



Medical Power Tools

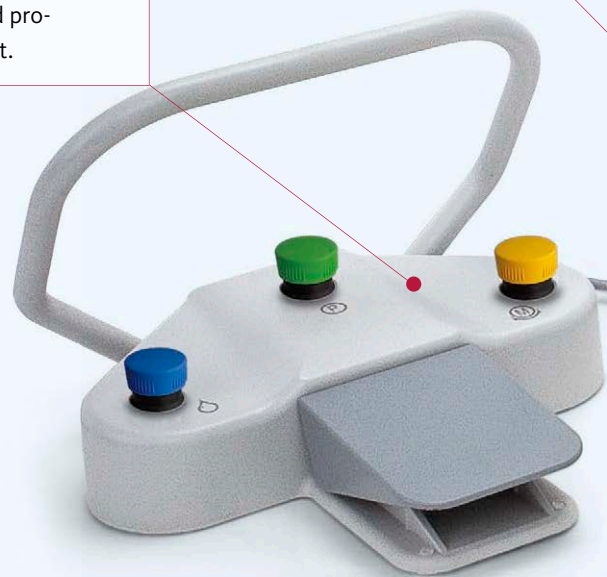
Good reasons for the HighSurg 30

Be it the possibility of calibrating the handpieces and the adjustment of functions to your personal needs or the sophisticated motor management. Further reasons to make your decision easier are...

HIGH SPEED

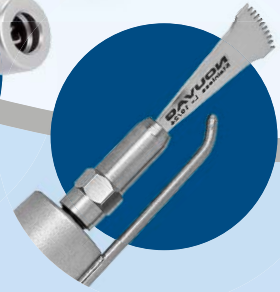
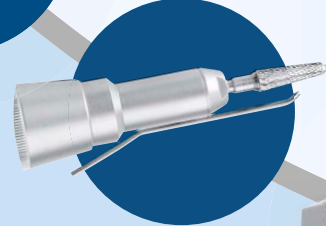
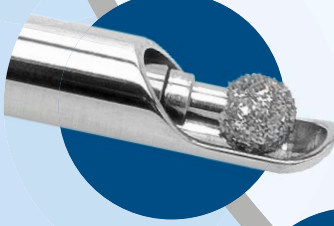
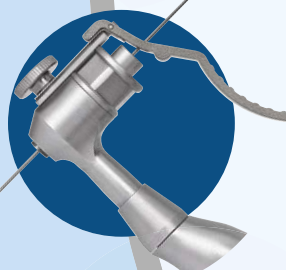
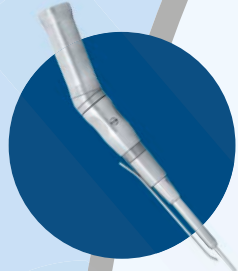
Large display
 Visibility in all work steps with a large, clearly arranged display with high contrast.

Multifunctional pedal
 Choose motor direction, pump speed and programmes by foot.



15 Medical Power Tools available in different shapes and sizes

NEW!
 Now also available as OR tower version





Ergonomic housing

Light and compact housing, easy to clean surfaces.

Low noise pump drive


Inner, capsuled pump drive is responsible for quiet operation.

Engagement of tube set

Good visible tube set holding fixture, integrated in the cover of the pump compartment.

Dual motor principle

The dual motor principle is unique in this class. It saves cumbersome reconfiguration of the handpieces. Your focus stays with the patient.



New motor management

Fine tuned motor management for best precision and operation comfort with a max. speed of up to 50,000/80,000 rpm.

HIGH SPEED

80,000 rpm highspeed Surgical Motor System, developed for multiple indications

As part of the new generation of Nouvag's Surgical Motor Systems the HighSurg 30 was developed for a wide variety of applications, such as Neurosurgery, ENT surgery, Maxillofacial surgery as well as Orthopedics and Arthroscopy. The conciliatory treatment of patients by minimally invasive surgical technics in conjunction with endoscopy was the central part in the development of the new HighSurg 30.

A sophisticated, micro processor controlled motor management is responsible for a silky-smooth, low vibration running of any handpiece with speeds of up to 80,000 rpm. Precise and save cuts, as we know them only from high priced Motor Systems are now possible with this further developed Shaver System with a continuous mode as well as an oscillating mode.

The cooling of the instruments is maintained by the built-in, fine tunable peristaltic pump. A broad range of newly developed Shaver Blades are available for all situations one might think of and form a well matched unified whole with the new HighSurg 30. The user friendly concept of being able to operate in sync with the big display, which provides a view of

the speed (rpm) and the torque graph, enables working with great safety and confidence in every situation required. To keep your focus on the job we equipped the HighSurg 30 with two motor connections, which spares the rechecking of handpieces. With the included pedal you control the pump, the programmes and the motor. With

the tread-plate the revolutions per minute of the motor and the activation of the pump are directed. The HighSurg 30 is highly suitable for all areas of Micro Surgery and convinces with an ideal combination of carefully aligned technologies and materials.

**Highspeed
80,000 rpm**



Electronic Motor 21

Brushless motor with up to 50,000/80,000 rpm, sterilizable and autoclavable, with a 3 meter power cord.



Electronic Motor 21

Brushless motor with up to 50,000/80,000 rpm, sterilizable and autoclavable, with a 3 meter power cord.



Example configuration, ENT surgery Unit

Motor System „HighSurg 30“

The HighSurg 30 is a powerful and user-friendly highspeed surgical Motor System.

Suction Pump „Vacuson 40“

Reliability and efficiency makes this pump a multifunctional usable device. This set configuration is applicable for surgery and for medical applications in general.

Mobile stand „Sanicar“

- Antistatic rolls
- 2 of the rolls are lockable
- 3 Power sockets

Technical data, HighSurg 30

Type:	HighSurg 30
Input Voltage (switchable):	100/115/230 Volt at 50 – 60 Hz
Motor:	Electronic Motor
Speed range:	up to 80,000 rpm
Motor torque:	up to 6 Ncm
Shaver speed (cont.)	300 – 6000 rpm
Shaver speed (osc.)	300 – 5000 rpm
Shaver frequency:	0.2 – 3.0 sec
Pump capacity:	0 – 100 ml/min
Dimensions (W x D x H):	260 x 250 x 110 mm
Weight control unit:	3.7 kg
Motor cable length:	3 m

Technical data, „Vacuson 40“

Type:	Vacuson 40
Input Voltage (switchable):	115/230 Volt at 50-60 Hz
Power consumption:	185 Watt
Suction performance:	40 l/min
Max. vacuum:	-0.9 bar/686 mmHG
Dimensions (W x D x H):	360 x 290 x 280 mm
Weight control unit:	8.5 kg

Technical data, „Sanicar“

Type:	Sanicar
Input Voltage (switchable):	230 Volt at 50 Hz
Dimensions (W x D x H):	385 x 400 x 1350 mm
Weight:	18.5 kg



