

ENT Surgery

HighSurg 11
ENT Shaver and Micro Drill system





Our basis for motor-driven ENT surgery is the "HighSurg 11" motor system. In conjunction with the electronic motor and the handpieces described in this brochure, you will receive exclusively for ENT surgery developed components that perfectly match your indications.

Intuitive programming

Integrated peristaltic pump

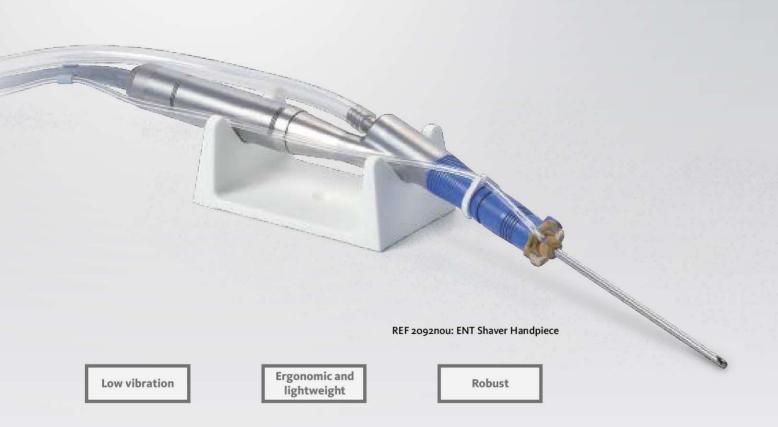
Oscillating shaver 300 - 5000 rpm

ENT Shaver Handpiece

The lightweight, ergonomic hybrid ENT Shaver Handpiece, stands for a stress-free use in minimally invasive ENT surgery.

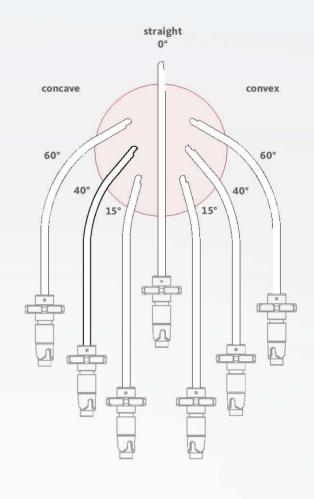
It's applied for shaving and removal of tissue, hard tissue or bone. The Shaver blade therefore simply sucks the tissue through the cutting window into the lumen. Due to the powerful rotation of the inner tube, the sucked tissue is removed via the "straight through" suction channel at the end of the hand piece.

The easylocking and tip rotation mechanism allows to rotate and lock the blade into place for a safe and perfect access to the operation area.



Shaver blades for ENT Surgery

| | Ø mm | Position | Angle | Length, mm | REF |
|------------------------|------|----------|------------|------------|------|
| Full Radius Resector | 2.5 | | straight | 105 | 5318 |
| | 3.5 | | straight | 105 | 5294 |
| (B) | 3.5 | concave | 15° | 105 | 5300 |
| | 3.5 | convex | 15° | 105 | 5303 |
| 17 | 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 |
| Aggressive Full Radius | 2.5 | | straight | 105 | 5322 |
| Aggressive rull Kaulus | 3.5 | | straight | 105 | 5295 |
| 600 | | concave | 15° | 105 | 5301 |
| 1111 | 3.5 | convex | 15° | 105 | |
| 132 | 3.5 | concave | 40° | | 5304 |
| | 3.5 | convex | 40° | 105 | 5307 |
| To | 3.5 | concave | 60° | 105 | 5310 |
| | 3.5 | | 60° | 105 | 5313 |
| | 3.5 | convex | | 105 | 5316 |
| | 4.0 | concavo | 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° 60° | 105 | 5360 |
| | 4.0 | concave | 60° | 105 | 5353 |
| | 4.0 | convex | | 105 | 5362 |
| | 4.5 | | straight | 105 | 5330 |
| Tri Spike Cutter | 2.5 | | straight | 105 | 5320 |
| | 3.5 | | straight | 105 | 5296 |
| GR | 3.5 | concave | 15° | 105 | 5302 |
| 11 | 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 |
| Trimmer | 2.5 | | straight | 105 | 5290 |
| | 3.5 | | straight | 105 | 5291 |
| Acres 13 | 5.5 | | 21. 0.6110 | .0, | 3~31 |



