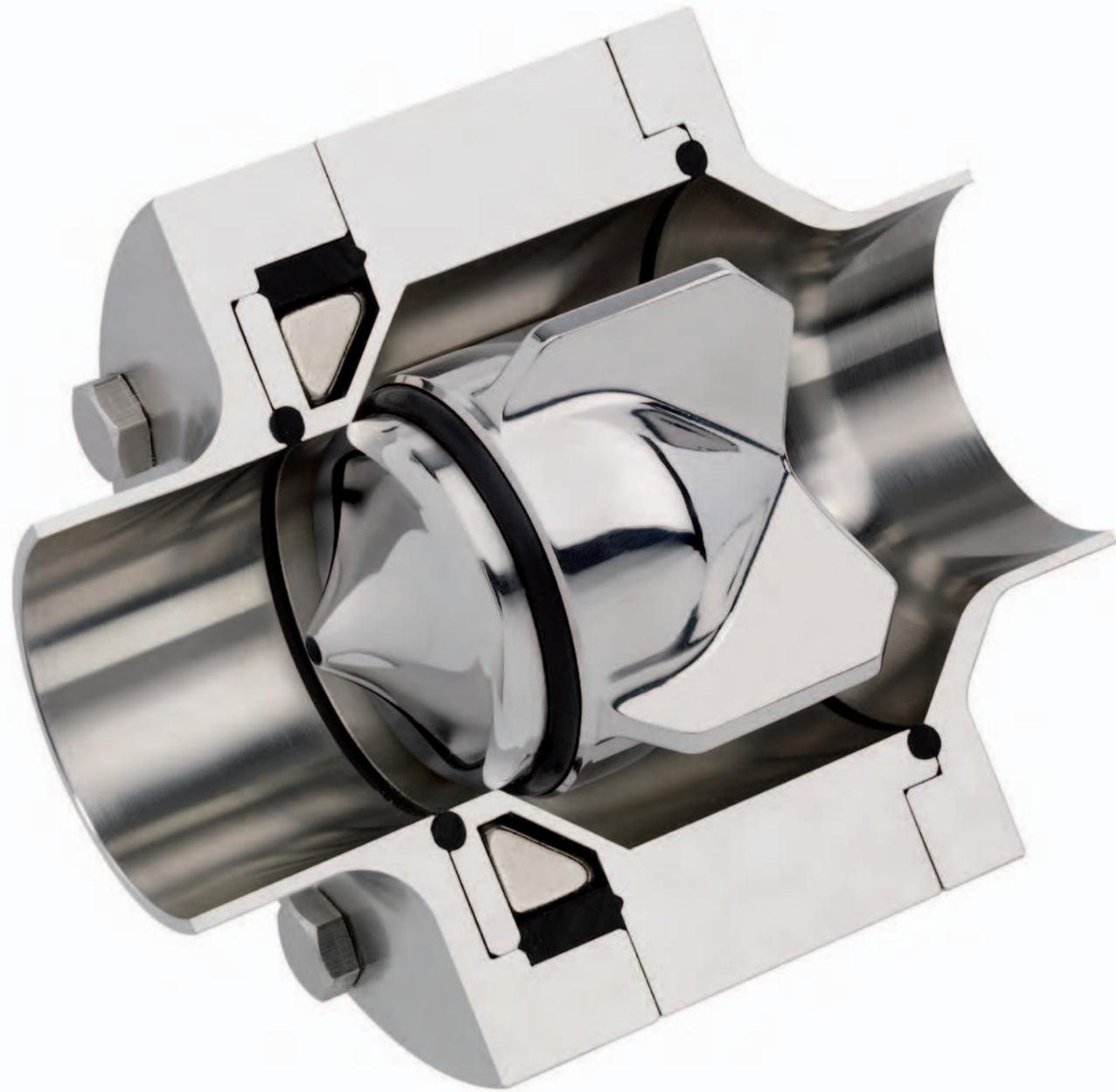


-  CHEMICAL
-  PHARMACEUTICAL
-  FOOD
-  COMPRESSED AIR
-  OIL & GAS
-  SPECIAL APPLICATION



EDF NON RETURN VALVE FOR APPLICATIONS IN CHEMICAL, PHARMACEUTICAL AND FOOD

# "What doesn't exist, can't get dirty... can't break"



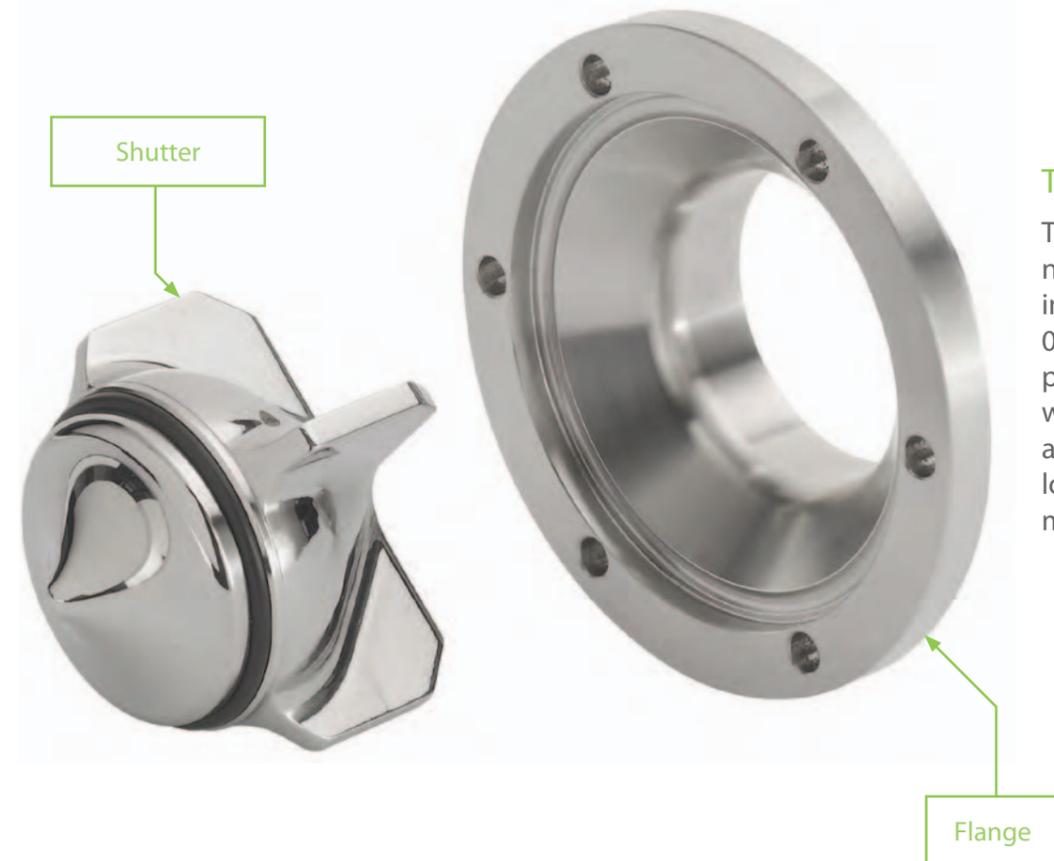
## EDF non-return valve

YGROS, which in Greek means fluid and flowing, bases itself on the desire to introduce innovation and simplicity to the world of non-return/unidirectional valves.

The YGROS valve is based on the application of an external magnetic field to interrupt the back flow inside a pipe, by means of a shutter.

This innovative idea guarantees a level of sterility which no other classic spring system can reproduce. As a matter of fact, using a system which excludes and completely substitutes the use of the classic spring, and by consequence any con-

tact with the treated fluids, so total hygiene is guaranteed. No point of stagnation exists inside the valve body, and the fluids only make contact with material which has high chemical resistance.



## Technical features

The differential pressure needed to open the valve in a horizontal position is 0.05 bar; this differential pressure tends to zero when the valve is open and therefore operational losses of energy are almost zero.

## Working principle

The YGROS EDF non-return valve opens when the inflow pressure exceeds that of the outflow and magnetic field pressure combined. The valve closes when the difference in pressure ceases. A higher backpressure pushes the valve shutter against the seal.

The major difference between a traditional unidirectional spring valve and the innovated YGROS

