



Cartridge Seals



ACCURA SEALS & ENGINEERING

Manufacturers Of Mechanical Shaft Seals & Rubber Spares

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We are close to you...

As time goes by, we feel extremely satisfied and proud to be able to contribute to and form part of a responsible, safe industry which is striving to build a better world and a safer future. We are convinced we can offer you a solution that will meet your expectations.

Who we are

History:

Founded in 2010, our company embarked on a journey driven by a vision to revolutionize the mechanical seal industry. Since our establishment, we have evolved into a global leader in mechanical seals. Through relentless innovation, exceptional quality, and customer-centricity, we have built a rich history of delivering reliable, customized solutions that optimize efficiency and exceed expectations.

Mission:

Our mission is to be a leading manufacturer of high-quality mechanical seals, delivering innovative and reliable sealing solutions that meet the diverse needs of our customers. We strive to exceed customer expectations by providing exceptional products, exceptional service, and exceptional value. Through continuous improvement and a commitment to excellence, we aim to contribute to the success and efficiency of industries worldwide.

Vision:

Our vision is to be the global benchmark for mechanical seals, recognized for our unwavering dedication to quality, performance, and customer satisfaction. We aspire to be the preferred choice for companies seeking superior sealing solutions that enhance their operational reliability, reduce downtime, and improve overall efficiency. By fostering a culture of innovation, collaboration, and sustainability, we aim to shape the future of sealing technology and make a positive impact on the industries we serve.

Strategy:

Reliability and **Availability** are at the core of our strategy. We are committed to meeting our obligations and ensuring timely product delivery, earning the trust of our customers as a reliable partner. With a focus on **Accessibility** and **Adaptability**, we offer expert guidance and tailored solutions through our extensive product range and efficient processes.

Accessibility:

Please feel free to reach out to us via traditional or modern communication channels. We are committed to promptly and effectively addressing your needs with tailored solutions.

Reliability:

We are regarded as a trusted partner by our customers due to our unwavering commitment to meeting our obligations.

Adaptability:

We offer expert advice and guidance to our customers, leveraging our design and manufacturing capabilities to customize products and services according to their specific requirements.

Availability:

Our extensive product range and efficient processes enable timely delivery of requested products.

Our Values:

We are guided by a set of core values: integrity, innovation, collaboration, customer-centricity, quality excellence, and environmental stewardship. With integrity as our foundation, we promote innovation through collaboration, prioritize customer needs, ensure quality excellence, and uphold our commitment to environmental stewardship.



We believe in:

INTEGRITY:

Conducting business with honesty, transparency, and adherence to ethical standards.

COLLABORATION:

Encouraging teamwork, cooperation, and open communication to foster a culture of collaboration that drives creativity, innovation, and overall organizational success.

INNOVATION:

Embracing a culture of continuous improvement, research, and development to drive advancements in mechanical seal technology.

ENVIRONMENTAL STEWARDSHIP:

Taking responsibility for sustainable practices, reducing environmental footprint, and contributing to a greener future.

CUSTOMER-CENTRICITY:

Placing the needs of customers at the forefront, understanding their challenges, and delivering tailored solutions that exceed expectations.

QUALITY EXCELLENCE:

Commitment to delivering products and services of the highest quality, adhering to stringent quality control measures and surpassing industry standards.



Sectors



Today, many demanding industrial sectors need sealing systems that guarantee safety for both people and facilities. It is very important to offer quality products that are resistant to extreme conditions such as high pressures and temperatures and that also guarantee impeccable sealing.

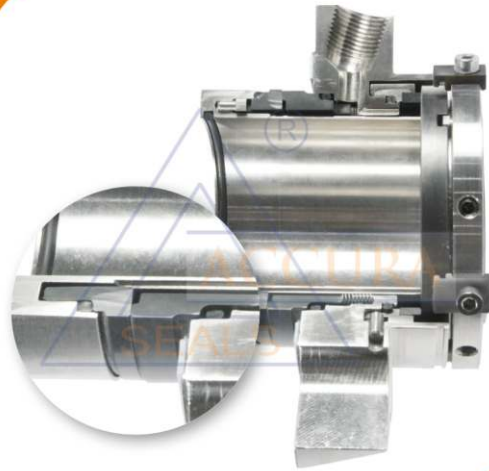
This safety is ensured by using single and double cartridge seals for sealing corrosive and/or abrasive fluids containing heavy solids or sticky fluids with scant lubrication. The correct selection of the cartridge seal design and its materials, the use of flush, quench, ring and pumping connections, among others, and their auxiliary elements such as tanks and cyclones considerably extend the useful life of the cartridge seals.



Relevant Characteristics

Some of their most important features are:

- The use of solid contact surfaces to prevent possible deformations, with the ensuing loss of flatness.



- The O-ring that seals the shaft is static. It avoids the fretting effect on the shaft and its subsequent repair.



- Contact surfaces with an anti-rotation pin to prevent them from sticking together (sticky fluids, dry start-ups) and turning in their housings.



- The springs for compressing the contact surfaces are isolated from the product, which prevents them from becoming blocked by products containing particles, pastes, etc. They are made of Hastelloy material and have great chemical resistance and mechanical properties superior to those of stainless steel.



- A flat self-adhesive seal that facilitates the positioning and prevents failures during the installation process.

- Contact surfaces made of sintered silicon carbide (Q1), suitable for working with the most aggressive products in the chemical industry.



- Self-centering clips that assure the cartridge is installed correctly.

Advantages

Benefits of cartridge seals as opposed to other more traditional sealing systems, such as packing:

-  All of our cartridge seals are factory-tested to guarantee they function correctly.



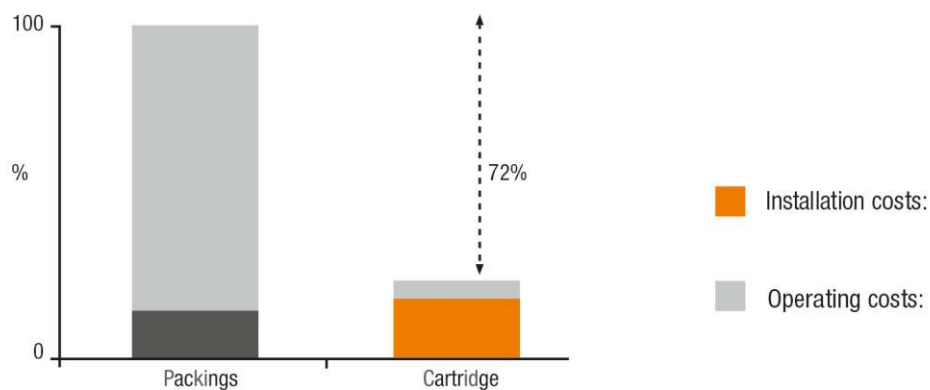
-  They are easy and quick to install.

-  Their sealing system does not damage the shaft surface.

-  They provide complete sealing with no drips.

-  They are cleaner in environmental terms.

-  They require no maintenance; unlike braided packing, the cartridge requires no re-tightening.



ASC10

SECTORS:



CHARACTERISTICS:

- Unbalanced
- Not dependent on the rotation direction.
- Wave spring

OPERATING LIMITS:

$d_1 = 24$ to 95 mm $p = 10$ kg/cm²

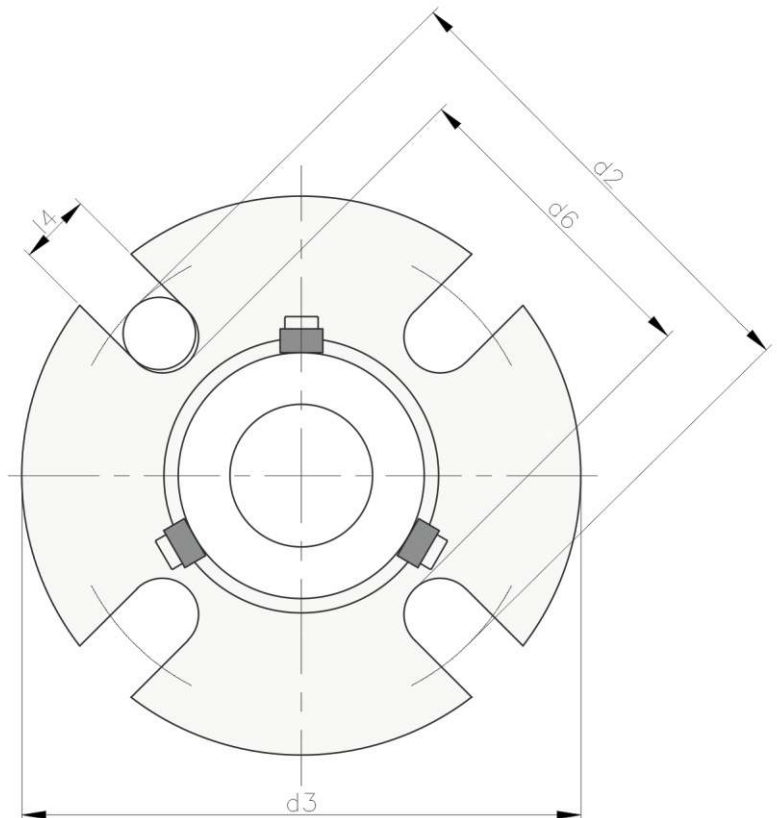
$v = 20$ m/s $t = -15$ to $+200^\circ\text{C}$ (*)

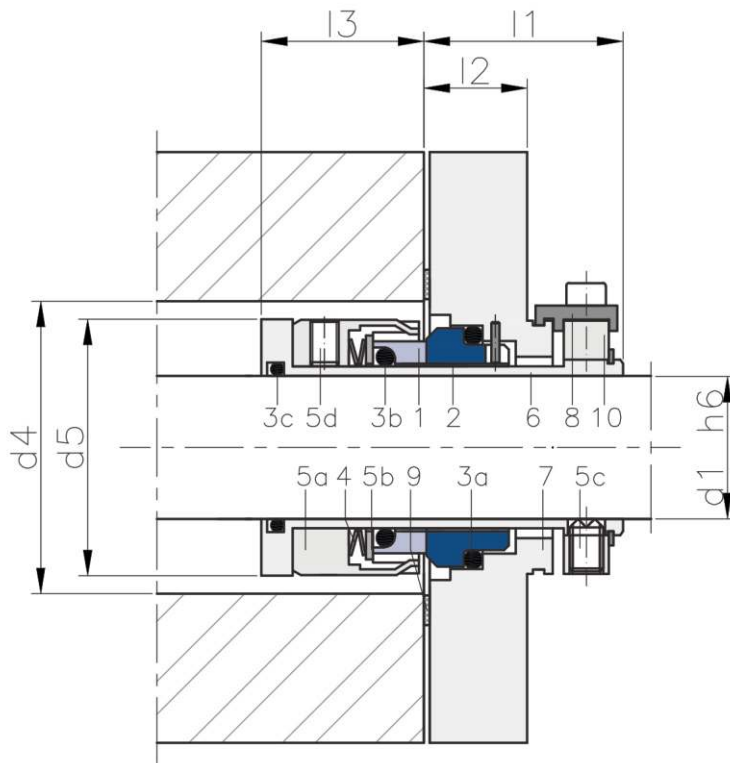
(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

DESCRIPTION:

Single cartridge in which due to its geometry, the rotating part has a wave spring to prevent it from blocking when in contact with viscous fluids or fibres.



**COMPONENTS:**

- 1 Rotating contact surface
- 2 Stationary contact surface
- 3 O-rings
- 4 Metal bellows
- 5a Metal frame
- 5b Ring
- 5c Set screws
- 5d Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring

DIMENSIONS CHART Dimensions in mm

Shaft mm	d ₂ min.	d ₂ max.	d ₃	d ₄ min.	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄
24	72	93	105	44	52	43	60	32	21	41	12
25	72	93	105	44	52	43	60	32	21	41	12
28	72	93	105	49	52	47	60	32	21	41	12
30	76	98	110	49	56	48	64	32	21	41	12
32	77	98	110	51	57	50	65	32	21	41	12
33	81.5	103	115	57	61.5	55	69.5	32	21	43.5	12
35	81.5	103	115	57	61.5	55	69.5	32	21	43.5	12
38	86	108	120	62	66	60	74	32	21	42	12
40	88	108	120	62	68	60	76	32	21	42	12
43	90.5	123	135	67	70.5	65	78.5	32	21	42	12
45	93	123	135	67	73	65	81	32	21	42	12
48	98	123	135	74	78	70	86	32	21	45.5	12
50	100	123	135	74	78	70	88	32	21	45.5	12
55	111	134	150	82	85	81	95	32	21	50.5	16
60	121	130	150	87	91	86	101	32	21	50.5	20
65	128.5	140	160	93	98.5	91	108.5	32	21	57	20
70	138	155	175	100	108	99	118	32	21	57	20
75	148	170	190	105	118	104	128	32	21	57	20
80	154	170	190	111	124	109	134	32	21	57	20
85	158	170	190	116	128	114	138	32	21	62	20
90	165	195	215	121	135	119	145	32	21	63	20
95	168	195	215	126	138	124	148	32	21	63	20

Dimensions subject to changes or modifications.

ASC25

SECTORS:



CHARACTERISTICS:

- Balanced.
- Not dependent on the rotation direction.
- Single cylindrical spring.

OPERATING LIMITS:

$d_1 = 24 \text{ to } 95 \text{ mm}$ $p = 20 \text{ kg/cm}^2$

$v = 15 \text{ m/s}$ $t = -15 \text{ to } +200^\circ\text{C} (*)$

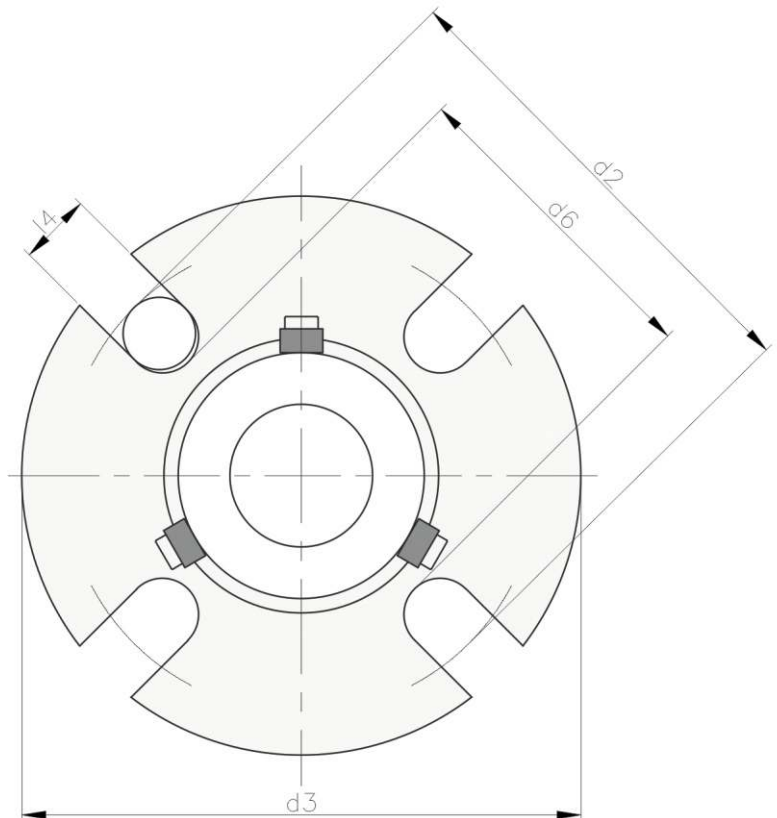
(*) The temperature resistance depends on the material of the secondary seals used.

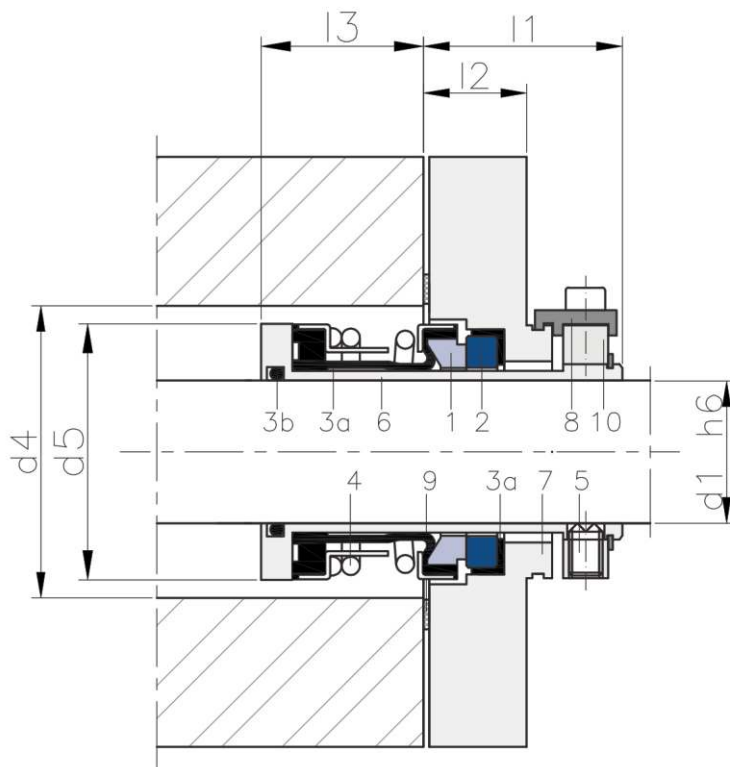
The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.



DESCRIPTION:

Single cartridge in which the rotating part has metal tabs that reduce fatigue and tension in the rubber bellows when in the working position.



