

UTEX INDUSTRIES, INC.

GENESIS™ I

C A R T R I D G E S E A L

- Externally located springs are virtually non-clogging
- Visible drive disc indicates face wear
- Setting clip removal unnecessary saving installation time
- Single-piece mounting brackets make tough installations easier



UTEX INDUSTRIES, INC.
Taking Sealing Technology Beyond Tomorrow
www.utexind.com

GENESIS

The most significant change in seal design since the 70s.

Genesis I takes mechanical seal technology to an entirely new level. It provides the features you demand in a cartridge-type mechanical face seal, but at a significantly reduced price.

Designed for use with centrifugal pumps and other rotating equipment, the Genesis I makes installation easier, alignment automatic, and field refurbishment a matter of replacing a few readily available parts.

Service parameters: 3600 rpm, 400 psi (27.6 bar), 400° F (204° C). Meets all ANSI and DIN standards.

Features

Carbon, silicon carbide, tungsten carbide face materials available

OBS (outboard springs)

Visible drive disc

Stationary design

Cushion-mounted seat

Standard flush port

Non-metallic wearable setting clips

Removable one-piece mounting brackets

Fluorocarbon O-Rings standard

Hastelloy™ "C" springs

Carbon composite gland gasket

Available in exotic alloys

Special gland configurations available

Standard repair kits and instructions

Benefits

Select best material for each application

Virtually non-clogging, visible during operation

Allows visual and measurable indication of seal face wear

Self-aligning
Minimizes spring/face oscillation during operation

Minimizes transfer of vibration

Promotes lubrication and cooling

Removal not required, saves installation time

Fits wider range of equipment
No adjustment required during installation
Easier to install in confined spaces
Reduced cost for special alloy glands

Better chemical and temperature tolerance range
Other elastomers available

Improved corrosion resistance

Better chemical and temperature tolerance range

Can be adapted for use in hostile environments

Can be adapted to fit non-standard interfaces

Increased field maintenance flexibility

GENESIS GENESIS

Genesis™ I takes mechanical seal technology into the next century!

The Genesis I is a new approach to cartridge-type mechanical seal design. It provides long-lasting reliability, easy installation and maintenance, at a remarkably low cost.

Available with carbon, tungsten carbide, or silicon carbide seal face materials, and with standard 316 stainless steel parts or other alloys as required, the Genesis I can be supplied as corrosion-resistant as necessary. Standard fluorocarbon O-rings provide a wide temperature tolerance range and chemical resistance.

