

PowerSpiral

Take Enteroscopy to the Next Level



Accelerating into a Motorized Future

The PowerSpiral Enteroscope

The PowerSpiral allows for fast and gentle access to reach deep into the small intestine by pleating the small bowel onto the enteroscope using a spiral segment. This is achieved via the integrated motor, which rotates the single-use PowerSpiral overtube that is equipped with soft spiral-shaped fins that gently follow the mucosa. The motorization not only ensures smooth and safe insertion and withdrawal of the enteroscope, but, in comparison to conventional systems, it also improves maneuverability during therapeutic interventions.



Smooth and Deep Insertion

The motorized advancement, combined with the soft fins of the spiral segment, enables excellent maneuverability and insertion, providing insight into the entire intestinal lumen, which makes it easier to penetrate deep into the small intestine.



Precise Positioning for Therapeutic Interventions

The motorized speed control and gentle grip on the mucosa between the soft fins of the spiral segment allow precise positioning of the endoscope and enable various well-controlled and stable therapeutic interventions to be performed.



Substantial Reduction in Procedure Time

Lesions may be reached more quickly. First study results demonstrated that procedure times with the PowerSpiral endoscope may be substantially reduced^{*1,2}.

“The motorized spiral enteroscope is the first active endoscope to reach deep into the small intestine in a relatively short time. For me, this new technology is a genuine milestone in endoscopy that allows smooth and fast insertion for effective treatment by using standard accessories.”

Prof. Dr. Horst Neuhaus

^{*1} Beyna T, Schneider M, Pullmann D, et al. Motorized spiral colonoscopy: a first single-center feasibility trial. *Endoscopy*. 2018; 50(5): 518-523.
^{*2} Mans L, Arvanitakis M, Neuhaus H, et al. Motorized Spiral Enteroscopy for Occult Bleeding. *Dig Dis*. 2018; 36(4): 325-327.

Versatile Features Enhance the Power of a Motorized Scope

The PowerSpiral Enteroscope

Motorized Spiral Enteroscopy

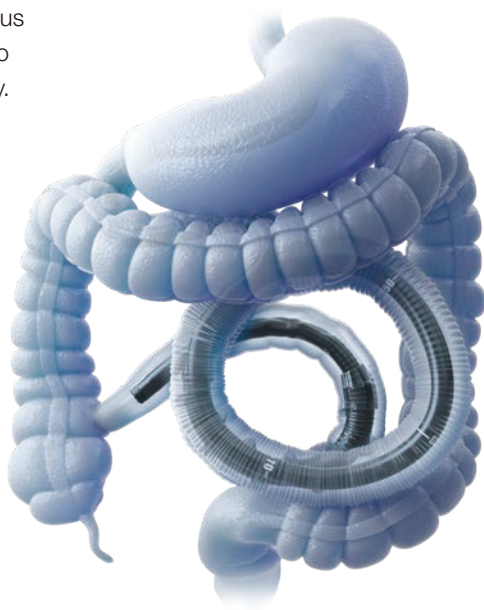
The PowerSpiral enteroscope uses a unique technology where a user-controlled motor rotates the PowerSpiral overtube that is mounted on the enteroscope.

Soft Spiral-shaped Fins

Soft spiral-shaped fins, which gently and protectively nestle against the mucosa, pull the intestine onto the enteroscope. The effect of this spiral working principle is stable guidance in the lumen of the small intestine and precise positioning of the enteroscope for treatment.

Sharp and Clear HD Image

An HD image is provided as a first for Olympus enteroscopes. Sharper image quality helps to provide more efficient diagnoses and therapy.



3.2 mm Working Channel

Featuring a Ø3.2 mm instrument channel, suction performance can be retained while the treatment instrument is inserted. Many of the current treatment instruments can be used smoothly.

Water Jet Function

The water jet function improves the accuracy of observations and efficiency of treatment by easily removing mucus and other residues in the investigated intestinal areas. Bleeding can also be detected and treated more quickly.

3.2 mm

Familiar Length

Thanks to a standard colonoscope length (1,680 mm), improved maneuverability compared to conventional scopes is expected. Moreover, a great variety of compatible instruments from the large Olympus EndoTherapy portfolio can be used to perform various treatment procedures.

