

# ICD

INTERMODAL CONTAINER RUPTURE DISC  
MANUFACTURED IN NORTH SHIELDS

*The ICD manufactured in North Shields is designed for manufacturers of intermodal tanks and other vessels used to transport dangerous goods.*



The ICD from North Shields is a holderless disc for installation directly between industry-standard flange fittings. The disc meets the international standards required for intermodal tanks and vessels used to transport dangerous goods.

Score lines on the convex side of this forward-acting disc ensure material will not buildup on the media-facing side. The disc is fully lined as standard to prevent contact between the metal and any corrosive media.

The ICD will withstand full vacuum with no additional vacuum support required. The non-fragmenting design offers full bore relief, making the ICD excellent for use in conjunction with safety relief valves.

The disc is self-aligning for failsafe installation, and is supplied as standard with a laser-etched stainless steel tag for full traceability.

<b>Size</b>	32 - 250mm
<b>Burst Pressure</b>	2.07 - 162.4 barg
<b><math>K_R</math> Value (<math>K_{RGL}</math>)</b>	0.68
<b>Operating Ratio</b>	90% of min. burst pressure
<b>Performance Tolerance</b>	+/- 5%
<b>Manufacturing Range</b>	0%

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

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THE ICD**





Size range	32mm (1.25"), 50mm (2"), 65mm (2.5"), 80mm (3"), 250mm (10") Other sizes available on request
Burst pressure range	2.07 barg to 162.4 barg (30 psig to 2,356 psig)
Standard materials	Inlet and outlet rings: 316 Stainless steel Bursting disc: Nickel / 316 Stainless steel Inlet and outlet gaskets: Fluoropolymer
K <sub>R</sub> Value	0.68
Max. Operating Ratio	90% minimum burst pressure (86% nominal burst pressure)
Performance Tolerance	+/-5%
Manufacturing Range	0%
Fragmentation	Non-fragmenting design
Vacuum Service	Can withstand full vacuum (14.7 psi) without separate vacuum support*
Fluid compatibility	Gas service, liquid service
Torque requirements	Not torque sensitive
Cycling or static service	Cycling service
Protective linings	Fully lined with a fluoropolymer liner as standard
Relief Valve Isolation	Suitable for safety relief valve isolation
Design Standards	Designed to meet ISO 4126-2:2019 and PED 2014/68/EU

\*At certain sizes and burst pressures. Contact factory for details.

## Related Products

### Rupture Discs

Tank-Safe

ICD (from Broken Arrow)

CRC

SRC

HP-RC

# Burst Pressure Ranges

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



SIZE		MATERIAL*	MIN barg (psig)	MAX barg (psig)
DN (mm)	inches			
32	1.25	316 Stainless Steel Nickel	18 (261) 6.7 (100)	162.5 (2356) 135 (1957)
50	2	316 Stainless Steel Nickel	12 (174) 2.07 (30)	125 (1813) 100 (1450)
65	2.5	316 Stainless Steel Nickel	2.41 (35) 2.07 (30)	105 (1523) 85 (1233)
80	3	316 Stainless Steel Nickel	2.41 (35) 2.07 (30)	90 (1309) 70 (1015)
250	10	316 Stainless Steel Nickel	3.79 (55) 3.45 (50)	33 (479) 24 (348)

\* Other materials and pressures available on request

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



NOMINAL BORE		MNFA	
DN (mm)	inches	mm <sup>2</sup>	Sq. Inch
32	1.25	512	0.8
50	2	1290	2.01
65	2.5	2112	3.29
80	3	3200	4.99
250	10	31250	48.74

## Burst Tolerance

+/-0.28 barg  $\leq$  2.76 barg  
+/-5% > 2.76 barg

+/-1.45 psig  $\leq$  40 psig  
+/-5% > 40 psig

## K<sub>R</sub> Value (Frictional Loss Factor)

K <sub>R</sub>	ICD
K <sub>RGL</sub>	0.68

