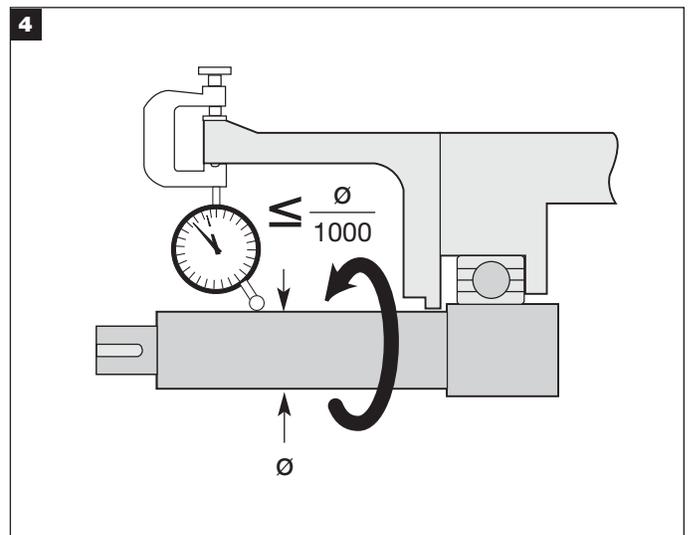
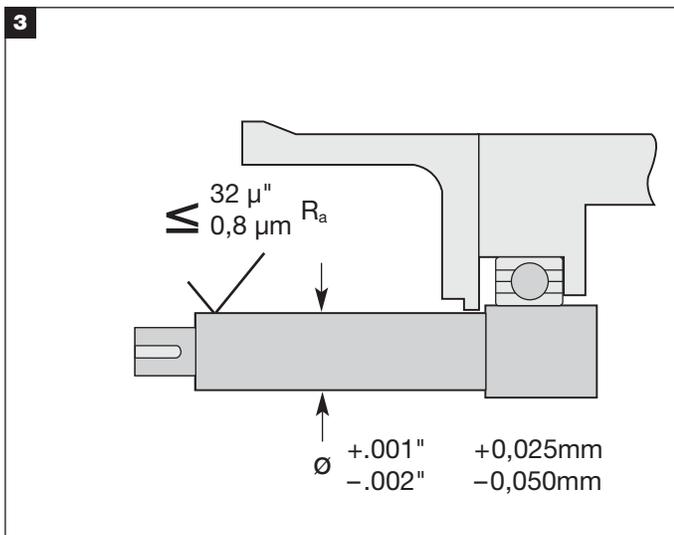
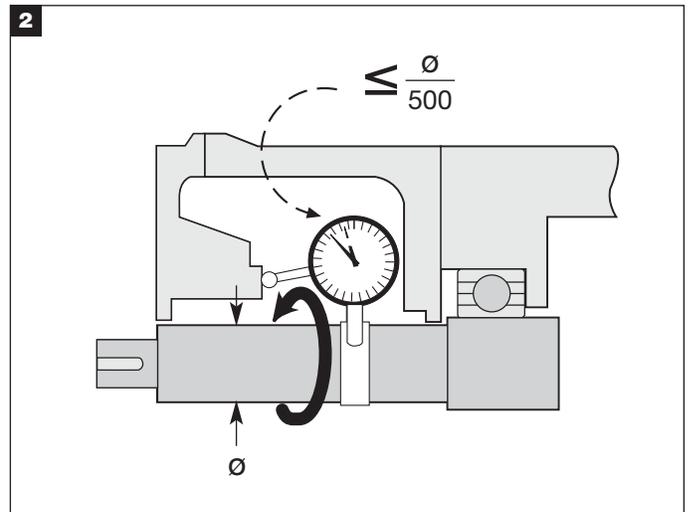
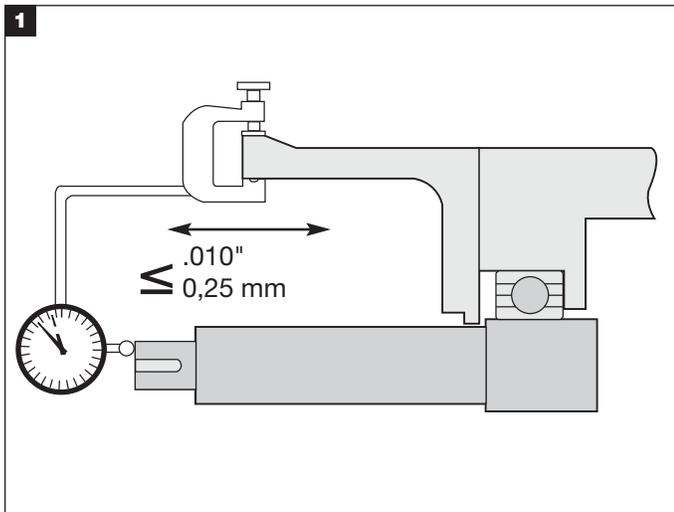


