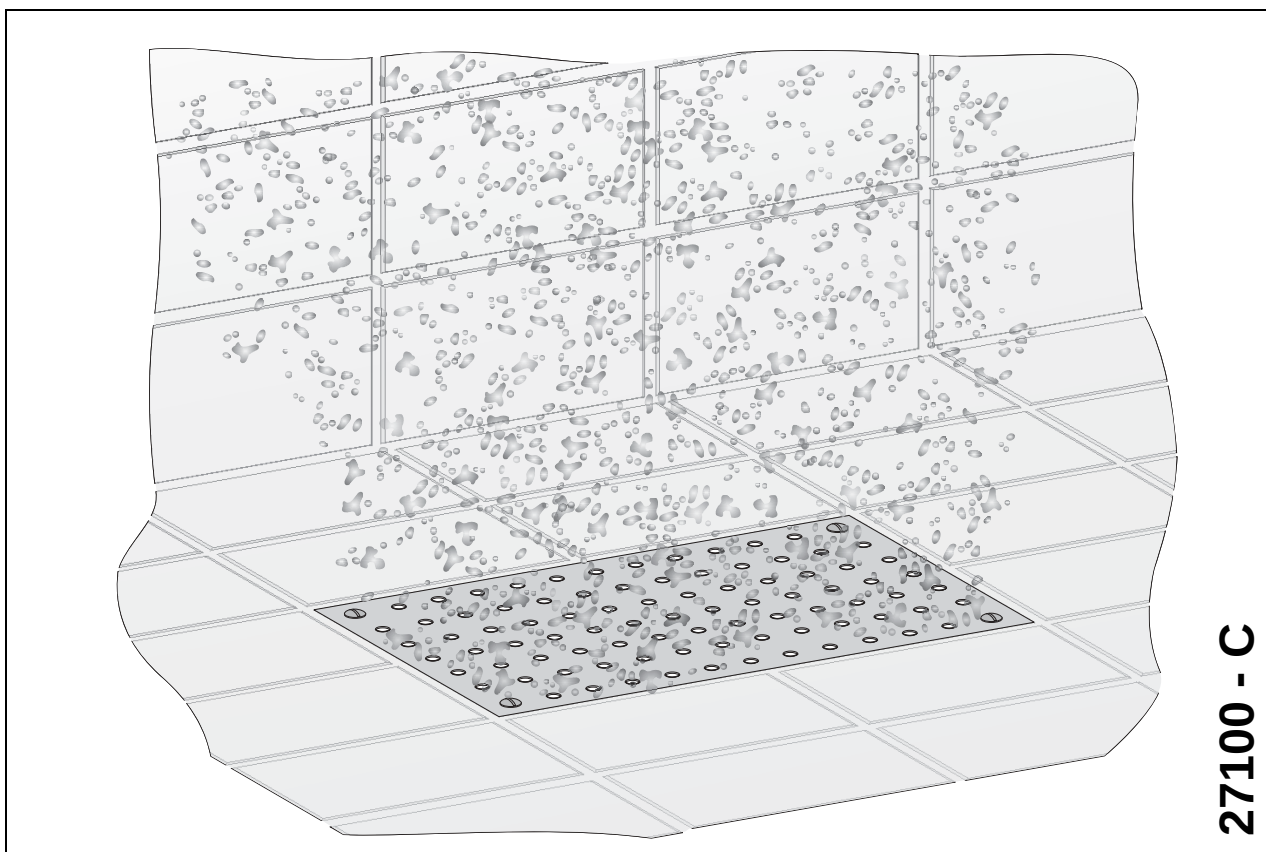


Air pads



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:

