DATA SHEET

AXIUS/SRL DOUBLE DISC SERIES

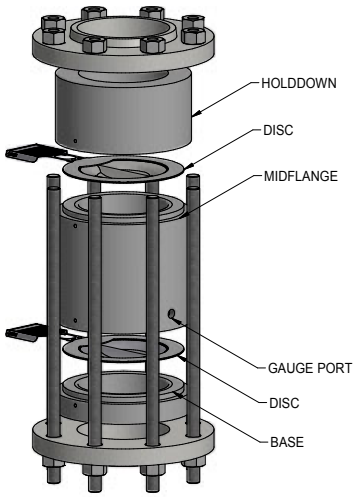

Figure 1: Exploded View of SRL Double Disc Assembly GI

DESCRIPTION

The complete Fike double disc (DD) holder assembly consists of two Axius or two SRL rupture discs installed in a specifically designed holder made of three separate components—the base, midflange and holddown (see figure 1). The Fike GI holder configuration allows for ease of installation and maintenance, with preassembly of the unit on a workbench prior to simple insertion between industry standard companion flanges (see figure 2).

Configurations use Axius or SRL Series rupture discs. As with other rupture disc types there is a wide choice of materials for optimum resistance to corrosive processes. Axius double disc holder assemblies are available in sizes 1 - 12 IN (DN25 – DN300) and burst pressures ranging from 8 - 600 PSIG (.55 to 41.37 BARG).
SRL double disc holder assemblies are available in sizes 1 - 8 IN (DN25 – DN200) and burst pressures ranging from 10 - 320 PSIG (.69 to 22.07 BARG).

APPLICATIONS

One of the most common applications for a double disc assembly is to protect the primary or upstream rupture disc from high back pressure. This condition can occur when multiple rupture disc assemblies, protecting multiple processes, discharge into a common header. If one rupture disc assembly bursts, the resulting discharge into the common header could subject the remaining rupture disc assemblies to a transient elevated back pressure condition potentially affecting the performance of the safety system. The standard Axius and SRL DD assemblies are designed for one atmosphere back pressure capability. Consult the factory if a back pressure resistance greater than one atmosphere is required.

To insure proper operation of any double disc assembly, the mid-flange must be equipped with a means to guarantee the space between the primary and secondary discs remains at atmospheric pressure. Pressure must not be allowed to accumulate above atmospheric pressure in the mid-flange volume as this will result in a significant increase in inlet pressure necessary to cause the primary disc to rupture, thereby compromising the safety of the system.

Environments involving corrosive, toxic or valuable media may be acceptable applications for the double disc assembly. A double disc assembly can help contain any leakage through the primary disc (caused by fatigue, Sulfide stress cracking, or corrosion) which will be captured by the secondary disc. In addition to maintaining atmospheric pressure in the mid-flange volume, it is recommended that a sensing device is installed in the mid-flange capable of providing immediate notice that replacement is needed should leakage develop though the primary disc. When leakage is detected, immediate disc replacement is required. The double disc design is not intended to provide redundant or extended service life under these conditions.

For more information on proper uses for Double Disc Assemblies, please reference Fike bulletin TB8108

APPROVALS:

- ASME
- CE Marked

ASME UD

CE

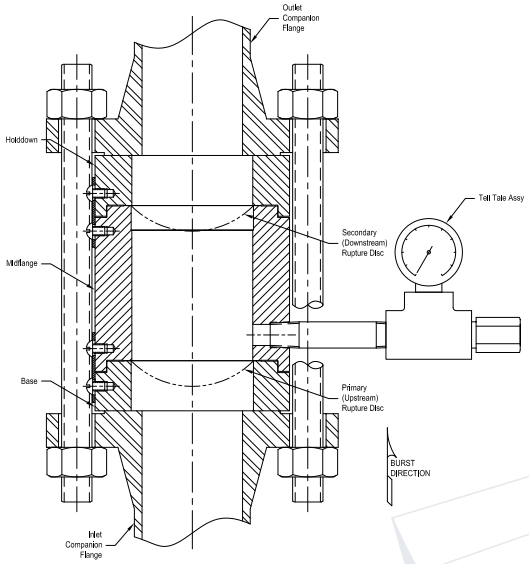

Figure 2: Double Disc GI Installed

Form No. R.1.51.01-1

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AVAILABLE ASME CERTIFIED BURST PRESSURES FOR AXIUS DD IN PSIG @ 72 °F (BARG @ 22°C):

