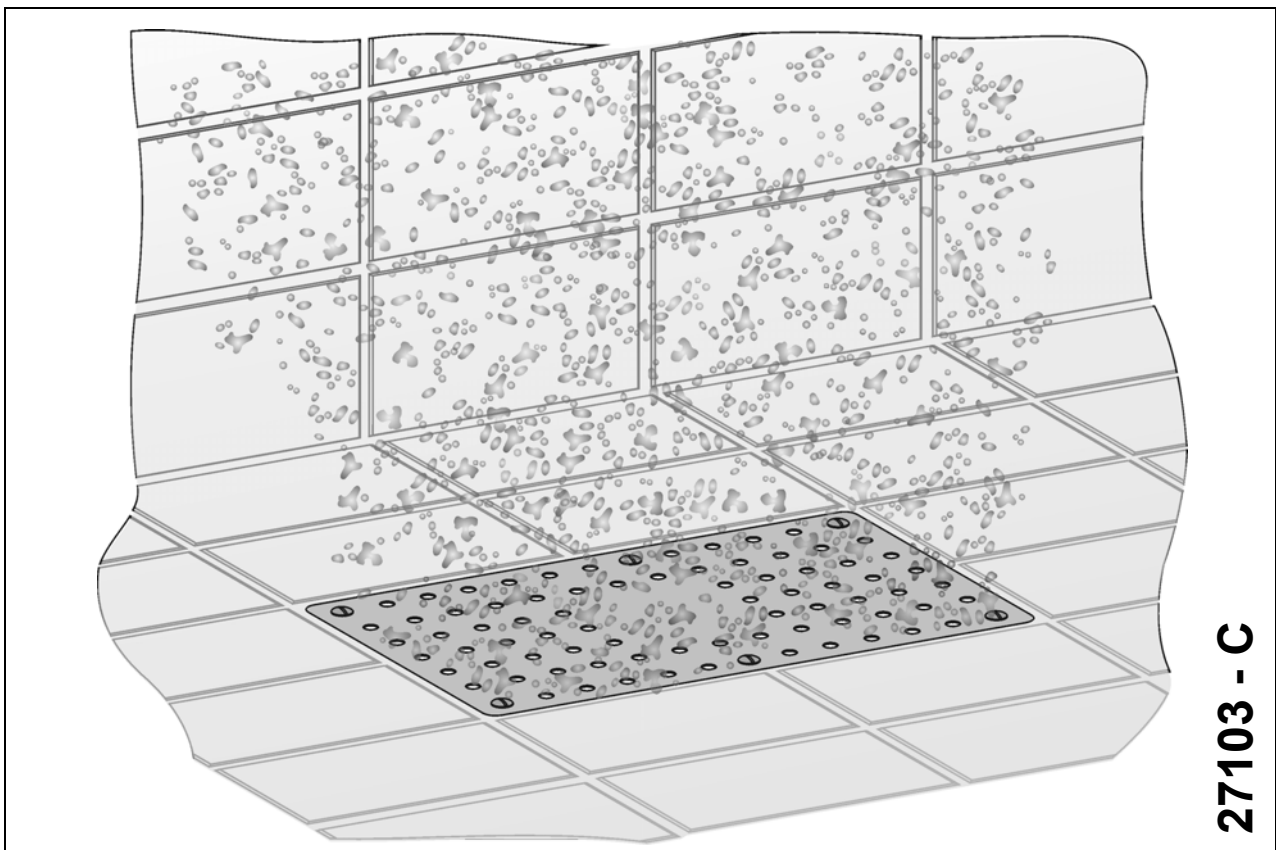


rio Air bubbler

GB Operator's Manual

Translation of the original



Contents

1	General / Usage Instructions	4
1.1	Guarantee notice	4
1.2	General	4
1.3	Usage Instructions	4
2	Safety Instructions	4
2.1	Safety Instructions for the Operator	4
3	Unit Description / General Technical Data	5
3.1	Technical Data	5
4	rio Air bubbler	5
4.1	Shuttering / Concrete-tile pool and Concrete-liner pool	5
4.2	Shuttering removal / Concrete-tile pool and Concrete-liner pool	6
4.3	Installation / Concrete-tile pool.....	6
4.4	Installation / Concrete-liner pool	7
4.5	Installation / Pre-fabricated pool	8
4.6	Pipework Diagram.....	9
5	Spare parts list rio Air bubbler	10
5.1	Concrete-tile pool.....	10
5.2	Concrete-liner pool.....	11
5.3	Pre-fabricated pool.....	12

