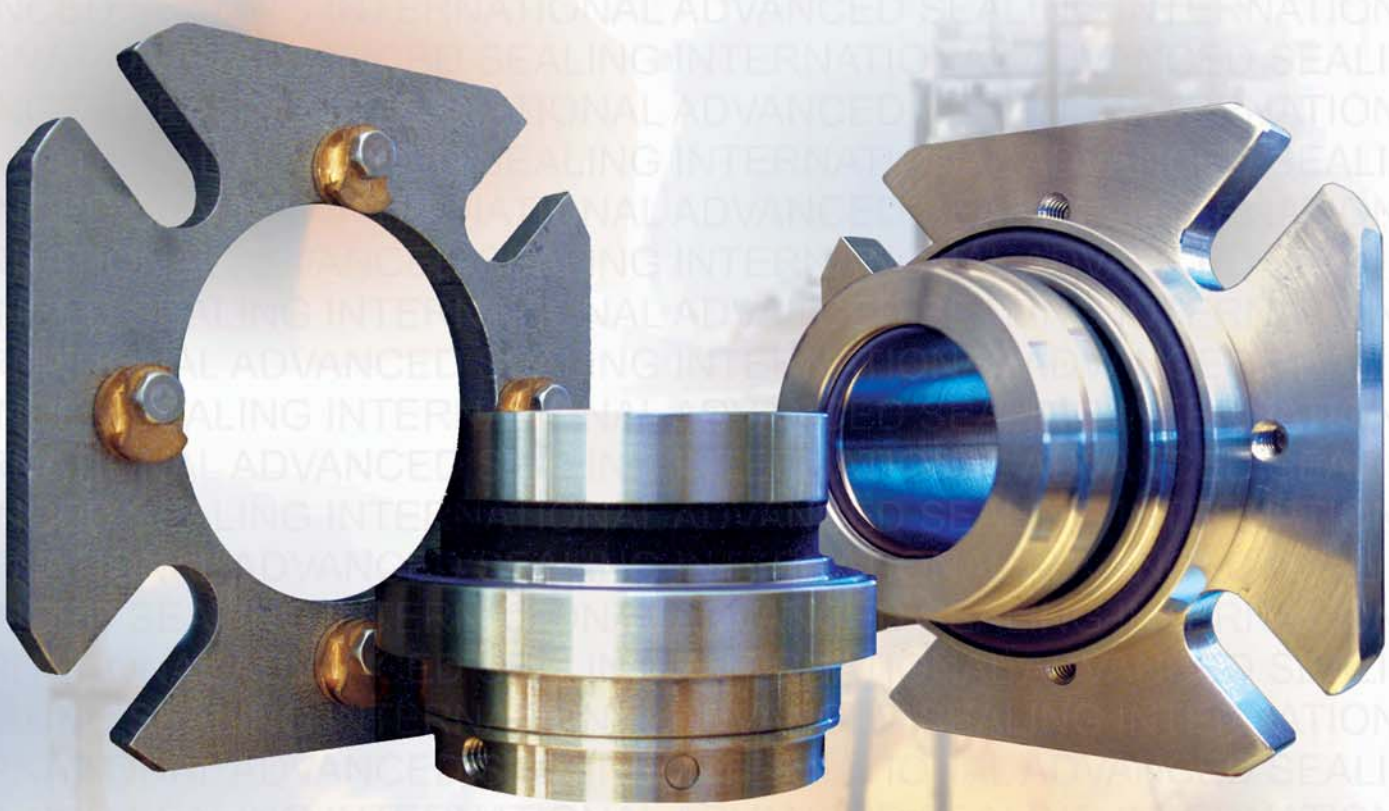
Model 730

Single Stationary Cartridge Mounted Seal

The Evolution of Mechanical Seal Technology



OVER 20 YEARS OF SERVICE

ASI

ESTABLISHED 1984

MECHANICAL SEALS

www.advancedsealing.com

ASI Model 730

The **ASI Model 730** provides a superior, low-cost alternative to the "throw-away seals" currently flooding the seal market. The unique "split-housing" design utilizes a self-contained compact unit and a detachable seal flange to provide a wide range of stocking and repair options. In addition, the operating length of the **Model 730** has been reduced, thereby strengthening the seal parts (to run at higher pressures) and allowing easier fits into equipment. The self-adjusting rotary face, combined with the stationary seal design and advanced hydraulics of the seal, guarantees unmatched seal face alignment and consequently, longer seal life. Simply put, the **Model 730** is a smarter seal design at a very competitive price, built with the quality construction the **ASI** name has come to represent.