# HVS High Viscosity Seal Single Cartridge Seal

## PREPARATION

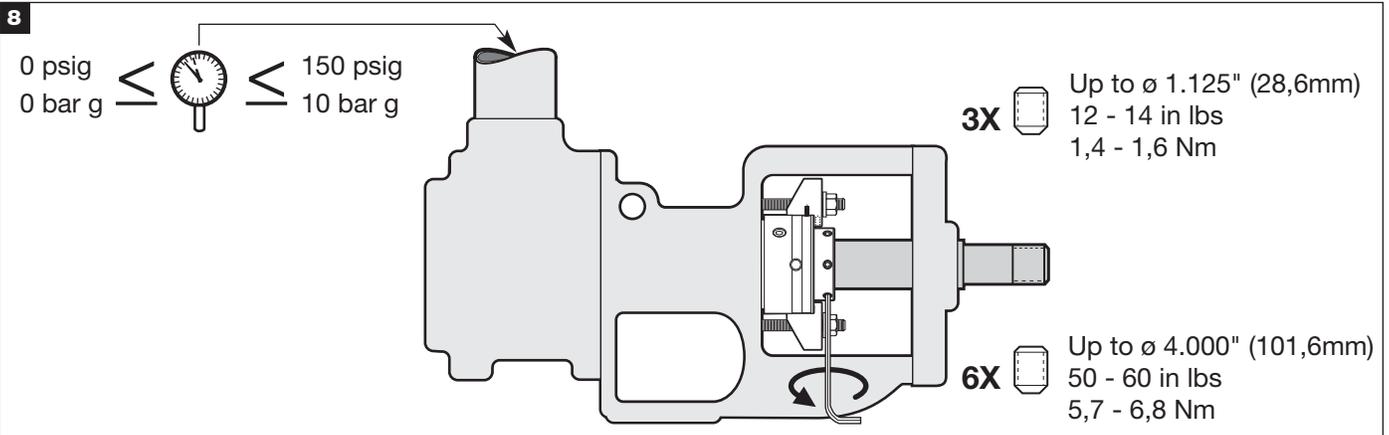
