

## Simple manual drilling

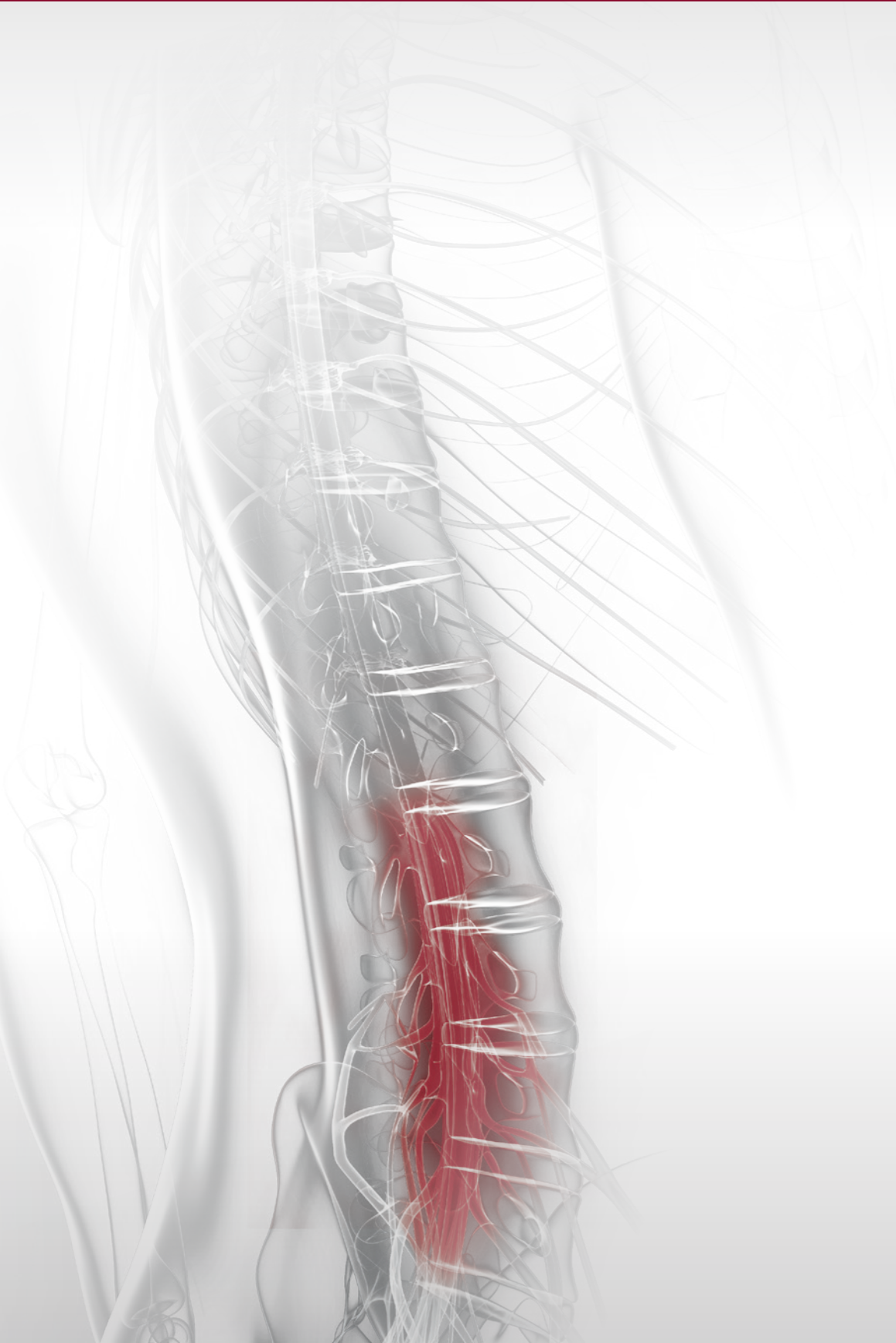


### **VERTEBRIS foraminotomy**

Universal manual drilling system for  
foraminotomy

## VERTEBRIS foraminotomy

At a glance



The instrument set is used to create surgical access ports in endoscopic or endoscopically supported interventions or operations on the lumbar spine, in particular if bone structures have to be removed on the way to the surgical site on account of particular anatomical features or pathological changes.