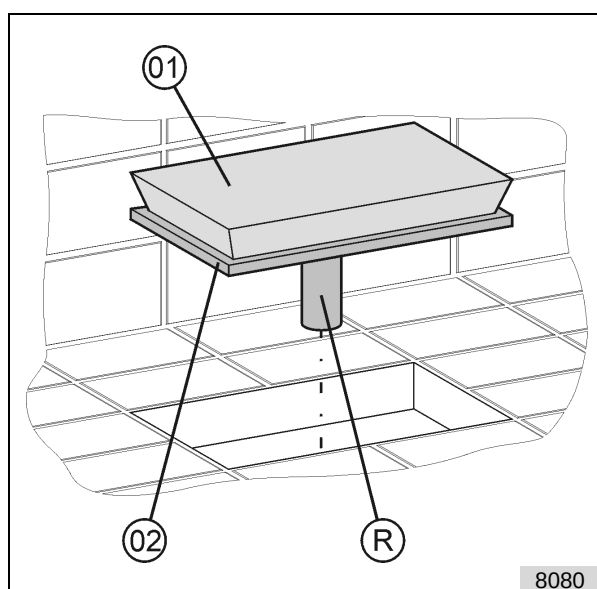
- | | |
|-----|-------------------------|
| I | Installation kit |
| II | Assembly kit |
| III | Blower installation kit |

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.



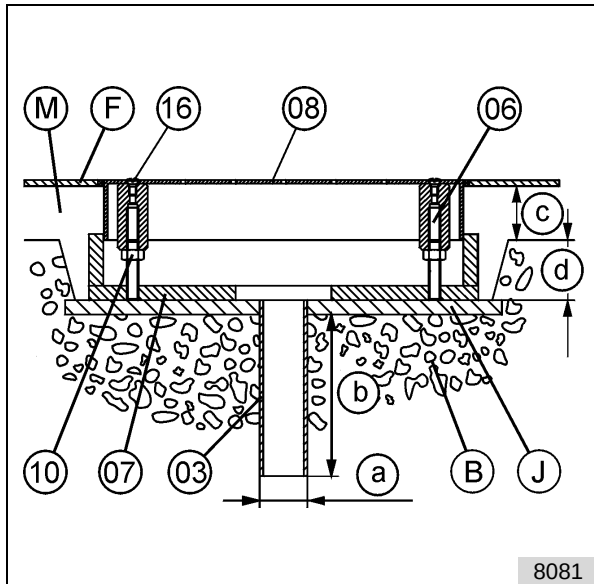
Attention!

