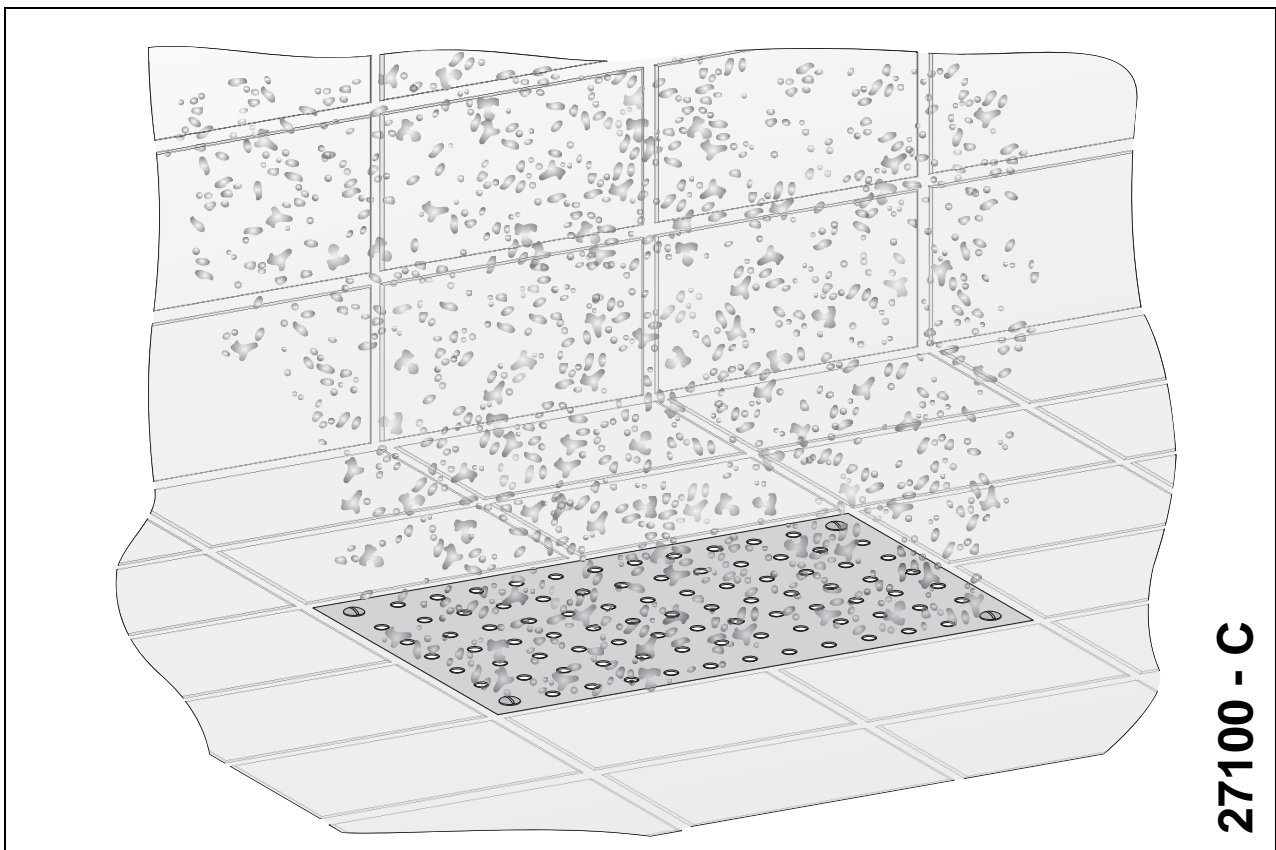


Air pads

Operator's Manual

Translation of the original



27100 - C

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1 General / Usage Instructions

1.1 Guarantee notice

If the instructions contained in this operator's manual are not observed then any claims under guarantee shall be void.

1.2 General

All parts coming into contact with media are designed for water quality to DIN 19643.

The air pads are of state-of-the-art technology and they were manufactured with great care under constant quality control conditions.

The operator's manual contains important instructions on how to use the air pads safely, properly and economically. The instructions must be strictly adhered to in order to avoid danger and to ensure that the air pads have a long useful life.

This manual does not take into account local regulations, the observance of which is the responsibility of the operator – also on behalf of installation personnel that may be involved.

1.3 Usage Instructions

Neither the entire unit nor parts thereof must be used in other systems. You are expressly directed to use it only in accordance with these instructions.

Under no circumstances must air pads be used in a way that exceeds the fig.s quoted in the technical specification. In case of doubt, please contact your customer service or the manufacturer.

2 Safety instructions

Please read this operator's manual carefully before you install and operate the air pads. Make sure that you have understood everything.

2.1 Safety Instructions for the Operator

1. Regardless of what nature they may be, repairs must only be carried out by qualified persons. If necessary, the pool should be emptied.
2. The operator must ensure that
 - the operator's manual is always available for users to read,
 - the instructions in the operator's manual are being observed.
3. All parts that come into contact with the medium are resistant to an absolute salt content of up to 0.75% (4500mg/l Cl⁻). If the salt concentrations are greater than this, the manufacturer must be consulted.