### Simple handling

The multifunctional handle with an ergonomic grip ensures maximum control in the individual work steps and facilitates handling in a surgical intervention.

An additional color marking for the instruments permits fast and unambiguous allocation of individual components that fit together.

### High level of safety

The protection of neural structures was a top priority when this abrading system was developed. Specially shaped working sleeves and blunt abrading tips will protect nerve structures from mechanical damage.

### Precise cutting performance

A special cutting ergonomic design guarantees high and precise cutting performance for minimal expenditure and permits effective and tissue-preserving resection of bone material.

# VERTEBRIS foraminotomy

At a glance

- High and precise cutting performance
- Minimum expenditure of effort with ergonomic grip shape
- Protection of neural structures against mechanical damage with special working sleeves and burrs with blunt tip at the distal end
- Color marking for fast allocation of individual components
- Reusable instrument set
- Simple storage with matching instrument sieve



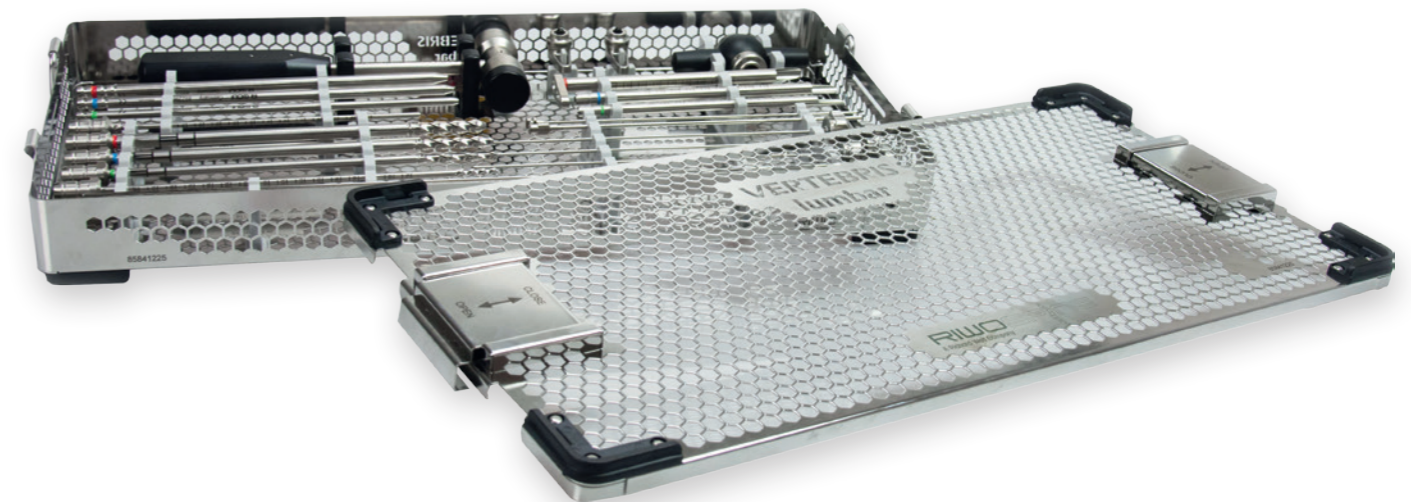
All instrument diameters are coordinated with each other so that working instruments of different size can be used during the surgical intervention without changing position. This facilitates surgical application and permits simple and efficient staged resection of bone material.

Application

## Area of application

Typical indications for the use of manual abrading is expansion of the foramen or pathological constrictions to create an endoscopic access port to the spinal canal.

Bony barriers can be effectively removed after using manual burrs to position special working sleeves under X-ray vision. The special shapes of the working sleeves offer protection to the surrounding neural structures against mechanical damage.