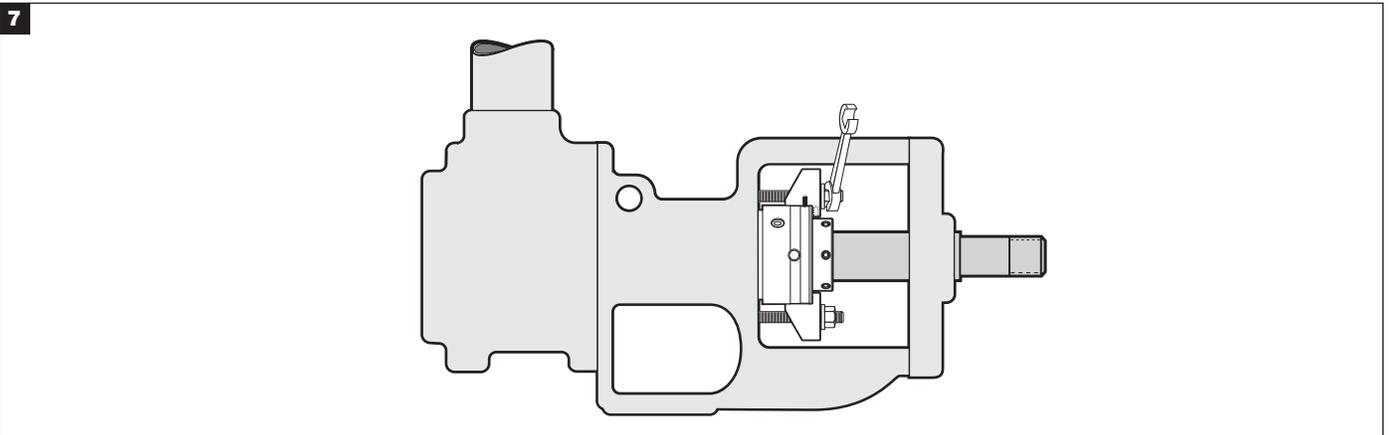
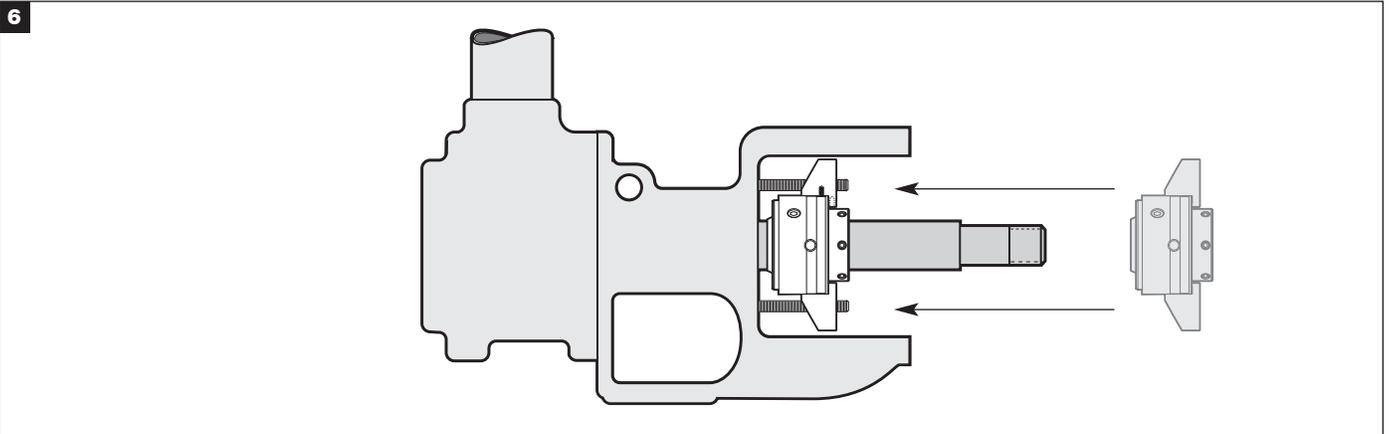
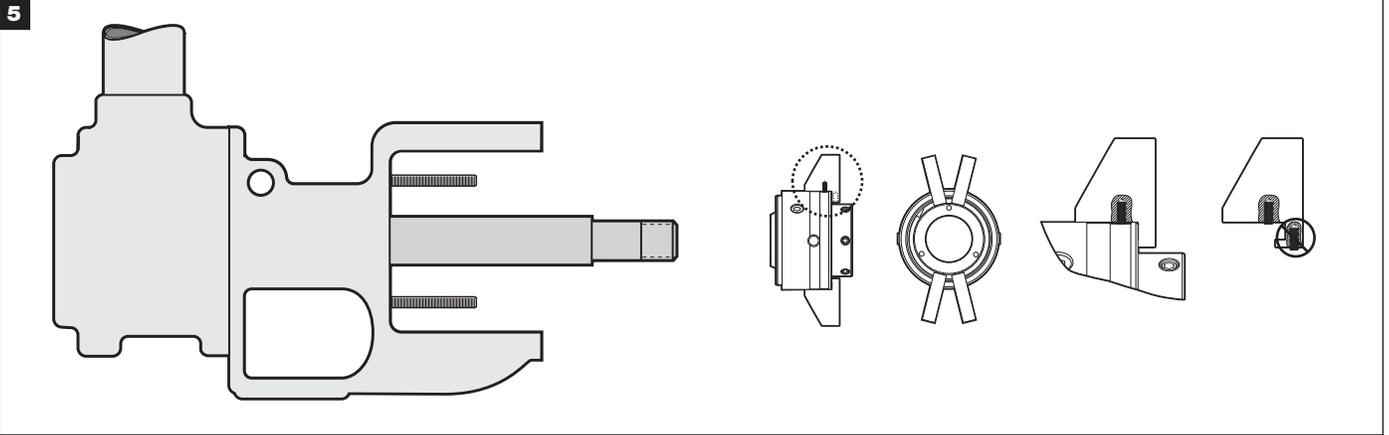


