

# OE5

## ELECTRON-BEAM WELDED RUPTURE DISC ASSEMBLY

**High-performance rupture disc assembly with a forward acting rupture disc *electron-beam welded directly onto the end of a plug assembly***



OsecoElfab's OE5 electron-beam welded rupture disc assembly affords superior leak-tightness and the highest integrity possible to reduce the risk of premature failure.

It is ideal for applications where it is essential that the process medium is not vented into the atmosphere. Industries the OE5 is typically used in include aerospace, medical, oil and gas, and industrial engineering.

OE5 is simple to install and features a zero-maintenance design. It is available with a range of inlet and outlet thread connections to suit different venting requirements.

<b>Standard disc sizes</b>	3, 5, 7, 10, 15, 25 mm
<b>Standard thread sizes</b>	1/8", 1/4", 3/8", 1/2", 3/4", 1"
<b>Standard thread types</b>	NPT, BSPT, BSPP
<b>Burst Pressure</b>	20 - 1,034 barg
<b>Operating Ratio</b>	85%
<b>Performance Tolerance</b>	+/- 5%
<b>Manufacturing Range</b>	0%

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

**UK office** | North Shields  
+44 (0)191 293 1234 | [uksales@osecoelfab.com](mailto:uksales@osecoelfab.com)

**US office** | Broken Arrow  
+1 (918) 258 5626 | [info@osecoelfab.com](mailto:info@osecoelfab.com)

[osecoelfab.com](http://osecoelfab.com)



# TECHNICAL SPECIFICATIONS



Standard disc sizes*	3mm, 5mm, 7mm, 10mm, 15mm, 25mm
Disc type	Forward acting (tension loaded)
Disc connection to body	Electron-beam welded between onto the end of the plug
Standard thread sizes*	1/8 " , 1/4", 3/8 " , 1/2", 3/4", 1"
Standard inlet thread types*	NPT, BSPT, BSPP (male and others)
Standard outlet thread types*	Baffle or through
Burst pressure range	20 barg – 1,034 barg (290 psig – 15,000 psig)
Temperature range	-70°C to 400°C (-94 to 752°F)
Standard materials*	Disc: 316 Stainless Steel, Nickel Body: 316 Stainless Steel
Max. Operating Ratio	85% of minimum burst pressure (2.5 barg – 200 barg)
Performance Tolerance	+/-5%
Manufacturing Range	0%
Fragmentation	Non-fragmenting designs available
Vacuum Service	Withstands full vacuum (14.7 psi) without separate vacuum support
Fluid compatibility	Forward: Gas service, vapor service, liquid service
Leak tightness	Leak-tight: Helium leak-tested to 1x10 <sup>-8</sup> cc-atm/sec
Design Standards	Designed to meet ISO 4126-2:2019 and PED 2014/68/EU

