



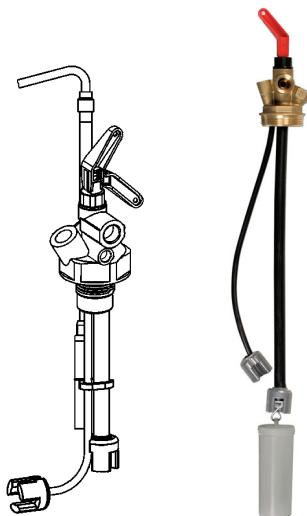
AFRISO

Technik für Umweltschutz

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EN

Operating instructions



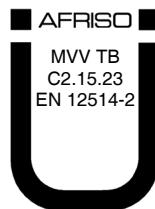
Tank withdrawal system

**Miniflex
Euroflex**

Miniflex type: 2, 3
Euroflex type: 2, 3, 312



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About these operating instructions

1 About these operating instructions

These operating instructions describe the tank withdrawal systems "Miniflex" and "Euroflex" (also referred to as "product" in these operating instructions). These operating instructions are part of the product.

- You may only use the product if you have fully read and understood these operating instructions.
- Verify that these operating instructions are always accessible for any type of work performed on or with the product.
- Pass these operating instructions as well as all other product-related documents on to all owners of the product.
- If you feel that these operating instructions contain errors, inconsistencies, ambiguities or other issues, contact the manufacturer prior to using the product.

These operating instructions are protected by copyright and may only be used as provided for by the corresponding copyright legislation. We reserve the right to modifications.

The manufacturer shall not be liable in any form whatsoever for direct or consequential damage resulting from failure to observe these operating instructions or from failure to comply with directives, regulations and standards and any other statutory requirements applicable at the installation site of the product.

A translation of the operating instructions into the languages English, French and Italian can be found at www.afriso.com.

2 Information on safety

2.1 Safety messages and hazard categories

These operating instructions contain safety messages to alert you to potential hazards and risks. In addition to the instructions provided in these operating instructions, you must comply with all directives, standards and safety regulations applicable at the installation site of the product. Verify that you are familiar with all directives, standards and safety regulations and ensure compliance with them prior to using the product.

Safety messages in these operating instructions are highlighted with warning symbols and warning words. Depending on the severity of a hazard, the safety messages are classified according to different hazard categories.

NOTICE

NOTICE indicates a hazardous situation, which, if not avoided, can result in equipment damage.

2.2 Intended use

The product may only be used for withdrawal of media from underground and aboveground tanks in single-line or dual-line mode.

The product may only be used for the following media and tanks.

Media

- Fuel oil EL as per DIN 51603-1 and as per DIN SPEC 51603-6 with 0 - 30 % fatty acid methyl ester (FAME) as per EN 14214
- Diesel fuel as per EN 590 with up to 7 % fatty acid methyl ester (FAME) as per EN 14214
- Biodiesel with up to 30 % fatty acid methyl ester (FAME) as per EN 14214
- Paraffinic fuels (such as HVO/GTL as per DIN/TS 51603-8) proportionately with 0 - 100 %

Tanks

- Aboveground or underground indoor or outdoor tanks

Any use other than the application explicitly permitted in these operating instructions is not permitted and causes hazards.

Verify that the product is suitable for the application planned by you prior to using the product. In doing so, take into account at least the following:

- All directives, standards and safety regulations applicable at the installation site of the product
- All conditions and data specified for the product
- The conditions of the planned application

In addition, perform a risk assessment in view of the planned application, according to an approved risk assessment method, and implement the appropriate safety measures, based on the results of the risk assessment. Take into account the consequences of installing or integrating the product into a system or a plant.

When using the product, perform all work and all other activities in conjunction with the product in compliance with the conditions specified in the operating instructions and on the nameplate, as well as with all directives, standards and safety regulations applicable at the installation site of the product.

2.3 Predictable incorrect application

The product must never be used in the following cases and for the following purposes:

- Hazardous area (EX)
 - If the product is operated in hazardous areas, sparks may cause deflations, fires or explosions.

2.4 Qualification of personnel

This product may only be mounted, commissioned, maintained and decommissioned by a qualified, specialised company which has all required certifications and which meets the following requirements:

- Compliance with all directives, standards and safety regulations concerning handling of water-polluting substances as applicable at the installation site of the product.
- In Germany: Certification as per § 62 "Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen" (AwSV) (Ordinance on Installations for Handling Water-Polluting Substances).

