

### Graphite Bursting Discs for Low to Intermediate Burst Ratings

Graphite Bursting Discs protect equipment and personnel from the effects of over-pressurisation in static and dynamic pressurised systems. The discs are designed to rupture at a predetermined burst rating when installed in a piping system.

#### Impervious Graphite

Each disc is made from a single piece of graphite, a high-purity form of carbon, which is impregnated with phenolic resin. The resulting material, called impervious graphite, is impermeable and resistant to most corrosives.

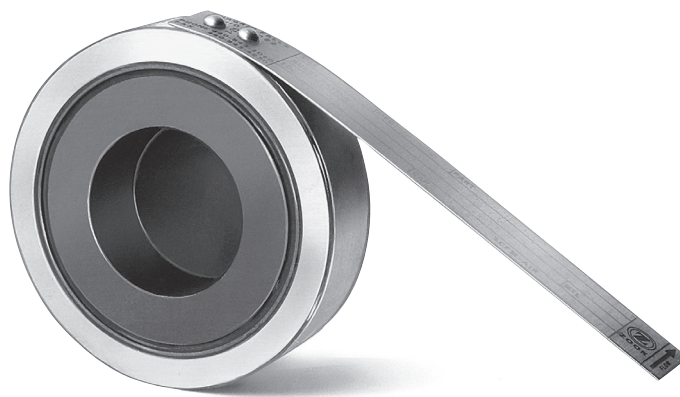
#### Options

Easy to install and maintain, graphite bursting discs are tamper proof, have no moving parts and mount directly between standard flanges without special holders.

A range of options and accessories are available to increase the flexibility of standard discs: TFE coated discs offer stick-resistant surfaces, special gaskets to suit your application and stainless steel armour for increased disc protection. Spacer rings let you replace metal bursting discs without requiring piping modification. For unique applications, our engineering department will work with you to create a custom-design disc.

#### Applications

ZOOK Graphite Bursting Discs enhance safety in chemical, petrochemical, pharmaceutical, food, medical, and related processing systems around the world. Other applications include: storage tanks, tank trailers, rail cars, barges, pressured switchgear, and air conditioning compressors.



#### Features:

- 12mm (½") to 600mm (24") diameter.
- Fits ANSI Class 150 flanges<sup>1</sup>.
- Burst ratings 0.02 barg (0.25 psig) to 10 barg (150 psig).
- 0% manufacturing range.
- Operating pressures to 90% of the disc's marked burst pressure<sup>2</sup>.
- Temperature range -179°C (-290°F) to 220°C (+430°F).
- Insulated Unit extends maximum temperature to 370°C (700°F).
- Counter-bored side of the disc contacts the process media.
- Vacuum Support available for burst ratings below 1.72 barg (25 psig).
- May be configured to withstand high back pressure generated in closed piping systems.
- Most standard sizes and pressure ratings stocked for immediate shipment.

<sup>1</sup> Higher ratings to fit Class 300 flanges are furnished in the INVERTED and DUPLEX Type Discs.

<sup>2</sup> Contact ZOOK for operating ratio for burst pressures below 1 barg (15 psig).



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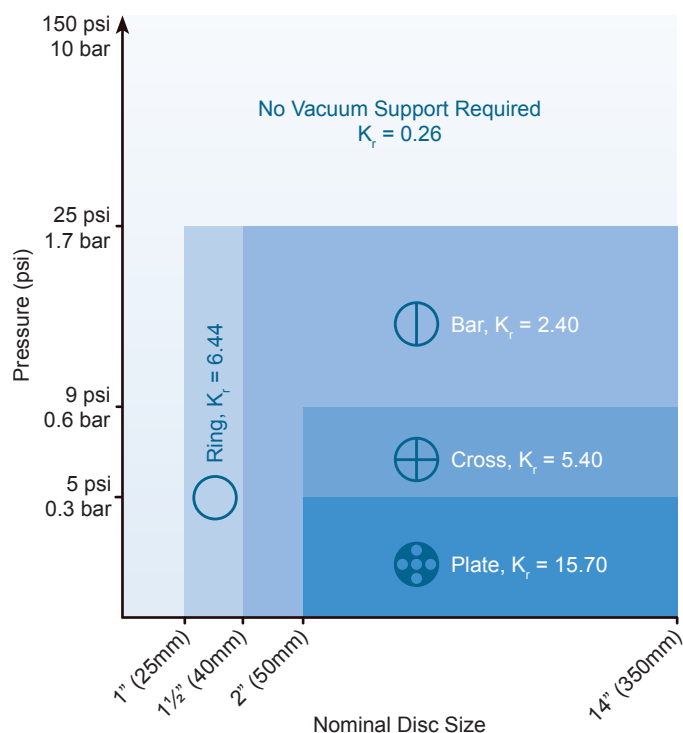
# MONO Graphite Bursting Discs

