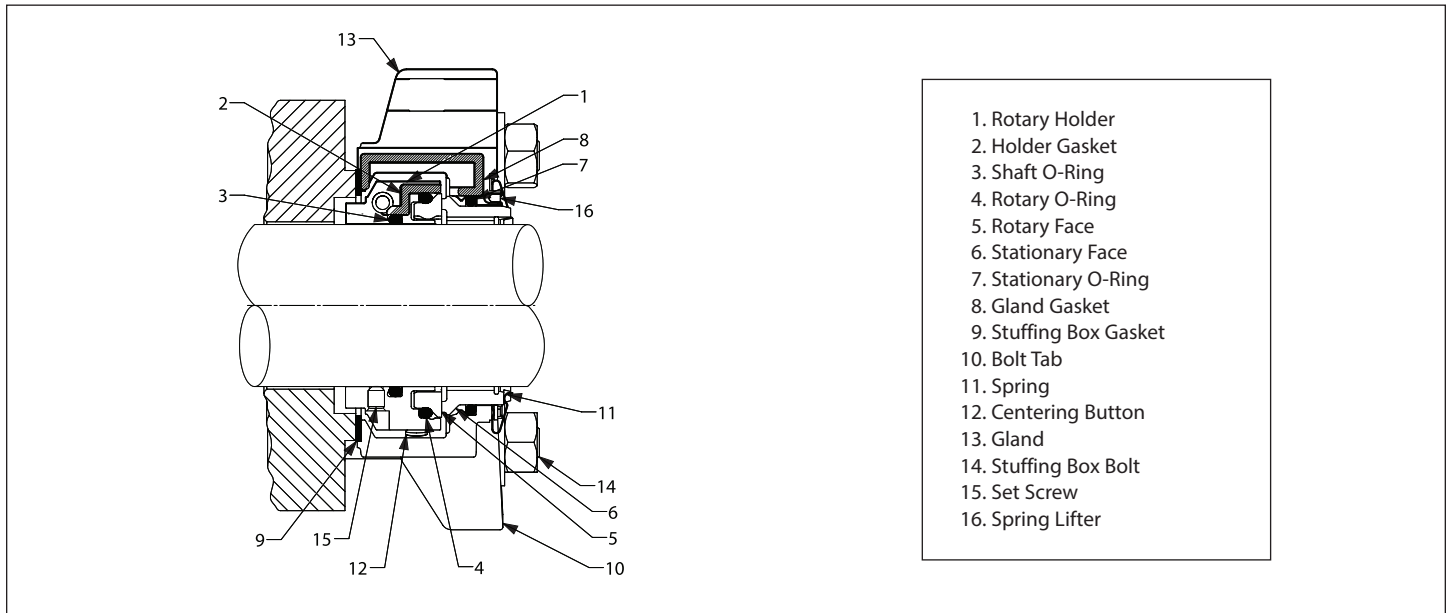
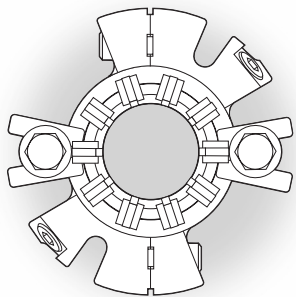


442C™ Cartridge Split Mechanical Seal Technical Data

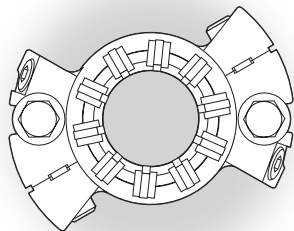


EQUIPMENT BOLT PATTERNS

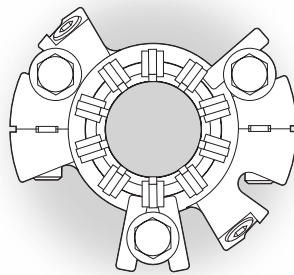
Shaft Sizes: 1.625" to 4.750" (40 mm to 120 mm)