Shaver blades for Rhinology

| | Ø mm | Position | Angle | Length, mm | REF |
|------------------------|------|----------|----------|------------|------|
| Rhino Rose Burr | 3-5 | | straight | 130 | 5272 |
| | 3-5 | concave | 15° | 130 | 5273 |
| A. | 3-5 | concave | 60° | 130 | 5274 |
| | | | | | |
| Rhino Cylindrical Burr | 3-5 | | straight | 130 | 5275 |
| | 3.5 | concave | 15° | 130 | 5276 |
| 181 | 3.5 | concave | 60° | 130 | 5277 |
| | | | | | |
| Rhino Diamond Burr | 3.5 | concave | 15° | 130 | 5271 |
| P | | | | | |





Micro saws for ENT Surgery

Micro Saw handpieces with high torque power for all functional or aesthetic procedures in Nasal Surgery for sawing and rasping.



MSS 5000

The further developed Micro Compass Saw works with a stroke of 4 mm at 75 strokes per second, which significantly enhances the cutting performance ideal for Lateral Osteotomy with Saw Blade 5112.

MOS 5000

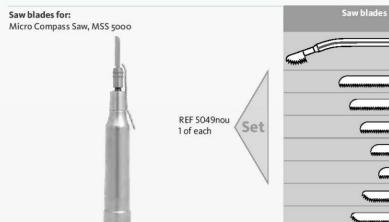
The Micro Sagittal Saw has an oscillation frequency of 250 cycles per second. Saw blades are often bent to match the correct angle of an intended cut.

OMS 5000

The Oscillating Micro Saw works with a frequency of 266 oscillations per second - ideal for Intermediate Osteotomy.

Oscillating Saw REF 5090nou

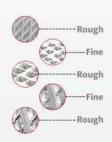
Saw blades



| Saw blades | Field of use/ Form | Useful length | PU* | REF |
|---|-----------------------|------------------|-----|---------|
| S | Rhinology | 6 mm | 1 | 5112nou |
| 5 | straight | 26 mm | 6 | 5045nou |
| <u></u> 5 | straight | 22 mm | 6 | 5044nou |
| <u> </u> | straight | 18 mm | 6 | 5043nou |
| <u> </u> | straight | 14 mm | 6 | 5042nou |
| ======================================= | straight | 11 mm | 6 | 5041nou |
| % | rounded | 17 mm | 6 | 5105nou |
| √ | rounded | 21 mm | 6 | 5106nou |

* PU: Packaging unit

Rasps for: Micro Compass Saw, MSS 5000 Ideal for reducing the nasal hump



| Rasps | Total length | Useful length | PU* | REF |
|--------------|-----------------|------------------|-----|---------|
| | 70 mm | 28 mm | 1 | 5046nou |
| | 100 mm | 36 mm | 1 | 5125nou |
| | 100 mm | 36 mm | 1 | 5126nou |
| | 100 mm | 36 mm | 1 | 5127nou |
| gennessasson | 100 mm | 36 mm | 1 | 5128nou |

* PU: Packaging unit

Saw blades for: Oscillating Micro Saw, OMS 5000



| Saw blade | Cutting depth | Useful width | Shank length 33 mm | Shank length 45 mm | PU* | REF |
|-----------|------------------|-----------------|-----------------------|-----------------------|-----|----------|
| 0 | 3.0 mm | 6.0 mm | 741 | • | 1 | 5101nou |
| 2 | 6.3 mm | 6.0 mm | • | - | 1 | 5100 nou |
| 1 | 6.3 mm | 6.0 mm | (-) | • | 1 | 5099nou |
| 5 | 13.3 mm | 6.0 mm | • | - | 1 | 5093nou |
| £ | 13.3 mm | 6.0 mm | | • | 1 | 5096nou |
| £ | 13.3 mm | 10.0 mm | • | = | 1 | 5094nou |
| | 13.3 mm | 10.0 mm | - | • | 1 | 5097nou |
| | 13.3 mm | 15.0 mm | | • | 1 | 5098nou |

