ANCORP

EMPOWERING SCIENCE AND TECHNOLOGY SINCE 1965

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UHV Burst Disks

Your first line of defense against accidental pressurization.

MADE IN THE U.S.A.

Description

Vacuum systems are normally rated for an external load of one atmosphere and should not be exposed to excess positive pressure. For this reason, ANCORP has designed a new line of UHV burst disks for our customers who require protection from accidental over-pressurization of their vacuum systems.

ANCORP offers burst disks with CF133 or CF275 metal seal flange connections. Gas recovery port connections are available in CF338 or QF50 flanges. The burst disks feature all-metal stainless steel construction for UHV applications and are scored to prevent fragmenting upon rupture, thus protecting personnel and equipment from harm. However, once the disk has ruptured, it is no longer usable and must be replaced.

The low pressure burst disk is ISO 4126-2 compliant, while the ASME burst disk is ASME UD certified and 10CFR851 compliant. Burst disks are constructed with a frustum metal membrane that is capable of sustaining a vacuum load. The low pressure burst disk will activate if the pressure inside a vacuum system reaches 5 PSIG, the ASME overpressure burst disk will activate at 11.5 PSIG, and the high-pressure burst disk will activate at 25 PSIG.

Product Features:

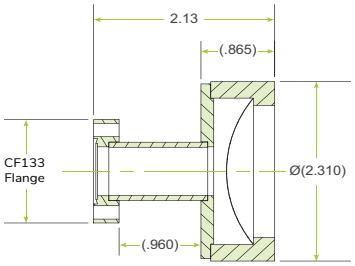
- Stainless steel body and disk membrane
- Bakeable to 450°C
- Protects sensitive components from accidental over-pressurization
- Protects personnel from harmful ruptures
- Protects equipment from costly damage and down-time
- Optional gas recovery system to prevent gases from escaping into the atmosphere
- Compact design with no moving parts
- ASME UD Certified to be 10CFR851 compliant
- Low pressure burst disk designed to be ISO 4126-2 compliant
- CF133 or CF275 metal seal flange connections (CF338 or QF50 for gas recovery ports)
- The scored membrane prevents fragmentation upon rupture.

Low Pressure Burst Disk (5-7 psig)

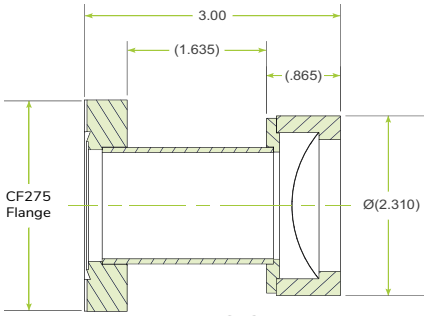
Our low pressure burst disks are designed with a frustum metal membrane that can sustain a vacuum load and are ISO 4126-2 compliant. The disk membrane will activate and fully open when a pressure differential between 5 and 7 PSIG is reached. In scenarios where gas back-fill could be dangerous, the optional gas recovery port can be connected to your gas line using a CF338 or QF50 flange.

Specifications

- Pressure relief range: 5 to 7 PSIG
- UHV Compatible all-metal construction
- Bakeable to 450°C
- 1.33" or 2.75" ConFlat flange mounting
- Gas recovery port options available with QF50 or CF338 flange connection
- ISO 4126-2 compliant
- Leak tight to 2 x 10^{-10} std. cc/sec of Helium
- Calculated Flow rates:
  - 107 SCFM on 1.33" flange assembly
  - 435 SCFM on 2.75" flange assembly



BD-LP-CF133
Low Pressure Burst Disk with CF133 Flange



BD-LP-CF275
Low Pressure Burst Disk with CF275 Flange

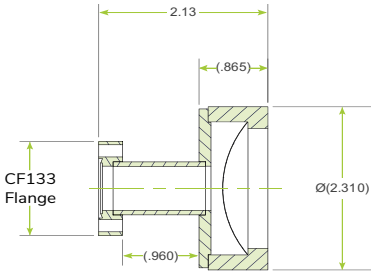
Part ID	Reference Number	Description
9100032	BD-LP-CF133	Low Pressure Burst Disk, CF133 Flange
9100033	BD-LP-CF275	Low Pressure Burst Disk, CF275 Flange

ASME Overpressure Burst Disks (9-11.5 psig)

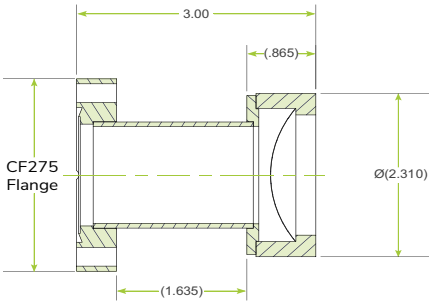
Our ASME UD certified burst disks are designed for systems that require pressure relief above atmospheric pressure. The disk membrane will activate and fully open when a pressure differential between 9 and 11.5 PSIG is reached. The optional gas recovery port can be connected to your gas line using a CF338 or QF50 flange.