3 Unit Description / General Technical Data

The system complies with **VDE (Association for Electrical, Electronic & Information Technologies) regulations**.

The air pads are delivered as 3 assemblies:

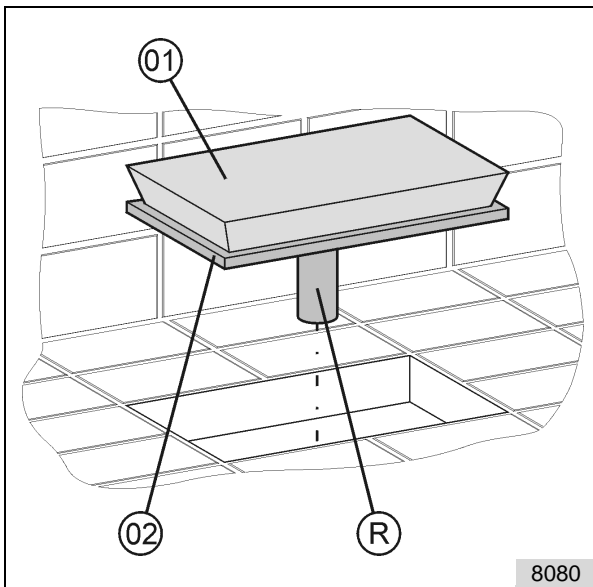
- | | |
|-----|-------------------------|
| I | Installation kit |
| II | Assembly kit |
| III | Blower installation kit |

3.1 Technical Data

| Dimensions in mm | 200 x 200 | 240 x 240 | 300 x 300 | 300 x 500 | 400 x 400 | 480 x 480 | 500 x 500 |
|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| Air connection | DN 32 | DN 32 | DN 32 | DN 32 | DN 32 | DN 32 | DN 32 |
| Air flow rate | 25 m ³ /h | 30 m ³ /h | 40 m ³ /h | 60 m ³ /h | 65 m ³ /h | 95 m ³ /h | 100 m ³ /h |
| Operating pressure | 150 mbar | 150 mbar | 150 mbar | 150 mbar | 150 mbar | 150 mbar | 150 mbar |
| Max. perm. pressure | 250 mbar | 250 mbar | 250 mbar | 250 mbar | 250 mbar | 250 mbar | 250 mbar |

4 Air Pads

4.1 Shuttering / Concrete-tile pool and Concrete pool with brush-applied sealant



- R* Pipe
- 01* Polystyrene
- 02* PVC plate

fig. 1

Position the installation kit precisely within the tile grid and determine the exact centre for the floor flange.

Next drill a hole with the appropriate diameter in the floor shuttering for the pipe (R).

Then fasten the installation kit in the desired position to the concrete reinforcing bars and affix using the supporting feet, if necessary. The upper edge of the poly-styrene part (01) must be flush with the concrete.



Important:

If the installation is to be carried out without using the concrete reinforcing bars then the height of the supporting feet must be stated specifically with the order.



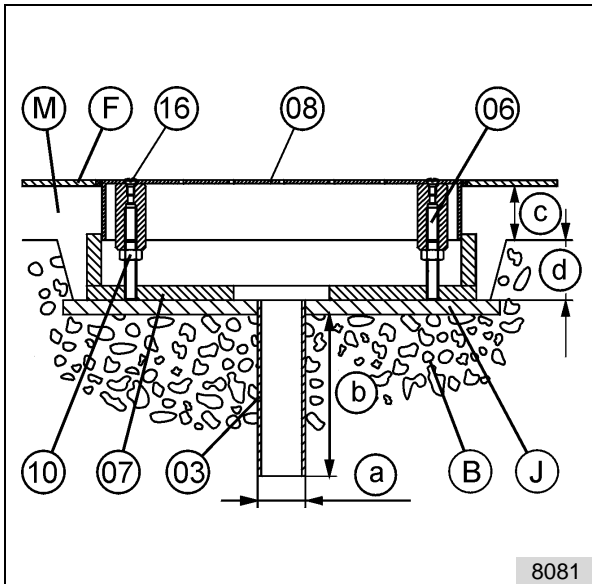
Attention!

The side edges of the installation kit must be adjusted exactly along the tile grid lines as only a fine adjustment is possible when the air pad is later installed.

4.2 Shuttering removal / Concrete-tile pool and Concrete pool with brush-applied sealant

Once the shuttering has been removed from the pool, the polystyrene part (01) is removed. The PVC plate (02) underneath with the pipe (R) remain in the concrete.

4.3 Installation / Concrete-tile pool



- a = \varnothing 40 DN 32
- b = 350 mm
- c = min. 10 mm / max. 50 mm
- d = 62 mm
- B Concrete
- F Tiles
- J Flange
- M Mortar
- 03 Installation kit
- 06 Adjusting nut
- 07 Assembly frame
- 08 Air pad
- 10 Lock nut
- 16 Mounting screw

fig. 2



Attention!