* PU: Packaging unit

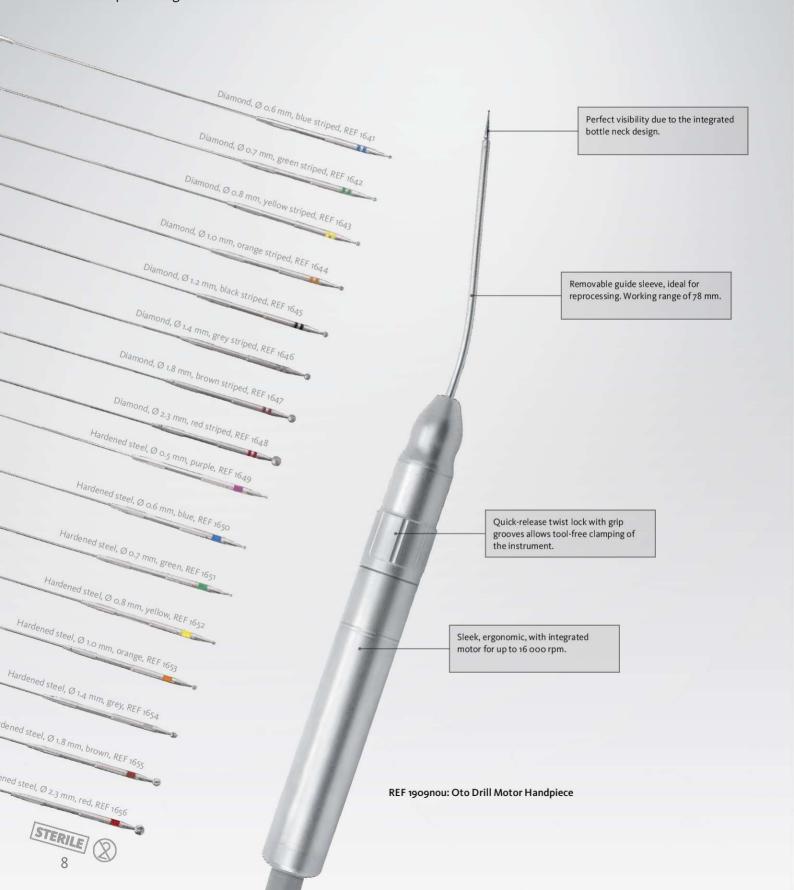
Saw blades for: Sagittal Saw, MOS 5000

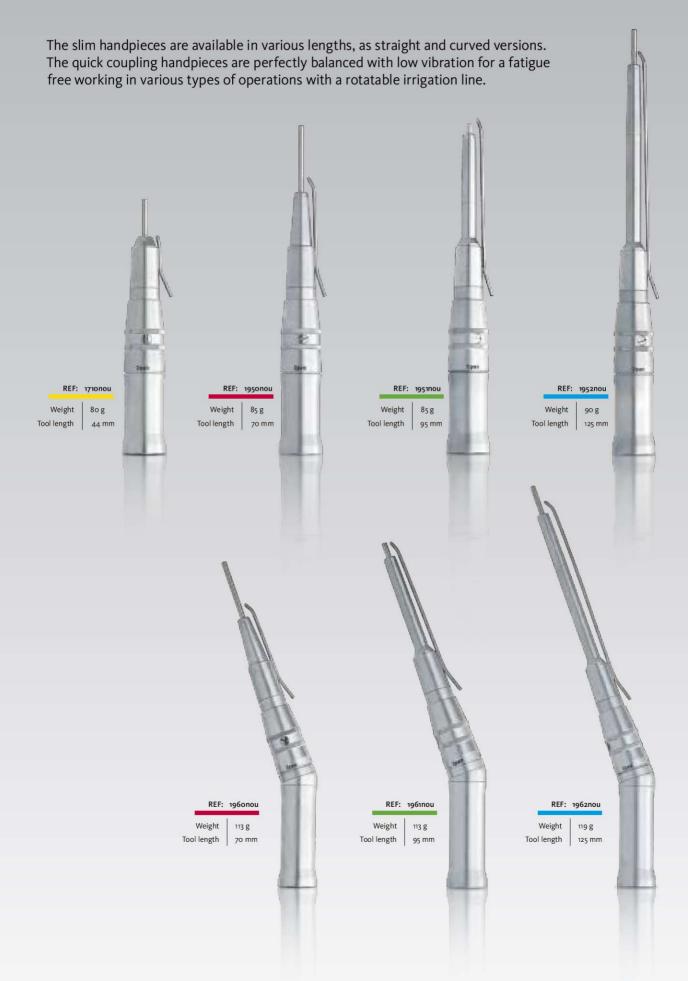


| Saw blades | Form | Cutting width | Useful depth | PU* | REF |
|------------|----------|------------------|-----------------|-----|---------|
| | straight | 6 mm | 12 mm | 6 | 5115nou |
| | straight | 6 mm | 12 mm | 6 | 5116nou |
| | rounded | 6 mm | 12 mm | 6 | 5114nou |
| | straight | 6 mm | 17 mm | 6 | 5117nou |
| | straight | 10 mm | 17 mm | 6 | 5118nou |
| 3 | straight | 12 mm | 29 mm | 6 | 5119nou |

* PU: Packaging unit

The small and lightweight Oto Drill handpiece has been developed especially for micro-shaping in Facial Stapedotomy and the reconstruction of the ossicular chain in the middle ear. A delicate and precise handpiece for the exact processing of the finest human bones.





Electronic motor 21

50 000 rpm

Durable and high powered micro motor with constant performance and comfortable use due to its directional self-ventilation. Integrated electrical torque control for speed stabilization or increment during demanding tasks.



