

Techtrol Weld Pad Flat Glass Level Gauge WFG

It is designed for safe and positive visual indication of liquid level in vessels under high pressure and temperature conditions. They are installed on the vessel by direct welding so as to become its integral part.

Applications :

Highly viscous liquids, liquids with suspended solids, high vibrations, limited space where thermal error occurs due to piping not acceptable or where conventional gauge glass is impractical.

Construction :

It consists of a weld pad block, reflex transparent gauge glass, sealing gasket, cushion gasket and cover plate all held together by bolts. The gauge glass sandwiched between sealing and cushion gasket is placed on front side for viewing of liquid level and held in the recesses machined in the block and cover plate. This ensures leak proof assembly, prevents gasket slippages and avoids glass to metal contact. The weld pad block comes in different lengths from 250 to 590 mm (table 1) and its weldable side is either flat (fig a) or radius (fig b), to suit the vessel surface on which it is intended to be attached. It is provided with an Al scale calibrated in mm (LC=10 mm). As an option, frost free extension (fig c) can be provided for liquids at low temperature for prevention of 'frost formation' on outside surface of gauge glass for clear visual indication of level.

Material of construction : The standard weld pad block is made from ASTM A 105 carbon steel or SS316 / SS316L and cover plate in ASTM A 105. However, they can be made in any other desired material on request and on sufficient quantity.

Sealing gaskets :

Several gasket materials like CAF, CNAF or PTFE are available. Their selection depends upon the process temperature and the service contents in the vessel.

Ratings :

Is rated for pressure upto 72 kg/cm^2 and max temperature upto 300°C (with borosilicate glass). However, with soda ash glass the pressure rating is 20 kg/cm^2 and max temperature upto 100°C . High pressure model upto 150 kg/cm^2 is available on demand.



Fig a

Construction

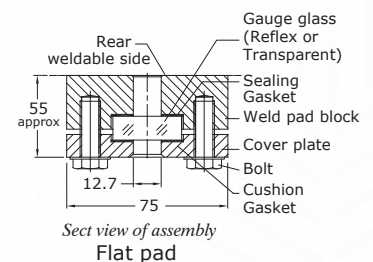
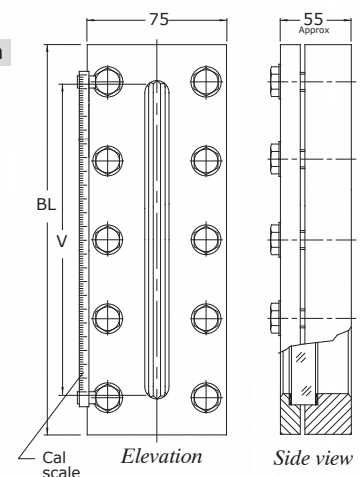


Fig b

Radius Pad

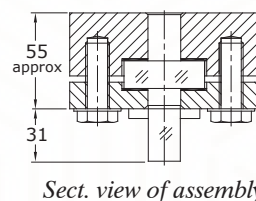
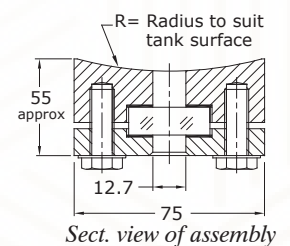


Fig c

Frost Free Extension



Installation :

They are installed Single (fig d) or Staggered (fig e) depending on required visibility to suit your application. Employ flat pad for flat tank surface and radius pad for curved tank surface. The weld pad can be welded on to the vessel in two ways:

- 1) Cutting a slot in the tank wall equal to the vision slot of the gauge.
- 2) Drilling two holes in the tank wall located at the top and bottom of the visible range. Ensure their diameters are equivalent to the width of the vision slot of the gauge. During the welding process, replace glass with welding insert to prevent warpage.

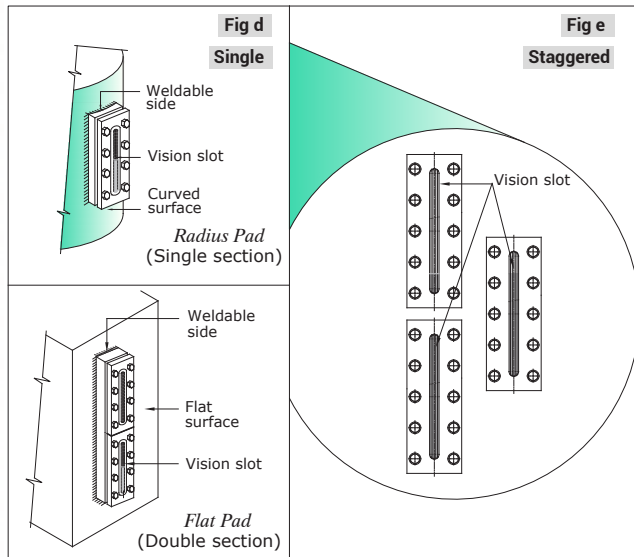


Table 1:

NO	Block Length BL (MM)	Visibility (mm)	No of Sections
A	205	145	1
B	230	170	1
C	260	200	1
D	290	230	1
E	320	260	1
F	360	300	1
G	380	320	1

Model Identification :

WFG -							
1. Weld Pad Block Length							
Block Length x Visibility (mm)							
205 x 145		A					
230 x 170		B					
260 x 200		C					
290 x 230		D					
320 x 260		E					
360 x 300		F					
380 x 320		G					
Others		O					
2. Weld Pad Type							
Flat			S				
Radius			R				
Radius 6"			G				
Radius 8"			H				
3. Weld Pad Block							
CS				M			
ASTM A 105				A			
SS304				N			
SS316				S			
SS316L				L			
Others				O			
4. Cover Plate							
CS				M			
ASTM A 105				A			
SS304				N			
SS316				S			
SS316L				L			
Others				O			
5. Gauge Glass							
Tempered soda ash (30 W x 17 mm thk)						1	
Tempered borosilicate (30 W x 17 mm thk)						2	
Others						0	
6. Sealing Gasket							
CAF						1	
CNAF						2	
PTFE						3	
SS304 impregnated graphite filler						4	
SS316 impregnated graphite filler						5	
SS316L impregnated graphite filler						6	
7. Glass Cushion							
CAF						1	
CNAF						2	
PTFE						3	
SS304 impregnated graphite filler						4	
SS316 impregnated graphite filler						5	
SS316L impregnated graphite filler						6	

Ordering Information : Model No, Liquid , Optg. Temp & Pressure