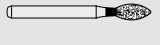
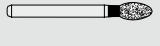
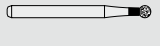
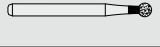
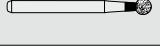
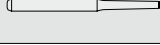
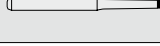
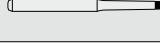
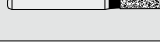
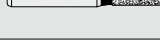
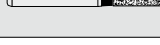
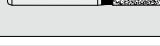
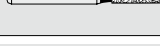
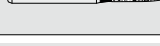




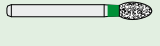
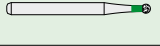
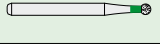
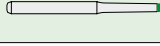
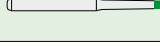
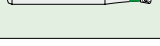
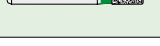
Made in Germany



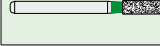
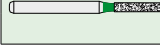
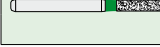
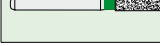
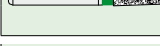
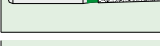
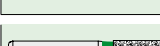
Super-coarse/sc

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	E 379 SC 314 023 [450] [-]
	E 801 SC 314 016 [450] [-]
	E 801 SC 314 018 [450] [-]
	E 801 SC 314 021 [450] [-]
	E 801L SC 314 016 [300] [-]
	E 801L SC 314 018 [300] [-]
	E 801L SC 314 021 [300] [-]
	E 836 SC 314 014 [450] [-]
	E 837 SC 314 012 [450] [-]
	E 837 SC 314 014 [450] [-]
	E 837 SC 314 016 [450] [-]
	E KS2 SC 314 014 [450] [-]
	E 862 SC 314 012 [450] [-]
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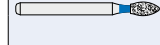
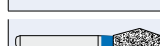
Coarse/FG

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	E 379 C 314 023 [450] [-]
	E 801 C 314 010 [450] [BR-45C]
	E 801 C 314 012 [450] [BR-46C]
	E 801 C 314 014 [450] [-]
	E 801L C 314 018 [300] [-]
	E 801L C 314 021 [300] [-]
	E 805 C 314 012 [450] [SI-46C]
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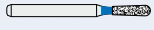
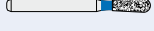
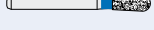
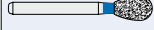
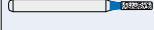
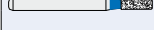
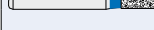
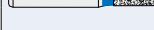
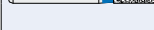
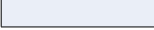
Coarse/FG

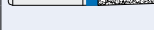
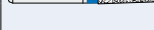
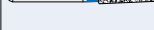
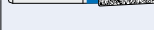
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	E 836 C 314 018 [450] [-]
	E 837 C 314 012 [450] [SF-11C]
	E 837 C 314 014 [450] [SF-12C]
	E 837 C 314 018 [300] [-]
	E 847 C 314 014 [450] [-]
	E 847 C 314 016 [450] [-]
	E 847KR C 314 014 [450] [-]
	E 847KR C 314 016 [450] [-]
	E 847KR C 314 018 [450] [-]
	E 848 C 314 018 [300] [TF-13C]
	E 850 C 314 014 [300] [-]
	E 850 C 314 016 [300] [TR-25C]
	E 850 C 314 018 [300] [TR-26C]
	E 855 C 314 018 [300] [TR-62C]
	E 856 C 314 012 [300] [-]
	E 856 C 314 014 [450] [-]
	E 856 C 314 016 [450] [-]
	E 856 C 314 018 [300] [-]
	E 856 C 314 025 [160] [-]
	E 856L C 314 016 [300] [-]
	E 856L C 314 018 [450] [TR-13C]
	E 858 C 314 014 [300] [TC-21C]
	E 859 C 314 014 [300] [-]
	E 859 C 314 016 [300] [TC-11C]
	E 862 C 314 016 [450] [FO-22C]
	E 878 C 314 012 [300] [-]
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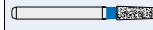
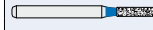
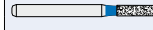
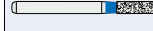
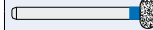
Standard/FG