The following steps must be carried out prior to laying the pool floor (M) and the tiles (F).

Glue the PVC assembly frame (07) to the flange (J) of the installation kit (03). Please watch the tile grid closely!

Set the adjusting nuts (06) so that the upper surface of the air pad (08) is flush with the upper edge of the tiles (F) and screw it in place into the PVC assembly frame (07). Then check the installation level by putting the air pad (08) in place.

Lock the adjusting nuts (06) with lock nuts (10) and fasten the air pad (08) to the adjusting nuts (06) with the screws (16).

In tiling up to the air pad (08) please watch the expansion gap.

4.4 Installation / Concrete pool with brush-applied sealant

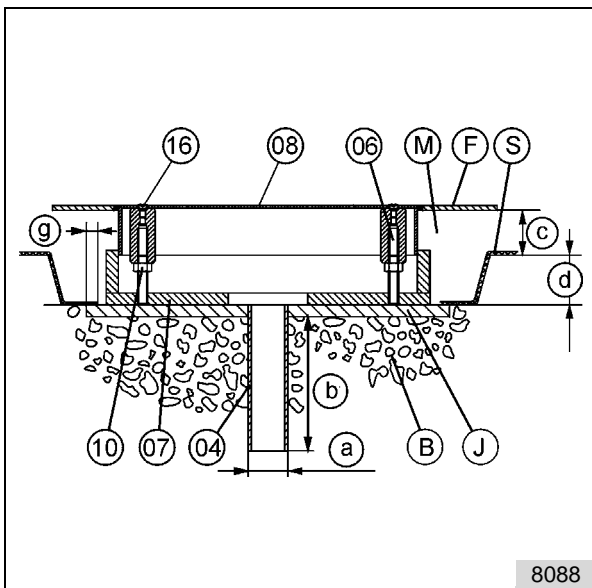


fig. 3

- a = \varnothing 40 DN 32
- b = 350 mm
- c = min. 10 mm / max. 50 mm
- d = 62 mm
- g = 15 mm
- B Concrete
- F Tiles
- J Flange
- M Mortar
- S Brush-applied sealant
- 04 Installation kit
- 06 Adjusting nut
- 07 Assembly frame
- 08 Air pad
- 10 Lock nut
- 16 Mounting screw

The swimming pool can now be lined with brush-applied sealant.



Important:

The brush-applied sealant must not be spread on the entire flange (J) as it is glued to the PVC assembly frame (07). Therefore spread the sealant only as far as 15 mm (g) over the flange (J). However, the gap between the flange (J) and the concrete (B) must be covered to ensure impermeability.



Important:

Glue the PVC assembly frame (07) to the installation kit (04). Please watch the tile grid closely!

Set the adjusting nuts (06) so that the upper surface of the air pad (08) is flush with the upper edge of the tiles (F) and screw it in place into the PVC assembly frame (07). Then check the installation level by putting the air pad (08) in place.

Lock the adjusting nuts (06) with lock nuts (10) and fasten the air pad (08) to the adjusting nuts (06) with the screws (16). In tiling up to the air pad (08) please watch the expansion gap.