Non-clogging Springs

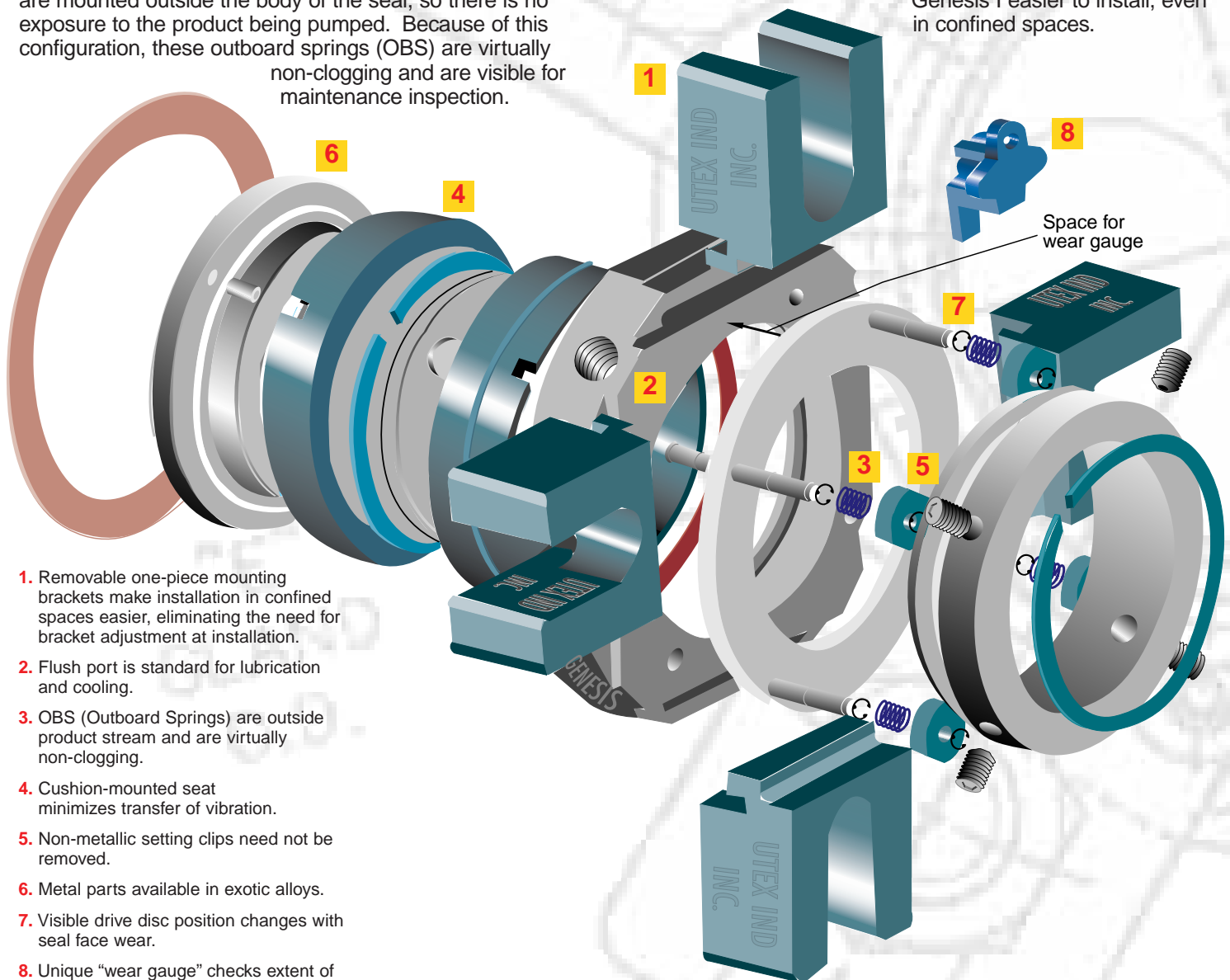
Springs used to maintain contact between the sealing faces are mounted outside the body of the seal, so there is no exposure to the product being pumped. Because of this configuration, these outboard springs (OBS) are virtually non-clogging and are visible for maintenance inspection.

The stationary spring configuration improves face tracking and helps compensate for pump misalignment. Seat cushioning further helps to isolate the seal faces from harmonic and roto-dynamic vibrations.