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	E 368 M 314 028 [160] [FO-25]
	E 368 M 314 032 [160] [FO-27]
	E 379 M 314 023 [450] [-]
	E 801 M 314 008 [450] [BR-49]
	E 801 M 314 010 [450] [BR-45]
	E 801 M 314 012 [450] [BR-46]
	E 801 M 314 014 [450] [BR-41]
	E 801 M 314 018 [450] [BR-31]
	E 801 M 314 023 [450] [-]
	E 801L M 314 016 [300] [-]
	E 801L M 314 018 [300] [-]
	E 801L M 314 021 [300] [-]
	E 802 M 314 012 [450] [BC-43]
	E 802 M 314 014 [450] [BC-42]
	E 802 M 314 018 [450] [BC-31]
	E 802L M 314 016 [450] [BC-32]
	E 805 M 314 012 [450] [SI-46]
	E 805 M 314 014 [450] [SI-47]
	E 805 M 314 016 [450] [SI-48]
	E 806 M 314 010 [450] [DI-41]
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	E 811 M 314 032 [160] [EX-11]
	E 811 M 314 035 [160] [EX-12]

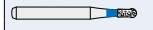
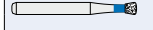
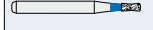
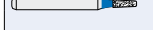
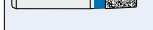
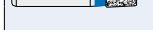
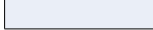
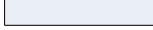
Standard/FG

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	E 830R M 314 010 [450] [EX-41]
	E 830RL M 314 014 [450] [EX-31]
	E 830RL M 314 018 [450] [EX-20]
	E 830RL M 314 021 [300] [EX-21]
	E 830RLA M 314 032 [160] [EX-26]
	E 835 M 314 010 [450] [SF-41]
	E 835 M 314 013 [450] [SF-31]
	E 836 M 314 014 [450] [SF-21]
	E 837 M 314 012 [450] [SF-11]
	E 837 M 314 014 [450] [SF-12]
	E 837 M 314 016 [450] [SF-13]
	E 845 M 314 010 [450] [TF-41]
	E 845 M 314 012 [450] [TF-42]
	E 845 M 314 014 [450] [TF-43]
	E 845 M 314 016 [450] [TF-31]
	E 845 M 314 018 [450] [TF-23]
	E 845 M 314 021 [300] [TF-22]
	E 845KR M 314 018 [450] [EX-38]
	E 845KR M 314 025 [450] [EX-38]
	E 846 M 314 010 [450] [-]
	E 846 M 314 014 [450] [TF-20]
	E 846 M 314 016 [450] [TF-21]
	E 846A M 314 014 [450] [-]
	E 846A M 314 016 [450] [-]
	E 847 M 314 018 [450] [EX-29]
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	E 848 M 314 016 [300] [TF-12]

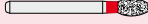
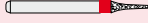
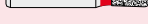
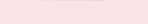
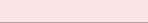
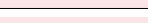
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	E 848 M 314 023 [300] [TF-14]
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	E 850 M 314 014 [300] [-]
	E 850 M 314 016 [300] [TR-25]
	E 850 M 314 018 [300] [TR-26]
	E 850 M 314 021 [300] [TR-15]
	E 850 M 314 023 [300] [TR-19]
	E 850A M 314 016 [160] [TR-12]
	E 850S M 314 016 [300] [TR-11]
	E 852 M 314 012 [450] [TC-26]
	E 855 M 314 014 [450] [TR-20]
	E 855 M 314 016 [450] [TR-21]
	E 855 M 314 018 [450] [TR-24]
	E 856 M 314 018 [450] [-]
	E 856 M 314 021 [300] [TR-14]
	E 856L M 314 018 [160] [TR-13]
	E 858 M 314 014 [300] [TC-21]
	E 859 M 314 016 [300] [TC-11]
	E 859 M 314 018 [300] [TC-16]
	E 862 M 314 010 [450] [-]
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	E 862 M 314 016 [450] [FO-22]
	E 863 M 314 012 [300] [FO-11]
	E 877 M 314 012 [450] [SO-20]
	E 878 M 314 014 [450] [SO-21]
	E 878K M 314 014 [450] [-]
	E 878K M 314 016 [450] [-]

