

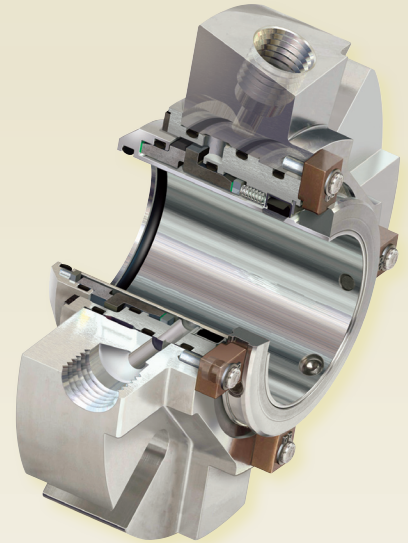
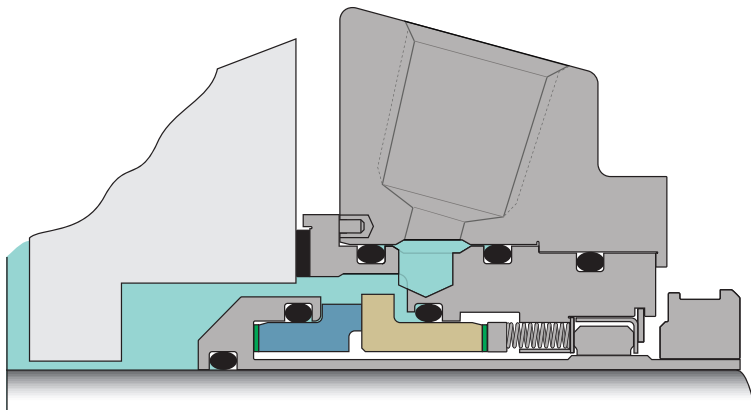
# S10

## High Performance Single Cassette Seal

*Unique modular cassette that combines advanced seal technology with flexibility in maintenance and repair*

Simplify seal maintenance and increase equipment reliability with Chesterton's S10 Cassette Seal. Featuring a Self Centering Lock Ring and Self Releasing Setting Clips, the S10 offers quick, easy and accurate installation. The seal design increases seal capabilities and reduces the likelihood of seal-related downtime and associated overhaul costs. The unique cassette system allows for fast seal repair and plant-wide standardization. Performance is ensured by Chesterton five key design features:

- No Clog springs ensure consistent performance
- Monolithic seal faces remain flat during temperature cycling
- Balanced design reduces friction, wear and heat
- Stationary springs prevent faces from opening at elevated speeds
- O-Rings positioned to never fret or damage the equipment or the seal



**ViewIn™**  
Chesterton® Technology

### One optimized sealing concept for plant-wide standardization

- ViewIn™ enabled RFID seal tracking technology which identifies the serial number
- Full featured universal gland with quench/drain and multiport flush
- Quick to repair with innovative cassette feature

#### SPECIFICATIONS

##### Operating Parameters

<b>Sizes</b>	25 mm – 120 mm 1.00" – 4.75"
<b>Pressure</b>	711 mm or 28" Hg Vacuum to 31 bar g / 450 psig*
<b>Temperature</b>	-55°C – 300°C / -67°F – 570°F Temperature limits depend on actual elastomers used
<b>Speed</b>	25 m/s or 5000 fpm

##### Applicable Standards and Approvals

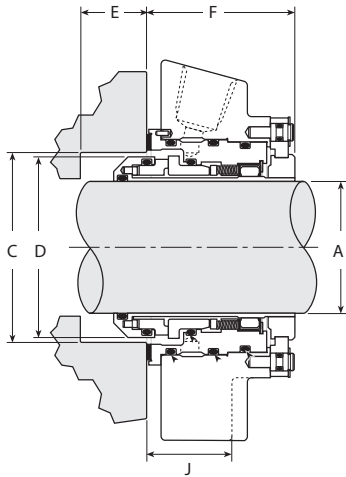
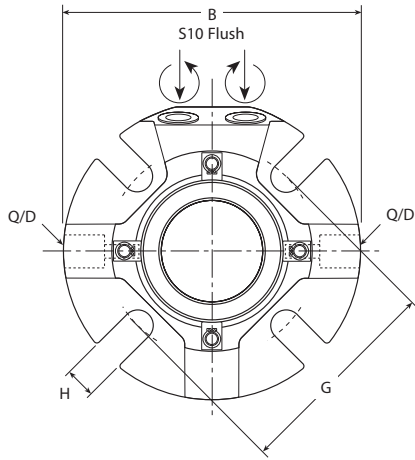
ISO-3069C, ASME B73.1, B73.2

\* Seal pressure capabilities are dependent on the fluid sealed, temperature, speed, and seal face combinations. For operation outside the limits and additional materials consult Chesterton Mechanical Seal Engineering.