**COMPONENTS:**

- 1 Rotating contact surface
- 2 Stationary contact surface
- 3a Rubber bellows
- 3b O-ring
- 4 Spring
- 5 Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring

DIMENSIONS CHART Dimensions in mm

Shaft											
mm	d ₂ min.	d ₂ max.	d ₃	d ₄ min.	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄
24	72	93	105	44	52	43	60	32	21	41	12
25	72	93	105	44	52	43	60	32	21	41	12
28	72	93	105	49	52	47	60	32	21	41	12
30	76	98	110	49	56	48	64	32	21	41	12
32	77	98	110	51	57	50	65	32	21	41	12
33	81.5	103	115	57	61.5	55	69.5	32	21	43.5	12
35	81.5	103	115	57	61.5	55	69.5	32	21	43.5	12
38	86	108	120	62	66	60	74	32	21	42	12
40	88	108	120	62	68	60	76	32	21	42	12
43	90.5	123	135	67	70.5	65	78.5	32	21	42	12
45	93	123	135	67	73	65	81	32	21	42	12
48	98	123	135	74	78	70	86	32	21	45.5	12
50	100	123	135	74	78	70	88	32	21	45.5	12
55	111	134	150	82	85	81	95	32	21	50.5	16
60	121	130	150	87	91	86	101	32	21	50.5	20
65	128.5	140	160	93	98.5	91	108.5	32	21	57	20
70	138	155	175	100	108	99	118	32	21	57	20
75	148	170	190	105	118	104	128	32	21	57	20
80	154	170	190	111	124	109	134	32	21	57	20
85	158	170	190	116	128	114	138	32	21	62	20
90	165	195	215	121	135	119	145	32	21	63	20
95	168	195	215	126	138	124	148	32	21	63	20

Dimensions subject to changes or modifications.

ASC38-FQ

SECTORS:



CHARACTERISTICS:

- Balanced.
- Welded Metal bellows.
- Not dependent on the rotation direction.
- Flushing and quenching connections.

OPERATING LIMITS:

$d_1 = 25 \text{ to } 80 \text{ mm}$ $p = 20 \text{ kg/cm}^2$

$v = 25 \text{ m/s}$ $t = -15 \text{ to } +200^\circ\text{C} (*)$

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

DESCRIPTION:

A single cartridge seal that permits the injection of external fluids (quenching and flushing) and the recirculation of internal fluids (flushing).

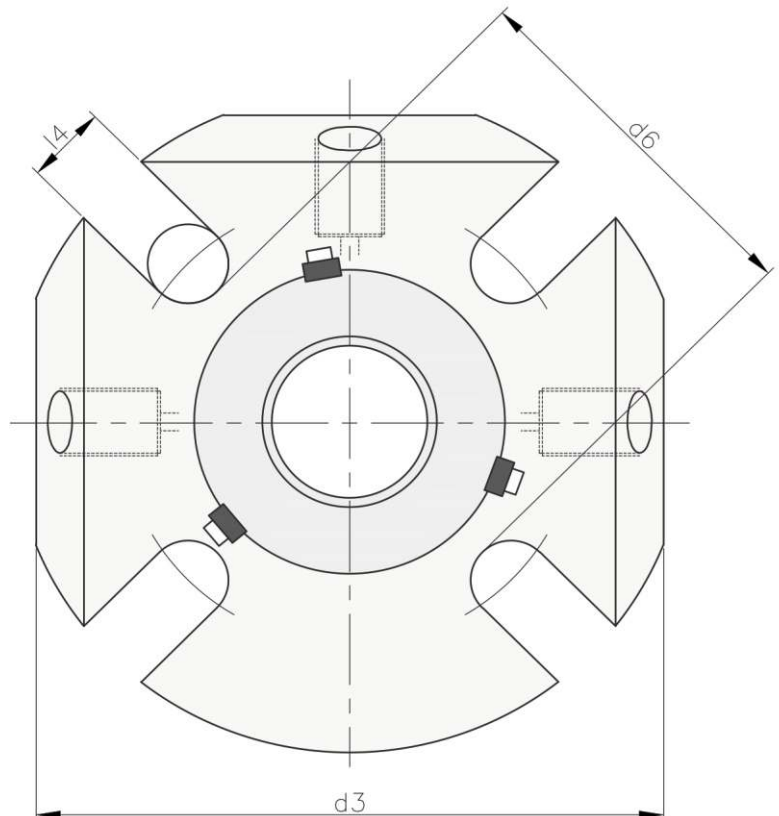
The rotating part of the seal has a self-cleaning metal bellows structure.

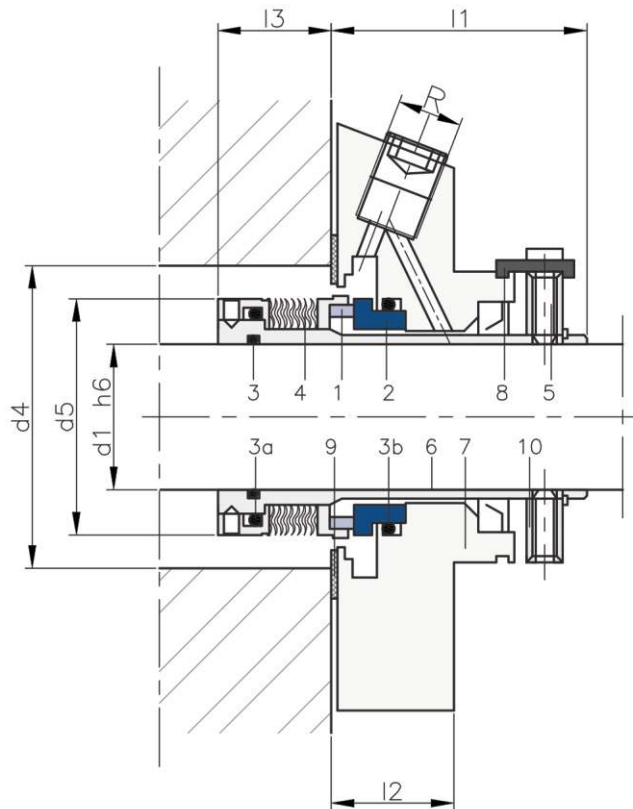
Suitable for applications with extremely viscous, sticky fluids laden with particles that run a risk of freezing, solidification or sedimentation.

CONNECTIONS (R):

From 25 mm to 65 mm: 1/4" NPT.

From 70 mm to 80 mm: 3/8" NPT.



**COMPONENTS:**

- 1 Rotating contact surface.
- 2 Stationary contact surface
- 3 O-rings
- 4 Metal bellows
- 5 Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring

DIMENSIONS CHART Dimensions in mm

Shaft									
mm	d ₃	d ₄ min.	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄
25	105,0	47,0	51,0	45,0	62,0	53,4	25,4	26,1	13,2
30	105,0	52,0	56,0	49,4	67,0	53,4	25,4	25,0	13,2
32	108,0	54,5	57,0	52,3	70,0	53,4	25,4	25,0	13,2
33	108,0	54,5	57,0	52,3	70,0	53,4	25,4	25,0	13,2
35	113,0	58,0	61,5	54,8	72,0	53,4	25,4	25,0	13,2
38	123,0	60,0	66,0	57,5	75,0	53,4	25,4	25,0	14,0
40	123,0	62,0	68,0	58,8	77,0	53,4	25,4	24,8	14,2
43	133,0	64,5	70,5	61,9	80,0	53,4	25,4	25,0	14,2
45	138,0	68,5	73,0	65,0	82,0	53,4	25,4	25,0	14,2
48	138,0	71,0	75,0	68,4	85,0	53,4	25,4	25,3	14,2
50	148,0	73,0	78,0	70,0	87,0	53,4	25,4	25,7	14,2
53	148,0	75,0	87,0	71,9	97,0	53,4	25,4	24,4	18,0
55	148,0	77,0	83,0	74,6	92,0	53,4	25,4	25,5	18,0
60	157,0	87,0	91,0	83,9	102,0	53,4	25,4	26,7	18,0
65	163,0	90,0	98,5	87,5	109,3	53,4	25,4	26,6	18,0
70	178,0	98,0	108,0	93,0	118,3	53,4	25,4	28,1	18,0
75	190,0	101,6	118,0	96,8	129,0	63,9	28,0	30,5	18,0
80	195,0	108,0	124,0	104,7	135,0	64,0	28,0	30,4	18,0

Dimensions subject to changes or modifications.

SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Flushing connections.

OPERATION LIMITS:

$d_1 = 25$ to 100 mm $p = 25$ kg/cm²
 $v = 16$ m/s $t = -15$ to $+200^\circ\text{C}$ (*)

(*) The temperature resistance depends on the material of the secondary seals used.

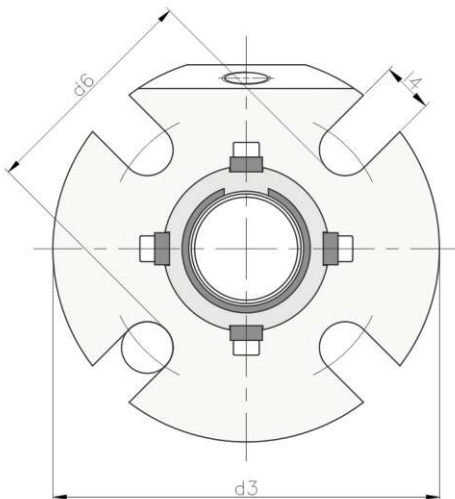
The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

DESCRIPTION:

A single cartridge with connections for flushing the seal contact faces. The springs are protected from the product to prevent blocking in applications with particle-laden fluids. The standard flange has a connection for flushing to clean and cool the faces (ASC40-F)

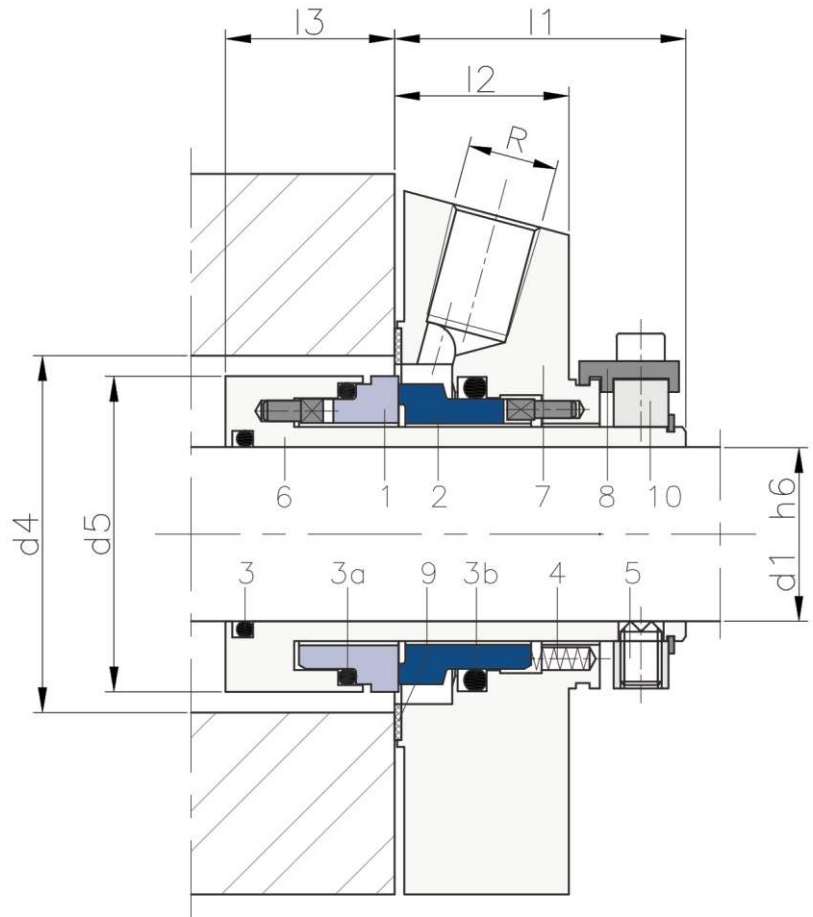
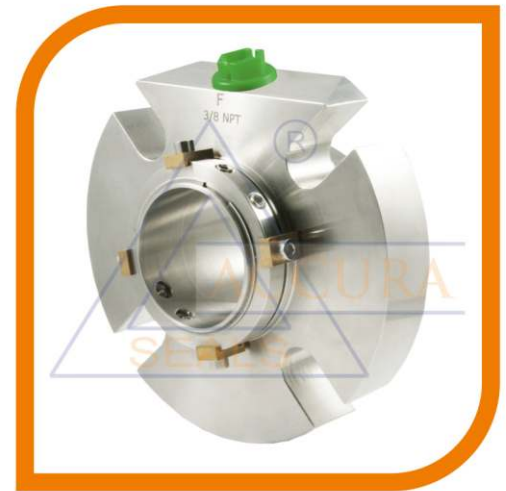
CONNECTIONS (R):

From 25 mm to 65 mm: 1/4" NPT.
 From 38 mm to 80 mm: 3/8" NPT.



COMPONENTS:

- 1 Rotating contact surface
- 2 Stationary contact surface
- 3 O-rings
- 4 Springs
- 5 Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring
- 11 Lip seal quench
- 12 Throttle ring PTFE carbon-graphite reinforced quench

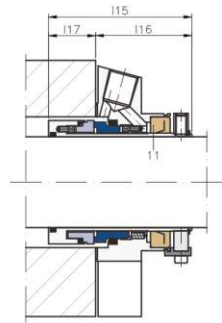


ASC40-F

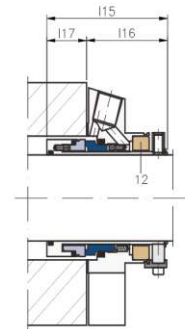
DIMENSIONS CHART For Imperial Shaft Sizes

Shaft																
(")	mm	d ₃	d ₄ min.	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄	l ₁₂	l ₁₃	l ₁₄	l ₁₅	l ₁₆	l ₁₇
1,000	25,4	105,0	44,5	50,8	43,0	62,0	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1
1,125	28,6	105,0	47,6	52,1	46,0	62,0	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1
1,250	31,8	110,0	50,8	57,2	49,8	67,1	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1
1,375	34,9	113,0	54,0	61,5	53,0	69,9	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1
1,500	38,1	123,0	57,2	66,7	55,9	74,9	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1
1,625	41,3	123,0	60,3	68,6	59,4	77,0	42,4	25,4	24,6	15,2	35,0	32,0	17,5	79,5	53,4	26,1
1,750	44,5	138,0	63,5	71,4	62,5	81,0	42,4	25,4	24,6	15,2	35,0	32,0	17,5	79,5	53,4	26,1
1,875	47,6	138,0	66,7	74,7	65,6	81,0	42,4	25,4	24,6	15,2	35,0	32,0	17,5	79,5	53,4	26,1
2,000	50,8	148,0	69,9	81,0	68,0	87,1	42,4	25,4	24,6	15,2	35,0	32,0	17,5	79,5	53,4	26,1
2,125	54,0	148,0	73,0	87,3	72,0	97,0	42,4	25,4	24,6	18,0	35,0	32,0	17,5	79,5	53,4	26,1
2,250	57,2	157,0	76,2	90,4	75,2	100,1	42,4	25,4	24,6	18,0	35,0	32,0	17,5	79,5	53,4	26,1
2,375	60,3	157,0	79,4	91,2	78,0	102,1	42,4	25,4	24,6	18,0	35,0	32,0	17,5	79,5	53,4	26,1
2,500	63,5	163,0	82,6	96,5	81,6	105,9	42,4	25,4	24,6	18,0	35,0	32,0	17,5	79,5	53,4	26,1
2,625	66,7	163,0	85,7	100,0	84,8	109,0	42,4	25,4	24,6	18,0	35,0	32,0	17,5	79,5	53,4	26,1
2,750	69,9	178,0	95,3	108,0	93,0	118,1	42,4	25,4	24,6	18,0	35,0	37,9	22,0	79,5	53,4	26,1
2,875	73,0	190,0	101,6	118,0	100,0	129,0	57,4	25,4	26,6	18,0	46,1	37,9	22,0	--	--	--
3,000	76,2	190,0	101,6	118,0	100,0	129,0	57,4	25,4	26,6	18,0	46,1	37,9	22,0	98,0	63,9	34,1
3,125	79,4	195,0	104,8	121,0	106,4	135,0	57,4	25,4	26,6	18,0	46,1	37,9	22,0	98,0	63,9	34,1
3,250	82,6	195,0	108,0	124,0	106,4	135,0	57,4	28	26,6	18,0	46,1	37,9	22,0	--	--	--
3,375	85,7	198,0	111,1	128,0	109,5	139,0	57,4	28	26,6	22,0	46,1	37,9	22,0	--	--	--
3,500	88,9	198,0	114,3	131,0	112,7	142,0	57,4	28	26,6	22,0	46,1	37,9	22,0	--	--	--
3,625	92,1	205,0	117,5	135,0	115,9	145,0	57,4	28	26,6	22,0	46,1	37,9	22,0	--	--	--
3,750	95,3	208,0	120,7	138,0	119,1	148,0	57,4	28	26,6	22,0	46,1	37,9	22,0	98,0	63,9	34,1
4,000	101,6	218,0	127,0	144,0	125,4	154,0	57,4	28	26,6	22,0	46,1	37,9	22,0	--	--	--

Dimensions subject to changes or modifications.

**ASC40-FQO**

Single cartridge with connections for quench and flush between the faces, with a non-pressurised fluid. The quench fluid sealing is done through an oil seal. For applications using fluids with scant lubrication.

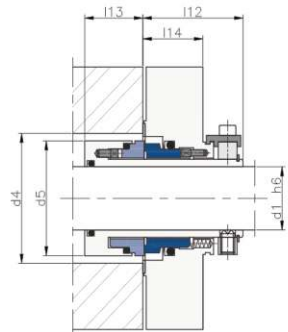
**ASC40-FQG**

Single cartridge with connections for quench and flush between the faces, with a non-pressurised fluid. The quench fluid sealing is done through a throttle ring PTFE carbon-graphite reinforced.