4.5 Shuttering / Concrete-liner pool

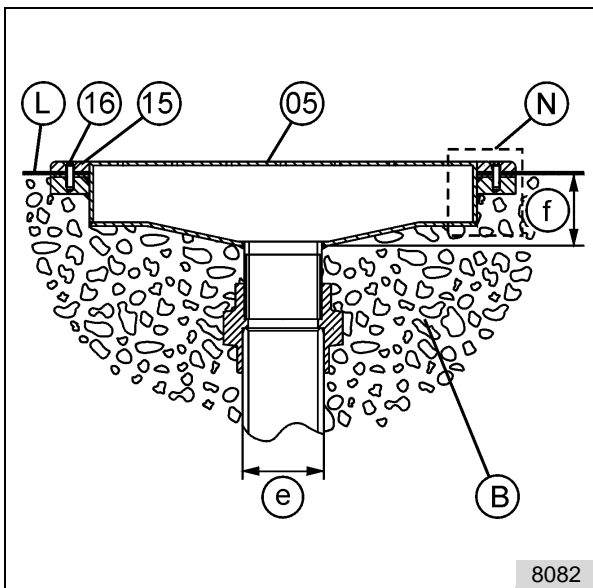


fig. 4

$e = \text{ø } 63 \text{ DN } 50$
 $f = 60 \text{ mm}$
B Concrete
L Liner

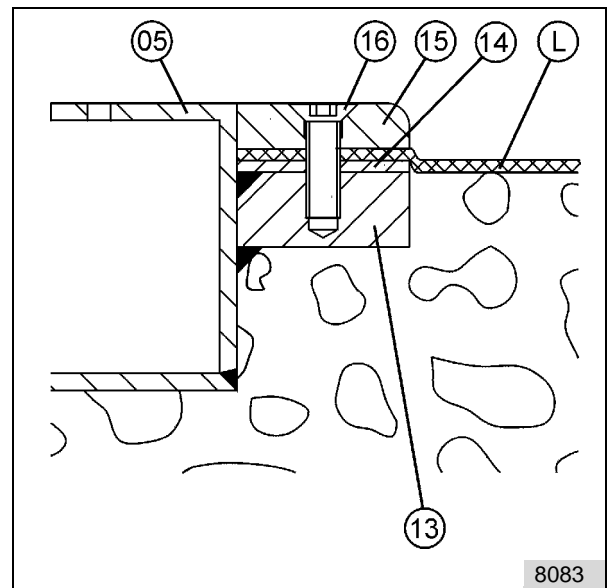


fig. 5: detail N

05 *Stainless steel housing*
 13 *Clamp frame*
 14 *Clamp gasket*
 15 *Clamp ring*
 16 *Mounting screw*

Determine the exact position of the air pad. Then drill the pipe hole with the correct diameter.

Remove the protective foil from the stainless steel housing (05) and dismantle the clamp ring (15) and the gasket (14).

Then insert the stainless steel housing (05) into the floor or seat shuttering and fasten to concrete reinforcement and shuttering.

The upper edge of the clamp frame (13) must later be flush with the upper edge of the concrete (B). So please take into account the pool floor or insulation.

4.6 Installation / Concrete-liner pool

see fig. 4 and 5

After inserting the stainless steel housing (05) position the liner (L) so that it covers the clamp frame (13) and reaches up to the installation kit.

Then insert the gasket (14) and clamp ring (15) and fasten with the screws (16).

4.7 Pipework diagram

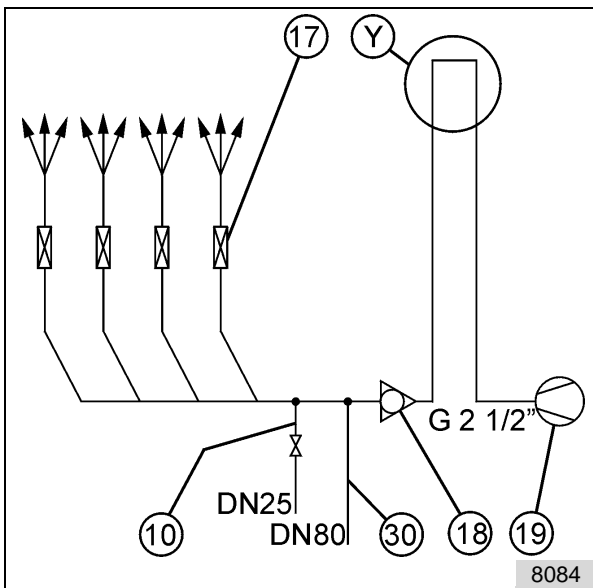


fig. 6: Suggestion for air pad
300mmx500mm
(4 connections in a row)
Delivery rate per
connection: 60m³/h

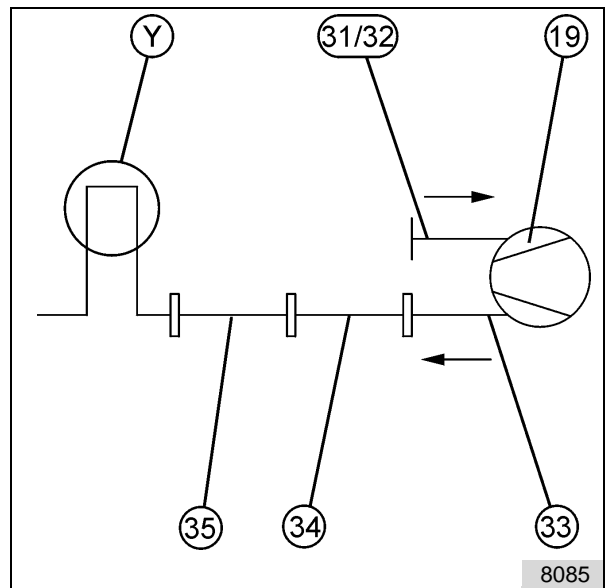


fig. 7: When blower accessories are
fitted (schematic diagram)

- 10 Drain pipe
- 17 Shut-off unit
- 16 Non-return valve
- 19 Blower, P = 2.9 kW
- 30 Fresh water pipe
- Y Air loop
(this must be placed a minimum of
0.5m above the surface of the wa-
ter).

- 19 Blower
- 31/32 Fine filter / muffler
- 33 Heat-resistant pipe
- 34 Intermediate piece
(only for installation of 31/32)
- 35 Pressure control valve
- Y Air loop
(this must be placed a minimum of
0.5m above the surface of the wa-
ter).



Important:

The suggested pipework diagram takes no account of actual local conditions.

