-530US

- Equipped with the Super CCD for high resolution images
- 10° forward oblique view in combination with a 120° field of view improves manoeuvrability and safety during TBNA procedures

Endoscopic Ultrasonic Processor SU-1

- High resolution B-Mode images
- Various imaging modes
- User-friendly compact device with easy to clean flat keyboard with touch pad or trackball



SP-900 & PB2020-M

Ultrasonic Mini Probe System

- High resolution ultrasonic images
- Shorter distal rigid section to insert the probe more smoothly when the endoscope is bent
- Small, lightweight system as a stand-alone solution as well as part of a larger endoscopy system

Meet the needs for diagnosis and treatment: electronic bronchoscopes

EB-580S / EB-580T VERSATILE AND

The EB-580S, equipped with an optical lens and a Fujifilm high resolution image sensor for vivid and high quality images, can obtain a wide range of data for accurate endoscopic examination and diagnosis. The EB-580T provides a larger working channel allowing for faster suction.



CLOSE FOCUS

IMPROVED SUCTION POWER

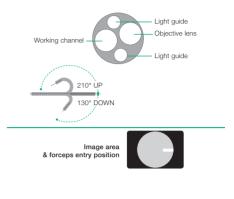


RELIABLE

VIDEO BRONCHOSCOPE EB-580S Standard Type



	Viewing direction	0° (Forward)
	Field of view	120°
	Observation range	2-100mm
	Bending capability	Up 210°/Down 130°
	Distal end diameter	5.3 mm
	Flexible portion diameter	5.1 mm
	Working channel diameter	2.2mm
	Working length	600mm
	Total length	870mm
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2.2 MM WORKING CHANNEL FOR FASTER SUCTION POWER

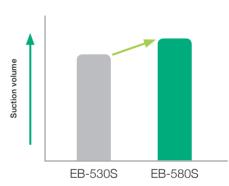
Faster suctioning offers quicker vision recovery, even during bleeding and taking biopsy. The strengthened tube of the working channel can improve durability.

210° UP ANGLE PROVIDES GREAT APPROACH ABILITY

Excellent bending capability (up angle: 210°) can improve reachability, especially to the upper lobe bronchus (B1-B3).

580 SUPER CCD & CLOSE FOCUS (2 MM)

580 Super CCD and Close Focus can achieve increased secure screening and a more precise diagnosis of bronchial lesion and lung cancer.

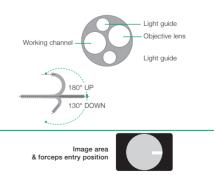


VIDEO BRONCHOSCOPE EB-580T Treatment Type





Viewing direction	0° (Forward)
Field of view	120°
Observation range	2-100 mm
Bending capability	Up 180°/Down 130°
Distal end diameter	5.8 mm
Flexible portion diameter	5.9 mm
Working channel diameter	2.8 mm
Working length	600mm
Total length	870mm



2.8 MM WORKING CHANNEL SUPPORTING THERAPEUTIC PROCEDURES

The larger working channel of 2.8 mm allows to use various therapeutic devices, and it provides accelerated suction of blood and bodily fluids for a clearer view during observation and treatment.

LASER COMPATIBILITY WITH ND-YAG AND DIODE

FUJIFILM

530 SERIES FULL SUPPORT FOR ALL

The 530 series of electronic bronchoscopes incorporate reliable endoscopic technologies to provide you with high quality images to enhance your diagnostic capability and improve operability in all areas of bronchial care.

SUPER CCD IMAGE SENSOR

OPTIMISED TIP LAYOUT Dual light guides:

- Eliminate areas of shadow to see more
- Provide bright and clear images
- Increased working channel size (3.2 mm)
- Enables the acceptance of various forceps
- Improves suction power



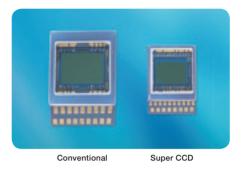
PROCEDURES

THE RIGHT ENDOSCOPE FOR THE JOB

The 530 series consists of five types of bronchoscope designed for both standard and treatment functions so that you can always choose the endoscope best suited to your purpose.

LIGHT-WEIGHT G5-GRIP ESPECIALLY FOR LONGLASTING THERAPEUTIC USAGE

The light weight grip reduces strain on the endoscopist during the procedure and is designed to fit naturally into the hands to increase manoeuvrability.