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 rio Air bubbler is of state-of-the-art technology and was manufactured with great care under constant quality control conditions.

The operator's manual contains important instructions on how to use the rio Air bubbler safely, properly and economically. The instructions must be strictly adhered to in order to avoid danger and to ensure that the Air bubbler system has 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 the rio Air bubbler be used in a way that exceeds the figures 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 rio Air bubbler. 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,
 - 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 rio Air bubbler is delivered as 3 assemblies:

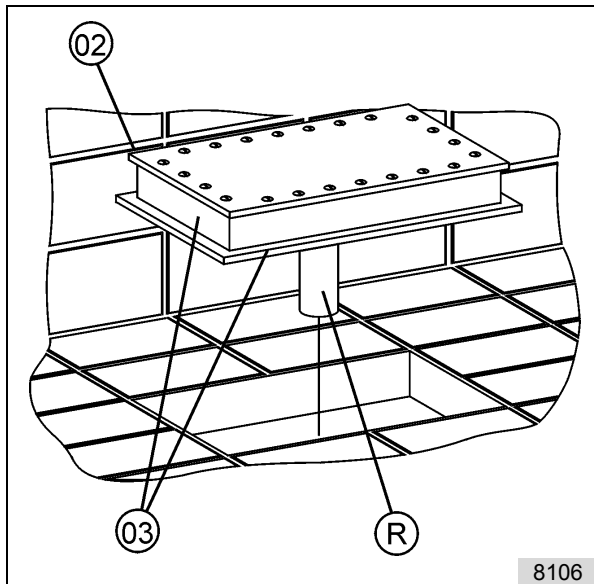
- I Installation kit
- II Assembly kit
- III Blower installation kit

3.1 Technical Data

	rio Air bubbler
Dimensions in mm	250 x 500
Material	ABS/PVC
Air connection	DN 32
Air flow rate	60 m ³ /h
Operating pressure	150 mbar
Max. perm. pressure	250 mbar

4 rio Air bubbler

4.1 Shuttering / Concrete-tile pool and Concrete-liner pool



- R* Pressure pipe
- 02* Cover plate
- 03* Installation kit

fig. 1

Establish the centre of the air pad (with respect to the tile grid) precisely.
 Drill the floor shuttering in the desired place for the pressure pipe (R) d = 40mm.



Important:

Adjust the edges of the installation kit (03) exactly (along the tile grid).
 A correction later is not possible!

The upper edge of the cover plate (02) must be flush with the raw concrete.
Fasten the installation kit (03) to the concrete reinforcing bars in this position.



Important:

Before the concrete is poured the installation kit (03) must be fitted horizontally and true to dimensions in such a way that it cannot move.



Important:

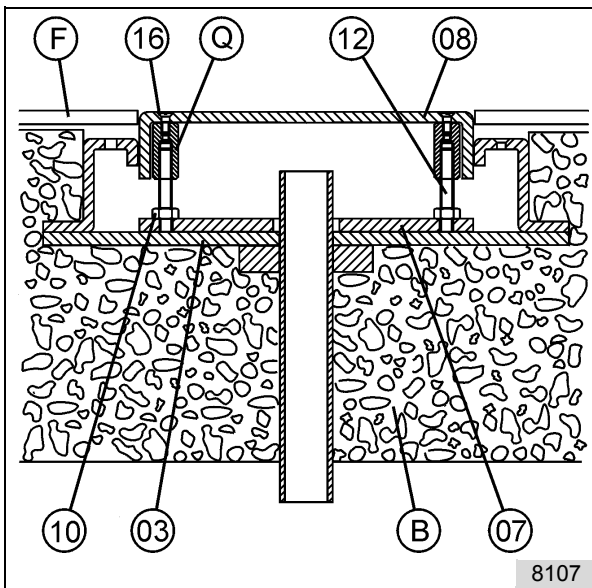
For mosaic tiles the ABS installation kit (03) must be pre-treated. For more details please contact the manufacturer.