## CAUTIONS

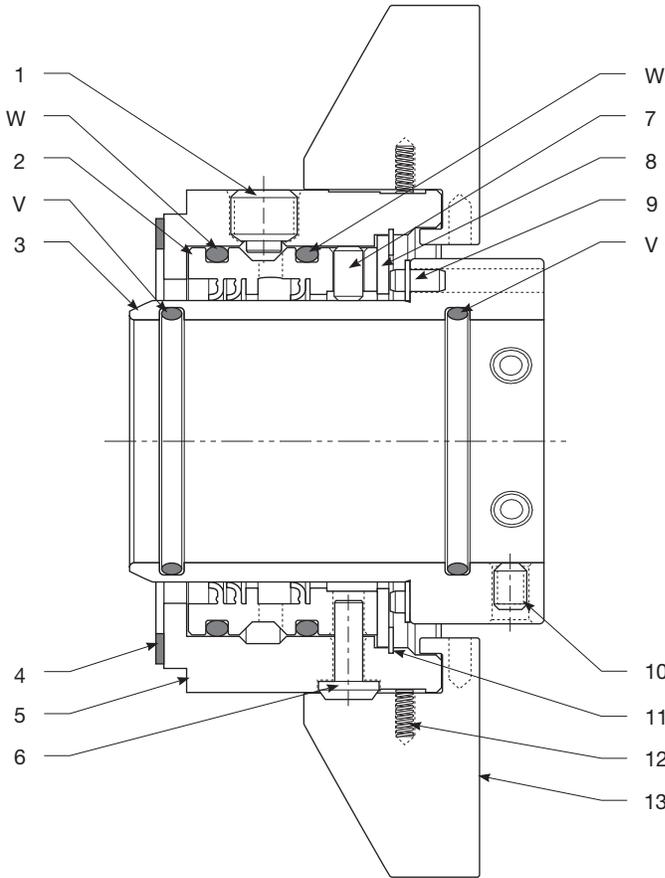
These instructions are general in nature. It is assumed that the installer is familiar with seals and certainly with the requirements of their plant for the successful use of rotating shaft seals. If in doubt, get assistance from someone in the plant who is familiar with seals or delay the installation until a seal representative is available. All necessary auxiliary

arrangements for successful operation (heating, cooling, flushing) as well as safety devices must be employed. These decisions are to be made by the user. The chemical listing is intended as a **general** reference for this seal **only**. The decision to use this seal or any other Chesterton seal in a particular service is the customer's responsibility.

