

Walser® Matrices

Optimal fillings
in minimum time and
a single action

Operating Manual



DR. WALSER  DENTAL GMBH

RX only

Made in Germany



This Operating Manual provides important instructions for handling the WALSER® matrices. For the safety of your patient always strictly follow the instructions.

Inform yourself about local regulations and general safety regulations.

Read the Operating Manual in detail before starting any work! The Operating Manual is a part of the product and must be kept in WALSER® matrices immediate vicinity. It must be accessible to all personnel at all times.

If the WALSER® matrices are transferred to a third party ensure that the Operating Manual is provided with the WALSER® matrices.

The illustrations in this manual are provided for your better understanding. They are not necessarily true to scale and may deviate slightly from the actual version.

Sterilize prior to use.

Matrix trays and matrices can be sterilized in the autoclave up to 280 °F

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Tens of thousands of dentists worldwide work with Walser® matrices and the number is growing daily...



Image showing the “O-shape” Walser® matrix

Introduction

Thank you for choosing our WALSER® matrices. You are now among the tens of thousands of dentists worldwide who have placed their trust in our products.

From the dentist's office for the dentist's office, this ingenious system was developed for dental filling matrices and WALSER® matrix forceps. Practical and scientific experiences with self-tightening matrices contributed to the continuous development of multifaceted fittings in today's system.

We want you to be fully satisfied with our products. If you have questions or recommendations, please contact your dealer, who will be glad to provide you with information about our products. If you do not have a contact, you can also contact us directly. Dr. Walser Dental GmbH hopes that you enjoy working with our matrices.

WALSER® is a registered trademark of Dr. Walser Dental GmbH.

Intended use

WALSER® matrices have been designed and manufactured to separate tooth flanks from each other and to build a corset for dental fillings.

WALSER® matrices can generally differ in two different shapes: X- and O-shape matrices, which are offered in numbers 1 to 25. These also include special shapes, for example for anterior teeth and teeth over which a cof-ferdam clamp has been placed (the matrix can be placed over the clamp) or for terminal teeth.

Claims of any type against the manufacturer and/or manufacturer's authorized agents for harms due to un-intended use are excluded. The user is solely responsible for damages due to unauthorized use.

RX only:

WALSER® matrices are exclusively intended to be used by qualified dentists.

Safety instructions

Explanation of safety messages

In this Operating Manual safety messages can be identified by a safety alert symbol () and/or signal words. The signal words express the dimension of the hazard. Strictly comply with the instructions and act with prudence to avoid property damage, personal injury or possible death.

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates a property damage message.

Limitation of liability

All instructions in this operating manual have been compiled under due consideration of applicable standards, the state of art, as well as our extensive knowledge gained in years of experience.

Manufacturer accepts no liability for damages due to:

- Failure to heed the instructions in the Operating Manual
- Unintended use of the WALSER® matrices
- Using WALSER® matrices by other persons than licensed dentist
- Use of damaged matrices

In all other cases the obligations set forth in the supply contract, manufacturer's terms and conditions, as well as the valid legal regulations at the time of delivery apply.

We reserve the right of technical and design changes.

General safety advice for using WALSER® matrices

When using WALSER® matrices, you are obliged to adhere to all usual safety precautions for dental fillings.

Additionally you have to follow these special advices:

WARNING

Always sterilize WALSER® matrices before use.

Unsterilized matrices may cause infections possibly leading to injuries or even death.

⚠ WARNING

Always use the original WALSER® matrix forceps in the way described in this manual. When using other forceps the matrix may slip off the forceps possibly falling into the patient's throat which may lead to injuries or even suffocation.

⚠ CAUTION

Always handle WALSER® matrices carefully. The stainless steel wires can be pointed and sharp-edged. Skin may be hurt.

⚠ CAUTION

Do not use WALSER® matrices that are bended, ripped, wrinkled or damaged otherwise. These matrices may cause harm or personal injury.

NOTICE

Introduce WALSER® matrices carefully into the interdental space. Do not use too much pressure. Do not push WALSER® matrices forcefully through an occluded interdental space. Too much force may bend and damage WALSER® matrices strap or rupture the welding spots.