Easy Installation

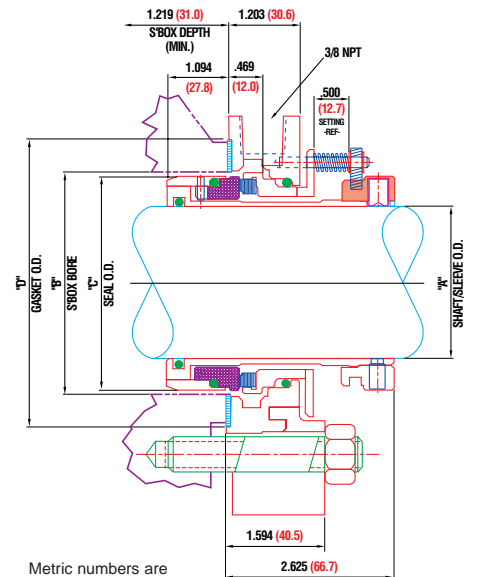
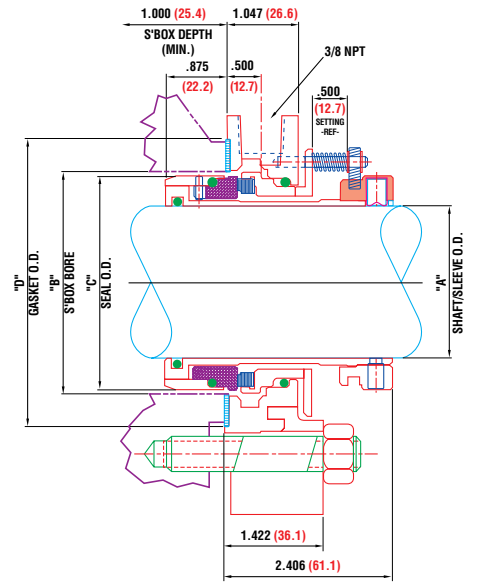
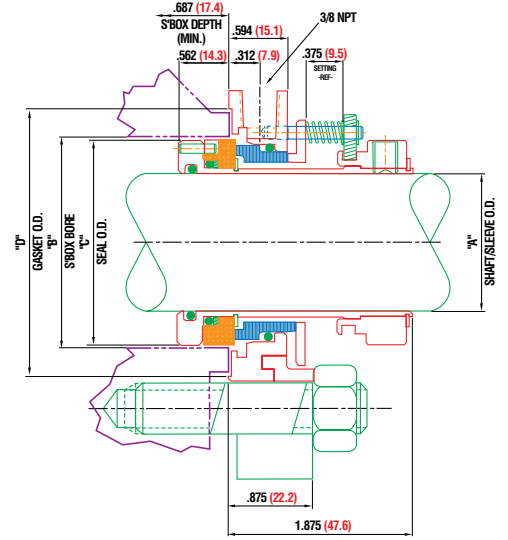
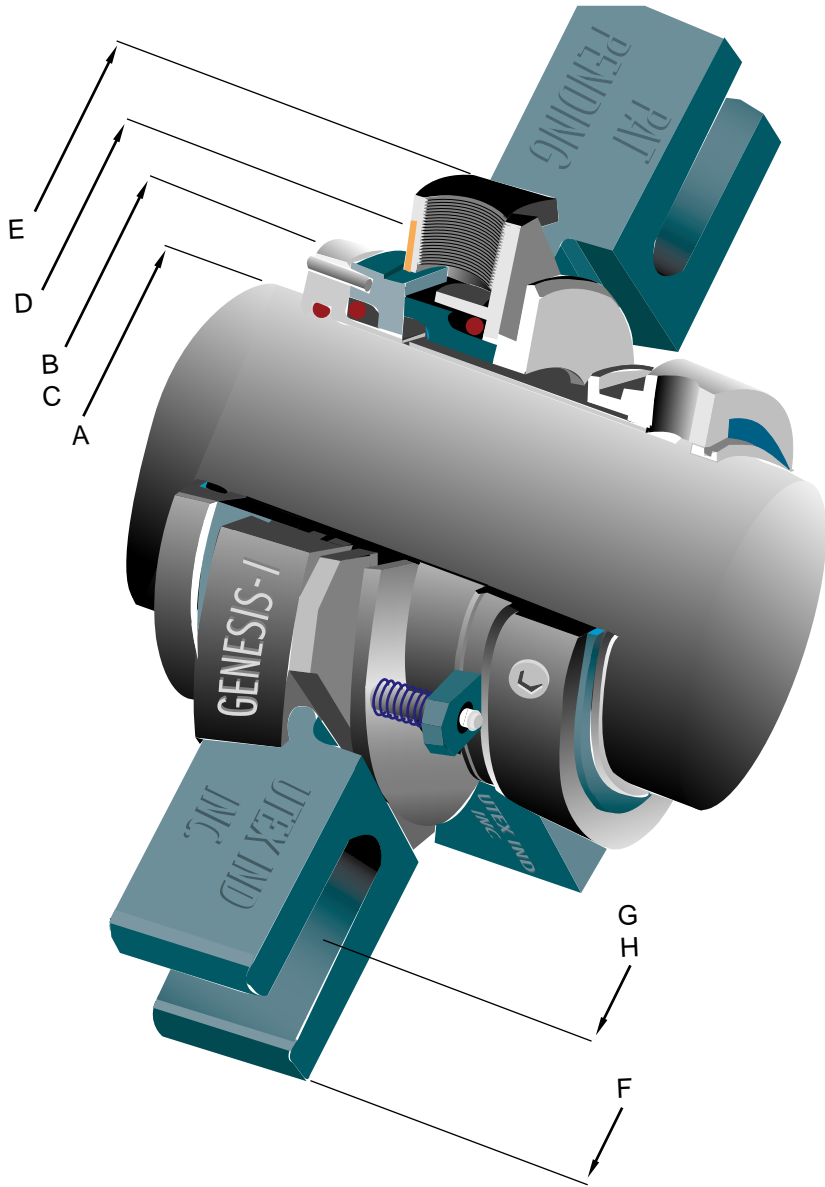
Genesis I is designed for ease of installation. The specially designed setting clips eliminate the need for seal adjustment at the time of installation. The clips secure the seal assembly in both axial and radial directions relative to the shaft and keep rotating and stationary parts in firm contact as well as concentric with the shaft.