4.2 Shuttering removal / Concrete-tile pool and Concrete-liner pool

see fig. 1

Once the shuttering has been removed the cover plate (02) is removed from the installation kit (03).

4.3 Installation / Concrete-tile pool



<i>B</i>	<i>Raw concrete</i>
<i>F</i>	<i>Tiles</i>
<i>Q</i>	<i>Adjusting nut</i>
<i>03</i>	<i>Installation kit</i>
<i>07</i>	<i>Assembly plate</i>
<i>08</i>	<i>Air pad</i>
<i>10</i>	<i>Lock nut</i>
<i>12</i>	<i>Threaded rod</i>
<i>16</i>	<i>Mounting screw</i>

fig. 2

Screw together the air pad using the adjusting nuts (Q) and threaded rods (12) provided.
Then adjust to the level of the tiles, screw into the assembly plate (07) and fasten with lock nuts (10).



Important:

Watch for the level of the pool floor and the tiles!

After checking the installation level, paint the assembly plate (07) with PVC glue and stick into the installation kit (03).

Set the adjusting nuts (Q) so that the upper surface of the air pad (08) is flush with the upper edge of the tiles 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 (Q) with lock nuts (10) and fasten the air pad (08) to the adjusting nuts (Q) with the screws (16).

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

4.4 Installation / Concrete-liner pool

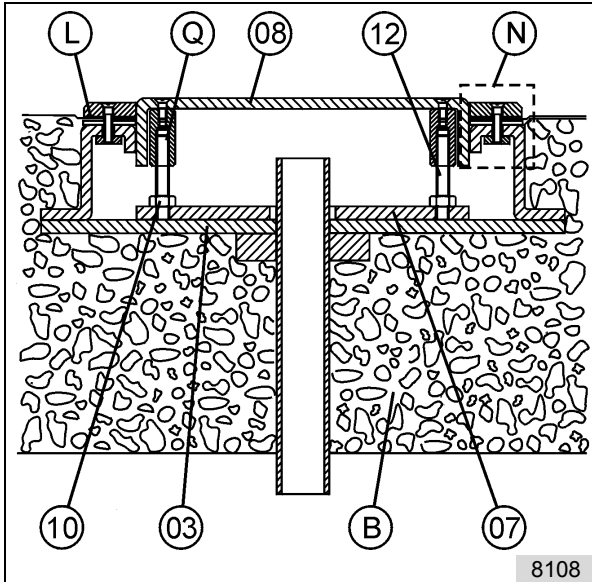


fig. 3

- B Raw concrete
- L Liner
- Q Adjusting nut
- 03 Installation kit
- 07 Assembly plate
- 08 Air pad

