

## Features

- Solid metal scored disk designed for Non-fragmentation
- Operating pressures to 85% of the disk's marked burst pressure (Contact ZOOK for higher ratios)
- Excellent for liquid, gas or 2-phase flow
- Scored after disk material is formed to a high crown height. Permits use of thicker material and allows lower burst ratings which withstand full vacuum
- Burst ratings 15 to 3600 psig
- Sizes 1/2" thru 24" diameters
- Temperature ratings to 1000°F (538°C)
- Standard material of construction is Nickel. Optional materials 316SS, Inconel, Monel, Hastelloy C and Aluminum are available
- 3-dimensional stainless steel tag permanently engraved with complete disk specifications
- ASME UD marking available (gas service only)



## Polymerization Vessel Protection

- Withstands corrosive attack
- Positive-to-negative cycling
- Higher operating ratio
- Use alone or combine with relief valves

## Fail-Safe Design

If the SFAZ Series Disk is damaged or incorrectly installed, it will always burst at or below the marked burst rating as indicated on the disk tag.

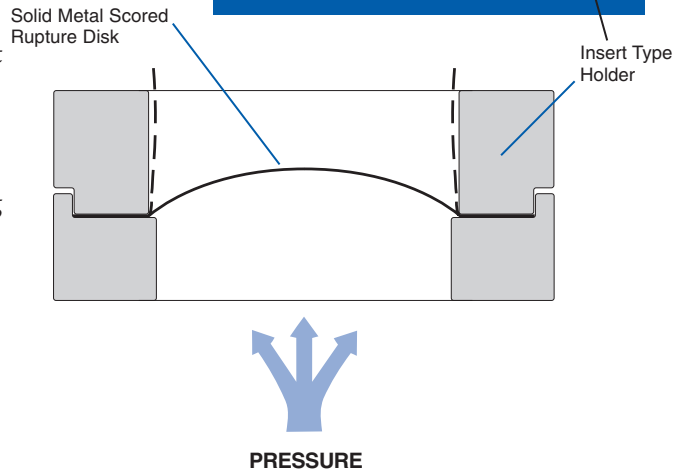
## Relief Valve Protection

SFAZ Series Disks mounted under the valve isolates working parts from hostile environments

## Options

**Liners** TFE liners are available to provide protection from corrosive media if required. Refer to Table 1 for maximum temperature ratings for disks and liners

**Protective Rings** are recommended for use with SFAZ Series Disks to provide stability and protection when thin materials and/or liners are used



SFAZ Series Disks mount with the concave surface facing the process media. As pressure increases above the recommended operating ratio, the score lines weaken until rupture occurs. When the SFAZ Disk ruptures, the disk opens along the score lines and folds back against the holder outlet.