EDF valve is in the resistance which the shutter offers to the passage of the fluid.

While a traditional spring valve, when open, offers the maximum resistance to the fluid, because the spring is at maximum compression, the YGROS EDF valve shutter offers a minimum resistance to the fluid, because it is far from the magnetic field and therefore has a minimal closing force.

## Advantages

### ENERGY LOSS / ENERGY SAVING

The YGROS EDF valve allows a very smooth fluid flow with consequent minimal energy loss.

### LAMINAR FLOW

All the designed features of the shutter and the valve body are aimed at optimizing the flow and reducing turbulence to a minimum.

### HYGIENE

Only the shutter comes in contact with the fluid while the valve is working, so there are no points of stagnation.

### CHEMICAL CORROSION

The YGROS EDF valve components which are in contact with the fluid are made of stainless steel suited to the process type, in particular the external body and the two connecting flanges are in AISI 304 or AISI 316, while the shutter is in DUPLEX: a special inoxidable material with ferromagnetic characteristics.

### POSITION

The YGROS EDF valve can be mounted in any position.

## Characteristics

### VALVE MATERIALS

- AISI 304, AISI 316L, DUPLEX

### FINISHING SURFACES

- Internal surfaces Ra<0.8, Ra<0.4
- External surface Ra<1.2, Ra<0.8, blasted with microspheres of glass or ceramics, electro-polished

### FLANGES

- DIN 11851
- Welding DIN 11851
- Clamp
- Welding Tri clover ASME BPE

### O-RING

- EPDM, NBR, FPM (Viton), Silicone, FEP



**Gillain & Co**  
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