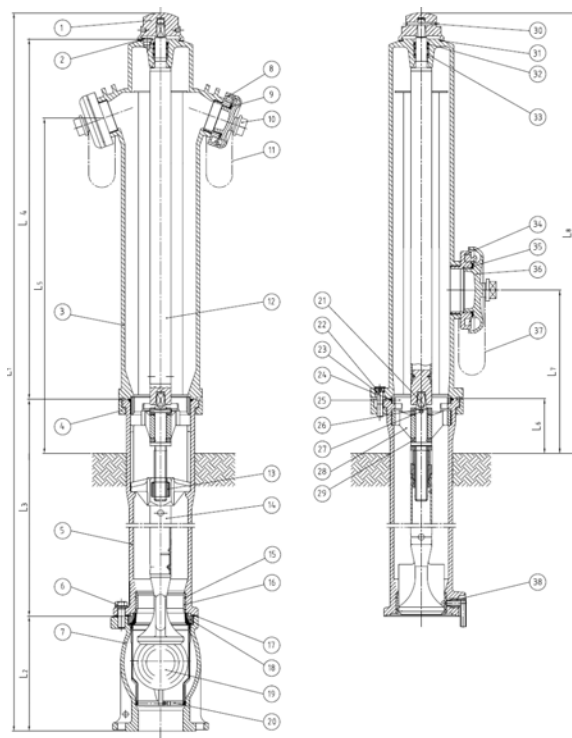


Operation Manual

Above ground hydrant P5 DIN EN 14384 AUD 80/100-16
DN 80 and DN 100 with additional ball shut-off
and rotatable top

1. Technical data



Nominal capacity: DN 80 – 179,9 m³/h (DIN-DVGW min. 140 m³/h)
DN 100 – 252,2 m³/h (DIN-DVGW min. 210 m³/h)

max. operating pressure 16 bar
max. operating temperature 40°C

DN	Cover depth mm	L1		Diemnsions mm				L7		Weight kilos
		L1	L2	L3	L4	L5	L6	L7	L8	
80	1000	1885		770						77
	1250	2135	220	1020	835	855	135		1030	82
	1500	2385		1270						87
100	1000	1885		725						98
	1250	2135	265	975	835	850	135	385	1030	105
	1500	2385		1220						110

2. Fields of application and proper use

The above ground hydrant installed in the water supplying pipe system is can be used for fire fighting, operations of water supplying companies and other applications as water supply for construction work or road cleaning.

Furthermore the hydrant must not be operated with more than 16 bar at a maximum operating temperature of 40°C.

Every other use exceeding these limits is considered to be an improper use. The hydrant producer is not liable for damages resulting from an improper use. The risk is to the user only.

3. Work safety

The above ground hydrant has a state-of-the-art technology and is safe in operation. However, this valve can imply risks, when operated by untrained staff or when applied for improper use.

In order to guarantee a proper use, the technical indications have to be obtained as well.

Unauthorized re-engineering and adaptations, that have influence on the safe and proper operation of the hydrant, are prohibited.

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4. General notes

For damages resulting from a disregard of this operation manual, we do not take any liability! The design and specifications shown in this operation manual are subject to change without notice due to our continuing programme of product development. The copyright of this manual remains to AVK Mittelmann Armaturen GmbH. This manual includes technical regulations and drawings that must not be copied, distributed or used unauthorized for competitive ends or other influence on third parties, neither completely, nor partly.

5. Installation

Before installation, make sure the hydrant is clean. Otherwise the hydrant has to be cleaned or disinfected. Installation onto the pipe has to be done without causing any tension. A proper hydrant drainage has to be guaranteed by state of the art drain stones or packaging.

6. Positioning the top body

Warning! The hydrant has to be closed!

In case a re-positioning of the top body is necessary, the 4 hexagon head screws, connecting to the lower body, have to be removed with approx. 2 turns.

Position the top body as needed and tighten the 4 hexagon head screws again as follows: Make sure both clamp halves are tightened slightly one after the other by 5 Nm. (The hydrant top is now fixed to its installation face without tilting to one side)

All 4 screws now have to be tightened by an intermediate torque of 20 Nm in order to provide an even clamp force. Finally they have to be tightened with a torque of 40 ± 5 Nm.

7. Operation

Open:

Before opening the hydrant, please turn off the coupling covers. Connect the coupling pieces to the shut-off valve or tubes and open them. We recommend the use of a standard key A or B according to DIN 3223 for operation. According to DIN 3321 the maximum operation torque for DN 80 is 110 Nm and for DN 100 200 Nm. Open the hydrant with the recommended key by slowly turning the hydrant head to the left until it is fully open. Please control the volume by the added shut-off valve only!

Close:

Close the extra shut-off valve and eventually turn off the tubes. By turning the hydrant head evenly to the right with the key the hydrant is fully closed again.

Note: The hydrant is equipped with a radially working piston lining. That means that the closing forces have no influence on the leak tightness. After having removed all tubes or the coupling pieces, watch carefully if the hydrant drains automatically.

Finally screw on the coupling covers again. The venting valve ensures a full drainage.

8. Maintenance

For maintenance see the attached sheet for technical indications.

Technical indications - maintenance

Above ground hydrants DIN EN 14384, PN 16
AUD 80, DN 80, DIN-DVGW
AUD 100, DN 100, DIN-DVGW
AFUD 100, DN 100, DIN-DVGW

Type P5-P 6

In break-away design with additional ball shut-off and rotatable top.

Hydrants of the P5-P6 series are principally maintenance free.

Operation and inspection are according to the "Technischen Regeln Arbeitsblatt W 331".

During maintenance the additional ball shut-off functions as pre-set valve.

In case of a knock-over, normally no damages are caused to the hydrant and/or the pipe system. The patented break-away point with titanium bushes separates the top from the bottom part of the body. The operating disc is loosely plugged together and uncouples at the same time.

For repair, the top body is to be replaced onto the bottom part of the body again, the broken titanium bushes and eventually bowed inbus screws have to be replaced and tightened as follows:

Tighten the two clamp halves one after the other slightly with approx. 5 Nm.

The hydrant top stands stable on its surface without tilting to one side.

All 4 screws have to be tightened with an intermediate torque of approx. 20Nm in order to reach an even clamp force, before being tightened with a final torque of 40 ± 5 Nm.

Afterwards the hydrant has to be tested for function and tightness.

Afterwards the hydrant has to be tested for function and tightness.

Damages to the disc core through contaminant requires replacement of the bottom of the disc with disc core:



Important indication:

To ensure the personal security of the mounting staff, the safety stirrup has to remain on the valve under pressure (see items 4-5). until it has been checked that the additional ball has shut off successfully.

1. Dismantle the top body by loosening the 4 inbus screws at the break-away point.
2. Remove the blocking ring.
3. Fix the safety stirrup with screws and segment.
4. Loosen the stem guide by turning the stem to the left and swing it by 90°. Swing the stem guide by 90° for another time and lay it onto racks in the body (see pict.).
5. By turning it to the right, pull the disc out of the seat.
6. Remove the safety stirrup and completely remove the disc from the lower body.
7. Screw the stem and stem guide into the new disc assembly and put it into the lower body again.
8. Re-mount the safety stirrup, screw the threat bolt downwards and push the disc assembly into the seat. Lock the stem guide.
9. Remove the safety stirrup; insert the blocking ring, check the position of the O-Ring. Re-mount the top body and re-assemble the complete hydrant. Oberes Mantelrohr wieder aufsetzen und Hydrant zusammenschrauben. Check it for function and tightness.

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