



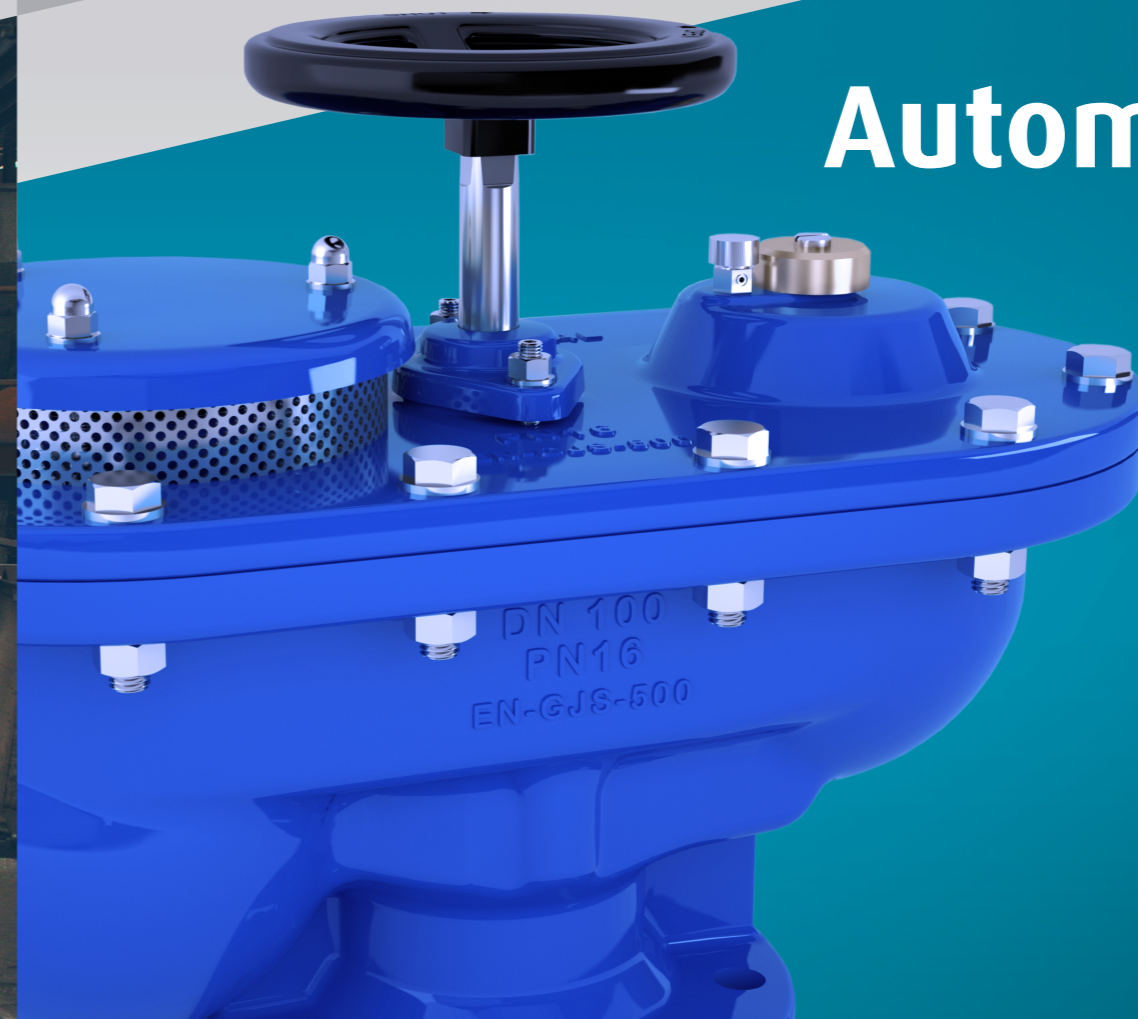
**FUCOLI-SOMEPAL**  
offers three  
different models  
of air valves for  
potable water  
systems, the  
single, double  
and triple function  
air valves.



**Fucoli Somepal**  
FUNDIÇÃO DE FERRO, S.A.

SEIT  
SINCE 1946

# Automatic Air Valves



## CONTROL OF THE ENTIRE PRODUCTION PROCESS

The two Fucoli-Somepal factories are located in Portugal, where is controlled the entire production process ensuring a constant quality of its products. The selection of raw materials sources is rigorous and careful. All raw materials before received are analyzed in our laboratory.

Using a modern automatic pouring system, all products are manufactured in ductile cast iron EN-GJS-500-7 (GGG50).