SUPER CCD IMAGE SENSOR

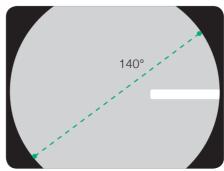
The 530 series endoscopes are equipped with a specially designed Super CCD image sensor for ultra-slim endoscopes. Using RGB filtering, the image sensor also provides vivid colors in the red spectrum which are important in endoscopic diagnoses.



EB-530H: HIGH QUALITY IMAGES WITH A 140° FIELD OF VIEW

The EB-530H has an improved field of view of 140°, which is 20° wider than the conventional view. This enables a wider observation field to be displayed in high quality without using the digital zoom-out, supporting more effective and detailed diagnoses.



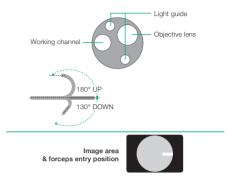


EB-530H

ELECTRONIC VIDEO BRONCHOSCOPE EB-530P Slim Type



Viewing direction	0° (Forward)
Field of view	120°
Observation range	3–100 mm
Bending capability	Up 180°/Down 130°
Distal end diameter	3.8 mm
Flexible portion diameter	3.8 mm
Working channel diameter	1.2mm
Working length	600 mm
Total length	890mm



SLIM DIAMETER

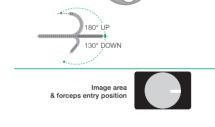
ELECTRONIC VIDEO BRONCHOSCOPE EB-530S Standard Type





Viewing direction	0° (Forward)	Light guide
Field of view	120°	Working channel Objective lens
Observation range	3–100 mm	Working channel Objective lens
Bending capability	Up 180°/Down 130°	
Distal end diameter	4.9 mm	
Flexible portion diameter	4.9 mm	180° UP
Working channel diameter	2.0 mm	130° DOWN
Working length	600 mm	•
Total length	870 mm	
		Image area

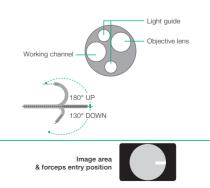
HIGH FREQUENCY COMPATIBILITY



ELECTRONIC VIDEO BRONCHOSCOPE EB-530H Standard Type



Viewing direction	0° (Forward)
Field of view	140°
Observation range	3–100 mm
Bending capability	Up 180°/Down 130°
Distal end diameter	5.4 mm
Flexible portion diameter	4.9 mm
Working channel diameter	2.0 mm
Working length	600 mm
Total length	870 mm



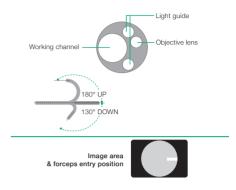
HIGH FREQUENCY COMPATIBILITY WIDE VIEW 140°



ELECTRONIC VIDEO BRONCHOSCOPE **EB-530T** Treatment Type



Viewing direction	0° (Forward)
Field of view	120°
Observation range	3–100 mm
Bending capability	Up 180°/Down 130°
Distal end diameter	5.8 mm
Flexible portion diameter	5.9 mm
Working channel diameter	2.8 mm
Working length	600 mm
Total length	870 mm



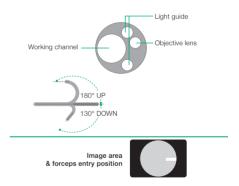
HIGH FREQUENCY COMPATIBILITY BIG CHANNEL 2.8 MM

ELECTRONIC VIDEO BRONCHOSCOPE EB-530XT Treatment Type



HIGH FREQUENCY COMPATIBILITY
LARGEST CHANNEL 3.2 MM

Viewing direction	0° (Forward)
Field of view	120°
Observation range	3–100 mm
Bending capability	Up 180°/Down 130°
Distal end diameter	6.2 mm
Flexible portion diameter	6.3 mm
Working channel diameter	3.2 mm
Working length	600 mm
Total length	870 mm



IMPROVED MANOEUVRABILITY AND HIGH RESOLUTION IMAGES

ULTRASONIC SYSTEM: EB-530US &

The EB-530US has excellent manoeuvrability and insertion capability to reduce patient discomfort and improve operator efficiency, while the high quality images and imaging modes provided by the Fujifilm ultrasonography processor SU-1 support accurate punctures.





