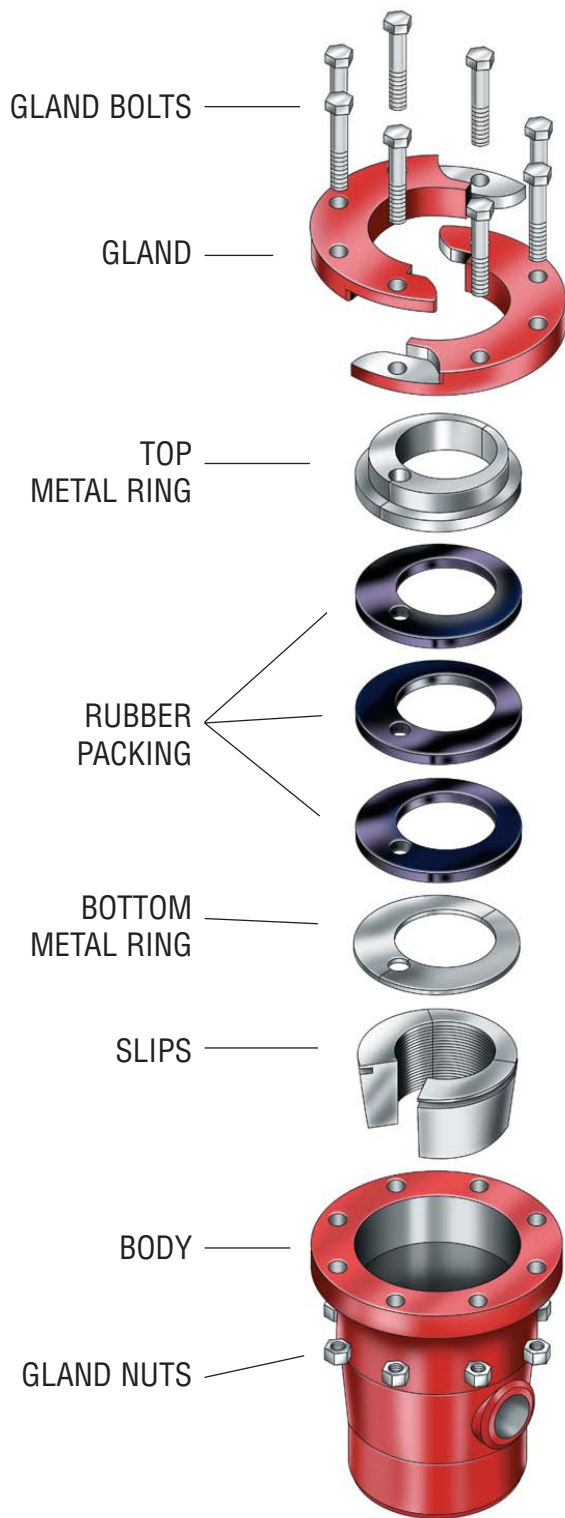


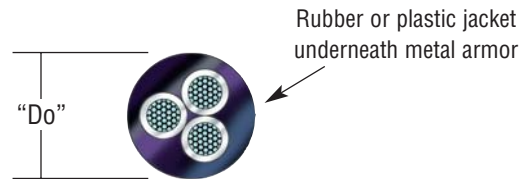
HHS Submersible Wellhead



How To Specify Cable Hole Style For Hercules Submersible Wellheads

**Round Cable Style**

Specify diameter of outer rubber, plastic or lead jacket ("Do"). Do not specify metal armor diameter, insulation diameter or conductor size.



**Flat Cable Style**

**A. No "Secondary Jacket" Below Armor**

Specify diameter of insulation ("Di"), if not encased in a second or multiple round rubber, lead or plastic outer jacket(s).



**B. With Secondary or Multiple Jackets Below Armor**

Specify diameter of outermost round rubber, plastic or lead jacket ("Do"). Do not specify insulation diameter ("Di") in this case (typical of Redalene®, Redahot®, Redalead®, etc.).