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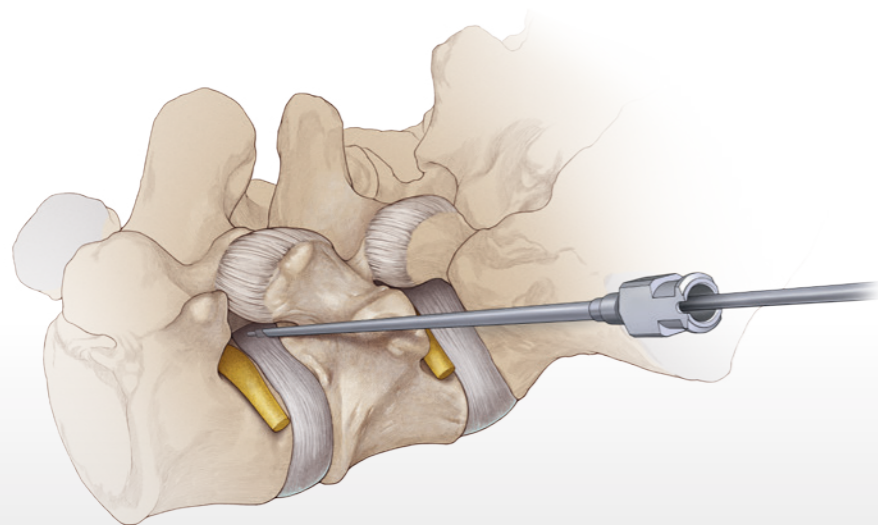
## Application

### Surgical procedure in foraminotomy to expand an endoscopic access port

A foraminotomy may be necessary to expand the endoscopic access port for a disk herniation localized in the spinal canal which is to be removed full endoscopically with a transforaminal access port. In order to be able to guide the endoscopic working sleeve through the foramen, bony structures (pedicle and facet) must be partially removed in order to enlarge the lumen.

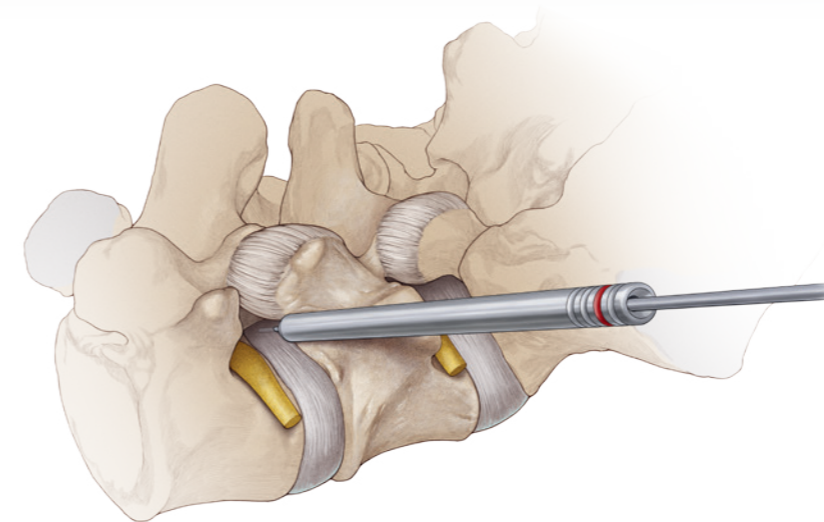
### Positioning of the puncture needle

Positioning of the puncture needle under X-ray control in the fiber ring of the disk, replacement of the cannula jaw insert with guide wire and removal of the cannula.



