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Med-line endoscopes



*The Ray of Light in minimal-invasive
Diagnostics and Therapy*

Laparoscopy from HSW ◀



▶ HSW – Our Features – your Benefits

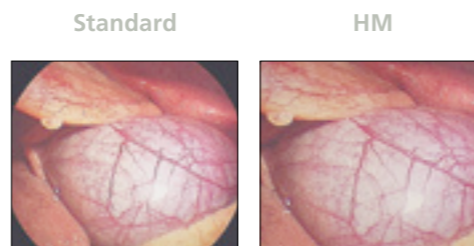
Brilliant high-definition image and exceptional image brightness for an optimal result:

- ▶ High-quality, multicoated (anti-reflective) optical system
- ▶ Superb optical transmission
- ▶ Highly refractive glass for optimal colour rendering even when the image is magnified
- ▶ Extremely precise centring of the optical and mechanical components for an image that is brilliant and high-contrast even around the edges
- ▶ High-performance illumination fibres
- ▶ High-quality glass cone for optimising light transmission used in laparoscopes upto 10 mm diameter



Outstanding autoclavable performance and ultra-high durability for a reliable and cost-efficient application:

- ▶ Sealing of the optical system without using adhesive or elastomers but through laser welding and a special HSW soldering process
- ▶ Use of high-quality sapphires at the distal and proximal end as well as stainless steel for the shaft and the body
- ▶ Nitrogen filled optical system to avoid interior condensation



HSW Laparoscopes are also available in high-magnification versions (HM) for larger imaging and improved detail viewing.

Laparoscopes 5 mm	Standard Image			High Magnification		
Diameter	5 mm			5 mm		
Working length	approx. 300 mm			approx. 300 mm		
Direction of view	0°	30°	45°	0°	30°	45°
Article no. autoclavable	719 420 1500	719 420 1530	719 420 1545	719 420 2500	719 420 2530	719 420 2545

High magnification = version for larger imaging and improved detail viewing

Laparoscopes 5.5 mm	Standard Image			High Magnification		
Diameter	5.5 mm			5.5 mm		
Working length	approx. 300 mm			approx. 300 mm		
Direction of view	0°	30°	45°	0°	30°	45°
Article no. autoclavable	719 420 5500	719 420 5530	719 420 5545	830 000 1067	830 000 1068	830 000 1070

High magnification = version for larger imaging and improved detail viewing

Laparoscopes 10 mm	Standard Length			Bariatric		
Diameter	10 mm			10 mm		
Working length	approx. 330 mm			approx. 450 mm		
Direction of view	0°	30°	45°	0°	30°	45°
Article no. autoclavable	719 620 1000	719 620 1030	719 620 1045	719 645 1000	719 645 1030	719 645 1045

Operation Laparoscopes	45°		2 x 90°	
Diameter	10 mm	11 mm	10 mm	11 mm
Working Channel	5.1 mm	6.1 mm	5.1 mm	6.1 mm
Working length	approx. 270 mm		approx. 270 mm	
Direction of view	0°		0°	
Article no. non-autoclavable	719 800 4500	719 800 4511	719 800 9000	719 800 9011