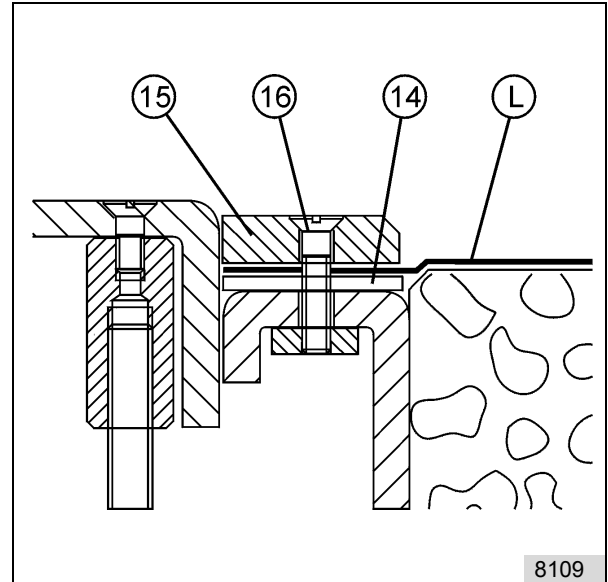


fig. 4: detail N

- 10 Lock nut
- 12 Threaded rod
- 14 Clamp gasket
- 15 Clamp ring
- 16 Mounting screw

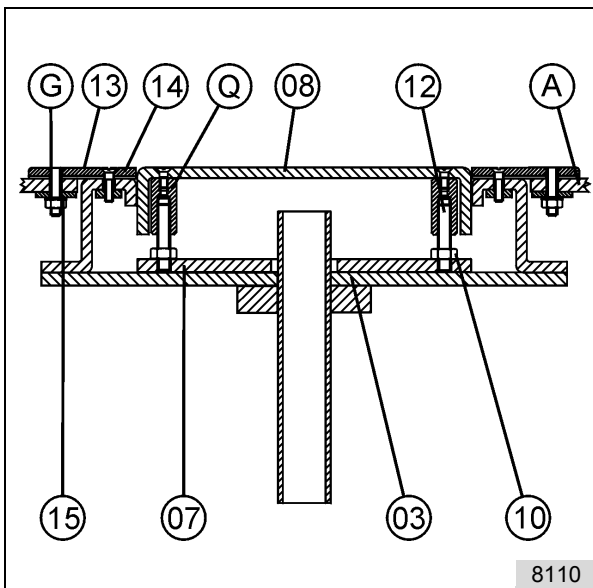
Lay the clamp gasket (14) between the installation kit (03) and the liner (L). Then place the clamp ring (15) on the liner (L) and fasten with the mounting screws (16).

Screw together the air bubbler using the adjusting nuts (Q) and threaded rods (12) provided.

Then adjust to the level of the clamp ring (15), screw into the assembly plate (07) and fasten with lock nuts (10).

After checking the installation level, paint the assembly plate (07) with PVC glue and stick into the installation kit (03).

4.5 Installation / Pre-fabricated pool



- A *Pre-fabricated pool*
- G *Stay bolt*
- Q *Adjusting nut*
- 03 *Installation kit*
- 07 *Assembly plate*
- 08 *Air pad*
- 10 *Lock nut*
- 12 *Threaded rod*
- 13 *Clamp ring*
- 14 *Clamp gasket*
- 15 *Holding flange*

fig. 5

Cut a rectangular section measuring 340mm x 590mm out of the pool wall. With the help of the template, drill holes with $d = 9\text{mm}$ for the stay bolts (G).

Lay the clamp gasket (14) on top, place the stay bolts (G) with the holding flange (15) into the holes provided and fasten to the pool wall (A).

Fasten the installation kit (03) to the clamp ring (13). Screw together the air pad (08) using the adjusting nuts (Q) and threaded rods (12) provided. Then adjust to the level of the clamp ring (13), screw into the assembly plate (07) and fasten with lock nuts (10).

After checking the installation level, paint the assembly plate (07) with PVC glue and stick into the installation kit (03).