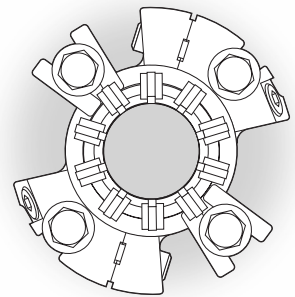
2 BOLTS



2 BOLTS

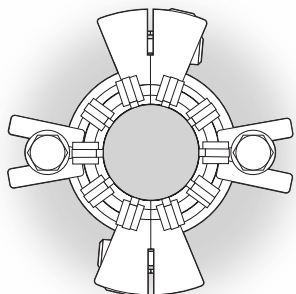


3 BOLTS

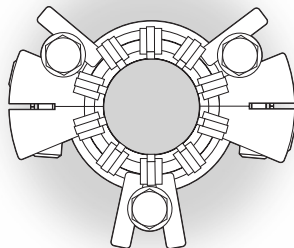


4 BOLTS

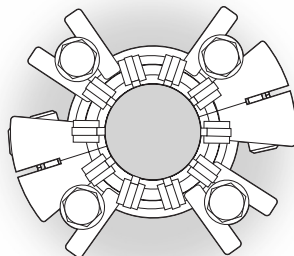
All Other Shaft Sizes



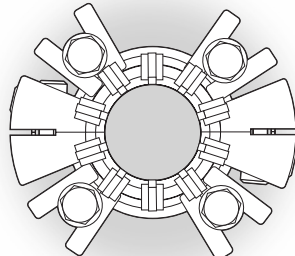
2 BOLTS



3 BOLTS



4 BOLTS



4 BOLTS

442C™ Cartridge Split Mechanical Seal

DIMENSIONAL DATA (INCH & METRIC)

SHAFT SIZE	M HOLDER ID FROM BOX	N INSTALLATION DIM	P NPT SIZE	Q SHAFT O-RING FROM BOX	R SET SCREW FROM BOX
25 mm to 60 mm (1.000" to 2.500")	24,4 mm (0.96")	2,4 mm (0.094")	1/4"	12,7 mm (0.50")	5,8 mm (0.230")
65 mm to 120 mm (2.625" to 4.750")	27,1 mm (1.07")	2,4 mm (0.094")	3/8"	12,4 mm (0.49")	5,8 mm (0.230")

DIMENSIONAL DATA (INCH)