A perforation can lead to WALSER® matrices tearing completely.

Advantages of WALSER® matrices

- Optimal fillings with a matrix applied in a single action.
- The WALSER® matrix is applied and removed in a matter of seconds.
- Low papillae bleeding.
- Automatically adapts to the individual shape of each tooth (even conical).
- Enormous spring force in the tangential direction and cervically.
- The high spring force prevents over-packing.
- The patient can bite with an installed matrix.
- Matrix no. 24 can be placed over a cofferdam clamp.
- No need for spanners or screws.
- No damage to the filling with appropriate handling of the matrix forceps.
- WALSER® matrices rarely require wedges as they fit over cavities more easily than rigid systems.
- With concave tooth flanks, the matrix may also be wedged in cervical direction.
- Ideal cotton roll holder and ideal for children.
- Very durable and easy to sterilize.
- WALSER® matrices are made out of stainless steel.
- They cause no coloring of composites or silicates for example.
- They can be sterilized at will and retain their high spring force each time.
- Matrix straps only 0.05 mm thick.

Shapes and application areas

WALSER® matrices are available in different shapes to fit in most possible situations.

X-shape



The X-shape may be used if there is an interdental space with fillings presenting dual surfaces.

O-shape



The O-shape may be used in case of MOD fillings and for single or stand-alone teeth.

In case of one-sided deep cavities WALSER® matrices no. 10c or 6c may be used.

XF-shape



The XF-shape may be used for front teeth. If two neighboring fillings are necessary the filling compound will be cut through by the straps.

OF-shape



The OF-shape may be used for front teeth.

ON-shape

The ON-shape may be used for wide spans over cofferdam and terminal teeth. Well-suited for extra large molars.

The ON-shape no. 24 is especially suited when cofferdam clamps are used on teeth from no. 6 to no. 8.

This matrix can also be inserted over the cofferdam clamp.

Some shapes also can be used for deciduous molar, see table on next page.

Overview of shapes and sizes

No.	Form	Special remarks	Strap height	Application
1	X	also for deciduous molar	0.197 inch (5.0 mm)	BICUSPID
2	X		0.256 inch (6.5 mm)	BICUSPID
3	X		0.197 inch (5.0 mm)	MOLAR
4	X		0.256 inch (6.5 mm)	MOLAR
5	O	also for deciduous molar	0.197 inch (5.0 mm)	SMALL BICUSPID
6	O		0.256 inch (6.5 mm)	SMALL BICUSPID
6c	O	one strap side 3 mm longer	0.197/0.315 inch (5/8 mm)	BICUSPID
7	O	also for deciduous molar	0.197 inch (5.0 mm)	BICUSPID
8	O		0.256 inch (6.5 mm)	BICUSPID
9	O		0.197 inch (5.0 mm)	MOLAR
10	O		0.256 inch (6.5 mm)	MOLAR
10c	O	one strap side 3 mm longer	0.197/0.315 inch (5/8 mm)	MOLAR
11	XF	straps slit near end	0.256 inch (6.5 mm)	11, 12, 21, 22
12	XF	straps slit near end	0.315 inch (8.0 mm)	11, 12, 21, 22

No.	Form	Special remarks	Strap height	Application
13	X	extra short straps, also for deciduous molar	0.197 inch (5.0 mm)	13, 14, 23, 24, 31, 32, 41, 41
14	X	extra short straps	0.256 inch (6.5 mm)	13, 14, 23, 24, 31, 32, 41, 41
15	O	extra short straps	0.197 inch (5.0 mm)	31, 32, 41, 42
16	O	extra short straps	0.256 inch (6.5 mm)	31, 32, 41, 42
17	X	extra high straps	0.315 inch (8.0 mm)	4 - 5
18	X	extra high straps	0.315 inch (8.0 mm)	6 - 8
19	O	extra high straps	0.315 inch (8.0 mm)	4 - 5
20	O	extra high straps	0.315 inch (8.0 mm)	6 - 8
21	OF	straps slit near end	0.315 inch (8.0 mm)	11, 21
22	OF	straps slit near end	0.315 inch (8.0 mm)	12, 22
23	ON	long straps, large breadth	0.197 inch (5.0 mm)	6 - 8
24	ON	put over cofferdam clamp, large breadth	0.256 inch (6.5 mm)	6 - 8
25	O	intermediate size	0.197 inch (5.0 mm)	DECIDUOUS MOLAR V (special form for deciduous molar, also well suited for 1, 13, 5, 7)