**Table 1 – SFAZ Series Minimum and Maximum Pressure Ratings – psig (bar) @72° F (22°C)**

Disk Size	Disk Materials									
	Nickel		Inconel		Monel		316SS		Hastelloy C	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
<b>1"</b>	<b>79</b>	<b>3600</b>	<b>110</b>	<b>3600</b>	<b>100</b>	<b>3600</b>	<b>110</b>	<b>3600</b>	<b>165</b>	<b>3600</b>
25 mm	(5.45)	(248.28)	(7.59)	(248.28)	(6.90)	(248.28)	(7.59)	(248.28)	(11.38)	(248.28)
<b>1-1/2"</b>	<b>73</b>	<b>3600</b>	<b>85</b>	<b>3600</b>	<b>73</b>	<b>3600</b>	<b>80</b>	<b>3600</b>	<b>125</b>	<b>3600</b>
40 mm	(5.03)	(248.28)	(5.86)	(248.28)	(5.03)	(248.28)	(5.52)	(248.28)	(8.62)	(248.28)
<b>2"</b>	<b>61</b>	<b>3600</b>	<b>70</b>	<b>3600</b>	<b>65</b>	<b>3600</b>	<b>61</b>	<b>3600</b>	<b>102</b>	<b>3600</b>
50 mm	(4.21)	(248.28)	(4.83)	(248.28)	(4.48)	(248.28)	(4.21)	(248.28)	(7.03)	(248.28)
<b>3"</b>	<b>45</b>	<b>2159</b>	<b>60</b>	<b>2159</b>	<b>60</b>	<b>2159</b>	<b>60</b>	<b>2159</b>	<b>87</b>	<b>2159</b>
80 mm	(3.10)	(148.90)	(4.14)	(148.90)	(4.14)	(148.90)	(4.14)	(148.90)	(6.00)	(148.90)
<b>4"</b>	<b>45</b>	<b>2159</b>	<b>60</b>	<b>2159</b>	<b>55</b>	<b>2159</b>	<b>60</b>	<b>2159</b>	<b>84</b>	<b>2159</b>
100 mm	(3.10)	(148.90)	(4.14)	(148.90)	(3.79)	(148.90)	(4.14)	(148.90)	(5.79)	(148.90)
<b>6"</b>	<b>45</b>	<b>1440</b>	<b>60</b>	<b>1440</b>	<b>55</b>	<b>1440</b>	<b>60</b>	<b>1440</b>	<b>96</b>	<b>1440</b>
150 mm	(3.10)	(99.31)	(4.14)	(99.31)	(3.79)	(99.31)	(4.14)	(99.31)	(6.62)	(99.31)
<b>8"</b>	<b>45</b>	<b>1440</b>	<b>60</b>	<b>1440</b>	<b>55</b>	<b>1440</b>	<b>60</b>	<b>1440</b>	<b>93</b>	<b>1440</b>
200 mm	(3.10)	(99.31)	(4.14)	(99.31)	(3.79)	(99.31)	(4.14)	(99.31)	(6.41)	(99.31)
<b>10"</b>	<b>45</b>	<b>1440</b>	<b>72</b>	<b>1440</b>	<b>60</b>	<b>1440</b>	<b>72</b>	<b>1440</b>	<b>111</b>	<b>1440</b>
250 mm	(3.10)	(99.31)	(4.97)	(99.31)	(4.14)	(99.31)	(4.97)	(99.31)	(7.66)	(99.31)
<b>12"</b>	<b>45</b>	<b>720</b>	<b>82</b>	<b>720</b>	<b>65</b>	<b>720</b>	<b>82</b>	<b>720</b>	<b>120</b>	<b>720</b>
300 mm	(3.10)	(49.66)	(5.66)	(49.66)	(4.48)	(49.66)	(5.66)	(49.66)	(8.28)	(49.66)
<b>Max. Temp.</b>	<b>750°F (399°C)</b>		<b>900°F (482°C)</b>		<b>800°F (427°C)</b>		<b>900°F (482°C)</b>		<b>1000°F (538°C)</b>	

MONEL - TM Huntington Alloys  
 INCONEL - TM International Nickel  
 HASETELLOY C - TM Haynes International

**Table 1 – notes**

- Minimum rating will support full vacuum without additional vacuum support. Alternate materials and lower burst ratings are available on request. Contact ZOOK for more information.
- For larger sizes or sizes not shown, Contact ZOOK.

**TFE liner may be added to provide additional protection against corrosive media**

Requirements/Limitations when TFE liner is added:

1. A protective ring is required
2. Max. temperature of 500°F (260°C) – Limitation of liner material
3. Liner cannot be applied to process side of vacuum support
4. Liner may be applied to all ratings. Contact ZOOK if liner is required on both sides of rupture disk

**Manufacturing Range  
 Burst Tolerance**

Specified Burst Pressure psig (bar)	Available Manufacturing Ranges	Burst Tolerance
<b>40 (2.76)</b> and below	0%, -5%, -10%	<b>± 2 psi (0.14)</b>
Above <b>40 (2.76)</b>	0%, -5%, -10%	<b>± 5%</b>

**Notes:**

- +0/-10% manufacturing range is standard.
- Burst tolerances are the maximum expected variation from the disk's marked burst pressure



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