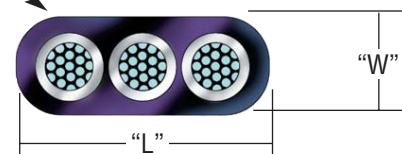


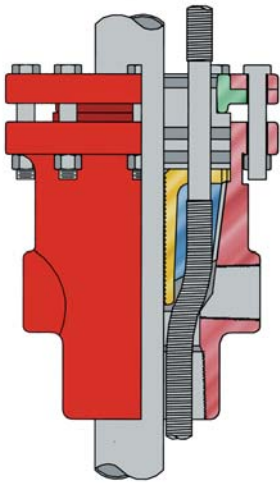
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**"Flat Oval" Cable Style**

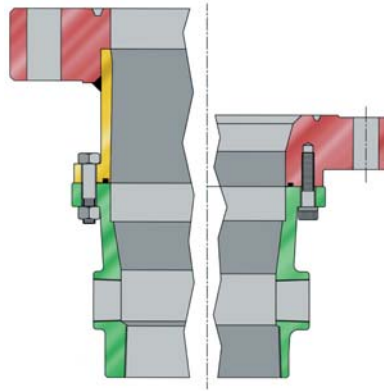
Specify "L" and "W" dimensions. Also specify if outer jacket has rectangular cross section (square ends) instead of radius (rounded) ends.

Rubber or plastic jacket underneath metal armor

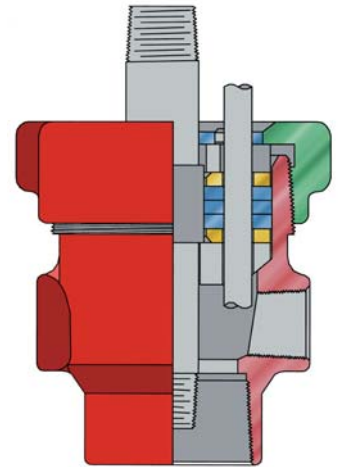




The HHS is ideal where a bolted packing gland is preferred. The packing gland is split to facilitate installation after the tubing and cable have been run. All bodies are full opening, with heat-treated hinged slips for ease of installation and positive alignment.



In the HHS Adapter Flange, a conventional O-ring seal is used between the top of the HHS and the bottom of the adapter. The top flange of the adapter is furnished with a bolt hole pattern and ring groove compatible with the API BOP flange size specified by the customer. Exact bolting methods will vary according to the size of the HHS head and BOP flange. **Note: HHS wellheads have a compact, proprietary top flange that will not directly bolt up to a flanged BOP.**



The HSM was designed with the BOP in mind. The unique design permits positioning the pack-off assembly and adjusting the electric cable prior to being lowered through the BOP into the tubing head body. The pack-off is affected by tightening the 6 bolts of the assembly around a high strength alloy steel mandrel nipple.

SPECIFICATIONS	HHS					HSM		
<b>Bottom Thread</b>	4-1/2", 5-1/2" 8rd API	7" 8rd API	8-5/8" 8rd API	9-5/8" 8rd API	10-3/4" 8rd API	4-1/2" 8rd API	5-1/2" 8rd API	7" 8rd API
<b>Bottom Connection</b>	Fem. Short		Fem. Short, Fem. Slip Joint or Flanged			Fem. Short		
<b>Working Pressure</b>	1500 PSI	1500 PSI	1500 PSI	1500 PSI	1500 PSI	1500 PSI	1500 PSI	1500 PSI
<b>Body Test Pressure</b>	3000 PSI	3000 PSI	3000 PSI	3000 PSI	3000 PSI	3000 PSI	3000 PSI	3000 PSI
<b>Max. Body Load (2:1 SF)</b>	80,000 lbs.	80,000 lbs.	100,000 lbs.	100,000 lbs.	100,000 lbs.	80,000 lbs.	80,000 lbs.	80,000 lbs.
<b>Cap Thread</b>	N/A	N/A	N/A	N/A	N/A	8-5/8" 8rd API*	8-5/8" 8rd API*	8-5/8" 8rd API*
<b>Inner String</b>	2", 2-1/2", 3"		2", 2-1/2", 3", 4-1/2", 5-1/2"		2", 2-1/2", 3", 4-1/2", 5-1/2", 6-5/8", 7"	2", 2-1/2" EUE (3" EUE not available)		
<b>Suspension</b>	Slip					Mandrel Nipple		
<b>Side Outlet</b>	2" LP					2" LP		
<b>Minimum Bore</b>	4.000"/4.938"	6.438"	8.000"	8.875"	9.938"	4.000"	4.938"	6.438"
<b>Body Material</b>	Ductile Iron	Ductile Iron	Carbon Steel	Carbon Steel	Carbon Steel	Ductile Iron	Ductile Iron	Ductile Iron
<b>Packing Gland</b>	Ductile Iron					Ductile Iron		
<b>Height</b>	14-1/2"	14-1/2"	13-1/2"	16"	16"	12-1/2"	12-1/2"	12-1/2"
<b>Weight</b>	145 lbs.	145 lbs.	195 lbs.	265 lbs.	265 lbs.	105 lbs.	105 lbs.	105 lbs.