A	B	C		D	E	F	G MIN					H MIN	L MAX
		MIN	MAX				3/8"	1/2"	5/8"	3/4"	7/8"		
1.000	4.94	1.86	2.10	1.58	0.17	1.88	3.20	3.33	3.45	3.58*	-	2.35	2.79
1.125	4.94	1.86	2.10	1.58	0.17	1.88	3.20	3.33	3.45	3.58*	-	2.35	2.79
1.250	4.94	1.86	2.10	1.58	0.17	1.88	3.20	3.33	3.45	3.58*	-	2.35	2.79
1.375	5.02	1.94	2.38	1.58	0.17	1.88	3.28	3.40	3.53	3.66*	-	2.63	2.87
1.500	5.14	2.06	2.50	1.58	0.17	1.88	3.40	3.53	3.65	3.78*	-	2.75	2.99
1.625	5.26	2.19	2.63	1.58	0.17	1.88	3.50	3.63	3.81*	3.94*	-	2.87	3.11
1.750	5.39	2.31	2.75	1.58	0.17	1.88	3.63	3.75	3.94*	4.06*	-	3.00	3.23
1.875	5.51	2.44	2.88	1.58	0.17	1.88	3.75	3.88	4.06*	4.19*	-	3.12	3.35
2.000	5.64	2.56	3.00	1.58	0.17	1.88	3.94	4.06	4.19*	4.31*	-	3.25	3.48
2.125	5.76	2.69	3.12	1.58	0.17	1.88	4.06	4.19	4.31	4.44*	-	3.37	3.60
2.250	5.88	2.81	3.25	1.58	0.17	1.88	4.19	4.31	4.44	4.56*	-	3.50	3.73
2.375	6.01	2.94	3.37	1.58	0.17	1.88	4.31	4.43	4.56	4.69*	-	3.62	3.85
2.500	6.13	3.06	3.75	1.58	0.17	1.88	4.57	4.70	4.82	4.95*	-	4.00	4.23
2.625	7.72	3.35	4.25	1.89	0.32	2.27	5.44	5.56	5.69	5.81*	5.94*	4.75	4.99
2.750	7.72	3.35	4.25	1.89	0.32	2.27	5.44	5.56	5.69	5.81*	5.94*	4.75	4.99
2.875	7.97	3.60	4.50	1.89	0.32	2.27	5.66	5.78	5.91	6.03*	6.16*	5.00	5.24
3.000	7.97	3.60	4.50	1.89	0.32	2.27	5.66	5.78	5.91	6.03*	6.16*	5.00	5.24
3.125	8.22	3.85	4.75	1.89	0.32	2.27	6.00	6.12	6.25	6.37*	6.50*	5.25	5.48
3.250	8.22	3.85	4.75	1.89	0.32	2.27	6.00	6.12	6.25	6.37*	6.50*	5.25	5.48
3.375	8.47	4.10	5.00	1.89	0.32	2.27	6.16	6.28	6.41	6.53	6.66*	5.50	5.74
3.500	8.47	4.10	5.00	1.89	0.32	2.27	6.16	6.28	6.41	6.53	6.66*	5.50	5.74
3.625	8.72	4.35	5.25	1.89	0.32	2.27	6.41	6.53	6.66	6.78	6.91*	5.75	5.99
3.750	8.72	4.35	5.25	1.89	0.32	2.27	6.41	6.53	6.66	6.78	6.91*	5.75	5.99
3.875	8.97	4.60	5.50	1.89	0.32	2.27	6.66	6.78	6.91	7.03	7.16*	6.00	6.24
4.000	8.97	4.60	5.50	1.89	0.32	2.27	6.66	6.78	6.91	7.03	7.16*	6.00	6.24
4.125	9.22	4.85	5.75	1.89	0.32	2.27	6.90	7.02	7.15	7.27	7.40*	6.25	6.49
4.250	9.22	4.85	5.75	1.89	0.32	2.27	6.90	7.02	7.15	7.27	7.40*	6.25	6.49
4.375	9.47	5.10	6.00	1.89	0.32	2.27	7.16	7.28	7.41	7.53	7.66*	6.50	6.74
4.500	9.47	5.10	6.00	1.89	0.32	2.27	7.16	7.28	7.41	7.53	7.66*	6.50	6.74
4.625	9.72	5.35	6.25	1.89	0.32	2.27	7.41	7.53	7.66	7.78	7.91*	6.75	6.99
4.750	9.72	5.35	6.25	1.89	0.32	2.27	7.41	7.53	7.66	7.78	7.91*	6.75	6.99

*Two bolts only using bolt tabs

442C™ Cartridge Split Mechanical Seal

- A – Shaft Size
- B – Max. Gland Dia.
- C – Min./Max. Stuffing Box Dia.
- D – Gland Length
- E – Min. Stuffing Box Depth
- F – Outboard Length Required
- G – Min. Bolt Circle by Bolt Size
- H – Min. Stuffing Box Face OD
- L – Gland Hub OD
- M – Holder ID from Box
- N – Installation Dimension
- P – NPT Size
- Q – Shaft O-Ring from Box
- R – Set Screw from Box