Surgical standard handpieces



REF 1710

General surgery handpiece with 1:1 transmission, spray nozzle and Quick lock for instruments with a length from 44 mm and a shaft diameter of 2.35 mm



REF 1950

General surgery handpiece with 1:1 transmission, spray nozzle and Quick lock for instruments with a length of 70 mm and a shaft diameter of 2.35 mm



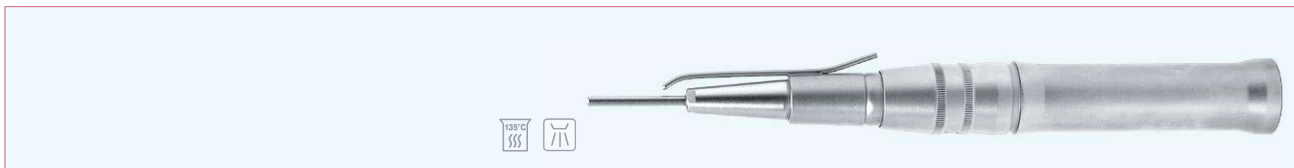
REF 1951

General surgery handpiece with 1:1 transmission, spray nozzle and Quick lock for instruments with a length of 95 mm and a shaft diameter of 2.35 mm



REF 1952

General surgery handpiece with 1:1 transmission, spray nozzle and Quick lock for instruments with a length of 125 mm and a shaft diameter of 2.35 mm



REF 1043

4:1 handpiece for foot surgery with spray nozzle and quick lock for instruments with a length of 44 – 70 mm and a shaft diameter of 2.35 mm



REF 1960

Angled standard handpiece with 1:1 transmission, spray nozzle and Quick lock for instruments with a length of 70 mm and a shaft diameter of 2.35 mm



REF 1961

Angled standard handpiece with 1:1 transmission, spray nozzle and Quick lock for instruments with a length of 95 mm and a shaft diameter of 2.35 mm



REF 1962

Angled standard handpiece with 1:1 transmission, spray nozzle and Quick lock for instruments with a length of 125 mm and a shaft diameter of 2.35 mm



REF 5051

1:1 Contra Angle with INTRA EN3964 coupling for drills with a shaft diameter of 2.35 mm (dental shaft).

Surgical high speed handpieces

**HIGH SPEED
80,000 rpm**

Our newly developed surgical high speed handpieces run at a max. speed of 80,000 rpm, and thus complete our portfolio of handpieces particularly designed for the Nouvag motor system HighSurg 30. This series of angled and straight handpieces fit perfectly to the electronic high speed motor 21 that was especially modified and adjusted for this task.



HIGH SPEED



REF

1903

High speed surgery handpiece for up to 80,000 rpm and 1:1 transmission, with spray nozzle and Quick lock for instruments with a length of 70 mm



HIGH SPEED



REF

1904

High speed surgery handpiece for up to 80,000 rpm and 1:1 transmission, with spray nozzle and Quick lock for instruments with a length of 95 mm



HIGH SPEED



REF

1905

High speed surgery handpiece for up to 80,000 rpm and 1:1 transmission, with spray nozzle and Quick lock for instruments with a length of 125 mm

REF

1063

1:3 Multiplier handpiece, Length 132 mm, for up to 150,000 rpm; spray nozzle; quick release lock; for instruments with a length of 70 – 95 mm and a diameter of 2.35 mm

handpiece is used with the 50,000 rpm motor.



HIGH SPEED



REF

1906

Angled surgery handpiece for up to 80,000 rpm and 1:1 transmission, with spray nozzle and Quick lock for instruments with a length from 70 mm.



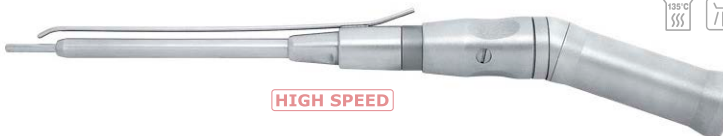
HIGH SPEED



REF

1907

Angled surgery handpiece for up to 80,000 rpm and 1:1 transmission, with spray nozzle and Quick lock for instruments with a length of 95 mm.



HIGH SPEED



REF


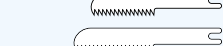


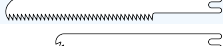
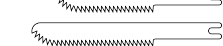
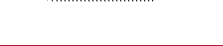

1908

Angled surgery handpiece for up to 80,000 rpm and 1:1 transmission, with spray nozzle and Quick lock for instruments with a length of 125 mm.

For tools please refer to
page 18 – 21.





Surgical Micro Saws

Micro Compass Saw MSS 5000

Saw blade	Cutting length	REF
	6 mm	5112
	11 mm	5041
	14 mm	5042
	18 mm	5043
	22 mm	5044
	26 mm	5045
	17 mm, rounded	5105
	21 mm, rounded	5106

Set REF 5049

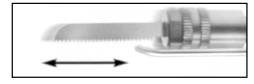
Spare blades of 0.4 mm thickness, in packing units of 6 pieces, except 5112 comes in PU of 1.

Rasps	Partition	REF
	0.8	5125
	1.1	5126
	1.8	5127
	2.4	5128



REF 5040

MSS 5000 Micro-jigsaw with INTRA EN3964 coupling, removable irrigation tube, recommended speed 15,000 rpm, Stroke 4 mm.

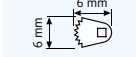
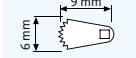
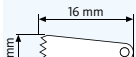



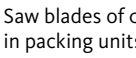



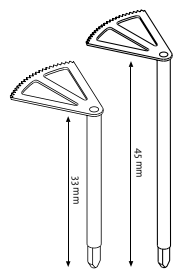
REF 5046

Rasp tool, new slim design, in packing units of 1 piece.



Micro Oscillating Saw OMS 5000

Saw blade	Cutting depth	Shaft length	REF
	3,0mm	45 mm	5101
	6,3 mm	33 mm	5100
	6,3 mm	45 mm	5099
	13,3 mm	33 mm	5093
	13,3 mm	45 mm	5096
	13,3 mm	33 mm	5094
	13,3 mm	45 mm	5097
	13,3 mm	45 mm	5098

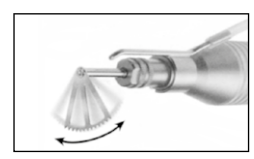


Saw blades of 0.4 mm thickness, in packing units of 1 piece.

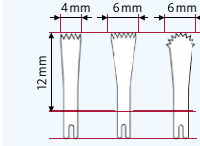
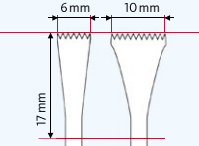
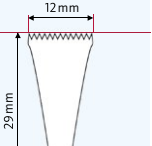
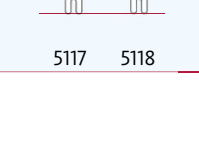
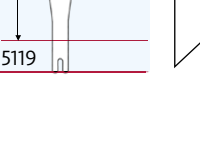



REF 5090

OMS 5000 Oscillating micro saw with INTRA EN3964 coupling, removable irrigation tube, recommended speed 15,000 rpm.