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

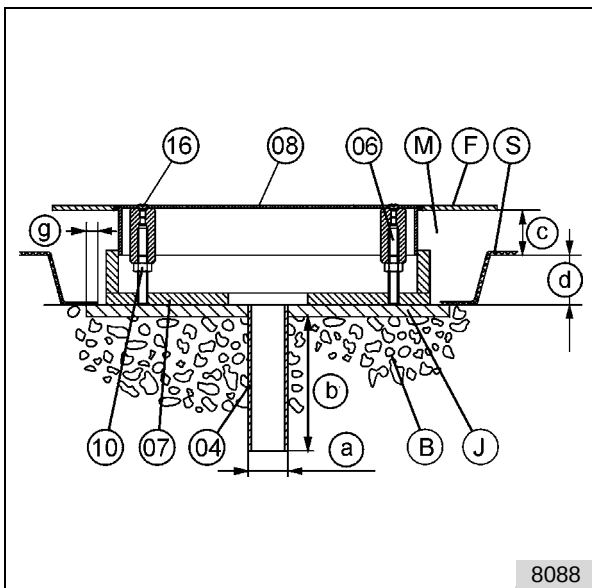


fig. 3

a =	ø 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

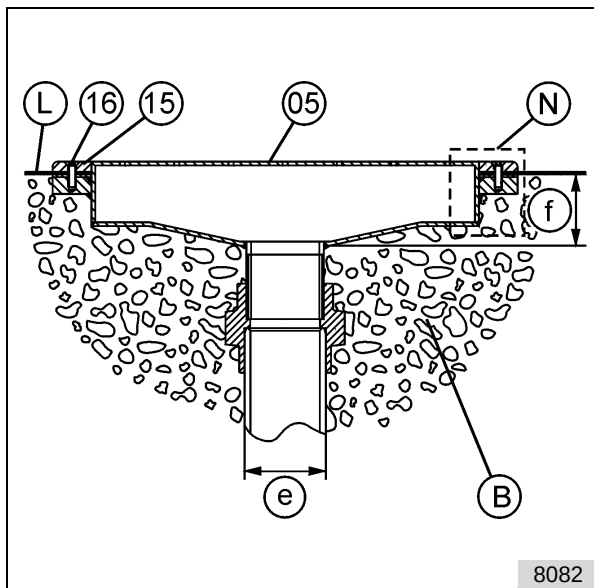


fig. 4

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

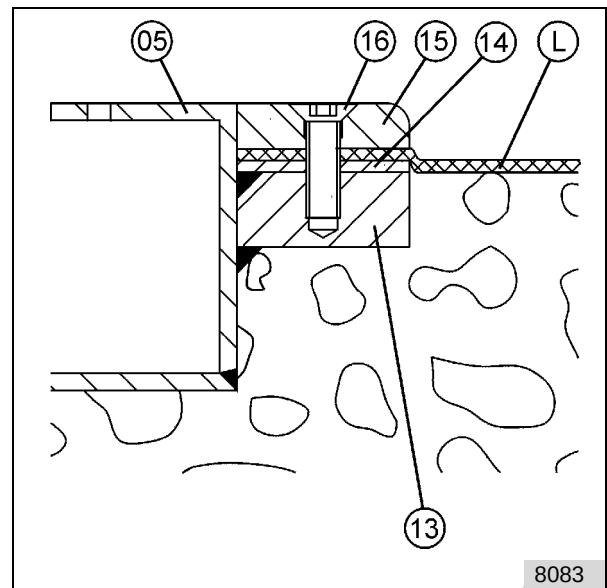


fig. 5: detail N

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

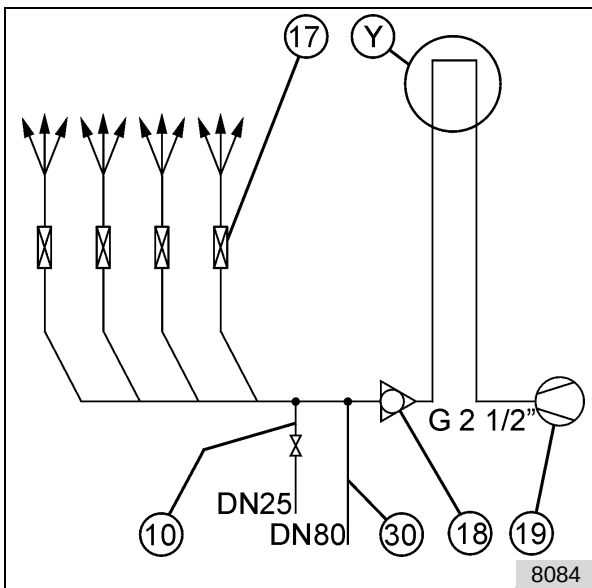


fig. 6: Suggestion for air pad
 300mmx500mm
 (4 connections in a row)
 Delivery rate per
 connection: 60m³/h