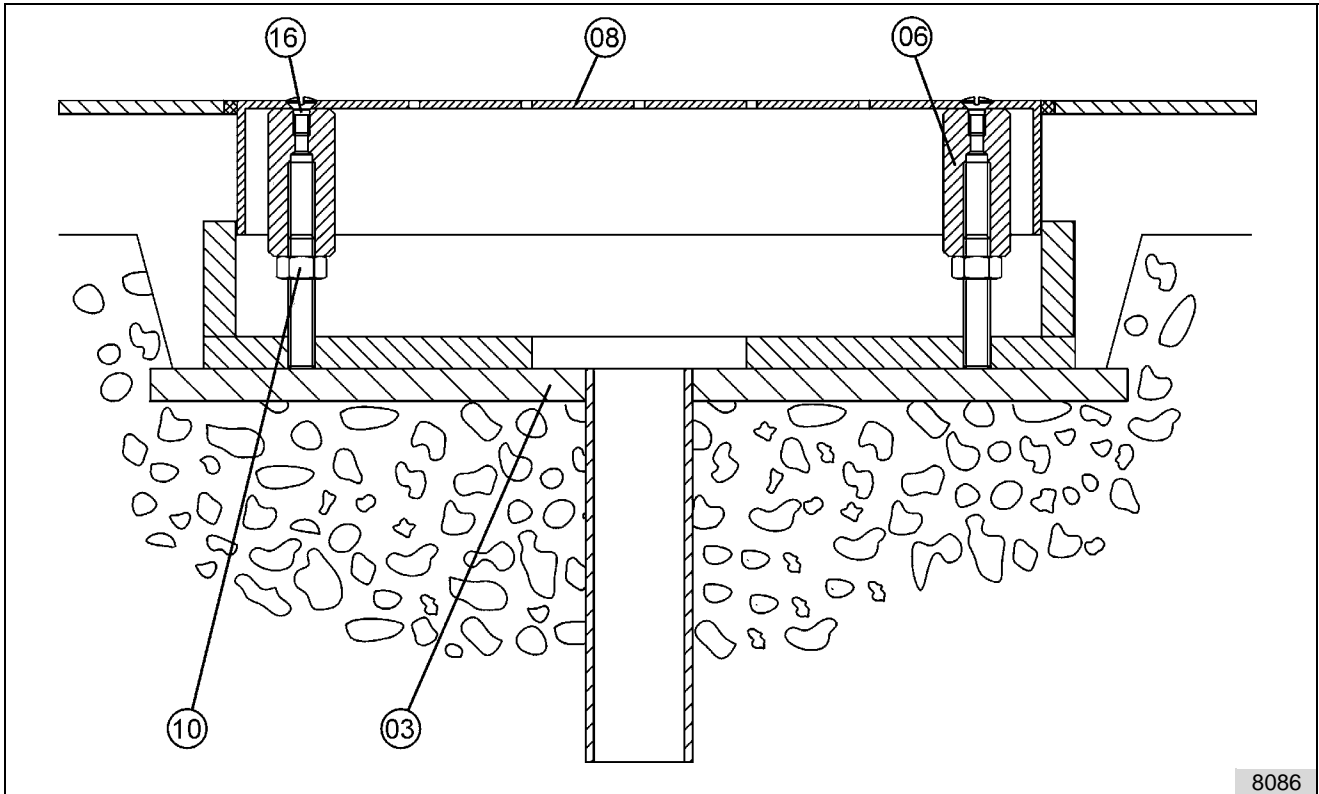


Attention!

To determine the exact dimensions of the pipes all elements that contribute to the flow must be taken into consideration. Most importantly no 90° T-pieces or angles must be employed. Furthermore all shut-off devices such as flaps or sliders as well as measuring detectors etc. must be included in the flow reduction calculation.

5 Ersatzteilliste Luftsprudelplatten / Liste des pièces détachées Plaques à bulles / Spare parts list Air pads

5.1 Betonbecken gefliest / Bassin béton-carrelage / Concrete-tile pool



8086

Abb. 8

| Pos. | Best. Nr. No. de réf. Order No. | Bezeichnung | Désignation | Description | Stck. Nbre. Qty. | Bemerkung Remarque Remark |
|------|---------------------------------------|--------------------------------|---------------------------------------|--|------------------------|---------------------------------|
| 03.1 | 91838 | Einbausatz komplett 200x200 | Pièce à sceller com- plète 200x200 | Installation kit com- plete 200x200 | 1 | |
| 03.2 | 91662 | Einbausatz komplett 240x240 | Pièce à sceller com- plète 240x240 | Installation kit com- plete 240x240 | 1 | |
| 03.3 | 91737 | Einbausatz komplett 300x300 | Pièce à sceller com- plète 300x300 | Installation kit com- plete 300x300 | 1 | |
| 03.4 | 91683 | Einbausatz komplett 300x500 | Pièce à sceller com- plète 300x500 | Installation kit com- plete 300x500 | 1 | |
| 03.5 | 91733 | Einbausatz komplett 400x400 | Pièce à sceller com- plète 400x400 | Installation kit com- plete 400x400 | 1 | |
| 03.6 | 91738 | Einbausatz komplett 480x480 | Pièce à sceller com- plète 480x480 | Installation kit com- plete 480x480 | 1 | |
| 03.7 | 91836 | Einbausatz komplett 500x500 | Pièce à sceller com- plète 500x500 | Installation kit com- plete 500x500 | 1 | |
| 06 | 55723 | Stellmutter | Écrou de serrage | Adjusting nut | 4/6/8 | M6 |
| 8.1 | 59066 | Sprudelplatte 200x200 | Plaque à bulles 200x200 | Air pad 200x200 | 1 | |
| 8.2 | 58051 | Sprudelplatte 240x240 | Plaque à bulles 240x240 | Air pad 240x240 | 1 | |
| 8.3 | 56767 | Sprudelplatte 300x300 | Plaque à bulles 300x300 | Air pad 300x300 | 1 | |