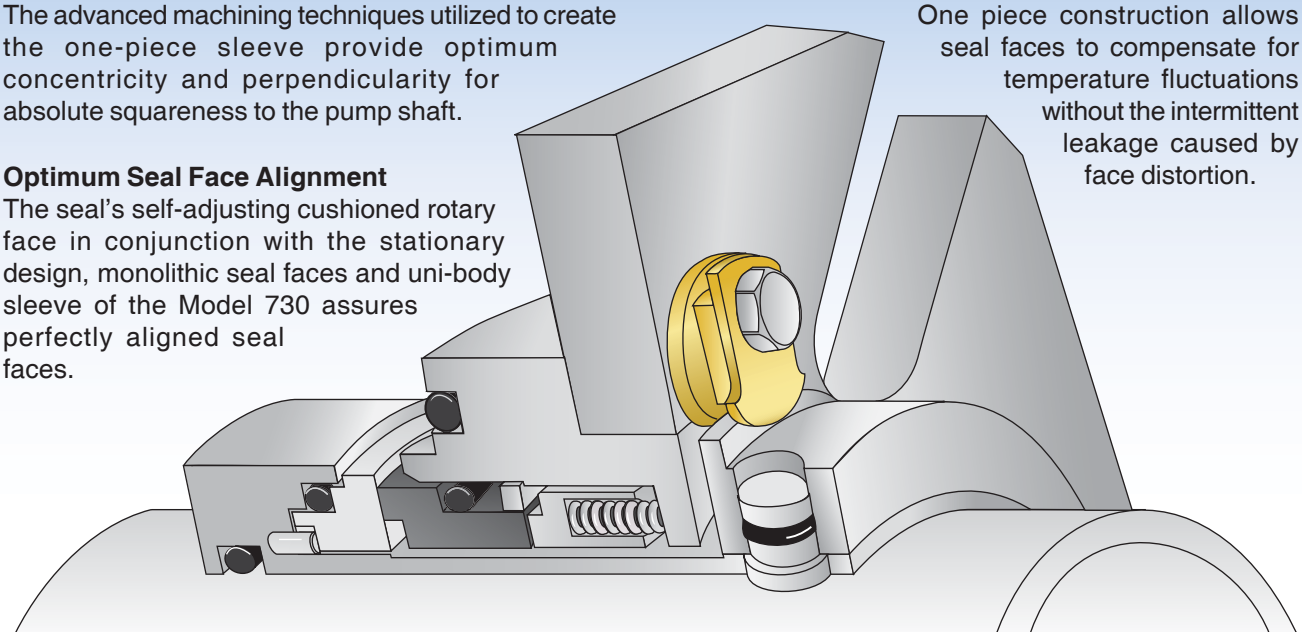
Unitized Cartridge Seal Barrel
The self-contained seal assembly easily detaches from the seal flange, allowing countless "mix and match" stocking options and the added bonus of simplified repair and/or replacement.

Uni-Body Sleeve Construction
The advanced machining techniques utilized to create the one-piece sleeve provide optimum concentricity and perpendicularity for absolute squareness to the pump shaft.

Optimum Seal Face Alignment
The seal's self-adjusting cushioned rotary face in conjunction with the stationary design, monolithic seal faces and uni-body sleeve of the Model 730 assures perfectly aligned seal faces.

Interchangeable Flange Option
The removable seal flange can be easily swapped out for another to accommodate special bolting patterns. Because the flange does not require replacement every service run, seal repair costs are minimized.

Monolithic Seal Faces
One piece construction allows seal faces to compensate for temperature fluctuations without the intermittent leakage caused by face distortion.