\* Caution: R&M Energy Systems recommends using only API threaded Hercules flanges. See pg. 22.  
 Note: Specify round or flat cable and exact cable dimension. See pg. 18.  
 Note: If capillary tubes are required, contact Customer Service.

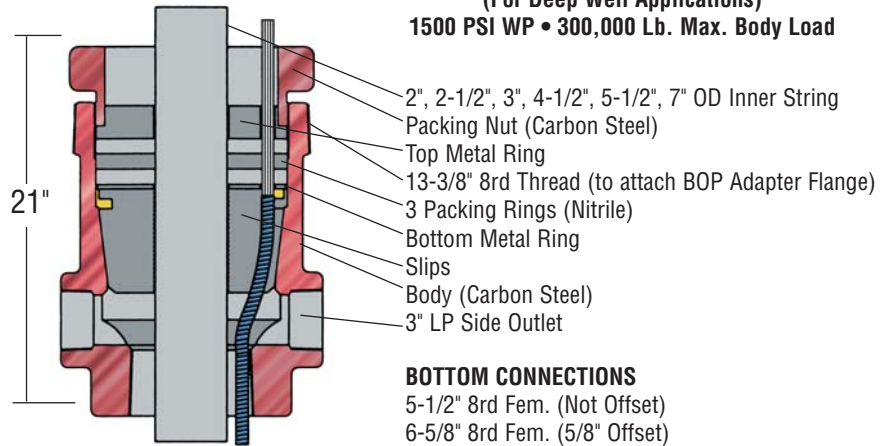
**HHS - CA**



**Flange Bottom  
(Optional)**

The **HHS-CA** allows the installation of readily-available 8-5/8" 8rd threaded drilling flanges during installation or workover of the ESP. 2", 2-1/2" or 3" tubing may be suspended using the same internal parts (less 1 HHS packing ring) as the 4-1/2" thru 7" HHS. A 4-1/2" thru 7" HHS. A 4-1/2", 5-1/2" or 7" A7 body & HSM cap replaces the regular HHS body & gland cap.

**Hercules RC Submersible Head  
(For Deep Well Applications)  
1500 PSI WP • 300,000 Lb. Max. Body Load**



**BOTTOM CONNECTIONS**

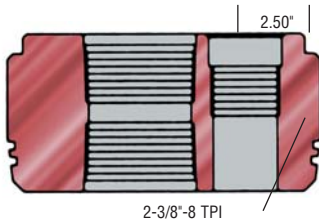
- 5-1/2" 8rd Fem. (Not Offset)
- 6-5/8" 8rd Fem. (5/8" Offset)
- 7" 8rd Fem. (5/8" Offset)
- 7-5/8" 8rd Fem. (5/8" Offset)
- 8-5/8" 8rd Fem. (1/2" Offset)
- 9-5/8" 8rd Fem. (Not Offset)
- (10-3/4" Not Available)

**ELECTRIC FEED-THRU CONVERSIONS FOR VARIOUS HERCULES SUBMERSIBLE WELLHEADS**

Highly recommended for annulus pressures above 250 PSI, H<sub>2</sub>S/CO<sub>2</sub> service, environmentally sensitive locations, or where NEMA Class 1, Div. 2 hardware is required. Replaces standard slips and packoff rings.

NOTE: Penetrators and threaded hangers are not a stock item. Contact Customer Service for price and availability.

**Threaded Hanger For  
"Mini-Mandrel" Penetrator**

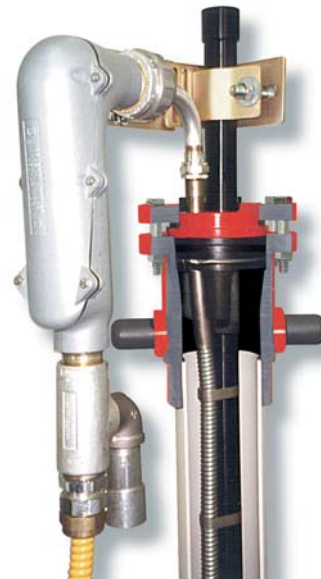
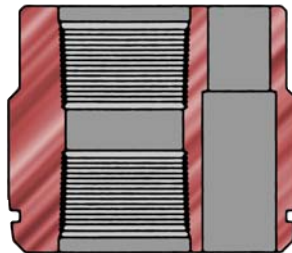


**Conversion of HHS With Standard Slip  
Suspension to QCI P2000 Penetrator System  
(NEMA Class 1, Div. 2 Applications)**

Benefits: Tubing slips are re-used. Only rubber and metal packing rings are changed during this conversion.



**Threaded Hanger For BIW  
"Safe-T-Lok" Penetrator**



**Note:** If capillary tubes are required, contact Customer Service.