		316/316L SST		Hastelloy® C276	
		Max Temp: 900°F (482°C)		Max Temp: 900°F (482°C)	
IN	DN	Min. BP	Max. BP	Min. BP	Max. BP
1 [2]	25	10 (0.69)	525 (36.20)	12 (0.83)	600 (41.37)
1.5	40	8 (0.55)	385 (26.54)	8 (0.55)	385 [1] (26.54)
2	50	8 (0.55)	385 (26.54)	8 (0.55)	470 (32.41)
3	80	7 (0.48)	325 (22.41)	7 (0.48)	430 (29.65)
4	100	7 (0.48)	285 (19.66)	7 (0.48)	300 (20.69)
6	150	8 (0.55)	200 (13.79)	8 (0.55)	200 (13.79)
8	200	8 (0.55)	150 (10.34)	8 (0.55)	140 (9.65)
10	250	8 (0.55)	100 (6.89)	8 (0.55)	90 (6.21)
12	300	8 (0.55)	70 (4.83)	8 (0.55)	60 (4.14)

Notes:

1. 385 PSIG (26.54 BARG) is the maximum burst pressure rating with a 316/316L SST ring. 200 PSIG (13.79 BARG) is the maximum burst pressure rating with a Hastelloy® C276 ring.
2. 1" (DN25) size not suitable for liquid systems at burst pressures less than 65 PSIG (4.48 BARG) with an inlet piping length greater than 10" (25 cm)
3. ASME certification not available for products with fluoropolymer liners or Teflon® coatings.

AVAILABLE ASME CERTIFIED BURST PRESSURES FOR SRL DD IN PSIG @ 72 °F (BARG @ 22°C):

		316/316L SST		Inconel® 600		Nickel 200/201		Hastelloy® C276	
		Max Temp: 900°F (482°C)		Max Temp: 1100°F (593°C)		Max Temp: 800°F (427°C)		Max Temp: 900°F (482°C)	
IN	DN	Min. BP	Max. BP	Min. BP	Max. BP	Min. BP	Max. BP	Min. BP	Max. BP
1	25	50 (3.45)	275 (18.97)	50 (3.45)	155 (10.69)	30 (2.07)	85 (5.86)	60 (4.14)	320 (22.07)
1.5	40	50 (3.45)	275 (18.97)	50 (3.45)	155 (10.69)	30 (2.07)	85 (5.86)	60 (4.14)	320 (22.07)
2	50	25 (1.72)	230 (15.86)	25 (1.72)	180 (12.41)	18 (1.24)	75 (5.17)	45 (3.10)	265 (18.28)
3	80	22 (1.52)	190 (13.10)	22 (1.52)	150 (10.34)	15 (1.03)	60 (4.14)	40 (2.76)	200 (13.79)
4	100	20 (1.38)	180 (12.41)	20 (1.38)	150 (10.34)	12 (.83)	50 (3.45)	35 (2.41)	160 (11.03)
6	150	18 (1.24)	150 (10.34)	18 (1.24)	150 (10.34)	10 (.69)	50 (3.45)	32 (2.21)	115 (7.93)
8	200	17 (1.17)	135 (9.31)	17 (1.17)	130 (8.97)	10 (.69)	70 (4.83)	30 (2.07)	115 (7.93)

Note: 1.5" SRL rupture disc requires 1.5" SRL DD Holder Assembly. Other sizes require XL DD Holder Assembly.

XL/XLO DOUBLE DISC ASSEMBLY HEIGHTS

Size (IN)	XL Assy Height	XLO Assy Height
1 DN25	4.38 (111.3)	4.13 (104.9)
1.5 DN40	5.50 (139.7)	4.75 (120.7)
2 DN50	6.19 (157.2)	5.25 (133.4)
3 DN80	8.13 (206.5)	6.44 (163.6)
4 DN100	10.13 (257.3)	8.01 (203.5)
6 DN150	13.19 (335.0)	9.94 (252.5)
8 DN200	17.13 (435.1)	12.57 (319.3)
10 DN250	21.50 (546.1)	15.94 (404.9)
12 DN300	25.81 (655.6)	19.19 (487.4)

Notes:
- *1.5 IN SRL assembly height 4.31 IN (109.5 mm)*
- *1.5 IN SRLO assembly height 4.09 IN (103.9 mm)*

HOW TO SPECIFY

Previous Lot Number:	
OR	
Size:	
Burst Pressure	
Flange Rating:	
Disc Material:	
Material:	Base: Midflange: Holddown:
ASME Certification:	Yes/No
Back Pressure Requirement:	
Midflange Gauge Tap (IN):	Size: 1/4, 1/2 Qty. (minimum 1 ea.):
Optional Accessories:	Burst Indication, Jackscrews, Telltale Assembly, Studs & Nuts, Nipple Tee Set, Excess Flow Valve, J-Hook

Form No. R.1.51.01-1, December 2013. Specifications are subject to change without notice.