\*Others available on request

## Certifications

CE

## Related Products

**Sensors**  
OE-Tel

**Rupture Disc  
Plugs**  
OE2  
O4A  
OE6

## Burst Pressure Ranges

OE5 Min/Max Burst Pressure @ 15-30° C / 59-86° F

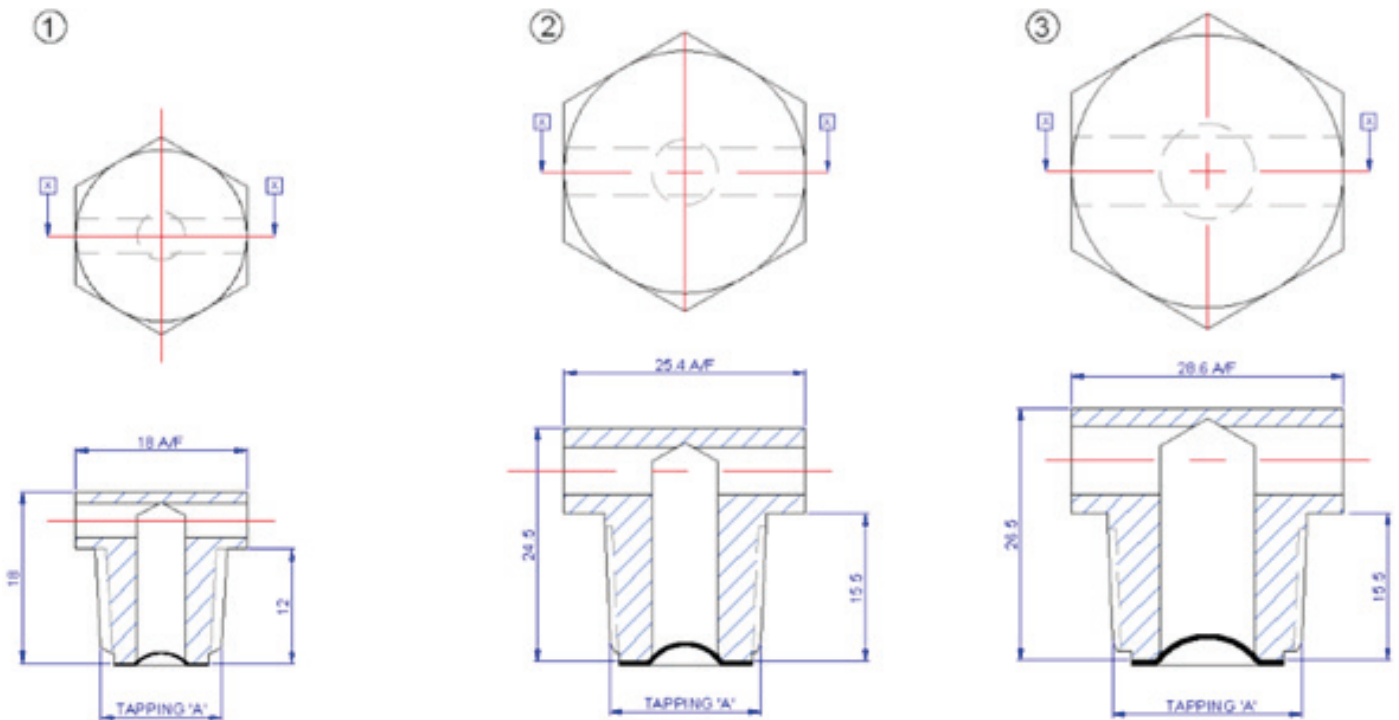


SIZE		DISC MATERIAL*	MIN barg (psig)	MAX barg (psig)
DN (mm)	inches			
3	0.1	316 Stainless Steel Nickel	55 (797.5) 50 (725)	1,034 (15,000)
5	0.2	316 Stainless Steel Nickel	50 (725) 45 (652.5)	1,034 (15,000)
7	0.3	316 Stainless Steel Nickel	45 (652.5) 40 (580)	1,034 (15,000)
10	0.4	316 Stainless Steel Nickel	35 (507.5) 30 (435)	1,034 (15,000)
15	0.6	316 Stainless Steel Nickel	25 (362.5) 20 (290)	1,034 (15,000)

\*All with 316 Stainless Steel plug

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

CONNECTION TYPE/SIZE		MNFA	
inches	DN (mm)	mm <sup>2</sup>	Sq. Inch
1/8"	3	7.07	0.01
	4	12.57	0.02
	5	19.64	0.03
1/4"	6	28.28	0.04
	8	50.27	0.08
3/8"	10	78.55	0.12
	11	95.05	0.14
1/2"	12	113.11	0.18
3/4"	19	283.57	0.44
1"	25	490.94	0.76



Male to baffle (Tapping "A")	Free Flow Area
1/4" BSPP/BSPT/NPT	28.28
3/8" BSPP/BSPT/NPT	78.5
1/2" BSPP/BSPT/NPT	113.11