PENBERTHY MODELS RMW AND TMW DIRECT READING LIQUID LEVEL GAUGES

Medium pressure weld pad gauges in reflex and transparent styles

FEATURES

- Welded directly to tank
- Recessed gasket seat in chamber and cover
- Tempered Borosilicate Glass conforming to DIN 7081
- Wetted parts conforming to NACE MR0175 & MR0103 available
- All parts listed in ASTM & ASME B31.3
- User must determine if acceptable for ASME Sec. VIII
- Optional chamber machined with radius for welding to piping

GENERAL APPLICATION

Weld pads are commonly used in industrial applications for visual level verification on tanks and vessels. They are welded directly onto the equipment, ensuring a strong, leak-proof connection that can withstand high pressure and temperature conditions. Weld pads are often used for level especially in harsh environments like refineries, chemical plants, and power generation facilities. They frequently used on skid equipment. Their durable design helps maintain accurate readings and long-term reliability. Available in carbon steel and stainless steel materials to resist harsh chemicals and rugged environments.

TECHNICAL DATA

Materials:	Carbon or stainless steel chamber; IFG-5500® gaskets and cushions; Tempered Borosilicate
Glass size:	1 through 9
Visible length:	Up to 55” (4 section size 9)
Connections:	End or side; threaded, socketweld or flanged
Temperature:	-325° to 800°F (-198°C to 426°C)

For temperatures above 600°F (316°C) Aluminosilicate must be used

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OVERVIEW

RMW and TMW weld pad gauge models feature forged covers and a rugged chamber, designed to be flat or machined with a radius for secure welding to vessels and piping. They provide direct liquid level monitoring, with the process level visibly rising and falling through the sight glass.

Models RMW – Reflex style gauge

Reflex style gauges have a single vision slot through which light can enter the gauge chamber to determine liquid level. Above the liquid level, glass prims reflect the surrounding light back to the observer appearing silvery. Below the liquid level, the liquid fills the prisms causing the glass to become relatively transparent, typically appearing dark to the observer. An opaque liquid such as milk would reflect the light directly at the surface of the prisms, where it appears as a solid column of white.

The interface between the liquid and gas occurs where the silvery and dark/opaque area intersect.

Model TMW – Transparent style gauge

Transparent style gauges have a vision slot on both sides of the chamber. Light enters the gauge from the side opposite the observer so that both the level of a liquid and its characteristics can be seen. Illuminators are available for use with transparent gauges for easier liquid observation in dark environments. Transparent gauges may be used for interface applications. All materials in large chamber gauges conform to ASTM specifications.

REFLEX
(Model RL shown for illustrative purposes only)

TRANSPARENT
(Model TL shown for illustrative purposes only).

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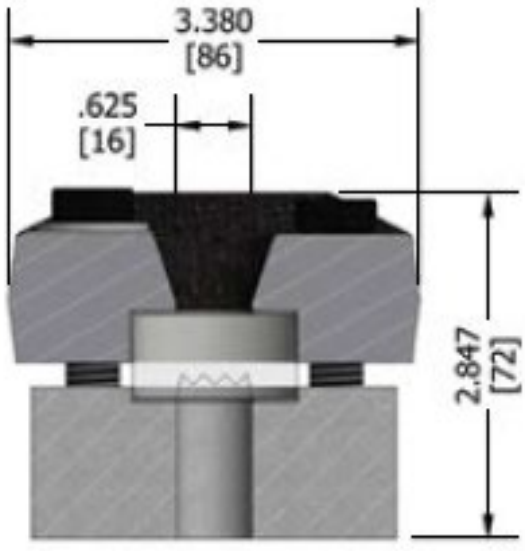
Size No.	Visible Range		Overall Length		Approximate Weight	
	in	mm	in	mm	lbs.	Kgs
11	3.750	95	5.250	133	9	4.1
12	4.750	121	6.250	159	11	5.0
13	5.750	146	7.250	184	12	5.5
14	6.750	171	8.250	210	14	6.4
15	7.875	200	9.375	238	16	7.3
16	9.125	232	10.625	270	18	8.2
17	10.250	260	11.750	298	20	9.1
18	11.875	302	13.375	340	22	10.0
19	12.625	321	14.125	359	24	10.9
23	13.000	330	14.500	368	24	10.9
24	15.000	381	16.500	419	28	12.7
25	17.250	438	18.750	476	32	14.5
26	19.750	502	21.250	540	36	16.4
27	22.000	559	23.500	597	40	18.2
28	25.250	641	26.750	679	44	20.0
29	26.750	679	28.250	718	48	21.8
36	30.375	772	31.875	810	54	24.5
37	33.750	857	35.250	895	60	27.3
38	38.625	981	40.125	1019	66	30.0
39	40.875	1038	42.375	1076	72	32.7
47	45.500	1156	47.000	1194	80	36.4
48	52.000	1321	53.500	1359	88	40.0
49	55.000	1397	56.500	1435	96	43.6



RMW & TMW - Medium Pressure Weld Pad Gauges

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Selection Guide

Example:	**1**	**RMW**	**3**	**C**	**C**	**C**	**X**	**F**	**X X X X G G S X X X X**
No. of Sections									
01	1 Section								
02	2 Section								
03	3 Section								
04	4 Section								
Gauge Type									
RMW	Weld Pad Reflex Gauge								
TMW	Weld Pad Transparent Gauge								
Glass Size									
1	Size 1								
2	Size 2								
3	Size 3								
4	Size 4								
5	Size 5								
6	Size 6								
7	Size 7								
8	Size 8								
9	Size 9								
Wetted Parts Material (chamber)									
C	Carbon Steel (standard)								
S	316/316L Stainless Steel								
Cover Material									
C	Carbon Steel (standard)								
S	316/316L Stainless Steel								
Bolting Material									
C	STL A193 Gr.B7 (Yellow Zn Plated)/A194 2H (standard)								
S	SST A193 B8M/A194 8M								
NACE MR-01-75 &/OR MR-01-03									
X	None								
W	NACE Wetted								
E	Environmental								
Chamber Type									
F	Flat Pad (standard)								
R	Radius Pad (specify)								

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Continued from previous page

Selection Guide - Part 2

Example:	**1 RMW 3 C C C X F XXXX A A S X X X**
Tank Radius	
XXXX	None
0000	Inches (first 3 digits = number of whole inches, last 2 digits =fraction of an inch in hundredths)
Gasket Material	
S	Grafoil/SS Insert
T	Gore Gr (ePTFE)
A	Garlock IFG-5500 (Standard)
Cushion Material	
S	Grafoil/SS Insert
A	Garlock IFG-5500 (Standard)
Paint Specification	
X	None
S	Standard
Option 1	
X	None
B	Mica Shields V2/V4 (.005-.007” thick)
C	PCTFE Shields (Kel-F)
D	Mica Shields V2/V4 (.009-.012” thick)
Option 2	
X	None
Option 3	
X	None

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