Using the X-shape matrix

Inserting the X-shape matrix:



1. Sterilize the matrix and forceps.
2. Position the matrix into the WALSER® matrix forceps as it is about to be applied in the mouth (occlusal direction).
3. Take care that the loops of the matrix are latched to the front two notches of the forceps.

The second latch provides an additional security to ensure that the matrix does not slip off the forceps in the direction of the forceps joint.

▲ WARNING! Take care that the matrix is latched correctly.

When using other forceps the matrix may slip off the forceps possibly falling into the patient's throat which may lead to injuries or even suffocation.

4. Stretch the matrix until the two matrix straps touch each other.

NOTICE! Do not use too much force, to prevent damage of the matrix.



5. Carefully insert the matrix into the interdental space.



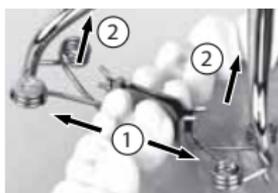
6. When the papilla is reached, release the forceps.

The straps will wrap around the neck of the tooth.

7. Shift the matrix accordingly in an occlusal direction.

8. Remove the forceps.

Removing the X-shape matrix:



1. Place the WALSER® matrix forceps into the loops of the matrix.

2. Take care that the loops of the matrix are latched to the front two notches of the forceps.

3. Open the forceps with maximum tension.

NOTICE! Directly use maximum tension. A slowly opened matrix may damage the well contoured filling.

4. Move the matrix in a rocking motion around the sagittal axis before removing it.

This will release the straps more easily from the filling material.

5. Remove the matrix out of the mouth.

6. Clean and sterilize matrix and forceps.

Using the O- and OF-shape matrix

Inserting the O- and OF-shape matrix:



1. Sterilize matrix and forceps.
2. Position the matrix into the WALSER® matrix forceps as it is about to be applied in the mouth (occlusal direction).
3. Take care that the loops of the matrix are latched to the front

two notches of the forceps.

The second latch provides an additional security to ensure that the matrix does not slip off the forceps in the direction of the forceps joint.

▲ WARNING! Take care that the matrix is latched correctly.

When using other forceps the matrix may slip off the forceps possibly falling into the patient's throat which may lead to injuries or even suffocation.

4. Stretch the matrix until the two matrix straps reach the required width through parallel movement.

NOTICE! Do not use too much force, to prevent damage of the matrix.

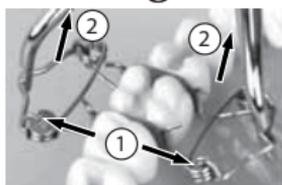


5. Carefully slip the matrix over the tooth and insert it into the interdental spaces.



- 6.** When the papilla is reached, release the forceps. The straps will enclose the neck of the tooth.
- 7.** Shift the matrix accordingly in an occlusal direction.
- 8.** Remove the forceps.

Removing the O- and OF-shape matrix:



- 1.** Place the WALSER® matrix forceps into the loops of the matrix.
- 2.** Take care that the loops of the matrix are latched to the front two notches of the forceps.
- 3.** Open the forceps with maximum tension.

NOTICE! Directly use maximum tension. A slowly opened matrix may damage the well contoured filling.

- 4.** Move the matrix in a rocking motion around the sagittal axis before removing it. This will release the straps more easily from the filling material.
- 5.** Remove the matrix out of the mouth.
- 6.** Clean and sterilize matrix and forceps.

Using the XF-shape matrix

Inserting the XF-shape matrix:



1. Sterilize matrix and forceps.
2. Fill the cavity with marginal excess.
3. Position the matrix into the WALSER[®] matrix forceps as it is about to be applied in the mouth (occlusal direction).
4. Take care that the loops of the matrix are latched to the front two notches of the forceps.