SU-1 PROCESSOR

ULTRASONIC BRONCHOSCOPE EB-530US

EQUIPPED WITH A SUPER CCD IMAGE SENSOR

The Super CCD image sensor in the tip of this ultrasonic bronchoscope provides high resolution endoscopic images.



APPROPRIATE BENDING ANGLE (UP 130°/DOWN 90°)

A large bending angle facilitates paracentesis at the target site.

DUAL LIGHT TO SUPPORT EBUS-TBNA

Two lights ideally positioned on opposite sides illuminate the front and eliminate shadows during paracentesis. An appropriate needle angle facilitates smooth paracentesis at the target site.

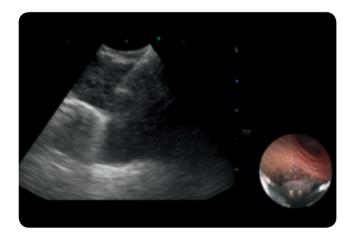
Viewing direction	10° Forward Oblique
Field of view	120°
Observation range	3–100mm
Bending capability	Up 130°/Down 90°
Distal end diameter	6.7 mm
Flexible portion diameter	6.3mm
Working channel diameter	2.0 mm
Working length	610 mm
Total length	880mm



ENDOSCOPIC ULTRASONIC PROCESSOR SU-1

HIGH QUALITY IMAGING

The Fujifilm ultrasonography processor SU-1 is equipped with proprietary image processing technology and a variety of imaging modes, including the high resolution B-Mode, designed to support accurate diagnosis.



SU-1 -H- SU-1 -S-

Power rating	AC 100–240 V
Frequency rating	50 Hz / 60 Hz
Power consumption	2.0–1.2 A
Dimensions	390 × 135 × 485 mm
Weight	13 kg
Scanning method	Electronic scanning
Probe types	Curved linear array / Radial
Scanning modes	B, M, CD, PD, PW, THI, and CH
Special modes*	Elastography / CHI
Received gain correction	0–100, 2-step
STC	6-step gain settings per depth
Sound speed correction	Full screen ROI settings
Dynamic Range	40–100 DB, 5-step
PinP	Endoscopic / Ultrasound Imaging
Observation screen	Hospital / Date / Time / Patient
Curved linear array	EB-530US
Frequency	5 MHz, 7.5 MHz, 10 MHz, and 12 MHz
DVI image input terminal	1

* CHI and Elastography modes are available only in SU1-H

PICTURE-IN-PICTURE IMAGE

Keyboard operation facilitates smooth examinations and allows switching between an ultrasound image, an endoscopic image, and a picture-in-picture screen. INDEPENDENT ULTRASOUND

SP-900 & PB2020-M NEW ULTRASONIC

Fujifilm developed this very compact, user-friendly ultrasonic mini probe system to make it possible to approach a peripheral pulmonary lesion effectively. Offering enhanced operability, SP-900 and PB2020-M are designed for a more precise and efficient examination.



PROBE SYSTEM



CLEAR IMAGES

High resolution ultrasonic images can be obtained through the digital video signal output and digital corrections of the imaging artefacts.

IMPROVED INSERTABILITY

The shorter distal rigid section enables the probe to be inserted more smoothly into the upper lobe bronchus even when the endoscope is bent.

FAST AND SIMPLE

The small and lightweight system can be used as a stand-alone solution as well as part of a larger endoscopy system.

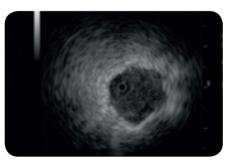


NEW

ULTRASONIC PROCESSOR SP-900



Voltage	AC100-240V
Current consumption (rated)	0.7-0.5A
Scanning mode	Bmode
Scanning method	Mechanical radial
Penetration depth	20 mm or more
Frequency	50 / 60 Hz
Dimensions (W x H x D)	377 x 80 x 480 mm
Weight	8.0 kg



MINI PROBE PB2020-M



Working length	2,150 mm
Distal end diameter	1.4mm
Proximal end diameter	1.9mm
Acoustic frequency	20MHz ± 15%



Supporting definitive diagnosis

RELIABLE PROCESSOR TECHNOLOGY

FUJIFILM

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Processor technology from Fujifilm provides you with the best processor whatever the application. Video processors range from the ELUXEO[™] 7000 system for demanding examinations in HDTV quality to the EPX-2500, an affordable alternative for HD endoscopy, with full digital image processing and video interfaces.