| Pos. | Best. Nr. No. de réf. Order No. | Bezeichnung | Désignation | Description | Stck. Nbre. Qty. | Bemerkung Remarque Remark |
|------|---------------------------------------|-------------------------------|--------------------------------|----------------------------------|------------------------|---------------------------------|
| 8.4 | 57612 | Sprudelplatte 300x500 | Plaque à bulles 300x500 | Air pad 300x500 | 1 | |
| 8.5 | 57701 | Sprudelplatte 400x400 | Plaque à bulles 400x400 | Air pad 400x400 | 1 | |
| 8.6 | 56769 | Sprudelplatte 480x480 | Plaque à bulles 480x480 | Air pad 480x480 | 1 | |
| 8.7 | 59059 | Sprudelplatte 500x500 | Plaque à bulles 500x500 | Air pad 500x500 | 1 | |
| 10 | 12192 | Kontermutter | Contre-écrou | Lock nut | 4/6/8 | M10 |
| 16 | 10489 | Befestigungsschraube | Vis de fixation | Fastening screw | 4/6/8 | M6x25 |
| | 91839 | Fertigmontage kpl. 200x200 | Kit de montage cpl. 200x200 | Assembly kit complete 200x200 | 1 | |
| | 91663 | Fertigmontage kpl. 240x240 | Kit de montage cpl. 240x240 | Assembly kit complete 240x240 | 1 | |
| | 91735 | Fertigmontage kpl. 300x300 | Kit de montage cpl. 300x300 | Assembly kit complete 300x300 | 1 | |
| | 91684 | Fertigmontage kpl. 300x500 | Kit de montage cpl. 300x500 | Assembly kit complete 300x500 | 1 | |
| | 91806 | Fertigmontage kpl. 400x400 | Kit de montage cpl. 400x400 | Assembly kit complete 400x400 | 1 | |
| | 91736 | Fertigmontage kpl. 480x480 | Kit de montage cpl. 480x480 | Assembly kit complete 480x480 | 1 | |
| | 91837 | Fertigmontage kpl. 500x500 | Kit de montage cpl. 500x500 | Assembly kit complete 500x500 | 1 | |

