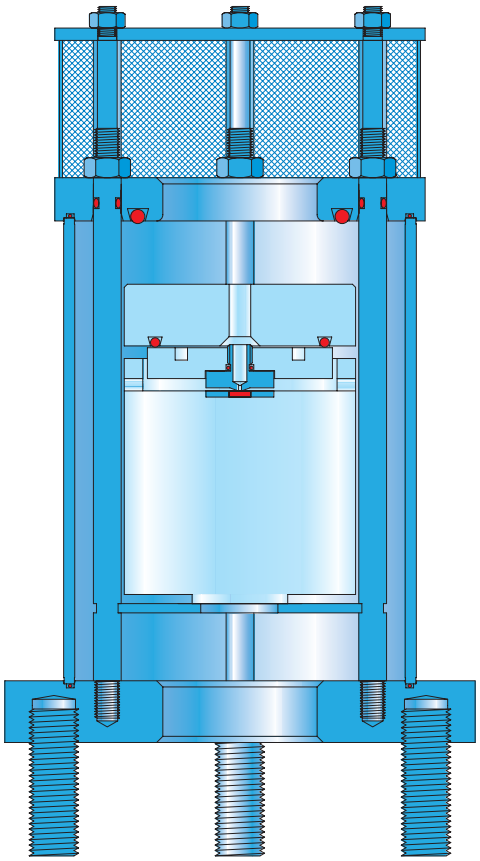
Combination air valve with rapid filling preventer mechanism Mod. GOLIA 3F- RFP

The air valve will ensure the proper operation and protection of the pipeline networks allowing the entrance of large amounts of air in case of draining or pipeline burst, the release of air pockets during working conditions and maintaining the discharge velocity within a safety level by means of a rapid filling preventer mechanism.



Construction and advantages

- **Body** completely made in stainless steel AISI 316 / AISI 304.
- **Flange** supplied with studs in stainless steel
- **Drainage valve** for chamber control and draining.
- **Mobile block** group formed by a full polypropylene cylindrical float (**) and upper disk, assembled by nozzle and gasket holder, and by a **RFP flat** also in polypropylene to avoid water hammer caused by rapid filling.
- Nozzle and gasket holder (pat. pending) wear resistant thanks to **gasket compression control.**
- **Maintenance** can be easily performed from the top without removing the air valve from the pipe.
- **Mesh** and cap in stainless steel

(**) Full polypropylene cylindrical floats to avoid deforming phenomena at high pressure and lathe shaped to guarantee:
a) a greater sliding precision inside the body processed ribs;
b) a perfectly vertical thrust;