REF 2099nou: Electronic motor 21

Ergonomic and light weight

Robust

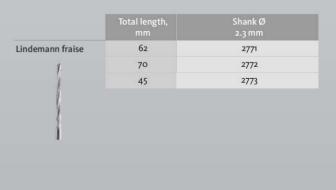
Directional self ventilation

Burrs for ENT Surgery

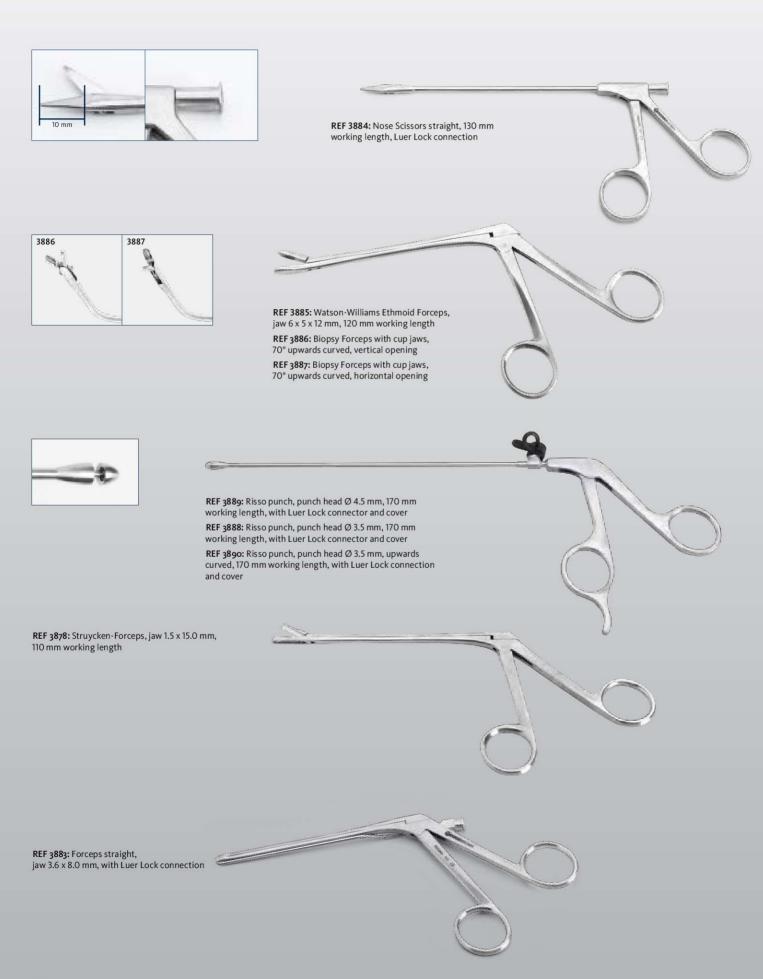
| | Head Ø mm | Shank length 44 mm | Shank length 70 mm | Shank length 95 mm | Shank lengt 125 mm |
|-------------------------------|--------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Diamond burr | 0.6 | (2 <u>1</u> 1) | 2850 | - | - |
| | 0.7 | - | 2851 | - | - |
| | 0.8 | | 2852 | - | 17 |
| (43) | 1.0 | | 2853 | - | - |
| T | 1.4 | | 2854 | 2874 | 2923 |
| /1 | 1.6 | - | 2828 | - | - |
| | 1.8 | - | 2855 | 2875 | 2924 |
| | 2.1 | - | 2829 | - | (<u>4</u> |
| | 2.3 | 920 | 2856 | 2876 | 2925 |
| | 2.5 | 1.5 | 2868 | - | - |
| | 2.7 | :=: | 2857 | 2877 | 2926 |
| | 3.1 | | 2858 | 2878 | 2927 |
| | 3.5 | | 2859 | 2879 | 2929 |
| | 4.0 | | 2860 | 2880 | 2930 |
| | 4.5 | | 2861 | 2881 | 2931 |
| | 5.0 | (92) | 2862 | 2882 | 2932 |
| | 6.0 | | 2863 | 2883 | 2933 |
| | 7.0 | | 2864 | 2884 | 2934 |
| Dasa huur etainless | 0.5 | | 2724 | | - |
| Rose burr, stainless steel | 0.8 | | 2752 | - | _ |