MATERIALS OF CONSTRUCTION:

METAL PARTS
Seal Flange, Sleeve, Gland Frame,
Lock Collar, Spring Cage- 316ss
Standard Springs- Hastelloy® C
Standard Set Screws- 316ss

FACE MATERIALS
Stationary Face- High Quality Carbon Graphite or Silicon Carbide
Rotary Face- Silicon Carbide

SECONDARY SEALS
Standard O-ring Materials- Aflas®

ADDITIONAL FEATURES:

HANDY-CAM™ ASSEMBLY DEVICE
Provides one-step flange disengagement from the unitized seal barrel. Aligns the seal and protects the seal both axially and radially.

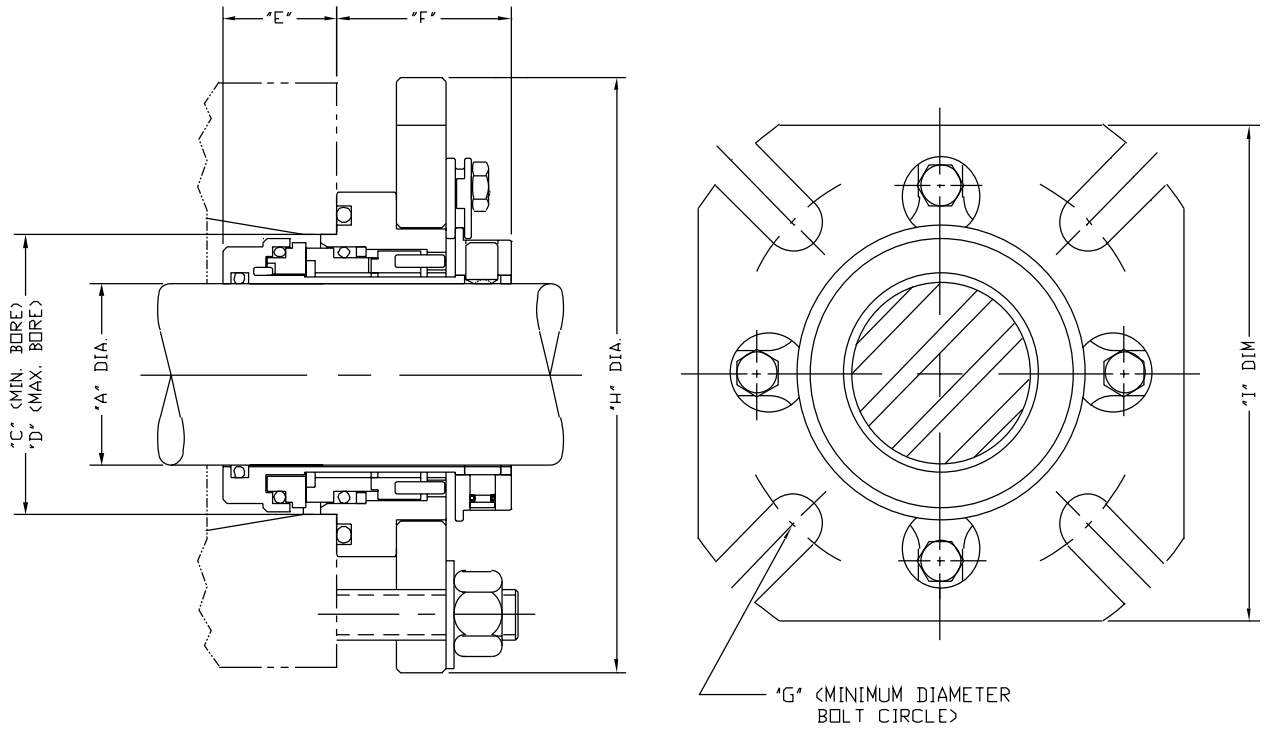
ISOLATED MULTIPLE SPRINGS
Multiple heavy gauge Hastelloy® springs deliver uniform mechanical face load and are removed from the product to prevent clogging, corrosion and contamination.

SAFE-T-STUD (Patent # 5,275,421)
ASI's unique drive mechanism aids in precision alignment and transmits torque without causing set screw damage typical to most seals.