Only appropriately trained persons who are familiar with and understand the contents of these operating instructions and all other pertinent product documentation are authorized to work on and with this product.

These persons must have sufficient technical training, knowledge and experience and be able to foresee and detect potential hazards that may be caused by using the product.

All persons working on and with the product must be fully familiar with all directives, standards and safety regulations that must be observed for performing such work.

2.5 Personal protective equipment

Always wear the required personal protective equipment. When performing work on and with the product, take into account that hazards may be present at the installation site which do not directly result from the product itself.

2.6 Modifications to the product

Only perform work on and with the product which is explicitly described in these operating instructions. Do not make any modifications to the product which are not described in these operating instructions.

3 Transport and storage

The product may be damaged as a result of improper transport or storage.

NOTICE

INCORRECT HANDLING

- Verify compliance with the specified ambient conditions during transport or storage of the product.
- Use the original packaging when transporting the product.
- Store the product in a clean and dry environment.
- Verify that the product is protected against shocks and impact during transport and storage.

Failure to follow these instructions can result in equipment damage.

4 Product description

The product is a combination fitting consisting of a screw fitting and a quick-action shut-off valve. The suction line and, if present, the return line are connected to the screw fitting.

The versions "Miniflex 3" and "Euroflex 3" feature a measuring hose for connection of a pneumatic level indicator.

The version Euroflex 3 with float contains a float at the suction hose for floating withdrawal of the medium instead of the bottom part.

The version Euroflex 3 self-securing allows for a self-securing suction line without conversion since no backflow preventer is installed. All other version can be converted for a self-securing suction line with the .

The version "Euroflex 312" contains a level sensor (GWG 12K/1C) and features a measuring hose for connection of a pneumatic level indicator.