Osseoscalpel, Sagittal Saw MOS 5000

					
REF 5115	REF 5116	REF 5114	REF 5117	REF 5118	REF 5119

Set REF 5120

Saw blades of 0.4 mm thickness, in packing units of 6 pieces.



REF 5110

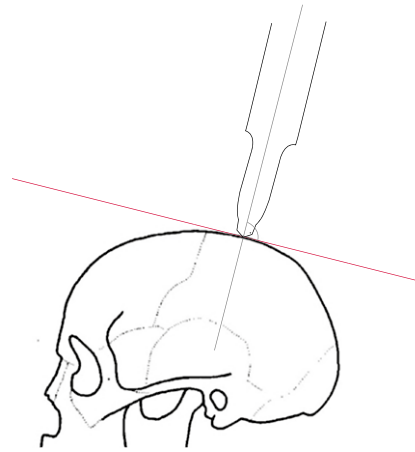
MOS 5000 Sagittal Saw with INTRA EN3964 coupling, removable irrigation tube, recommended speed 15,000 rpm.



Cranial instruments

Cranial Perforator

The Cranial Perforator is utilized to set a right angle in accordance to the cranial arc tangent to make sure to assure instant advantage when the automatic locking system sets in place while drilling.



Cranial Perforator handpiece, Ref. 1924 *



Weight:	330 g
Speed range:	from 80 up to 1200 rpm
Permissible maximal torque:	210 Ncm
Coupling motor side:	after INTRA EN3964
Coupling drill side:	Hudson coupling

* Perforator drill not included in delivery

Cranial Perforator drills



REF	Ø inner/outer	Intended use	Adult	Pediatric	Color
1978	6 mm/9 mm	for skull bone down to 1 mm		•	gray
1920	6 mm/ 9 mm	for skull bone down to 3 mm	•		gray
1977	7 mm/11 mm	for skull bone down to 1 mm		•	purple
1976	7 mm/11 mm	for skull bone down to 3 mm	•		purple
1979	9 mm/13 mm	for skull bone down to 1 mm		•	blue
1921	9 mm/13 mm	for skull bone down to 3 mm	•		blue
1980	11 mm/14 mm	for skull bone down to 1 mm		•	orange
1922	11 mm/14 mm	for skull bone down to 3 mm	•		orange



Craniotome

The Craniotome is used for opening the cranium. Using the so-called Duraprotector the clamped bone cutter can work on the cranium without damaging the underlying tissue. The Craniotome is used after the cranium has been prepared through at least 3 holes by means of a *Cranial Perforator*. This involves using the Craniotome to drill the connecting milling lines between the 3 drill holes in order to remove the cranium.

Craniotome including Duraprotector medium, Ref. 1926 *



Weight:	130 g
Speed range:	from 1000 up to 65,000 rpm
Permissible maximum torque:	6 Ncm
Coupling:	after INTRA EN3964

* Without drill



Duraprotectors for Craniotome, available in 3 sizes:

Craniotome highspeed drills



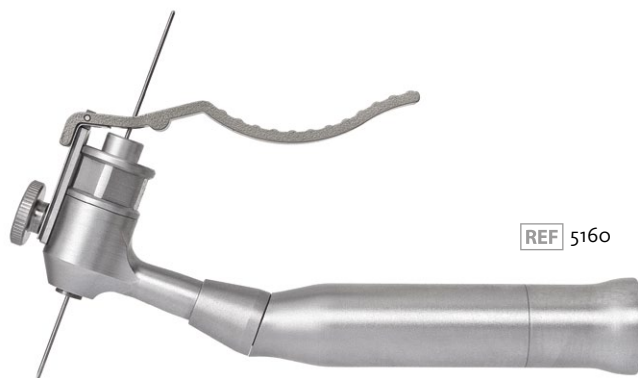
Head Ø	Number of flutes	Working length	REF for Craniotome 1926	Form/Design	Picture
1.6 mm	3	13.0 mm	HSS21C.512.016	twisted	
1.6 mm	3	16.5 mm	HSS21C.513.016	twisted	
1.6 mm	3	25.0 mm	HSS21C.514.016	twisted	
1.6 mm	2	13.0 mm	HSS21C.512.017	routed	
1.6 mm	2	16.5 mm	HSS21C.513.017	routed	
1.4 mm	2	25.0 mm	HSS21C.514.017	routed	



Orthopedic handpieces

Kirschner handpiece

The Kirschner Wires are used for temporary and permanent fixation of bones and implants. The simplicity of changing wires addresses the surgeons needs. With the motor system that best suites your needs the process of setting the wires with the Kirschner handpiece gets done easier with an accurate result that gives you confidence and safety.



Kirschner Contra angle with INTRA EN3964 coupling, 90 mm length, 16:1 transmission, 2500 rpm, for surgical wires of 0.8 – 1.5 mm in diameter.



Surgical Wires are available in a box of 10.

Surgical Wires

Length	Ø mm	REF
70 mm	0.8	5013
70 mm	1.0	5014
150 mm	0.6	5023
150 mm	0.8	5015
150 mm	1.0	5016
150 mm	1.2	5017
150 mm	1.5	5018

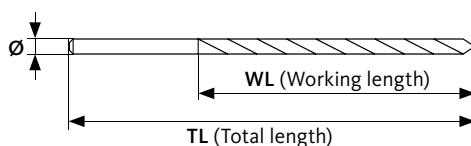
Jacobs Drill handpiece with three-jaw chuck system

The Jacobs Drill handpiece is a reduction transmission instrument with a quick release 3-jaw chuck system to be used in an orthopedic environment. No additional drill chuck key needed. The instrument

is applied at a low speed range for a short or medium period of application in connection with an appropriate motor system.



REF	Label	Ø	TL	WL
260201	Spiral drill	1.1	45.0	22.0
260202	Spiral drill	1.4	86.0	30.0
260203	Spiral drill	1.5	70.0	22.0
260204	Spiral drill	2.0	88.0	50.0
260205	Spiral drill	2.0	101.0	50.0
260206	Spiral drill	2.0	109.0	17.0
260207	Spiral drill	2.0	109.0	50.0
260208	Spiral drill	2.5	108.0	23.0
260209	Spiral drill	2.5	108.0	50.0
260210	Spiral drill	2.7	111.0	50.0
260211	Spiral drill	3.0	146.0	50.0
260212	Spiral drill	3.2	120.0	50.0
260213	Spiral drill	3.2	146.0	50.0
260214	Spiral drill	3.5	120.0	50.0
260215	Spiral drill	3.5	146.0	50.0
260216	Spiral drill	4.0	156.0	50.0
260218	Spiral drill	4.5	156.0	50.0
260219	Spiral drill	4.5	180.0	50.0
260220	Spiral drill	5.0	156.0	50.0
260221	Spiral drill	5.0	180.0	50.0
260222	Spiral drill	6.5	130.0	50.0
260404	Spiral drill	1.5	44.5	27.5