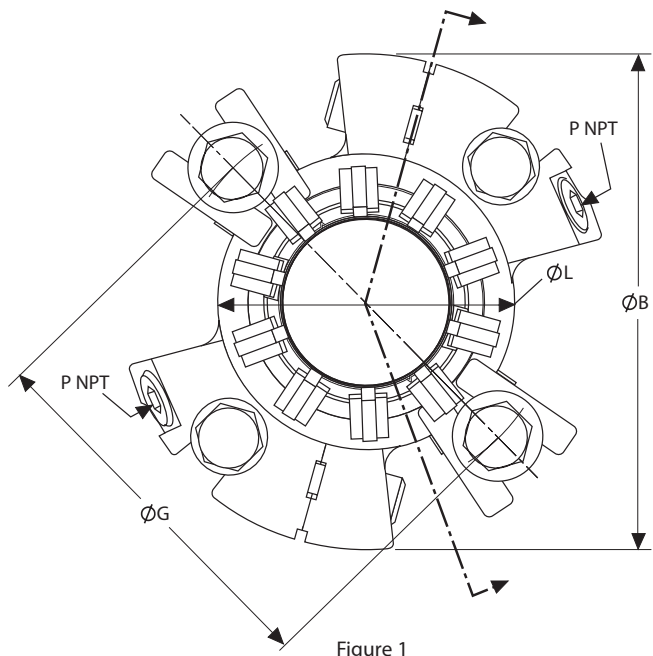


Figure 1

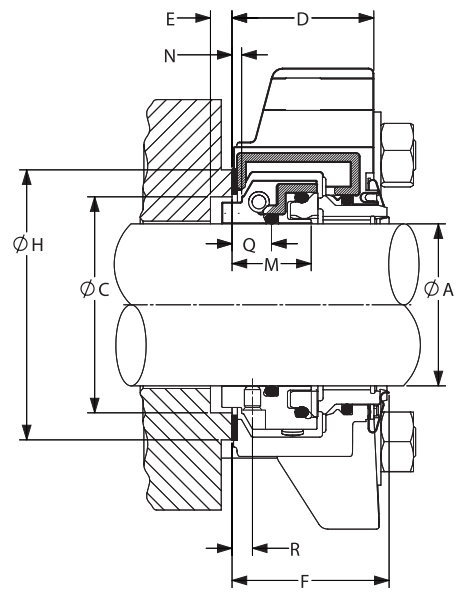


Figure 2

DIMENSIONAL DATA (METRIC)