The second latch provides an additional security to ensure that the matrix does not slip off the forceps in the direction of the forceps joint.

▲ WARNING! Take care that the matrix is latched correctly.

When using other forceps the matrix may slip off the forceps possibly falling into the patient's throat which may lead to injuries or even suffocation.

5. Stretch the matrix until the two matrix straps touch each other.

NOTICE! Do not use too much force, to prevent damage of the matrix.

6. Before inserting take care that the large spring will be pointed labially and the bent springs will be pointed occlusally
7. Carefully insert the matrix into the interdental space.



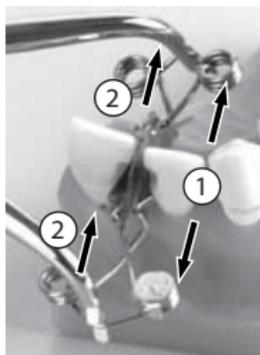
8. The strap will cut off the excessive filling compound. When the papilla is reached, release the forceps. The straps will enclose the neck of the tooth.

9. Shift the matrix accordingly in an occlusal direction.

10. Remove the forceps.



Removing the XF-shape matrix:



1. Place the WALSER® matrix forcers into the loops of the matrix.
 2. To release the straps from the excessive filling tension the matrix with the forceps and release it again.
 3. Remove the forceps leaving the matrix.
 4. Remove the excess between the straps using a probe.
 5. Place the forceps at the loop of the matrix again.
 6. Take care that the loops of the matrix are latched to the front two notches of the forceps.
 7. Open the forceps with maximum tension.
- NOTICE! Directly use maximum tension. A slowly opened matrix may damage the well contoured filling.*
8. Pull the matrix in a labial direction and angle downward slightly.
 9. Then pull in a palatal direction and angle down.
 10. Repeat the procedure if necessary.
 11. Remove the matrix out of the mouth.
After removing the matrix there is no cervical excess.
 12. Remove the remaining thin layer of filling material.
 13. Clean and sterilize matrix and forceps.

Using the ON-shape matrix

Inserting the ON-shape matrix:



1. Sterilize matrix and forceps.
2. Position the matrix into the WALSER[®] matrix forceps as it is about to be applied in the mouth (occlusal direction).

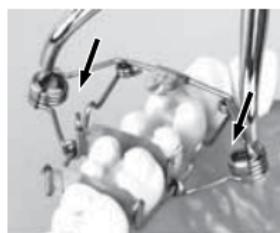
Take care that the spring coils of the matrix are resting firmly in the front two notches of the forceps.

3. Stretch the matrix until the two matrix straps reach the required width through parallel movement.

▲ WARNING! Take care that the matrix is latched correctly.

When using other forceps the matrix may slip off the forceps possibly falling into the patient's throat which may lead to injuries or even suffocation.

NOTICE! Do not use too much force, to prevent damage of the matrix.

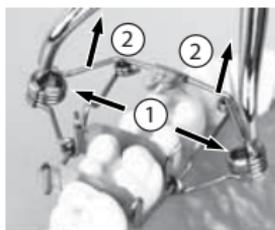


4. Carefully slip the matrix over the tooth and insert it into the interdental spaces.



5. When the papilla is reached, release the forceps.
The straps will enclose the neck of the tooth.
6. Shift the matrix accordingly in an occlusal direction.
7. Remove the forceps.

Removing the ON-shape matrix:



1. Place the WALSER® matrix forceps into the spring coils of the matrix.
2. Insert the forceps in-between first and second notch. Take care that the spring coils of the matrix are resting firmly in the front two notches of the forceps.
3. Open the forceps with maximum tension.
NOTICE! Directly use maximum tension. A slowly opened matrix may damage the well contoured filling.
4. Move the matrix in a rocking motion around the sagittal axis before removing it. This will release the straps more easily from the filling material.
5. Remove the matrix out of the mouth.
6. Clean and sterilize matrix and forceps.