# SEAL INSTALLATION



**PARTS IDENTIFICATION**



**STANDARD MATERIALS\***

**Metal Parts:**

316SS All metal components

**Sleeve:**

316SS, Chrome Oxide Coated

**Springs:**

Alloy C-276 Springs

**O-Rings:**

Fluorocarbon, Ethylene Propylene, ChemLast™

**Lip Seal Element:**

Available in exclusive Chesterton materials

Chesterton 100, 400, 510

**Temperature:**

**Fluid:**

up to 350°F \*

**Elastomers:**

400°F (204°C) Fluorocarbon

300°F (148°C) Ethylene Propylene

450°F (232°C) ChemLast™

**Speed:**

up to 750 FPM (3,8 m/s)\*

**Pressure:**

up to 150 psig (10 bar g)\*

**Viscosity:**

up to 16,200 Centistokes (up to 75,000 SSU)\*

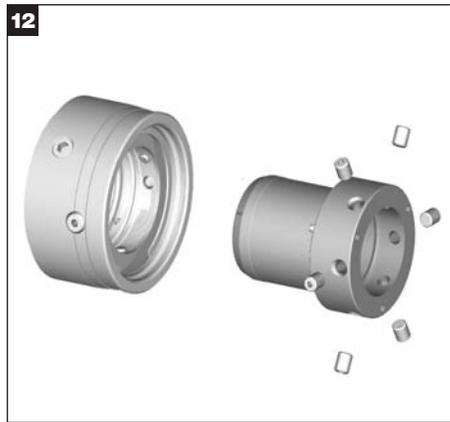
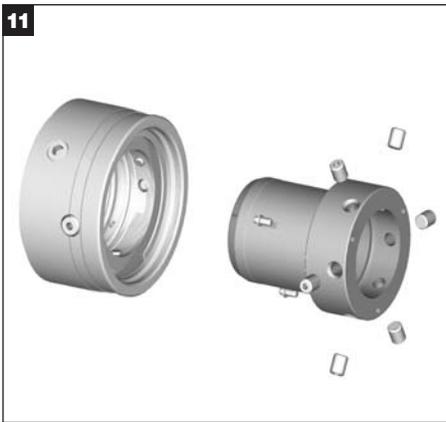
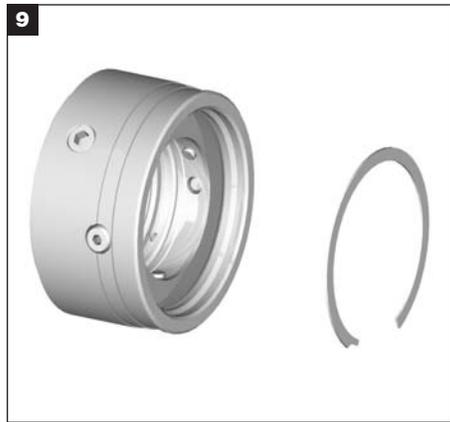
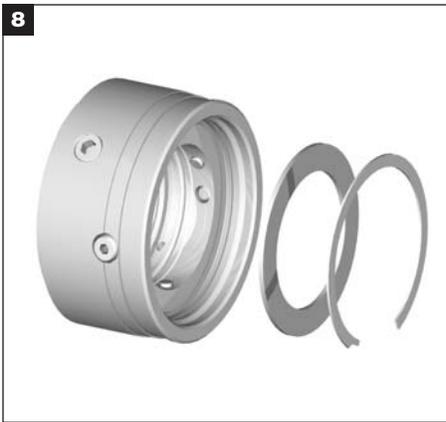
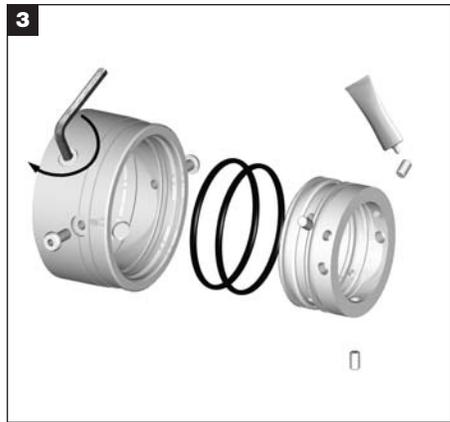
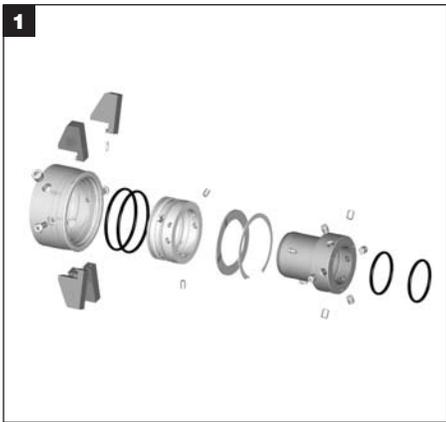
ChemLast is a trademark of the A.W. Chesterton Company.

