

# CLEAN-SWEEP®

RUPTURE  
DISC  
ASSEMBLY

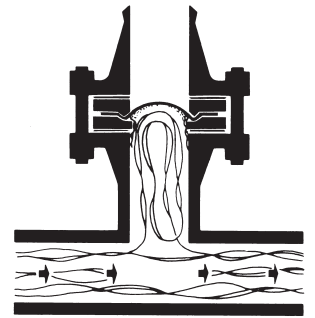


The CLEAN-SWEEP Rupture Disc Assembly provides overpressure relief protection for viscous media processes, particularly where product build-up in a piping system may cause excessive overpressure conditions.

For many years, pipe tees were used in process lines with the rupture disc assembly installed off the leg of the tee. However, viscous product build-up could affect the proper operation and accuracy of the rupture disc.

The CLEAN-SWEEP Assembly is designed to eliminate the dead space of a pipe tee assembly, as well as the pressure, temperature and material availability limitations caused by older, diaphragm valve body-based designs.

The CLEAN-SWEEP Rupture Disc Assembly permits the rupture disc to be installed directly on the body casting, adjacent to the process flow. Compared to other designs, it requires fewer joints to be sealed and greatly reduces the possibility of product build-up (dead space) under the rupture disc.



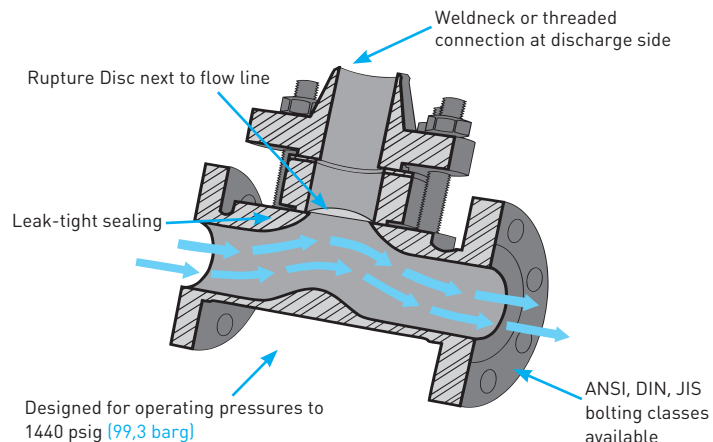
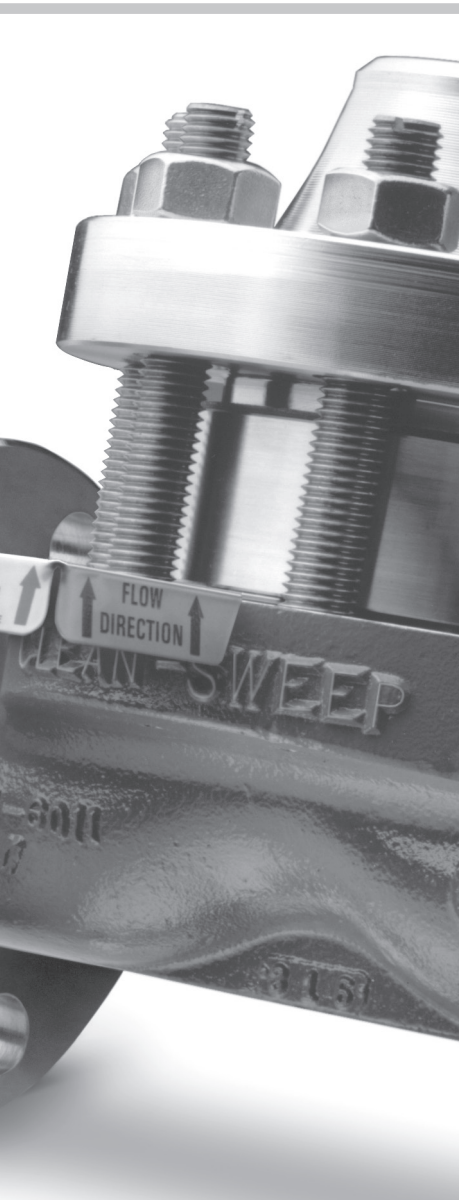
Designed for operating pressures up to 1440 psig (99,3 barg), the CLEAN-SWEEP Assembly is custom machined to bolting classes of ANSI, DIN, JIS or as specified by the customer. Alignment pins in the assembly inlet provide correct rupture disc orientation during installation. Once installed, the 3-Dimensional Flow Direction Tag, which is permanently attached to the rupture disc, is a visual reference that the rupture disc will discharge in the intended flow direction.

