

Tank Equipment Series P11 Lids and Manways



P11 - Manway with conical Frame



P11 - Manway with flat Frame



P11 - Manway with low Frame

AWH Tank Equipment Contents

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The dimensions listed in the catalog are in mm and are nominal dimensions.
The specified weights are approximate weights.

AWH-Manways Technical Information

Pressure Equipment Directive (DGRL) in Relation to the Manways

The introduction of the new pressure equipment directive 2014/68/EU has been created as a basis for free trade within the European Union. The introduction of this standardized directive for manufacturing pressure devices and parts creates the necessary conditions for fair and clear competition between the EU member states.

Technical scope

The pressure equipment directive states that only complete piping or tanks can be tested. This means that, according to the pressure equipment directive, individual components (e.g. individual pipes, screw connections, T-pieces, bends and similar parts) cannot carry the CE label.

Guideline 1/22 supports this statement. This guideline contains notes for applying the directive to components for pressure vessels. The components must be designed and manufactured according to the requirements of the pressure equipment directive. Since these parts do not correspond to the definition for pressure equipment Article 1 Paragraph (2) No. 2.1, they are not given a CE label. The manufacturer of the pressure equipment is responsible for this and must ensure that the components used enable the pressure equipment to fulfill the key safety requirements specified in the directive.

Use with a pressure Manway

AWH and Boyer, our partners in the Manways range, are authorized to manufacture pressure equipment according to the pressure equipment directive. The necessary valid welding authorizations, a QA department, the TÜV marking transfer certificate, as well as a "notified body" certificate for manufacturing pressure equipment are present.

The Manways assembly group is a component for pressure equipment and, according to guideline 1.22 (see above), falls outside the direct testing requirements defined in the pressure equipment directive. When welded on to the tank, however, the Manway is subject to the test requirements in accordance with the pressure equipment directive.

In deviation from the pressure equipment directive, AWH can provide a component test for the pressure Manway on request. This enables you to incorporate the pressure Manway easily in your pressure equipment directive overall test.

The scope of supply for the type-tested pressure Manway includes

- EC declaration of conformity
- Test report for the component test
- Operating instructions
- Material certificate list with drawing

Use with storage Manway

Due to Article 1, Point 3.21, storage tanks fall outside the scope of the pressure equipment directive. Storage tanks are vessels where the gas pressure over the fluid must not exceed 0.5 bar. When choosing the Manway, it is important to consider the prevalent operating pressure, which must not exceed the maximum permissible pressure for the Manway.

Seal Ring for AWH-Manways

The chemical resistance of the seals is heavily influenced by the temperature of the liquid, the duration of contact and, in the case of chemical solutions, the concentration of the active product. The following strength values are for orientation purposes only and are fundamentally influenced by the following factors: Composition of the rubber mixture, changes in temperature or degree of expansion, weathering influences, duration of stress etc.

Technical Parameters

Sealing material	Color*	F.D.A.	Max. temperature
EPDM	Grey	Section 21 CFR 177.2600	-40 to +130 °C / -40 to 266 °F
FKM	Black	Section 21 CFR 177.2600	-10 to +200 °C / 14 to 392 °F
Natural rubber	White	Section 21 CFR 177.2600	-40 to +70 °C / -40 to 158 °F
NBR	Bronze	Section 21 CFR 177.2600	-20 to +110 °C / -4 to 230 °F
Silicon	Yellow-white translucent	Section 21 CFR 177.2600	-50 to +200 °C / -58 to 392 °F

* with reservations

P11 - Manway with conical Frame



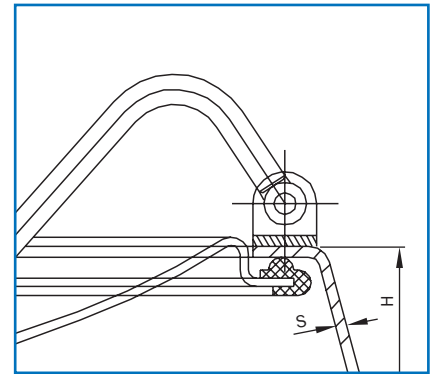
The Manway type P11 is mainly installed in storage tanks. It provides access for maintenance and repair. The tapered frame shape means that the Manway can be adapted easily to the tank. The curve of the tank is compensated for by the frame height.

The typical installation location is on the side in the bottom area to enable inspections to be carried out safely and easily. The static water column supports the sealing. The Manway is CIP-enabled.

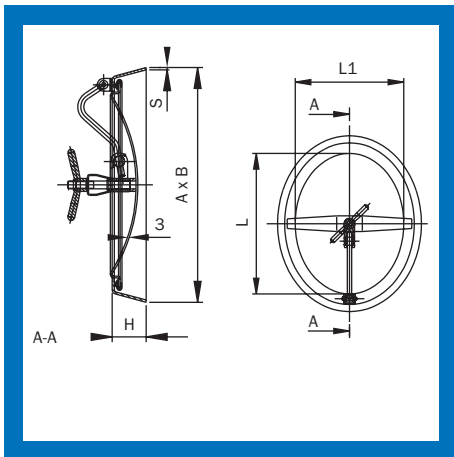
Technical Parameters

Materials: 1.4404 (316L)
Max. static pressure: 2.4 bar / 34.8 psi at 150 °C / 302 °F
Seal rings: EPDM, NBR, Silicone, natural rubber, FKM, other materials on request
Surfaces: Manway electropolished, frame blasted
Internal dimensions: 340 x 440 mm

- Oval stainless steel Manway
- Opening inwards
- Positioned in the upper or lower region of the tank
- Bead seal ring pulled over the edge of the Manway