With ergonomic and intuitive user controls, all our processors help to both save valuable time and provide most comfortable examinations.

> DICOM INTERFACE





ELUXEO" LIGHT SOURCE BL-7000

4-LED LIGHT SOURCE WITH HIGH DURABILITY

To achieve the highest standards, the eco-friendly ELUXEO[™] 7000 system features the innovative 4-LED light source, which is outstanding in terms of longevity and low energy consumption. The new LED light source reduces time-consuming and frequent changes of light bulbs. The average life expectancy of LED lights is 10,000 hours.

Light source	LED maximum light output: 1400 lm
Light control	Automatic light control by the control signal from video processor
Light cooling method	Forced air cooling
Air supply pump	Available at 4 levels (Hi/Mid/Low/Off)
Power rating	100-240V 50/60Hz 1.2-0.7 A
Dimensions (W x H x D)	390 x 155 x 485 mm (including projection)
Weight	12kg
Optical radiation safety	Class 1 LED product



Life expectancy in hours1

ELUXEO" VIDEO PROCESSOR VP-7000

HIGH PERFORMANCE VIDEO PROCESSOR

The ELUXEO[™] video processor VP 7000 enables you to make use of the many features provided by Fujifilm's wide range of scopes along with the innovative 4-LED illumination system and its innovative visualisation modes BLI and LCI. It is compatible with the 530 and 580 series bronchoscopes. The processor creates high quality images and videos displayed in full HD on the monitor. Automatic back-up mode for data storage is integrated and the processor is also DICOM compatible.

Digital output	DVI (Resolution 1280 x 1024 px, 1920 x 1080 px) HD-SDI (Resolution 1920 x 1080 px)		
Input/Output Connector	DVI-D: 2 channel S VIDEO DVI-I: 2 channel VIDEO HD-SDI: 2 channel RGB TV Input Connector: 1 channel PoP		
Control Connector	Light Source I/F (37P): 1 channel Light Source I/F (Mini D-Sub 15P): 1 channel Remote (Bnc): 2 channel Peripherals (D-Sub 9P): 2 channel Keyboard: 1 channel Card reader: 1 channel Digital printer: 1 channel Footswitch: 1 channel Network: 1 channel	PENNEM TO A	
Type of colour	NTSC/PAL	1	
Iris	Average/Peak/Auto		
Applicable bronchoscope	530/580 series		
Power rating	100 - 240V 50/60Hz 0.8 - 0.5 A	TH .	A
Dimensions (W x H x D)	390 x 110 x 485 mm (including projection)		
Weight	9.0 kg		

Light Source BL-7000 and Video Processor VP-7000

VIDEO PROCESSOR EPX-3500HD

ADVANCED ENDOSCOPIC DIAGNOSTIC AND THERAPY

With its advanced image processing technology, the EPX-3500HD supports both endoscopic diagnostics and therapies. It offers clear images from superior functions such as structure enhancement (FICE), automatic light control and anti-blur. The EPX-3500HD is compatible with our full range of 580 and 530 bronchoscope series.

THREE PRE-DEFINED FICE PATTERNS AVAILABLE

Digital output	2 x DVI (1280 x 1024 p or 1920 x 1080 p)
Analog output	1 x RGB TV (PAL, RGB+SYNC), 1 x S-VIDEO (Y/C), 1 x VIDEO (Composite)
Control terminal	2 x Remote, 2 x Peripheral, 1 x Keyboard, 1 x Card reader, 1 x Aux, 1 x Digital printer, 1 x Foot switch, 1 x Ethernet (100/10 Base)
Color adjustment	Brightness, Red, Green, Blue, R-Hue, Chroma, 9 steps
Contrast	3 steps
Structure emphasis	High, Mid, Low, Off
Color emphasis	High, Mid, Low, Off
FICE	3 presets (FICE 0, 1, 8)
Iris	Average/Peak/Auto
Image storage	USB Flash Drive
Power rating	AC 100 - 240V ± 10 % 50/60 Hz 1,0-0,3 A*
Dimensions (W x H x D)	390 x 105 x 460 mm
Weight	8 kg



VIDEO PROCESSOR EPX-2500HD

EPX-2500 VIDEO PROCESSOR: HIGH DEFINITION IN EVERYDAY WORK

HD endoscopy

FICE

DICON

The EPX-2500 combines convenient operation with high resolution images. The digital video output of the EPX-2500 produces images in high definition without loss of quality. EPX-2500 is compatible with our 530 bronchoscope series.