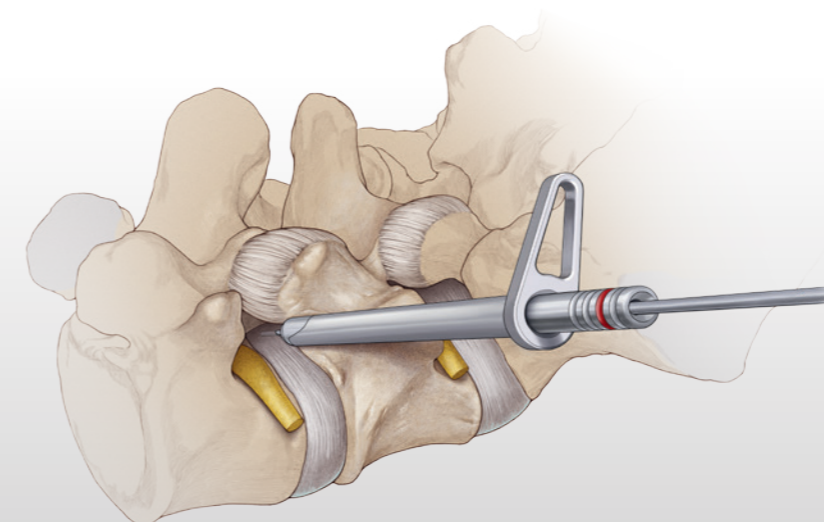
### Introduction of a dilator

Introduction of a dilator of suitable size (generally starting with the smallest diameter) using the guide wire under X-ray control.



### Introduction of the working sleeve

Introduction of the working sleeve matching the dilator (color marking) with distal protective lip by means of the dilator and rotating the protective lip in the direction of the neural structure to be protected.