DIMENSIONS CHART Dimensions in mm

Shaft															
mm	l ₁	l ₂	l ₃	l ₄	l ₁₂	l ₁₃	l ₁₄	l ₁₅	l ₁₆	l ₁₇	d ₃	d ₄ min.	d ₄ máx.	d ₅	d ₆
25	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1	105	44	51,5	43	62
28	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1	105	47	52	46	62
30	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1	110	49	56	48	65
32	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1	110	51	57	49,8	67
33	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1	113	51	57	49,8	67
35	42,4	25,4	24,6	13,2	35,0	32,0	17,5	79,5	53,4	26,1	123	54	61,5	53	70
38	42,4	25,4	24,6	14,2	35,0	32,0	17,5	79,5	53,4	26,1	123	57	66	56	75
40	42,4	25,4	24,6	14,2	35,0	32,0	17,5	79,5	53,4	26,1	133	59	68	58	75
42	42,4	25,4	24,6	14,2	35,0	32,0	17,5	79,5	53,4	26,1	133	61,5	69,5	60,5	80
43	42,4	25,4	24,6	14,2	35,0	32,0	17,5	79,5	53,4	26,1	138	61,5	70,5	60,5	80
45	42,4	25,4	24,6	14,2	35,0	32,0	17,5	79,5	53,4	26,1	138	64	73	62,5	81
48	42,4	25,4	24,6	14,2	35,0	32,0	17,5	79,5	53,4	26,1	148	67	75	65,6	84
50	42,4	25,4	24,6	18	35,0	32,0	17,5	79,5	53,4	26,1	148	69	78	68	87
53	42,4	25,4	24,6	18	35,0	32,0	17,5	79,5	53,4	26,1	148	73	87	72	97
55	42,4	25,4	24,6	18	35,0	32,0	17,5	79,5	53,4	26,1	148	74	83	73	90
60	42,4	25,4	24,6	18	35,0	32,0	17,5	79,5	53,4	26,1	157	79	91	78	102
65	42,4	25,4	24,6	18	35,0	32,0	17,5	79,5	53,4	26,1	163	85,7	98,5	84,8	109
70	42,4	25,4	24,6	18	35,0	32,0	17,5	79,5	53,4	26,1	178	95	108	93	118
75	57,4	28	26,6	18	46,1	37,9	22,0	98,0	63,9	34,1	190	101,6	118	100	129
80	57,4	28	26,6	18	46,1	37,9	22,0	98,0	63,9	34,1	195	108	124	106,4	135
85	57,4	28	26,6	22	46,1	37,9	22,0	98,0	63,9	34,1	198	111,1	128	109,5	139
90	57,4	28	26,6	22	46,1	37,9	22,0	98,0	63,9	34,1	205	117,5	135	115,9	145
95	57,4	28	26,6	22	46,1	37,9	22,0	98,0	63,9	34,1	208	120,7	138	119,1	148
100	57,4	28	26,6	22	46,1	37,9	22,0	98,0	63,9	34,1	218	127	144	125,4	154

Dimensions subject to changes or modifications.

**ASC40**

Single cartridge with no connections, for closed chamber applications in which no water recirculation is necessary. Applications: Clean fluids

SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Flushing connections.

OPERATING LIMITS:

$d_1 = 25,4$ to $95,3$ mm $p = 25$ kg/cm²

$v = 16$ m/s $t = -15$ to $+200^\circ\text{C}$ (*)

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

DESCRIPTION:

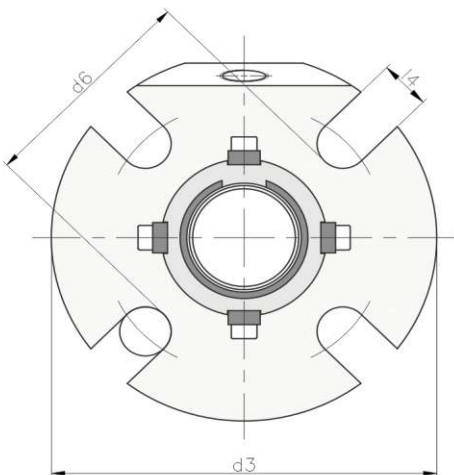
A single cartridge with connections for flushing the seal contact faces. The springs are protected from the product to prevent blocking in applications with particle-laden fluids. The standard flange has a connection for flushing to clean and cool the faces.

Recommended for flange pumps ANSI Standard bore and ANSI big bore

CONNECTIONS (R):

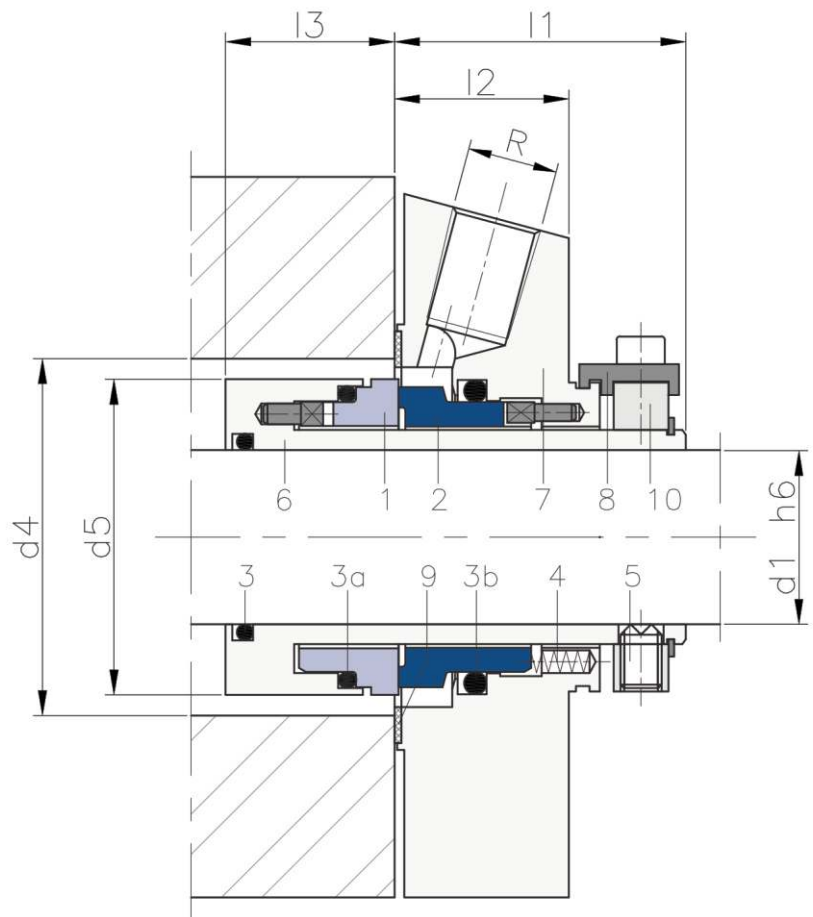
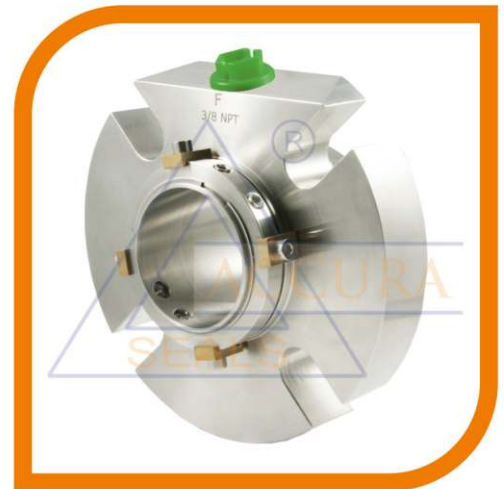
From 25,4 mm to 34,9 mm: 1/4" NPT.

From 38,1 mm to 95,3 mm: 3/8" NPT.



COMPONENTS:

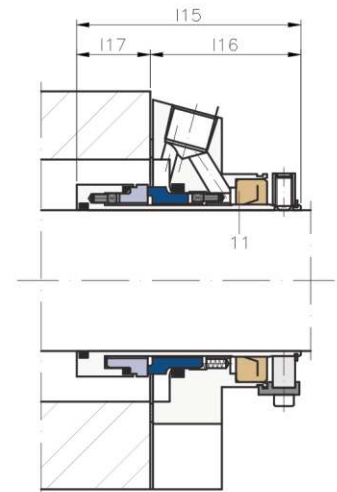
- 1 Rotating contact surface
- 2 Stationary contact surface
- 3 O-rings
- 4 Springs
- 5 Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring
- 11 Lip seal quench
- 12 Throttle ring PTFE carbon-graphite reinforced quench



DIMENSIONS CHART For Imperial Shaft Sizes **ASC40-FQOAB** **ASC40-FQGAB** **ASC40-FAB**

Shaft													
(")	mm	d ₃	d ₄ min.	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄	l ₁₅	l ₁₆	l ₁₇
1,000	25,4	--	--	--	--	--	--	--	--	--	--	--	--
1,125	28,5	114,3	44,5	71	43,5	84,1	42,3	25,4	24,6	11,1	74,6	48,4	26,1
1,250	31,7	--	--	--	--	--	--	--	--	--	--	--	--
1,375	35	130	50,8	81	49,7	90	42,3	25,4	24,6	11,1	74,8	48,7	26,1
1,500	38,1	--	--	--	--	--	--	--	--	--	--	--	--
1,625	41,2	--	--	--	--	--	--	--	--	--	--	--	--
1,750	44,4	165	63,5	103	62,5	116	42,3	25,4	24,6	14,2	76,5	50,3	26,1
1,875	47,6	152	67,5	100	65,6	112	42,3	25,4	24,6	14	78	52,3	25,7
2,000	50,8	160	70	116	68	124	42,3	32	18	14	79,5	53,3	26,1
2,125	54	175	74	115	72	134	42,3	25,4	24,6	18	76,5	50,3	26,1
2,250	57,1	163	78,5	112	75,1	119	48,7	32,4	17,6	18	79,5	53,8	26,1
2,500	63,5	198	83,7	134	81,5	140	48,7	31,7	18,2	18	79,5	53,8	26,1
2,625	66,6	175	80,5	130	84,7	136	48,7	31,7	18,2	18	79,5	53,8	26,1
2,750	69,8	190	95	133	93	140	49,4	32,4	17,6	16	79,5	53,8	26,1
3,000	76,2	209	102	140	100	150	57,8	32,4	26,1	16,5	98	64	34,1
3,250	82,5	--	--	--	--	--	--	--	--	--	--	--	--

Dimensions subject to changes or modifications.



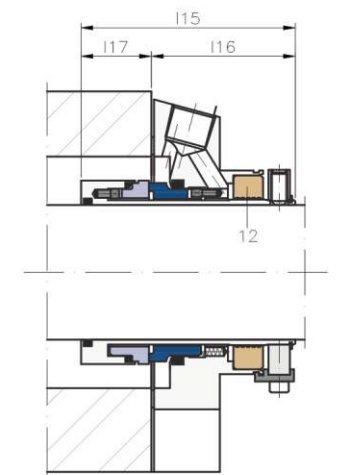
ASC40-FQOAB : ANSI BIG BORE
ASC40-FQOAS : ANSI STANDARD BORE

Single cartridge with connections for quench and flush between the faces, with a non-pressurised fluid. The quench fluid sealing is done through a lip seal. For applications using fluids with scant lubrication.

DIMENSIONS CHART Dimensions in mm **ASC40-FQOAS** **ASC40-FQGAS** **ASC40-FAS**

Shaft													
(")	mm	d ₃	d ₄ min.	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄	l ₁₅	l ₁₆	l ₁₇
1,000	25,4	100	44	56	43	70	42,3	25,4	24,6	11	74,6	48,4	26,1
1,125	28,6	105	44,5	67	43,5	62	42,3	25,4	24,6	11,1	74,6	48,4	26,1
1,250	31,8	108	51	61	50	67	42,3	25,4	24,6	11	79,5	53,3	26,1
1,375	34,9	107	50,8	61	49,8	70,1	42,3	25,4	24,6	11,1	74,8	48,7	26,1
1,500	38,1	114	57	69	55,8	75	42,3	25,4	24,6	14	79,5	53,3	26,1
1,625	41,3	125	61,4	71	59,4	77	42,3	25,4	24,6	14	79,5	53,3	26,1
1,750	44,5	130	63,5	75	62,5	82	42,3	25,4	24,6	14,2	76,5	50,3	26,1
1,875	47,6	130	67,5	78	65,6	81	42,3	25,4	24,6	14	78	51,8	26,1
2,000	50,8	139	70	81	68	87,1	42,3	25,4	24,6	16	79,5	53,3	26,1
2,125	54,0	140	74	91	71,9	97	42,3	25,4	24,6	16,5	76,5	50,3	26,1
2,250	57,2	149	77,1	91	75,1	98	42,3	25,4	24,6	16,5	79,5	53,3	26,1
2,375	60,3	157	79,3	91,1	77,9	102,1	42,3	25,4	24,6	18	25,4	25,4	25,4
2,500	63,5	170	83,5	100	81,5	115	42,3	28,5	24,6	18	79,5	53,3	26,1
2,625	66,7	162	86,7	102	84,7	115	42,3	31,7	24,6	16	79,5	53,3	26,1
2,750	69,9	189	95	111	92,9	118	49	32	18	18	79,5	53,3	26,1
3,000	76,2	199	102	120	100	127	57,4	32	26,5	18	98	64	34,1
3,250	82,6	198,8	108,4	125	106,4	135	57,4	32	26,5	18	98	64	34,1
3,750	95,3	208	120,6	138	119,1	148	57,4	25,4	26,5	22	25,4	25,4	25,4

Dimensions subject to changes or modifications.



ASC40-FQGAB : ANSI BIG BORE
ASC40-FQGAS : ANSI STANDARD BORE

Single cartridge with connections for quench and flush between the faces, with a non-pressurised fluid. The quench fluid sealing is done through a throttle ring PTFE carbon-graphite reinforced. For applications using fluids with scant lubrication.

SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Flushing connections.

OPERATING LIMITS:

$d_1 = 50$ to 150 mm $p = 10$ kg/cm²

$v = 10$ m/s $t = -40$ to $+150^\circ\text{C}$ (*)

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

DESCRIPTION:

A Split single cartridge with connection for flushing.

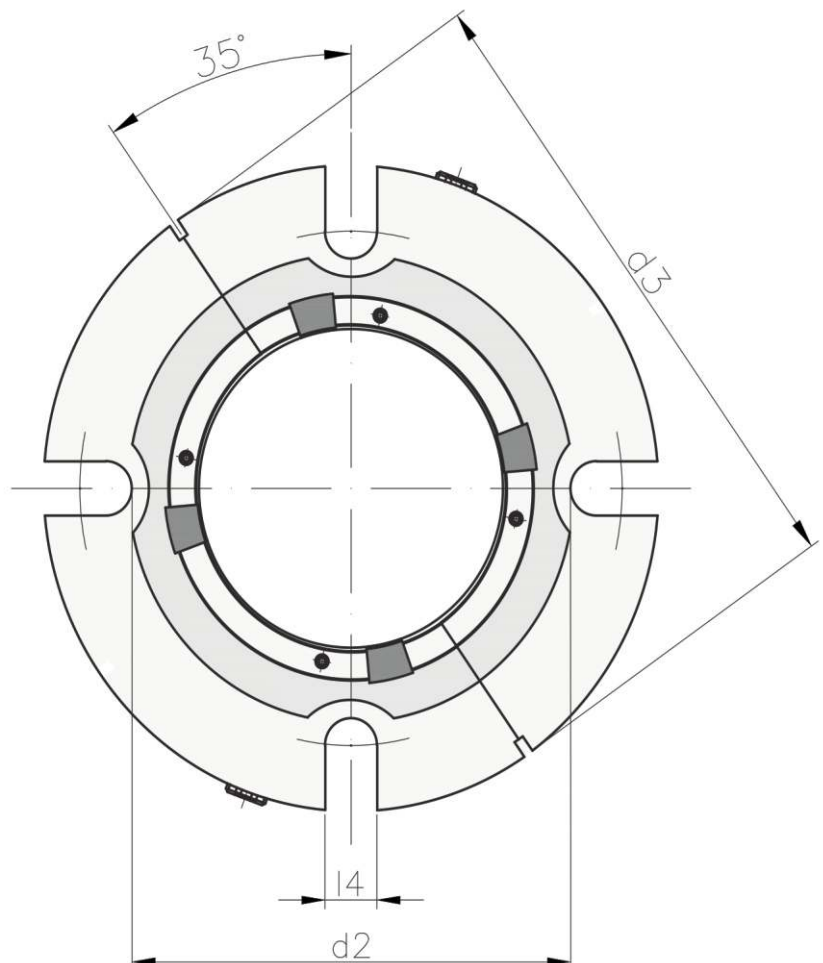
For applications where is necessary to replace braided packing and there is enough space in the installation or the removal of the pump is very complex and requires a large investment of time.

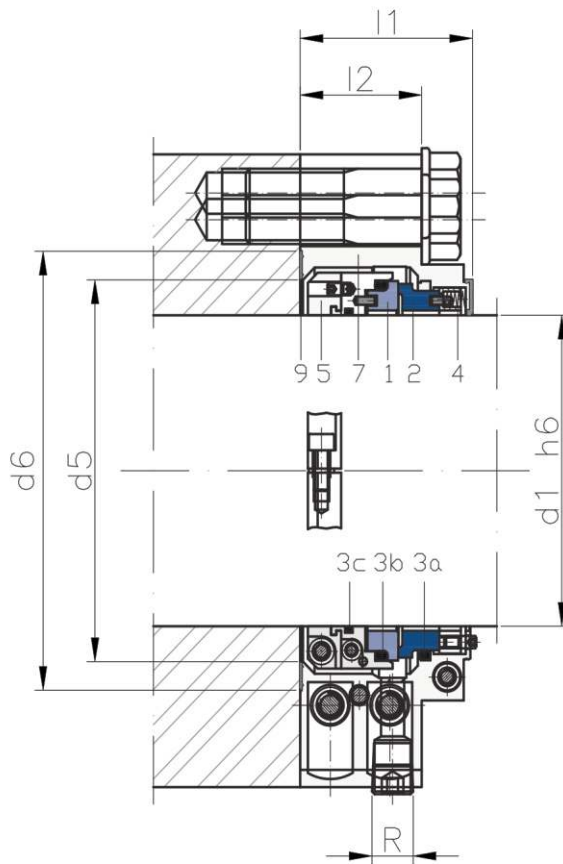
Each half is placed around the shaft. They are joined by screws, without dismantling the pump.

CONNECTIONS (R):

From 50 mm to 82,55 mm: 3/8" NPT.

From 88,9 mm to 150 mm: 1/2" NPT.