The wearable, non-metallic setting clips may be rotated out of the way or left as is, and need not be removed, reducing installation time. Removable mounting brackets make the Genesis I easier to install, even in confined spaces.



1. Removable one-piece mounting brackets make installation in confined spaces easier, eliminating the need for bracket adjustment at installation.
2. Flush port is standard for lubrication and cooling.
3. OBS (Outboard Springs) are outside product stream and are virtually non-clogging.
4. Cushion-mounted seat minimizes transfer of vibration.
5. Non-metallic setting clips need not be removed.
6. Metal parts available in exotic alloys.
7. Visible drive disc position changes with seal face wear.
8. Unique "wear gauge" checks extent of face wear.

GENESIS GENESIS



GENESIS GENESIS

SHAFT/ SLEEVE DIA. INCHES MM	STUFFING BOX BORE		SEAL O.D.	GASKET O.D.	GLAND O.D.	BRACKET O.D.	SLOT DIA.	BOLT CIRCLE BY BOLT SIZE MINIMUM / MAXIMUM				
	MINIMUM	MAXIMUM										
	A	B						C	D	E	F	G
1.00 25.0	1.63 41.5	1.88 48.0	1.56 39.7	2.19 55.5	2.59 65.9	4.00 102.0	0.44 11.1	2.75 70.0/3.50 89.0	- / - / -	- / - / -	- / - / -	- / - / -
1.13 28.0	1.75 44.5	2.00 51.0	1.69 42.9	2.31 58.7	2.71 68.7	4.13 105.0	0.44 11.1	2.88 73.0/3.62 92.0	- / - / -	- / - / -	- / - / -	- / - / -
1.19 30.0	1.81 46.0	2.06 52.0	1.75 44.5	2.38 60.3	2.78 70.6	4.18 106.0	0.44 11.1	2.94 75.0/3.69 93.0	- / - / -	- / - / -	- / - / -	- / - / -
1.25 32.0	1.88 48.0	2.13 54.0	1.81 46.0	2.44 61.9	2.84 72.2	4.25 108.0	0.44 11.1	3.00 76.0/3.75 95.0	- / - / -	- / - / -	- / - / -	- / - / -
1.31 33.0	1.94 49.0	2.19 55.5	1.88 47.6	2.50 63.5	2.90 73.8	4.31 110.0	0.44 11.1	3.06 78.0/3.81 97.0	- / - / -	- / - / -	- / - / -	- / - / -
1.38 35.0	2.00 51.0	2.25 58.0	1.94 49.2	2.56 65.1	2.97 74.4	4.38 111.0	0.44 11.1	3.13 79.0/3.88 98.0	- / - / -	- / - / -	- / - / -	- / - / -
1.50 38.0	2.25 57.5	2.50 64.0	2.19 55.5	2.81 71.4	3.18 80.9	5.25 133.0	0.56 14.3	3.38 86.0/4.75 120.0	3.50 88.0/4.63 118.0	- / - / -	- / - / -	- / - / -
