

**OLYMPUS**

Your Vision, Our Future

**EXPLORENT**

LARYNGOLOGY

# FK-WO TORS

Laryngo-pharyngoscope retractor



# NEW DIMENSIONS

in TORS, Endoscopic Laser Surgery and Conventional Microsurgery

Through its unrestricting design, the FK-WO TORS laryngo-pharyngoscope retractor offers unique exposition of the upper aerodigestive tract especially during TORS (Trans-Oral Robotic Surgery), microsurgery or laser surgery of the base of tongue, larynx and hypopharynx. In comparison with the standard laryngoscopes, the non-tubular concept of this device allows better view into the operation area, an improved access to it and easier manipulation of instruments.

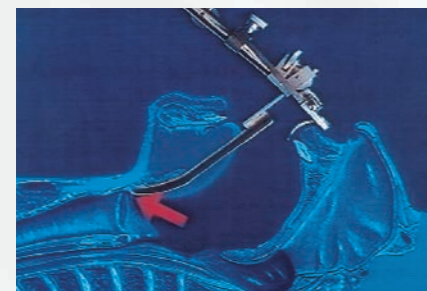
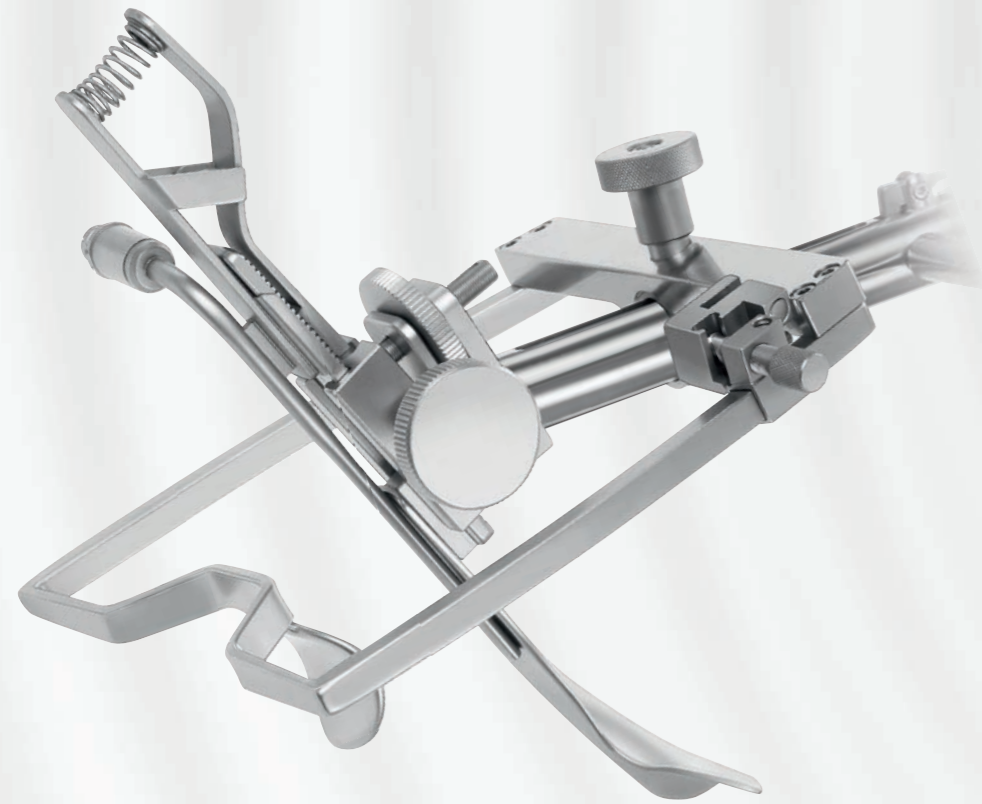
## NON-TUBULAR DESIGN, FRAME CONSTRUCTION WITH WIDE APERTURE