| ATTACK. | 1.0 | 2716 | 2753 | _ | _ |
| 34) | 1.4 | 2717 | 2754 | 2745 | 2946 |
| | 1.8 | | 2755 | 2747 | 2947 |
| 10 | 2.3 | - | 2756 | 2749 | 2947 |
| | 2.7 | 2767 | 2757 | 2783 | 2949 |
| | | - | 2758 | 2778 | |
| | 3.1 | | | | 2738 |
| | 3.5 | | 2759 2760 | 2779 | 2739 |
| | 4.0 | 2718 | 2761 | 2780 | 2740 |
| | 4.5 | | | 2942 | 2950 |
| | 5.0 6.0 | 2719 | 2762 | 2943 | 2951 |
| | | 2722 | 2763 | 2944 | 2952 |
| | 7.0 | 2723 | 2764 | 2945 | 2953 |
| Rose burr, tungsten | 0.5 | ** | - | 2823 | - |
| carbide | 0.8 | | 2831 | 2824 | - |
| 67 | 1.0 | - | 2832 | 2808 | - |
| W | 1.4 | | 2833 | - | - |
| | 1.8 | 721 | 2834 | 2809 | - |
| | 2.3 | | 2835 | 2906 | - |
| | 2.7 | | 2836 | - | - |
| | 3.1 | ** | 2822 | 2907 | - |
| | 3.5 | - | 2838 | 2908 | - |
| | 4.0 | - | 2839 | 2909 | - |
| | 4.5 | - | 2840 | 2938 | - |
| | 5.0 | - | 2841 | 2939 | - |
| | 6.0 | (22) | 2842 | 2940 | 12 |
| | 7.0 | 1.5 | 2843 | 2941 | 1.7 |
| Rose burr, hardened | 0.5 | | 2830 | - | |
| steel | 3.1 | >*· | - | - | 2935 |
| CARD. | 5.0 | - | - | - | 2936 |
| (A) | 7.0 | - | ¥ | - | 2937 |

