



Safety measures

-  The instrument is not sterile on delivery! Prior first use and immediately after each application the handpiece and the rotary milling cutters must be cleaned, disinfected and sterilized!
 - Don't clean instruments with compressed air!
 - Let handpiece only run with a clamped rotary milling cutter!
 - Never carry out manipulations on the instrument, when the motor is still running, danger of injury!
 - The handpiece may be operated with up to 20,000 rpm!
-  Without the rotary milling cutter fixed the collet chuck must not be stored for extended periods in this position!
 - Rotary milling cutters must only be used in the endoscope's working channel to ensure adequate guidance and control of the cutting head! Caution, risk of injury!
 - The handpiece may be operated by qualified and trained personnel only!
 - Improper use of the instrument, as well as non-observance of our instructions release us from all guarantees and any other claims!













Intended use

The spine milling cutters are applied in orthopedics and traumatology, for example, with stenosis, degenerated vertebral discs or intervertebral disc hernias. With the rotary milling cutter Intervertebral disks tissue, bony constrictions or functionally disturbing formations are scraped off.




























Contraindications

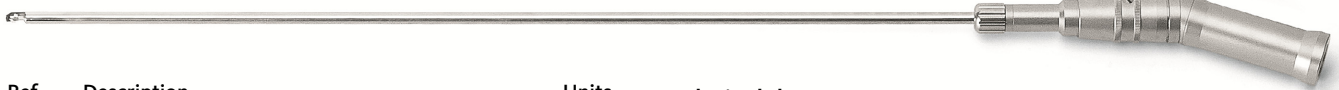
Special procedures at the spine, in which the use of motorized cutters represent too great of a risk, particularly the treatment of the central nervous system in spinal surgery. Cases in the literature must be considered.

Symbols

 Declaration of conformity	 Autoclavable at max. 135°C	 Suitable for thermal disinfection	 Expiry date
 Warning	 Manufacturer	 Note accompanying documents	 Serial number
 Order number	 Lot number	 Goods are not sterile	 Pieces per PU

Accessories and spare parts

Picture	Ref.	Description:	Head-Ø	Working length	Working channel-Ø	Pieces/PU
	1918	Support sleeve open		185 mm	4.0 mm	1
	1750	Diamond milling cutter, round	5.0 mm	185 mm	4.0 mm	3
	1751	Carbide milling cutter, round	5.0 mm	185 mm	4.0 mm	3
	1752	Carbide milling cutter, conical	5.0 mm	185 mm	4.0 mm	3
	1753	Support sleeve open		200 mm	3.5 mm	1
	1762	Carbide milling cutter, round	3.0 mm	200 mm	3.5 mm	3
	1763	Diamond milling cutter, round	3.0 mm	200 mm	3.5 mm	3
	1764	Diamond milling cutter, round	3.7 mm	200 mm	3.5 mm	3
	1765	Carbide milling cutter, round	3.5 mm	200 mm	3.5 mm	3
	1748	Support sleeve, open		200 mm	4.0 mm	1
	1749	Support sleeve with distal protection		200 mm	4.0 mm	1
	1745	Carbide milling cutter, round	3.0 mm	200 mm	4.0 mm	3
	1746	Diamond milling cutter, round	3.0 mm	200 mm	4.0 mm	3
	1766	Carbide milling cutter, round	3.5 mm	200 mm	4.0 mm	3
	1747	Diamond milling cutter, round	3.7 mm	200 mm	4.0 mm	3
	1916	Support sleeve open		355 mm	3.5 mm	1
	1755	Carbide milling cutter, round	3.0 mm	355 mm	3.5 mm	3
	1756	Diamond milling cutter, round	3.0 mm	355 mm	3.5 mm	3
	1759	Carbide milling cutter, round	3.5 mm	355 mm	3.5 mm	3
	1757	Diamond milling cutter, round	3.7 mm	355 mm	3.5 mm	3
	1914	Support sleeve open		355 mm	4.0 mm	1
	1915	Support sleeve with distal protector		355 mm	4.0 mm	1
	1737	Support sleeve with bevelled protector		355 mm	4.0 mm	1
	1911	Carbide milling cutter, round	3.0 mm	355 mm	4.0 mm	3
	1912	Diamond milling cutter, round	3.0 mm	355 mm	4.0 mm	3
	1738	Carbide milling cutter, round	3.5 mm	355 mm	4.0 mm	3
	1913	Diamond milling cutter, round	4.0 mm	355 mm	4.0 mm	3



Ref.	Description	Units
1910	Angled Handpiece for endoscopic Spinal Surgery	1 Piece
1940	Cleaning needle	1 Piece
1882	Oil bottle	1 Piece
1984	Nou-Clean Spray	1 Piece
1958	Spray nozzle for Nou-Clean spray	1 Piece

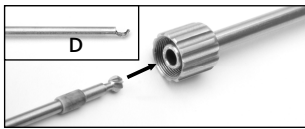
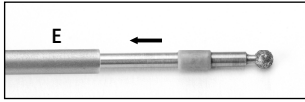
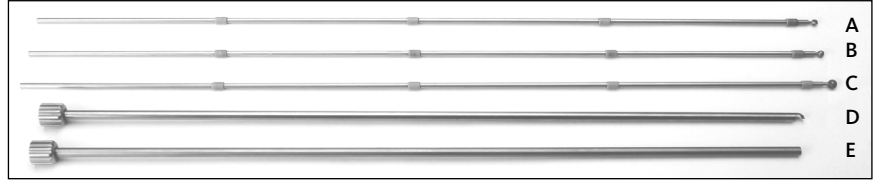
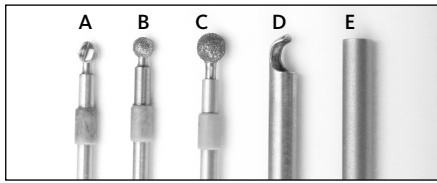
Technical data