- The operation field is not restricted like it is the case when using standard operation laryngoscopes
- Ample space is provided even for robotic instrument placement in TORS
- Movement and manipulation of instruments is facilitated

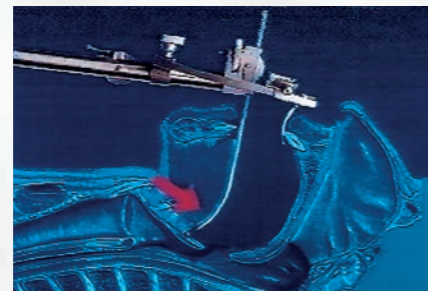
## ADJUSTABLE ANGLES OF THE BLADES MOVING UPWARDS AND DOWNWARDS

## FORWARD AND BACKWARD MOVEMENT OF THE BLADE FOR DEEP OR LESS DEEP INTRODUCTION

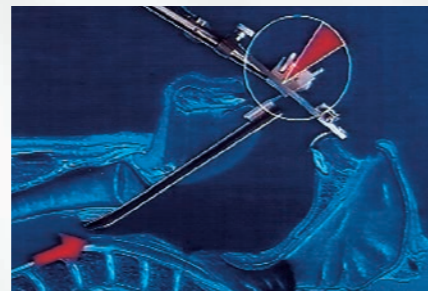
- Excellent view of the anatomic structures as the operation field can be ideally exposed
- Head reclination only moderate



Exposure of oropharynx



Exposure of larynx



Exposure of hypopharynx and upper esophagus

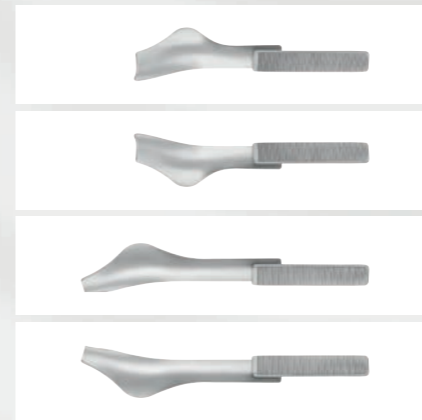
## Blade Variety Covering All Applications

A large selection of blades ensures an optimal exposure of the single operation sites within the upper aerodigestive tract. The adapted design of the blades (length and shape) allows use in TORS procedures (Trans-Oral Robotic Surgery): The different blades can be adjusted in their angles and their insertion depth for creating sufficient space in the operation situ. Additionally, their adjustability allows an optimal opening of the mouth and thus ideal exposure towards the upper aerodigestive tract.

## Blades

### LARGE VARIETY OF BLADES

- Management of all procedures in laryngeal, pharyngeal and oral surgery



Tongue blades for mouth cavity and oropharynx

TORS blades acc. to Weinstein-O'Malley for exposing the supraglottis and piriform sinuses and tongue base lesions



Laryngeal blade



Diverticle blade for hypopharynx/esophagus



Laryngeal blade



Mandible blade for tumor surgery inside of the oral cavity

## Additional Self-Holding Instruments

Additional instruments can be attached to the frame, so as to enable the surgeon to have maximum freedom of hands. The self-holding light clip represents an important tool for a good illumination of the operating site. Protruding parts of the cheek and tongue are held aside by the cheek retractors. Further self-holding instruments like the smoke suction tube and the tumor grasping forceps support the surgeon during the operation.



Light clip for connection to the blade and direct illumination of the operation field and better view during insertion



Cheek retractors connecting to the frame for holding aside of the patient's cheek



Suction tube for smoke evacuation



Self-retaining tumor grasping forceps

## ATTACHMENT OF ASSISTING TOOLS

- Freedom of hands
- Illumination-, retraction-, suction-, grasping function

## Flexible Tension Arm

A flexible tension arm provides an easy and convenient way to secure the retractor into the desired orientation/position to best accommodate standard and robotic procedures.