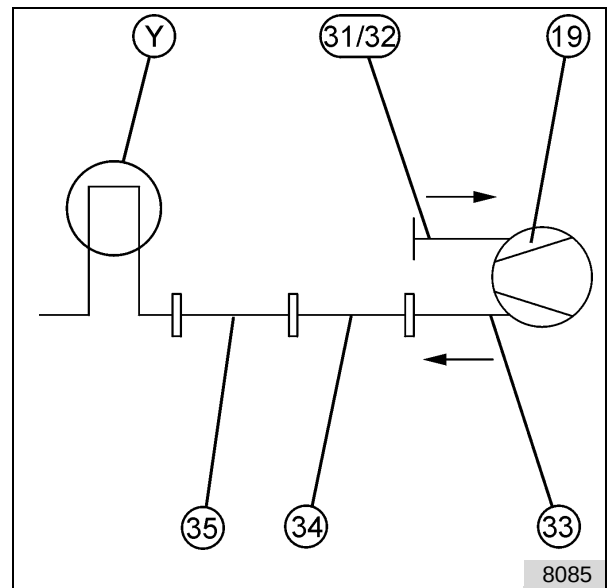


fig. 7: When blower accessories are
 fitted (schematic diagram)

- 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 detachées Plaques à bulles / Spare parts list Air pads

