Dental Matrix Bands

Metal matrix bands, strips and striprolls, metal contoured matrices 1.0930, 1.0932, 1.0933, 1.0935, 1.0929, 1.0931, 1.1932, 1.1933, 1.1935, 1.1937, 1.1938, 1.1939, 1.1940, 1.380, 1.381, 1.382, 1.382(7), 1.383, 1.390, 1.390(5), 1.391, 1.392, 1.392(5), 1.393, 1.501, 1.502, 1.503, 1.504, 1.505, 1.506, 1.507, 1.511, 1.512, 1.513, 1.514, 1.515, 1.516, 1.517, 1.500, 1.500+, 1.510, 1.510+

Interproximal gauges 3.38N4, 3.38N5, 3.38N7

Loop matrices 1.595, 1.597

Metal contoured matrices combined with clamp 1.541, 1.542, 1.543, 1.544, 1.545, 1.549, 1.551, 1.552, 1.553, 1.554, 1.555, 1.559, 1.560, 1.540, 1.550

Metal contoured matrices "Pony" 1.341, 1.342, 1.343, 1.344, 1.340, 1.350

Perforated metal matrix bands 1.331 and contoured perforated matrices 1.531

Saddle metal matrices 1.301, 1.302, 1.303, 1.311, 1.312, 1.313, 1.310, 1.320, 1.330

Sectional contoured metal matrices 1.0971, 1.0972, 1.0973, 1.0974, 1.0975, 1.0976, 1.097, 1.098, 1.198, 1.298, 1.398, 1.498, 1.1972, 1.1973, 1.1976, 1.0971DC, 1.0972DC, 1.0973DC, 1.0974DC, 1.0975DC, 1.0976DC, 1.098DC, 1.0971T, 1.0972T, 1.0973T, 1.0974T, 1.0975T, 1.0976T, 1.098T

Lug matrices 1.351, 1.352, 1.353, 1.353L, 2.351, 2.352, 2.353, 1.338, 1.348, 1.368, 1.351T, 1.352T, 1.353T

Overmat matrix bands 1.571, 1.581

Overmat matrices 2.571, 2.581

Proximal anterior strips 1.387A, 1.387, 1.388

Twin anterior matrices 1.521, 1.523, 1.533, 1.888

Transparent strips and striprolls 1.040, 1.041, 1.240, 1.241, 1.242, 1.243, 1.244, 1.245

Transparent stopstrips 1.440, 1.441

Transparent cervical matrix system 1.141

Transparent contoured matrices, sectional 1.922, 1.923

Bow anterior matrices 1.951, 1.952, 1.953

Transparent contoured matrices 1.090, 1.091, 1.190, 1.191, 1.092

Transparent contoured self-adhesive matrices 1.490, 1.491

Transparent contoured matrices combined with clamp 1.094, 1.095, 1.194, 1.195, 1.096

Transparent crowns 1.910, 1.911, 1.912, 1.913, 1.915, 1.901, 1.903, 1.905, 1.907, 1.908, 1.909

Plastic-metal combined matrix bands 1.034, 1.134

Name of manufacturer

TOR VM Ltd.

Registered trade mark of manufacturer

Address of manufacturer
Novatorov street, 7A, bld.2, room 44B, 119421 Moscow, Russia
Manufacturing site:
Kulibina, 15c, 394029 Voronezh, Russia
Tel.: (495) 225 54 17
e-mail: torvm@gmail.com
internet: www.torvm.ru

European representative
Gregor Kostunov
Untere Seegasse 54, DE-69124 Heidelberg, Germany
Tel/fax (49) 6221718120
E-mail: tor.vm.de@googlemail.com

The products are CE marked

PRECAUTION

Devices in plastic packages should be stored away from heating devices to avoid packaging damage.

INSTRUCTIONS FOR USE
Revision 21
January 21, 2025

Matrix bands are intended for professional use in dental clinic only. Operating with matrix bands is well known procedure. No special training needed.

The devices are for single use.

Target groups
No limitations for target treatment group – the devices can be used for all groups of patients without restrictions.