4.6 Pipework Diagram

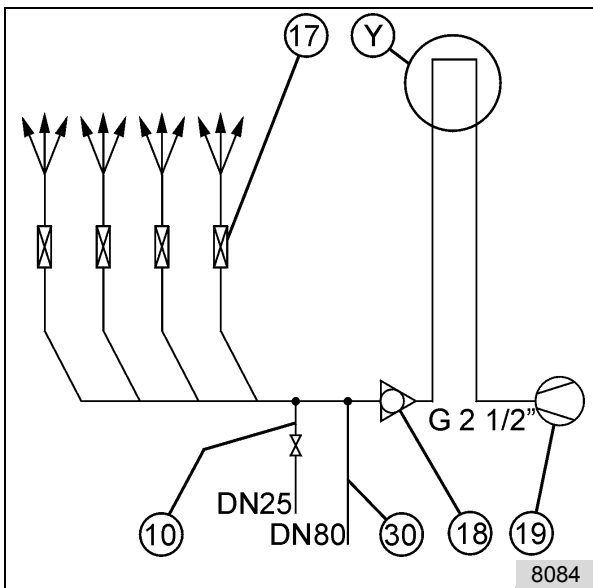


fig. 6: Suggestion for the rio bubbler
250mmx500mm
(4 connections in a row)
Delivery rate
per connection: 60m³/h

- 10 Drain pipe
- 17 Shut-off unit
- 18 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 water)

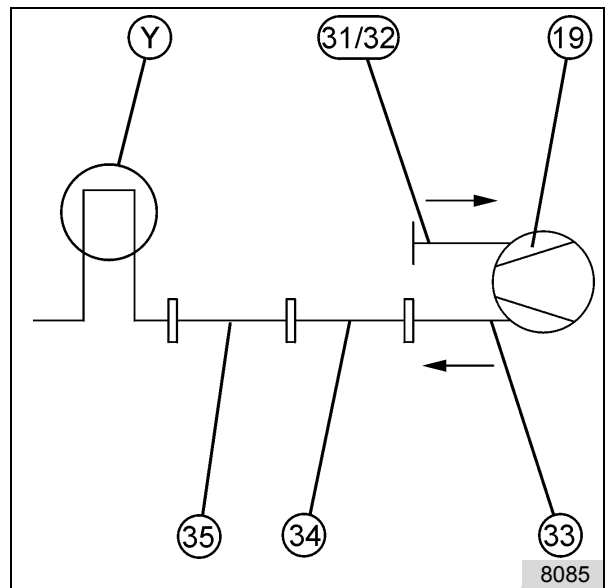


fig. 7: When blower accessories are fitted (schematic diagram)

- 9 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 water).



Important:

