

CHESTERTON®

440 EXTERNAL SEAL

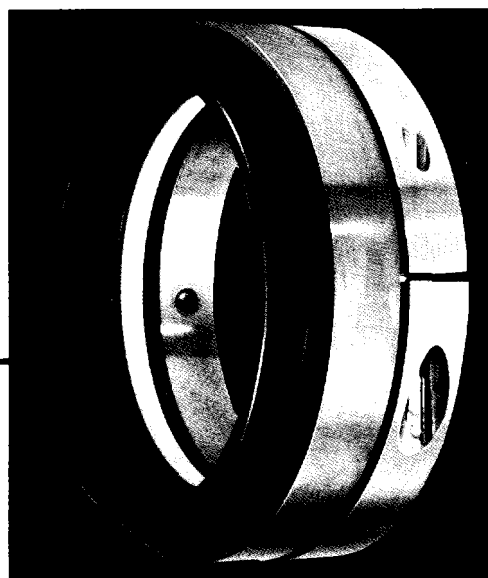
**FOR CORROSIVE
AND OTHER SERVICES**

**LOW COST REPLACEMENT
FOR SEALS MADE FROM
EXOTIC OR EXPENSIVE MATERIALS**

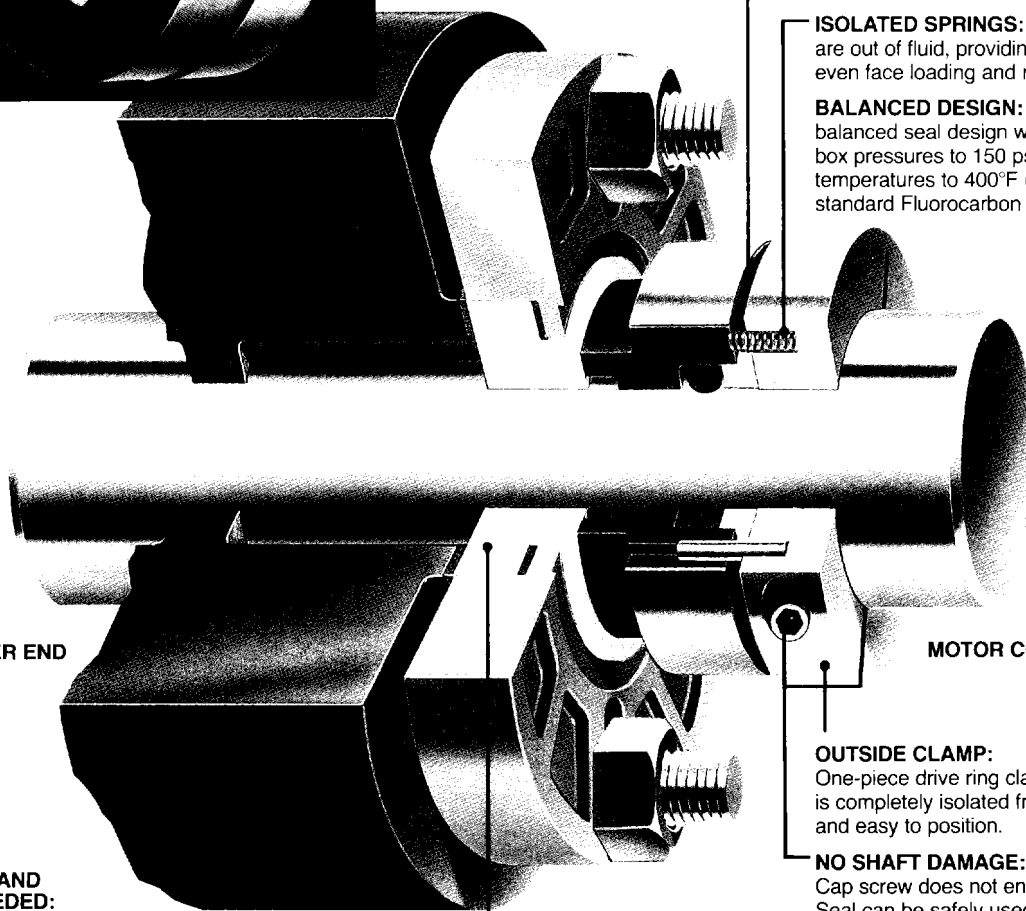
**NO METAL PARTS
TOUCH PUMPED FLUID**

**PREVENTS DAMAGE TO
GLASS-LINED PUMPS/SHAFTS**

**HYDRAULICALLY BALANCED
NO SLEEVE OR STEP NEEDED**



Utilized as
external component of
CHESTERTON®
1210 Environmental Unit



IMPELLER END

MOTOR COUPLING END

**NEW GLAND
NOT NEEDED:**

Ceramic stationary is
lapped on both sides so it can be reversed for installation either way.
L-shape eliminates need for special glands. Allows you to use your present
gland in most cases. Either add shroud or use existing shroud over seal.

VISUAL EXAMINATION: Easily visible
 $\frac{1}{16}$ " (1.5 mm) spring gap assures proper
installation dimensions for all size seals.
Permits visual examination of face wear.

ISOLATED SPRINGS: Multiple springs
are out of fluid, providing longer life,
even face loading and reduced clogging.

BALANCED DESIGN: Hydraulically
balanced seal design will take stuffing
box pressures to 150 psi (10 BAR) —