Benefits
Dental matrix bands provide the following benefits:

1) Improved safety of restoration procedure due to protection of

- adjacent teeth from rotating tools;
- dentogingival papilla from the pressure of the material is created;

2) Consistent high quality of restoration due to:
- creation of proper tight contact point;
- providing right anatomy of the proximal surface of the teeth;

3) Reduction of restoration time due to:
- operating reliability and simplicity of use;
- easy adaptation and easy removal from the tooth;
- prevention of the release of the filling material beyond the side edges of the cavity.

Warnings and precautions
1) Do not re-use.
2) Prior to use *matrix bands* (device) make sure of integrity of the device and absence of rust on it.
3) *Matrix bands* cannot be placed in the inflamed gingiva as it can cause bleeding.
4) The devices are supplied in non-sterile state and in case of risk of contamination are to be sterilized in autoclave bag in autoclave at 121°C for 20 min (plastic matrices, plastic-metal matrices 1.034, 1.134 and overmat matrix bands 1.571, 1.581 and matrices 2.571, 2.581) and at 134°C for 5 min (metal bands) in accordance with instructions of autoclave manufacturer.
5) Use rubber dam when operating with sectional, lug matrices, bow matrices and transparent crowns to avoid matrix swallowing by the patient.

OPERATING INSTRUCTIONS

Preparation
1. Open the packaging.
2. Make sure that there are no:
- signs of violation of the integrity of the device (including cracks and chips),
- traces of rust or dirt on the surface.

Operating procedure

Metal matrix bands, strips and striprolls, metal contoured matrices 1.0930, 1.0932, 1.0933, 1.0935, 1.0929, 1.0931, 1.1932, 1.1933, 1.1935, 1.1937, 1.1938, 1.1939, 1.1940, 1.380, 1.381, 1.382, 1.382(7), 1.383, 1.390, 1.390(5), 1.391, 1.392, 1.392(5), 1.393, 1.501, 1.502, 1.503, 1.504, 1.505, 1.506, 1.507, 1.511, 1.512, 1.513, 1.514, 1.515, 1.516, 1.517, 1.500, 1.500+, 1.510, 1.510+

are installed with

Tofflemire retainer № 1.007

rings № 1.099, 1.199, 1.299, Slot ring № 1.044
in case of installation with Slot ring № 1.044 be sure that the width of matrix wings is less than slot height, cut the wings to fit slot height if necessary

springclip № 1.009

Interproximal gauges 3.38N4, 3.38N5, 3.38N7

Interproximal gauges No 3.38N4, No 3.38N5, No 3.38N7 are designed to control proximal tooth grinding.
1. Choose a gauge that roughly corresponds in thickness to the interdental space, the size of which needs to be determined.
2. Determine the size of the interdental gap by the thickness of the gauge (numbers on the gauge) (the gauge should be inserted into the interdental space a little difficult).
In the case of easy insertion of the selected gauge into the interdental gap to be measured:
- remove the entered gauge and enter the next gauge, or
- additionally insert smaller gauges into the measured interdental space until the interdental gap is completely filled.
3. Remove gauges from the patient's oral cavity.

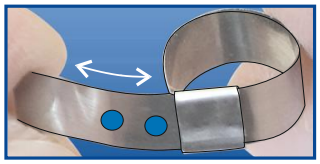
The criterion for the unsuitability of the product for use is the violation of its integrity.

Recommendations for work
The additional introduction of smaller calibers provides greater measurement accuracy compared to replacing with the next caliber. In the case of several gauges, the size of the interdental space is determined by the sum of the gauge thicknesses.

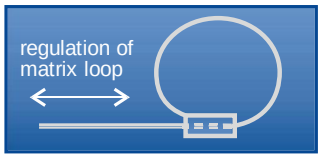
Precautions
Before starting work make sure that there are no signs of integrity violation (including chips and cracks) and traces of rust or dirt. Caution should be exercised when introducing gauges to avoid accidental damage to the tooth surface or injury to the mucous membrane.