Specifications

- Pressure relief range: 9 to 11.5 PSIG
- UHV Compatible all-metal construction
- Bakeable to 450°C
- 1.33" or 2.75" ConFlat flange mounting
- Gas recovery port options available with QF50 or CF338 flange connection
- ASME UD certified 10CFR851 compliant
- Leak tight to 2 x 10^{-10} std. cc/sec of Helium
- Calculated Flow rates:
  - 107 SCFM on 1.33" flange assembly
  - 435 SCFM on 2.75" flange assembly



BD-ASME-CF133
ASME Burst Disk with CF133 Flange



BD-ASME-CF275
ASME Burst Disk with CF275 Flange

Part ID	Reference Number	Description
9100030	BD-ASME-CF133	ASME Burst Disk, CF133 Flange
9100031	BD-ASME-CF275	ASME Burst Disk, CF133 Flange

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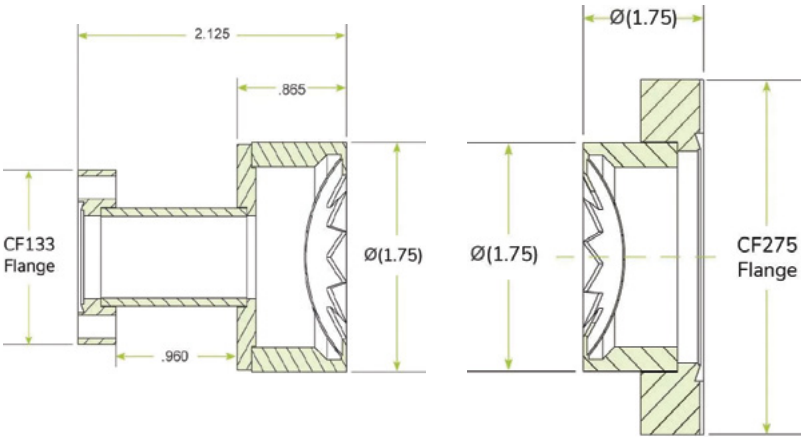
High Pressure Burst Disk (25PSIG)

ANCORP's high-pressure burst disk protects against over-pressurization of high and ultra-high vacuum (UHV) systems up to 25PSIG. Their wide pressure range provides adequate protection for general uses.

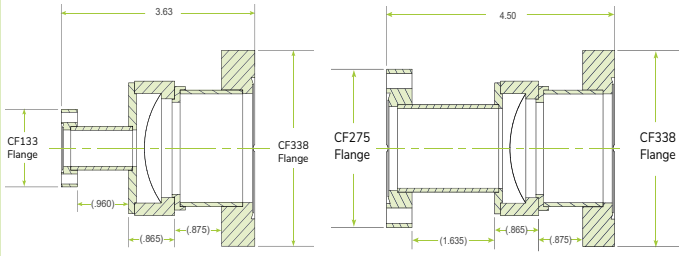
Specifications

- Pressure relief range: 0 to 25 PSIG
- UHV Compatible all-metal construction
- Temperature range: -200°C to +350°C
- 1.33" or 2.75" ConFlat flange mounting
- Leak tight to 2 x 10^{-10} std. cc/sec of Helium
- Vacuum Rated:
  - Elastomer seals 1x10^{-8}
  - Copper seals 1x10^{-13}
- For applications requiring narrower burst pressure ranges, view the Low Pressure Burst Disks (5-7 PSIG) or ASME Overpressure Burst Disks (9-11 PSIG)

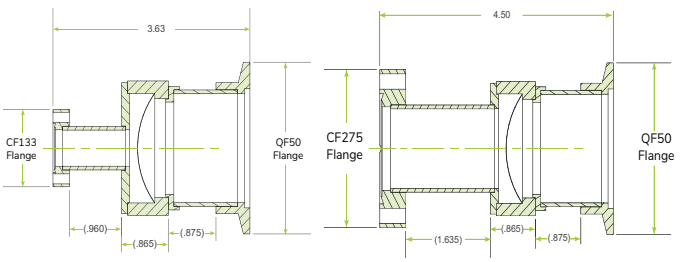


Optional Gas Recovery Ports

ANCORP offers gas recovery port options for the low pressure burst disks and the ASME overpressure burst disks. They can be connected to your gas line using a CF338 or QF50 flange.



Gas Recovery Ports with CF338 Connection



Gas Recovery Ports withQF50 Connection

Part ID	Reference Number	Description
9100038	BD-LP-CF133XCF338-GRP	Low Pressure Burst Disk, CF133 Flange with CF338 Gas Recovery Port
9100039	BD-LP-CF133XQF50-GRP	Low Pressure Burst Disk, CF133 Flange with QF50 Gas Recovery Port
9100040	BD-LP-CF275XCF338-GRP	Low Pressure Burst Disk, CF275 Flange with CF338 Gas Recovery Port
9100041	BD-LP-CF275XQF50-GRP	Low Pressure Burst Disk, CF275 Flange with QF50 Gas Recovery Port
9100034	BD-ASME-CF133XCF338-GRP	ASME Burst Disk, CF133 Flange with CF338 Gas Recovery Port
9100035	BD-ASME-CF133XQF50-GRP	ASME Burst Disk, CF133 Flange with QF50 Gas Recovery Port
9100036	BD-ASME-CF275XCF338-GRP	ASME Burst Disk, CF275 Flange with CF338 Gas Recovery Port
9100037	BD-ASME-CF275XQF50-GRP	ASME Burst Disk, CF275 Flange with QF50 Gas Recovery Port

ANCORP

Empowering Science and Technology Since 1965.

As manufacturers of high and ultra-high vacuum components, we serve researchers, scientists, engineers, and manufacturers with the products they need to build and maintain their vacuum systems. We offer everything from vacuum hardware and valves to chambers and custom fabrications.

707 SW 19th Ave.
Williston, FL 32696

Sales: 1-800-352-6431
Main: 1-352-528-4100

sales@ancorp.com
www.ancorp.com

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