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

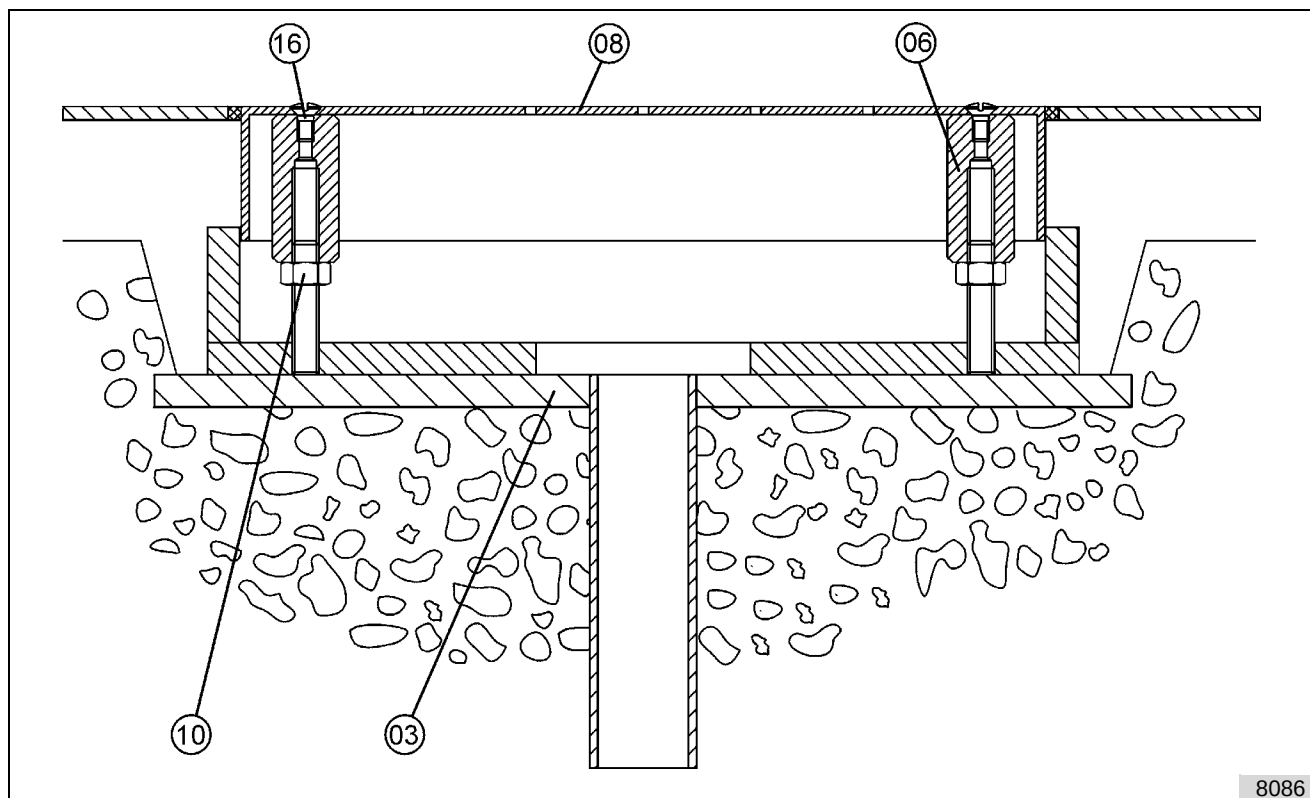
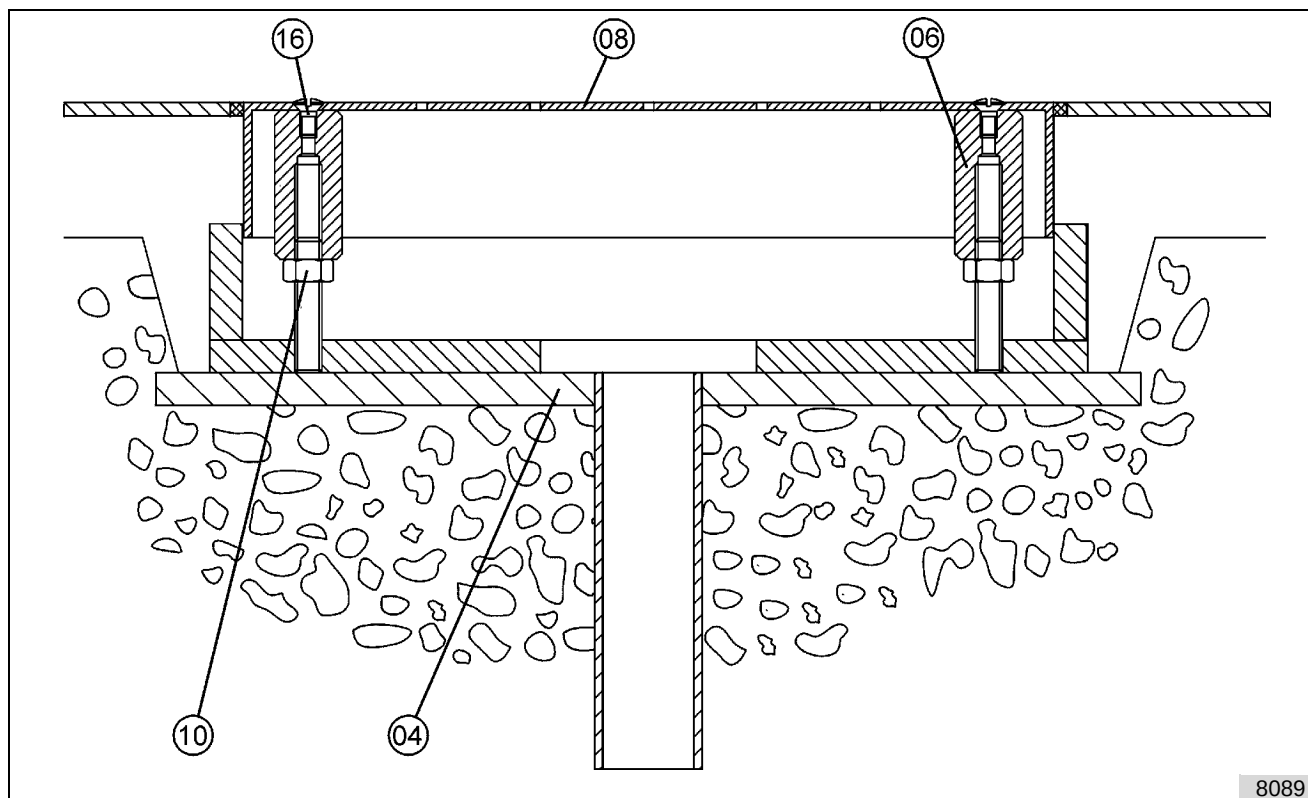


Abb. 8

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



8089

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. Nbrc. 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