Hastelloy is a trademark of Hayes Int'l, Inc., Aflas is a trademark of Asashi Glass Co., Ltd.

ADVANCED SEALING INTERNATIONAL • BATON ROUGE, LA • 225-272-2155 • FAX: 225-272-2163

Advanced Sealing International
Model 730 Dimensional Data

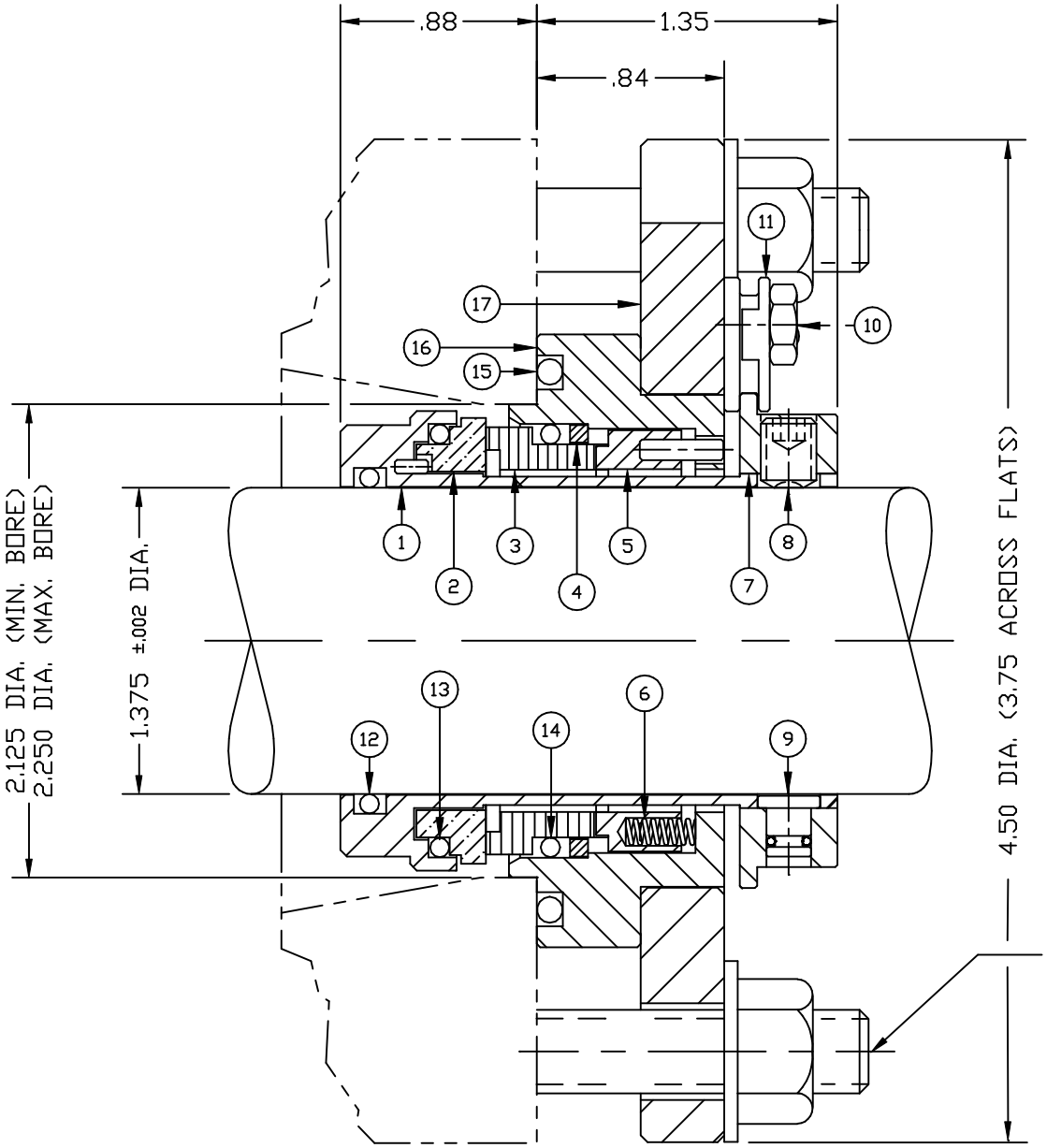


A	B	C	D	E	F	G			H	I
shaft/seal size	universal drawing #	minimum box bore	maximum box bore	inboard seal dim	outboard seal dim	minimum bolting			gland (dia.)	gland (flats)
						3/8"	1/2"	5/8"		
1 1/8	N00I18	1.875	2.000	0.88	1.35	2.82	NA	NA	4.20	3.57
1 3/8	N00I22	2.125	2.250	0.88	1.35	3.19	NA	NA	4.50	3.75
1 3/4	N00I28	2.500	2.625	0.88	1.35	3.56	3.69	NA	5.50	4.75
1 7/8	N00I30	2.625	2.750	0.88	1.35	3.63	3.75	NA	5.50	4.75
2 1/8	N00I34	2.875	3.000	0.88	1.35	3.94	4.06	4.19	6.00	5.25
2 1/2	N00I40	3.500	3.625	0.99	1.35	4.50	4.63	4.75	6.50	5.75
2 5/8	N00I42	3.625	3.750	0.99	1.35	4.63	4.75	4.88	6.50	5.75

with optional stuffing box and/or flush adapter

shaft/seal size	minimum box bore	N.P.T. size	inboard seal dim	outboard seal dim		shaft/seal size	minimum box bore	N.P.T. size	inboard seal dim	outboard seal dim