Operating principle

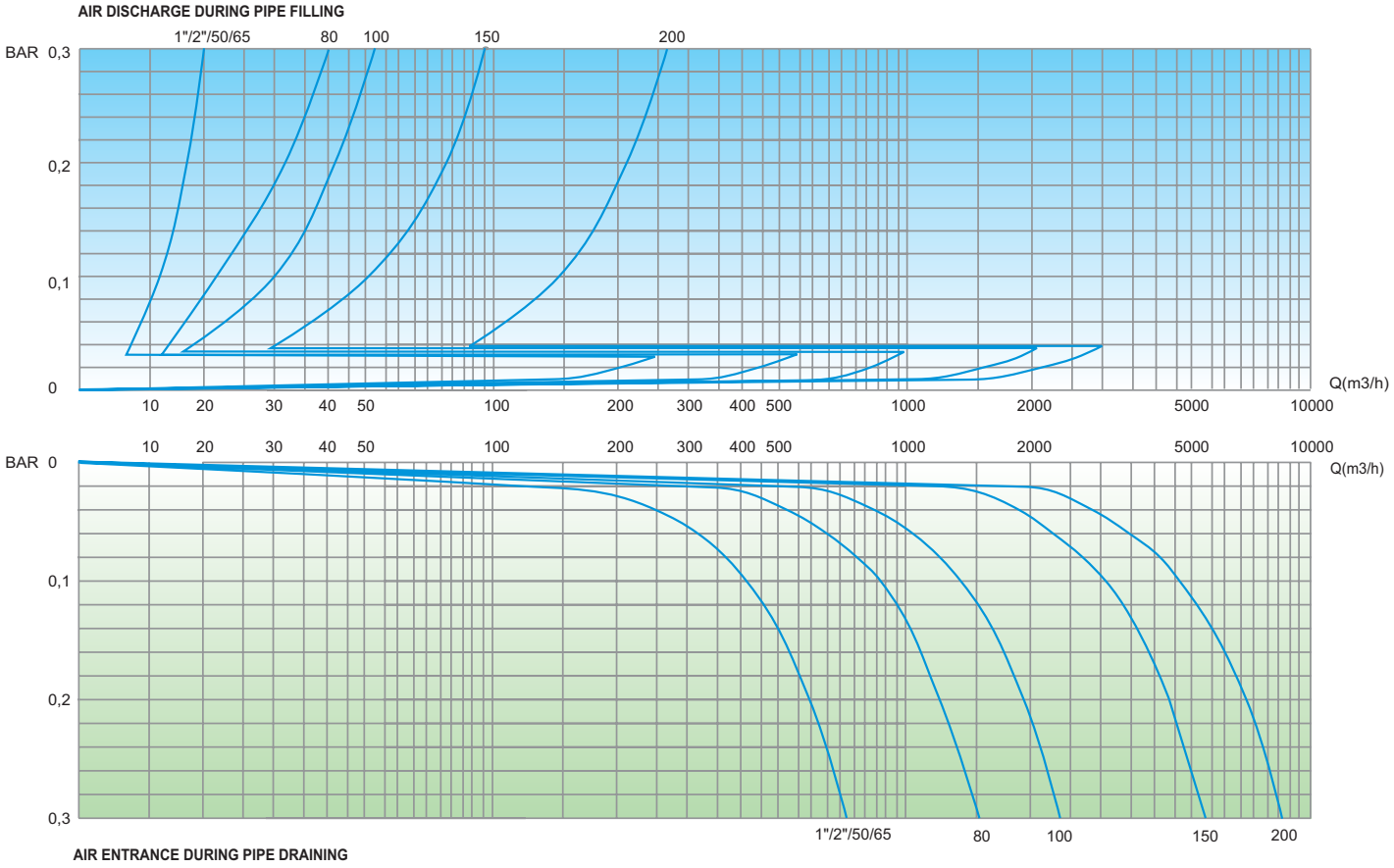
1) Controlled air discharge
The RFP mechanism is obtained by means of a special upper flat which will reduce the discharged air flow when the differential pressure across the air valve rises above a prefixed level. This will slowdown the air velocity and the approaching water column, reducing the consequent upsurge created by the air valve closure.

2) Entrance of large volumes of air
During pipeline draining or bursting phases the air valve will allow the entrance of as much air as the quantity of out-flowing water to avoid vacuum conditions.

3) Air release during working conditions.
During operation, an air pocket is accumulated in the upper part of the valve, little by little it is compressed and its pressure arrives to water pressure, its volume increases pushing the water downwards. Following Archimedes's principle the float, no longer sustained by water thrust, will fall down to free the nozzle hole helping the release of the air pocket, while the RFP flat will keep the main orifice closed due to internal pressure.

For air flow performances of GOLIA 3F - RFP please refer to the chart depicted on the next page.

Air flow performance charts.

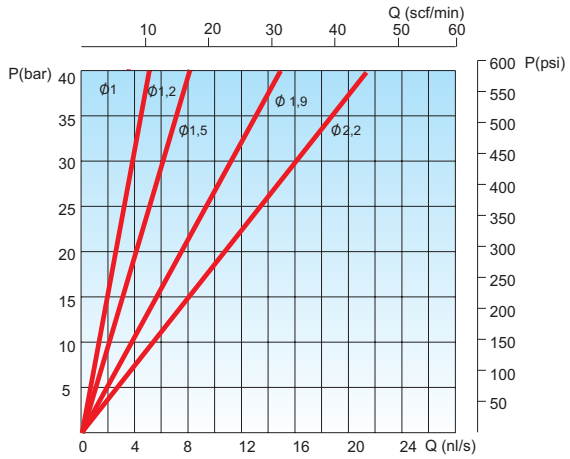


Working conditions

Potable water 70°C Max; Minimum pressure 0.5 bar

Technical features

Body, cap and flanges completely made in stainless steel AISI 316/304
Mesh in stainless steel AISI 304
Seat in stainless steel AISI 304/316
Upper flat in polypropylene
Nozzle in stainless steel AISI 316
Float in polypropylene
RFP flat in polypropylene
Nuts and bolts in stainless steel
Gaskets in NBR
Drainage valve in stainless steel.



EXECUTION	A	B	C	D	Weight Kg.
Threaded 1”	165	240	=	CH45	3,3
Threaded 2”	165	240	=	CH75	6,4
Flanged 50	165	240	40	=	8,0
Flanged 65	185	240	40	=	8,0
Flanged 80	200	265	50	=	12,0
Flanged 100	235	334	50	=	17,0
Flanged 150	300	440	70	=	45,0
Flanged 200	360	515	70	=	62,0