##### Materials of Construction

<b>Rotary Faces</b>	CB SSC TC
<b>Stationary Faces</b>	SSC TC
<b>Elastomers</b>	FKM EPDM FEPM FFKM
<b>Metal Parts</b>	316 Stainless Steel / EN 1.4401
<b>Springs</b>	Alloy C-276 / EN 2.4819

# Dimensional Data



### S10 KEY

- A – Shaft Size
- B – Maximum Gland Diameter
- C – Seal Chamber Bore
- D – Seal Outside Diameter
- E – Minimum Seal Chamber Depth
- F – Outboard Seal Length
- G – Minimum Bolt Circle by Bolt Size
- H – Slot Width
- J – Seal Chamber to Bolt Surface

S10 EXTRA SMALL SINGLE CASSETTE SEAL													
Dimensional Data/Metric	A	B	C		D	E	F	G MIN			H	J	
		MAX	MIN	MAX				10 mm	12 mm	16 mm			
		25	104	41,0	51,1	39,9	13,0	52	73,0	–	–	11,5	30,4
	28	104	44,0	51,8	42,4	13,0	52	73,0	–	–	13,5	30,4	
	30	104	46,0	56,6	44,5	13,0	52	78,0	–	–	13,5	30,4	
	32	104	48,0	57,7	46,5	13,0	52	80,0	–	–	13,5	30,4	
	33	113	49,0	58,8	47,4	13,0	52	80,0	83,0	–	15,0	30,4	
	35	111	51,0	59,2	49,4	13,0	52	82,0	83,7	–	15,0	30,4	
Dimensional Data/Inch	A	B	C		D	E	F	G MIN			H	J	
		MAX	MIN	MAX				3/8"	1/2"	5/8"			
		1.000	4.10	1.63	2.01	1.57	0.51	2.05	2.88	–	–	0.44	1.20
		1.125	4.10	1.75	2.04	1.69	0.51	2.05	2.88	–	–	0.44	1.20
		1.125 OS	4.50	2.63	2.94	1.69	0.51	2.05	3.71	–	–	0.44	1.20
		1.250	4.10	1.88	2.27	1.83	0.51	2.05	3.13	–	–	0.44	1.20
		1.375	4.40	2.00	2.33	1.94	0.51	2.05	3.14	3.33	–	0.57	1.20
	1.375 OS	5.40	2.81	3.00	1.94	0.51	2.05	4.03	–	–	0.44	1.21	
S10 SMALL SINGLE CASSETTE SEAL													
Dimensional Data/Metric	A	B	C		D	E	F	G MIN			H	J	
		MAX	MIN	MAX				10 mm	12 mm	16 mm			
		38	114	57,2	62,0	55,6	13,5	54	84,0	89,9	–	13,5	30,4
	40	127	60,0	68,3	57,5	13,5	54	89,2	91,7	–	13,5	30,4	
	43	127	63,0	68,8	60,5	13,5	54	91,9	94,7	–	13,5	30,4	
	45	140	65,0	73,4	62,5	13,5	54	94,2	96,8	–	13,5	30,4	
	48	140	68,0	73,8	65,5	13,5	54	97,0	99,8	–	13,5	30,4	
	50	140	70,0	78,5	67,5	13,5	54	99,3	101,9	–	17,5	30,4	
	53	153	75,0	83,6	72,5	13,5	54	104,4	106,4	112,0	17,5	30,4	
	55	153	75,0	83,6	72,5	13,5	54	104,4	106,4	112,0	17,5	30,4	
	60	153	80,0	92,2	77,8	13,5	54	112,8	114,8	118,9	17,5	30,4	
	65	164	88,9	100,1	84,2	13,5	54	124,0	126,0	129,8	17,5	30,4	
								12 mm	16 mm	20 mm			
	70	196	95	110	93	21	63	137	141	–	17	41	
	75	202	104	119	99	21	63	143	147	–	17	41	
	80	203	109	122	103	21	63	150	154	–	17	41	
	85	211	114	128	109	21	63	152	156	161	20	41	
	90	214	119	132	113	21	63	160	164	168	20	41	
	95	221	124	137	118	21	63	161	165	170	20	41	
	100	228	129	144	125	21	63	168	172	177	20	41	
	110	237	137	154	134	21	63	178	182	186	20	41	
	120	266	146	164	144	21	63	187	191	196	20	41	
Dimensional Data/Inch	A	B	C		D	E	F	G MIN			H	J	
		MAX	MIN	MAX				3/8"	1/2"	5/8"			
		1.500	4.50	2.25	2.44	2.19	0.53	2.11	3.31	3.55	–	0.57	1.20
		1.625	5.00	2.38	2.70	2.31	0.53	2.11	3.49	3.68	–	0.57	1.20
		1.750	5.50	2.50	2.81	2.44	0.53	2.11	3.61	3.80	–	0.57	1.20
		1.750 OS	6.64	3.50	3.75	2.44	0.53	2.11	5.38	5.5	–	0.57	1.20
		1.875	5.50	2.63	2.94	2.56	0.53	2.11	3.74	3.93	–	0.57	1.20
		1.875 OS	5.99	3.56	3.81	2.56	0.53	2.11	–	5	–	0.57	1.20
		2.000	5.50	2.75	3.19	2.69	0.53	2.11	3.99	4.12	–	0.57	1.20
		2.125	6.00	2.88	3.44	2.81	0.53	2.11	4.24	4.37	4.49	0.69	1.20
		2.125 OS	6.99	3.88	4.25	2.81	0.22	2.42	–	4.49	5.25	0.69	1.51
		2.250	6.00	3.00	3.56	2.94	0.53	2.11	4.36	4.49	4.61	0.69	1.20
		2.375	6.00	3.13	3.62	3.06	0.53	2.11	4.42	4.55	4.68	0.69	1.20
		2.500	6.50	3.25	3.81	3.19	0.53	2.11	4.61	4.74	4.86	0.69	1.20
		2.500 OS	7.77	4.50	4.75	3.19	0.53	2.11	–	6.63	6.75	0.69	1.20
	2.625	6.50	3.38	3.94	3.31	0.53	2.11	4.86	4.99	5.11	0.69	1.20	
	2.625 OS	6.99	4.55	4.88	3.31	0.53	2.11	–	5.88	6	0.69	1.20	