The CLEAN-SWEEP Assembly body is available in standard materials of 316 Stainless Steel, MONEL®, or HASTELLOY C®. The rupture disc holder outlet and outlet companion flange are available in materials of Carbon Steel, MONEL®, INCONEL®, Nickel, 316 Stainless Steel or HASTELLOY C®.

A permanently attached nameplate with flow direction indication is supplied on the CLEAN-SWEEP assembly. Whenever specific identification tagging is required, a stainless steel customer identification tag is permanently attached at no extra charge.

There are two CLEAN-SWEEP Rupture Disc Assemblies to choose from:

- > (CU) CLEAN-SWEEP
- > (CR) CLEAN-SWEEP



## Rupture Disc Compatibility

The CLEAN-SWEEP assembly is designed to house either a Composite (CF) or MICRO X® (CF) Rupture Disc, both of which have a flat seat configuration.

Besides a full, instantaneous opening, the Composite and MICRO X® rupture discs provide many outstanding features:

- Excellent corrosion resistance
- Wide range of burst ratings
- Smooth surface against the process media
- Excellent for use in gaseous or liquid service
- 80% operating-to-burst-pressure ratio
- Non-fragmenting design (applicable to all MICRO X® Rupture Discs and to Composite Rupture Discs supplied with a non-metallic seal)

MICRO X® (CF) Rupture Disc



Composite (CF) Rupture Disc



### Sizes

The MICRO X® and Composite flat seat rupture discs manufactured for use with the CLEAN-SWEEP assembly are available in nominal sizes ranging from 1" to 6" [25-150mm]. Refer to the UNISERT® Assembly brochure for the minimum and maximum burst pressures.

### Liners/Coatings

Continental Disc Corporation offers both protective liners and coatings to provide additional protection from the effect corrosives or product build up might have on the performance of the rupture disc. Typically, liners are made of a fluoropolymer. Fluoropolymer coating is also used.

### Protective Rings

Protective rings may be used with rupture discs made of thin materials or in instances where delicate liners or seals are used. These rings protect the rupture disc from foreign material in the sealing area where holders may be pitted or corroded from extended use.

### Gaskets

Gaskets may be used to provide additional sealing and to prevent leakage through the seating area of a scratched or pitted holder. They are located on the process side of the rupture disc and are usually manufactured of a fluoropolymer. Other materials are available upon request.

### Vacuum Support


Due to the thinness of some rupture disc materials, it is necessary to support a rupture disc when a system vacuum occurs. Continental Disc Corporation provides vacuum supports for Composite and MICRO X® Rupture Discs that will withstand full vacuum. For back pressure conditions higher than 14.7 psig [1 barg], consult the factory.

### Tagging/Certifications

Every lot of rupture discs manufactured by Continental Disc Corporation is furnished with a BURST CERTIFICATE and permanently attached FLOW DIRECTION TAG stating the manufacturing number, burst rating, temperature rating and any required customer identification information.

### Code Compliance

Continental Disc Corporation will manufacture, temperature test and mark rupture discs in compliance with the requested code. Product may be supplied to ASME Section VIII, DIN, BSI, JIS, ISO, EN or other codes as required.

Continental Disc Corporation has been accredited and is authorized by the ASME Code to utilize the  Code Symbol Stamp for product built in accordance with the requirements of the ASME Boiler and Pressure Vessel Code, Section VIII, Division 1.

### B.D.I.® (Burst Disc Indicator) Alarm System

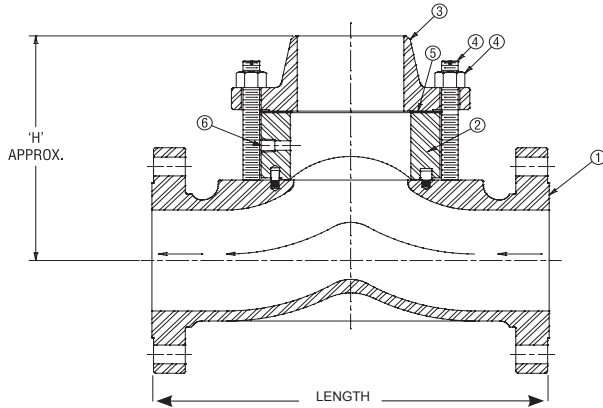
Where immediate notification of pressure relief is required, Continental's B.D.I. (Burst Disc Indicator) Alarm System should be used. Designed for use with Continental's rupture discs, the B.D.I. Alarm System automatically notifies the operator, via audio and/or visual warnings, that a rupture disc has burst. The B.D.I. Alarm Monitor is available with intrinsically safe signal output and is computer compatible.