Jacobs Drill handpiece, Ref. 1955

Drill Ø:	0.3 – 7.4 mm
Weight:	530 g
Speed range:	80 to 2100 rpm
Torque:	60 Ncm
Coupling:	after INTRA EN3964

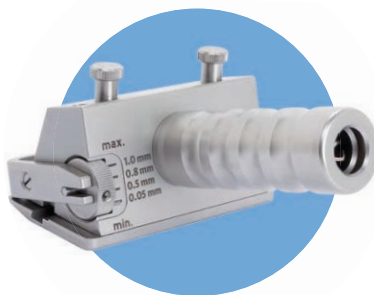
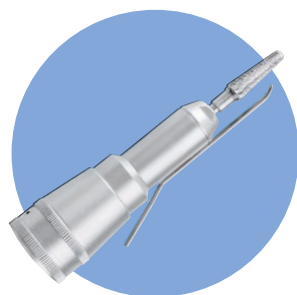


TCM 3000 BL for versatile use

Instruments which do not depend on a torque controlled motor system, can be driven by this very versatile, compact device. The very simple system of the TCM 3000 BL makes this machine a quiet, desirable companion during practises in operating rooms. Its versatility ensures that this device doesn't stand still for a day. The legendary Nouvag quality, made in Switzerland is a guarantor for peak performance and endurance, even after many years.

Not just grinding, drilling and sawing is possible with this device, but Skin grafting with a dermatome and the use of a tattooing handpiece for reconstructive surgery.

The high reliability and its balanced price/performance ratio made the TCM 3000 BL a favored choice when versatility and allround talent is required without having to fulfill the high demands of a high-end Motor System.



Type:	TCM 3000 BL
Power consumption:	60 VA
Motor speed:	500 – 40,000 rpm
Max. Motor torque:	6 Ncm
Coupling Electronic motor:	after INTRA EN3964
Cable length, power cord:	3 m
Dimensions (W x D x H)	120 x 180 x 110 mm
Weight, control unit:	1.8 kg

Skin grafting

Dermatome



25 mm / 50 mm / 75 mm / 100 mm 

The Dermatomes with INTRA EN3964 coupling have a cutting depth of 0 – 1.00 mm. The recommended speed is 14,000 rpm.



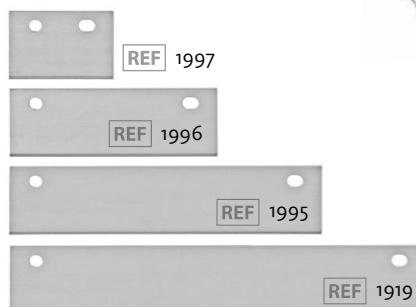
For entry level the TCM 3000 BL can be used as a Motor System to drive the Dermatomes. Our HighSurg 30 is more versatile and allows to work with other instruments as well.



REF 1983
Dermatome 100 mm



Detail of the further developed adjusting mechanism for high precision and safety.



Spare blades

The spare blades are available in packing units with 10 pieces.

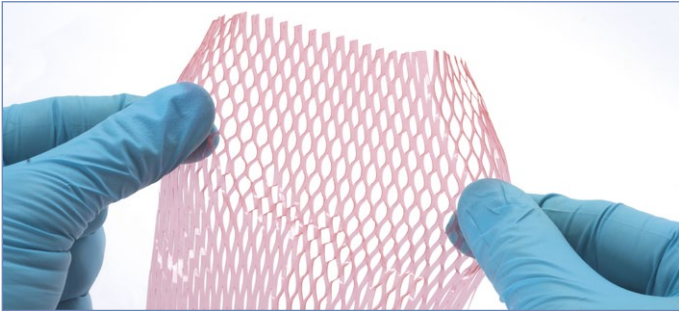


Reduction Support Base for Dermatome with 75 mm width. Reduction of cutting width 50/25 mm.

Reduction Support Base for Dermatome with 100 mm width. Reduction of cutting width 75/50 mm.

Skin expansion

Skin Expansion -System (Mesher)



The use of Mesh boards with higher expansion factor generates extended perforations, which enables larger openings and therefore a further expansion of the skin graft.



REF 1986
Mesher

Key facts:

- Easy to clean due to hinged bridge for opening
- Access to blade roll
- High grade medical stainless steel
- Light weight, only 4.5 kg
- Adjustable backing roll
- Wide range of Mesh-boards available

Mesh-Boards (Skin transplant carrier plates)



REF	Expansion factor	unit/PU
1981	1,5 : 1	20
1982	3,0 : 1	20
2105	6,0 : 1	20
2106	9,0 : 1	20



Skin sections are gathered together with the Dermatome and perforated by using the Mesher in addition to the mesh board. Hence the skin is protracted like a chain-link fence. The enhanced surface of the Skin example spares the patient further skin removals. The intermediate spaces of the grafted and meshed skin builds up at the healing process of the skin.



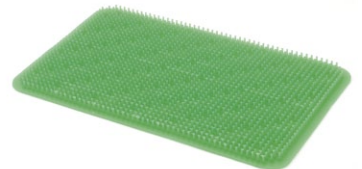
Exchangeable blade roll



Open hinged bridge during the meshing process to free skin samples that were picked up by the blade roll.

REF 4126

Non slip, nobby silicone mat
(450 x 270 mm)



REF 4128

Stericase for Mesher sterilization
(465 x 280 x 150 mm)



HighSurg 11, Shaver Motor System for ENT surgery

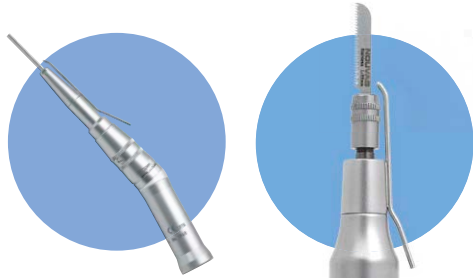
If your task requires to use the shaver function, as often occurring in the field of ENT surgery, than the HighSurg 11 is the right choice. The reduced function range, compared to the HighSurg 30, simplifies the handling without forfeiting the new developed, sophisticated features of the control system.

Focusing on the field of ENT surgery not only reduces the cost for the new HighSurg 11 compared to its bigger brother the HighSurg 30, but also allows to optimize the handle of the control unit in the field of ENT surgery. That's how a modern, clearly structured Shaver system was created, perfectly suitable for its spectrum of tasks. Together with the newly developed ENT handpieces and the new generation of NOUVAG Shaver blades a well-matched unit is the result. Feel the difference in any range of speed due to its quiet, smooth run and the absence of vibrations.

The shaver blades listed on the following pages are available in multiple diameters and as concave and convex versions. The integrated cooling system of the shaver blades sufficiently supply the cutting area and at the same time reduces friction heat between outer sleeve and cutting tube.