\* Consult Chesterton Applications Engineering to apply these limits for the application.

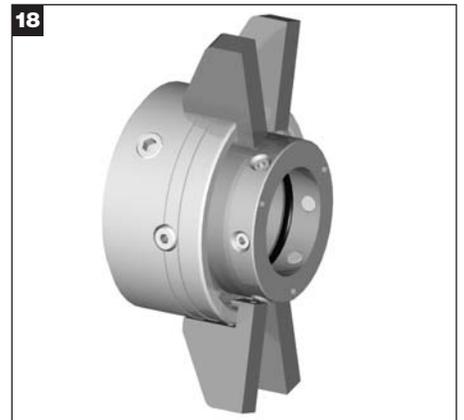
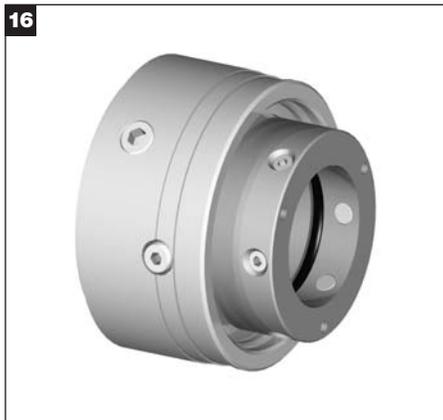
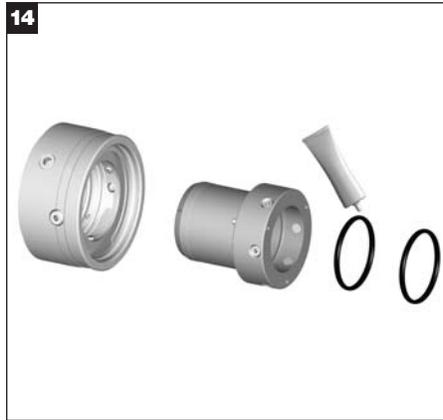
KEY	QTY	KEY	QTY
1 - Pipe Plug	2	9 - Axial Centering Pin	6
2 - Lip Seal Element	1	10 - Set Screw	6
3 - Sleeve	1	11 - Snap Ring	1
4 - Gasket	1	12 - Spring	4
5 - Gland	1	13 - Bolt Tab	4
6 - Antirotation Screw	2**	V - Shaft O-Ring	2
7 - Centering Pin	3	W - Lip Seal O-Ring	2
8 - Retaining Washer	1		

\*\* Seal shaft sizes  $\phi$  2.87" and larger uses quantity of 4.