	E 878K M 314 018 [450] [-]
	E 881 M 314 012 [450] [SR-11]
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Standard/FGSS - short

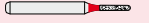
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	E 805 M 313 016 [450] [SI-S48]
	E 806 M 313 010 [450] [DI-S41]
	E 835 M 313 010 [450] [SF-S41]
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	E 848 M 313 016 [300] [TF-S12]
	E 855 M 313 016 [450] [TR-S21]
	E 856 M 313 018 [450] [TR-S13]
	E 858 M 313 014 [300] [TC-S21]
	E 862 M 313 014 [450] [FO-S21]
	E 877 M 313 012 [450] [SO-S20]

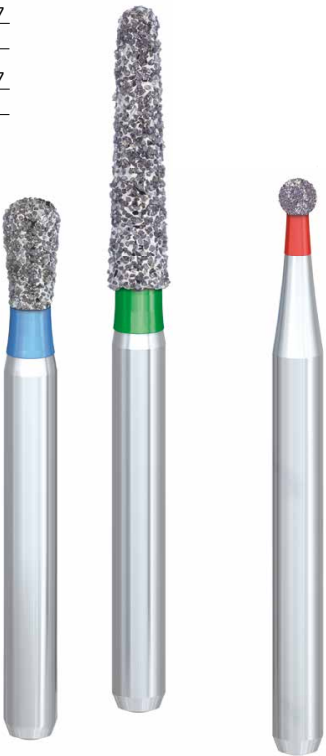
Fine/FG

	E 368 F 314 016 450 [FO-30F]
	E 368 F 314 018 450 [FO-32F]
	E 379 F 314 014 450 [-]
	E 379 F 314 018 450 [-]
	E 379 F 314 023 450 [-]
	E 392 F 314 016 450 [-]
	E 801 F 314 006 450 [BR-48F]
	E 825 F 314 016 450 [WR-31F]
	E 830RL F 314 014 450 [EX-31F]
	E 830RL F 314 021 300 [EX-21F]
	E 835KR F 314 008 450 [CD-62F]
	E 837 F 314 014 450 [CE-11F]
	E 838 F 314 007 450 [CD-60F]
	E 838L F 314 007 450 [CD-61F]
	E 839 F 314 012 300 [EX-18F]
	E 846 F 314 016 450 [TF-21F]
	E 848 F 314 016 300 [TF-12F]
	E 848 F 314 023 300 [CE-10F]
	E 849 F 314 015 450 [CR-12F]
	E 849 F 314 020 300 [CR-11F]
	E 850 F 314 016 300 [TR-25F]
	E 850 F 314 018 300 [TR-26F]
	E 850S F 314 016 300 [TR-11F]
	E 855 F 314 012 450 [CR-21F]
	E 855 F 314 016 450 [TR-21F]
	E 856 F 314 018 450 [TR-13F]
	E 856 F 314 021 300 [PRO-1F]
	E 856L F 314 014 450 [-]
	E 858 F 314 014 300 [TC-21F]

	E 859 F 314 016 300 [TC-11F]
	E 862 F 314 012 450 [-]
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	E 862 F 314 016 450 [FO-22F]
	E 878 F 314 012 300 [CR-22F]