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

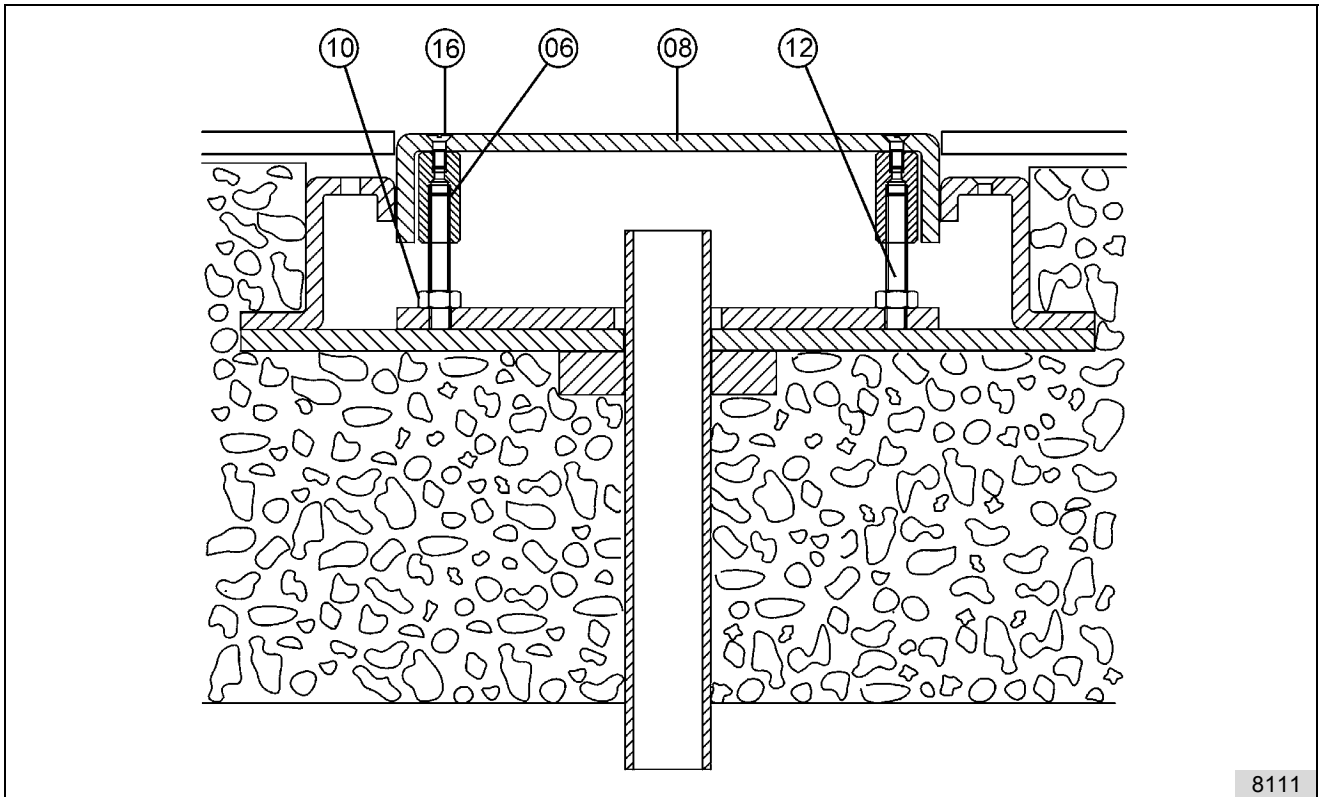


Attention!

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 rio Luftsprudler /
Liste des pièces détachées rio Bain bouillonnant /
Spare parts list rio Air bubbler**

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



8111

Abb. 8

Pos.	Best. Nr. No. de réf. Order No.	Bezeichnung	Désignation	Description	Stck. Nbre. Qty.	Bemerkung Remarque Remark
06	53723	Stellmutter	Ecrou de serrage	Adjusting nut	6	
08	57722	Luftsprudelplatte	Plaque à bulles	Bubbler	1	
10	12192	Kontermutter	Contre-écrou	Lock nut	6	M 10
12	10233	Gewindestange	Tige filetée	Threaded rod	6	M 10
16	10142	Befestigungsschraube	Vis de fixation	Mounting screw	6	M 6
	93937	Einbausatz komplett	Pièce à sceller complète	Installation kit complete	1	
	93939	Fertigmontage komplett	Kit de montage complet	Assembly kit complete	1	