The clamping ring mechanism of the coupling system of the handpieces enable the Shaver blades to engage in steps of 60°, which allow the employment of the unit of motor, handpiece and Shaver Blade for all thinkable working situations. By using concave and convex Shaver Blades and setting them up in different angels the issue of dead spots is widely solved. Besides the

Shaver function the HighSurg 11 features also a program for 1:1 handpieces, good for accompanying work stages, so no further device is needed.



Electronic Motor 21



Brushless motor for up to 50,000 rpm, sterilizable and autoclavable with a cable length of 3 meters.

Type:	HighSurg 11
Power consumption:	120 VA
Motor speed:	300 – 50,000 rpm
Shaver frequency:	0.2 – 3.0 sec
Max. Motor torque:	6 Ncm
Coupling Motor:	after INTRA EN3964
Length of cable:	3 m
Dimensions (W x D x H)	260 x 250 x 110 mm
Weight, control unit:	3.3 kg

OtoDrill for the treatment of the ossicular chain

The OtoDrill motor handpiece is designed particularly for ENT surgery and is applied in Stapedotomy for Otosclerosis patients.

It allows fine milling works in a localized manner. The OtoDrill is the predestined instrument for the work at the most delicate bones in the human body and thus, ideally applicable for reconstruction of the ossicular chain with implants.

The OtoDrill is preferably controlled by a suitable motor system such as Nouvag's surgical motor systems HighSurg 11 and HighSurg 30. These provide exactly adjusted characteristic maps of the motor and a display with all the control parameters at a glance and in real-time. This is an important contribution to safety and gives confidence with any procedure.

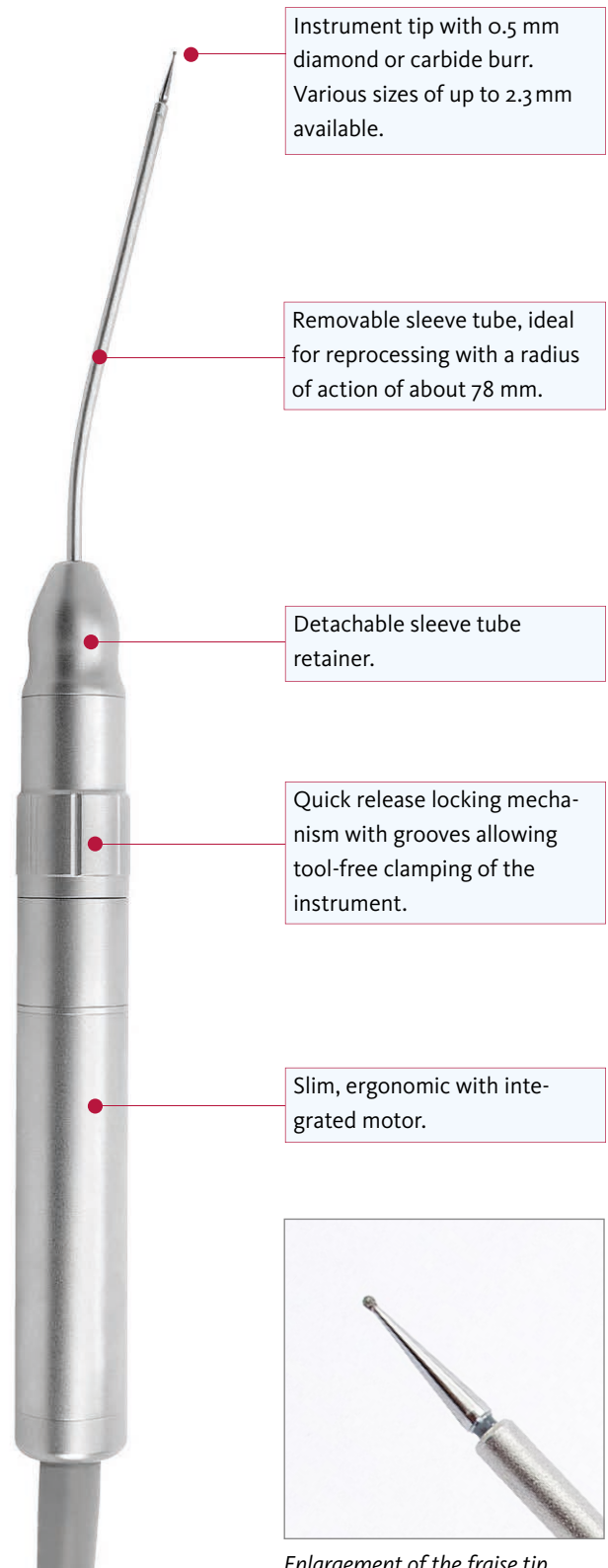
Key facts:

- Compact and ergonomic Otology drill.
- A diameter of just 16 mm.
- Dismountable sleeve tube, ideal for reprocessing.
- Quick release locking mechanism.
- Instrument is inserted through the sleeve tube.
- Radius of action of 78 mm.

Collection of burs for the Oto-Drill

Kind	Ø in mm	Color code	REF
Carbide	0.50	purple	1649
Carbide	0.60	blue	1650
Carbide	0.70	green	1651
Carbide	0.80	yellow	1652
Carbide	1.00	orange	1653
Carbide	1.40	grey	1654
Carbide	1.80	brown	1655
Carbide	2.30	red	1656
<hr/>			
Diamond	0.60	blue & white	1641
Diamond	0.70	green & white	1642
Diamond	0.80	yellow & white	1643
Diamond	1.00	orange & white	1644
Diamond	1.20	black & white	1645
Diamond	1.40	gray & white	1646
Diamond	1.80	brown & white	1647
Diamond	2.30	red & white	1648

Type:	OtoDrill (Ref. 1909)
Torque:	up to 2 Ncm
Speed range:	0 – 16,000 rpm
Cable length, motor:	3 m
Total length without cable:	200 mm
Diameter:	16 mm
Weight without cable:	115 g



Instrument tip with 0.5 mm diamond or carbide burr. Various sizes of up to 2.3 mm available.

Removable sleeve tube, ideal for reprocessing with a radius of action of about 78 mm.

Detachable sleeve tube retainer.