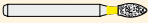
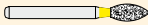
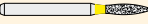
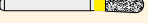
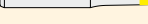
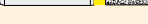
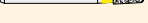
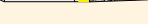
Fine/FGSS - short

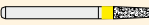
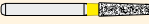
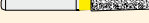
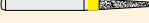
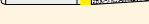
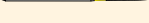
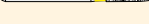
	E 379 F 313 009 450 [CD-55F]
	E 801 F 313 006 450 [CD-50F]
	E 825 F 313 016 450 [WR-S31F]
	E 835KR F 313 008 450 [CD-58F]
	E 838 F 313 007 450 [CD-51F]
	E 838L F 313 007 450 [CD-52F]
	E 860 F 313 006 450 [CD-54F]
	E 860 F 313 007 450 [CD-56F]
	E 860L F 313 007 450 [CD-57F]
	E 955 F 313 007 450 [CD-53F]



Maximum speed: 450 = 450.000 rpm | 300 = 300.000 rpm | 160 = 160.000 rpm

Extra Fine/FG

	 E 368 EF 314 016 [450] [FO-30EF]
	 E 368 EF 314 018 [450] [-]
	 E 368 EF 314 021 [300] [-]
	 E 368 EF 314 023 [300] [-]
	 E 368LS EF 314 014 [450] [FO-20EF]
	 E 379 EF 314 014 [450] [-]
	 E 801 EF 314 014 [450] [BR-40EF]
	 E 830RL EF 314 021 [300] [EX-21EF]
	 E 832 EF 314 010 [300] [FO-40EF]
	 E 837 EF 314 014 [450] [CE-11EF]
	 E 845KR EF 314 018 [450] [EX-38EF]
	 E 846 EF 314 016 [450] [TF-21EF]
	 E 847 EF 314 018 [450] [EX-29EF]
	 E 848 EF 314 016 [300] [TF-12EF]
	 E 848 EF 314 023 [300] [CE-10EF]
	 E 849 EF 314 015 [450] [CR-12EF]
	 E 849 EF 314 020 [300] [CR-11EF]

	 E 850 EF 314 016 [300] [TR-25EF]
	 E 850 EF 314 018 [300] [TR-26EF]
	 E 850S EF 314 016 [300] [TR-11EF]
	 E 855 EF 314 016 [450] [TR-21EF]
	 E 856 EF 314 018 [450] [-]
	 E 856 EF 314 021 [300] [PRO-1EF]
	 E 856L EF 314 018 [160] [TR-13EF]
	 E 858 EF 314 014 [300] [TC-21EF]
	 E 859 EF 314 014 [300] [-]
	 E 859 EF 314 016 [300] [TC-11EF]
	 E 862 EF 314 010 [450] [-]
	 E 862 EF 314 012 [300] [FO-42EF]
	 E 862 EF 314 014 [450] [FO-21EF]
	 E 862 EF 314 016 [450] [FO-22EF]
	 E 863 EF 314 012 [300] [FO-11EF]

Extra Fine/FGSS - short

	 E 862 EF 313 012 [450] [FO-41EF]
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Maximum speed: [450] = 450.000 rpm | [300] = 300.000 rpm | [160] = 160.000 rpm



General instructions for use and safety recommendations for the application of rotary dental instruments.

Rotary instruments for use in the dental sector are to be used only by doctors or other experts who are experienced in the safe handling of these instruments. **Area of application:** These general instructions for use and safety recommendations apply to all products and are to be generally observed.

