

D-090 UNDERGROUND COMBINATION AIR VALVE SYSTEM

Reliable operation reduces water hammer incidents.
Saving in construction and installation costs.
Better solution for installation under important crossing as:
Roads, Pavements, Buildings, Open areas.
Better freezing protection.
Dynamic design allows high velocity air discharge and prevents premature closure of the air valve.
A patented A.R.I. Air Valve type D040-C with three operation functions:
Discharges and admits big air flows while filling and draining the network and releases automatically air under pressure.
Max. operation at high level differential pressure.
The automatic Air Valve discharges high air flow up to 160 m³/h.

Made of corrosive resistant materials.
Equipped with an Integral shutoff valve that acts automatically while dismantling the Air Valve for maintenance purpose.
The valve box assured to be kept dry by a special devise.

The D-090 consists:

- 1) An automatic shut-off valve.
- 2) A combination air valve with triple actions (Patent).
- 3) An upper closure system.
- 4) A valve box.

Operation:

The shut-off valve is held open, while filling the network the large orifice discharges big quantities of air, it shall be closed by water.
When there is pressure in the system the automatic Air Valve shall release the entrapped air by the rolling seal mechanism (Patent).

Working pressure: 0.1-10 bars (2-150 psi),
or 0.2-16 bars (3-230 psi).

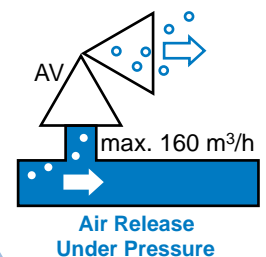
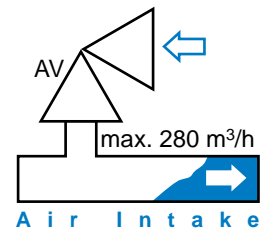
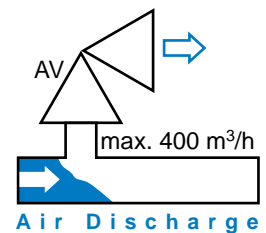
Available with flange connections: 3 (50mm) ,4 (100mm)

Options:

- Air out only.
- NS- Non-Slam system
- Service Tap type D-090-T
- Four different lengths: 755mm, 1055mm, 1035mm,1555mm.
- Internal freezing protection cushions.
- External freezing protection jacket.

The installation may be in two forms:

Underground installation with street cap, or, stand post installation.



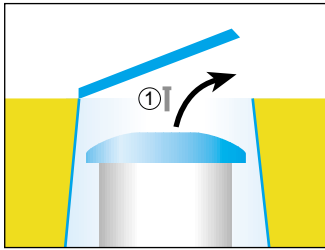
A.R.I. Flow Control Accessories

Kfar Charuv, 12932 Israel Tel. 972-4-6761988 Fax. 972-4-6763402

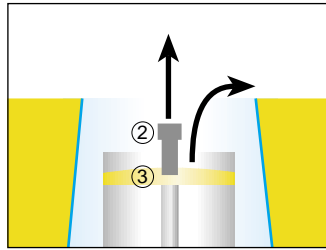
<http://arivalves.com>

Maintenance:

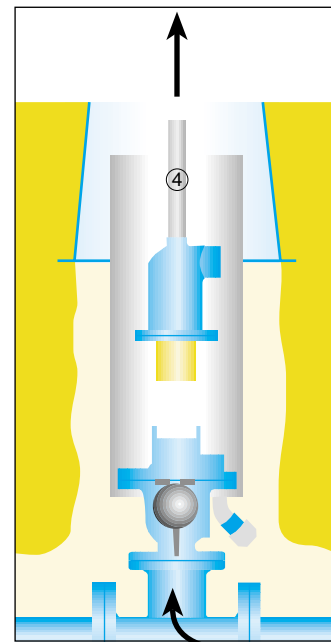
The maintenance process is short and easy, it can be done while the network is under pressure.



- Open the manhole cover.
- Unscrew the cap bolt ① of the valve box cap.
- Remove the box cap.



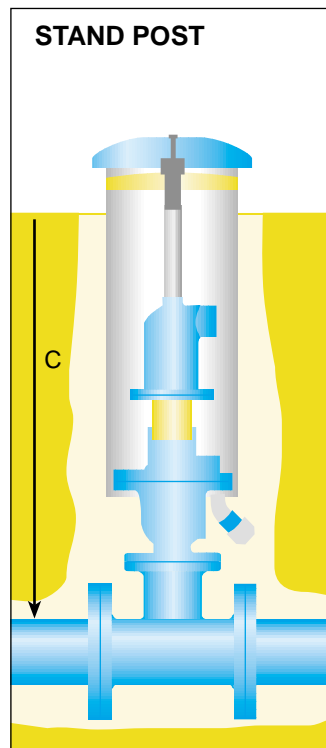
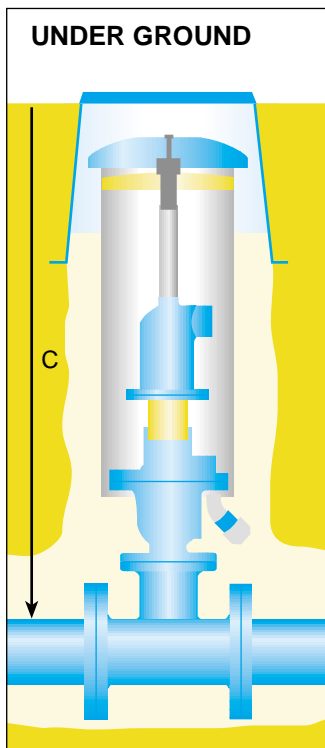
- Unscrew the bridge stem ②
- Remove the bridge with the gridge stem ② + ③