## CONNECTION FOR FLEXIBLE TENSION ARM

### ONLY ONE CENTRAL SET SCREW

- Safe and easy positioning/orientation of the FK-WO TORS Retractor
- Best accommodation for TORS procedures
- Fast and stable fixing with powerful holding force
- Universally applicable



Connection of flexible tension arm to retractor

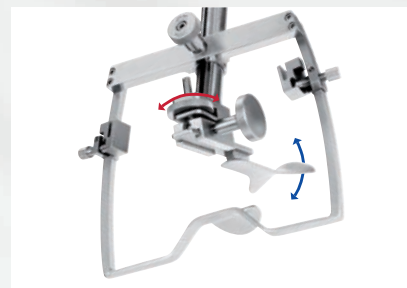
## A Device Offering Unique Exposition



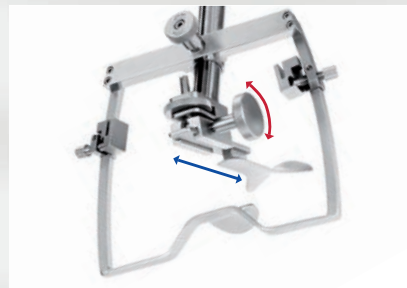
Providing ample space for robotic arm placement, the FK-WO TORS Laryngo-Pharyngoscope Retractor allows adequate exposure in Trans-Oral Robotic Procedures (TORS). With specially developed blades, this is the only retractor system which provides exposure to the supraglottis and piriform sinuses as well as to

more difficult to reach tongue base lesions during TORS. This retractor also plays an essential role in improving

and easing standard micro-laryngeal procedures and laser surgery of the upper aerodigestive tract and helps expose all relevant anatomical areas for a thorough, safe and time-saving operation. Especially in base of tongue operations it provides outstanding exposure and advantages versus other laryngoscopes.