Compatible with either the MICROX® or Composite flat seat rupture discs, the Universal B.D.I. is an alarm strip attached to a fluoropolymer membrane and assembled between non-asbestos gaskets.



## (CU) CLEAN-SWEEP Assembly

For use with moveable discharge piping arrangements.

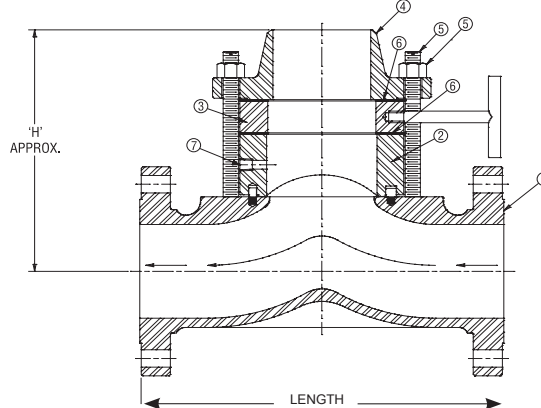


### Component Parts:

1. Body casting
2. Holder outlet
3. Outlet companion flange  
(available in threaded or welded connection)
4. Studs and nuts for outlet bolting
5. Gasket
6. Optional 1/4", 3/8" or 1/2" FPT

## (CR) CLEAN-SWEEP Assembly

For use with fixed discharge piping arrangements.



### Component Parts:

1. Body casting
2. Holder outlet
3. Spacer ring with handle
4. Outlet companion flange  
(available in threaded or welded connection)
5. Studs and nuts for outlet bolting
6. Gaskets
7. Optional 1/4", 3/8" or 1/2" FPT