**COMPONENTS:**

- 1 Rotating contact surface
- 2 Stationary contact surface
- 3a O-ring
- 3b O-ring
- 3c O-ring
- 4 Springs
- 5 Metal frame
- 7 Flange
- 9 Flat gasket

DIMENSIONS CHART For Imperial Shaft Sizes

Shaft		d ₂	d ₃	d ₅	d ₆	l ₁	l ₂	l ₄
(")	mm							
2,00	50,8	87,7	138	75	84	62,9	45	15
2,15	54	92	147	79	88	62,9	45	15
2,375	60,3	105	149	89	101	64	46	17,5
2,50	63,5	108,5	157	92,5	104,5	64	46	17,5
2,75	69,8	118	176	98	113	64	46	20
3,00	76,2	127	192	107	122	65	47	20
3,25	82,5	135	191	110	132	65	47	20
3,50	89	145	203	121	140	72,4	50,5	22
3,75	95,2	148	206	125	143	72,4	50,5	22
4,00	101,6	155	216	131	150	72,4	50,5	22
4,25	108	170	230	142	165	72,4	50,5	22
4,50	114,3	180	240	152	175	72,4	50,5	22
4,75	120,6	180	240	152	175	72,4	50,5	22
5,00	127	190	268	162	185	89,5	62,5	26
5,50	139,7	205	303	175	200	89,5	62,5	26
6,00	152,4	220	308	188	215	89,5	62,5	26

Dimensions subject to changes or modifications.

DIMENSIONS CHART Dimensions in mm

Shaft		d ₂	d ₃	d ₅	d ₆	l ₁	l ₂	l ₄
mm								
50	88	138	75	84	63	45	15	
60	105	149	89	101	64	46	17,5	
70	118	176	98	113	64	46	20	
80	135	191	110	132	65	47	20	
90	145	203	121	140	72,5	50,5	22	
100	155	216	131	150	72,5	50,5	22	
110	170	230	142	165	72,5	50,5	22	
120	180	240	152	175	72,5	50,5	22	
125	190	268	162	185	89,5	62,5	26	
140	205	303	175	200	89,5	62,5	26	
150	220	308	188	215	89,5	62,5	26	

Dimensions subject to changes or modifications.

ASC85

SECTORS:



CHARACTERISTICS:

- Balanced.
- Welded metal bellows.
- Not dependent on the rotation direction.

OPERATING LIMITS:

$d_1 = 24$ to 95 mm $p = 20$ kg/cm²

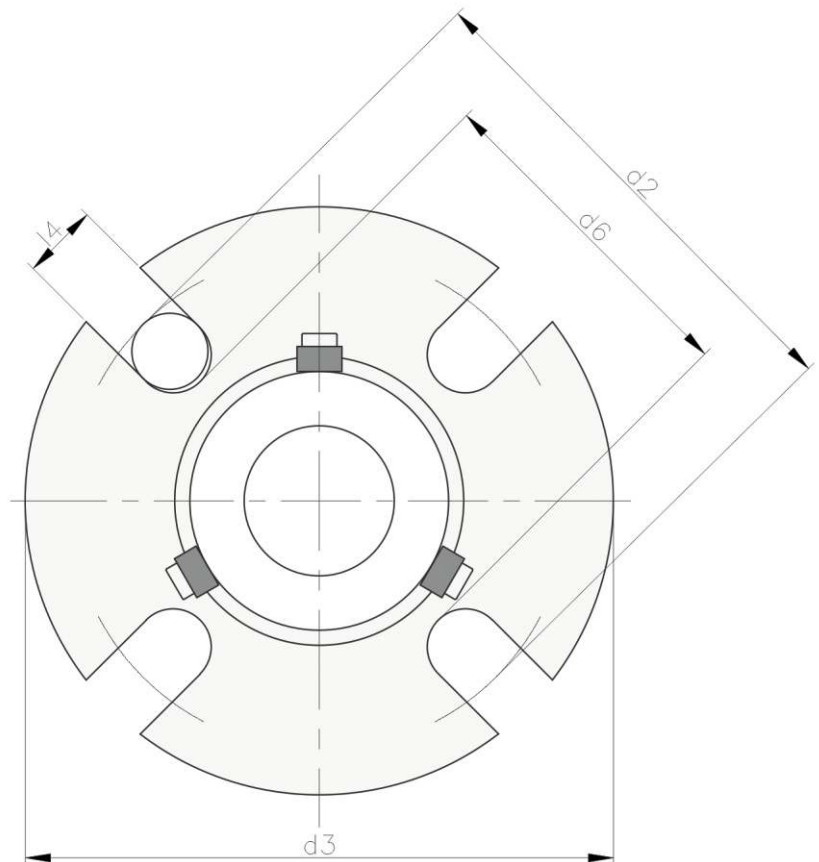
$v = 25$ m/s $t = -40$ to $+200^\circ\text{C}$ (*)

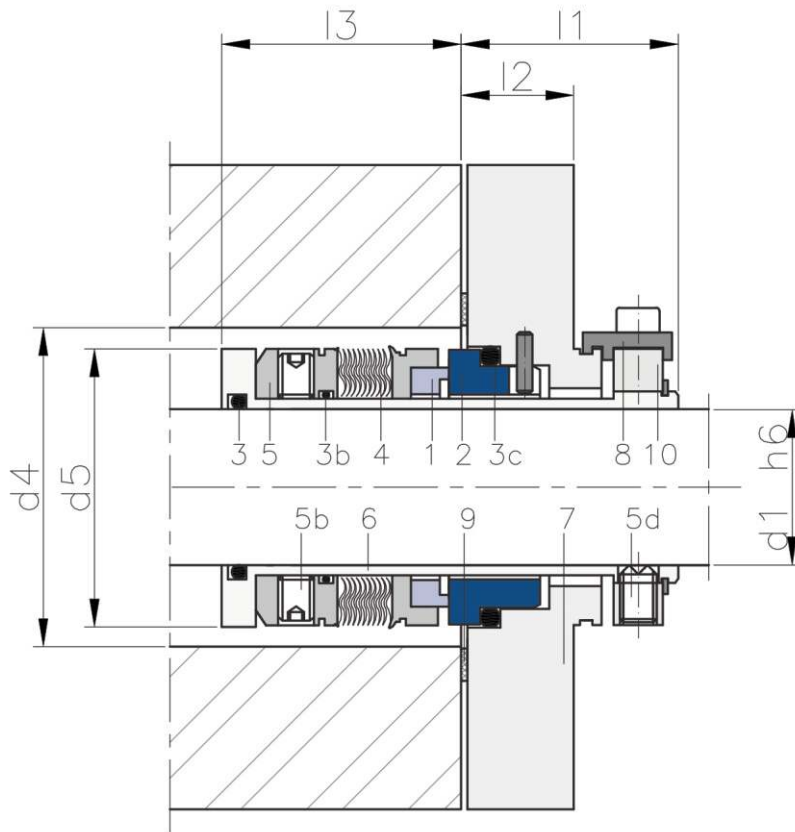
(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

DESCRIPTION:

Single cartridge in which the rotating part has a metal bellows. Adequate for applications with extremely viscous, sticky, particle-laden fluids.



**COMPONENTS:**

- 1 Rotating contact surface
- 2 Stationary contact surface
- 3 O-rings
- 4 Metal bellows
- 5 Metal frame
- 5b Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring

DIMENSIONS CHART Dimensions in mm

Shaft mm	d ₂ min.	d ₂ max.	d ₃	d ₄ min.	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄
24	72	93	105	44	52	43	60	32	21	41	12
25	72	93	105	44	52	43	60	32	21	41	12
28	72	93	105	49	52	47	60	32	21	41	12
30	76	98	110	49	56	48	64	32	21	41	12
32	77	98	110	51	57	50	65	32	21	41	12
33	81.5	103	115	57	61.5	55	69.5	32	21	43.5	12
35	81.5	103	115	57	61.5	55	69.5	32	21	43.5	12
38	86	108	120	62	66	60	74	32	21	42	12
40	88	108	120	62	68	60	76	32	21	42	12
43	90.5	123	135	67	70.5	65	78.5	32	21	42	12
45	93	123	135	67	73	65	81	32	21	42	12
48	98	123	135	74	78	70	86	32	21	45.5	12
50	100	123	135	74	78	70	88	32	21	45.5	12
55	111	134	150	82	85	81	95	32	21	50.5	16
60	121	130	150	87	91	86	101	32	21	50.5	20
65	128.5	140	160	93	98.5	91	108.5	32	21	57	20
70	138	155	175	100	108	99	118	32	21	57	20
75	148	170	190	105	118	104	128	32	21	57	20
80	154	170	190	111	124	109	134	32	21	57	20
85	158	170	190	116	128	114	138	32	21	62	20
90	165	195	215	121	135	119	145	32	21	63	20
95	168	195	215	126	138	124	148	32	21	63	20

Dimensions subject to changes or modifications.

ASC211A-FD

SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Stuffing box gland shape.
- Flush and drain connections.

OPERATING LIMITS:

$d_1 = 25 \text{ to } 70 \text{ mm}$ $p = 20 \text{ kg/cm}^2$

$v = 11.2 \text{ m/s}$ $t = -15 \text{ to } +200^\circ\text{C} (*)$

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

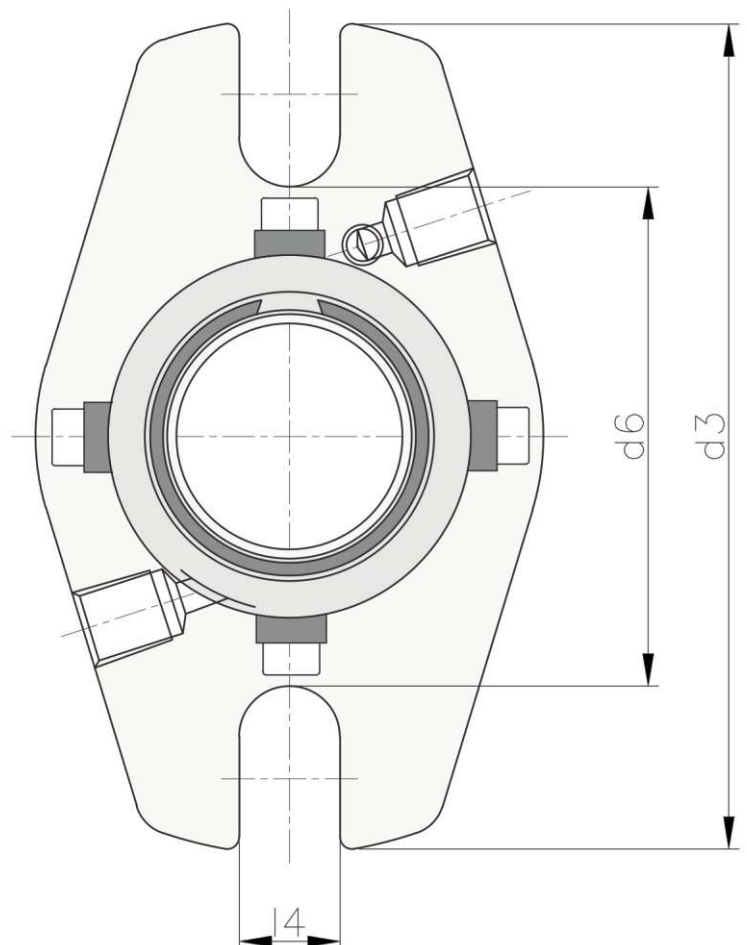
DESCRIPTION:

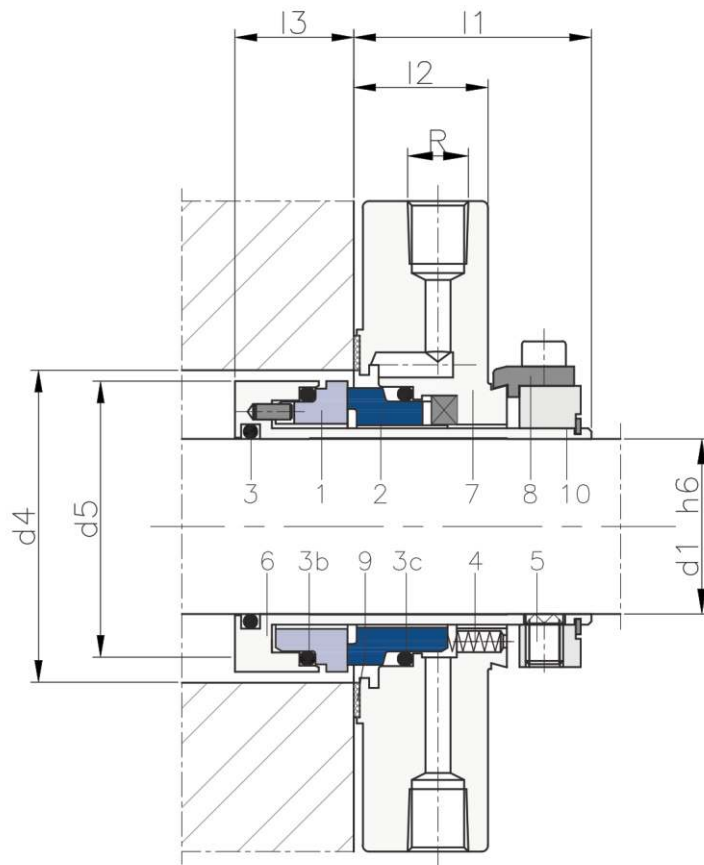
Cartridge cast flange with a stuffing box gland shape for replacing packing in pumps.

The springs are protected from the product to prevent the blocking in applications with particle-laden fluids. The flange has two connections, one for flushing and cleaning the faces, and the another is a drain to clean the springs and also to control the small leaks.

CONNECTIONS (R):

From 25 mm to 70 mm: 1/8" NPT.



**COMPONENTS:**

- 1 Rotating contact surface
- 2 Stationary contact surface
- 3 O-rings
- 4 Springs
- 5 Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring

DIMENSIONS CHART Dimensions in mm

Shaft mm	d ₃	d ₄ min	d ₄ max	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄
25	104	49	60	43,5	62	38	22	19	12,5
28	104	50	61	46,5	63	38	22	19	12,5
30	104	52	63	48,5	65	38	22	19	12,5
33	104	54	65	51,5	69	38	22	19	12,5
35	115	57	68	53,5	70	38	22	19	12,5
38	125	62	73	56,5	75	38	22	19	14,7
40	125	62	73	58,5	75	38	22	19	14,7
42	133	66	77	60,5	79	38	22	19	14,7
43	133	67	78	61,5	80	38	22	19	14,7
45	140	68	79	63,5	81	38	22	19	14,7
48	140	71	82	66,5	84	38	22	19	14,7
50	140	74	85	68,5	87	38	22	19	14,7
53	150	77	88	71,5	92	38	22	19	17,5
55	150	79	90	73,5	92	38	22	19	17,5
58	155	82	93	76,5	95	38	22	19	17,5
60	160	87	98	78,5	100	38	22	19	17,5
63	165	90	101	81,5	103	38	22	19	17,5
65	165	92	103	83,5	105	38	22	19	17,5
68	170	97	108	86,5	110	38	22	19	17,5
70	180	107	118	88,5	120	38	22	19	17,5

Dimensions subject to changes or modifications.

DIMENSIONS CHART For Imperial Shaft Sizes

Shaft (") mm	d ₃	d ₄ min	d ₄ max	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄
1,000 25,40	104	49	61	46,5	63	38	21,5	19	12,5
1,125 28,58	104	52	63	48,5	65	38	21,5	19	12,5
1,250 31,75	104	54	65	51,5	69	38	21,5	19	12,5
1,375 34,93	115	57	68	53,5	70	38	21,5	19	12,5
1,500 38,10	125	62	73	56,5	75	38	21,5	19	14,7
1,625 41,28	133	66	77	60,5	79	38	21,5	19	14,7
1,750 44,45	140	68	79	63,5	81	38	21,5	19	14,7
1,875 47,63	140	71	82	66,5	84	38	21,5	19	14,7
2,000 50,80	150	77	88	71,5	92	38	21,5	19	17,5
2,125 53,98	150	79	90	73,5	92	38	21,5	19	17,5
2,250 57,15	155	82	93	76,5	95	38	21,5	19	17,5
2,375 60,33	160	87	98	78,5	100	38	21,5	19	17,5
2,500 63,50	165	90	101	81,5	103	38	21,5	19	17,5
2,625 66,68	170	97	108	86,5	110	38	21,5	19	17,5
2,750 69,85	180	107	118	88,5	120	38	21,5	19	17,5

Dimensions subject to changes or modifications.

ASC90

SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Flush connections.

OPERATING LIMITS:

$p = 25 \text{ kg/cm}^2$

$v = 20 \text{ m/s}$

$t = -20 \text{ to } +140^\circ\text{C} (*)$

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

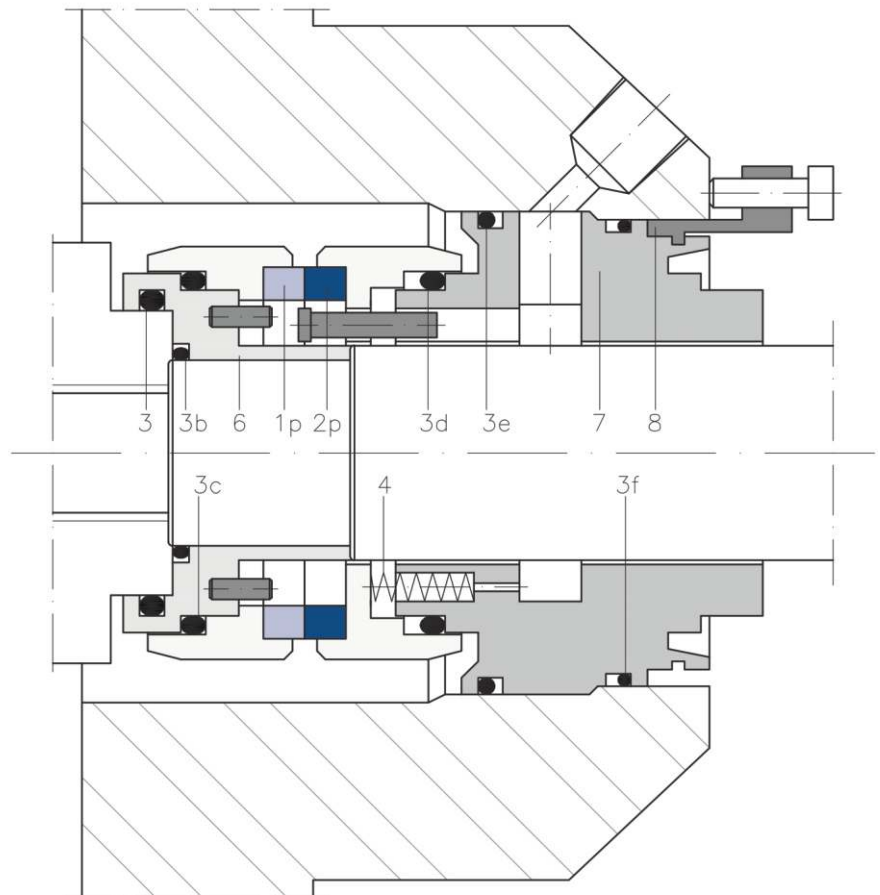


DESCRIPTION:

A compact single cartridge that is fixed to the shaft and to the flange, with no additional elements. Designed to prevent changes in pressure from opening the contact surfaces.