Loop matrices 1.595, 1.597

Construction of loop matrices provides simplicity of loop length regulation in accordance to tooth size. Loop matrices are installed without retainer. Mainly to be used for protection of adjacent tooth against bur upon cavity preparation.



1. Regulate the loop size corresponding to the tooth size

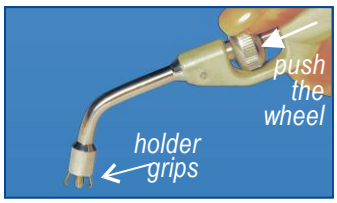


2. Install loop matrix onto the tooth and tighten matrix end up to complete embracing of the tooth

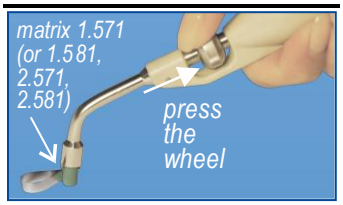
Metal contoured matrices combined with clamp 1.541, 1.542, 1.543, 1.544, 1.545, 1.549, 1.551, 1.552, 1.553, 1.554, 1.555, 1.559, 1.560, 1.540, 1.550

1. install matrix by hand on the tooth,
2. press metal clamp,
3. perform the restoration and remove the matrix.

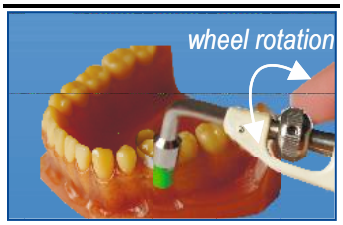
Overmat matrix bands & matrices 1.571, 1.581, 2.571, 2.581



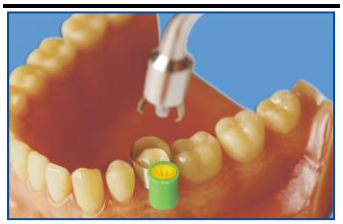
Outside the oral cavity open the holder grip by pushing wheel away from you.



Arrange overmat matrix on the holder and close the holder grips by pressing the wheel towards you.

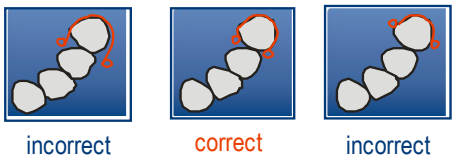


Install the system on the tooth and provide the required matrix tension via rotating the wheel.



Reset the matrix by opening the holder grips and withdraw the overmat holder from the mouth & perform restoration.

Saddle metal matrices 1.301, 1.302, 1.303, 1.311, 1.312, 1.313, 1.310, 1.320, 1.330



Important!
To provide perfect contact choose appropriate matrix length

Installation with springclip for saddle matrices № 1.003

1. Outside the patient mouth insert tines of springclip into the matrix side tubes

2. Press springclip holders with matrix and install matrix onto the tooth

3. The systems works on distal and on mesial tooth surface

Installation with ring for saddle matrices № 1.033

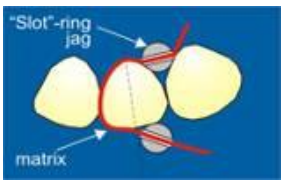
1. Outside the patient mouth insert tines of the ring into the matrix side tubes

2. Open the ring assembled with saddle matrix via forceps № 1.099-1 (or via standard rubber dam forceps) and install matrix onto the tooth

3. Ready for restoration. On the distal surface

4. The systems can be installed on mesial tooth surface too

Metal contoured matrices "Pony" 1.341, 1.342, 1.343, 1.344, 1.340, 1.350



Pony matrices are ideal for fixation with Slot springclip or Slot ring. Any other metal matrices can be installed with Slot springclip and Slot ring provided matrix edges are narrow enough to do not overhang from the slot into the direction of gingiva.