1.56 40.0	2.31 58.0	2.56 65.0	2.25 57.2	2.88 73.0	3.25 82.6	5.31 135.0	0.56 14.3	3.44 88.0/4.81 122.0	3.56 90.0/4.69 120.0	- / - / -	- / - / -	- / - / -
1.63 -	2.38 -	2.63 -	2.31 -	2.94 74.6	3.31 -	5.38 -	0.56 14.3	3.50 - /4.88 -	3.63 - /4.75 -	- / - / -	- / - / -	- / - / -
1.69 42/43.0	2.44 62.0	2.69 68.0	2.38 60.3	3.00 76.2	3.37 85.7	5.44 138.0	0.56 14.3	3.56 91.0/4.94 125.0	3.69 93.0/4.81 123.0	- / - / -	- / - / -	- / - / -
1.75 45.0	2.50 63.5	2.75 70.0	2.44 61.9	3.06 77.8	3.44 87.3	5.50 140.0	0.56 14.3	3.63 92.0/5.00 127.0	3.75 94.0/4.88 125.0	- / - / -	- / - / -	- / - / -
1.88 48.0	2.63 67.0	2.88 73.0	2.56 65.1	3.19 81.0	3.56 90.5	5.63 143.0	0.56 14.3	3.75 95.0/5.13 130.0	3.88 97.0/5.00 128.0	- / - / -	- / - / -	- / - / -
2.00 50.0	2.75 70.0	3.00 77.0	2.69 68.3	3.31 84.1	3.69 93.7	5.75 146.0	0.56 14.3	3.88 98.0/5.25 133.0	4.00 100.0/5.13 131.0	- / - / -	- / - / -	- / - / -
2.13 53.0	2.88 73.0	3.13 79.0	2.81 71.4	3.44 87.3	3.81 96.8	5.88 149.0	0.69 17.4	4.00 102.0/5.38 136.0	4.13 104.0/5.25 134.0	4.25 108.0/5.13 130.0	- / - / -	- / - / -
2.19 55.0	2.94 75.0	3.19 81.0	2.88 73.0	3.50 88.9	3.88 98.4	5.94 151.0	0.69 17.4	4.06 104.0/5.44 138.0	4.19 106.0/5.31 136.0	4.25 108.0/5.13 130.0	- / - / -	- / - / -
2.25 -	3.00 -	3.25 -	2.94 -	3.56 90.5	3.94 -	6.00 -	0.69 17.4	4.13 - /5.50 -	4.25 - /5.38 -	4.38 - /5.25 -	- / - / -	- / - / -
2.38 58/60.0	3.13 79.5	3.38 86.0	3.06 77.8	3.69 93.7	4.06 103.2	6.13 156.0	0.69 17.4	4.25 108.0/5.63 143.0	4.38 111.0/5.50 140.0	4.50 114.0/5.38 137.0	- / - / -	- / - / -
2.50 63.0	3.25 82.5	3.50 89.0	3.19 80.9	3.81 96.8	4.19 106.4	6.25 159.0	0.69 17.4	4.38 111.0/5.75 146.0	4.50 113.0/5.63 144.0	4.63 117.0/5.50 140.0	- / - / -	- / - / -
2.63 65.0	3.38 86.0	3.63 93.0	3.31 84.1	3.94 100.0	4.31 109.5	6.38 162.0	0.69 17.4	4.50 113.0/5.88 150.0	4.63 117.0/5.75 146.0	4.75 120.0/5.63 143.0	- / - / -	- / - / -
2.69 68.0	3.44 87.0	3.69 94.0	3.38 86.0	4.00 101.6	4.38 111.1	6.44 164.0	0.69 17.4	4.56 115.0/5.94 151.0	4.68 119.0/5.81 148.0	4.81 122.0/5.68 144.0	- / - / -	- / - / -