Ordering Information



Manway with conical Frame, without Seal Ring

Type	A x B	H	L	L1	V	Weight [kg]	1.4404 (316L)
P11-340-440 ED	450 x 550	80	440	340	4	12	Article No. 6B0111100000

Seal Ring for Manway with conical Frame

Type	NBR	Silicone	EPDM	FKM	Natural rubber
	Article No.	Article No.	Article No.	Article No.	Article No.
P11-340-440 ED	6B0540100020	6B0540100029	6B0540100011	6B0540100652	6B0540100008

P11 - Manway with flat Frame



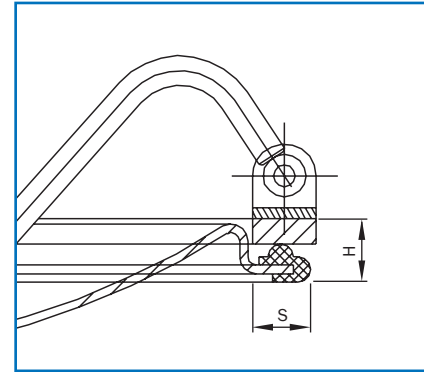
The Manway type P11 is mainly installed in storage tanks with plane surfaces. It provides access for maintenance and repair. The flat frame shape prevents a dome from forming. The flat frame height also enables efficient cleaning.

The typical installation location is at the side or on the top. The static water column supports the sealing. The Manway is CIP-enabled.

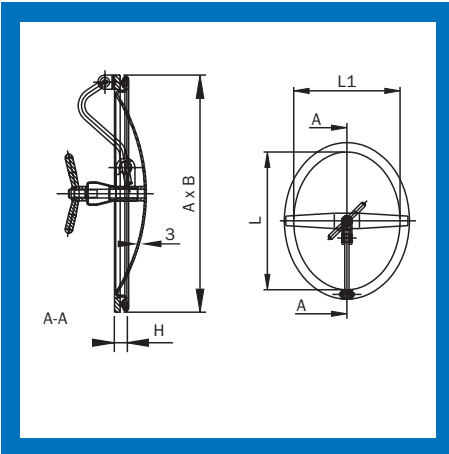
Technical Parameters

Materials:	1.4404 (316L)
Max. static pressure:	2.4 bar / 34.8 psi at 150 °C / 302 °F
Seal rings:	EPDM, NBR, Silicone, FKM, natural rubber, other materials on request
Surfaces:	Manway electropolished, frame blasted
Internal dimensions:	340 x 440 mm

- Oval stainless steel Manway
- Opening inwards
- Positioned in the upper or lower region of the tank
- Bead seal ring pulled over the edge of the Manway



Ordering Information



Manway with flat Frame, without Seal Ring

Type	A x B	H	L	L1	V	Weight [kg]	1.4404 (316L)	
							Article No.	
P11-340-440 P	400 x 500	12	440	340	30	11	6B0111120001	

Seal Ring for Manway with flat Frame

Type	NBR	Silicone	EPDM	FKM	Natural rubber
	Article No.	Article No.	Article No.	Article No.	Article No.
P11-340-440 P	6B0540100020	6B0540100029	6B0540100011	6B0540100652	6B0540100008

P11 - Manway with low Frame



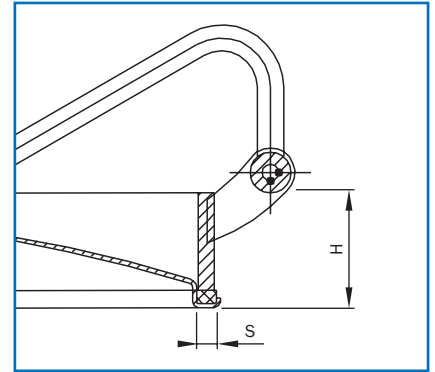
The Manway type P11 is mainly installed in storage tanks. It provides access for maintenance and repair. The curve of the tank is compensated for by the frame height. The most common installation location is on the side in the bottom area to enable inspections to be carried out safely and easily.

The static water column supports the sealing. The advantage of this Manway is in the design of the seal-ing. It enables particularly efficient cleaning.

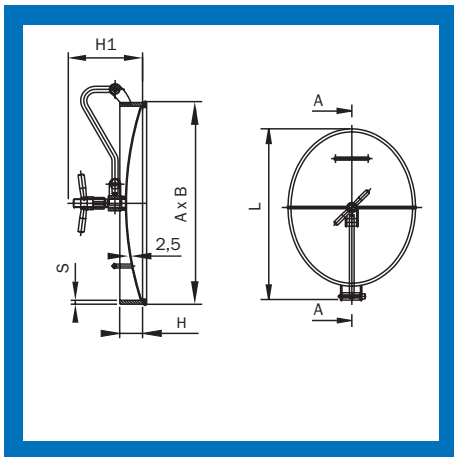
Technical Parameters

Materials: 1.4404 (316L)
Max. static pressure: 1.7 bar / 24.7 psi at 150 °C / 302 °F
Seal rings: EPDM, NBR, Silicone, FKM, other materials on request
Surfaces: Manway electropolished, frame brushed

- Oval stainless steel Manway
- Opening inwards
- Positioned in the upper or lower region of the tank
- Square seal in the Manway, glued



Ordering Information



Manway with low Frame, with Seal Ring

Type / Seal Ring	A x B	H	H1	L	V	Weight [kg]	1.4404 (316L)	Article No.
P11-410-510 / Silicone	410 x 510	60	192	577	10	19		6B0111140000/0
P11-410-510 / EPDM	410 x 510	60	192	577	10	19		6B0111140000/1
P11-410-510 / FKM	410 x 510	60	192	577	10	19		6B0111140000/2
P11-410-510 / NBR	410 x 510	60	192	577	10	19		6B0111140000/3



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