Setting the angle of the blade

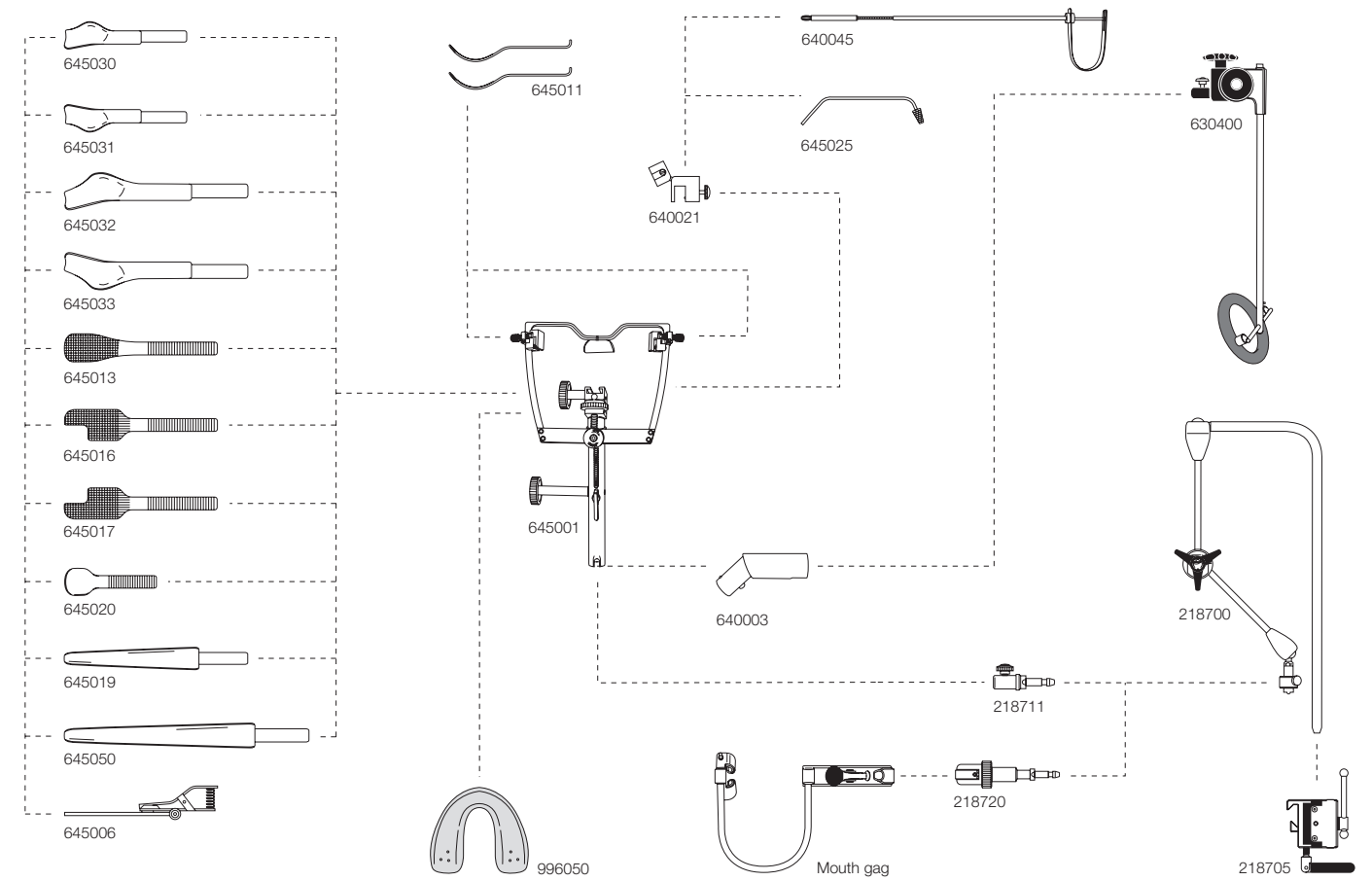


Adjusting the insertion depth of the blade



Adjusting the retraction space

## FK-WO TORS SYSTEM CHART



## FK-WO TORS SET

645000	FK-WO TORS laryngo-pharyngoscope retractor complete set	Tongue blade, curved	640021	Adapter, for tumor grasping forceps or suction tube,
645001	FK-WO TORS basic frame, with adapter 640003	645013 curved, right side open	645025	Suction tube, 4 x 170 mm, for smoke
640003	Adapter, for FK-WO TORS basic frame	645016 curved, right side open	996050	Teeth protector, latex free, not autoclavable, 10 pcs.
	TORS blade, acc. to Weinstein-O'Malley,	645017 curved, left side open	806450	Container, for FK-WO TORS retractor
645030	small, left	645019	Laryngeal blade, 17 cm, concave	
645031	small, right	645020	Mandible blade, 11 cm	
645032	large, left	645006	Light clip, with lateral cable connection	
645033	large, right	645011	Cheek retractor, curved, 2 pcs.	

## ACCESSORIES

640045	FK self retaining tumor grasping forceps, flexible, with 3 grasping teeth, working length 23 cm, 4 mm diameter of shaft	630500	Rod for children (not shown), 9.5 cm diameter of ring, rod length 24 cm	218711	Adapter, for retractor/laryngoscope
645050	Diverticle blade, concave, working length 22 cm	218700	Flexible tension arm, L-stand, 470 x 170 mm, 18.5" x 6.7" with lock	218720	Adapter, for retractor/optic/mouth gag
630400	Laryngoscope holder and chest support, with rod for adults, with rod fixation screw, for use with the laryngoscopes, 9.5 cm diameter of ring, rod length 34 cm	218705	Clamp socket, for 218700, electrical isolated up to 4.5 kV AC, for rail 25/35 x 8/10 mm 1/1.4 x 0.3/0.4"		

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