Cleaning, sterilizing and maintenance

Cleaning

Clean WALSER® matrices immediately after use with plenty of running water. To ensure that blood residue etc. does not dry, the matrices must be placed in water or disinfectant solution for some time.

If a matrix was used for cement or composite fillings it must be carefully cleansed of all residues.

NOTICE! Leaving residues may damage the filling if the matrix is reused.

Sterilization

Matrix trays and matrices can be sterilized in the autoclave up to 280 °F (140 °C).

NOTICE! Never overheat. This may damage matrix trays or matrices.

Repairing a bent strap

If a strap has become bent, it can be re-straightened with flat-nosed pliers or with the handle of a mouth mirror.

NOTICE! If the matrix is not straightened, it can damage the filling if the matrix is reused.

▲ CAUTION! If a matrix is torn or wrinkled, it must be discarded and replaced with a new one. Never use damaged matrices. They may cause harm or personal injury.

Available sets

There are three sets with or without WALSER® matrix forceps:

1. Set of 10 for beginners:

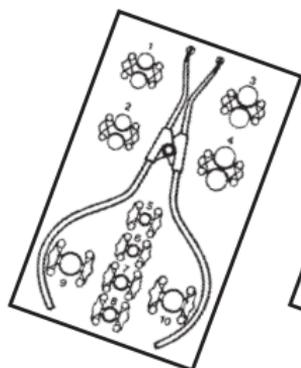
This set consists of the WALSER® matrices nos. 1 to 10 (except nos. 6c and 10c), i.e. 4 X-shape matrices and 6 O-shape matrices with two strap heights. They fulfill all the requirements placed on a matrix in the premolar and molar area.

2. Set of 18 for experienced users:

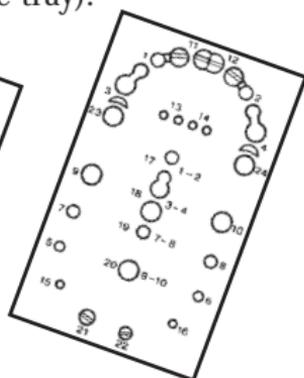
This set consists of the matrices nos. 1 to 18, i.e. with the addition of the front matrices no. 11-16, and the extra tall X-shapes 17 and 18. The matrices are mounted on a matrix tray.

3. Set of 25 for experienced users:

This set consists of the matrices nos. 1 to 25, and therefore includes all shapes (except for nos. 6c and 10c). The matrices are mounted on a matrix tray (no. 25 is mounted on the back of the tray).



10-piece set



18/25-piece set

Orders

Orders are supplied as follows:

Refill packages:



Package of 5

5-piece set with sizes from no. 1 to no. 22 and no. 25

5-piece set assorted sizes from no. 1 to no. 22 and no. 25
(e.g. 2 x no. 5 and 3 x no. 7)

Package of 2

2-piece set with sizes from no. 23 or no. 24

2-piece set, 1 x no. 23 and 1 x no. 24

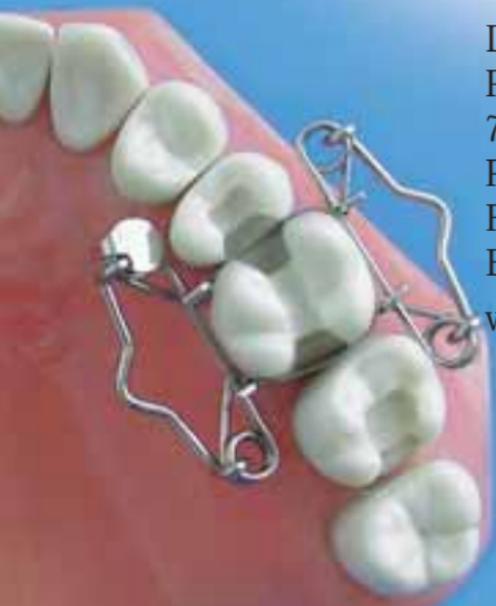
Individually

WALSER® matrix forceps

WALSER® matrix tray for 10-piece set

WALSER® matrix tray for 18/25-piece set

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