temperatures to 400°F (205°C) with
standard Fluorocarbon O-rings.

OUTSIDE CLAMP:
One-piece drive ring clamp
is completely isolated from fluid
and easy to position.

NO SHAFT DAMAGE:
Cap screw does not engage shaft.
Seal can be safely used on ceramic,
glass-lined or plastic pumps/shafts.

ISOLATED METAL: No metal
comes in contact with the fluid.

CHESTERTON. 440 EXTERNAL SEAL TECHNICAL DATA

Materials

DRIVE RING: Type 316 Stainless Steel.

CAPSCREW: Type 316 Stainless Steel.

SPRINGS: Hastelloy C[†].

O-RINGS:

Fluorocarbon (Viton^{*} or Fluorel^{**})

supplied as standard.

Ethylene Propylene (EP)

supplied as spares.

Kalrez^{*} or Chemraz^{***}

available upon request.

ROTATING FACE:

Carbon, Alumina Ceramic and Teflon[†]

available in limited sizes.

Temperature

-20°F (-30°C) to 400°F (205°C)
with Fluorocarbon.

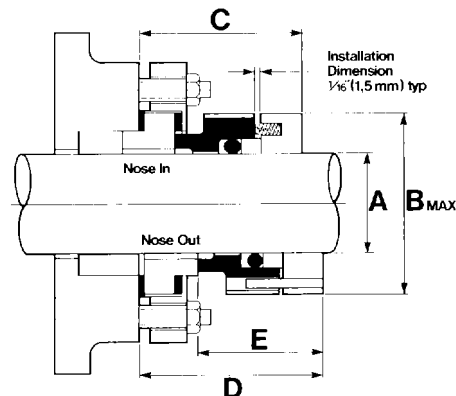
-65°F (-55°C) to 300°F (150°C)
with Ethylene Propylene.

-0°F (-18°C) to 500°F (260°C)
with Kalrez.

-20°F (-30°C) to 450°F (230°C)
with Chemraz.

Pressure

28" (711 mm) Hg vacuum to 150 psi (10 BAR)
maximum, depending upon shaft size and speed.