Installation with Slot springclip №1.004

1. Insert matrix into the slots of springclip

2. Install the springclip with matrix onto the tooth

3. Ready for restoration on mesial surface of the tooth

4. Ready for restoration on distal surface of the tooth

Installation with Slot ring №1.044

1. Open the ring via forceps № 1.099-1 or via standard rubber dam clamp forceps, insert matrix into the slots of the ring

2. Install the ring with matrix onto the tooth

3. Ready for restoration on distal surface of the tooth

4. Ready for restoration on mesial surface of the tooth

Perforated metal matrix bands 1.331 and contoured perforated matrices 1.531

Ivory retainer

ring for perforated matrices № 1.022

springclip for perforated matrices № 1.002

Sectional contoured metal matrices 1.0971, 1.0972, 1.0973, 1.0974, 1.0975, 1.0976, 1.097, 1.098, 1.198, 1.298, 1.398, 1.498, 1.1972, 1.1973, 1.1976, 1.0971DC, 1.0972DC, 1.0973DC, 1.0974DC, 1.0975DC, 1.0976DC, 1.098DC, 1.0971T, 1.0972T, 1.0973T, 1.0974T, 1.0975T, 1.0976T, 1.098T

All matrices are available of 4 types – hard, 0,050 mm thick / hard, 0,035 mm thick / soft, 0,050 mm thick / soft, 0,035 mm thick.
Hard matrices are easy to install. Soft matrices are easily adapted for contact point formation.
Matrices of 0,035 mm thickness are more effective for restoration of small decays.
Matrices of 0,050 mm thickness are intended for restoration of large decays in subgingival area. Such matrices retain the shape well.
Kits 1.1972, 1.1973 and 1.1976 are intended for advanced users of sectional systems or for dentists who desire to test the difference between hard and soft matrices.

Use rubber dam when operating with sectional matrices to avoid matrix swallowing by the patient.

Installation with rings

1. Install matrix (preferably wide side down to gingiva) and wedge

2. Open the ring via forceps

3. Put the ring on the tooth and perform restoration

4. The system can be installed either on distal or on mesial surface of the tooth

Possible ring positions

Variant 1. Ring tines located behind the wedge (restoration of large cavities)

Variant 2. Ring tines located in front of the wedge (restoration of small cavities)

Variant 3. Two rings with various tines height on one tooth (restoration of decay on distal and mesial surfaces of one tooth)

Variants of installation of rings with flat tines

Rings with flat tines are recommended upon restoration of large decays near the contact point

Ring 1.199

D-ring 1.166. Tines of D-ring are curved inwards to fix matrix on distal side of the tooth

M-ring 1.177. Tines of M-ring are curved out to fix matrix on mesial side of the tooth

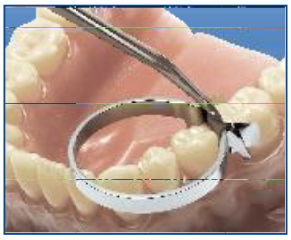
Delta ring 1.299 with add-on wedges 1.861. Double tines of Delta ring are suitable for installation of fixing wedges and add-on wedges (see how to operate with add-on wedges)

Installation with springclip

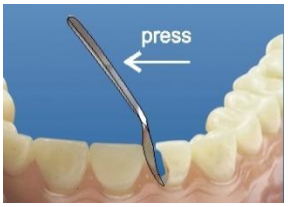
Springclip can be installed without forceps. Sprinclip provides more gentle (weak) fixation of matrix than ring

Lug matrices 1.351, 1.352, 1.353, 1.353L, 2.351, 2.352, 2.353, 1.338, 1.348, 1.368, 1.351T, 1.352T, 1.353T

Lug matrices are installed similar to sectional matrices.
Contact point is adjusted by pulling matrix lugs to adjacent tooth using dental plier. Use rubber dam when operating with lug matrices to avoid matrix swallowing by the patient.



