

FLAT COMPOSITE DISCS FOR PROTECTION OF HIGH VOLTAGE TRANSFORMERS TYPE AD-HVT

DESCRIPTION

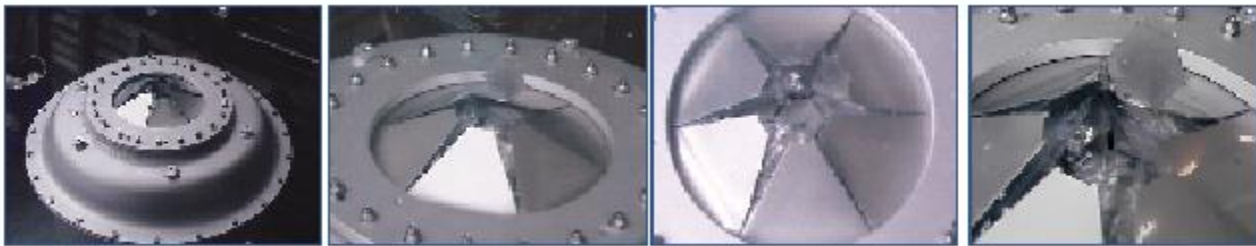
The design principle, used to ensure a predictable bursting pressure of these pressure safety devices, is simply a tension failure of a metal membrane. As the applied pressure approaches the bursting pressure, a point is reached where thinning of the metal occurs, leading rapidly to disc bursting and pressure relief.

The conventional prebulged bursting discs are available in several configurations of different components.



APPROVALS:

- CE



FEATURES AND BENEFITS

- Same burst pressure in both directions, offering a fail-safe burst behavior
- Fast, unrestricted opening in case of internal overpressure
- Geometry, size and opening pressure adaptable to individual applications



APPLICATIONS

The Fike AD-HVT series bursting discs has been developed to protect high voltage transformer against overpressure damage in case of an internal electric accident. They will allow for safe pressure relief without hazards of transformer envelope parts becoming fragments.



SPECIFICATIONS

Type		AD-HVT
Action		Forward-Acting
Sizes ¹		DN50 – DN600 / 2" – 24"
Disc Material	Gasket ¹	IT300
	Top Section ²	SST
	Seal	Fluoropolymer / Aluminium
	Bottom ²	SST
	Vacuum Support ²	-
	Retaining Ring ²	-
	Gasket ¹	IT300
Maximum Operating Temperature		260°C
Operating Ratio		50%
Cycling Duty		R
Pulsating Duty (light)		R
Pulsating Duty (heavy)		NR
Full or Partial Vacuum Rating		NR
Polymerisation Process		NR
Hydraulic Service		R
Minimal Fragmentation ³		MC
Seat Configuration		Flat
Use between Standard Flanges	ANSI 150 WN	Yes
	DIN 2632	Yes

R = RECOMMENDED MC = MARGINAL CONDITIONS NR = NOT RECOMMENDED

(1) Standard gaskets are asbestos-free. Other materials (such as fluoropolymer) can be supplied on request.

(2) Standard material of construction is AISI 300 series stainless steel (AISI 316 and/or AISI 304). Other materials are available on request.

(3) The AD-HVT series bursting discs will, subject to rates of pressure rise, give minimal fragmentation of the metallic parts. The seal, however, may be ejected.



BURST PRESSURES IN BARG AT 22°C

Size	DN	100	125	150	200	250
	Inch	4	5	6	8	10
Minimum Burst Pressure (barg)		0.27	0.24	0.21	0.17	0.14
Maximum Burst Pressure (barg)		4	4	4	4	4
Relief Area (cm²)		62.1	120.7	158.7	285.2	457.4

PERFORMANCE TOLERANCES ¹

Nominal BP ≤ 250 mbarg: ± 25 mbarg
250 mbarg < Nominal BP ≤ 500 mbarg: ± 50 mbarg
500 mbarg < Nominal BP ≤ 700 mbarg: ± 70 mbarg
Nominal BP > 700 mbarg: ± 10%

(1) Consult Fike for possibility to reduce tolerances.

Performance tolerance as specified by ISO/EN is a total tolerance which includes both manufacturing and bursting tolerance.

As per ISO/EN the bursting discs can be marked with:

- Specified burst pressure with a performance tolerance (in % or a value)
E.g.: 10 barg at 22°C ± 10% (± 1 barg).
- Maximum and minimum burst pressure.
E.g.: Max 11 barg at 22°C - min 9 barg at 22°C

On request bursting discs can be marked as per ASME code section VIII with the average burst test result and the bursting tolerance of ± 5% for burst pressures ≥ 2.76 barg. (0.15 barg for burst pressures < 2.76 barg).