TABLE 1 // CLEAN-SWEEP Dimensions and Weights

Size*			CLEAN-SWEEP CU						CLEAN-SWEEP CR						Length of Assembly	
			"H" Dimension Without Spacer						"H" Dimension With Spacer							
			Companion Flange Option			Weight			Companion Flange Option			Weight				
inches	mm	Class*	Welded		Threaded		lbs.	kg.	Welded		Threaded		lbs.	kg.	inches	mm
1"	25	150# ANSI	4.28	108,7	2.78	70,6	18	8,2	5.21	132,3	3.71	94,2	20	9,1	8.75	222,3
1"	25	300/600# ANSI	4.78	121,4	3.40	86,4	25	11,3	5.71	145,0	4.33	110,0	27	12,2	8.75	222,3
1"	25	ND10/40 DIN	3.66	93,0	3.19	81,0	20	9,1	4.59	116,6	4.12	104,6	22	10,0	8.75	222,3
1"	25	10/20K JIS	4.28	108,7	2.78	70,6	21	9,5	5.21	132,3	3.71	94,2	23	10,4	8.75	222,3
1"	25	30/40K JIS	4.78	121,4	3.40	86,4	26	11,8	5.71	145,0	4.33	110,0	28	12,7	8.75	222,3
1-1/2"	40	150# ANSI	4.97	126,2	3.47	88,1	28	12,7	5.90	149,9	4.40	111,8	30	13,6	9.00	228,6
1-1/2"	40	300/600# ANSI	5.53	140,5	4.03	102,4	39	17,7	6.46	164,1	4.96	126,0	42	19,1	9.00	228,6
1-1/2"	40	ND10/40 DIN	4.30	109,2	3.79	96,3	33	15,0	5.23	132,8	4.72	119,9	36	16,3	9.00	228,6
1-1/2"	40	10/20K JIS	4.97	126,2	3.47	88,1	30	13,6	5.90	149,9	4.40	111,8	33	15,0	9.00	228,6
1-1/2"	40	30/40K JIS	5.53	140,5	4.03	102,4	41	18,6	6.46	164,1	4.96	126,0	43	19,5	9.00	228,6
2"	50	150# ANSI	6.01	152,7	4.51	119,6	38	17,2	6.94	176,3	5.44	138,2	41	18,6	10.75	273,1
2"	50	300/600# ANSI	6.64	168,7	5.20	132,1	47	21,3	7.57	192,3	6.13	155,7	51	23,1	10.75	273,1
2"	50	ND10/40 DIN	5.40	137,2	4.85	123,2	41	18,6	6.33	160,8	5.78	146,8	44	20,0	10.75	273,1
2"	50	10K JIS	6.01	152,7	4.51	119,6	39	17,7	6.94	176,3	5.44	138,2	41	18,6	10.75	273,1
2"	50	16/20K JIS	6.64	168,7	5.20	132,1	44	20,0	7.57	192,3	6.13	155,7	47	21,3	10.75	273,1
2"	50	30/40K JIS	6.64	168,7	5.20	132,1	47	21,3	7.57	192,3	6.13	155,7	51	23,1	10.75	273,1
3"	80	150# ANSI	7.43	188,7	5.87	149,1	67	30,4	8.61	218,7	7.05	179,1	72	32,7	13.00	330,2
3"	80	300/600# ANSI	8.19	208,0	6.75	171,5	85	38,6	9.37	238,0	7.93	201,4	92	41,7	13.00	330,2
3"	80	ND10 DIN	6.65	168,9	6.26	159,0	72	32,7	7.83	198,9	7.44	189,0	78	35,4	13.00	330,2
3"	80	ND16/40 DIN	6.96	176,8	6.25	158,8	70	31,8	8.14	206,8	7.43	188,7	76	34,5	13.00	330,2
3"	80	10K JIS	7.43	188,7	5.87	149,1	65	29,5	8.61	218,7	7.05	179,1	70	31,8	13.00	330,2
3"	80	16/20K JIS	8.19	208,0	6.75	171,5	79	35,8	9.37	238,0	7.93	201,4	85	38,6	13.00	330,2
3"	80	30/40K JIS	8.19	208,0	6.75	171,5	85	38,6	9.37	238,0	7.93	201,4	92	41,7	13.00	330,2
4"	100	150# ANSI	8.96	227,6	7.27	184,7	106	48,1	10.39	263,9	8.70	221,0	115	52,2	15.00	381,0
4"	100	300 ANSI	9.34	237,2	7.84	199,1	125	56,7	10.77	273,6	9.27	235,5	135	61,2	15.00	381,0
4"	100	ND10/16 DIN	8.01	203,5	7.70	195,6	94	42,6	9.44	239,8	9.13	231,9	102	46,3	15.00	381,0
4"	100	ND25/40 DIN	8.78	223,0	7.95	201,9	107	48,5	10.21	259,3	9.38	238,3	116	52,6	15.00	381,0
4"	100	16/20K JIS	9.34	237,2	7.84	199,1	108	49,0	10.77	273,6	9.27	235,5	115	52,2	15.00	381,0
4"	100	30K JIS	9.34	237,2	7.84	199,1	114	51,7	10.77	273,6	9.27	235,5	124	56,2	15.00	381,0
6"	150	150# ANSI	11.89	302,0	9.95	252,7	127	57,6	14.07	357,4	12.13	308,1	142	64,4	17.00	431,8
6"	150	300# ANSI	12.27	311,7	10.44	265,2	172	78,0	14.45	367,0	12.63	320,8	197	89,4	17.00	431,8

\* For other sizes or classes consult your Continental Disc Representative or the factory.

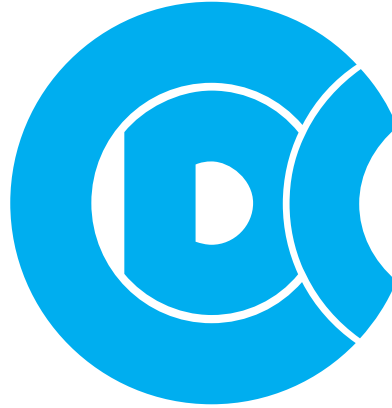


Pressure Equipment Directive  
Available When Specified



ASME Code Symbol Stamp  
Available When Specified

China Manufacture License  
Available When Specified



# Continental Disc® Corporation

**NOTE:** Product parameters are based on United States customary units. Values in metric units are provided for reference only.

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