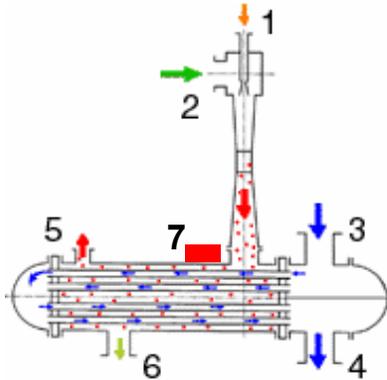


HOV-SC Bursting disc assembly for Steam Condenser protection

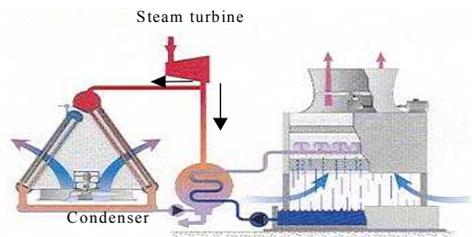
1. Steam Condenser: Application description:

-Conventional power generation is using the heat generated by combustion of fossil fuels to evaporate water and generate steam. This steam is then used in the most conventional way to drive turbines and through a generator create electric power. The high-pressure steam will travel through high pressure and medium pressure stages of the turbine, and will be processed through a condenser to optimise the thermo-dynamic efficiency of the process. Steam condensers are designed to provide the highest possible level of vacuum, in order to achieve the lowest latent energy in the steam, before it is being reprocessed.



-Main components of the vacuum condenser:

1. Motive steam
2. Gas or vacuum steam inlet:
3. Cold water inlet
4. Cold water outlet
5. Atmospheric pressure non-condensable steam or gas
6. Condensate outlet



2. Hazard identification:

-The steam condenser, being a critical energy booster in the process, representing high value investment, is typically not suitable to withstand overpressures. Such overpressures even when unlikely to occur during the service life of the power generation station may occur in case of malfunctions in the pre-condenser steam preparation equipment.

3. Fike's offered solution:

•Fike's HOV-SC bursting disc with pre assembled low-profile support ring:

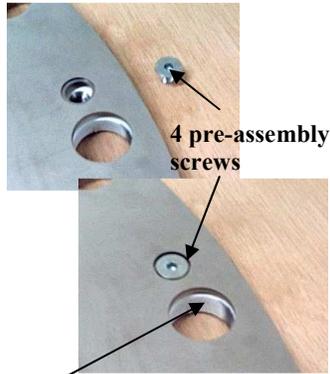


Disc:	Materials of construction:	SSt. / Teflon / SSt.
	Max. Operating Pressure:	80% of the minimum burst pressure
	Burst pressure (typical):	100 mbarg to 250 mbarg \pm 15 mbarg
	Vacuum resistance:	Full vacuum
	Operating Temperature:	-40°C up to 200°C
	Normal sizes:	DN600/700/800/900/1000 24"/30"/32"/36"/40"
Flange ratings:	Standard ANSI 150, optionally PN10	
Support ring:	Materials of construction:	Painted Carbon Steel (1.0460) Non-asbestos gaskets both sides.
	With pre-assemble screws:	(4 pieces)
Assembly:	Bursting disc + support ring assembled with 4 pre-assembly screws	

• **Advantages of the pre assembled low profile holder:**

-The proposed HOV-SC bursting disc assembly is a composite membrane, high performance pressure relief device suitable for vacuum applications like vacuum steam condensers .

-Advantages:



4 reinforced bolt holes for lifting

- Non fragmenting design
- Guaranteed full vacuum resistance with the special support ring.
- Can be made to order. Different sizes and burst pressures available.
- Long-term leakage free operation for full vacuum conditions
- No moving parts: Minimum maintenance necessary
- Superior cycle life
- Fastest + complete relief opening
- Compact design, lowest weight
- Fastest refurbishment
- Spare bursting discs can be ordered separately and are easy to install to the support ring with pre-assemble screws.
- Plug & Play design

5. Typical Dimensions and weights:

Size	OD (H) mm	ID (J) mm	Bolt			Bolt circle (K) mm	Relief Area m ²	Bulge height (P) mm	Weight kg	Thickness (T) mm
			Qty.	Dia.	Size					
DN600 PN10	780	595.8	20	30	M27	725	0.245	78	16.47	17.5
DN700 PN10	895	695	24	30	M27	840	0.340	83	21.67	17.5
DN800 PN10	1015	797	24	33	M30	950	0.453	100	26.61	17.5
DN900 PN10	1115	894	28	33	M30	1050	0.576	125	30.67	17.5
DN1000 PN10	1230	996	28	36	M33	1160	0.722	125	39.01	17.5
24" 150 ANSI	812.8	590.6	20	36	1 1/4	749.3	0.241	78	16.95	17.5
30" 150 ANSI	984.2	743	28	36	1 1/4	914.4	0.391	85	26.51	17.5
32" 150 ANSI	1060	793.8	28	42	1 1/2	977.9	0.449	100	27.38	17.5
36" 150 ANSI	1168,4	895.4	32	42	1 1/2	1085	0.578	125	31.69	17.5
40" 150 ANSI	1289	997	36	42	1 1/2	1200.1	0.723	125	40.53	17.5