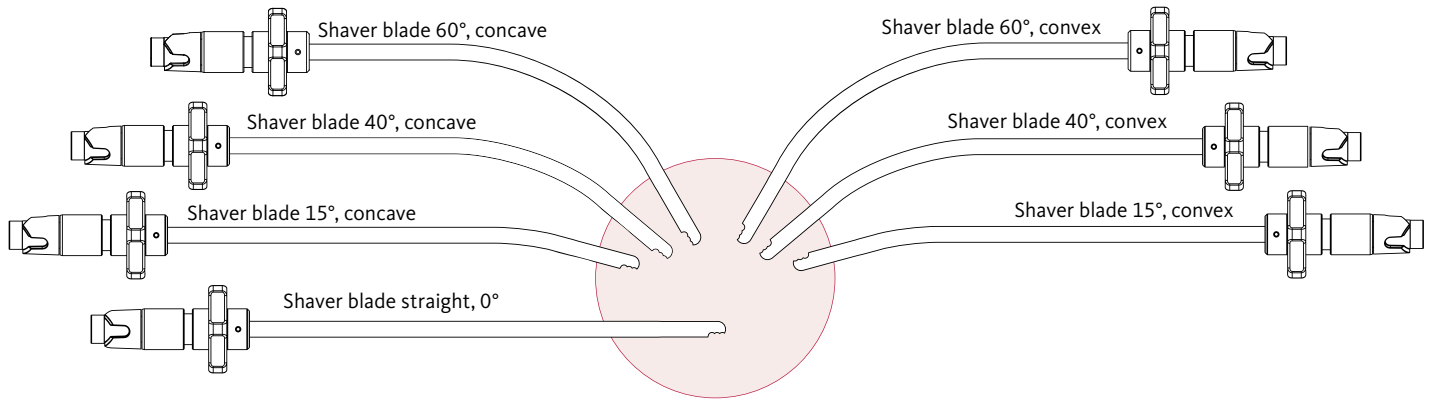
Quick release locking mechanism with grooves allowing tool-free clamping of the instrument.


Slim, ergonomic with integrated motor.




Enlargement of the fraise tip

Shaver/Micro Debrider




Arthroscopy
Tri Spike Cutter (disposable) 
 Disposable Shaver blades, 5 pieces per packing unit


Ø mm	Position	Angle	length, mm	REF
4.5		straight	130	5332

Arthroscopy
Acromionizer (disposable) 
 Disposable Shaver blades, 5 pieces per packing unit


Ø mm	Position	Angle	length, mm	REF
5.5		straight	130	5279

Arthroscopy
Full Radius Resector (disposable) 
 Disposable Shaver blades, 5 pieces per packing unit


Ø mm	Position	Angle	length, mm	REF
4.5		straight	130	5289

Arthroscopy
Aggressive Full Radius (disposable) 
 Disposable Shaver blades, 5 pieces per packing unit


Ø mm	Position	Angle	length, mm	REF
4.5		straight	130	5334

Arthroscopy
Hooded round Burr (disposable) 
 Disposable Shaver blades, 5 pieces per packing unit


Ø mm	Position	Angle	length, mm	REF
5.5		straight	130	5293

Arthroscopy
Penguin (disposable) 
 Disposable Shaver blades, 5 pieces per packing unit

Ø mm	Position	Angle	length, mm	REF
4.5		straight	130	5329

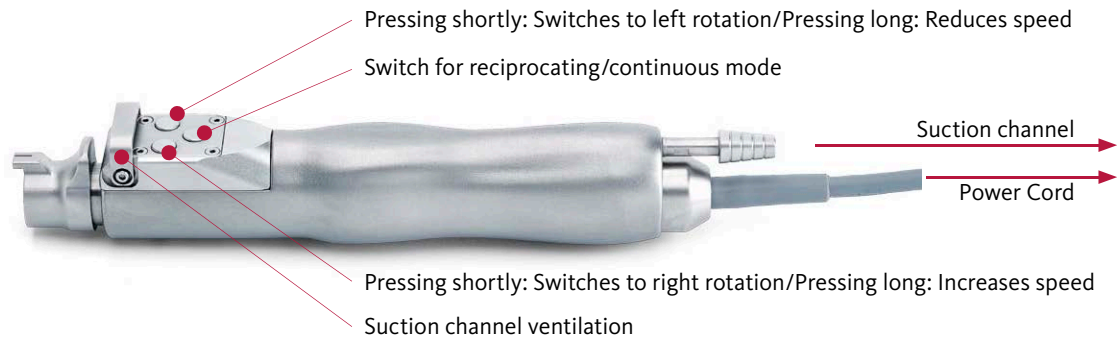
ENT-Surgery
Full Radius Resector (disposable) 
 Disposable Shaver blades, 5 pieces per packing unit

Ø mm	Position	Angle	length, mm	REF
2.5		straight	105	5318
3.5		straight	105	5294
3.5	concave	15°	105	5300
3.5	convex	15°	105	5303
3.5	concave	40°	105	5306
3.5	convex	40°	105	5309
3.5	concave	60°	105	5312
3.5	convex	60°	105	5315
4.0		straight	105	5340
4.0	concave	15°	105	5350
4.0	convex	15°	105	5359
4.0	concave	40°	105	5352
4.0	convex	40°	105	5361
4.0	concave	60°	105	5354
4.0	convex	60°	105	5363
4.5		straight	105	5324

ENT-Surgery
Aggressive Full Radius (disposable) 
 Disposable Shaver blades, 5 pieces per packing unit

Ø mm	Position	Angle	length, mm	REF
2.5		straight	105	5322
3.5		straight	105	5295
3.5	concave	15°	105	5301
3.5	convex	15°	105	5304
3.5	concave	40°	105	5307
3.5	convex	40°	105	5310
3.5	concave	60°	105	5313
3.5	convex	60°	105	5316
4.0		straight	105	5344
4.0	concave	15°	105	5349
4.0	convex	15°	105	5358
4.0	concave	40°	105	5351
4.0	convex	40°	105	5360
4.0	concave	60°	105	5353
4.0	convex	60°	105	5362
4.5		straight	105	5330

Arthroscopy Shaver handpiece, straight, Ref. 2093



ENT Shaver handpiece, Ref. 2092



ENT-Surgery

Trimmer (disposable)

Disposable Shaver blades, 5 pieces per packing unit



Ø mm	Position	Angle	length, mm	REF
2.5		straight	105	5290
3.5		straight	105	5291
4.0		straight	105	5292



Rhinology

Rhino Rose Burr (disposable)

Disposable Shaver blades, 5 pieces per packing unit



Ø mm	Position	Angle	length, mm	REF
3.5		straight	130	5272
3.5	concave	15°	130	5273
3.5	concave	60°	130	5274



ENT-Surgery

Tri Spike Cutter (disposable)

Disposable Shaver blades, 5 pieces per packing unit



Ø mm	Position	Angle	length, mm	REF
2.5		straight	105	5320
3.5		straight	105	5296
3.5	concave	15°	105	5302
3.5	convex	15°	105	5305
3.5	concave	40°	105	5308
3.5	convex	40°	105	5311
3.5	concave	60°	105	5314
3.5	convex	60°	105	5317
4.0		straight	105	5342
4.0	concave	15°	105	5346
4.0	convex	15°	105	5355
4.0	concave	40°	105	5347
4.0	convex	40°	105	5356
4.0	concave	60°	105	5348
4.0	convex	60°	105	5357
4.5		straight	105	5328



Rhinology

Rhino Diamond Burr (disposable)

Disposable Shaver blades, 5 pieces per packing unit



Ø mm	Position	Angle	length, mm	REF
3.5	concave	15°	130	5271



Rhinology

Rhino Cylindrical Burr (disposable)