METRIC NUMBERS ARE INDICATED IN RED.

SHAFT/ SLEEVE DIA. INCHES MM	STUFFING BOX BORE		SEAL O.D.	GASKET O.D.	GLAND O.D.	BRACKET O.D.	SLOT DIA.	BOLT CIRCLE BY BOLT SIZE MINIMUM / MAXIMUM				
	MINIMUM	MAXIMUM										
	A	B						C	D	E	F	G
2.75 70.0	3.75 95.0	4.31 110.0	3.63 92.1	4.69 119.0	5.49 139.0	7.81 198.0	0.69 17.4	5.25 133.0/7.31 186.0	5.37 137.0/7.19 183.0	5.50 140.0/7.06 179.0	- / - / -	- / - / -
2.88 -	3.88 -	4.44 -	3.75 -	4.81 122.2	5.62 -	7.94 -	0.69 -	5.37 - /7.44 -	5.50 - /7.31 -	5.62 - /7.19 -	- / - / -	- / - / -
3.00 75.0	4.00 101.0	4.56 116.0	3.88 98.4	4.94 125.4	5.74 146.0	8.06 205.0	0.69 17.4	5.50 140.0/7.56 192.0	5.62 143.0/7.44 189.0	5.75 146.0/7.31 186.0	- / - / -	- / - / -
3.13 -	4.13 -	4.69 -	4.00 -	5.06 128.6	5.87 -	8.19 -	0.69 -	5.62 - /7.69 -	5.75 - /7.56 -	5.87 - /7.44 -	- / - / -	- / - / -
3.25 80.0	4.25 108.0	4.81 123.0	4.13 104.8	5.19 131.7	5.99 152.0	8.31 211.0	0.69 17.4	5.75 146.0/7.81 198.0	5.87 149.0/7.69 195.0	6.00 152.0/7.56 192.0	- / - / -	- / - / -
3.38 85.0	4.50 114.0	5.06 129.0	4.38 111.1	5.44 138.1	6.24 158.0	8.56 217.0	0.81 20.6	6.00 152.0/8.06 205.0	6.12 156.0/7.94 202.0	6.25 159.0/7.81 198.0	6.37 162.0/7.69 195.0	6.37 162.0/7.69 195.0
3.50 90.0	4.50 114.0	5.06 129.0	4.38 111.1	5.44 138.1	6.24 158.0	8.56 217.0	0.81 20.6	6.00 152.0/8.06 205.0	6.12 156.0/7.94 202.0	6.25 159.0/7.81 198.0	6.37 162.0/7.69 195.0	6.37 162.0/7.69 195.0
3.63 -	4.75 -	5.31 -	4.63 -	5.69 -	6.49 -	8.81 -	0.81 -	6.25 - /8.31 -	6.37 - /8.19 -	6.50 - /8.06 -	6.62 - /7.94 -	6.62 - /7.94 -
3.75 95.0	4.75 120.0	5.31 135.0	4.63 117.5	5.69 144.4	6.49 165.0	9.06 224.0	0.81 20.6	6.25 159.0/8.31 211.0	6.37 162.0/8.19 208.0	6.50 165.0/8.06 205.0	6.62 168.0/7.94 202.0	6.62 168.0/7.94 202.0
3.88 -	5.00 -	5.56 -	4.88 -	5.94 -	6.74 -	9.06 -	0.81 -	6.50 - /8.56 -	6.62 - /8.44 -	6.75 - /8.31 -	6.87 - /8.19 -	6.87 - /8.19 -
4.00 100.0	5.00 127.0	5.56 142.0	4.88 123.8	5.94 150.8	6.74 171.0	9.06 230.0	0.81 20.6	6.50 165.0/8.56 217.0	6.62 168.0/8.44 214.0	6.75 171.0/8.31 211.0	6.87 175.0/8.19 208.0	6.87 175.0/8.19 208.0
4.13 -	5.25 -	5.81 -	5.13 -	6.19 -	6.99 -	9.31 -	0.81 -	6.75 - /8.81 -	6.87 - /8.69 -	7.00 - /8.56 -	7.12 - /8.44 -	7.12 - /8.44 -
4.25 105.0	5.25 133.0	5.81 148.0	5.13 130.2	6.19 157.1	6.99 177.0	9.31 237.0	0.81 20.6	6.75 171.0/8.81 224.0	6.87 175.0/8.69 221.0	7.00 179.0/8.56 217.0	7.12 181.0/8.44 214.0	7.12 181.0/8.44 214.0
4.38 -	5.50 -	6.06 -	5.38 -	6.44 -	7.24 -	9.56 -	0.81 -	7.00 - /9.06 -	7.12 - /8.94 -	7.25 - /8.81 -	7.37 - /8.69 -	7.37 - /8.69 -
4.50 110/115.0	5.50 139.0	6.06 154.0	5.38 136.5	6.44 163.5	7.24 184.0	9.56 243.0	0.81 20.6	7.00 178.0/9.06 230.0	7.12 181.0/8.94 227.0	7.25 184.0/8.81 224.0	7.37 187.0/8.69 221.0	7.37 187.0/8.69 221.0
4.63 -	5.75 -	6.31 -	5.63 -	6.69 -	7.49 -	9.81 -	0.81 -	7.25 - /9.31 -	7.37 - /9.19 -	7.50 - /9.06 -	7.62 - /8.94 -	7.62 - /8.94 -
4.75 120.0	5.75 146.0	6.31 161.0	5.63 142.9	6.69 169.8	7.49 190.0	9.81 249.0	0.81 20.6	7.25 184.0/9.31 237.0	7.37 187.0/9.19 233.0	7.50 190.0/9.06 230.0	7.62 194.0/8.94 227.0	7.62 194.0/8.94 227.0

METRIC NUMBERS ARE INDICATED IN RED.