Chesterton ISO certificates available on [chesterton.com/corporate/iso](http://chesterton.com/corporate/iso)

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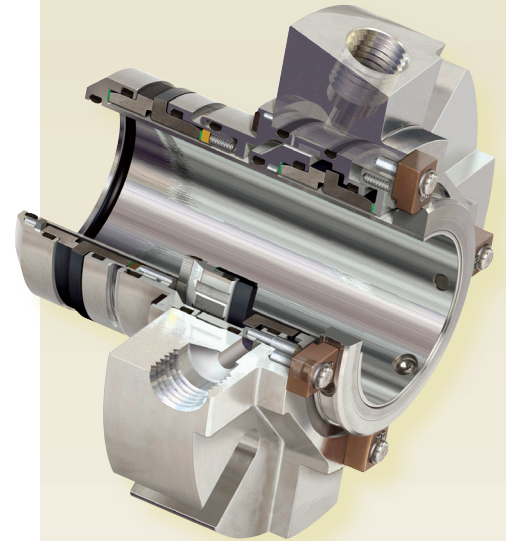
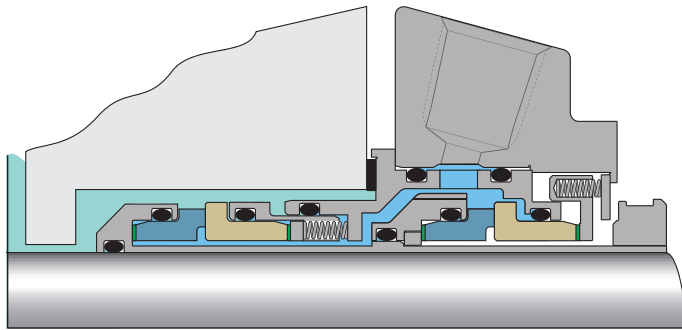
# S20

## High Performance Cassette Double Seal

*Unique modular cassette that combines advanced seal technology with flexibility in maintenance and repair*

Simplify seal maintenance and increase equipment reliability with Chesterton's S20 Cassette Seal. Featuring a Self Centering Lock Ring and Self Releasing Setting Clips, the S20 enables quick, easy and accurate installation. Sealing security is ensured by the tandem configuration allowing operation with elevated barrier system pressures and preventing process leakage to the atmosphere. The S20 offers key seal performance benefits:

