

PENBERTHY

material specifications

For: **RH, RHR and TH, THR 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 4 - 6	ASTM A216 Carbon Steel (cast) Gr. WCB	ASTM A351 Gr. CF3m (cast) 316/316L STS	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 7 - 9	ASTM A105 (forged) Carbon Steel		ASTM A105 (forged) Carbon Steel	ASTM A350 Carbon Steel (forged) 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 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. GHR w/316 STS insert				Nobestos [®] D7301 Garlock [®] 3000,3100,3200,3300,5500 PCTFE (replaces Kel-F [®]) Gylon [®] 3500, 3504, 3510 Teflon [™] (25% glass filled, virgin)	
8	Cushion	Nobestos [®] D7301				Buna-N Neoprene [®] Viton [®] consult factory for others	
9	Shield ^A	None				ASTM D351 Mica Gr. V-4 PCTFE (replaces Kel-F [®])	
48	Glass	Reflex or Transparent Style Tempered Borosilicate				Aluminosilicate (Transparent only) Quartz (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	

^A 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.