ENGLISH — inch

A	Dash	B	C	D	E	F
1 ⁵ / ₁₆	7.5	1.937	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	317
1	8	2.000	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	318
1 ¹ / ₈	9	2.125	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	320
1 ¹ / ₄	10	2.250	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	322
1 ³ / ₈	11	2.375	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	324
1 ⁷ / ₁₆	11.5	2.500	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	325
1 ¹ / ₂	12	2.500	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	325
1 ⁵ / ₈	13	2.625	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	326
1 ³ / ₄	14	2.750	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	327
1 ⁷ / ₈	15	2.875	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	328
2	16	3.000	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	329
2 ¹ / ₈	17	3.125	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	330
2 ¹ / ₄	18	3.250	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	331
2 ³ / ₈	19	3.375	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	332
2 ¹ / ₂	20	3.500	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	333
2 ⁵ / ₈	21	3.625	1 ¹⁵ / ₁₆	2 ³ / ₁₆	1 ¹ / ₂	334
2 ³ / ₄	22	3.850	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	335
2 ⁷ / ₈	23	3.980	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	336
3	24	4.110	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	337
3 ¹ / ₈	25	4.230	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	338
3 ¹ / ₄	26	4.360	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	339
3 ³ / ₈	27	4.480	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	340
3 ¹ / ₂	28	4.610	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	341
3 ⁵ / ₈	29	4.730	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	342
3 ³ / ₄	30	4.860	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	343
3 ⁷ / ₈	31	4.980	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	344
4	32	5.110	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	345
4 ¹ / ₈	33	5.230	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	346
4 ¹ / ₄	34	5.360	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	347
4 ³ / ₈	35	5.480	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	348
4 ¹ / ₂	36	5.610	2 ⁷ / ₁₆	2 ¹ / ₁₆	1 ⁵ / ₈	349

A — Shaft Size
B — Rotary Diameter
C — Distance to First Obstruction L-shape Nose In
D — Distance to First Obstruction L-shape Nose Out
E — Installed Length of Rotary
F — O-Ring

METRIC — millimeter

A	B	C	D	E	F
24	49,2	49	55,5	38	317
25	50,8	49	55,5	38	318
28	54,0	49	55,5	38	320
30	57,2	49	55,5	38	321
32	57,2	49	55,5	38	322
35	60,3	49	55,5	38	324
38	63,5	49	55,5	38	325
40	66,7	49	55,5	38	326
42	69,9	49	55,5	38	326
45	69,9	49	55,5	38	327
48	73,0	49	55,5	38	328
50	76,2	49	55,5	38	329
55	79,4	49	55,5	38	331
60	85,7	49	55,5	38	332
65	92,1	49	55,5	38	334
70	98,0	62	68,5	41,5	335
75	104,4	62	68,5	41,5	337
80	108,2	62	68,5	41,5	338
85	113,8	62	68,5	41,5	340
90	118,1	62	68,5	41,5	342
95	123,4	62	68,5	41,5	343
100	128,3	62	68,5	41,5	345
110	139,2	62	68,5	41,5	348

NOTE

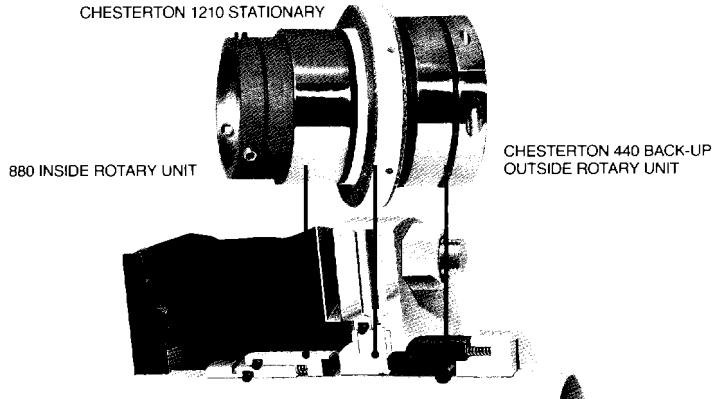
When installing 440, L-shaped (nose in) and 478 gland, it is necessary to install stationary and gland, position 440 on shaft, remove clips, move 440 up to stationary, set spring installation gap ¹/₁₆" (1,5 mm) and tighten clamp to shaft.

*DuPont's Registered Trademark
**3M Co. Registered Trademark
***Greene, Tweed & Co. Registered Trademark
†Haynes International, Inc. Registered Trademark

CHESTERTON. 1210 ENVIRONMENTAL UNIT

The CHESTERTON 1210 stationary provides two sealing faces which can fit between CHESTERTON 880 and 440 Rotary Units. Varying barrier pressures, introduced through the 1210 unit, can shield environment from products, provide lubrication, and prevent resins or waxes from hardening during shutdowns. For paper stock pumps, the 440 Seal can operate as a stand-by, pre-installed seal in the event of primary seal wearout.

CHESTERTON 1210 STATIONARY



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