

## MULTIPLE DIVERTER DAMPER

The DI model is a multiple diverter damper, a valve in a T shape which allows the flow from an inlet to be diverted to one or two outlets, for assembly between flanges on gas conduit systems. The ORBINOX standard multiple diverter model is designed for operation at pressures of 100 mbar, with recommended speeds of 30 m/s and temperatures of 600°C.

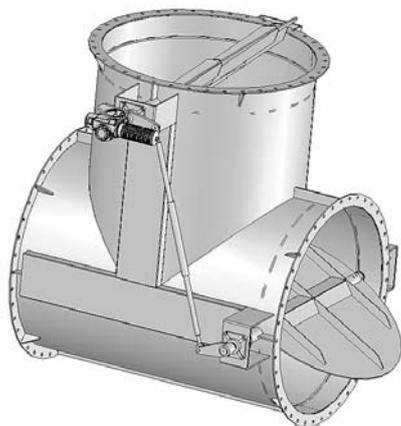
It is a relatively air tight valve with a closing degree of between 90% and 99% which can reach 100% if an air sealing system is included (see DI3).

The standard model of these multiple diverter dampers is designed so that the assembly is carried out in such a way that the drive shafts always remain in a horizontal position, although there is an option of assembly with the shafts in a vertical position on request.

### STANDARD MULTIPLE DIVERTER DAMPER (DI)

#### Description

The multiple diverter damper is made up of two discs which rotate around their own shaft, and which are mechanically joined in such a way that when one route is open, the other closes. The multiple diverter damper is normally supplied as a single part, except for applications in which the dimensions of the unit require special transport.



#### Construction

The body of the multiple diverter damper is a fabricated construction which can be made of different materials. The standard construction

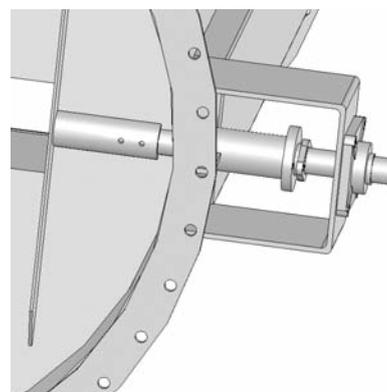
range includes diameters ranging from 150 mm (minimum) to 2000 mm although, on request, larger sizes can be constructed.

Multiple diverter damper discs are constructed flat with reinforcing ribs and are supported on two semi-shafts. The flat disc system is sufficiently rigid for the operational pressures of these valves and does not cause significant losses.

#### Seal design

Multiple diverter dampers have two types of seal design. Depending on the application, the options are: swing-thru (closure from 90 to 97%) for environments with dust concentrations (less than 1000 mg/Nm<sup>3</sup>); and the step seat (closure of 99%) suitable for other applications requiring a high level of air tightness.

#### Bearings



**ORBINOX** supplies its multiple diverter dampers with the bearings situated on the outside and separated from the packing. This enables it to be kept away from sources of heat and corrosion, thus lengthening its useful life. This system also allows for the changing of the packing without having to remove the bearing, which will make future maintenance tasks easier.

#### Insulation

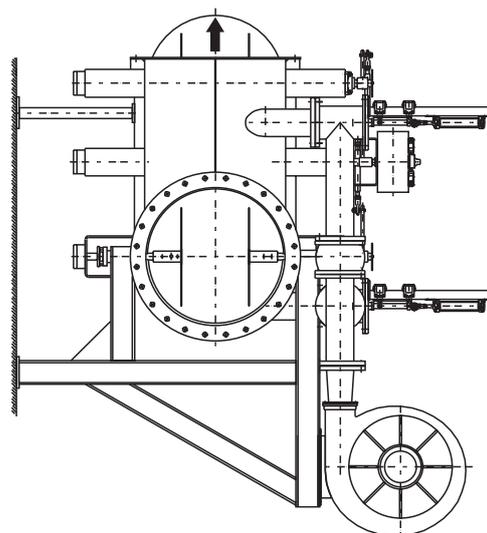
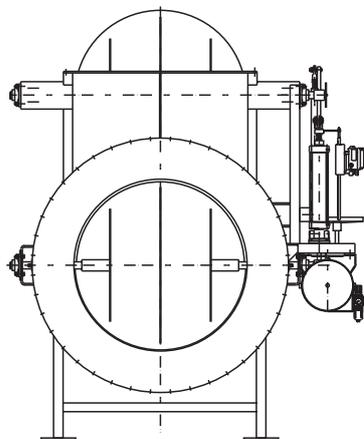
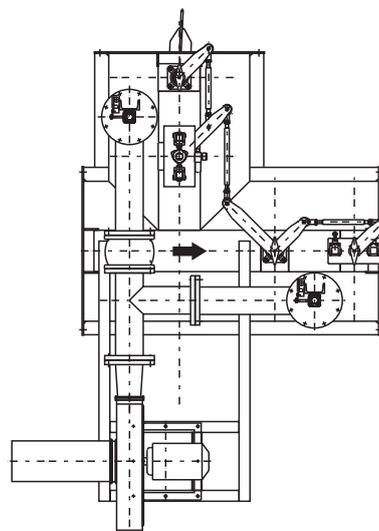
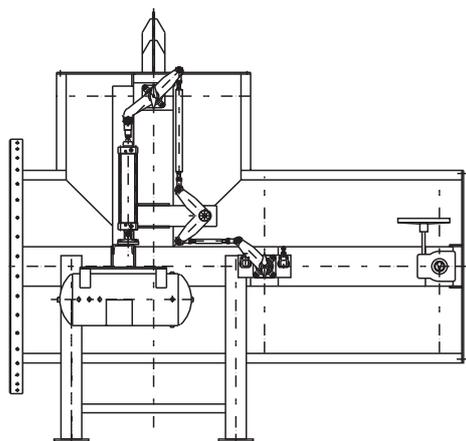
**ORBINOX** supplies its valves prepared for an outer insulation of 200 mm. In order to change bearings and packings in the future without the need to remove said insulation, a space has been left free.