**5.2 Betonbecken mit Streichfolie / Bassin béton avec étanchéité souple /
Concrete pool with brush-applied sealant**

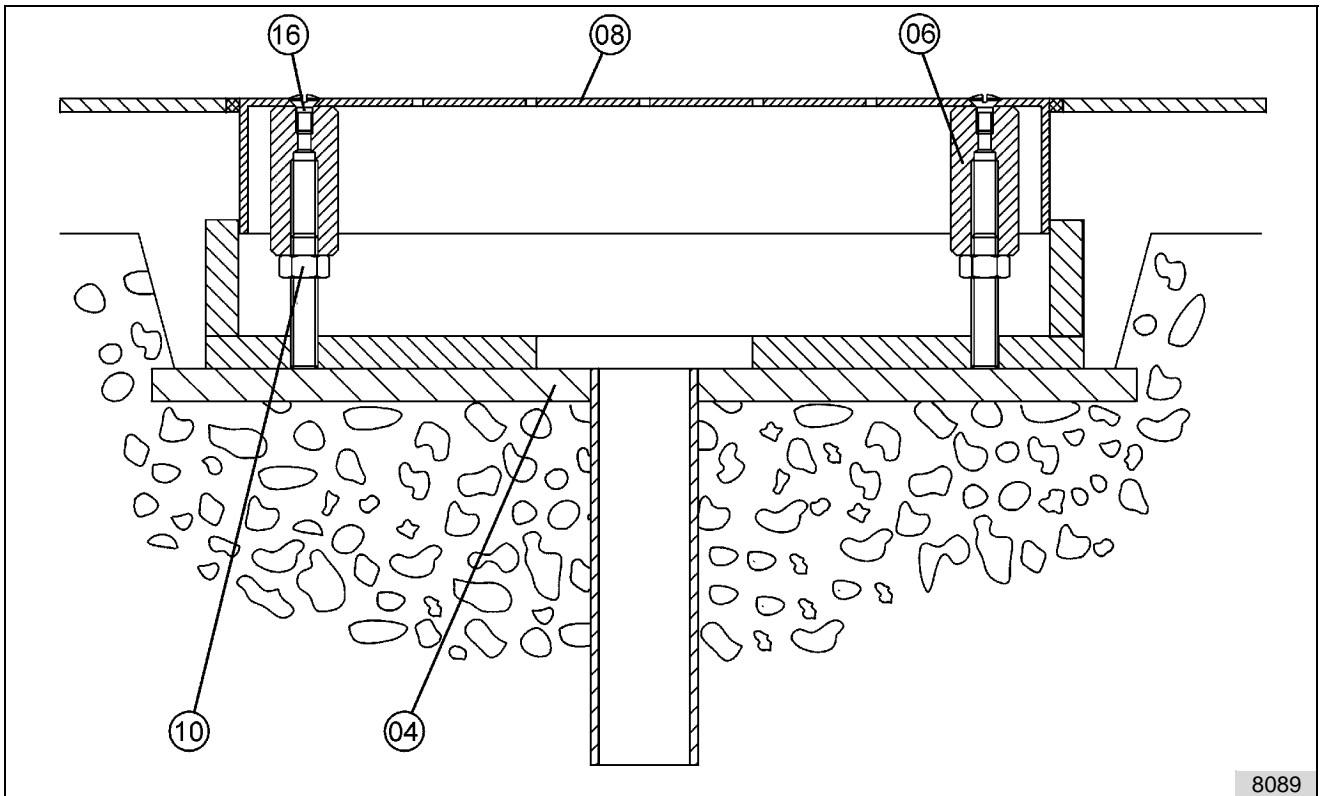


Abb. 9

| Pos. | Best. Nr. No. de réf. Order No. | Bezeichnung | Désignation | Description | Stck. Nbre. Qty. | Bemerkung Remarque Remark |
|------|---------------------------------------|--------------------------------|---------------------------------------|--|------------------------|---------------------------------|
| 04.1 | 90326 | Einbausatz komplett 200x200 | Pièce à sceller com- plète 200x200 | Installation kit com- plete 200x200 | 1 | |
| 04.2 | 90327 | Einbausatz komplett 240x240 | Pièce à sceller com- plète 240x240 | Installation kit com- plete 240x240 | 1 | |
| 04.3 | 90328 | Einbausatz komplett 300x300 | Pièce à sceller com- plète 300x300 | Installation kit com- plete 300x300 | 1 | |
| 04.4 | 90329 | Einbausatz komplett 300x500 | Pièce à sceller com- plète 300x500 | Installation kit com- plete 300x500 | 1 | |
| 04.5 | 90330 | Einbausatz komplett 400x400 | Pièce à sceller com- plète 400x400 | Installation kit com- plete 400x400 | 1 | |
| 04.6 | 90331 | Einbausatz komplett 480x480 | Pièce à sceller com- plète 480x480 | Installation kit com- plete 480x480 | 1 | |
| 04.7 | 90332 | Einbausatz komplett 500x500 | Pièce à sceller com- plète 500x500 | Installation kit com- plete 500x500 | 1 | |
| 06 | 55723 | Stellmutter | Écrou de serrage | Adjusting nut | 4/6/8 | M6 |
| 8.1 | 59066 | Sprudelplatte 200x200 | Plaque à bulles 200x200 | Air pad 200x200 | 1 | |
| 8.2 | 58051 | Sprudelplatte 240x240 | Plaque à bulles 240x240 | Air pad 240x240 | 1 | |
| 8.3 | 56767 | Sprudelplatte 300x300 | Plaque à bulles 300x300 | Air pad 300x300 | 1 | |

| Pos. | Best. Nr. No. de réf. Order No. | Bezeichnung | Désignation | Description | Stck. Nbre. Qty. | Bemerkung Remarque Remark |
|------|---------------------------------------|-------------------------------|--------------------------------|----------------------------------|------------------------|---------------------------------|
| 8.4 | 57612 | Sprudelplatte 300x500 | Plaque à bulles 300x500 | Air pad 300x500 | 1 | |
| 8.5 | 57701 | Sprudelplatte 400x400 | Plaque à bulles 400x400 | Air pad 400x400 | 1 | |
| 8.6 | 56769 | Sprudelplatte 480x480 | Plaque à bulles 480x480 | Air pad 480x480 | 1 | |
| 8.7 | 59059 | Sprudelplatte 500x500 | Plaque à bulles 500x500 | Air pad 500x500 | 1 | |
| 10 | 12192 | Kontermutter | Contre-écrou | Lock nut | 4/6/8 | M10 |
| 16 | 10489 | Befestigungsschraube | Vis de fixation | Fastening screw | 4/6/8 | M6x25 |
| | 91839 | Fertigmontage kpl. 200x200 | Kit de montage cpl. 200x200 | Assembly kit complete 200x200 | 1 | |
| | 91663 | Fertigmontage kpl. 240x240 | Kit de montage cpl. 240x240 | Assembly kit complete 240x240 | 1 | |
| | 91735 | Fertigmontage kpl. 300x300 | Kit de montage cpl. 300x300 | Assembly kit complete 300x300 | 1 | |
| | 91684 | Fertigmontage kpl. 300x500 | Kit de montage cpl. 300x500 | Assembly kit complete 300x500 | 1 | |
| | 91806 | Fertigmontage kpl. 400x400 | Kit de montage cpl. 400x400 | Assembly kit complete 400x400 | 1 | |
| | 91736 | Fertigmontage kpl. 480x480 | Kit de montage cpl. 480x480 | Assembly kit complete 480x480 | 1 | |
| | 91837 | Fertigmontage kpl. 500x500 | Kit de montage cpl. 500x500 | Assembly kit complete 500x500 | 1 | |