SHAFT/ SLEEVE DIA. INCHES MM	STUFFING BOX BORE		SEAL O.D.	GASKET O.D.	GLAND O.D.	BRACKET O.D.	SLOT DIA.	BOLT CIRCLE BY BOLT SIZE MINIMUM / MAXIMUM				
	MINIMUM	MAXIMUM										
	A	B						C	D	E	F	G
4.88 -	6.13 -	7.00 -	6.00 -	7.38 -	8.24 -	10.53 -	0.81 -	7.97 - /10.03 -	8.09 - /9.91 -	8.22 - /9.78 -	8.34 - /9.66 -	8.34 - /9.66 -
5.00 125.0	6.13 155.5	7.00 177.8	6.00 152.4	7.38 187.3	8.24 209.0	10.53 267.0	0.81 20.6	7.97 202.0/10.03 255.0	8.09 206.0/9.91 252.0	8.22 209.0/9.78 248.0	8.34 212.0/9.66 245.0	8.34 212.0/9.66 245.0
5.13 -	6.38 -	7.25 -	6.25 -	7.63 -	8.49 -	10.78 -	0.81 -	8.22 - /10.28 -	8.34 - /10.16 -	8.47 - /10.03 -	8.59 - /9.91 -	8.59 - /9.91 -
5.25 130.0	6.38 162.0	7.25 184.2	6.25 158.8	7.63 193.7	8.49 216.0	10.78 274.0	0.81 20.6	8.22 209.0/10.28 261.0	8.34 212.0/10.16 258.0	8.47 215.0/10.03 255.0	8.59 218.0/9.91 252.0	8.59 218.0/9.91 252.0
5.38 -	6.63 -	7.50 -	6.50 -	7.88 -	8.74 -	11.03 -	0.81 -	8.47 - /10.53 -	8.59 - /10.41 -	8.72 - /10.28 -	8.84 - /10.16 -	8.84 - /10.16 -
5.50 135/140.0	6.63 168.0	7.50 190.5	6.50 165.1	7.88 200.0	8.74 222.0	11.03 280.0	0.81 20.6	8.47 215.0/10.53 267.0	8.59 218.0/10.41 264.0	8.72 221.0/10.28 261.0	8.84 225.0/10.16 258.0	8.84 225.0/10.16 258.0
5.63 -	6.88 -	7.75 -	6.75 -	8.13 -	8.99 -	11.28 -	0.81 -	8.72 - /10.78 -	8.84 - /10.66 -	8.97 - /10.53 -	9.09 - /10.41 -	9.09 - /10.41 -
5.75 145.0	6.88 174.5	7.75 196.9	6.75 171.5	8.13 206.3	8.99 228.0	11.28 287.0	0.81 20.6	8.72 221.0/10.78 274.0	8.84 225.0/10.66 271.0	8.97 228.0/10.53 267.0	9.09 231.0/10.41 264.0	9.09 231.0/10.41 264.0
5.88 -	7.13 -	8.00 -	7.00 -	8.38 -	9.24 -	11.53 -	0.81 -	8.97 - /11.03 -	9.09 - /10.91 -	9.22 - /10.78 -	9.34 - /10.66 -	9.34 - /10.66 -
6.00 150.0	7.13 181.0	8.00 203.2	7.00 177.8	8.38 212.7	9.24 235.0	11.53 293.0	0.81 20.6	8.97 228.0/11.03 280.0	9.09 231.0/10.91 277.0	9.22 234.0/10.78 274.0	9.34 237.0/10.66 271.0	9.34 237.0/10.66 271.0

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ISO 9001 Certified*

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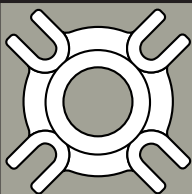
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Odessa: 1104 Market Avenue • Odessa, Texas 79761 • 915-333-4151 • 800-873-0946

<http://www.utexind.com>



Mechanical Seals



Compression
Packing



Sheet Packing



Packing Tools



Molded Products



Industrial Chemicals