

## User guide

### **Name of manufacturer**

TOR VM Ltd.

### **Registered trade mark of manufacturer**



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The products are CE marked



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### **Intended purpose**

TOR VM dental polishing discs are intended for professional use in dental clinic only. Polishing discs with metal connector and stem polishing discs with plastic connector (hereinafter - *discs*) can be used for all groups of patients without restrictions.

The *discs* are intended for polishing dental fillings via rotation transferred from dental handpiece manipulated by dentist or by hand manipulation of handpiece around the dent.

Mandrels are used to transfer rotation from dental handpiece to the *disc* or as intermediate (adapter, transition adapter) between *discs* and handpiece.

*Discs* are for single use and supplied in non sterile state. It is obvious that polishing disc has been used.

*Discs* are single-use devices. *Discs* are used for composite finishing and polishing. *Disc* flexibility allows the *disc* to bend, proving perfect polishing effect even in interproximal areas. The best result is achieved when *discs* of all 4 types are used successively - from the coarsest to the finest one.

Mandrels are supplied in non sterile state.

Mandrels can be re-used and must be sterilized after each procedure .

### **TOR VM disc instruction**

1. Remove excess composite and contour the restoration using a fine diamond or carbide bur.
2. Accurately open the package with *discs* to avoid squabbling and mixing of the *discs* and choose *disc* for gross reduction of necessary diameter.
3. Place *disc* for gross reduction by gentle pushing of the connector onto preliminary sterilized mandrel until the *disc* is secure connected (*disc* must not wobble on mandrel).
4. Start polishing at a speed not more than 10000 rpm. (speed and duration when using *disc* of another type see the Table)

Process	Gross reduction	Contouring	Finishing	Polishing
Standard color code	blue	green	yellow	white
Speed, rpm	10000	10000	30000	30000
Time, seconds	As needed	15 - 20	15 - 20	15 - 20

5. When the polishing is finished wash away the residuals of polishing.
6. Remove the gross reduction *disc* from mandrel by positioning a thumbnail under the *disc* connector and pushing the *disc* away from the mandrel.
7. Place *disc* for contouring by gentle pushing of the connector onto mandrel until the *disc* is secure (*disc* must not wobble on mandrel) and repeat procedures 3 – 4 taking into account changed abrasiveness of the *disc* (see the Table).

### **When polishing pay attention to:**

- a. move in one direction: from gingiva towards restoration (back and forth movement over the composite-enamel margin is not recommended);
- b. use light pressure;
- c. keep the restoration surface and *disc* dry when polishing to reach more smooth and uniform effect;
- d. cool the polished tooth with air to avoid dentin overheating.

### **Warning:**

1. Do not use *discs* and mandrels on handpieces intended for speeds exceeding 30000 rpm to avoid the *disc* or mandrel damage that may lead to an injury.
2. Do not operate mandrel without *disc*.
3. Avoid contacting of mandrel or *disc* connector with composite - possible discoloration may require to repeat polishing once more.
4. Use successively *discs* of all 4 types - otherwise the quality of restoration polishing may be reduced.
5. Control quality of *disc* surface while operating. Rotational behavior and the appearance of the *disc* changes 10-15 seconds before separation or break. The visual appearance of the disintegrated *disc* is changed. Do not use *discs* with delaminated abrasive coating or damaged polymer part. This may cause tissue damage.
6. Control the cooling air supply during polishing to avoid dentin overheating.
7. Do not use polishing *disc* once more – *discs* are single-use device – second use can lead to:
  - tissue infection,
  - tissue damage caused by delamination of abrasive coating,
  - tissue damage by parts of disintegrated *disc*,
  - tissue damage caused by disconnection between *disc* and mandrel.
8. If package with *discs* or mandrels is broken or disrupted *discs* or mandrels prior to use must be sterilized by a standard method.

### **Methods of sterilization**

Mandrels are sterilized after each patient using conventional steam autoclave at 134°C for 5 minutes.

### **Warning:**

1. Do not use detergents or disinfectants containing strong alkalines (pH>9), strong acids (pH<4), phenols or iodophors, hydrogen peroxide, interhalogenic agents, halogenic hydrocarbons, strong oxidizing agents, organic solvents, aldehydes.
2. Use only sterile or high quality water for post-rinsing.
3. Dry mandrels thoroughly before sterilization.
4. Follow instructions of autoclave (sterilizer) manufacturer.

In case of risk of disc contamination discs can be sterilized in the following manner:

- 1) put discs in 2% sodium bicarbonate solution at 70°C for 15 min, mix from time to time,
- 2) rinse with distilled water,
- 3) dry at ambient temperature,
- 4) put in 6% solution of hydrogen peroxide at ambient temperature for 360 min or at 50°C for 180 min.

Polishing discs can also be sterilized using conventional steam autoclave at 121°C for 20 minutes.

### **Storage**

Store *discs* and mandrels in a dry place.

Store *discs* away from direct sunlight. The storage at direct light can cause disc color change and flexibility decrease.

### **Product shelf-life**

Shelf-life of *discs* is 5 years since date of production.  
Shelf-life of mandrels is unlimited.

### **Warranty**

Warranty time for mandrels is 1 year after the first use.

*Discs* are single-use devices.

TOR VM will replace the product that is proved to be nonconforming.

It is up to user to ensure that the product is suitable for the intended process and purpose.