MICA SHIELDS

MICA SHIELDS provide the best protection possible, to flat transparent; sight glasses in water and liquid level gauges and columns in high pressure steam boilers. The SHIELDS retain basic strength and increase the service life of sight glasses when used at increased steam pressures and high working temperatures. MICA SHIELDS also provide perfect visibility for monitoring the nature or degree of combustion in blast furnaces of steam boilers.

Natural mica has extremely high heat resistance; transparency; optical clarity; flexibility; flatness and is unbreakable. The transparency of mica is not affected by the repeated fluctuations in heating and cooling and is not attacked by most of the gases and vapors it might come into contact with. In addition, mica resists shocks, strains and vibrations and therefore can easily be used in place of glass where there is a likelihood of exposure to radiant heat, breakage or cracking. As steam boilers are frequently shut-down and started up again, this places extreme demands on the transparent glasses fitted between CAF sealing gaskets and cushion joints of the level gauges. It is therefore essential to protect these glasses with MICA SHIELDS by fitting them on the side facing the medium chamber. MICA SHIELDS are a must where saturated steam pressure exceeds 350 psi (up to 5689 psi) and working temperatures exceed 196 deg. C (up to 600 deg. C).

MICA SHIELDS also protect the inner surfaces of the transparent glasses against erosion from chemical abrasion and from corrosive chemical effects of alkaline solutions, boiler waters, caustics, hydrofluoric acids, hot concentrated phosphoric acids, sodium and potassium hydroxides and other contaminated viscous or corrosive media. It provides an excellent sealing strength against acids, sodium, water, air and oil at extreme pressures and temperatures and completely eliminates the risk of cracks, breakage, jerks, shocks, combustion effects, etc. In fact, MICA SHIELDS serve effectively in closing the spy holes of observation doors of level gauges and columns.

STANDARD MICA SHIELD SIZES

NO	TYPE A/B			TYPE A			TYPE B/H			TYPE TA-28		
	L		**B**	**L**		**B**	**L**		**B**	**L**		**B**
O	95	X	24	95	X	30	95	X	34		--	
I	115	X	24	115	X	30	115	X	34	133	X	47
II	140	X	24	140	X	30	140	X	34	158	X	47
III	165	X	24	165	X	30	165	X	34	183	X	47
IV	190	X	24	190	X	30	190	X	34	208	X	47
V	220	X	24	220	X	30	220	X	34	238	X	47
VI	250	X	24	250	X	30	250	X	34	268	X	47
VII	280	X	24	280	X	30	280	X	34	298	X	47
VIII	310	X	24	320	X	30	320	X	34	338	X	47
IX	320	X	24	340	X	30	340	X	34	358	X	47
X	340	X	24	370	X	30	370	X	34	378	X	47
XI	360	X	24	400	X	30	400	X	34		--	
XII	370	X	24	430	X	30	430	X	34		--	
XIII	400	X	24	460	X	30	460	X	34		--	
XIV	430	X	24	500	X	30	500	X	34		--	

The above dimensions are in millimeters
L=Length B=Breadth T=Thickness

Standard Thickness	*0.10 - 0.15 mm/0.13 - 0.17 mm.*
	0.15 - 0.20 mm/0.18 - 0.22 mm
	0.20 - 0.30 mm/0.30 - 0.40 mm.

Please note that the above are by no means a complete range. We are capable to supply Mica Shields in any specified size, shape and thickness as per specific requirements of our customers.

Caution: The service life of a transparent glass very much depends on the MICA SHIELD used. Once the mica is worn out, the entire assembly including the glass has to be replaced which is both a costly and complicated task. It is, therefore, advised to use only a superior quality MICA SHIELD having accurate thickness to provide complete safety and guaranteed service life to the sight glasses. The thicknesses of the MICA SHIELDS are usually calculated on the basis of the steam pressures and working temperatures. However, in no case should such thickness be calculated on the minimum (minus) values. This would result in shortening the life of a transparent glass