## MULTIPLE DIVERTER DAMPER WITH BUTTERFLY (DI2)

### Description

The multiple diverter damper with an incorporated butterfly is made up of a multiple diverter which has an independent disc incorporated in one of its conduits forming a multiple diverter damper unit plus a butterfly which saves space and joint flanges.

It has the following actuators: on/off pneumatic actuator, pneumatic actuator with regulation, and electric actuator. The sealing system is made up of an electroventilator, a sealing valve, a dilation compensator and a sealing pipe. The other characteristics are the same as those of multiple diverter damper without sealing system.

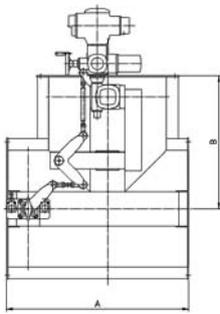


## MULTIPLE DIVERTER DAMPER WITH SEALING SYSTEM (DI3)

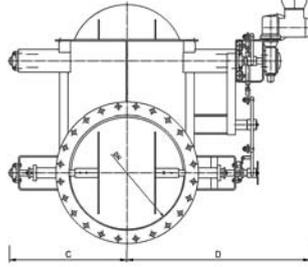
### Description

The DI3 model with sealing system is made up of a distributor which has two discs that are activated at the same time by a single actuator system. The seal is created in the conduit between these two discs, injecting ambient air at a higher pressure than that of the gases circulating in the conduits. This guarantees 100% air tightness on the sealed outlet.

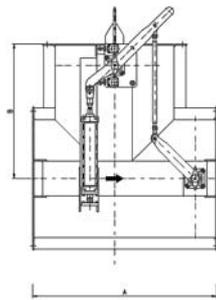
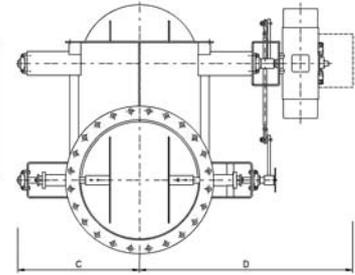
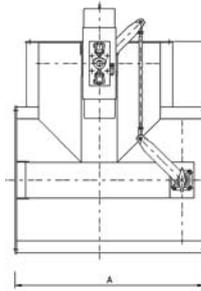
**MODEL****DI**
**ORBINOX**  
 VALVE SOLUTIONS IN MORE THAN 70 COUNTRIES

**APPROXIMATE DIMENSIONS**


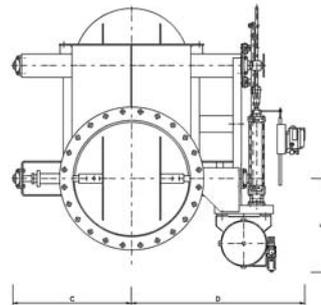
Electric actuator



1/4 turn pneumatic actuator



Linear pneumatic actuator



DN	A	B	C	ELECTRIC D	PNEUMATIC D	PNEUMATIC LINEAR D
200	475	325	500	900	1000	805
250	500	325	530	935	1040	830
300	600	375	555	960	1060	855
350	625	425	580	1000	1190	885
400	750	500	605	1030	1120	915
450	775	550	630	1050	1160	935
500	800	600	655	1070	1080	960
600	950	700	705	1090	1190	1010
700	1100	810	755	1155	1255	1070
800	1200	910	805	1210	1320	1105
900	1300	1010	855	1260	1370	1160
1000	1450	1130	905	1310	1420	1250
1200	1650	1330	1005	1405	1515	1325
1400	1950	1575	1060	1480	1570	1350
1600	2175	1775	1210	1630	1750	1540
1800	2375	1975	1450	1900	2000	1770
2000	2575	2175	1650	2050	2140	1960

We reserve the right to change any data at any time depending on its criteria and without prior notice.

**OBX 02/13 EDITION 3**
**ORBINOX S.A.** Pol. Ind. s/n - 20270 ANOETA - Tel.: +34 943 698030 - Fax: +34 943 653066 - e-mail: orbinox@orbinox.com

**DI-3**
**ORBINOX CANADA, ORBINOX USA, ORBINOX BRAZIL, ORBINOX SPAIN, ORBINOX UK, ORBINOX FRANCE, ORBINOX GERMANY, ORBINOX INDIA, ORBINOX CHINA, ORBINOX S.E.A.**
[www.orbinox.com](http://www.orbinox.com)