1 1/8	1.750	1/8"	0.26	1.97		1.125	1.750	1/4"	0.00	2.23
1 3/8	2.000	1/8"	0.26	1.97		1.375	2.000	1/4"	0.00	2.23
1 3/4	2.375	1/8"	0.13	2.10		1.750	2.375	1/4"	0.00	2.23
1 7/8	2.500	1/8"	0.13	2.10		1.875	2.500	1/4"	0.00	2.23
2 1/8	2.750	1/8"	0.13	2.10		2.125	2.750	1/4"	0.00	2.23
2 1/2	3.375	1/8"	0.24	2.10		2.500	3.375	1/4"	0.11	2.23
2 5/8	3.500	1/8"	0.24	2.10		2.625	3.500	1/4"	0.11	2.23

6/24/2004



#	PART NAME	PART NO.	QU
1	SLEEVE	D4902-0	1
2	ROTARY SEAL FACE	D4787I22-1	1
3	STAT. SEAL FACE	D4783I22-1	1
4	WASHER	D4962I22-0	1
5	SPRING CAGE	D4785I22-0	1
6	SPRING	D199-0	8
7	LOCK COLLAR	D1913I22-2	1
8	SET SCREW, CUP PT.	AS-4	3
9	DRIVE STUD	D1836-2	3
10	HEX HEAD SCREW	AS-49	4
11	ASSEMBLY CAM	D2861-2	4
12	O-RING, SLEEVE	-126	1
13	O-RING, ROTARY	-132	1
14	O-RING, STATIONARY	-132	1
15	O-RING, GASKET	-228	1
16	HOUSING (BARREL)	D4947-0	1
17	SEAL FLANGE	D4946-0	1

* MOVE ASS'Y CAMS OUT OF PATH OF LOCK COLLAR AND REFASTEN, BEFORE OPERATING EQUIPMENT.