COMPONENTS:

- 1p Rotating contact surface
- 2p Stationary contact surface
- 3 O-rings
- 4 Springs
- 6 Sleeve
- 7 Housing Stationary part
- 8 Locking fixture



SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Barrier fluid connections.

OPERATING LIMITS:

$d_1 = 25$ to 120 mm $p = 20$ kg/cm²

$v = 20$ m/s $t = -15$ to $+200^\circ\text{C}$ (*)

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

DESCRIPTION:

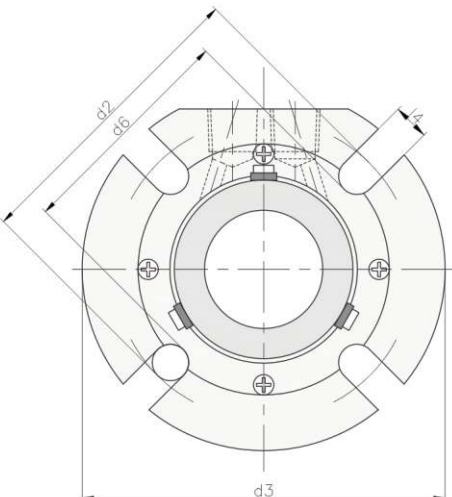
A double cartridge seal with a "back to back" arrangement which permits operation with barrier fluids in excessive pressure conditions with respect to the working fluid ($P_1 + 1.5 \sim 2$ kg/cm²).

For this reason it is advisable to install it in applications with toxic, contaminant or potentially dangerous fluids in where safety is an important factor.

CONNECTIONS (R):

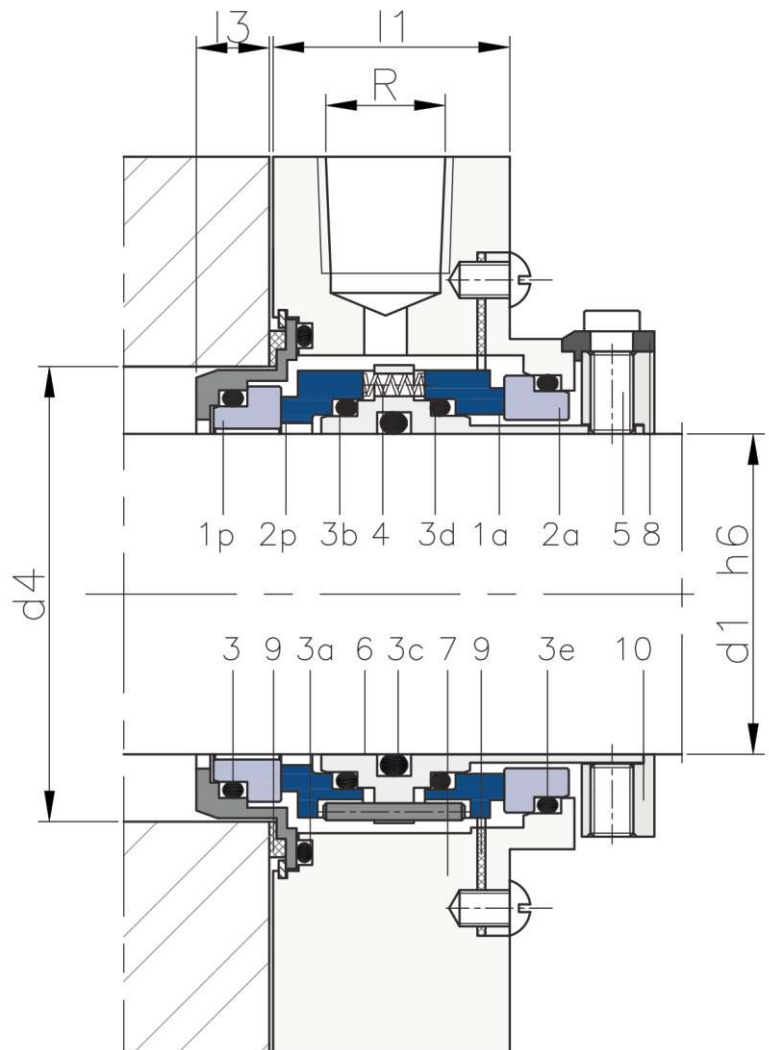
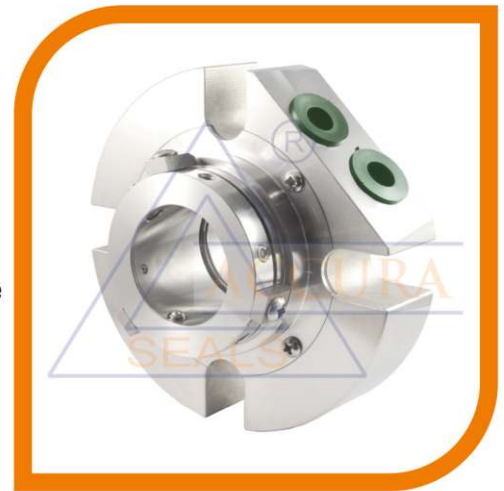
3/8" NPT.

For 25, 28 and 30 mm shafts the connections are at opposite sides of the flange.



COMPONENTS:

- 1p Stationary contact surface product side
- 2p Rotating contact surface product side
- 1a Rotating contact surface atmospheric side
- 2a Stationary contact surface atmospheric side
- 3 O-rings
- 4 Springs
- 5 Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring



DIMENSIONS CHART Dimensions in mm

Shaft								
mm	d ₂	d ₃	d ₄ min	d ₄ max	d ₆	l ₁	l ₃	l ₄
25	79,5	116,1	44,5	50,8	67,2	58,0	10	16
28	80,5	119,1	47,6	54,0	68,2	58,0	10	16
30	85,9	122,4	50,8	57,2	73,5	58,0	10	16
35	89,4	125,5	54,0	60,3	77,1	58,0	10	16
38	94,2	128,8	57,2	63,5	81,9	58,0	10	16
40	95,8	131,8	60,3	66,7	83,4	58,0	10	16
45	98,8	135,1	63,5	69,9	82,5	58,0	10	16
48	101,9	138,2	66,7	73,0	85,5	58,0	10	16
50	107,2	141,5	69,9	76,2	90,8	58,0	10	16
53	115,1	144,5	73,0	79,4	98,5	58,0	10	16
55	115,1	144,5	73,0	79,4	98,5	58,0	10	16
58	117,6	147,8	76,2	82,6	101,3	58,0	10	16
60	121,2	150,9	82,6	85,7	104,8	58,0	10	16
63	124,5	154,2	85,7	88,9	--	58,0	10	16
65	139,2	164,9	92,1	95,3	120,3	67,6	10	20
68	142,2	168,2	95,3	98,4	--	67,6	10	20
70	146,1	171,5	98,4	101,6	127,1	67,6	10	20
75	148,6	174,5	101,6	104,8	129,6	67,6	10	20
80	151,9	177,6	104,8	108,0	132,9	67,6	10	20
85	158,2	183,9	111,1	114,3	139,2	67,6	10	20
90	161,3	187,2	114,3	117,5	142,3	67,6	10	20
95	167,6	193,6	120,7	123,8	148,6	67,6	10	20
100	174,0	199,9	127,0	130,2	155,0	67,6	10	20
105	177,3	203,0	130,2	133,4	--	67,6	10	20
110	181,4	209,3	136,5	139,7	--	67,6	10	20
115	184,7	212,6	139,7	142,9	--	67,6	10	20
120	193,0	219,0	146,1	149,2	--	67,6	10	20

Dimensions subject to changes or modifications.

DIMENSIONS CHART For Imperial Shaft Sizes

Shaft								
(")	mm	d ₂	d ₃	d ₄ min.	d ₄ max.	l ₁	l ₃	l ₄
1,000	25,4	79,5	116,1	44,5	50,8	49,3	11,4	15,9
1,125	28,6	80,5	119,1	47,6	54,0	49,3	11,4	15,9
1,250	31,8	85,9	122,4	50,8	57,2	49,3	11,4	15,9
1,375	34,9	89,4	125,5	54,0	60,3	62,0	11,4	15,9
1,500	38,1	94,2	128,8	57,2	63,5	62,0	11,4	15,9
1,625	41,3	95,8	131,8	60,3	66,7	62,0	11,4	15,9
1,750	44,5	98,8	135,1	63,5	69,9	62,0	11,4	15,9
1,875	47,6	101,9	138,2	66,7	73,0	62,0	11,4	15,9
2,000	50,8	107,2	141,5	69,9	76,2	62,0	11,4	15,9
2,125	54,0	115,1	144,5	73,0	79,4	62,0	11,4	15,9
2,250	57,2	117,6	147,8	76,2	82,6	62,0	11,4	15,9
2,375	60,3	121,2	150,9	82,6	85,7	62,0	11,4	15,9
2,500	63,5	124,5	154,2	85,7	88,9	62,0	11,4	15,9
2,625	66,7	142,2	164,8	92,1	95,3	67,6	11,4	19,1
2,750	69,9	145,5	168,1	95,3	98,4	67,6	11,4	19,1
2,875	73,0	148,6	171,2	98,4	101,6	67,6	11,4	19,1
3,000	76,2	151,9	174,5	101,6	104,8	67,6	11,4	19,1
3,125	79,4	154,9	177,5	104,8	108,0	67,6	11,4	19,1
3,250	82,6	158,2	180,8	108,0	111,1	67,6	11,4	19,1
3,375	85,7	161,3	183,9	111,1	114,3	67,6	11,4	19,1
3,500	88,9	164,6	187,2	114,3	117,5	67,6	11,4	19,1
3,625	92,1	167,6	190,2	117,5	120,7	67,6	11,4	19,1
3,750	95,3	170,9	193,5	120,7	123,8	67,6	11,4	19,1
3,875	98,4	174,0	196,6	123,8	127,0	67,6	11,4	19,1
4,000	101,6	177,3	199,9	127,0	130,2	67,6	11,4	19,1
4,125	104,8	180,3	202,9	130,2	133,4	67,6	11,4	19,1
4,250	108,0	181,4	206,2	133,4	136,5	67,6	11,4	19,1
4,375	111,1	184,7	209,3	136,5	139,7	67,6	11,4	19,1
4,500	114,3	187,7	212,6	139,7	142,9	67,6	11,4	19,1
4,625	117,5	191,0	215,6	142,9	146,1	67,6	11,4	19,1
4,750	120,7	196,1	218,9	146,1	149,2	67,6	11,4	19,1

Dimensions subject to changes or modifications.

ADC38

SECTORS:



CHARACTERISTICS:

- Balanced.
- Welded metal bellows.
- Not dependent on the rotation direction.
- Barrier fluid connections.

OPERATING LIMITS:

$d_1 = 25$ to 85 mm $p = 20$ kg/cm²

$v = 20$ m/s $t = -15$ to $+200^\circ\text{C}$ (*)

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.



DESCRIPTION:

Double cartridge seal with a "tandem" arrangement suitable for working with pressurised or non-pressurised barrier fluids.

The metal bellows design has a self-cleaning effect that prevents particles from building up inside it.

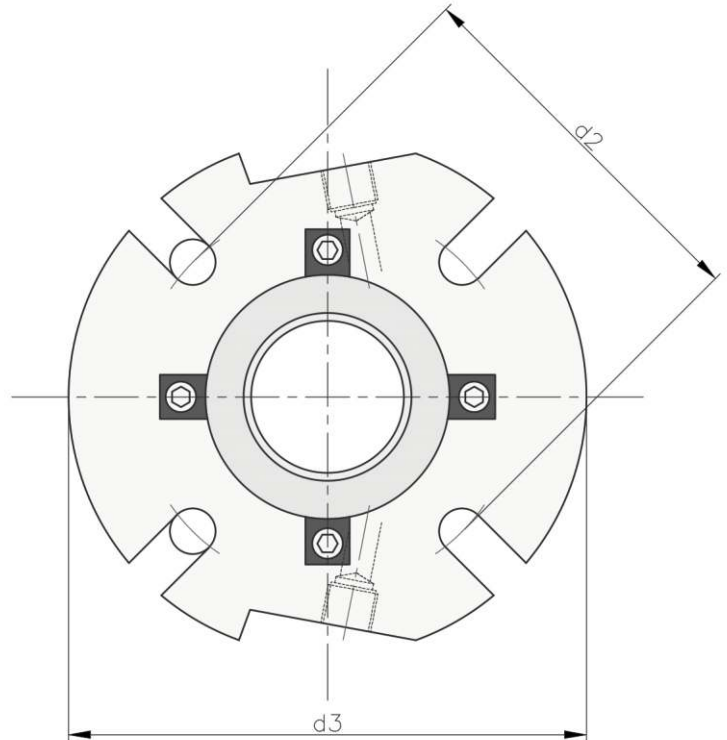
This model is recommended in extremely demanding applications: with high-viscosity fluids, sticky fluids, particle-laden fluids, fluids with few lubricating and/or pollutant properties and in high temperature applications.

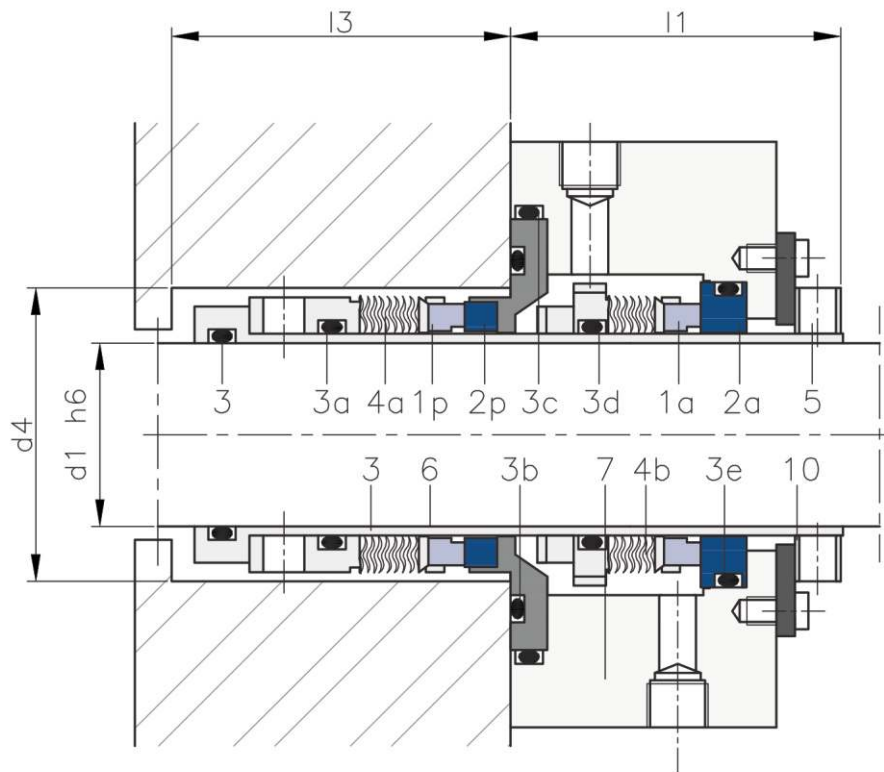
Highly reliable cartridge.

CONNECTIONS (R):

From 25 mm to 65 mm: 1/4" NPT.

From 70 mm to 85 mm: 3/8" NPT.



**COMPONENTS:**

- 1p Rotating contact surface product side
- 2p Stationary contact surface product side
- 1a Rotating contact surface atmospheric side
- 2a Stationary contact surface atmospheric side
- 3 O-rings
- 4 Metal bellows
- 5 Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring

DIMENSIONS CHART Dimensions in mm

Shaft							
mm	d ₃	d ₄ min	d ₄ max.	d ₆	l ₁	l ₃	l ₄
25	105	44,5	47,8	64	52,3	51,6	12,7
28	108	44,5	47,8	64	52,3	51,6	12,7
32	108	50,8	54,1	67	54,1	52,3	12,7
35	108	50,8	55,6	73	51,6	52,3	12,7
38	114,3	57,2	60,5	79,3	54,1	57,2	14,3
45	139,7	63,5	65	82,6	54,1	59,4	14,3
48	139,7	66,8	68,3	85,7	54,1	59,4	14,3
50	139,7	69,9	74,7	92,3	54,1	59,4	14,3
55	152,4	76,2	81	98,4	54,1	61	18
58	158,8	79,5	81	98,4	54,1	61	18
60	158,8	82,6	87,4	101,7	57,2	58,7	18
63	165,1	85,9	87,4	106	55,6	61	18
65	165	89	92	106	57,2	58	18
85	203	113	116	135	64	61	22

Dimensions subject to changes or modifications.

DIMENSIONS CHART For Imperial Shaft Sizes

Shaft								
(")	mm	d ₃ mm	d ₄ min	d ₄ max.	d ₆ mm	l ₁ mm	l ₃ mm	l ₄ mm
1,000	25,40	104,9	44,5	47,8	64,0	52,3	51,6	12,7
1,130	28,58	108,0	44,5	47,8	64,0	52,3	51,6	12,7
1,250	31,75	108,0	50,8	54,1	67,0	54,1	52,3	12,7
1,380	34,93	108,0	50,8	55,6	73,0	51,6	52,3	12,7
1,500	38,10	114,3	57,2	60,5	79,3	54,1	57,2	14,3
1,630	41,28	127,0	60,5	63,5	80,9	54,1	56,1	14,3
1,750	44,45	139,7	63,5	65,0	82,6	54,1	59,4	14,3
1,880	47,63	139,7	66,8	68,3	95,7	54,1	59,4	14,3
2,000	50,80	139,7	69,9	74,7	92,3	54,1	59,4	14,3
2,130	53,98	152,4	76,2	81,0	98,4	54,1	61,0	18,0
2,250	57,15	158,8	79,5	81,0	98,4	54,1	61,0	18,0
2,380	60,33	158,8	82,6	87,4	101,7	57,2	58,7	18,0
2,500	63,50	165,1	85,9	87,4	106,0	55,6	61,2	18,0

Dimensions subject to changes or modifications.