- Tandem configuration for dependable sealing security
- High flow internal pumping ring
- Self-Centering Lock Ring eliminates misalignment
- Advanced monolithic face design
- Micropolished O-Ring surfaces eliminate O-Ring hang-up



**ViewIn™**  
Chesterton® Technology

**One optimized sealing concept for plant-wide standardization**

- ViewIn™ enabled RFID seal tracking technology which identifies the serial number
- Quick to repair with innovative cassette feature

### SPECIFICATIONS

#### Operating Parameters

Sizes	25 mm – 120 mm 1.00" – 4.75"
Pressure	711 mm or 28" Hg Vacuum to 31 bar g / 450 psig* 17 bar g / 250 psig inboard differential*
Temperature	-55°C – 300°C / -67°F – 570°F Temperature limits depend on actual elastomers used
Speed	25 m/s or 5000 fpm

#### Applicable Standards and Approvals

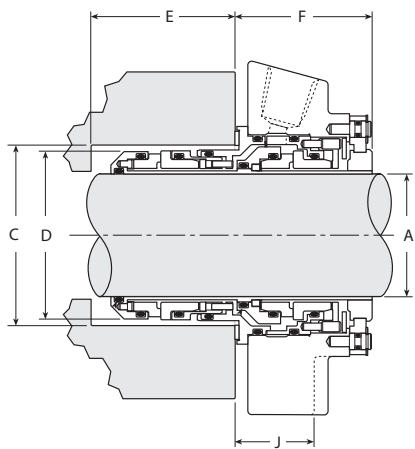
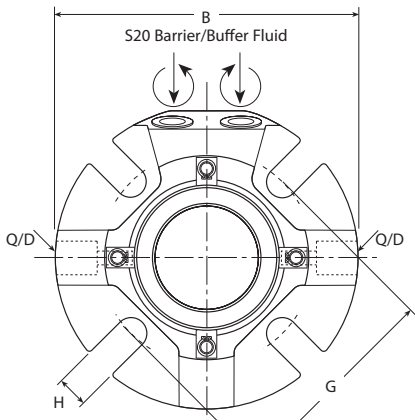
ISO-3069C, ASME B73.1, B73.2

#### Materials of Construction

Rotary Faces	CB SSC TC
Stationary Faces	SSC TC
Elastomers	FKM EPDM FEPM FFKM
Metal Parts	316 Stainless Steel / EN 1.4401
Springs	Alloy C-276 / EN 2.4819

\* Seal pressure capabilities are dependent on the fluid sealed, temperature, speed, and seal face combinations. For operation outside the limits and additional materials consult Chesterton Mechanical Seal Engineering.

# Dimensional Data



### S20 KEY

- A – Shaft Size
- B – Maximum Gland Diameter
- C – Seal Chamber Bore
- D – Seal Outside Diameter
- E – Minimum Seal Chamber Depth
- F – Outboard Seal Length
- G – Minimum Bolt Circle by Bolt Size
- H – Slot Width
- J – Seal Chamber to Bolt Surface