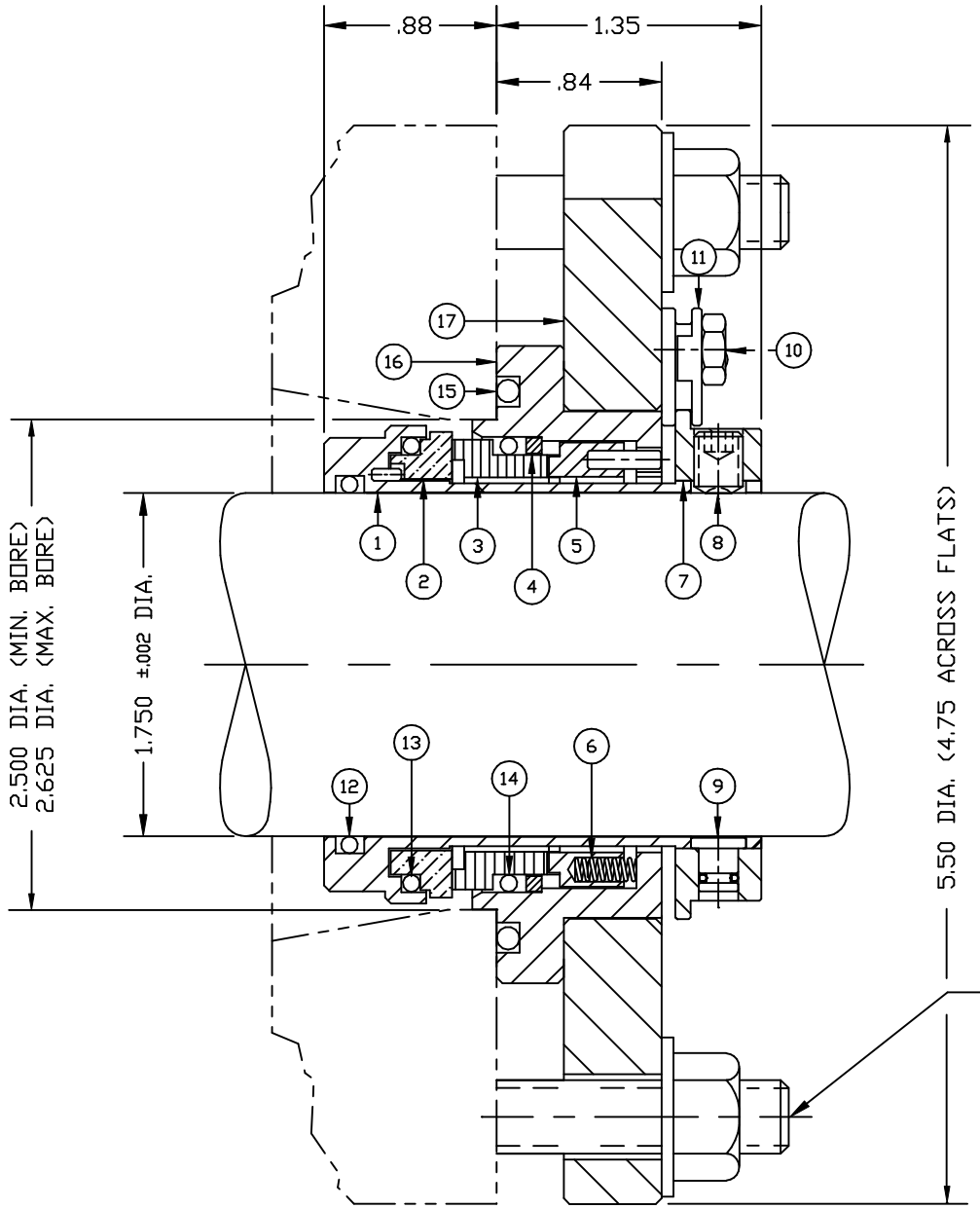
(4) .437 WIDE SLOTS EQ. SPACED @ 90°. GLAND WILL ACCOMODATE THE FOLLOWING D.B.C.'S:
3/8" STUDS:
3 3/16" (MIN.) - 4 1/8" (MAX.)

REV.	DESCRIPTION	DATE

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS, .01/.02 BREAK ALL EDGES
TOLERANCES : FRACT. ± .020, .XX DEC. ± .010
.XXX DEC. ± .005, ANGLES ± 1/2°
SURFACE FINISH (RMS), 63√ ALL OVER

TITLE
INSTALLATION,
MODEL 730 (UNIVERSAL),
1.375 DIA.