- Hold the shaft ④ and pull out the air valve.
- The shut off valve will isolate the system automatically.

installation:

- Available in four different installation lengths
- Two installation possibilities:

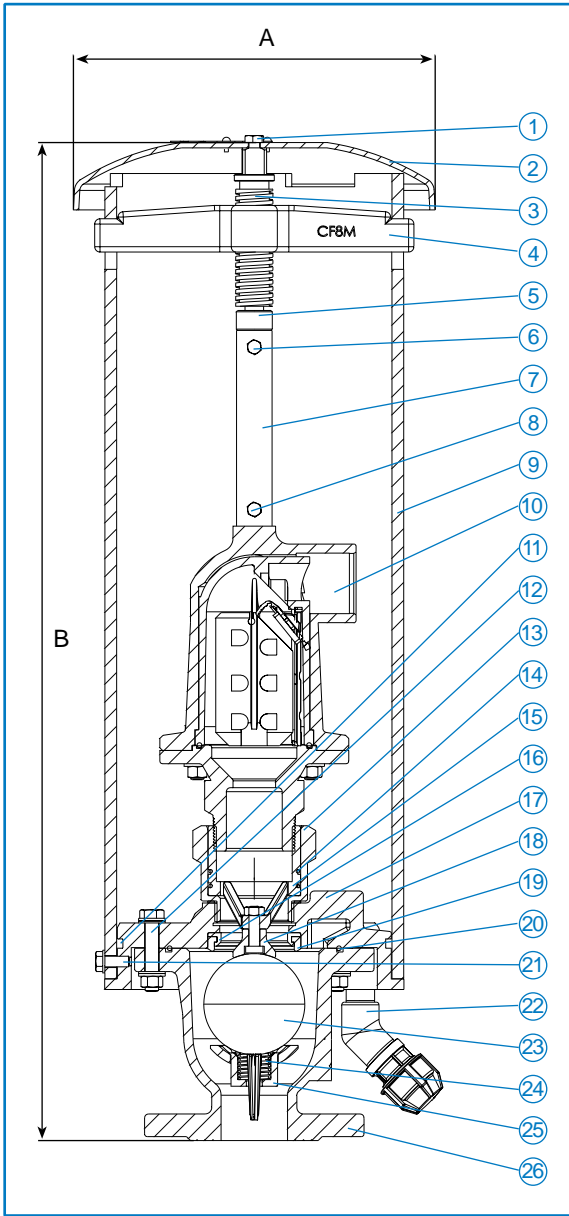


DIMENSIONS AND WEIGHTS

Nominal Size	A mm.	B mm.	C		Wight Kg.
			standpost	under ground	
2" 3"	270	755	750	1000	27.0
2" 3"	270	1055	1000	1250	28.3
2" 3"	270	1305	1250	1500	33.8
2" 3"	270	1555	1500	1750	36.5

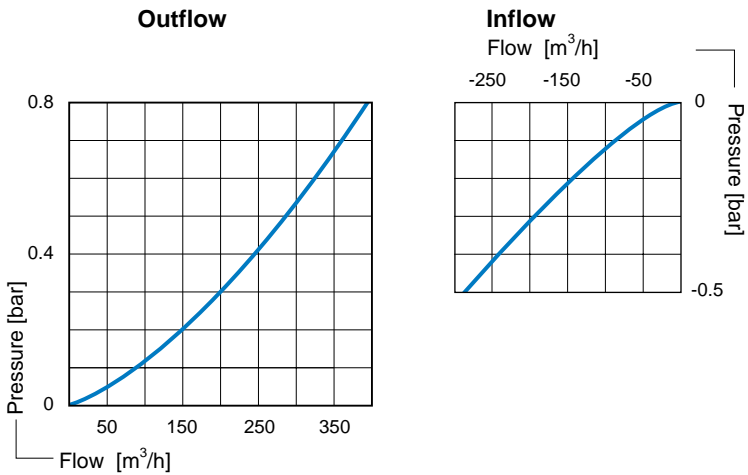


PARTS LIST AND SPECIFICATION



No.	Part	Material
1.	Bolt cap	Stainless Steel
2.	Valve Box Cap	Steel
3.	Bridge Stem	Stainless Steel
4.	Bridge	Stainless Steel
5.	Bridge Stem Seat	Stainless Steel
6.	Bolt	Stainless Steel
7.	Shaft	Stainless Steel
8.	Bolt	Stainless Steel
9.	Air Valve Box	P.V.C.
10.	D-040c Air Valve	Ductile Iron
11.	O -ring	Buna-N
12.	Bolt and Nut	Stainless Steel
13.	Adaptor Unit	Brass
14.	Upper Adaptor	Brass
15.	Lower Adaptor	Brass
16.	Nozzel Seal	E.P.D.M.
17.	Cover	Ductile Iron GGG40
18.	orifice	Bronze + E.P.D.M.
19.	O -ring	Buna-N
20.	O -ring	Buna-N
21.	Bolt	Stainless Steel
22.	Drainage Connection	Polypropylene
23.	Flot	Polycarbonate
24.	Spring	Stainless Steel
25.	Spring Seat	Acetal
26.	Body	Ductile Iron GGG40

Kinetic Air Flow Chart



Automatic Air Discharge Chart

