

Uni-Gard (UG)

(previously known as SU/LU/GU)



Uni-Gard is a compression-loaded, scored, reverse bursting disc which has been specifically designed to operate, with increased precision, at very low pressures. The Uni-Gard system incorporates many unique technical features which have been included to help reduce lifetime costs and offer many tangible benefits to the end user.

The Uni-Gard system is provided complete with Elfab's System-Loc to help ensure correct installation and all bursting discs undergo 100% proof testing prior to delivery.

- Exceptional leak tightness
- Very low pressure – High duty capable
- Proof tested design suitable for demanding applications
- Gas and liquid compatible
- Fool-proof and safe installation
- Unique non-invasive integral burst detection available (EEx ia IIC T6)
- Structurally enhanced profile leading to increased product durability and life

Specifications

SIZE RANGE	25mm to 100mm (1" to 4")
BURST PRESSURE RANGE	0.5 bar g to 10 bar g (7 psig to 145 psig)
TEMPERATURE RANGE	-80 to 600°C (-112 to 392°F)
MAXIMUM OPERATING RATIO	90% of minimum burst pressure(86% of nominal burst pressure)
FRAGMENTATION ON BURST	non-fragmenting design
RELIEF VALVE ISOLATION	excellent
VACUUM SERVICE	no support required above 2.0 bar g
FLUID COMPATIBILITY	gas or vapour
K _R VALUES	not available
TORQUE-SENSITIVE	no
CYCLE LIFE	tested to over 100,000 pressure-vacuum cycles
MATERIAL RANGE	316SS as standard, others available.
REVERSAL RATIO	not applicable with offset tag + system-loc
DAMAGE RATIO	<1.5
LEAK TIGHTNESS	excellent
PERFORMANCE TOLERANCE	+/- 5% (zero manufacturing design range)
PROTECTIVE LININGS	available

Pressure and Solutions Intelligence

To find out how our products could benefit you and your organisation, or for specifications outside those stated on this data sheet please contact Elfab directly or via your local representative.

Specifications and Performance

BURST PRESSURE RANGE in barg (psig) at 20 °C (68°F)

<i>Nominal Bore</i>		<i>Nickel</i>		<i>316 Stainless Steel / Inconel</i>		<i>Hastelloy</i>	
		<i>Min</i>	<i>Max</i>	<i>Min</i>	<i>Max</i>	<i>Min</i>	<i>Max</i>
25	1	1.5 (21.8)	9.0 (131)	2.0 (29)	10.0 (145)	2.5 (36.3)	12.0 (174)
40	1 ½	1.3 (18.9)	7.0 (102)	1.7 (24.7)	8.5 (123)	2.0 (29)	10.0 (145)
50	2	1.0 (14.5)	6.0 (87)	1.3 (18.9)	8.0 (116)	1.5 (21.8)	8.5 (123)
80	3	0.8 (11.6)	5.5 (79.8)	1.0 (14.5)	7.0 (102)	1.2 (17.4)	7.5 (109)
100	4	0.5 (7.3)	4.5 (65.3)	0.5 (7.3)	5.0 (72.5)	1.0 (14.5)	5.5 (79.8)

PERFORMANCE TOLERANCE (ZERO MANUFACTURING DESIGN RANGE)

<i>Burst Pressure</i>	<i>Tolerance</i>
Up to 2.76barg (40psig)	+/- 0.14 barg (+/- 2.0 psig)
> 2.76barg (40psig)	+/- 5%

STANDARD TEMPERATURE RANGE °C (°F)

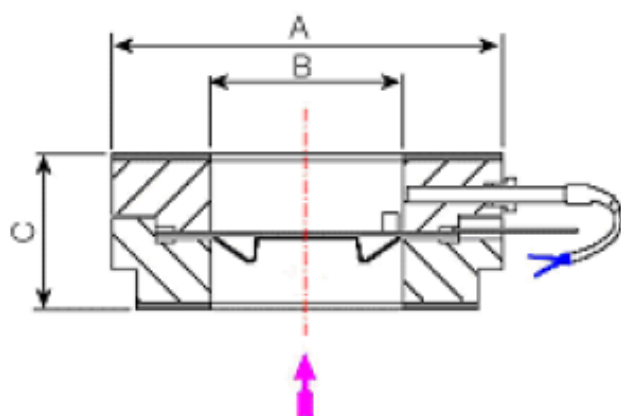
<i>Material</i>	<i>Minimum</i>	<i>Maximum</i>
316 SS	-80 (-112)	480 (900)
Nickel	-80 (-112)	400 (750)
Inconel	-80 (-112)	600 (1080)
Hastelloy	-80 (-112)	480 (900)

FREE FLOW AREA / MINIMUM NET FLOW AREA (MNFA)

<i>Nominal Bore</i>		<i>Value</i>	
<i>mm</i>	<i>inch</i>	<i>mm²</i>	<i>in²</i>
25	1	486	0.75
40	1 ½	1166	1.81
50	2	1985	3.08
80	3	4790	7.43
100	4	7553	11.71

HOLDER DIMENSIONS

<i>Nominal Bore (B)</i>		<i>Height (C)</i>		<i>Outside Diameter (A)</i>	
<i>mm</i>	<i>inch</i>	<i>mm</i>	<i>inch</i>	<i>BS EN 1092</i>	<i>ANSI</i>
25	1	61	2.40	PN 6 to 50	150 to 600 lb
40	1 ½	61	2.40	PN 6 to 50	150 to 600 lb
50	2	61	2.40	PN 6 to 50	150 to 600 lb
80	3	63	2.49	PN 6 to 50	150 to 600 lb
100	4	63	2.49	PN 6 to 50	150 to 600 lb



The holder is configured to accept Elfab's ATEX-approved Integral Flo-Tel burst detection switch as standard.

To ensure the correct performance of a bursting disc, it must be used in its correct holder, as specified by the bursting disc manufacturer.

Pressure and Solution Intelligence

The data shown on these sheets represents the standard offering from Elfab. Depending upon the requirements of your application, Elfab maybe able to provide a solution based on this product but outside the standard operating parameters. In addition, Elfab produces an extensive range of alternative products which maybe more suitable for your requirements.

As a result of extensive testing, Elfab can advise on these choices, or on other technical matters, such as discharge requirements, temperature testing, material selection and corrosion resistance, customised designs and burst detection.

To discuss your specific product or service requirements please contact your Elfab representative.