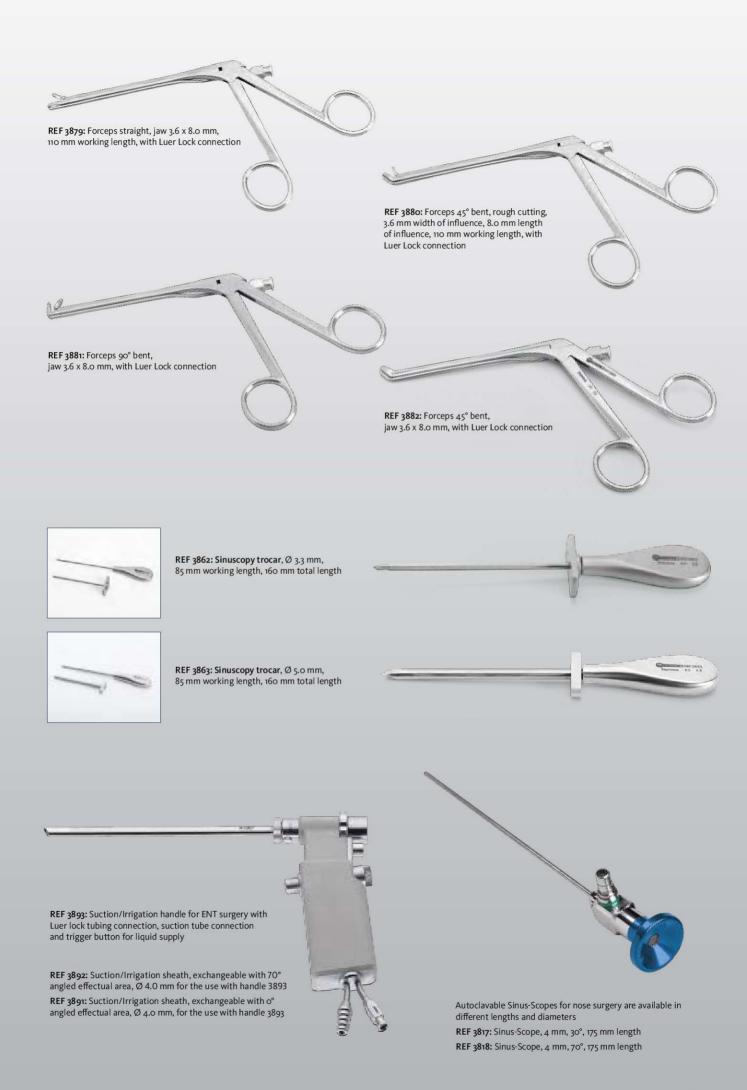
| | Head Ø mm | Shank length 57 mm | Shank length 70 mm |
|-----------------------|--------------|-----------------------|-----------------------|
| Round burr, stainless | 0.6 | - | 2750 |
| steel | 0.7 | 3 | 2751 |
| A | 0.8 | NT | 2752 |
| | 2.3 | 2765 | :=: |
| | 2.7 | 2766 | ::=: |
| | 3.1 | 2768 | :=: |
| | 4.0 | 2769 | - |
| | 5.0 | 2770 | - |

| | Head Ø mm | Shank length 44 mm | Shank length 70 mm |
|----------------------|--------------|-----------------------|-----------------------|
| Bud burr | 5.0 | 2720 | - |
| | 6.0 | 2721 | 45. |
| Bud burr with cross- | 5.0 6.0 | • | 2726 2728 |
| | 8.0 | - | 2729 |
| Cylinder with cross- | 4.0 | - | 2741 |
| rain | 5.0 | 2 | 2742 |
| 460 | 6.0 | - | 2743 |
| de. | 7.0 | 5 | 2744 |