ADC39-D

SECTORS:



CHARACTERISTICS:

- Balanced.
- Wave spring.
- Not dependent on the rotation direction.
- Barrier fluid, purge and drain connections.

OPERATING LIMITS:

$d_1 = 25$ to 140 mm $p = 20$ kg/cm²

$v = 25$ m/s $t = -15$ to $+200^\circ\text{C}$ (*)

(*) The temperature resistance depends on the material of the secondary seals used.

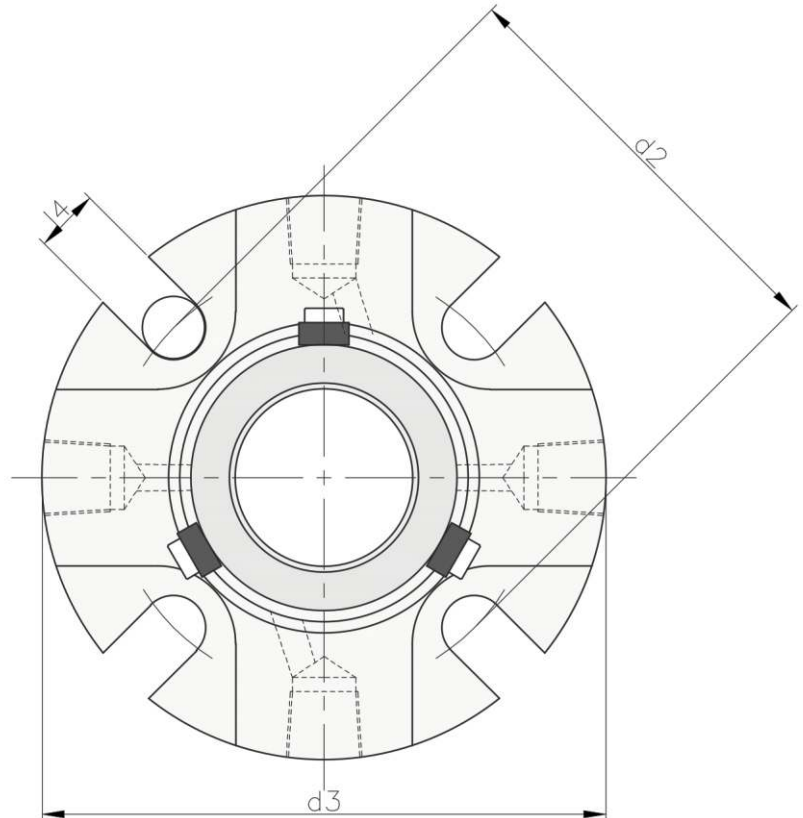
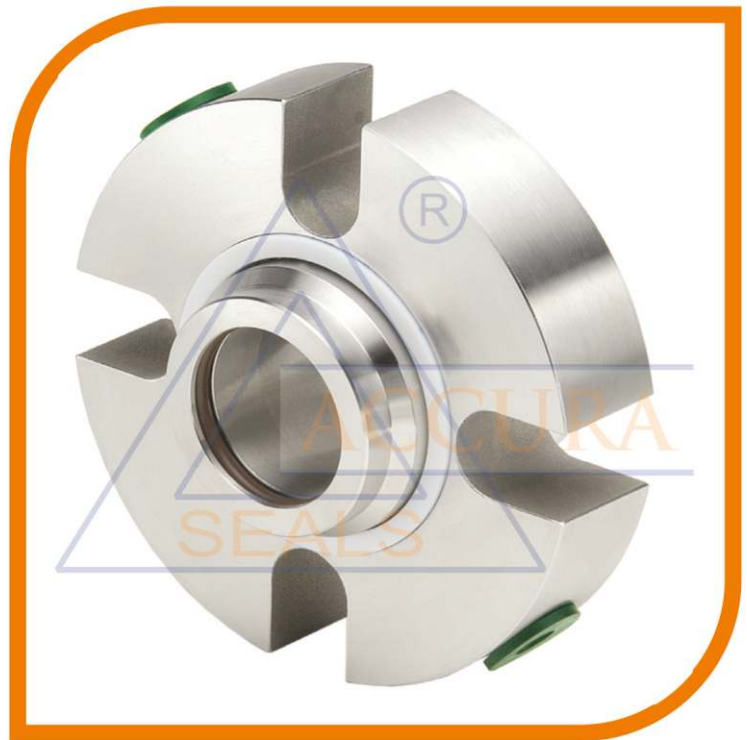
The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

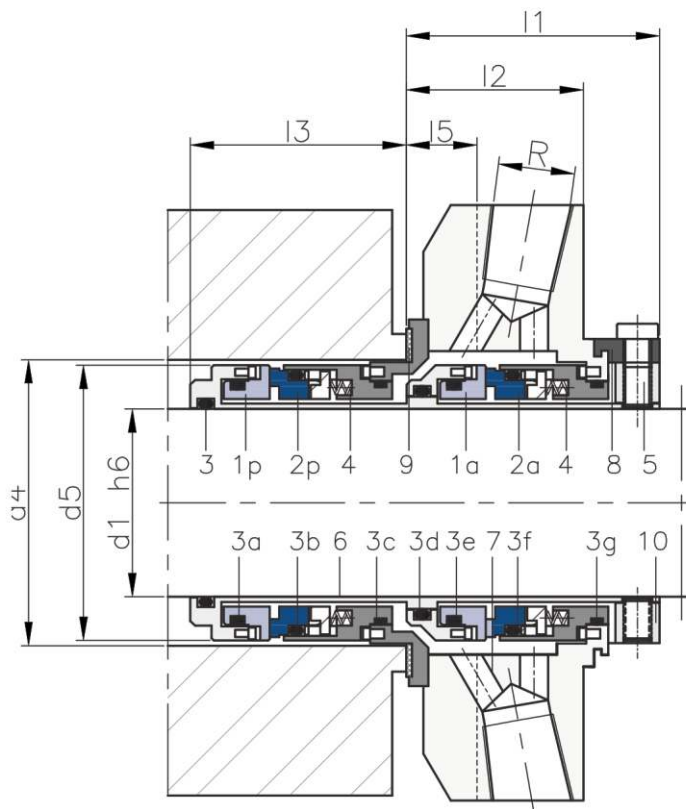
DESCRIPTION:

Double cartridge seal with a "tandem" arrangement suitable for working with pressurised or non-pressurised barrier fluids. Recommended in applications in which a high level of safety is required. Possibility of incorporating a pumping ring to reduce the temperature gradient between the mechanical seal contact surfaces.

CONNECTIONS (R):

From 25 mm to 60 mm: 1/4" NPT.
From 63 mm to 110 mm: 3/8" NPT.



**COMPONENTS:**

- 1p Rotating contact surface product side
- 2p Stationary contact surface product side
- 1a Rotating contact surface atmospheric side
- 2a Stationary contact surface atmospheric side
- 3 O-rings
- 4 Wave spring
- 5 Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring

DIMENSIONS CHART Dimensions in mm

Shaft mm	d ₂	d ₃	d ₄ min	d ₄ max	d ₅	l ₁	l ₂	l ₃	l ₄	l ₅
25	71.2	101.6	41.3	48.0	39.7	49.6	34.4	44.5	13.3	13.5
28	74.5	104.8	44.5	51.2	42.9	52.4	36.7	45.4	13.3	13.5
30	79.9	108.0	46.1	56.5	44.5	52.4	36.7	45.4	13.3	13.5
32	81.6	108.0	47.6	58.3	46.0	52.4	36.7	45.4	13.3	13.5
33	84.8	111.1	50.8	61.5	49.3	52.4	36.7	45.4	13.3	13.5
35	84.8	111.1	50.8	61.5	49.3	52.4	36.7	45.4	13.3	13.5
38	91.4	123.8	57.2	68.1	55.5	54.0	37.8	47.5	13.3	15.1
40	95.7	127.0	60.3	71.4	58.7	54.0	37.8	47.5	14.3	15.1
43	98.4	133.4	63.0	74.1	61.1	54.0	37.8	47.5	14.3	15.1
45	98.4	133.4	63.0	74.1	61.1	54.0	37.8	47.5	14.3	15.1
48	98.4	133.4	66.7	74.1	64.7	54.0	37.8	47.5	14.3	15.1
50	101.6	139.7	70.0	76.6	67.9	58.7	40.7	51.9	14.3	27.0
53	113.5	148.8	73.0	85.3	71.1	58.7	40.7	51.9	17.4	15.1
55	113.5	148.8	75.0	85.3	72.9	58.7	40.7	51.9	17.4	15.1
58	116.0	165.1	76.2	88.5	74.2	58.7	40.7	51.9	17.4	15.1
60	119.9	165.1	79.4	91.7	77.4	62.6	43.6	52.8	17.4	15.9
63	127.0	171.5	85.7	98.8	83.8	65.1	43.6	50.3	17.4	15.9
65	127.0	171.5	85.7	98.8	83.8	65.1	43.6	50.3	17.4	15.9
68	131.3	171.5	92.1	103.2	90.2	63.5	41.3	53.2	17.4	15.9
70	131.3	171.5	92.1	103.2	90.2	63.5	41.3	53.2	17.4	15.9
75	145.3	196.9	101.6	113.5	98.1	65.1	45.4	51.6	20.6	17.4
80	148.5	188.9	105.0	116.8	102.2	63.8	40.5	55.3	20.6	40.5
85	154.8	206.4	111.1	123.2	107.9	65.1	40.5	54.0	20.6	40.5
90	158.6	212.7	117.5	129.5	114.3	65.1	40.5	54.0	17.5	40.5
95	172.0	222.3	120.0	132.1	117.5	65.1	40.5	54.0	17.5	40.5
100	171.7	228.6	127.0	139.7	123.8	65.1	40.5	54.0	20.6	40.5
105	174.9	228.6	130.2	142.9	127.0	65.1	40.5	54.0	20.6	40.5
110	184.4	241.3	139.7	152.4	136.5	65.1	40.5	54.0	20.6	40.5
115	184.4	241.3	146.1	152.4	136.5	65.1	40.5	54.0	20.6	40.5
120	192.4	263.5	146.1	160.4	142.9	65.1	40.5	54.0	20.6	40.5
125	254.0	304.8	171.7	184.4	155.6	77.3	44.4	62.8	20.6	44.4
130	260.4	311.2	178.1	190.8	161.9	77.3	44.4	62.8	20.6	44.4
135	266.7	322.3	190.5	203.2	168.3	77.3	44.4	62.8	20.8	44.4
140	266.7	322.3	190.5	203.2	168.3	77.3	44.4	62.8	20.8	44.4

Dimensions subject to changes or modifications.

ADC40

SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Barrier fluid connections.

OPERATING LIMITS:

$d_1 = 25$ to 100 mm $p = 25$ kg/cm²

$v = 16$ m/s $t = -15$ to $+200^\circ\text{C}$ (*)

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

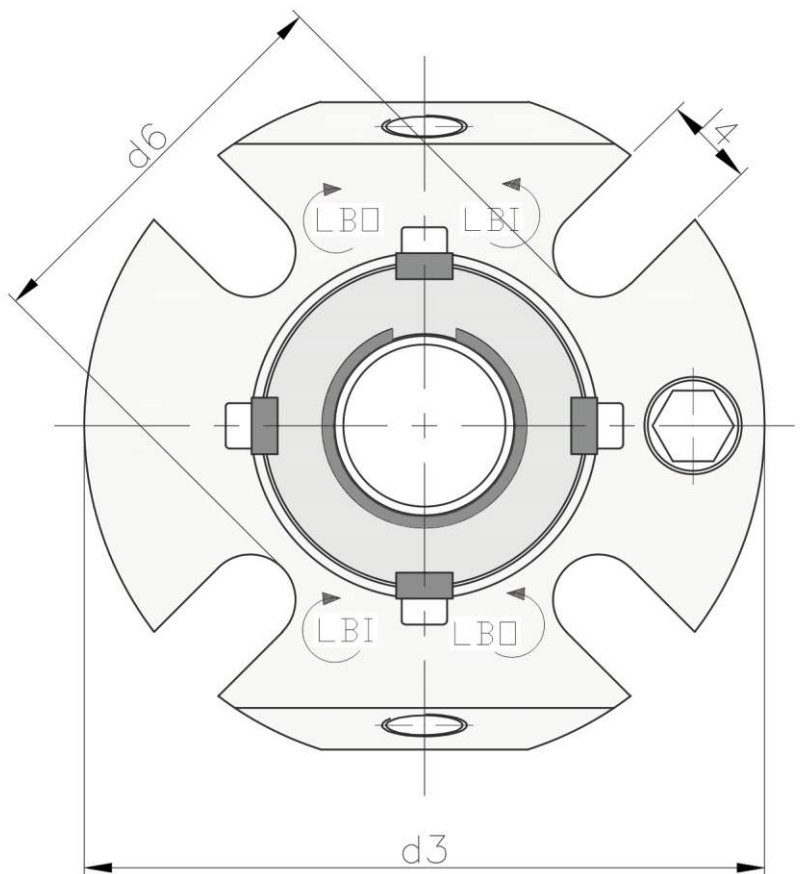
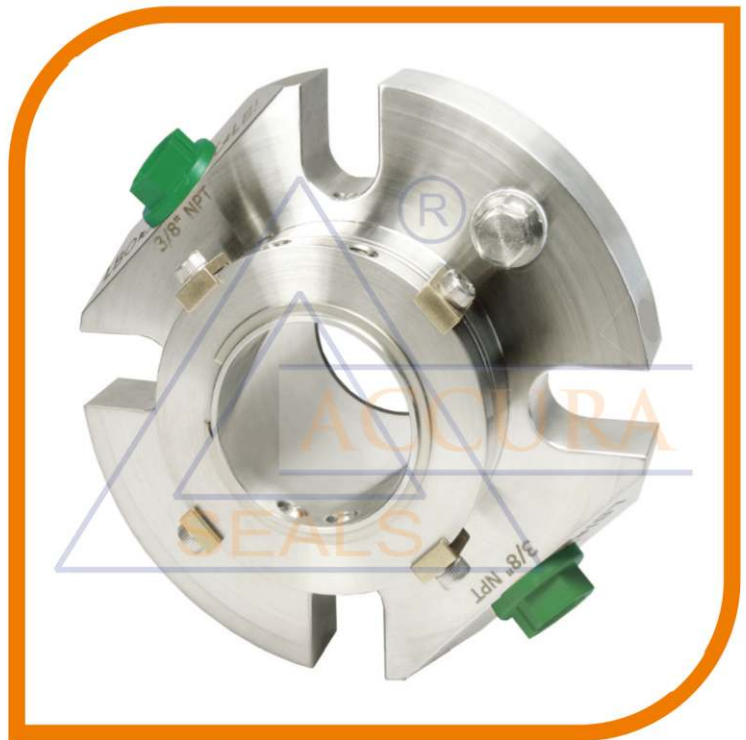
DESCRIPTION:

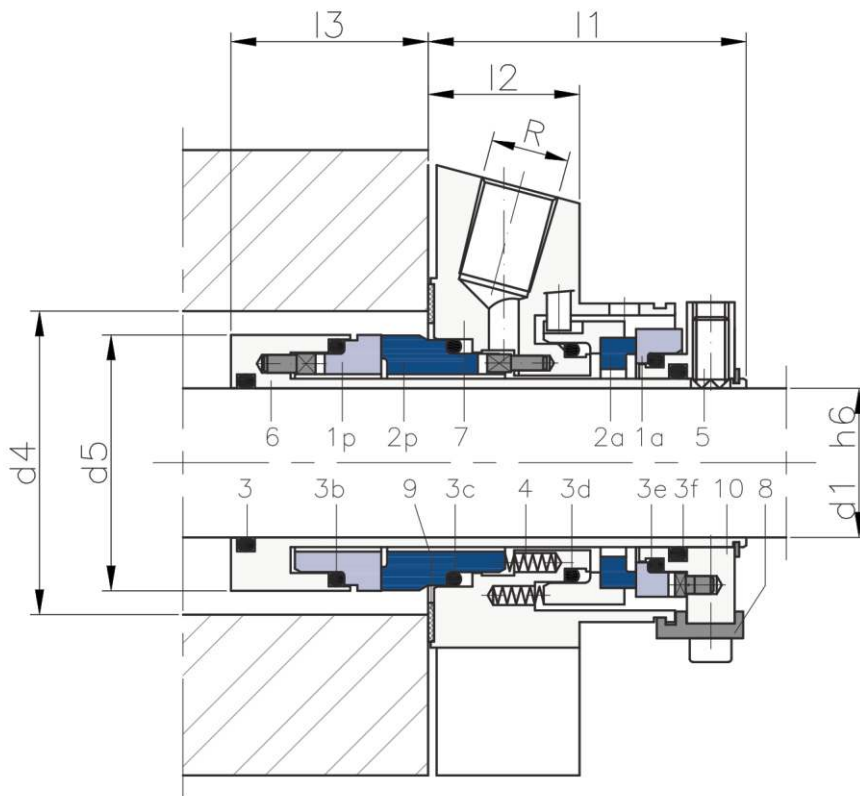
A double cartridge with a "face to face" arrangement which permits operation with barrier fluid in excessive pressure with respect to the working fluid ($P1+1.5-2$ Kg/cm²)

The sleeve includes a pumping ring that facilitate the barrier fluid movement. The connections of Liquid barrier IN and OUT have to be connected according the rotation direction.

CONNECTIONS (R):

From 25 mm to 35 mm: 1/4" NPT.
From 38 mm to 100 mm: 3/8" NPT.