The mechanization of the products is carried out using the latest CNC Machining technologies.

## CORROSION PROTECTION

All products has an internal and external excellent corrosion protection. The coating quality is controlled according to the requirements of DIN 30677 and GSK (RAL-GZ662).

Fucoli-Somepal has three coating systems - robotic, automatic and semi-automatic - which is electrostatically applied epoxy coating with a minimum thickness of 250µm.



[www.fucoli-somepal.pt](http://www.fucoli-somepal.pt)

**Fucoli Somepal - HEAD OFFICE**  
Apartado 467 - Coselhas  
3001-906 Coimbra | Portugal

Tel +351 239 490 100  
Fax +351 239 490 199  
E-mail [sede@fucoli-somepal.pt](mailto:sede@fucoli-somepal.pt)

**Fucoli Somepal - BRANCH OFFICE**  
Apartado 4 - Rua de Aveiro, 50  
3050-903 Pampilhosa | Portugal

Tel +351 239 490 100  
Fax +351 231 949 292  
E-mail [filial@fucoli-somepal.pt](mailto:filial@fucoli-somepal.pt)

PT | EN | DE

[www.fucoli-somepal.pt](http://www.fucoli-somepal.pt)



## AUTOMATIC AIR VALVES

FUCOLI-SOMEPAL offers three different models of air valves for potable water systems, the single, double and triple function air valves.

The correct air valve use provides protection from transit pressures and entrapped air in pipelines, the main causes for the bursting, collapsing, and fracturing of pipelines. These negative effects on the pipeline assets can be directly associated with reduced pipeline efficiency, premature failure and reduced whole life costs.

### SINGLE FUNCTION AIR VALVE SERIES WIND

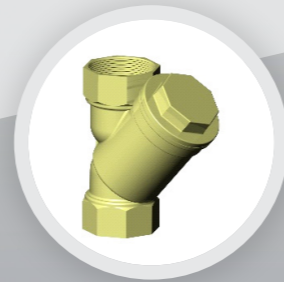
This model has known also as a small orifice air valve or automatic air valve. Its function is to automatically releases small pockets of accumulated air while the pipeline operates under pressure.

The single function air valve developed by Fucoli-Somepal is available with flanges pattern with two multidiameter flanges one for DN 40/50/60/65 and the other for flanges DN 80 /100, or with threaded pattern from ¾" to 2".



The Series WIND air valves incorporate a isolating valve to allow an easy disassembly for maintenance in under pressure and a purge valve which allows verification of the correct work of the air valve, through the exit of water when it's opened.

In order to guarantee the greatest durability and efficacy of air valve Fucoli-Somepal has filters which recommend to avoid the presence of solid debris and guaranteeing correct work of the air valve.



### DOUBLE FUNCTION AIR VALVE SERIES DOUBLE WIND

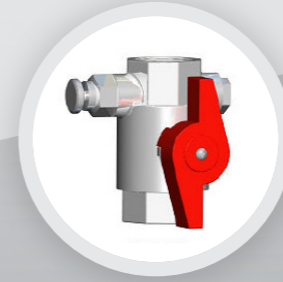
This model has known also as a air/vacuum air valve. Its function is to exhaust a significant quantity of air during pipeline filing and admit a large amounts of air when the internal pressure drops below atmospheric.

The model developed by Fucoli-Somepal allows the evacuation, degasification and admission of air in a pipe. Is available with with two multidiameter flanges DN 40/50/60/65 and the other for flanges DN 80 /100, or with threaded pattern from ¾" to 2".