Product description

4.1 Overview

4.1.1 Miniflex

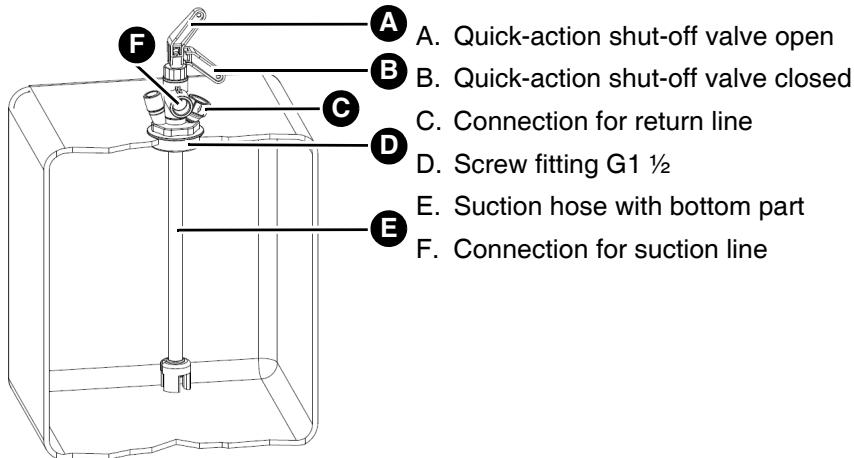


Fig. 1: Miniflex 2

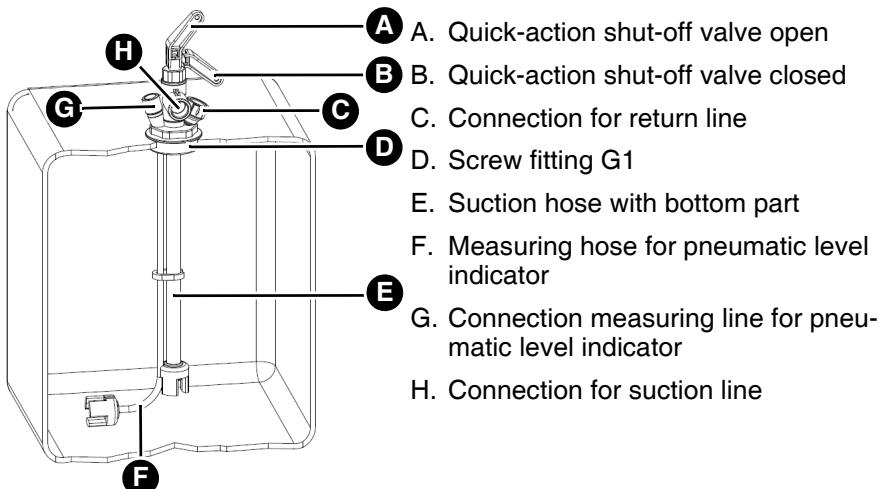


Fig. 2: Miniflex 3

4.1.2 Euroflex

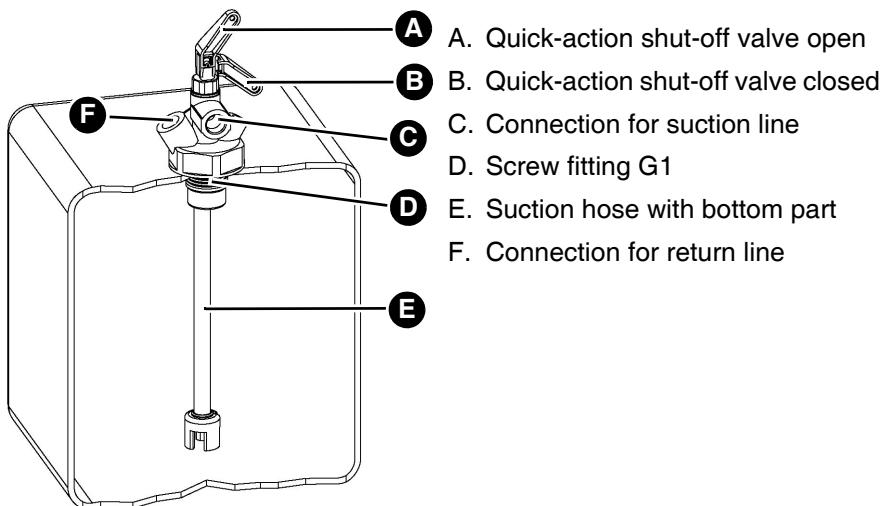


Fig. 3: Euroflex 2

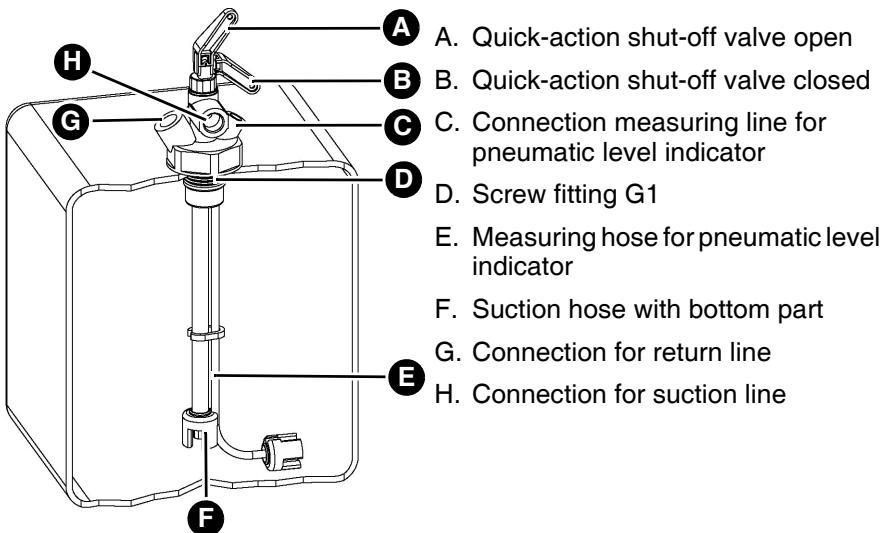


Fig. 4: Euroflex 3

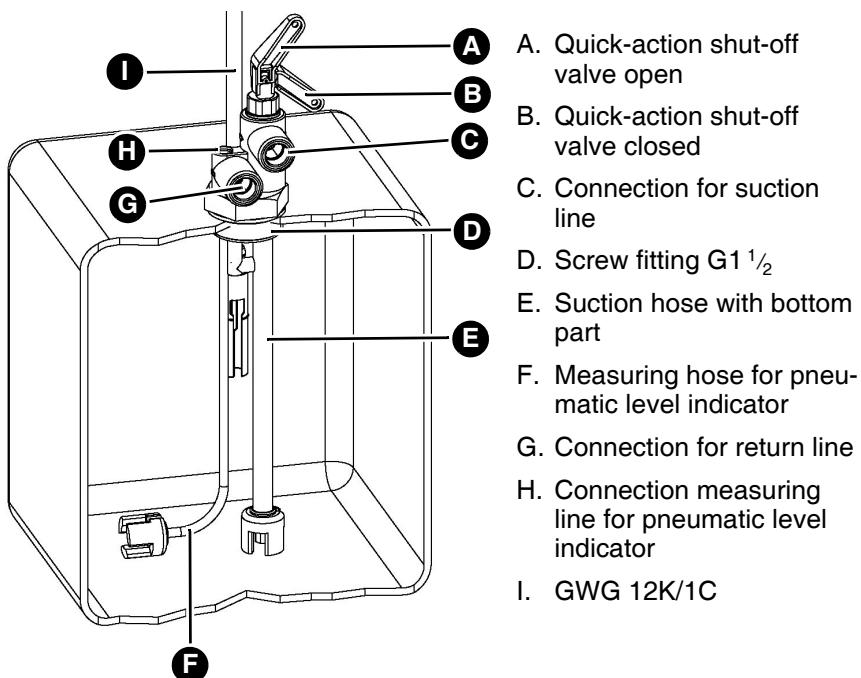


Fig. 5: Euroflex 312

4.2 Function

Medium is withdrawn via the product and supplied to a consumer via the suction line.

If the withdrawal stops, the built-in backflow preventer prevents the oil column from being torn off. The medium does not flow back into the tank.

The suction line can be shut off manually via the quick-action shut-off valve (see accessories "Pull cord").

4.3 Technical specifications

4.3.1 Miniflex 2 and Miniflex 3

| Parameter | Miniflex 2 | Miniflex 3 |
|--|--|-----------------------|
| General specifications | | |
| Connection thread | G1 male | |
| Connection of suction line and return line | G $\frac{3}{8}$ female with inner cone for AFRISO compression fitting or a screwed pipe connection as per DIN 2353 | |
| Housing material | Brass | |
| Length suction hose | 2.15 m or 3.15 m | |
| Length measuring hose | - | 2.15 m or 3.15 m |
| Test pressure | Max. 6 bar | |
| Flow rate | Max. 150 l/h | |
| Connection for measuring line pneumatic level indicator | | |
| Outside diameter | - | 6 mm |
| Thread | - | M12x1.5 female thread |
| Material | | |
| Suction hose | NBR/PVC | |
| Bottom part | Zamak (ZnAl4Cu1) | |

4.3.2 Euroflex 2, Euroflex 3 and Euroflex 312