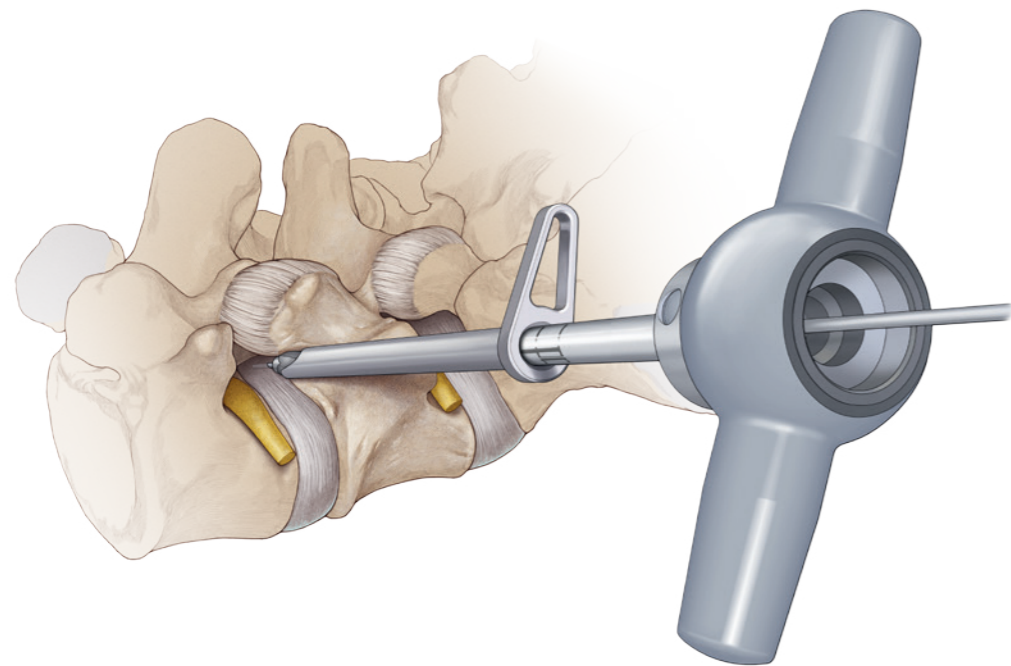


# VERTEBRIS foraminotomy

## Application

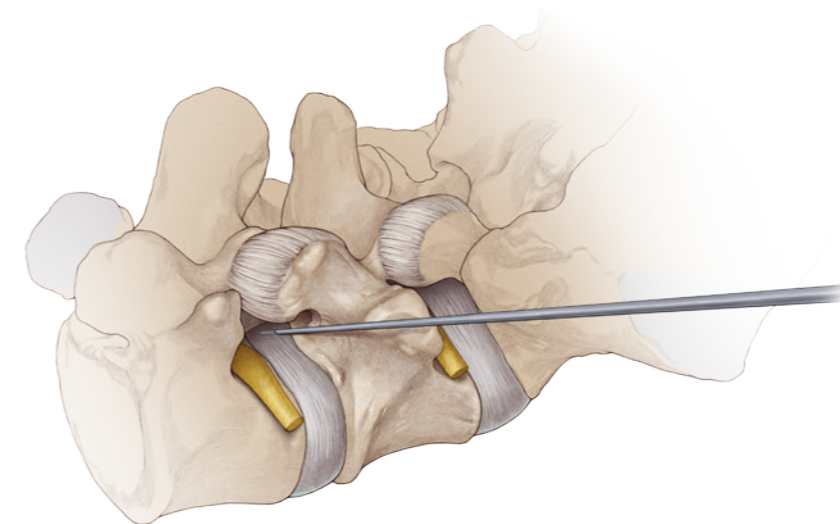
### Bone resection using the burr

Introduction of the connected burr matching the T-handle (color marking) until contact is made with the bone and careful rotation of the burr in a clockwise direction until the first laser marking on the burr sheath is reached. This procedure is carried out under continuous X-ray control.



### Repetition of the procedure

The procedure can now be repeated from step 2 with the next size (color marking green – blue – red).



# VERTEBRIS foraminotomy

## Instruments for Foraminotomy



Access instruments	
<b>Dilators</b>	
	<b>DILATOR</b> ID 2.1 mm, OD 8.4 mm, color code red, TL 230 mm .....892209608
	<b>DILATOR</b> ID 2.1 mm, OD 6.9 mm, color code blue, TL 230 mm .....892209607
	<b>DILATOR</b> ID 2.1 mm, OD 5.4 mm, color code green, TL 230 mm.....892209606
	<b>HANDLE ATTACHMENT</b> for tubular chisels .....8866.601
<b>Guide wires and needles</b>	
	<b>BONE NEEDLE SHARP</b> OD 2 mm, TL 239,5 mm, for use with handle attachment 8866601, graduated .....88660091
	<b>BONE NEEDLE DULL</b> OD 2 mm, TL 241 mm, for use with handle attachment 8866601, graduated .....88660092
	<b>NEEDLE SHEATH</b> OD 3.5 mm, WL 177 mm for use with handle attachment 8866601, graduated .....88660093
	<b>GUIDE WIRE POINTED</b> OD 2 mm, TL 450 mm.....892203120
	<b>GUIDE WIRE BLUNT</b> OD 2 mm, TL 450 mm.....892203220
	<b>CANNULA FOR PUNCTION</b> Ø 2.6 / 2 mm, WL 200 mm, Pack = 2 PCS.....891732018

Working instruments	
<b>Burrs</b>	
	<b>SUBLAND TWIST DRILL</b> OD 8.4 mm, WL 220 mm, color code red, for foraminotomy, graduated .....892601119
	<b>SUBLAND TWIST DRILL</b> OD 6.9 mm, WL 220 mm, color code blue, for foraminotomy, graduated .....892601117
	<b>SUBLAND TWIST DRILL</b> OD 5.4 mm, WL 220 mm, color code green, for foraminotomy, graduated.....892601116
	<b>FACE MILLER</b> OD 4 mm, WL 220 mm, for foraminotomy, graduated .....892601115
<b>Working sleeves</b>	
	<b>WORKING SLEEVE</b> OD 9.5 mm, WL 165 mm, color code red, for foraminotomy, with protective lip, graduated.....892209009
	<b>WORKING SLEEVE</b> OD 8 mm, TL 178 mm, color code blue, for foraminotomy, with protective lip, graduated.....892209008
	<b>WORKING SLEEVE</b> OD 7 mm, TL 178 mm, color code green, for foraminotomy, with protective lip, graduated.....892209007

Accessories	
	<b>HANDLE ATTACHMENT WORKING CHANNEL</b> OD 7 mm.....89200.1007
	<b>HANDLE ATTACHMENT WORKING CHANNEL</b> OD 8 mm.....89200.1008
	<b>ACL HAMMER</b> TL 248 mm.....8866.956
	<b>STERILIZATION BASKET FORAMINOTOMY</b> Basket lower part with integrated small parts basket, brackets made of silicone and 2 handles, basket lid with lock.....85841225

we perform  
**innovation**