

# INSTALLATION INSTRUCTIONS

## Ball Siphon – Suction Side type (AK-S)

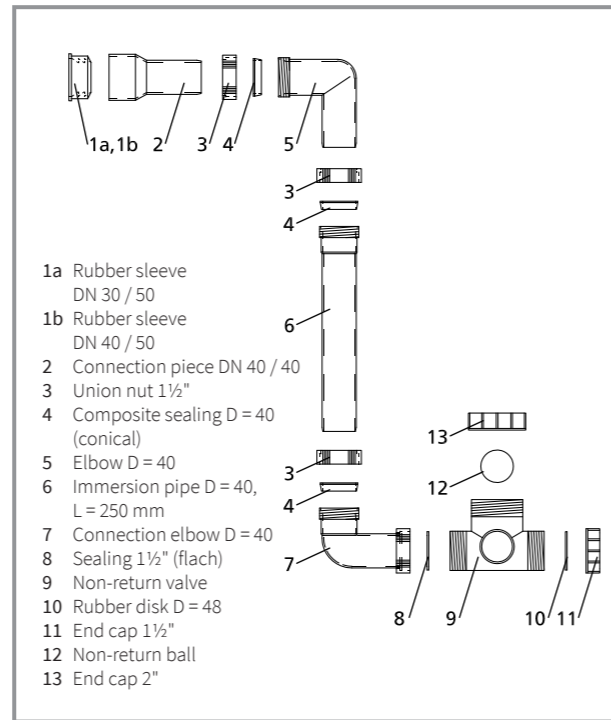


Item No.: 32 404 00 S 004 / 10 (white)  
Item No.: 32 404 22 S 001 / 12 (transparent)

### Description

- To ensure an undisturbed water outlet and prevent the suction of false air all condensate outlets and other drainage points must be provided with siphons. Each siphon must end in a funnel.
- The AK-S type Siphon is only suitable for draining areas with negative pressure. It fills and closes automatically and prevents sucking itself empty in case of pressure surges.
- The max. height of the standpipe that consists of elbow (5) and immersion pipe (6) is 300 mm (Fig. 1). This allows a max. negative pressure of ca. 2.900 Pa at the drainage nozzle of the unit. If the negative pressure is less than that the length of the immersion pipe (6) can be shortened appropriately (Table 2).
- The construction height can also be reduced by installing the standpipe in a sloped position.
- The distance between the middle of the intake of the siphon and the floor must be  $\geq R$  (min. 140 mm) (Fig. 4).
- The intake to the siphon is carried out at one of the two threaded connections (1½) of the non-return valve (9). The unused threaded connection must be closed using the rubber disk (10) and end cap (11).
- The siphon is connected to the drainage nozzle using the provided connection piece (2) and one of the two rubber sleeves (1a or 1b). Condensate outlets of 40 mm diameter are directly connected to the crimp screwing of elbow (5).
- The second immersion pipe (6) can be used to provide an extension of the outlet. To be ordered separately, if required.
- Attention must be paid (at the pipes between the siphon and the outlet) that ventilation, diameter and slope are sufficient and in accordance with the standards of the sanitary engineering. The outlet must not be connected directly to a sewage pipe but shall be able to drain freely.

Fig. 1



- 1a Rubber sleeve DN 30 / 50
- 1b Rubber sleeve DN 40 / 50
- 2 Connection piece DN 40 / 40
- 3 Union nut 1½"
- 4 Composite sealing D = 40 (conical)
- 5 Elbow D = 40
- 6 Immersion pipe D = 40, L = 250 mm
- 7 Connection elbow D = 40
- 8 Sealing 1½" (flach)
- 9 Non-return valve
- 10 Rubber disk D = 48
- 11 End cap 1½"
- 12 Non-return ball
- 13 End cap 2"

- The siphon can be drained via the end cap (11), if required.  
**Attention:** When the end cap is closed again later, rubber disk (10) must be put in again.
- A connection to outlets with a threaded pipe according to DIN 2240 is possible when the provided connection pieces are used (Table 1).
- Before the plug connection is screwed, the union nuts with sliding ring and sealing must be installed on the respective pipe sections. Then screwing is possible (do not put the pipe sections in the pre-assembled union nuts first).

### Assembly / Calculation

For assembly see Fig. 1. Attention must be paid during assembly that the pipes are always inserted into the nozzle as far as they will go.

The base frame height (GR) can be calculated automatically on our homepage.

Fig. 2

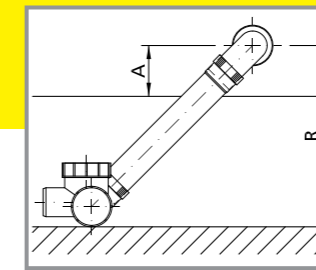


Table 1

Outlet	D (mm)	Rubber sleeve
3/4"	28 – 34	1b
1"	28 – 34	1b
1 1/4"	38 – 44	a
1 1/2"	*)	*)

\*) without adapter. Sealing with permanent elastic silicone material.

### Example:

Negative pressure at drainage nozzle = 1.500 Pa and distance A = 70 mm (owing to the design dimension R must be min. 140 mm).

$$R = P_{10} + A = 1.500_{10} + 70 = 220 \text{ (mm)}$$

$$GR = R - A = 220 - 70 = 150 \text{ (mm)}$$

### NOTE:

If the drainage nozzle is led through the bottom of the unit, distance A must have a negative sign when entered in the formula for calculating the base frame height.

Table 2

Negative pressure (P) in drainage nozzle [Pa]	Shortening of	
	immersion pipe (6) [mm]	elbow (5) [mm]
2900	-	-
2400	50	-
2300	60	-
2200	70	-
2100	80	-
2000	90	-
1900	100	-
1800	110	-
1700	120	-
1600	130	-
1500	140	-
1400	150	-
1300	160	-
1200	170	-
1100	180	-
1000	180	10
900	180	20
700	ohne	-
600	ohne	10
500	ohne	20

\*) without adapter. Sealing with permanent elastic silicone material

Fig. 3

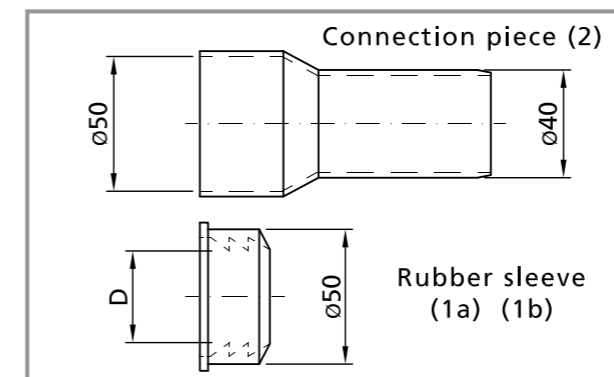


Fig 4