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

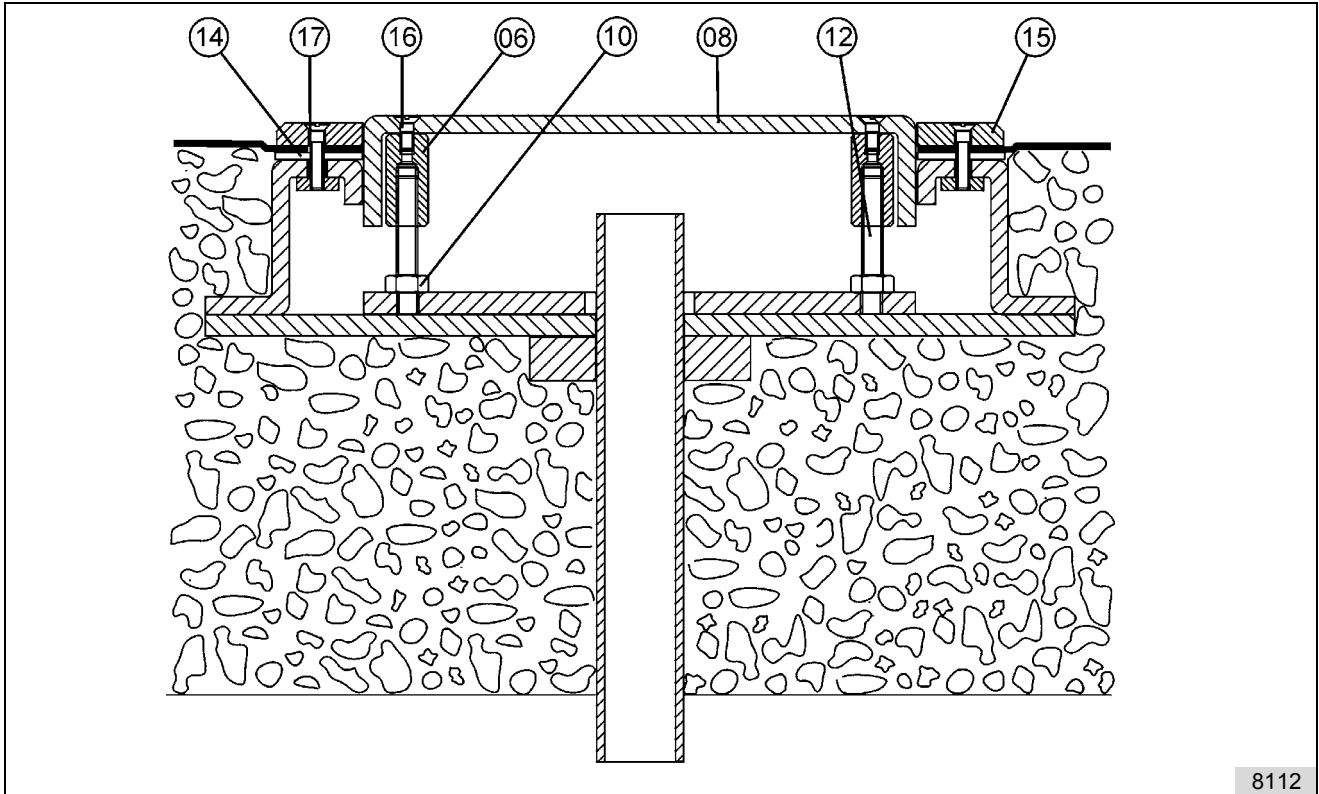
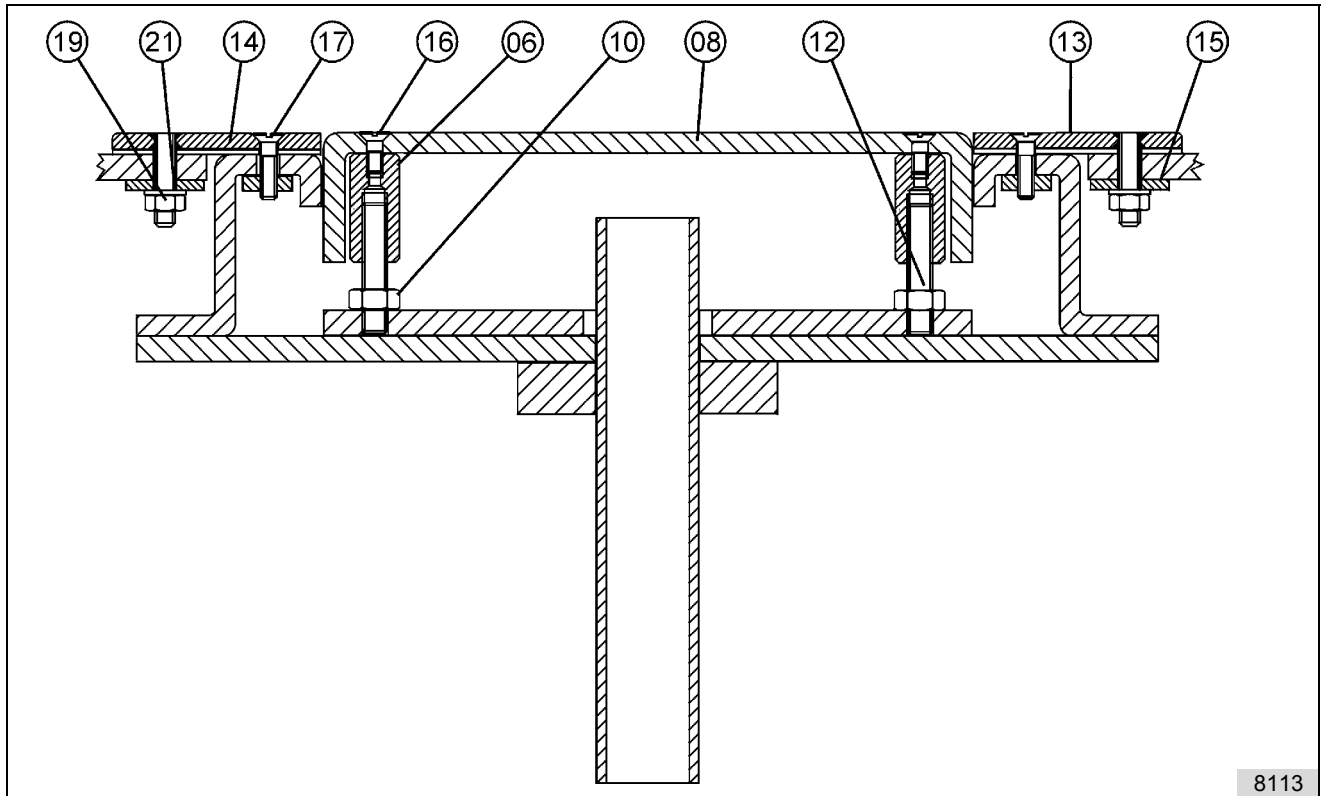