Weight of handpiece	110 g
Max speed	20,000 rpm
Transmission	1:1
Coupling	after INTRA EN23964

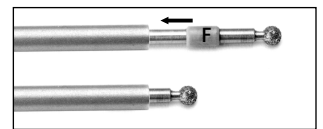
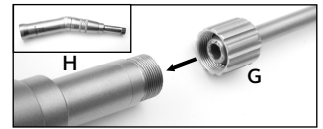
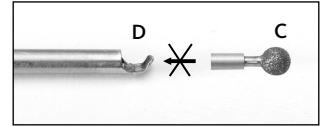
Operation

- ⚠ Only Nouvag rotational milling cutters mentioned above (Accessories and spare parts) may be used!
- The rotational milling cutters must be replaced after being used 5 times (wear)!
- Rotary milling cutters must never be removed with the motor running.

Attaching the rotary milling cutters:




- Insert milling cutters (A, B or C) in the support sleeves (D or E).
 - With an open support sleeve (E) insert milling cutter from the front.
 - With a support sleeve with distal protection (D), insert milling cutter from behind.
 - Exception: Because of a large milling head the ball milling cutters (C) cannot be used on support sleeves with distal protection (D).
- Introduce the milling cutter shank in the open collet chuck of the handpiece as far as it goes and close the collet chuck by twisting the clamping sleeve of the handpiece (H).
- The support sleeve (D or E) is fixed to the handpiece (H) by tightening the clamping nut (G).
 - ⚠ If you use a support sleeve with distal protection (D), twist it into the right position, before you tighten the clamping nut.
 - ⚠ Tighten the clamping nut sufficiently! Check the milling cutter head for it's not rubbing at the distal protection nozzle (D)!



Reprocessing instructions

Reprocessing restrictions	Frequent but careful reprocessing will have little effect on the life span of the handpiece and rotary milling cutters. The end of the products' service life will normally be determined by wear and damage while being used.
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INSTRUCTIONS

At location of use	Remove surface soiling with a cloth or paper towel.
Storage and transport	No particular requirements. Due to the risk of drying and corrosion, reprocessing must be performed without undue delay; the period of time between use and reprocessing should not exceed 8 hours.
Cleaning preparations	Unscrew support sleeve and unclamp milling cutters. Remove any surface soiling on the handpiece, support sleeve and milling cutters with a disposable/paper towel. Further dismantling of the handpiece is not necessary. Place all parts for max. 15 min. into a certified disinfectant. Do not put parts in ultrasonic bath. * Refer to RKI disinfectant list (Robert Koch Institute).
Automatic cleaning and disinfection	Equipment: Cleaning/disinfection equipment with a special load carrier, which allows the connection of handpieces for irrigation of channels. Start rinsing the handpiece from the rear side. Use an RKI*-certified, neutral or alkaline cleaning agent in the recommended concentration. <ol style="list-style-type: none"> Load handpiece, support sleeves and milling cutters in the load carrier (irrigation of channels must be ensured). Set automatic cleaning cycle. Carry out a 10-minute rinse cycle (disinfection) at 93°C to ensure thermal disinfection. When taking the pieces out, check to see whether there is still any dirt in the grooves and interstices. If necessary, repeat the cycle or clean manually.
Manual cleaning	Equipment: RKI*-certified neutral cleaning agent, soft brush, flowing demineralized water (max. 20°C). <i>Procedure:</i> <ol style="list-style-type: none"> Rinse and brush surface soiling from the handpiece, support sleeves and milling cutters. Lay the handpiece, support sleeves and milling cutters into cleaning agent. Clean with suitable brushes to reach all lumen. Rinse handpiece, support sleeve and milling cutters thoroughly in running water.
Drying	If there is no drying programme available in the cleaning/disinfecting device, the handpiece, the support sleeves and the milling cutters must be dried manually or in a hot-air cabinet at 60°C.
Inspection and maintenance Ref. 1958 	Carry out a visual inspection for damage, corrosion and wear. After cleaning and disinfecting the handpiece spray it thoroughly with Nou-Clean Spray and wipe it with a damp cloth (see instructions on spray can). Then reclamp the milling cutter and attach the support sleeve. Check rotating members on good mobility.
Packaging	Individually: pack the handpiece in individual packaging for sterile items. The package must be large enough to ensure that the seal is not subject to strain. Nouvag AG recommends to add a sterility indicator. Sets: Sort the handpieces into suitable trays or pack them in soft packaging.
Sterilization	Carry out a steam sterilization at max. 135°C during 5 minutes with a fractionated pre-vacuum procedure. For autoclaves without a post-vacuum process, a drying phase must be carried out. If a sterilization packaging (paper/film) is used, it must dry at room temperature with the paper side up for at least 1 hour.
Storage	No particular requirements. If the sterilized handpiece is not used immediately after sterilization, the material packaging must be labeled with the sterilization date. Including a sterility indicator is recommended.

The instructions given above have been deemed suitable for the preparation of a medical product for its re-use. It is the responsibility of the person carrying out the preparation that the preparation actually carried out with the equipment, materials and personnel in the preparation installation achieves the desired results. This normally requires validation and routine monitoring of the procedures. In the same way, if there is any deviation from the instructions provided then the person responsible for the preparation must carefully assess its effectiveness and any possible detrimental consequences.

Service centers

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Please contact your country's dealer or representative if you require service, repair and spare parts.

Notice on disposal:
When disposing of the device, device parts and accessories, the stipulated statutory regulations must be followed.

For global Nouvag service centers see: www.nouvag.com