Proximal anterior strips 1.387A, 1.387, 1.388



Install anterior strip vertically
Press the handhold of the strip forcing its working part to the adjacent tooth

Twin anterior matrices 1.521, 1.522, 1.533, 1.888

Installed by hand. Operating positions

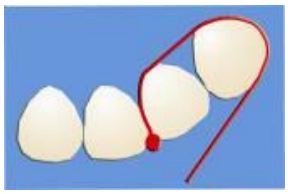
Transparent strips and striprolls 1.040, 1.041, 1.240, 1.241, 1.242, 1.243, 1.244, 1.245

1. cut off the strip of the necessary length of the strip
2. install it by hand or with

Tofflemire retainer № 1.007

Slot ring № 1.044

Transparent stopstrips 1.440, 1.441



1. insert the free side (without stopper) of the stopstrip in the interdental space,

2. hold out the stopstrip till the stopper fixes the stopstrip in the interdental space (see the figure).

Transparent contoured matrices 1.090, 1.091, 1.190, 1.191, 1.092

Transparent contoured matrices are installed with

Tofflemire retainer № 1.007

Slot ring № 1.044

Transparent contoured self-adhesive matrices 1.490, 1.491

1. install matrix by hand on the tooth,

2. remove the red protective layer from matrix sides,

3. stick glued matrix sides with each other.

Transparent contoured matrices combined with clamp 1.094, 1.095, 1.194, 1.195, 1.096

1. install matrix by hand on the tooth,

2. press metal clamp,

3. perform the restoration and remove the matrix.

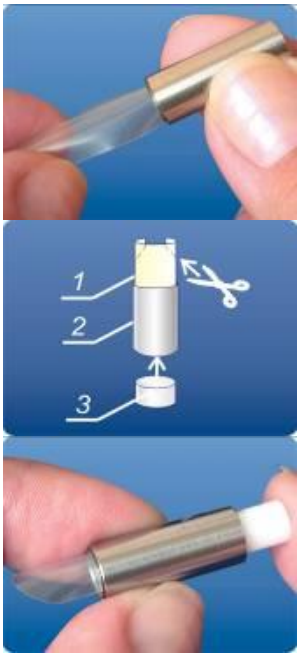
Transparent contoured matrices, sectional 1.922, 1.923

Transparent sectional matrices are installed similar to metal sectional matrices - using fixing rings and transparent plastic wedges. Use rubber dam when operating with sectional matrices to avoid matrix swallowing by the patient.

Bow anterior matrices 1.951, 1.952, 1.953

Bow anterior matrices are installed using fixing wedges. Use rubber dam when operating with bow anterior matrices to avoid matrix swallowing by the patient.

Transparent cervical matrix system 1.141



1. curve the matrix band *1* carefully (avoid the folding) (matrix curvature must correspond to the shape of the tooth part under restoration.)

2. insert the band into the cervical former *2*, which comprises metal tube with inner diameter 6 mm,

3. approximately adjust the length of the matrix band *1* in accordance with tooth dimension,

4. cut out the matrix band *1* strictly according to the tooth shape,

5. fix the matrix band *1* in the cervical former *2* using the stopper *3*,

6. perform the tooth restoration holding the cervical former and the stopper with one hand.

Transparent crowns 1.910, 1.911, 1.912, 1.913, 1.915, 1.901, 1.903, 1.905, 1.907, 1.908, 1.909

1. Cut off the crown from the plate (if necessary) and puncture it

2. Fill the crown with filling material

3. Put the filled crown to the tooth under restoration

4. Remove the excess filling material squeezed from the hole and perform the restoration

Plastic-metal combined matrix bands 1.034, 1.134

1. Insert matrix in the interdental space metal side first
2. Hold the transparent side of the matrix towards the decay
3. Perform the restoration and remove the matrix

Storage

Store *matrix bands* in a dry place, away from direct sunlight (for plastic bands). Devices in plastic packages should be stored away from heating devices to avoid packaging damage.

Product shelf-life

Shelf-life of *matrix bands* is unlimited.

Disposal

Used *matrix bands* are to be disposed as class 3a "other non-hazardous wastes" according to WHO-UNEP/SBC 2005 coding recommendations.

Warranty

Matrix bands 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. The user is responsible for inspecting the devices prior to each use and for the use of damaged and dirty devices.

Any serious incident or non-compliance that has occurred in relation to TOR VM *matrix bands* should be reported by e-mail torvm77@gmail.com and/or tor.vm.de@googlemail.com.