Abb. 9

Pos.	Best. Nr. No. de réf. Order No.	Bezeichnung	Désignation	Description	Stck. Nbre. Qty.	Bemerkung Remarque Remark
06	55723	Stellmutter	Ecrou de serrage	Adjusting nut	6	
08	57722	Luftsprudelplatte	Plaque à bulles	Bubbler	1	
10	12192	Kontermutter	Contre-écrou	Lock nut	6	M 10
12	10233	Gewindestange	Tige filetée	Threaded rod	6	M 10
14	22243	Flachdichtung	Joint plat	Clamp gasket	1	
15	59023	Klemmring	Bague de serrage	Clamp ring	1	
16	10142	Befestigungsschraube	Vis de fixation	Mounting screw	6	M 6
17	10147	Befestigungsschraube	Vis de fixation	Mounting screw	40	M 8
	93938	Einbausatz komplett	Pièce à sceller complète	Installation kit complete	1	
	93950	Fertigmontage komplett	Kit de montage complet	Assembly kit complete	1	

5.3 Fertigbecken / Bassin préfabriqué / Pre-fabricated pool



8113

Abb. 10

Pos.	Best. Nr. No. de réf. Order No.	Bezeichnung	Désignation	Description	Stck. Nbre. Qty.	Bemerkung Remarque Remark
06	55723	Stellmutter	Ecrou de serrage	Adjusting nut	6	
08	57722	Luftsprudelplatte	Plaque à bulles	Bubbler	1	
10	12192	Kontermutter	Contre-écrou	Lock nut	6	M 10
12	10233	Gewindestange	Tige filetée	Threaded rod	6	M 10
13	59022	Klemmring	Bague de serrage	Clamp ring	1	
14	22233	Flachdichtung	Joint plat	Clamp gasket	1	
15	59014	Haltering	Bague de retenue	Hold-ring	1	
16	10142	Befestigungsschraube	Vis de fixation	Mounting screw	6	M 6
17	10147	Befestigungsschraube	Vis de fixation	Mounting screw	40	M 8
19	12181	Mutter	Ecrou	Nut	40	M 8
21	12392	Unterlegscheibe	Rondelle	Distance washer	1	

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

© 2018 Schmalenberger GmbH + Co. KG ; All rights reserved

This document is subject to change without notice