| Parameter | Euroflex 2 | Euroflex 3 | Euroflex 312 |
|--|--|------------------|--------------|
| General specifications | | | |
| Connection thread | G1 male | | G1 ½ male |
| Connection of suction line and return line | G ³ / ₈ female with inner cone for AFRISO compression fitting or a screwed pipe connection as per DIN 2353 | | |
| Housing material | Plastic (POM) | | |
| Colour | Blue | | |
| Length suction hose | 2.15 m or 3.15 m | | |
| Length measuring hose | - | 2.15 m or 3.15 m | |
| Level sensors | - | | GWG 12 K/1C |
| Test pressure | Max. 6 bar | | |
| Flow rate | Max. 150 l/h | | |
| Connection for measuring line pneumatic level indicator | | | |
| Outside diameter | 6 mm | | |
| Thread | M12x1i | | |
| Material | | | |
| Suction hose | NBR/PVC | | |
| Bottom part | Zamak (ZnAl4Cu1) | | |

Mounting

5 Mounting

- ⇒ Verify that "Conversion kit for self-secur ing suction line" or Euroflex 3 self-secur ing is installed instead of the check valve in the case of a self-secur ing suction line with steady gradient towards the tank.
- ⇒ Verify that the level sensor is correctly adjusted for the version "Euroflex 312".

If no pneumatic level indicator is mounted, the connection for the measuring line of Euroflex 3 and Miniflex 3 must be closed with the enclosed blind plug, see "Mounting/closing the measuring line at Euroflex 3/Miniflex 3".

5.1 Preparing mounting

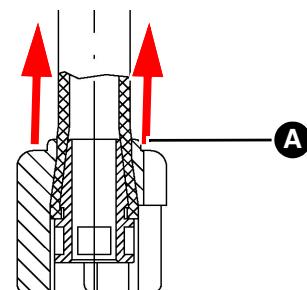
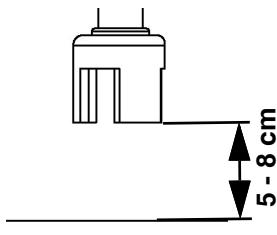
If the return line is not used, the connection for the return line must be closed with the enclosed blind plug.