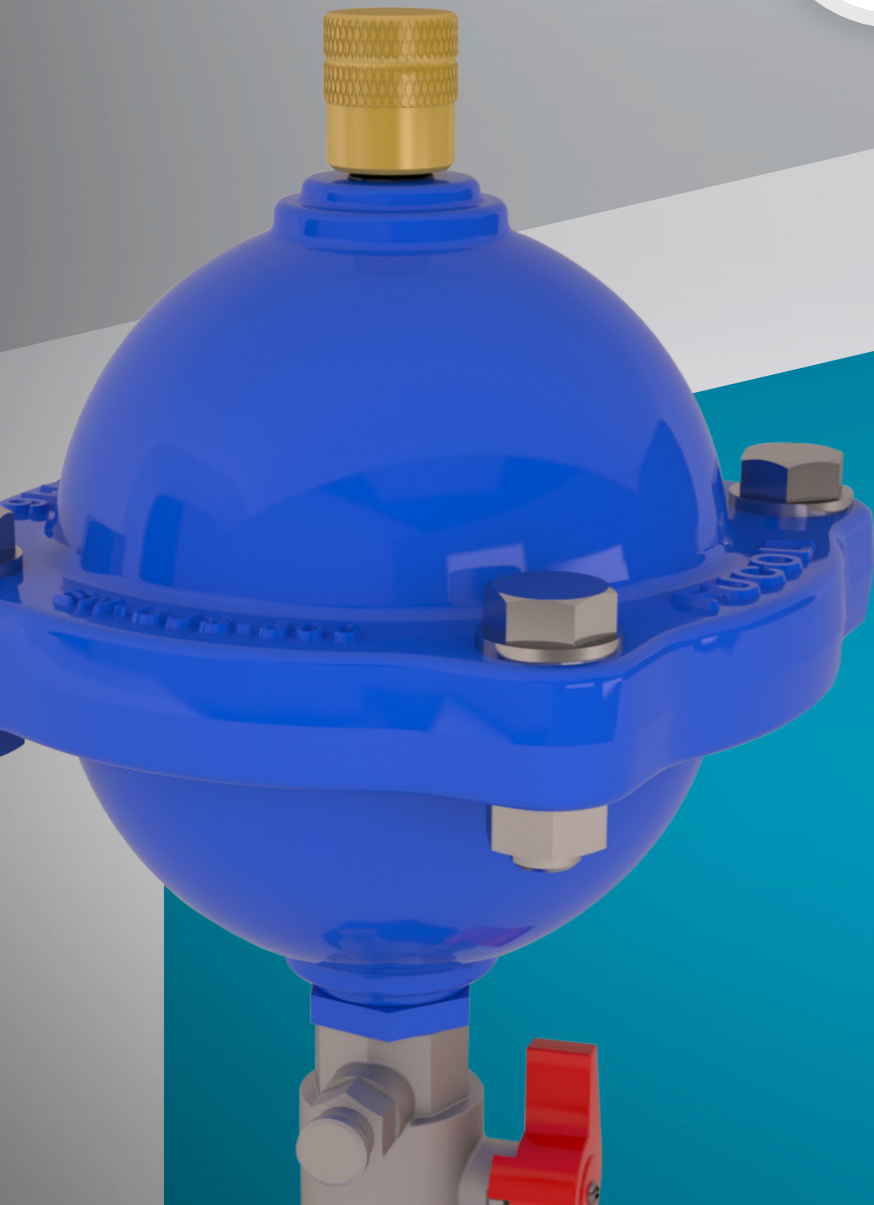


These features are achieved by the controlled nozzle evacuation method with obturator inserted which is activated by the movement of the float allowing the evacuation and admission of a small or medium debit in pipes of up to DN 350.

The Series DOUBLE WIND air valves incorporate a brass isolating valve to allow an easy disassembly for maintenance in under pressure and a purge valve which allows verification of the correct work of the air valve, through the exit of water when it's opened.



In order to guarantee the greatest working durability and efficacy of the double function air valve, Fucoli-Somepal has filters which recommend to prevents the presence of solid matter and guaranteeing normal functioning of the air valve.



### TRIPLE FUNCTION AIR VALVE

The triple function air valve designed by Fucoli-Somepal has a body with two compartments, the main one and the auxiliary, each one containing a spherical float in their inside.

This air valve discharge or intake large volumes of air when filling or emptying a system.

During normal pipe functioning, the water compresses the main compartment float against the seat, thus impeding the air exit and ensuring water tightness.

The seal made by the auxiliary compartment float is done at a higher level to the main compartment, guaranteeing the evacuation of the remaining air formed in the pipe and which accumulates at the high points. Thus, however little volume of air which forms in the pipe, it will be eliminated. During pipe compartment float lowers and allows the air entry to avoid its collapse.

#### Function of the triple function air valve:

- Expels the air displaced by the water during the pipe filling;
- Allow the admission of sufficient quantity of air during the pipe emptying, in order to avoid pipe collapse by contraction;
- Expels automatically air formed in the pipe during normal functioning;
- The triple function air valve is available in flange pattern from DN 50 to DN 200, which is approximately in relevance to the requirements for pipelines up to DN 1200mm. The choice of most appropriate air valve for each pipe is made based on its capacity of release/admission of air
- The triple function air valve developed by Fucoli-Somepal is equipped with an isolating valve, allowing the air vlave maintenance under service.