EN

DFS
Dental Future Systems
D I A M O N

Polishers
(solid)

Rev. 12/20

Date of issue: 09.09.2013
Last revision date: 16.12.2020

*Example application

*Example

CONTENT

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1. User group

The instruments may only be used by appropriately qualified personnel in dental surgery or clinics.

➢ Dentists
➢ Qualified dental assistant / Dental hygienist

2. Target patient group

Patients with dental medical indications in the area of the described indications and applications.

3. Materials / Components

Instruments with medical-grade steel shank (martensitic chromium steel / CrMoS) and PU/diamond, PU/SiC, PU/pumice working piece

4. Product description

Prophylaxis polishers

DFS Diamon has developed special polishers for prophylaxis. Two shapes (flame and cup) are available which need to be manually screwed on a right-angle mandrel included in the kit. The polishers contain an abrasive grain which does not impact the tooth but reliably removes plaque, stains and other unwanted residue. No polishing paste is required.

Polishers for ceramics (2ceram)

Polishers for ceramics require two polishing steps. 2ceram polishers are available for ceramics and are impregnated with fine and superfine diamonds. The two polishing steps are sufficient for finishing, polishing and high shine polishing. In addition to the usual CA (right angle) polishers, DFS Diamon also offers two shapes on FG shank.

Polishers for composites (2comp, Durocomp)

Likewise, the 2comp polishers require two steps. 2comp polishers are polyurethane-based and contain diamonds and silicon carbide (fine and superfine) as polishing grain thereby delivering excellent polishing results. The Durocomp polishers have been developed for extra hard composites and contain medium and superfine diamonds as abrasive grain.

Polishers for zirconia (Circopol N)

The Circopol Instruments have been developed for efficient polishing of zirconia (including ceramic build-up). Two sequentially used polishers (green and red) in FG shank rapidly produce a shiny surface.

Polisher for precious metal and amalgam (2metal)

Polishers for precious metal and amalgam require two polishing steps. 2metal polishers are impregnated with fine and superfine diamonds. The two polishing steps are sufficient for finishing, polishing and high shine polishing.

5. Indication

➢ Intra-oral polishing dental restorations/filling materials
➢ removing, smoothing, high gloss polishing of ceramics, metals, composites etc. and of enamel (prophylaxis)

6. Contraindication

➢ The instruments may not be used for any other than the described indication or application area.
➢ Excessive temperatures due to insufficient water cooling must be avoided (possible damage of pulp)
➢ The indicated speed may not be exceeded
➢ Jamming or using the instrument as a lever must be avoided (risk of fracture/injury)
➢ Never use bent or unbalanced instruments (risks of injury)
➢ in case of incorrect use or of a defect, polishers, shanks or the working piece may break and turn into dangerous flying objects
➢ Low quality shanks may break and lead to injuries

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7. Application mode

Please make sure that only dental turbines, contra-angles and straight hand pieces which are in correct technical and hygienic condition are being used.

- ➢ accurate running of turbine and contra-angle hand piece is required
- ➢ insert the instrument into the turbine/handpiece as deeply as possible. (There is a risk of injury if not inserted deeply enough!)
- ➢ run the tools at the required speed before contacting the surfaces to be treated
- ➢ Instruments must be rotating before touching the object
- ➢ perform slightly circular, intermittent resp. dapping motions
- ➢ ensure sufficient water-cooling
- ➢ no additional polishing required
- ➢ the recommended speed may differ from tool to tool. (see table below for speed specifications)
- ➢ for best results observe the recommended speeds (see table below for speed specifications)
- ➢ center polishers to be mounted after adjustment onto the shanks to be mounted in order to enable vibration-free working polishers to be mounted have to be centered after adjustment onto the shanks to avoid vibrations.

Follow the instructions for use of the manufacturer of the micromotor/turbine.

Incorrect use leads to unsatisfactory results und leads to increased risks.

8. Speed specification

Maximum speed for polishers

Connection type	Instrument	↻ Speed
CA	Prophylaxis polishers *(for tooth polishing)*	**3' – 6.000 rpm**
RA / CA, FG	2ceram *(for ceramics)*	**3' – 6.000 rpm**
RA / CA, FG	2comp / Durocomp *(for composites)*	**3' – 6.000 rpm**
RA / CA	2metal *(for precious metal and amalgam)*	**3' – 6.000 rpm**
RA / CA	Circopol N *(for zirconia)*	**5' – 15.000 rpm**

9. Frequency benchmark for the application of rotary instruments

The following values serve as a reference only; the actual service life may differ depending on the application, usage and material but must not exceed the maximum number of reprocessing cycles.

- ➢ Polishers (solid) **10x**

10. Reprocessing

For reprocessing (cleaning, disinfection and sterilization) see the separate instructions for reprocessing.

11. Storage

- ➢ Do not store instruments in plastic pouches (damaged pouches can cause contamination of the instruments)
- ➢ Store in dry conditions

12. Protective measures / Warnings

Protect yourself by wearing appropriate protective gear (gloves, goggles, mask)

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13. Residual risks

Possible residual risks are fracture due to gross faulty handling or use of low quality shanks or contamination due to inappropriate sterilization which may lead to harm of the patient, user or third persons.

The discharge of abrasives of the used materials is barely noticeable and has no influence on the patient's safety.

In addition, there are the following further residual risks with regard to possible foreseeable application errors, which may result in harm to the patient:

➢ Incorrect use of speed (too low/too high)
➢ Contraindicated applications
➢ Missing / insufficient water cooling

These residual risks are highly unlikely and are not expected in case of appropriate use and handling over the lifecycle of the instrument.

14. Traceability

We recommend keeping the original packaging over the entire lifetime of the instrument in order to ensure traceability via the lot number.

15. Disposal

Used and/or defective instruments need to be sterilized before disposal to avoid transmission of germs. Please be careful with sharp edges or tips.

After sterilization instruments can be discarded with general clinical waste.

16. Notification to competent authorities

Competent national authorities and the manufacturer need to be notified about all serious incidents occurring in the context of the product without delay.

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17. Explanation of symbols

Pictogram	Standard / Directive	Explanation
CE 0297	EU RL 93/42/EWG (MDD)	Proof of product conformity with the mentioned European directive/regulation and the identification number of the notified body having confirmed this product conformity.
	DIN EN ISO 15223-1 (Reference number 5.1.1)	Manufacturer
	DIN EN ISO 15223-1 (Reference number 5.1.3)	Date of manufacture
	DIN EN ISO 15223-1 (Reference number 5.4.3)	Observe instructions for use
	DIN EN ISO 15223-1 (Reference number 5.3.4)	Keep dry
	DIN EN ISO 15223-1 (Reference number 5.4.4)	Caution!
REF	DIN EN ISO 15223-1 (Reference number 5.1.6)	Article number
LOT	DIN EN ISO 15223-1 (Reference number 5.1.5)	Batch code
MD	-	Medical device