Mounting

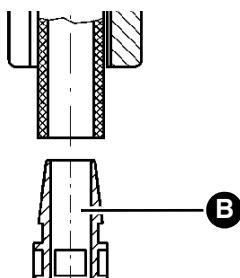
5.1.1 Shortening the suction hose

⇒ Verify that the suction hose ends 5 - 8 cm above the bottom.

The suction hose only needs to be shortened if no floating withdrawal is used.

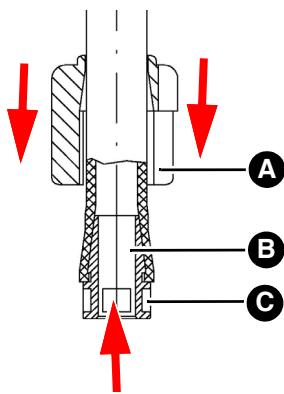
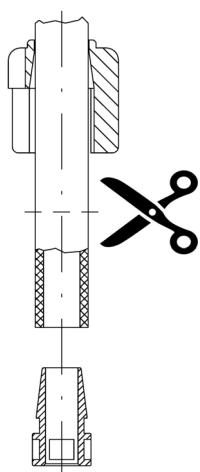


1. Push the bottom part (A) towards the top.



2. Remove the cone (B).

3. Shorten the suction hose.



4. Push the cone (B) into the hose up to the groove (C).
5. Pull the bottom part (A) towards the end of the hose.
 - The bottom part must no longer be able to come loose by itself.

5.2 Mounting the product

- ⇒ Verify that the threads of the screw fitting and the tank connections have the same size (see accessories: "Reducer G2 x G1 ½" or "Reducer G1 ½ x G1").

NOTICE

LEAKING PRODUCT

- Verify that you use a screwed pipe connection as per DIN 2353 with cylindrical thread (G thread) and seal the screwed pipe connection with a flat gasket or with suitable glue. Do not use PTFE sealing tape or hemp.

Failure to follow these instructions can result in equipment damage.

5.2.1 Mounting the version Miniflex 2/Miniflex 3

1. Guide the suction hose and the measuring hose (Miniflex 3 only) into the tank connection.
2. Seal the screw fitting with sealant.

5.2.2 Mounting the version Euroflex 2/Euroflex 3/Euroflex 312

1. Guide the suction hose and the measuring hose (Euroflex 3, Euroflex 312 only) into the tank connection.
2. Seal the screw fitting with the enclosed flat gasket.

5.2.3 Mounting the version Euroflex 3 with float

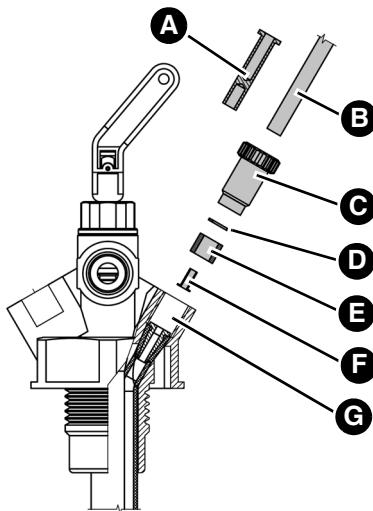
The mounting instructions of the version Euroflex 3 with float are included with the article.

5.3 Connecting the suction and return line

1. Mount the pipe (of the suction line) with a screwed pipe connection G^{3/8}. Tighten the screwed pipe connection. The tightening torque is 40 ± 5 Nm.
2. Use an AFRISO universal screwed pipe connection (accessories) to connect the suction line. The tightening torque for screwed pipe connections Ø 8 mm is 15 ± 5 Nm. The tightening torque for screwed pipe connections Ø 10 mm is 20 ± 5 Nm. The mounting instruction is provided with the screwed pipe connection.
3. Set the lever of the quick-action shut-off valve to the open position.
 - The system is ready for operation.