DATE 6-24-04	SCALE NONE	ADVANCED SEALING INTERNATIONAL	
DR BY P.D.	APPR C.W.A.	N00I22-0	
SHEET 1	TOTAL 1		



#	PART NAME	PART NO.	QU
1	SLEEVE	D4977-0	1
2	ROTARY SEAL FACE	D4787I28-1	1
3	STAT. SEAL FACE	D4783I28-1	1
4	WASHER	D4962I28-0	1
5	SPRING CAGE	D4788I28-0	1
6	SPRING	D199-0	9
7	LOCK COLLAR	D1913I28-2	1
8	SET SCREW, CUP PT.	AS-4	3
9	DRIVE STUD	D1836-2	3
10	HEX HEAD SCREW	AS-49	4
11	ASSEMBLY CAM	D2861-2	4
12	O-RING, SLEEVE	-132	1
13	O-RING, ROTARY	-138	1
14	O-RING, STATIONARY	-138	1
15	O-RING, GASKET	-231	1
16	HOUSING (BARREL)	D4966-0	1
17	SEAL FLANGE	D4972-0	1

* MOVE ASS'Y CAMS OUT OF PATH OF LOCK COLLAR AND REFASTEN, BEFORE OPERATING EQUIPMENT.

REV.	DESCRIPTION	DATE

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS, .01/.02 BREAK ALL EDGES
TOLERANCES : FRACT. ± .020, .XX DEC. ± .010
.XXX DEC. ± .005, ANGLES ± 1/2°
SURFACE FINISH (RMS), 63√ ALL OVER

TITLE
INSTALLATION,
MODEL 730 (UNIVERSAL),
1.750 DIA.

DATE	7-5-04	SCALE	NONE
DR BY	P.D.	APPR	C.W.A.
SHEET	1	TOTAL	1

ADVANCED SEALING INTERNATIONAL

N00I28-0

INSTALLATION INSTRUCTIONS FOR MODELS 525, 585-1, 585-2, 724, 730
MECHANICAL SEAL ASSEMBLY

EQUIPMENT PREPARATION:

A. Visually inspect shaft or sleeve over which seal is to be installed for excessive burrs or sharp edges which might cut sleeve o-ring upon installation. If necessary, correct or replace part.

B. Check for excessive shaft movement, maximum whip .003" T.I.R. (including sleeve, if so equipped) and .010" maximum end play. If necessary, replace shaft sleeve or bearing.

C. If pump is equipped with shaft sleeve, inspect o-ring or gasket seal and replace if necessary to prevent possible leakage.

D. Compare actual stuffing box dimensions with those shown on assembly drawing. If actual dimensions do not fall within tolerances shown on assembly drawing, do not attempt to install mechanical seal.

E. The mechanical seal is manufactured from materials shown on contents label. Chemical compatibility with the product and barrier fluid must be established. If compatibility cannot be established, do not attempt to install mechanical seal. Consult factory.

INSTALL SEAL AS FOLLOWS: (USE ASSEMBLY DRAWING TO LOCATE PARTS SPECIFIED BELOW)

1. Only after equipment has been thoroughly inspected, necessary repairs made, and dimensional and chemical compatibility established, should seal be removed from protective packaging.
2. Lubricate sleeve o-ring with silicone lubricant furnished. DO NOT USE PETROLEUM BASED LUBRICANTS.
3. Slide seal assembly over shaft or sleeve.
4. Reassemble pump.
5. Slide seal assembly into position against stuffing box face.
6. Install nuts over gland studs and finger tighten. Then, in an opposing sequence, torque gland nuts uniformly.
7. Make any final impeller or bearing adjustments.
8. Tighten set screws (in lock collar) uniformly.
9. Loosen hex head screws and move assembly cams/clips out of path of lock collar, then retighten hex head screws. If cams are inaccessible, loosen hex head screws (if possible) and cams will automatically disengage from seal once equipment is started. If seal is equipped with alignment bushings, remove bushings (after clips are relocated) and discard.
10. Install any applicable seal flush or bypass connections.

REMOVE SEAL AS FOLLOWS: (USE ASSEMBLY DRAWING TO LOCATE PARTS SPECIFIED BELOW)

1. Before removing seal, loosen hex head screws and refasten assembly cams/clips to lock collar, then retighten hex head screws.
2. Remove any pipe connections from seal gland plate.
3. Loosen shaft set screws (in lock collar).
4. Remove gland nuts.
5. With both hands, grasp seal gland plate by outer diameter and pull seal assembly beyond end of shaft.