ASSEMBLY / DISASSEMBLY



# ASSEMBLY / DISASSEMBLY



## HVS - DIMENSIONAL DATA (METRIC )

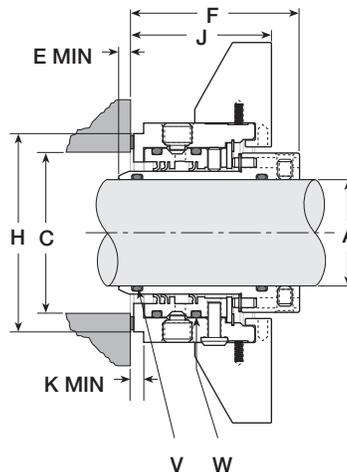
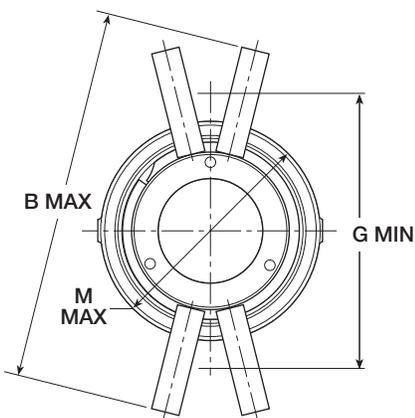
SHAFT SIZE	GLAND BOLT TAB OD	STUFFING BOX		MIN SB DEPTH	OB SEAL LENGTH	BOLT CIRCLE BY BOLT SIZE					GLAND PILOT	J	GLAND STEP	GLAND OD	O-RINGS				
						G MIN									H MAX	K MIN	M MAX	V	W
						8 mm	10 mm	12 mm	16 mm	20 mm									
25	120.8	37.7	42.4	6.3	58.0	72.8	74.8	76.8			59.9	52.2	0.18	64.2	119	130			
28	124.7	40.8	49.8	6.3	58.0	76.4	78.4	80.4			63.7	52.2	0.18	67.8	122	133			
30	124.7	40.8	49.8	6.3	58.0	76.4	78.4	80.4			63.7	52.2	0.18	67.8	025	133			
32	128.1	44.2	53.3	7.6	63.0	79.8	81.8	83.8	87.8		67.1	52.2	0.18	71.1	124	135			
35	131.0	47.1	56.4	7.6	63.0	82.7	84.7	86.7	90.7		70.0	52.2	0.18	74.1	127	137			
40	136.0	52.2	57.9	7.6	63.0	87.8	89.8	91.8	95.8	99.8	71.8	52.2	0.18	79.1	129	140			
45	141.0	57.2	62.9	7.6	63.0	92.8	94.8	96.8	100.8	104.8	76.8	52.2	0.18	84.1	132	143			
50	147.2	63.1	68.8	7.6	63.0	98.6	100.6	102.6	106.6	110.6	82.6	52.2	0.18	89.9	136	147			
53	150.1	66.2	72.1	7.6	63.0	101.8	103.8	105.8	109.8	113.8	85.8	52.2	0.18	93.2	137	149			
55	153.4	69.4	75.4	7.6	63.0	104.9	106.9	109.0	113.0	117.0	89.0	52.2	0.18	96.5	140	150			
60	172.6	74.1	87.9	7.6	63.0	124.4	126.4	128.4	132.4	136.4	102.4	54.1	0.18	115.8	142	151			
65	176.4	77.2	91.9	7.6	63.0	127.5	129.5	131.5	135.5	139.5	105.6	53.5	0.18	118.8	145	152			
70	181.2	82.1	96.8	7.6	63.0			136.4	140.4	144.4	110.4	53.5	0.18	123.6	148	152			
75	188.4	89.2	115.7	7.6	63.0			143.5	147.5	151.5	131.0	52.4	0.00	131.0	234	239			
80	193.4	94.2	120.9	7.6	63.0			148.5	152.5	156.5	136.0	52.4	0.00	136.0	235	241			
85	200.6	106.5	126.1	7.6	63.0			156.8	160.8	164.8	143.3	52.4	0.00	143.0	238	243			
100	214.9	115.8	141.1	7.6	63.0			170.1	174.1	178.1	157.6	52.4	0.00	157.6	242	247			