Digital output	DVI (Digital Visual Interface): 1024 x 768 p
Analog output	RGB (2): SDTV (NTSC/PAL); Y/C (2): SDTV (NTSC/PAL) Composite: SDTV (NTSC/PAL)
Color adjustment	Black, Red, Green, Blue, R-Hue, Chroma; 9 settings
Detail	High, Low; 9 settings
Contrast (gamma)	9 settings
BLD	High, Mid, Low, Off
Picture in picture	On, Off; Size: 1/4, 1/3
Auto gain control	Off, +3db, +6db
Iris	Average/Peak
Zoom	Electric zoom: x1.0-x2.0; 0.05 steps
Lamp rated value	Main lamp: 11.7 V 150 W Xenon lamp Emergency lamp: 12 V 75 W Halogen lamp
Brightness control	9 settings
Lamp cooling method	Forced air cooling
Air supply pump	High, Low, Off
Power	120V 60Hz 2.7A / 230V 50Hz 1.4A
Dimensions (W x H x D)	375 x 190 x 495 mm (including projections)
Weight	17.0 kg

*less than 90VA



FIBEROPTIC BRONCHOSCOPES

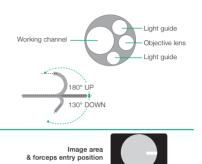
MOBILE FIBEROPTIC BRONCHOSCOPE FB-120MP

FOR EXAMINATIONS AT THE PATIENT'S SIDE

This mobile bronchoscope operates without a light cable, making it extremely versatile in clinical environments. The LED light source does not need to be changed for many years.



Viewing direction	0° (Forward)
Field of view	120°
Observation range	1–50 mm
Bending capability	Up 180°/Down 130°
Distal end diameter	4.8 mm
Flexible portion diameter	4.9mm
Working channel diameter	2.2 mm
Working length	600mm
Total length	920 mm
HF Compatibility	Yes



FUJIFILM

DURABLE BATTERY

The smaller battery box, LA-1A, has a CR2 lithium battery for up to 60 minutes continuous use. A rotational mechanism makes the battery switch highly stable.



FIBEROPTIC BRONCHOSCOPE FB-120S/T/P

COMPATIBLE WITH HIGH FREQUENCY THERAPEUTIC TREATMENTS

Fujifilm's fiberoptic bronchoscopes provide safe and efficient methods of patient care, whether in intubation, examination or therapeutic situations.

	FB-120S	FB-120T	FB-120P
Viewing direction	0° (Forward))
Field of view	120°		100°
Observation range	1–50mm		
Bending capability	Up 180°/Down		130°
Distal end diameter	4.8mm	5.9 mm	2.7 mm
Flexible portion diameter	4.9 mm	5.9 mm	2.8mm
Working channel diameter	2.2 mm	2.8 mm	1.2 mm
Working length		600 mm	
Total length	900	mm	920 mm
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EXCELLENT OPTICAL CHARACTERISTICS

ENHANCED MANOEUVRABILITY

ACCURATE VISUALISATION

SYNAPSE 3D

3D IMAGING AND VIRTUAL SIMULATION

SYNAPSE 3D uses unique image recognition technologies to automatically extract organs and vessels. The technology enables automatic extraction of lung, lung lobes, the bronchi, the pancreas, the colon etc. This feature makes possible a large variety of 3D analysis, such as visualisation of chronic respiratory disease.

POWERFUL SIMULATION TOOL

The Bronchus Scope Simulation and Fine Bronchus Extracting functions make it possible to find an optimum bronchus path to reach a lung nodule by using the volume data collected with CT and then to simulate the insertion of the bronchoscope into this path.



Stay up to date on endoscopic best practices and learn from state-of-the-art demonstrations in our workshop series. For more information please contact endoscopy@fujifilm.eu

ADVANCING DEEPER INSIGHTS IN ENDOSCOPY



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