5.4 Mounting/closing the measuring line at Euroflex 3/Miniflex 3

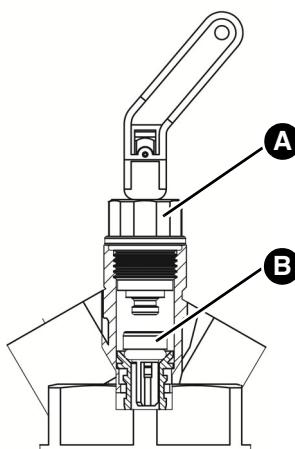
- ⇒ Make sure to use a pipe Ø 6 x 1 mm or a hose with an outside diameter of 6 mm for the measuring line (connection between screw fitting and pneumatic level indicator).
- Use the enclosed accessories for the connection of the measuring line and for closing the connection at the screw fitting.



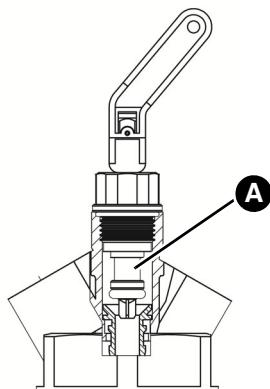
1. If you use a hose for the measuring line (B), insert a stiffener (F) into the hose.
2. Push the compression screw (C), the washer (D) and the sealing ring (E)
 - onto the pipe or the hose (B) for connection of the measuring line.
 - onto the blind plug (A) for closing.
3. Push the pipe/hose (B) or the blind plug (A) into the connection at the screw fitting (G) all the way to the stop.
4. Tighten the compression screw (C).

Mounting

5.5 Conversion kit for self-sealing suction line



1. Unscrew the quick-action shut-off valve (A).
2. Remove the valve insert (A).



3. Screw in the quick-action shut-off valve (A) of the conversion kit.
4. Attach the enclosed adhesive labels at the following points of the suction line:
 1. Close to the screw fitting.
 2. Close to the filter.

6 Maintenance

The product is maintenance-free.

6.1 Use in flood hazard areas

The product is suitable for use in flood hazard areas; it is watertight up to 10 mH₂O (1 bar pressure).

After a flood, the product does not have to be replaced.

7 Troubleshooting

Any malfunctions that cannot be removed by means of the measures described in this chapter may only be repaired by the manufacturer or by qualified persons.

| Problem | Possible reason | Repair |
|--|---|--|
| Quick-action shut-off valve has closed automatically | Liquid has heated up. This can lead to an impermissible pressure increase in the suction line | Installation "Conversion kit shut-off valve" for self-secur-ing suction line |
| | | Installation of a pressure compensation unit |

8 Decommissioning, disposal

Dispose of the product in compliance with all applicable directives, standards and safety regulations.

9 Returning the device

Get in touch with us before returning your product (service@afriso.de).

10 Warranty

See our terms and conditions at www.afriso.com or your purchase contract for information on warranty.

11 Spare parts and accessories

NOTICE

UNSUITABLE PARTS

- Only use genuine spare parts and accessories provided by the manufacturer.

Failure to follow these instructions can result in equipment damage.

Product

| Product designation | Part no. | Length suction line |
|------------------------------------|----------|---------------------|
| Miniflex 2 (2.15) | 74200 | 2.15 m |
| Miniflex 3 (2.15) | 74300 | 2.15 m |
| Miniflex 3 (3.15) | 74310 | 3.15 m |
| Euroflex 2 (2.15) | 20162 | 2.15 m |
| Euroflex 3 (2.15) | 20160 | 2.15 m |
| Euroflex 3 (3.15) | 20164 | 3.15 m |
| Euroflex 3 (3.15) self-securing | 20129 | 3.15 m |
| Euroflex 3 (2.15) with float | 20130 | 2.15 m |
| Euroflex 3 (3.15) with float | 20131 | 3.15 m |
| Euroflex 312 (2.15) GWG 12 K/1C | 20190 | 2.15 m |

Spare parts and accessories

| Product designation | Part no. | Figure |
|--------------------------------|----------|---|
| Conversion kit float kit G1 | 20125 |  |
| Conversion kit shut-off valve | 74305 |  |
| Pressure compensation unit DAE | 20800 |  |
| Pull cord | 20475 |  |
| Unitop 3000 | 28000 |  |
| DTA 10 | 52145 |  |

| Product designation | Part no. | Figure |
|--|----------|--------|
| Bag with accessories for Euroflex 3 | 20181 | - |
| Reducer G2 x G1 ½ | 20903 | - |
| Reducer G1 ½ x G1 | 20905 | - |
| Universal screw connection Ø 6/8/10 mm | 20409 | - |