**COMPONENTS:**

- 1p Rotating contact surface product side
- 2p Stationary contact surface product side
- 1a Stationary contact surface atmospheric side
- 2a Rotating contact surface atmospheric side
- 3 O-rings
- 4 Springs
- 5 Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring

DIMENSIONS CHART Dimensions in mm

Shaft									
mm	d ₃	d ₄ min.	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄
25	105	44	51,5	43	62	53,4	25,4	33,1	13,2
28	105	47	52	46	62	53,4	25,4	33,1	13,2
30	105	49	56	48	67	53,4	25,4	33,1	13,2
32	110	51	57	49,8	70	53,4	25,4	33,1	13,2
33	110	51	57	49,8	70	53,4	25,4	33,1	13,2
35	113	54	61,5	53	72	53,4	25,4	33,1	13,2
38	123	57	66	56	75	53,4	25,4	33,1	13,2
40	123	59	68	58	77	53,4	25,4	33,1	14,2
42	133	61,5	69,5	60,5	80	53,4	25,4	33,1	14,2
43	133	61,5	70,5	60,5	80	53,4	25,4	33,1	14,2
45	138	64	73	62,5	82	53,4	25,4	33,1	14,2
48	138	67	75	65,6	85	53,4	25,4	33,1	14,2
50	148	69	78	68	87	53,4	25,4	33,1	14,2
53	148	73	87	72	97	53,4	25,4	33,1	18
55	148	74	83	73	92	53,4	25,4	33,1	18
60	157	79	91	78	102	53,4	25,4	33,1	18
65	163	85,7	98,5	84,8	109	53,4	25,4	33,1	18
70	178	95	108	93	118	53,4	25,4	33,1	18
75	190	101,6	118	100	129	63,9	28	44,1	18
80	195	108	124	106,4	135	63,9	28	44,1	18
85	198	111,1	128	109,5	139	63,9	28	44,1	22
90	205	117,5	135	115,9	145	63,9	28	44,1	22
95	208	120,7	138	119,1	148	63,9	28	44,1	22
100	218	127	144	125,4	154	63,9	28	44,1	22

Dimensions subject to changes or modifications.

DIMENSIONS CHART For Imperial Shaft Sizes

Shaft										
(")	mm	d ₃	d ₄ min.	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄
1,000	25,4	105,0	44,0	51,0	43,0	62,0	53,4	25,4	33,1	13,2
1,125	28,6	105,0	47,6	52,1	46,0	61,0	53,4	25,4	33,1	13,2
1,250	31,8	110,0	51,0	57,0	49,8	70,1	53,4	25,4	33,1	13,2
1,375	34,9	113,0	56,3	61,5	53,0	72,1	53,4	25,4	33,1	13,2
1,500	38,1	123,0	57,0	66,0	56,0	74,9	53,4	25,4	33,1	13,2
1,625	41,3	123,0	60,3	68,6	59,5	78,5	53,4	25,4	33,1	14,2
1,750	44,5	138,0	64,0	73,0	62,5	82,0	53,4	25,4	33,1	14,2
1,875	47,6	138,0	67,0	75,0	65,6	85,1	53,4	25,4	33,1	14,2
2,000	50,8	148,0	69,0	78,0	68,0	87,1	53,4	25,4	33,1	14,2
2,125	54,0	148,0	73,0	87,0	72,0	97,0	53,4	25,4	33,1	18,0
2,250	57,2	157,0	76,2	90,4	75,2	100,1	53,4	25,4	33,1	18,0
2,375	60,3	157,0	79,4	91,0	78,0	102,1	53,4	25,4	33,1	18,0
2,500	63,5	163,0	83,8	96,5	81,6	106,2	53,4	25,4	33,1	18,0
2,625	66,7	163,0	85,7	100,0	84,8	109,3	53,4	25,4	33,1	18,0
2,750	69,9	178,0	95,0	108,0	93,0	118,4	53,4	25,4	33,1	18,0
2,875	73,0	190,0	101,6	118,0	100,0	129,0	108,0	25,4	44,1	18,0
3,000	76,2	190,0	101,6	118,0	100,0	129,0	108,0	28,0	44,1	18,0
3,125	79,4	195,0	108,0	124,0	106,4	135,0	108,0	28,0	44,1	18,0
3,250	82,6	195,0	108,0	124,0	106,4	135,0	108,0	28,0	44,1	18,0
3,375	85,7	198,0	111,1	128,0	109,5	139,0	108,0	28,0	44,1	22,0
3,500	88,9	198,0	114,3	140,1	112,7	142,0	108,0	28,0	44,1	22,0
3,625	92,1	205,0	117,5	135,0	115,9	145,0	108,0	28,0	44,1	22,0
3,750	95,3	208,0	120,7	138,0	119,1	148,0	108,0	28,0	44,1	22,0
4,000	101,6	218,0	127,0	144,0	125,4	154,0	108,0	28,0	44,1	22,0

Dimensions subject to changes or modifications.

ADC40-ANSI

SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Barrier fluid connections.

OPERATING LIMITS:

$d_1 = 25,4$ to $95,3$ mm $p = 25$ kg/cm²

$v = 16$ m/s $t = -15$ to $+200^\circ\text{C}$ (*)

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

DESCRIPTION:

A double cartridge with a "face to face" arrangement which permits operation with barrier fluid in excessive pressure with respect to the working fluid ($P_1 + 1.5 - 2$ Kg/cm²)

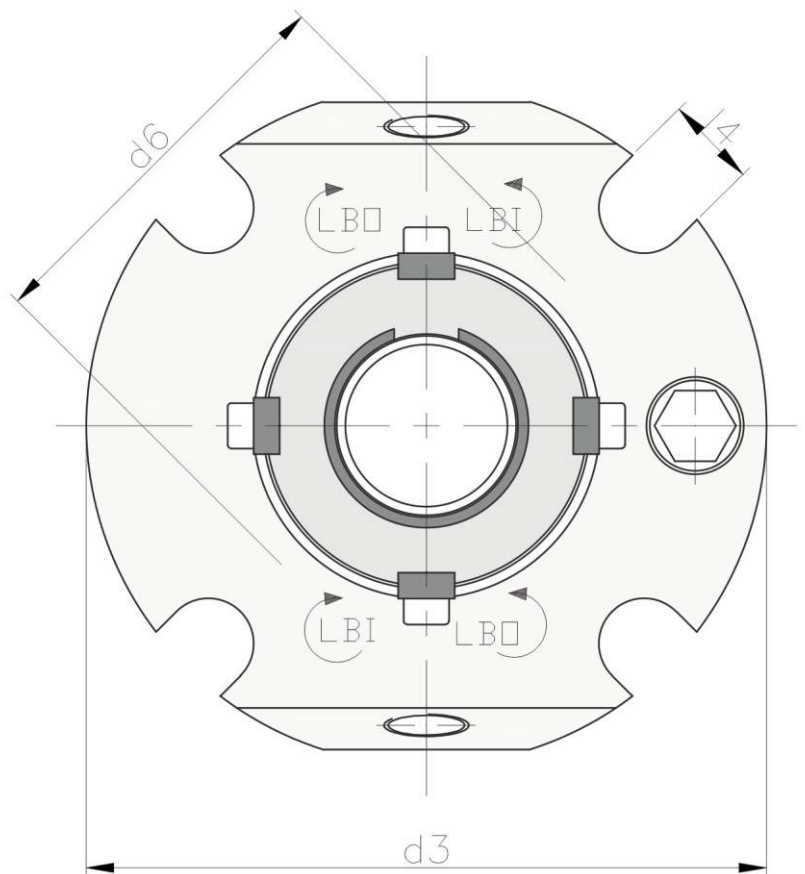
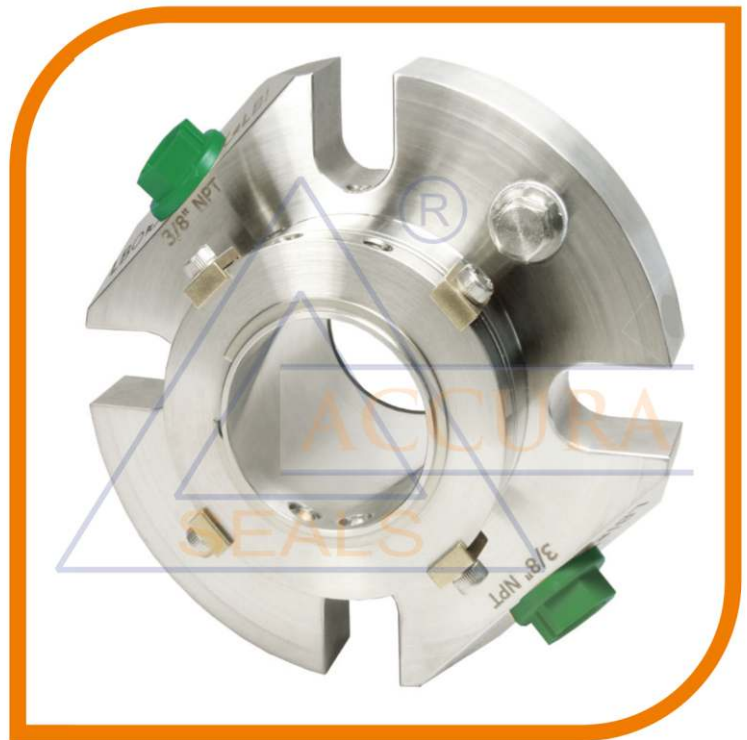
The sleeve, include a pumping ring that facilitate the barrier fluid movement. The connections of Liquid barrier IN and OUT have to be connected according the rotation direction.

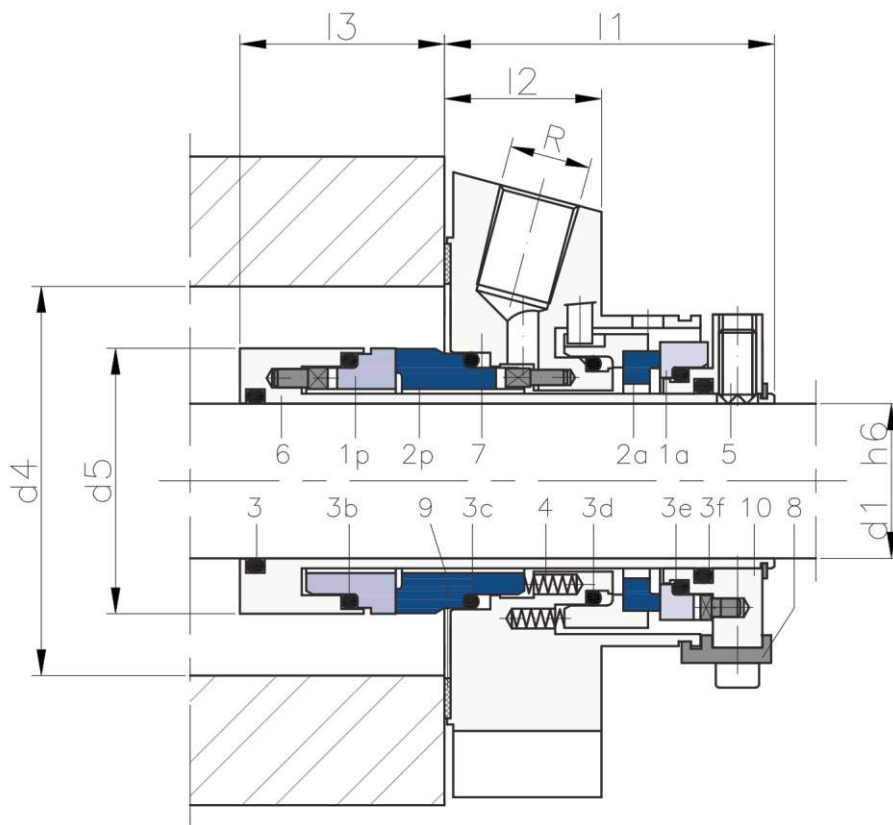
Recommended for flange pumps ANSI BIG BORE
ANSI STANDARD BORE

CONNECTIONS (R):

From 25,4 mm to 34,9 mm: 1/4" NPT.

From 38,1 mm to 95,3 mm: 3/8" NPT.



**COMPONENTS:**

- 1p Rotating contact surface product side
- 2p Stationary contact surface product side
- 1a Stationary contact surface atmospheric side
- 2a Rotating contact surface atmospheric side
- 3 O-rings
- 4 Springs
- 5 Set screws
- 6 Sleeve
- 7 Flange
- 8 Setting clips
- 9 Flat gasket
- 10 Drive ring

DIMENSIONS CHART ADC40-AS Dimensions in mm

Shaft										
(")	mm	d ₃	d ₄ min	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄
1,000	25,4	100	44	56	43	62	53,4	25,4	33,1	11
1,125	28,6	105,0	44,5	56	43,5	62	82	25,4	34,1	11,1
1,250	31,8	108,0	51	61	50	70	53,4	25,4	33,1	11
1,375	34,9	107,0	50,8	61	49,8	70	52,9	25,4	33,1	11,1
1,500	38,1	114,0	57	69	55,9	75	53,4	25,4	33,1	14
1,625	41,3	125,0	61,5	71	59,4	78,5	53,4	25,4	33,1	14
1,750	44,5	130,0	63,5	75	62,5	82	53,4	25,4	33,1	14,2
1,875	47,6	130,0	67,6	78	65,6	84	53,4	25,4	33,1	14
2,000	50,8	139,0	70	81	68	87	53,4	25,4	33,1	16
2,125	54,0	140,0	74	91	72	97	53,4	25,4	33,1	16,5
2,250	57,2	149,0	77,2	91	75,2	98	53,4	25,4	33,1	16,5
2,375	60,3	157,0	79,4	91,2	78	25,4	53,4	25,4	25,4	18
2,500	63,5	170,0	83,6	100	81,6	115	53,4	28,5	33,1	18
2,625	66,7	162,0	86,8	102	84,8	115	53,4	31,8	33,1	16
2,750	69,9	189,0	95	111	93	118	53,4	32	33,1	18
3,000	76,2	199,0	102	120	100	127	63,9	32	44,1	18
3,250	82,6	198,9	108,4	125	106,4	135	63,9	32	44,1	18
3,750	95,3	208	120,7	138	119,1	25,4	25,4	25,4	25,4	22

Dimensions subject to changes or modifications.

DIMENSIONS CHART ADC40-AB For Imperial Shaft Sizes

Shaft										
(")	mm	d ₃	d ₄ min	d ₄ max.	d ₅	d ₆	l ₁	l ₂	l ₃	l ₄
1,000	25,4	--	--	--	--	--	--	--	--	--
1,125	28,6	114,3	44,5	71	43,5	84,1	47,9	25,4	34,1	11,1
1,250	31,8	--	--	--	--	--	--	--	--	--
1,375	34,9	130	50,8	81	49,8	90	52,9	25,4	33,6	11,1
1,500	38,1	--	--	--	--	--	--	--	--	--
1,625	41,3	--	--	--	--	--	--	--	--	--
1,750	44,5	165	63,5	103	62,5	116	52,9	25,4	33,6	14,2
1,875	47,6	152	67,6	100	65,6	112	52,9	25,4	33,6	14
2,000	50,8	159	70	116	68	124	53,4	32	33,1	14
2,125	54,0	175	74	115	72	134	53,4	25,4	33,1	18
2,250	57,2	163	78,6	112	75,2	119	53,4	32,4	33,1	18
2,500	63,5	198	83,8	134	81,6	140	53,4	31,8	33,1	18
2,625	66,7	175	80,5	130	84,8	136	53,4	31,8	33,1	18
2,750	69,9	190	95	133	93	140	53,4	32,4	33,1	16
3,000	76,2	209	102	140	100	150	63,9	32,4	33,1	16
3,250	82,6	--	--	--	--	--	--	--	--	--

Dimensions subject to changes or modifications.

ADC90

SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Barrier fluid connections.

OPERATION LIMITS:

$p = 25 \text{ kg/cm}^2$

$v = 16 \text{ m/s}$

$t = -15 \text{ to } +200^\circ\text{C} (*)$

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

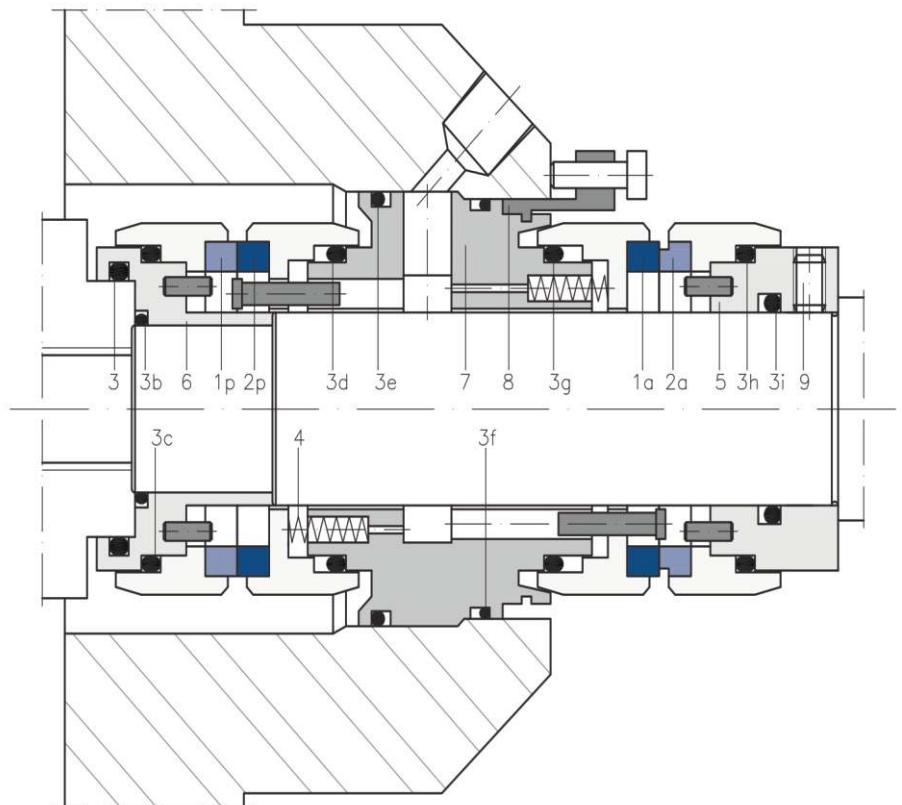


DESCRIPTION:

Double cartridge in which the contact surfaces are lubricated by an external, non-pressurised fluid (quench) or a pressurised fluid (barrier fluid). For clean or slightly contaminated and sticky fluids with fibres or large solid particles.