A	B	C		D	E	F	G							H	L
		MIN	MAX				MIN	8 mm	10 mm	12 mm	14 mm	16 mm	18 mm		
25,0	125,5	47,2	53,3	40,1	4,3	47,8	79,8	81,8	83,8	85,8	87,8	-	-	59,9	70,9
30,0	125,5	47,2	53,3	40,1	4,3	47,8	79,8	81,8	83,8	85,8	87,8	-	-	59,9	70,9
32,0	125,5	47,2	53,3	40,1	4,3	47,8	79,8	81,8	83,8	85,8	87,8	-	-	59,9	70,9
33,0	125,5	47,2	53,3	40,1	4,3	47,8	79,8	81,8	83,8	85,8	87,8	-	-	59,9	70,9
35,0	127,4	49,3	60,5	40,1	4,3	47,8	81,8	83,8	85,8	87,8	89,8	-	-	66,8	72,8
38,0	130,5	52,3	63,5	40,1	4,3	47,8	85,0	87,0	89,0	91,0	93,0	-	-	69,9	76,0
40,0	133,6	55,6	66,8	40,1	4,3	47,8	87,4	89,4	91,4	93,4	95,4*	-	-	73,2	79,0
43,0	136,8	58,7	70,0	40,1	4,3	47,8	90,5	92,5	94,5	96,5	98,5*	-	-	76,2	82,0
45,0	136,8	58,7	70,0	40,1	4,3	47,8	90,5	92,5	94,5	96,5	98,5*	-	-	76,2	82,0
48,0	140,0	62,0	73,2	40,1	4,3	47,8	97,7	95,7	97,7	99,7	101,7*	-	-	79,5	85,2
50,0	143,2	65,0	76,2	40,1	4,3	47,8	98,4	100,4	102,4	104,4	106,4*	-	-	82,6	88,4
55,0	146,3	68,3	79,2	40,1	4,3	47,8	101,6	103,6	105,6	107,6	109,6	-	-	85,9	91,5
60,0	152,6	74,7	85,6	40,1	4,3	47,8	107,8	109,8	111,8	113,8	115,8	-	-	92,2	97,9
65,0	196,1	85,1	108,0	48,0	8,1	57,7	-	-	140,6	142,6	144,6	146,6*	148,6*	120,7	126,6
70,0	202,5	91,4	108,0	48,0	8,1	57,7	-	-	140,6	142,6	144,6	146,6*	148,6*	120,7	133,0
75,0	202,5	91,4	114,3	48,0	8,1	57,7	-	-	146,2	148,2	150,2	152,2	154,2*	127,0	133,0
80,0	208,8	97,8	120,7	48,0	8,1	57,7	-	-	154,8	156,8	158,8	160,8	162,8	133,4	139,3
85,0	215,2	104,1	127,0	48,0	8,1	57,7	-	-	158,9	160,9	162,9	164,9	166,9	139,7	145,7
90,0	215,2	104,1	127,0	48,0	8,1	57,7	-	-	158,9	160,9	162,9	164,9	166,9	139,7	145,7
95,0	221,5	110,5	133,4	48,0	8,1	57,7	-	-	165,2	167,2	169,2	171,2	173,2	146,1	152,0
100,0	227,9	116,8	139,7	48,0	8,1	57,7	-	-	171,6	173,6	175,6	177,6	179,6	152,4	158,4
105,0	234,2	123,2	146,1	48,0	8,1	57,7	-	-	177,7	179,7	181,7	183,7	185,7	160,3	164,7
110,0	240,6	129,5	152,4	48,0	8,1	57,7	-	-	184,3	186,3	188,3	190,3	192,3	165,1	171,1
115,0	240,6	129,5	152,4	48,0	8,1	57,7	-	-	184,3	186,3	188,3	190,3	192,3	165,1	171,1
120,0	246,9	135,9	158,8	48,0	8,1	57,7	-	-	190,6	192,6	194,6	196,6	198,6	171,5	177,4

*Two bolts only using bolt tabs

442C™ CARTRIDGE SPLIT MECHANICAL SEAL OPERATING PARAMETERS†

PRESSURE CAPABILITIES (INCH)

SIZE RANGE	SHAFT SPEED	FACE MATERIAL COMBINATION		
		CARBON/RSC Psig	RSC/RSC Psig	CARBON/CERAMIC Psig
1.000" to 2.500" (25 mm to 60 mm)	1750	28" Hg to 450	28" Hg to 450	28" Hg to 350
	3600	28" Hg to 450	❖ 28" Hg to 175	❖ 28" Hg to 100
2.625" to 4.750" (65 mm to 120 mm)	1750	28" Hg to 250	28" Hg to 250	28" Hg to 200

PRESSURE CAPABILITIES (METRIC)

SIZE RANGE	SHAFT SPEED	FACE MATERIAL COMBINATION		
		CARBON/RSC bar g	RSC/RSC bar g	CARBON/CERAMIC bar g
25 mm to 60 mm (1.000" to 2.500")	1750	710 mm Hg to 30	710 mm Hg to 30	710 mm Hg to 24
	3600	710 mm Hg to 30	❖ 710 mm Hg to 12	❖ 710 mm Hg to 7
65 mm to 120 mm (2.625" to 4.750")	1750	710 mm Hg to 18	710 mm Hg to 18	710 mm Hg to 14

TEMPERATURE

To 250 °F (120 °C)

SPEED

To 4000 fpm (20 m/s)

RSC - Reaction bonded silicon carbide

❖ - Limited by PV capabilities.

† - Consult Chesterton Engineering for applications exceeding published operating parameters and additional seal sizes.

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