

# EXTRUDER BURST PLUGS

PROTECTING PLASTIC EXTRUDERS - FROM NORTH SHIELDS

**Our leak-tight extruder burst plugs protect plastic extrusion machines from over pressurization**



Our extruder rupture disc plugs are high-performance pressure relief devices primarily designed for overpressure protection of the plastic extrusion process.

Each plug consists of a threaded body with a conventional rupture disc either soldered or welded to the end. The disc sits flush with the extruder's pressure vessel wall, ensuring there are no cavities where product can stagnate and solidify, or cause damage through build-up. The design prevents possible leakage, regardless of pressure and temperature.

Every extrusion application is different, so we offer this component with different combinations of dimensions, thread types and body configurations for a wide range of burst pressures.

<b>Standard Disc Size</b>	5mm
<b>Standard Thread Size</b>	0.5" – 20 UNF
<b>Burst Pressure</b>	103 - 1,034 barg
<b>Operating Ratio</b>	85%
<b>Performance Tolerance</b>	+/- 5%

**Let us help you with all your pressure relief questions.**

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Standard disc sizes*	5mm
Standard thread sizes*	0.5" – 20 UNF
Standard head configurations*	HEX, HEX with 0.25" MNPT, screwdriver slot
Standard burst pressure range	103 barg – 1,034 barg (1,500 psig – 15,000 psig)
Standard Temperature Range	-70°C to 750°C (-94°F to 1,382°F)
Standard materials*	Stainless Steel body, Inconel disc
Maximum Operating Ratio	85% of minimum burst pressure (2.5 barg to 200 barg) (Forward acting disc)
Performance Tolerance	+/-5%
Disc type	Conventional (forward-acting and tension-loaded)
Fragmentation	May fragment
Vacuum Service	Withstands full vacuum (14.7 psi)
Fluid compatibility	Gas and vapour (Liquid – forward acting disc only)
Tamperproof	Yes
Relief Valve Isolation	Suitable for safety relief valve isolation
Leak tightness	Electron-beam welded. Leak checked to 1x10 <sup>-8</sup> cc-atm/sec using helium.
Design Standards	Designed to meet ISO 4126-2:2019 or ASME XIII

\* Others available on request

## Related Products

### Rupture Discs

SDA

Extruder Burst Plugs - also manufactured in Broken Arrow

# Burst Pressure Ranges

Extruder Burst Plugs Min/Max Burst Pressure @ 15-30°C (59-86°F)



NOMINAL DISC BORE 5MM		0.5" UNF ERD disc	
Length (mm)	Length (inches)	MIN barg (psig)	MAX barg (psig)
46	1.8	103barg (1500psig)	1034barg (15,000psig)
76	3.0		
97	3.8		
140	5.5		
152	6.0		
165	6.5		
178	7.0		
203	8.0		
229	9.0		
254	10.0		
305	12.0		

## Free Flow Area / Minimum Net Flow Area (MNFA)

DISC SIZE		MNFA
mm	inches	
5	0.2	18mm <sup>2</sup> on standard designs May vary on specials, refer to quotation



ITEM No.	1	2	3	4	5	6	7	8	9	10	11
DIM 'A' (mm)	46	76	97	152	165	140	178	203	229	254	305
DIM 'A' (in)	1 <sup>11</sup> / <sub>16</sub>	3	3 <sup>11</sup> / <sub>16</sub>	6	6 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	7	8	9	10	12