Disposable Shaver blades, 5 pieces per packing unit



Ø mm	Position	Angle	length, mm	REF
3.5		straight	130	5275
3.5	concave	15°	130	5276
3.5	concave	60°	130	5277

High speed rose burrs

**HIGH SPEED
80,000 rpm**

REF Rose burr, highspeed, steel

STERILE

Head Ø	Number of flutes	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
0.8 mm	6	HSS236.561.008		
1.0 mm	12	HSS236.561.010		
1.4 mm	8	HSS236.561.014	HSS236.562.014	HSS236.563.014
1.8 mm	8	HSS236.561.018	HSS236.562.018	HSS236.563.018
2.3 mm	8	HSS236.561.023	HSS236.562.023	HSS236.563.023
2.7 mm	10	HSS236.561.027		
3.1 mm	10	HSS236.561.031	HSS236.562.031	HSS236.563.031
4.0 mm	12	HSS236.561.040	HSS236.562.040	HSS236.563.040
5.0 mm	12	HSS236.561.050	HSS236.562.050	HSS236.563.050
6.0 mm	14	HSS236.561.060	HSS236.562.060	HSS236.563.060



REF Rose burr, highspeed, carbide

STERILE

Head Ø	Number of flutes	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
0.5 mm	6	HSM236.561.005		
0.8 mm	6	HSM236.561.008		
1.0 mm	6	HSM236.561.010		
1.4 mm	6	HSM236.561.014		
1.8 mm	6	HSM236.561.018		
2.3 mm	6	HSM236.561.023		
2.7 mm	8	HSM236.561.027		
3.1 mm	8	HSM236.561.031		
3.5 mm	8	HSM236.561.035		
4.0 mm	10	HSM236.561.040	HSM236.562.040	HSM236.563.040
5.0 mm	12	HSM236.561.050	HSM236.562.050	HSM236.563.050
6.0 mm	14	HSM236.561.060		
7.0 mm	16	HSM236.561.070		



Each drill or burr is individually, sterile packed in this transport secure blister packaging and shipped in a labeled cardboard box.

High speed diamond burrs

**HIGH SPEED
80,000 rpm**

REF Diamond ball burr, highspeed STERILE

Head Ø	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
0.6 mm	HS242.561.006		
0.8 mm	HS242.561.008		
1.0 mm	HS242.561.010	HS242.562.010	
1.4 mm	HS242.561.014	HS242.562.014	
1.8 mm	HS242.561.018		
2.3 mm	HS242.561.023	HS242.562.023	HS242.563.023
2.7 mm	HS242.561.027		
3.1 mm	HS242.561.031		HS242.563.031
3.5 mm	HS242.561.035	HS242.562.035	
4.0 mm	HS242.561.040	HS242.562.040	HS242.563.040
4.5 mm	HS242.561.045	-	HS242.563.045
5.0 mm	HS242.561.050	HS242.562.050	HS242.563.050
6.0 mm	HS242.561.060	HS242.562.060	HS242.563.060
7.0 mm	HS242.561.070		



REF Diamond ball burr, coarse, highspeed STERILE

Head Ø	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
2.3 mm	HS242C.561.023	HS242C.562.023	HS242C.563.023
3.1 mm	HS242C.561.031	HS242C.562.031	HS242C.563.031
4.0 mm	HS242C.561.040	HS242C.562.040	HS242C.563.040
5.0 mm	HS242C.561.050	HS242C.562.050	HS242C.563.050
6.0 mm	HS242C.561.060	HS242C.562.060	HS242C.563.060



REF Diamond ball burr, extra coarse, highspeed STERILE

Head Ø	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
3.0 mm		HS242EC.562.030	HS242EC.563.030
4.0 mm		HS242EC.562.040	HS242EC.563.040



REF Diamond ball burr, mega coarse, highspeed STERILE

Head Ø	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
4.0 mm	HS242EC.561.030		
5.0 mm	HS242EC.561.040		



REF Diamond cylinder burr, highspeed STERILE

Head Ø	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
0.6 mm	HS828.561.006		



REF Diamond long cylinder burr, highspeed STERILE

Head Ø	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
2.0 mm	HS881.561.020		



REF Diamond egg burr, highspeed STERILE

Head Ø	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
4.0 mm	HS379.561.040		



Diverse forms of burrs

**HIGH SPEED
80,000 rpm**

REF Cylinder burr with cross-train, highspeed, carbide **STERILE**

Head Ø	Number of flutes	Working length	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
4.0 mm	10	9.0 mm	HSS72E.561.040		HSS72E.563.040
5.0 mm	12	10.0 mm	HSS72E.561.050		



REF Bud burr with cross-train, highspeed, carbide **STERILE**

Head Ø	Number of flutes	Working length	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
4.0 mm	10	8.0 mm	HSS351E.561.040		
5.0 mm	12	9.5 mm	HSS351E.561.050		



REF Egg burr, highspeed, carbide **STERILE**

Head Ø	Number of flutes	Working length	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
4.0 mm	10	9.5 mm		HSS9.562.040	HSS9.563.040
6.0 mm	14	9.5 mm			HSS9.563.060



REF Pear burr, highspeed, carbide **STERILE**

Head Ø	Number of flutes	Working length	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
6.0 mm	14	10.0 mm		HSS12.562.060	HSS12.563.060



REF Acorn burr, highspeed, carbide **STERILE**

Head Ø	Number of flutes	Working length	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
7.5 mm	8	9.3 mm		HSS10.562.075	HSS10.563.075



REF Neuro burr, highspeed, carbide **STERILE**

Head Ø	Number of flutes	Working length	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
1.8 mm	2	3.0 mm			HSS4.563.018
3.0 mm	2	4.0 mm			HSS4.563.030



REF Lindemann cutter, highspeed, carbide **STERILE**

Head Ø	Number of flutes	Working length	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
2.3 mm	4	35.0 mm	HSS162.561.023		



REF Wire Pass Drill, highspeed, carbide **STERILE**

Head Ø	Working length	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
1.0 mm	10.0 mm		HSS17.562.010	HSS17.563.010
1.2 mm	10.0 mm		HSS17.562.012	HSS17.563.012
1.5 mm	6.6 mm			HSS17.563.015



REF Spiral Drill, highspeed, carbide **STERILE**

Head Ø	Working length	Shank length 70 mm, for handpieces Ref. 1903/1906	Shank length 95 mm, for handpieces Ref. 1904/1907	Shank length 125 mm, for handpieces Ref. 1905/1908
1.5 mm	20.0 mm		HSS27.562.015	
2.0 mm	20.0 mm	HSS27.561.020	HSS27.562.020	



Drilling, filing, milling and grinding with standard speed

NON STERILE

REF Diamond ball head grinder

Head- Ø	Shank length 70 mm	Shank length 95 mm	Shank length 125 mm
0.6 mm	2850		
0.8 mm	2852		
1.0 mm	2853		
1.4 mm	2854	2874	2923
1.8 mm	2855	2875	2924
2.3 mm	2856	2876	2925
2.7 mm	2857	2877	2926
3.1 mm	2858	2878	2928
3.5 mm	2859	2879	2929
4.0 mm	2860	2880	2930
4.5 mm	2861	2881	2931
5.0 mm	2862	2882	2932
6.0 mm	2863	2883	2933
7.0 mm	2864	2884	2934