5.3 Betonbecken mit Folie / Bassin béton-liner / Concrete-liner pool

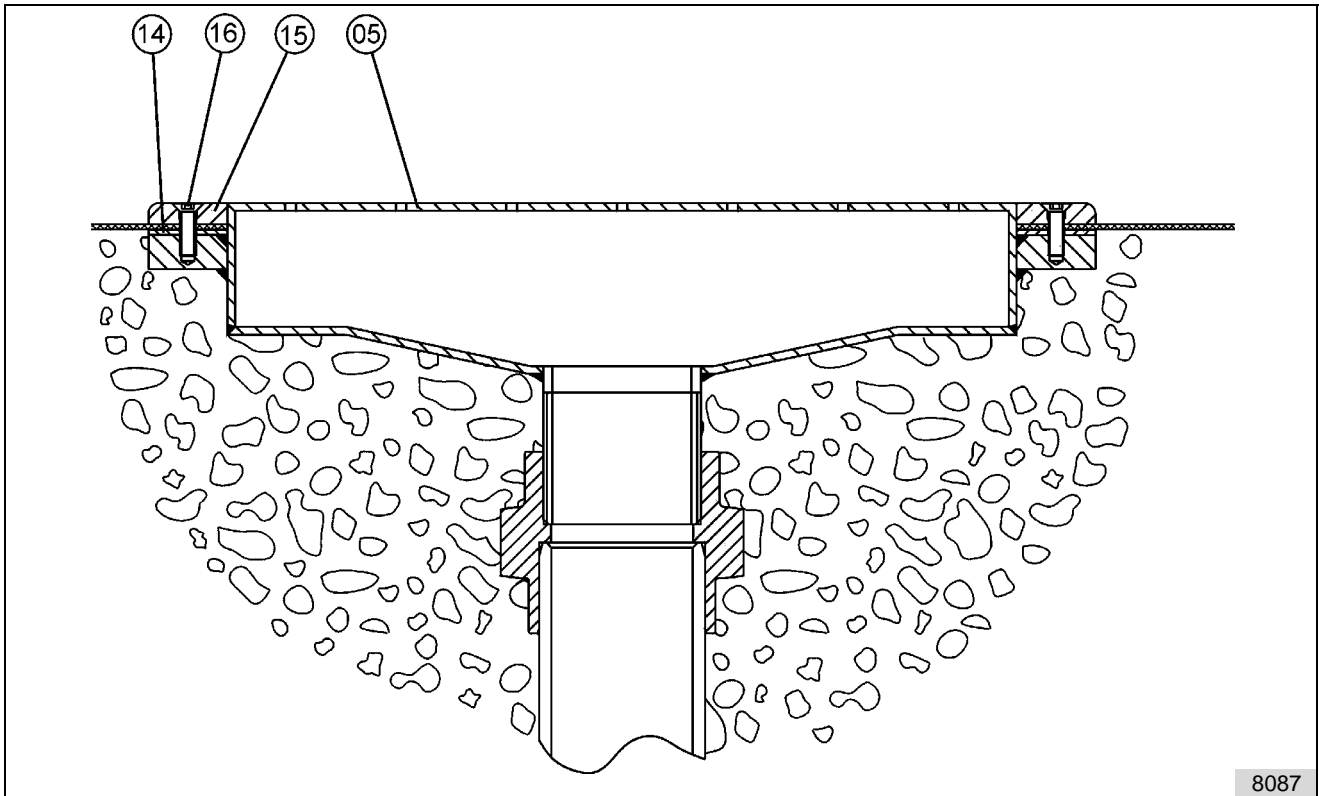


Abb. 10

| Pos. | Best. Nr. No. de réf. Order No. | Bezeichnung | Désignation | Description | Stck. Nbre. Qty. | Bemerkung Remarque Remark |
|------|---------------------------------------|---|--|--|------------------------|---------------------------------|
| 05 | 55975 | Edelstahlgehäuse 300x500 | Carter en inox 300x500 | Stainless steel housing 300x500 | 1 | |
| 14 | 22173 | Flachdichtung | Joint plat | Clamp gasket | 1 | |
| 15 | 55976 | Klemmring | Bague de serrage | Clamp ring | 1 | |
| 16 | 10142 | Befestigungsschraube | Vis de fixation | Fastening screw | 36 | M6x20 |
| | 93654 | Einbausatz und Fertig- montage komplett 300x500 | Pièce à sceller et kit de montage complets 300x500 | Installation kit and assembly kit complete 300x500 | 1 | |

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