## Specifications - PN10, ANSI Class 150 & 300

Nominal Disc Size	Minimum Net Flow Area (cm <sup>2</sup> )					Diameter <sup>1</sup> (mm)				Standard Disc Thickness <sup>1</sup> (mm)			Burst Rating (barg)	
	Full Bore	Vacuum Support Style				ID	OD			ANSI 150	ANSI 300	PN10	Min.	Max.
		Ring	Bar	Cross	Plate		ANSI 150	ANSI 300	PN10					
½" (12mm)	1.9	-	-	-	-	16	45	51	51	16	15.9	16	1.72	10.34
¾" (19mm)	3.4	-	-	-	-	21	54	64	61	16	15.9	16	1.72	10.34
1" (25mm)	5	2.8	3.9	3	2.1	25	64	70	71	22	25.4	22	0.69	10.34
1½" (40mm)	11.4	-	8.6	6.8	4.6	38	83	92	92	22	25.4	22	0.48	10.34
2" (50mm)	20.3	-	15.4	12	8.4	51	102	108	107	22	25.4	22	0.48	10.34
3" (80mm)	45.5	-	35.9	27.8	19	76	133	146	142	22	31.8	22	0.13	10.34
4" (100mm)	81	-	68.1	56.8	35.3	102	172	179	162	22	31.8	22	0.10	10.34
6" (150mm)	182.4	-	143.7	111.4	77.7	127	219	248	218	22	44.5	22	0.07	6.89
8" (200mm)	324.3	-	259.7	205.3	136.4	203	276	305	273	29	57.2	29	0.03	6.89
10" (250mm)	506.6	-	345.4	327.6	210.7	254	337	359	328	38		38	0.02	6.89
12" (300mm)	729.6	-	574.8	445.7	304.8	305	406	419	378	51		51	0.02	5.17
14" (350mm)	889.5	-	697.2	537.5	374.6	337	448	482	348	57		57	0.02	3.45
16" (400mm)	1178.4	-	932.4	726.8	545.1	387	511	536	489	64		64	0.02	3.45
18" (450mm)	1507.7	-	1173.9	991.6	672.9	438	546	593	539	70			0.02	3.45
20" (500mm)	1877.6	-	1505.0	1190.5	790.3	489	603	650	594	76		76	0.02	2.76
24" (600mm)	2739.0	-	2289.0	1897.1	1229.7	591	714	701	695	76		76	0.02	1.72

<sup>1</sup> Standard Disc thickness does not include gaskets. Insulated Unit available for high temperature applications. See Datasheet ZEL-INSULATED or consult Zook Europe for details.

## Vacuum Support\* for Full Vacuum Service and Certified Flow Resistance Factor $K_r$



\*Vacuum Support required for discs rated 1.72 barg (25 psi) or less.

## Burst Tolerance

Pressure Rating @ 22°C	Burst Tolerance	
	Standard	Reduced
< 0.069 barg	+ 0.052 barg / - 0	-
0.069 > 0.34 barg	± 0.052 barg	-
0.34 > 0.69 barg	± 0.069 barg	± 0.052 barg
0.69 to 2.75 barg	± 10%	-
> 2.75 barg	± 10%	± 5%

## Typical Installation