REF Diamond burr

Head- Ø	Shank length 70 mm	Shank length 125 mm
0.7 mm	2851	
1.6 mm	2828	
2.1 mm	2829	
2.5 mm	2868	
3.1 mm		2927

REF Stainless steel, round

Head- Ø	Shank length 57 mm	Shank length 70 mm
0.6 mm		2750
0.7 mm		2751
0.8 mm		2752
2.3 mm	2765	
2.7 mm	2766	
3.1 mm	2768	
4.0 mm	2769	
5.0 mm	2770	

REF Rose burr, stainless steel

Head- Ø	Shank length 44.5 mm	Shank length 70 mm	Shank length 95 mm	Shank length 125 mm
0.5 mm		2724		
0.8 mm		2752		
1.0 mm	2716	2753		
1.4 mm	2717		2745	2946
1.8 mm		2755	2747	2947
2.3 mm		2756	2749	2948
2.7 mm	2767	2730	2783	2949
3.1 mm		2758	2778	2738
3.5 mm		2759	2779	2739
4.0 mm	2718	2760	2780	2740
4.5 mm		2761	2942	2950
5.0 mm	2719	2762	2943	2951
6.0 mm	2722	2763	2944	2952
7.0 mm	2723	2764	2945	2953

REF Rose burr, tungsten carbide

Head- Ø	Shank length 70 mm	Shank length 95 mm
0.5 mm		2823
0.8 mm	2831	2824
1.0 mm	2832	2808
1.4 mm	2833	
1.8 mm	2834	2809
2.3 mm	2835	2906
2.7 mm	2836	
3.1 mm	2837	2907
3.5 mm	2838	2908
4.0 mm	2839	2909
4.5 mm	2840	2938
5.0 mm	2841	2939
6.0 mm	2842	2940
7.0 mm	2843	2941

REF Bud burr

Head- Ø	Shank length 44 mm
5.0 mm	2720
6.0 mm	2721

REF Bud burr with cross-train

Head- Ø	Shank length 70 mm
5.0 mm	2726
6.0 mm	2728
8.0 mm	2729

REF Cylinder with cross-train


Head- Ø	Shank length 70 mm
4.0 mm	2741
5.0 mm	2742
6.0 mm	2743
7.0 mm	2744

REF Rose burr/hardened steel

Head- Ø	Shank length 70 mm	Shank length 125 mm
0.5 mm	2830	
2.5 mm	2844	
3.1 mm		2935
5.0 mm		2936
7.0 mm		2937

REF Diamond grinding stone

Head- Ø	Shank length 44 mm
7.0 mm	2865
3.5 mm	2866
6.0 mm	2867



REF Lindemann fraise, Ø 2.3 mm, 10 mm working length

Total length	REF
62 mm	2771
65 mm	2772
45 mm	2773

Endoscopic spine surgery



Support sleeve with bevelled protector



Support sleeve with distal protector



Support sleeve, open

Angled handpiece



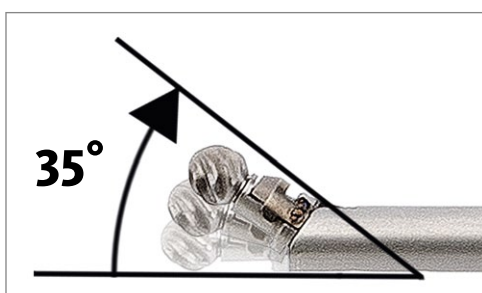
REF 1910

Angled handpiece for endoscopic spine surgery with 1:1 transmission and quick lock system.

REF	Description:	Head-Ø	Working length	Support sleeve-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

Motor driven tiltable spinal burr

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. The spinal milling cutter with its up to 35° tiltable instrument-head is applied in hard to access areas.



The enlargement of the milling head shows the angle which can be adjusted in steps up to a maximum of 35°.



The burrs require a special tool for the insertion and removal of the tool heads.

REF 1767

The entire lever mechanism of the angular adjustment is accommodated in the handpiece. Furthermore, the drill heads can be supplied with cooling liquid via a Luer-Lock connection. At the bottom of the handpiece is the coupling for the connection of the electronic motor, which is preferably powered by our HighSurg 30 or the OR tower version HighSurg T2.

OFA-Drill, motor system for percutaneous foot surgery

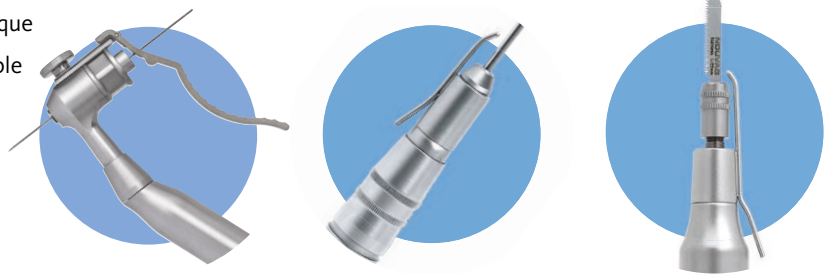
As part of the new generation of Nouvag's Surgical Motor Systems the OFA Drill was developed especially for MIS percutaneous foot surgery.

The intension behind the development of the OFA Drill is to provide a complete, simple to use Motor System, which is able to drive all required attachments and handpieces used for minimal invasive percutaneous surgery.



Instruments:

- 4:1 handpiece attachable with 12,000 rpm and high torque
- 16:1 K-wire handpiece for K-wires of 0.8 – 1.5 mm available
- All Nouvag micro saws attachable.
- Smooth running electronic motor with 50,000 rpm
- All made of medical grade stainless steel
- Simple to use, reliable and high quality instruments.



Essential accessories

REF 1029
Suitcase for our Motor Systems HighSurg 11, HighSurg 30 and OFA-Drill with sufficient space for accessories as well.



REF 9985M
Drill stand
 Holds space for 14 drills.




REF
Spray nozzles for NouClean-Spray
 for electronic motor 21 1974
 for handpieces with INTRA coupling 1958
 for electronic motor 31ESS 1942




REF 1984
Nou-Clean Spray
 For care and maintenance of electronic motors and handpieces.



REF 6025
Tube set with integrated 3 way cock, for HighSurg 30 to cool both handpieces at the same time. Sterile, disposable tube set. 



REF 6024
Tube-Set for HighSurg 11 and HighSurg 30 for cooling a single Contra Angle. 3 meter sterile, disposable tube set. 

REF 4113
Stericase made of aluminum for the sterilization and storage of sterilizable items. (465 x 280 x 100 mm)



REF 4126
Nonslip nubby silicone mat (450 x 270 mm)





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