FESS-Instrumente





FESS instruments

REF 3867: Maxillary Sinus Spoon, oval, 195 mm length

REF 3868: Maxillary Sinus Spoon, oval, 55° angled, 195 mm length

REF 3869: Maxillary Sinus Spoon, oval, 90° angled, 195 mm length

REF 3870: Curette, forward-tapping, 7.0 mm wide, oval, 90° angled, 195 mm length

REF 3865: Sickle knife, pointed, 190 mm length

REF 3866: Freer Elevator, 4.5 mm blunt/sharp, 195 mm length

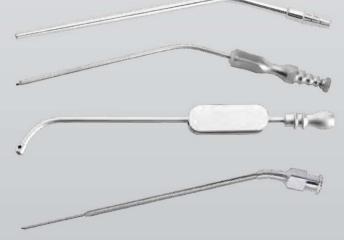
REF 3872: Cottle periosteum elevator, 200 mm length



REF 3873: Suction Cannula, conical, Ø 3.0 mm, 165 mm length, working length 145 mm

REF 3874: Frazier Suction Tube, Ø 2.7 mm, working length 130 mm

REF 3875: Eicken-Killian Pine Cannula, Ø 2.5 mm, working length 75 mm **REF 3876:** Eicken-Killian Pine Cannula, Ø 3.0 mm, working length 75 mm



REF 3864: Septum Cannula, Ø 0.8 mm





REF 3860: Killian Speculum, 40/55 mm left; compatible with Specula arm 3859; left shortened shank is toothed



 $\bf REF~3861$: Killian Speculum, 55/40 mm right; compatible with Specula arm 3859; right shortened shank is toothed





Technical data

| Voltage | variable: 100 V~/ 115 V~/ 230 V~, 50-60 Hz |
|----------------------------|--|
| Power consumption | 120 VA |
| Applied parts | Type BF |
| Max. torque | 6 Ncm |
| Dimensions (W x D x H) | 260 x 250 x 110 mm |
| Weight | 3.3 kg |
| Pedal IP code | IPX8 |
| Shaver speed | 300 - 6000 rpm, (Continuous mode) |
| Shaver speed | 300 – 5000 rpm, (Oszillation mode) |
| Shaver oszillation periode | 0.2 - 3.0 sek, (Oszillation-mode) |

| ENT Shaver Har | ndpiece: REF 2092nou | |
|-----------------------|----------------------------|--|
| Speed range | 300 – 6000 rpm | |
| Max. torque | 12 Ncm at the Shaver Blade | |
| Coupling | ISO 3964 | |
| Weight | 110 g | |

| T Sugery: REF 1950nou-1952nou, 1960nou-1962nou |
|--|
| 1:1 |
| 6 Ncm |
| ISO 3964 |
| 50 000 rpm |
| |

Leaflet may represent products that are not available in all markets.

| Electronic moto | or 21: REF 2099nou | |
|-----------------|-----------------------|--|
| Max. Speed | 50 000 rpm | |
| Max. Torque | 6 Ncm | |
| Coupling | ISO 3964 | |
| Weight | 280 g (without cable) | |
| Cable length | 3 m | |

| OtoDrill Motor Handpiece: REF 1909nou | | |
|---------------------------------------|-----------------------|--|
| Speed range | 1000 – 16 000 rpm | |
| Max. Torque | 1 Ncm | |
| Cable length | 3 m | |
| Weight | 115 g (without cable) | |

| Micro saws: REF 5040nou, 5090nou, 5110nou | | |
|---|------------|--|
| Transmission | 1:1 | |
| Max. torque | 6 Ncm | |
| Coupling | ISO 3964 | |
| Max speed | 15 000 rpm | |



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