1. Proper use

- Make sure that only technically and hygienically perfect and cleaned turbines are used.
- Chuck the instruments as deeply as possible.
- The instrument must be rotating before contact is made with the tooth.
- Avoid jamming and using the instrument as a lever as this leads to an increased risk of breakage.
- Wear safety glasses as required.
- Avoid unprotected contact with the instruments (use protective gloves).
- Thermal damage caused by rotary instruments has to be avoided in any case (work at recommended speed and use sufficient water cooling).
- Coarse and super coarse grit diamond instruments may lead to increased thermal stress. Therefore, when using such products, use sufficient water cooling (at least 50 ml/min) and work at minimal contact pressure. To achieve an optimum surface quality, subsequent finishing is necessary.
- Preferably use instruments with rounded edges as the preparation of sharp-edged undercuts may lead to an increased risk of a damaging notch effect. Improper use leads to increased risk and inferior results. Therefore, stick to the application and speed recommendations indicated on the labels and in our instructions for use.

2. Recommended speeds

The general rule is: – The larger the working part, the lower the speed – Maximum speed 450 000 rpm means: Suited for micromotor handpieces and turbines with stableball bearings. Not recommended for old turbines with air bearing. Not observing the maximum permissible speed leads to an increased safety risk.

3. Contact pressure

Excessive contact pressure (> 2N) has to be avoided. Increased contact pressure may lead to stripping of the grit on abrasive instruments or to clogging of the instruments and increased heat generation. **Increased contact pressure may also lead to thermal damage to the pulp. In extreme cases, instrument breakage may even occur.**

4. Elimination of worn instruments

Blank spots on the surface of diamond instruments are an indication of abrasive grit wear and reduced cutting efficiency. These deficiencies lead to excessive temperature and finally pulp damage. Therefore, bent or "out of true" instruments must be eliminated immediately.

Very important: Blunt and damaged instruments lead to applying higher contact pressure which may result in an increased operating temperature. This may lead to thermal pulp damage. Damaged instruments therefore have to be discarded immediately.

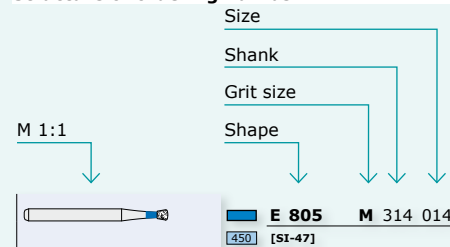
5. Sterilization procedure

- Prior to the first use on the patient and immediately after each use, all rotary instruments have to be (re)processed.
- Wear puncture resistant utility gloves when handling contaminated instruments.
- Pre-soak instruments immediately after use to loosen debris.
- For cleaning we recommend to use automated cleaning equipment (e.g. ultrasonic cleaner or washerdisinfector).
- Burs should be separated from each other in a bur block to prevent damage during immersion.
- Brush away remaining debris with a metal cleaning brush and rinse instruments under running water.
- Dry burs (e.g. by airblasting) to avoid corrosion.
- Sterilization of the instruments is carried out using the known methods with autoclave. Minimum hold times: for 90 minutes at 121°C or for 4 minutes at 134°C. Times are hold times, running times are longer and may vary from unit to unit. The instructions provided by the device manufacturer have to be observed.
- After sterilization, check instruments for defects on the surface (corrosion). Corroded instruments must not be used any longer.
- The operator of medical products is responsible for seeing that proper treatment is carried out by qualified staff using the appropriate materials and suited equipment.

6. Specific instructions for individual instrument types Diamond

- Coarse and super coarse grit diamond instruments may lead to increased thermal stress. Therefore, when using such products, use sufficient water cooling (at least 50 ml/min) and work at minimal contact pressure. To achieve an optimum surface roughness, subsequent finishing is necessary.

Structure of ordering number:



Maximum speed:

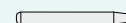
[450] = 450.000 rpm
[300] = 300.000 rpm
[160] = 160.000 rpm

Shank types:

Shank 313 = FG short



Shank 314 = FG normal



Diamond grit sizes:

	extra-fine	EF	25 µm
	fine	F	46 µm
	medium	M	107 µm
	coarse	C	151 µm
	super-coarse	SC	181 µm

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