

UHV Pressure Burst Disc

461-PBD, 461-PBD-LP and 461-PBD-ULPP

System Protection Components

Allectra Pressure Burst Discs are designed to rupture and release gas in the event of potentially hazardous pressures greater than atmospheric pressure occurring in the Vacuum System.

Three versions are offered:

- The Standard type: membrane ruptures at system pressure of max. 1.7 bar overpressure
- Low Pressure type: membrane ruptures at system pressure of max. 0.8 bar overpressure
- Ultra Low pressure type: membrane ruptures below 0.5 bar, by this the system does not fall under the overpressure regulations.

	461-PBD (Standard)	461-PBD-LP (Low Pressure)	461-PBD-ULPP (Ultra Low Pressure)
Vacuum	UHV (<10 ⁻¹⁰ mbar)		
Construction	All metal with 316 Stainless Steel body		
Temperature	-200°C ... +350°C		
Bursting pressure (at 22°C) *)	typ. 1.2 ... 1.4 max. 1.7 bar (differential)	typ. 0.6 ..0.8 max. 0.8 bar (differential)	Typ. 0,45 max. 0,48 bar (differential)
Inlet flange	DN16CF, DN40CF, 16KF, 25KF, 40KF		DN63CF ISO-K63
Outlet flange	Optional, Gas recovery version only DN50KF		--
Flow rates	DN40CF/40KF: >150 l/sec DN16CF:/16KF > 35 l/sec **)		>500 l/sec

*: Burst pressure is increased at low temperatures up to a factor of 1.8 at -200°C and reduced by high temperatures up to a factor of 0.7 by 450°C. Bakeout over 150°C can increase the max. burst pressure by a factor of 1.1

**): Versions with gas recovery have a flow rate of >35 l/s for all flange

Features

UHV compatible, high bakeable to 350°C and leak tight to <5x10⁻¹⁰ mbar l/s

Protects sensitive components against accidental over-pressure in the Vacuum System

Optional gas recovery system to prevent gases escaping into the atmosphere

DN40CF and DN16CF versions / KF types and custom flanges, ULP version needs 63CF or ISO63 flange



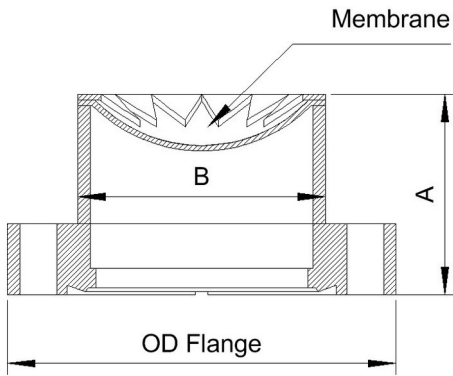
Pressure Burst Disc standard version on 40CF



Pressure Burst Disc low pressure version on 40CF



The Ultra Low Pressure Burst Disc with a rupture pressure below 0.5 bar on 63CF flange. With this component, the overpressure regulations do not apply for the system. Mem Cover to prevent accidental damage to the membrane



Ultra-Low-Pressure Burst Disc on 63CF



Pressure Burst Disc standard version on 16CF

Dimensions

	Standard Version				Low Pressure Version				Ultra Low-Pressure Ver.	
	16CF	40CF	16KF	40KF	16CF	40CF	16KF	40KF	63CF	ISO-K63
Flange	16CF	40CF	16KF	40KF	16CF	40CF	16KF	40KF	63CF	ISO-K63
Height A (mm)	48	24	48	23	72	72	54	54	47	46
Diam. B (mm)	45	45	45	45	59	59	59	59	76	76
Max. ø (mm)	45	70	45	55	59	70	59	59	114	95

Part Numbers

461-PBD-C16	Standard Pressure Burst Disc on DN16CF flange
461-PBD-C40	Standard Pressure Burst Disc on DN40CF flange
461-PBD-K16	Standard Pressure Burst Disc on DN16KF flange
461-PBD-K40	Standard Pressure Burst Disc on DN40KF flange
461-PBD-C40-K50	Standard Pressure Burst Disc 40CF with gas recovery outlet flange DN50KF
461-PBD-C16-LP	Low Pressure Burst Disc on DN16CF flange
461-PBD-C40-LP	Low Pressure Burst Disc on DN40CF flange
461-PBD-K16-LP	Low Pressure Burst Disc on DN16KF flange
461-PBD-K40-LP	Low Pressure Burst Disc on DN40KF flange
461-PBD-C63-ULPP	Ultra Low Pressure Disk on DN63CF
461-PBD-ISO63-ULPP	Ultra Low Pressure Disk on ISO-K 63