S20 EXTRA SMALL DUAL CASSETTE SEAL													
Dimensional Data/Metric	A	B	C	C	D	E	F	G MIN			H	J	
		MAX	MIN	MAX		MIN		10 mm	12 mm	16 mm			
	25	104	41,0	51,1	39,9	48	52	73,0	–	–	–	11,5	30,4
28	104	44,0	51,8	42,4	48	52	73,0	–	–	–	13,5	30,4	
30	104	46,0	56,6	44,5	48	52	78,0	–	–	–	13,5	30,4	
32	104	48,0	57,7	46,5	48	52	80,0	–	–	–	13,5	30,4	
33	113	49,0	58,8	47,4	48	52	80,0	83,0	–	–	15,0	30,4	
35	111	51,0	59,2	49,4	48	52	82,0	83,7	–	–	15,0	30,4	
Dimensional Data/Inch	A	B	C	C	D	E	F	G MIN			H	J	
		MAX	MIN	MAX		MIN		3/8"	1/2"	5/8"			
	1.000	4.1	1.63	2.01	1.57	1.88	2.05	2.88	–	–	–	0.44	1.20
	1.125	4.1	1.75	2.04	1.69	1.88	2.05	2.88	–	–	–	0.44	1.20
	1.125 OS	4.5	2.63	2.94	1.69	1.82	2.05	3.71	–	–	–	0.44	1.20
	1.250	4.1	1.88	2.27	1.83	1.88	2.05	3.13	–	–	–	0.44	1.20
1.375	4.4	2.00	2.33	1.94	1.88	2.05	3.14	3.33	–	–	0.57	1.20	
1.375 OS	5.4	2.81	3.00	1.94	1.82	2.05	4.03	–	–	–	0.44	1.21	
S20 SMALL DUAL CASSETTE SEAL													
Dimensional Data/Metric	A	B	C	C	D	E	F	G MIN			H	J	
		MAX	MIN	MAX		MIN		10 mm	12 mm	16 mm			
	38	114	57,2	62,0	55,6	50	54	84,0	89,9	–	–	13,5	30,4
	40	127	60,0	68,3	57,5	50	54	89,2	91,7	–	–	13,5	30,4
	43	127	63,0	68,8	60,5	50	54	91,9	94,7	–	–	13,5	30,4
	45	140	65,0	73,4	62,5	50	54	94,2	96,8	–	–	13,5	30,4
	48	140	68	73,8	65,5	50	54	97,0	99,8	–	–	13,5	30,4
	50	140	70,0	78,5	67,5	50	54	99,3	101,9	–	–	17,5	30,4
	53	153	75,0	83,6	72,5	50	54	104,4	106,4	112,0	–	17,5	30,4
	55	153	75,0	83,6	72,5	50	54	104,4	106,4	112,0	–	17,5	30,4
	60	153	80,0	92,2	77,8	50	54	112,8	114,8	118,9	–	17,5	30,4
	65	164	88,9	100,1	84,2	50	54	124,0	126,0	129,8	–	17,5	30,4
	70	196	95	110	93	63	63	137	141	–	–	17	41
	75	202	104	119	99	63	63	143	147	–	–	17	41
	80	203	109	122	103	63	63	150	154	–	–	17	41
85	211	114	128	109	63	63	152	156	161	–	20	41	
90	214	119	132	113	63	63	160	164	168	–	20	41	
95	221	124	137	118	63	63	161	165	170	–	20	41	
100	228	129	144	125	63	63	168	172	177	–	20	41	
110	237	137	154	134	63	63	178	182	186	–	20	41	
120	266	146	164	144	63	63	187	191	196	–	20	41	
Dimensional Data/Inch	A	B	C	C	D	E	F	G MIN			H	J	
		MAX	MIN	MAX		MIN		3/8"	1/2"	5/8"			
	1.500	4.50	2.25	2.44	2.19	1.97	2.11	3.31	3.55	–	–	0.57	1.20
	1.625	5.00	2.38	2.70	2.31	1.97	2.11	3.49	3.68	–	–	0.57	1.20
	1.750	5.50	2.50	2.81	2.44	1.97	2.11	3.61	3.80	–	–	0.57	1.20
	1.750 OS	6.64	3.50	3.75	2.44	1.97	2.11	5.38	5.50	–	–	0.57	1.20
	1.875	5.50	2.63	2.94	2.56	1.97	2.11	3.74	3.93	–	–	0.57	1.20
	1.875 OS	5.99	3.56	3.81	2.56	1.97	2.11	–	5.00	–	–	0.57	1.20
	2.000	5.50	2.75	3.19	2.69	1.97	2.11	3.99	4.12	–	–	0.57	1.20
	2.125	6.00	2.88	3.44	2.81	1.97	2.11	4.24	4.37	4.49	–	0.69	1.20
	2.125 OS	6.99	3.88	4.25	2.81	1.66	2.42	–	4.49	5.25	–	0.69	1.51
	2.250	6.00	3.00	3.56	2.94	1.97	2.11	4.36	4.49	4.61	–	0.69	1.20
	2.375	6.00	3.13	3.62	3.06	1.97	2.11	4.42	4.55	4.68	–	0.69	1.20
	2.500	6.50	3.25	3.81	3.19	1.97	2.11	4.61	4.74	4.86	–	0.69	1.20
	2.500 OS	7.77	4.50	4.75	3.19	1.97	2.11	–	6.63	6.75	–	0.69	1.20
2.625	6.50	3.38	3.94	3.31	1.97	2.11	4.86	4.99	5.11	–	0.69	1.20	
2.625 OS	6.99	4.55	4.88	3.31	1.97	2.11	–	5.88	6	–	0.69	1.20	

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