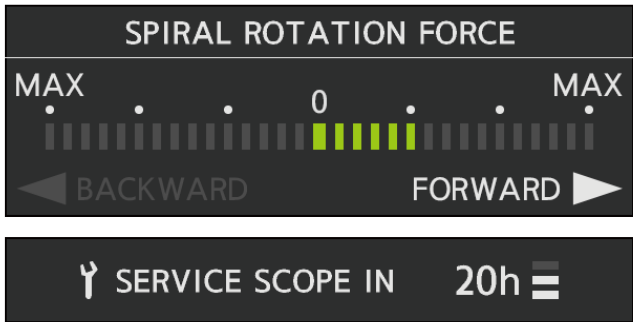


Easy-to-operate

The direction and speed of the rotation of the spiral segment are controlled by a foot switch.

Efficient Control

The Force Gauge provides the operator with a visual indication of the rotational direction and the motor current throughout the examination. The Force Gauge also displays a service indicator of the enteroscope to securely inform periodical maintenance.



PowerSpiral System Components

Intestinal Videoscope (PSF-1)



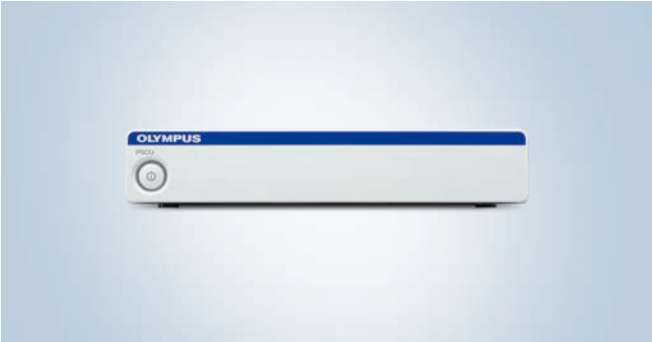
Motor case



Single-use PowerSpiral Tube (DPST-1)
Overtube with soft spiral-shaped fins

PowerSpiral Control Unit PSCU

The PowerSpiral control unit controls the rotational direction and speed of the spiral segment.



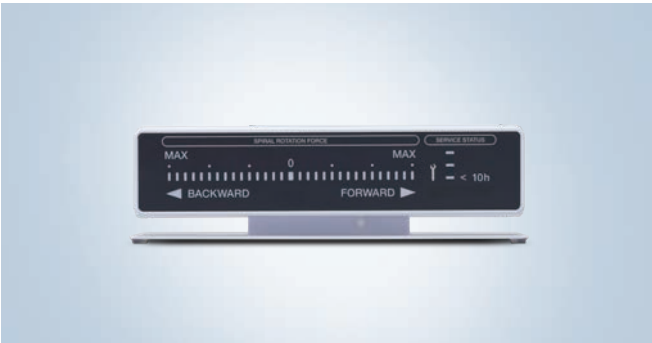
ESG-300

The ESG-300 can adapt to meet all electrosurgical needs of enteroscopy.



Force Gauge MAJ-2179

The force gauge provides visual indication of the rotational direction and the motor current.



Biopsy Forceps and APC

A wide variety of compatible ET instruments can be used to perform various treatment procedures.



PowerSpiral Foot Switch MAJ-2181

The direction and speed of rotation of the spiral segment are controlled by foot pedals for simple operation.



Designated Lubricant (ENDOLAN)

ENDOLAN lubricant is the designated lubricant to be used with all PowerSpiral systems and procedures.



Training Courses and Service Solutions

Training and Service for the PowerSpiral Enteroscope



Message from PowerSpiral Experts Group

Spiral enteroscopy requires a different technique than standard enteroscopy because it relies on the powered spiral segment to pull the small bowel onto the enteroscope. Olympus has created extensive and detailed educational web content to support physicians to reliably and safely insert and withdraw the enteroscope and clearly explains nuances in technique and troubleshooting problems. The content includes description of the product, videos of the technique, clinical videos and E-learning programs. These were developed to support the safe and effective use of PowerSpiral and we strongly recommend that you carefully view and read all of the material before beginning clinical cases.*

Find more information at: <https://www.olympusprofed.com/gi/powerspiral/>

Training Courses

Olympus offers face-to-face training for new users of the PowerSpiral enteroscope. The agenda includes hands-on training sessions, live case observations and various presentations.

