

# PENBERTHY

## material specifications

Section 2000  
 Material Specification 2606.1  
 Issued 04/97  
 Replaces 08/07

For: RM and TM GAGES

Ref. No.	Description	STANDARD MATERIALS					Optional Materials
		Carbon Steel to -20°F	STS Wetted to -20°F	STS Construction to -325°F	Sour Gas Service to -20°F	Low-Temp Steel to -50°F	
1	Cover	size 1 & 2	ASTM A216 Carbon steel (cast) Gr. WCB	ASTM A351 316/316L STS (cast) Gr. CF3M	ASTM A216 Carbon steel (cast) Gr. WCB	ASTM A352 Carbon Steel (cast) GR. LCB	ASTM A351 304/304L STS Gr. CF3 ASTM A182 Gr. F51 Duplex 2205 STS ASTM A494 Hastelloy B® Gr. N-12MV ASTM A352 Carbon Steel Gr. LCB ASTM A743 Alloy 20 Gr. CN7M ASTM B564 Monel® 400 N04400 ASTM A494 Hastelloy C® Gr. CW12MW ASTM A123 Galvanized Steel
		size 3 - 9	ASTM A105 (forged) Carbon Steel		ASTM A105 (forged) Carbon Steel	ASTM A350 (forged) Carbon Steel Gr. LF2 Cl. 1	
2	Chamber	ASTM A105 (forged) Carbon Steel	ASTM A276 316/316L STS	ASTM A105 (forged) Carbon Steel per NACE MR0175 &/OR MR0103	ASTM A516 Gr. 70/S5 -50°F Carbon steel	ASTM A276 304/304L STS ASTM A276 Duplex 2205 STS ASTM B164 Monel® 400 ASTM B463 Alloy 20 (CARP 20 Cb3)® ASTM B335 Hastelloy B® ASTM B575 Hastelloy C® 276 ASTM A123 Galvanized Steel	
4	Nut	ASTM A194 Carbon Steel Gr. 2 or 2H	ASTM A194 316 STS Gr. 8M	ASTM A194 Carbon Steel Gr. 2 or 2H	ASTM A194 316 STS Gr. 8M	ASTM A153 Galvanized Steel	
7	Gasket	Grafoil® Gr. GHP w/polyester (Mylar) insert					Nobestos® D7301 Garlock® 3000,3100,3200,3300,5500 PCTFE (replaces Kel-F®) Gylon® 3500, 3504, 3510 Teflon® (25% glass filled, virgin) Grafoil® Gr. GHR w/316 STS insert Buna-N Neoprene® Viton® consult factory for others
8	Cushion						
9	Shield <sup>A</sup>	None					ASTM D351 Mica Gr. V-4 PCTFE (replaces Kel-F®)
48	Glass	Reflex or Transparent Style Tempered Borosilicate					Aluminosilicate (Transparent only)
100	Cap Screw or U-Bolt	AISI 4140 or 4142 Alloy Steel per ASTM A193 Gr. B7	ASTM A193 316 STS Gr. B8M Cl. 2	AISI 4140 or 4142 Alloy Steel per ASTM A193 Gr. B7	ASTM A320 Alloy Steel Gr. L7	ASTM A153 Galvanized Steel	
125	Washer	ASTM B633 Zinc Plated Carbon Steel	18-8 STS (302-304 STS)	ASTM B633 Zinc Plated Carbon Steel	18-8 STS (302-304 STS)	None	
331	Band	Rubber					None

<sup>A</sup> under no circumstances should shields be used in reflex style gages. Installation of shields in reflex style gages will keep the fluid from coming in contact with the reflective prisms, thereby prohibiting visibility of the liquid level in the gage.

# PENBERTHY

## material specifications

Section 2000  
 Material Specification 2606.2  
 Issued 04/09  
 Replaces 08/07

For: RMR and TMR GAGES

Ref. No.	Description	STANDARD MATERIALS					Optional Materials
		Carbon Steel to -20°F	STS Wetted to -20°F	STS Construction to -325°F	Sour Gas Service to -20°F	Low-Temp Steel to -50°F	
1	Cover	size 1 - 3	ASTM A516 Carbon Steel Gr. 70	ASTM A240 316L STS	ASTM A516 Carbon Steel Gr. 70	ASTM A516 Carbon Steel Gr. 70/S5 -50°F	ASTM A351 304/304L STS Gr. CF3 ASTM A182 Gr. F51 Duplex 2205 STS ASTM A494 Hastelloy B® Gr. N-12MV ASTM A352 Carbon Steel Gr. LCB
		size 4 - 9	ASTM A105 (forged) Carbon Steel	ASTM A351 316/316L STS (cast) Gr. CF3M	ASTM A105 (forged) Carbon Steel	ASTM A350 (forged) Carbon Steel Gr. LF2 Cl. 1	ASTM A743 Alloy 20 Gr. CN7M ASTM B564 Monel® 400 N04400 ASTM A494 Hastelloy C® Gr. CW12MW ASTM A123 Galvanized Steel
2	Chamber	ASTM A105 (forged) Carbon Steel	ASTM A276 316/316L STS	ASTM A105 (forged) Carbon Steel per NACE MR0175 &/OR MR0103	ASTM A516 Carbon Steel Gr. 70/S5 -50°F	ASTM A276 304/304L STS ASTM A276 Duplex 2205 STS ASTM B164 Monel® 400 ASTM B473 Alloy 20 (CARP 20 Cb3)® ASTM B335 Hastelloy B® ASTM B575 Hastelloy C® 276 ASTM A123 Galvanized Steel	
4	Nut	ASTM A194 Carbon Steel Gr. 2 or 2H	ASTM A194 316 STS Gr. 8M	ASTM A194 Carbon Steel Gr. 2 or 2H	ASTM A194 316 STS Gr. 8M	ASTM A153 Galvanized Steel	
7	Gasket	Grafoil® Gr. GHP w/polyester (Mylar) insert					Nobestos® D7301 Garlock® 3000,3100,3200,3300,5500 PCTFE (replaces Kel-F®) Gylon® 3500, 3504, 3510 Teflon® (25% glass filled, virgin)
8	Cushion						
9	Shield <sup>A</sup>	None					ASTM D351 Mica Gr. V-4 PCTFE (replaces Kel-F®)
48	Glass	Reflex or Transparent Style Tempered Borosilicate					Aluminosilicate (Transparent only)
100	Cap Screw or U-Bolt	AISI 4140 or 4142 Alloy Steel per ASTM A193 Gr. B7	ASTM A193 316 STS Gr. B8M Cl. 2	AISI 4140 or 4142 Alloy Steel per ASTM A193 Gr. B7	ASTM A320 Alloy Steel Gr. L7	ASTM A153 Galvanized Steel	
125	Washer	ASTM B633 Zinc Plated Carbon Steel	18-8 STS (302-304 STS)	ASTM B633 Zinc Plated Carbon Steel	18-8 STS (302-304 STS)	None	
331	Band	Rubber					None

<sup>A</sup> under no circumstances should shields be used in reflex style gages. Installation of shields in reflex style gages will keep the fluid from coming in contact with the reflective prisms, thereby prohibiting visibility of the liquid level in the gage.