PIPING CONNECTIONS: 1/8 inch NPT

# HVS - DIMENSIONAL DATA (INCH )

SHAFT SIZE A	GLAND BOLT TAB OD B MAX	STUFFING BOX		MIN SB DEPTH E MIN	OB SEAL LENGTH F	BOLT CIRCLE BY BOLT SIZE					GLAND PILOT H MAX	J	GLAND STEP K MIN	GLAND OD M MAX	O-RINGS	
		C MIN	C MAX			G MIN									V	W
						5/16"	7/16"	1/2"	5/8"	3/4"						
0.750	4.54	1.21	1.48	.25	2.186	2.641	2.766				2.133	2.06	.15	2.30	116	127
1.125	4.92	1.58	1.82	.25	2.186	3.016	3.141				2.510	2.06	.15	2.67	122	133
1.375	5.17	1.83	2.10	.30	2.405	3.266	3.391				2.758	2.06	.15	2.92	126	137
1.437	5.23	1.89	2.06	.30	2.405	3.328	3.453				2.690	2.06	.15	2.99	127	138
1.500	5.29	1.96	2.11	.30	2.405	3.391	3.516				2.753	2.06	.15	3.05	128	139
1.625	5.42	2.08	2.23	.30	2.405	3.516	3.641	3.703			2.878	2.06	.15	3.17	130	141
1.750	5.54	2.21	2.36	.30	2.405	3.641	3.766	3.828			3.003	2.06	.15	3.30	132	143
1.812	5.60	2.27	2.42	.30	2.405	3.703	3.828	3.890			3.065	2.06	.15	3.36	133	144
1.875	5.67	2.33	2.45	.30	2.405	3.766	3.891	3.953			3.128	2.06	.15	3.42	134	145
2.125	5.92	2.58	2.80	.30	2.405			4.203	4.328	4.453	3.378	2.06	.15	3.67	138	149
2.250	6.04	2.71	2.81	.30	2.405			4.328	4.453	4.578	3.503	2.06	.15	3.80	140	150
2.437	6.81	2.89	3.23	.30	2.465			5.095	5.220	5.345	4.034	2.06	.15	4.57	143	151
2.500	6.87	2.96	3.41	.30	2.465			5.158	5.283	5.408	4.097	2.06	.15	4.63	144	151
2.750	7.12	3.21	3.65	.30	2.465			5.408	5.533	5.658	4.347	2.06	.15	4.88	148	152
2.875	7.93	3.41	3.98	.30	2.406			5.611	5.736	5.861	5.08	2.06	0.00	5.08	233	238
2.953	8.01	3.49	3.98	.30	2.406			5.689	5.814	5.939	5.16	2.06	0.00	5.16	234	239
3.437	8.50	3.97	4.48	.30	2.406			6.173	6.298	6.423	5.64	2.06	0.00	5.64	238	243
3.500	8.56	4.03	4.48	.30	2.406			6.236	6.361	6.486	5.71	2.06	0.00	5.71	238	243
4.000	9.06	4.53	4.98	.30	2.406			6.736	6.861	6.986	6.21	2.06	0.00	6.21	242	247

PIPING CONNECTIONS: 1/8 inch NPT



**KEY**

- A - Shaft Size
- B - Gland Bolt Tab Maximum Diameter
- C - Stuffing Box Inside Diameter
- E - Minimum Stuffing Box Depth
- F - Outboard Seal Length
- G - Minimum Bolt Circle by Bolt Size
- H - Gland Thickness
- J - Distance from Stuffing Box Face to Tab Face
- K - Gland Step
- M - Gland OD
- V - Shaft O-Ring
- W - Sealing Element O-Ring



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