➤ <https://www.olympusprofed.com/gi/powerspiral/>



Training Material

Olympus has worked intensively with experienced physicians to develop an extended set of materials. It contains a procedural manual, example video cases and an e-learning platform to familiarize the new technology.

➤ <https://www.olympusprofed.com/gi/powerspiral/>



Comprehensive Service Solutions

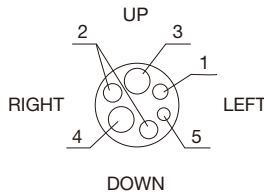
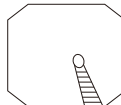
Olympus provides a level of service support that extends beyond repairs. Unique service solutions increase the system's uptime so as to ensure a secure investment for customers.



* Please note that the material provided by Olympus does not replace any instruction of the users which is required by applicable laws.

User-controlled Motor Power Changes your Enteroscopy with Faster and Deeper Insertion

The PowerSpiral Enteroscope

Product Specifications			
Intestinal Videoscope (PSF-1)			
Optical System	Field of view	140°	
	Direction of view	Forward viewing	
	Depth of field	2 – 100 mm	
	Image quality	HD Image	
	NBI observation	Available	
Insertion Section	Distal end outer diameter	ø 11.3 mm	
	Distal end enlarged		
	Insertion tube outer diameter	ø 11.5 mm (Distal to the rotation part) ø 12.8 mm (Proximal to the rotation part)	
	Insertion section working length	1680 mm	
	HFT (High Force Transmission)	Available	
Rotation Part			
Rotation Part	Maximum rotation rate	30 rpm	
	Channel inner diameter	ø 3.2 mm	
	Minimum visible distance*1	3 mm	
Instrument Channel	Direction from which EndoTherapy accessories enter and exit the endoscopic image		
	Airflow Rate*2	25 cm³/s	
Bending Section	Angulation range	UP 180°/DOWN 180°/ RIGHT 160°/LEFT 160°	
Total Length		2035 mm	
*1 Distance from the distal end of the endoscope. *2 Standard when CLV-190 (high air pressure) is used.			
Single-use PowerSpiral Tube (DPST-1)			
Fin	Maximum outer diameter	ø 31.1 mm	
Tube	Outer diameter	ø 18.1 mm	
Total Length		240 mm	

^{*1} Distance from the distal end of the endoscope.
^{*2} Standard when CLV-190 (high air pressure) is used.

PowerSpiral Control Unit (PSCU)		
Power Input	Rated voltage	220 – 240 V AC
	Voltage fluctuation	Within ±10%
	Rated frequency	50/60 Hz
	Frequency fluctuation	Within ±1 Hz
	Power consumption	70 VA
Size	Fuse rating	5 A
	Dimensions	370 (W) × 69 (H) × 460 (D) mm
	Dimensions (maximum)	375 (W) × 75 (H) × 477 (D) mm
	Weight	6.1 kg
Classification (Medical Electrical Equipment)	Type of protection against electric shock	Class I
	Degree of protection against electric shock of applied part	TYPE BF applied part. Where no classification mark appears, the device is a TYPE BF applied part.
Classification (Medical Electrical Equipment)	Degree or protection against explosion	The PowerSpiral control unit should be kept away from flammable gases.

Rotation Control	Rotation speed control range	30 rpm (at single-use PowerSpiral tube rotation speed)
	Rotation direction	Forward and backward
	Control method	Speed control
	Limit function	The limit function stops the rotation of the single-use PowerSpiral tube when the electric current to the motor on the endoscope exceeds a setting value.
Output of the Video Signal of the Force Gauge		Outputs the display of the force gauge as the video signal.
Output of the Video Signal	Signal format	PAL
	Output signal	Y/C
Included Items		· PSCU · Force Gauge · Force Gauge Cable · PowerSpiral Foot Switch · Communication Cable 1.8M · CLV-UPD Cable · Y/C Cable
Designated Lubricant (ENDOLAN)		
Tube Content		200 ml
Delivery Quantity		12 / box





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Specifications, design and accessories are subject to change without any notice or obligation on the part of the manufacturer.



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