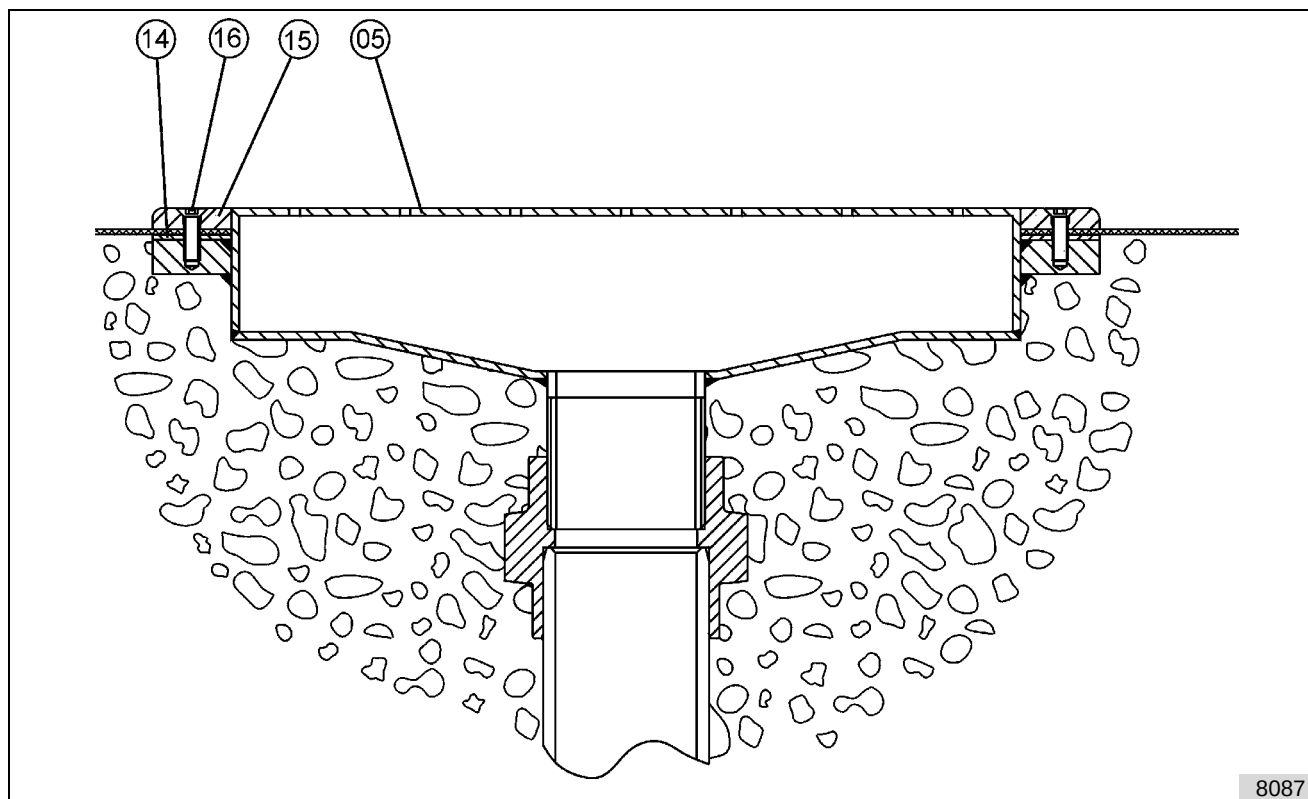


Abb. 10

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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Importer:
Certikin International Ltd
4 Tungsten Park
Colletts Way
Witney
Oxfordshire, OX29 0AZ
United Kingdom
www.certikin.co.uk

Manufacturer:

Schmalenberger GmbH + Co. KG
Strömungstechnologie
Im Schelmen 9 - 11
D-72072 Tübingen / Germany

Telefon:	+49 (0)7071 70 08 - 0
Telefax:	+49 (0)7071 70 08 - 10
Internet:	www.fluvo.de
E-Mail:	info@schmalenberger.de

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Air Pads
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