COMPONENTS:

- 1a Stationary contact surface atmospheric side
- 1p Rotating contact surface product side
- 2a Rotating contact surface atmospheric side
- 2p Stationary contact surface product side
- 3 O-rings
- 4 Springs
- 5 Sleeve
- 6 Sleeve
- 7 Housing Stationary part
- 8 Locking fixture



ASC80

SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Barrier fluid connections.

OPERATING LIMITS:

$d_1 = 40$ to 220 mm $p = 16$ kg/cm²

$v = 5$ m/s $t = -40$ to $+300^\circ\text{C}$ (*)

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.



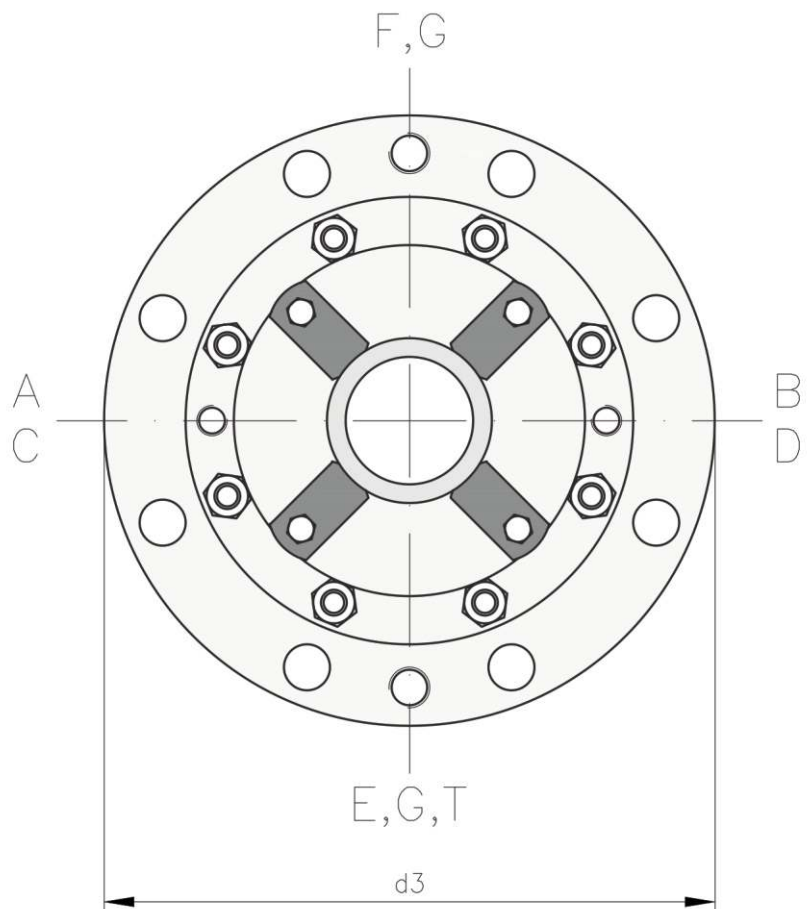
DESCRIPTION:

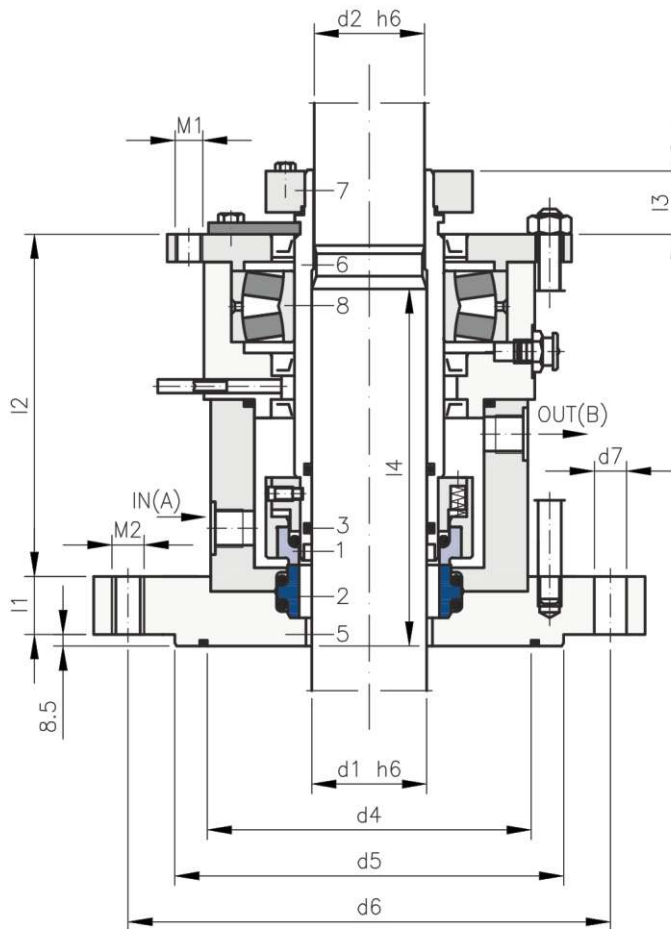
Single cartridge for a wide range of applications. It can be used with non-pressurised fluids (quench) or pressurised fluids. This type of mount prevents leakage to the exterior.

Available with floating bearing. Dimensions in accordance with the DIN 28154 standard.

FLANGE COMPONENTS

- A: Barrier fluid quench IN
 B: Barrier fluid quench OUT
 C: Drainage
 D: Leakage drain G 1/8"
 E : Cooling IN G 3/8"
 F: Cooling OUT G 3/8"
 G: Grease
 T: Temperature metering



**COMPONENTS:**

- 1p Rotating contact surface product side
- 2p Stationary contact surface product side
- 1a Stationary contact surface atmospheric side
- 2a Rotating contact surface atmospheric side
- 3 O- ring
- 5 Flange
- 6 Sleeve
- 7 Drive rings
- 8 Bearings

DIMENSIONS CHART Dimensions in mm

Shaft													
d ₁	mm	d ₂	d ₃	d ₄	d ₅	d ₆	nxd ₇	l ₁	l ₂	l ₃	M ₁	M ₂	A,B
40	38		175	90	110	145	4 x 18	15	136	28	M12	M16	G3/8
50	48		240	135	176	210	8 x 18	17	149	28	M12	M16	G3/8
60	58		240	135	176	210	8 x 18	17	156	28	M12	M16	G3/8
80	78		275	155	204	240	8 x 22	20	189	34	M16	M20	G1/2
100	98		305	19	234	270	8 x 22	20	190	34	M16	M20	G1/2
125	120		330	215	260	295	8 x 22	20	205	40	M20	M20	G1/2
140	135		395	250	313	350	12 x 22	20	222	40	M20	M20	G1/2
160	150		395	265	313	350	12 x 22	25	219,5	40	M20	M20	G1/2
180	170		445	310	364	400	12 x 22	25	230	45	M24	M20	G1/2
200	190		445	310	364	400	12 x 22	25	237,5	45	M24	M20	G1/2
220	210		505	340	422	460	16 x 22	25	249,5	50	M24	M20	G1/2

Dimensions subject to changes or modifications.

ADC80

SECTORS:



CHARACTERISTICS:

- Balanced.
- Multispring.
- Not dependent on the rotation direction.
- Barrier fluid connections.

OPERATING LIMITS:

$d_1 = 40$ to 220 mm $p = 16$ kg/cm²

$v = 5$ m/s $t = -40$ to $+300^\circ\text{C}$ (*)

(*) The temperature resistance depends on the material of the secondary seals used.

The operating limits are defined by the PV factor which is determined for the sealing system characteristics and those of the application.

DESCRIPTION:

Special double cartridge for reactors and agitators.

The internal structure "Back to Back" is continuously lubricated by a liquid barrier, which must be pressurized between 1.5 and 2 kg / cm² above the working fluid.

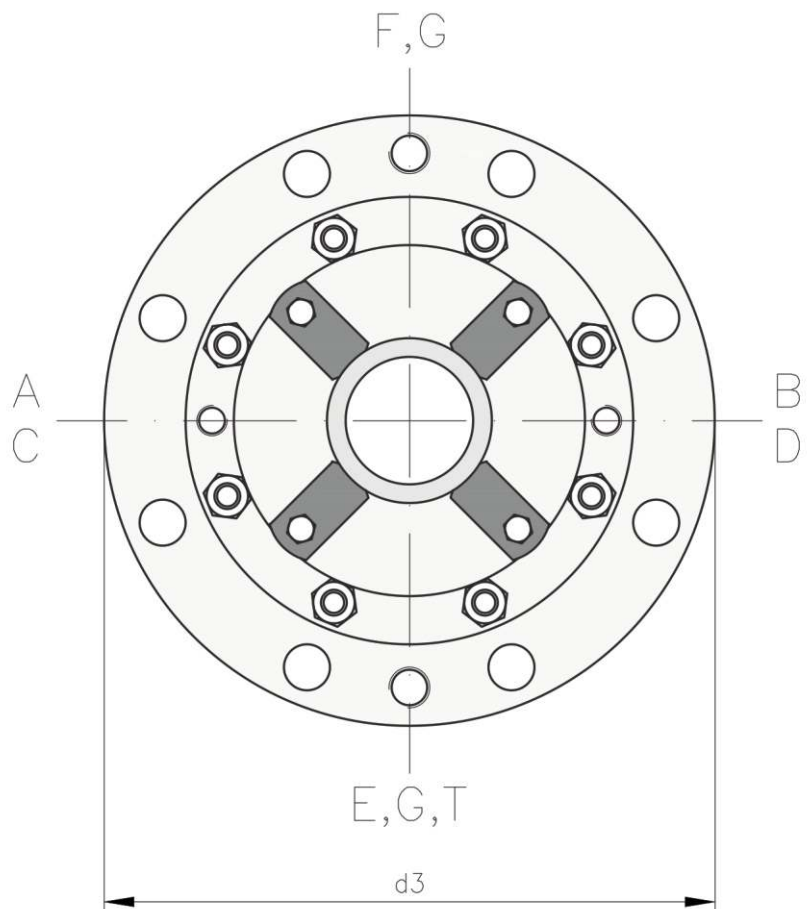
Flange connection for steel vessels DIN 28141, shaft end for steel vessels DIN 28154 and DIN 28136 glass-lined vessels.

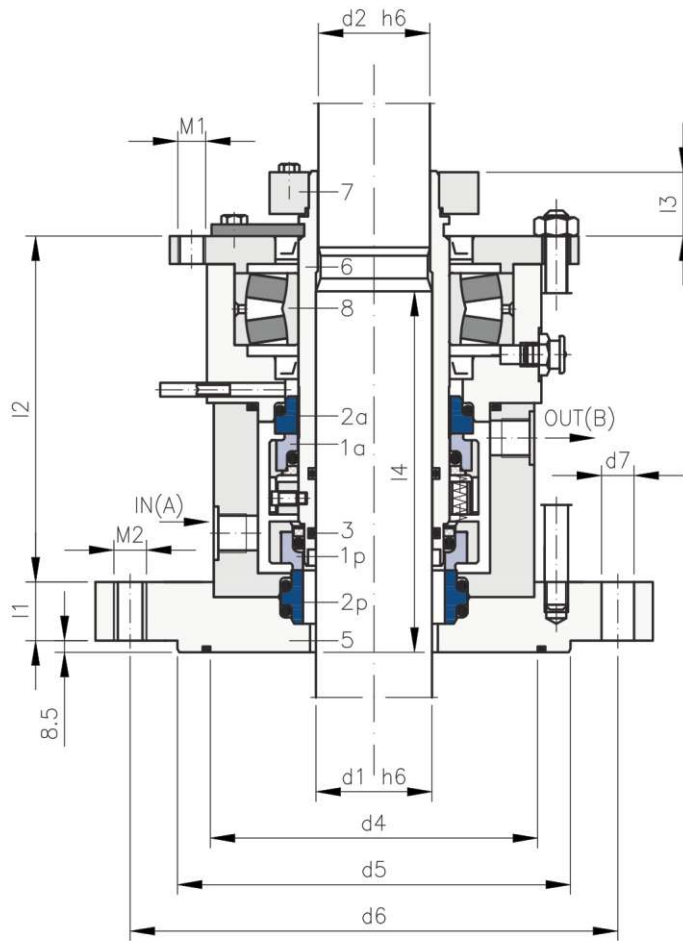
Floating bearing included.

All ADC80 models are for unstopped shafts based on (DIN 28154). For stepless shafts, use the reference ADC81.

FLANGE COMPONENTS

- A: Barrier fluid quench IN
 B: Barrier fluid quench OUT
 C: Drainage
 D: Leakage drain G 1/8"
 E : Cooling IN G 3/8"
 F: Cooling OUT G 3/8"
 G: Grease
 T: Temperature metering



**COMPONENTS:**

- 1p Rotating contact surface product side
- 2p Stationary contact surface product side
- 1a Rotating contact surface atmospheric side
- 2a Stationary contact surface atmospheric side
- 3 O- ring
- 5 Flange
- 6 Sleeve
- 7 Drive rings
- 8 Bearings

DIMENSIONS CHART Dimensions in mm

Shaft													
d ₁	mm	d ₂	d ₃	d ₄	d ₅	d ₆	nxd ₇	l ₁	l ₂	l ₃	M ₁	M ₂	A,B
40	38		175	90	110	145	4 x 18	15	136	28	M12	M16	G3/8
50	48		240	135	176	210	8 x 18	17	149	28	M12	M16	G3/8
60	58		240	135	176	210	8 x 18	17	156	28	M12	M16	G3/8
80	78		275	155	204	240	8 x 22	20	189	34	M16	M20	G1/2
100	98		305	19	234	270	8 x 22	20	190	34	M16	M20	G1/2
125	120		330	215	260	295	8 x 22	20	205	40	M20	M20	G1/2
140	135		395	250	313	350	12 x 22	20	222	40	M20	M20	G1/2
160	150		395	265	313	350	12 x 22	25	219,5	40	M20	M20	G1/2
180	170		445	310	364	400	12 x 22	25	230	45	M24	M20	G1/2
200	190		445	310	364	400	12 x 22	25	237,5	45	M24	M20	G1/2
220	210		505	340	422	460	16 x 22	25	249,5	50	M24	M20	G1/2

Dimensions subject to changes or modifications.

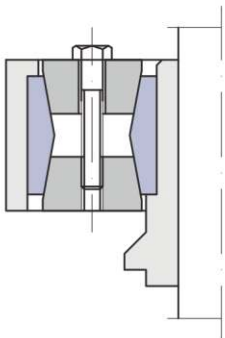
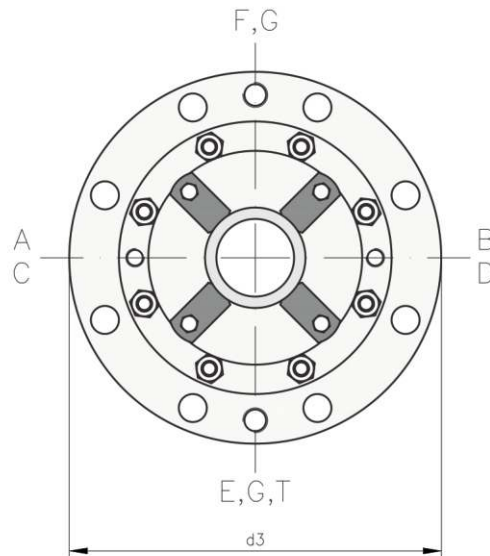
ADC80 FLANGE ACCESSORIES

SECTORS:

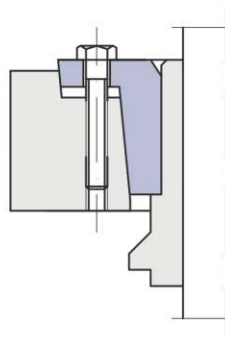


FLANGE COMPONENTS

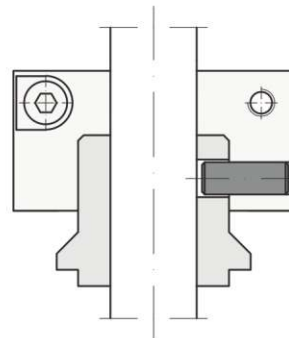
- A: Barrier fluid quench IN
- B: Barrier fluid quench OUT
- C: Drainage
- D: Leakage drain G 1/8"
- E : Cooling IN G 3/8"
- F: Cooling OUT G 3/8"
- G: Grease
- T: Temperature metering



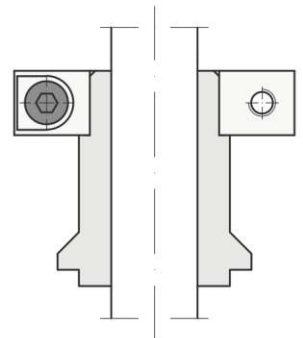
Clamping set (CS)



Shrink disk (SD)

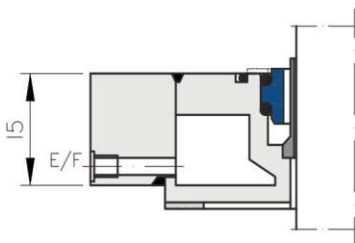


Clamping ring with pin (CRP)

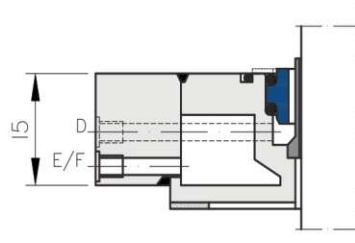


Clamping ring (CR)

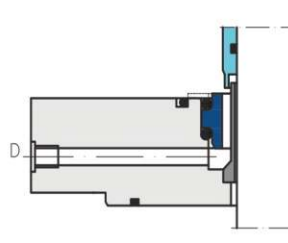
FLANGE OF COOLING OR HEATING:



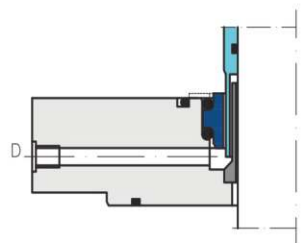
A: Cooling flange. It can also be used as a heating flange (Tmax= +350 °C)



B: Leakage drain. It can also be used as a flush or as a heating flange.



C: Leakage drain. It can also be used alternatively as a flush.



D: Polymerisation barrier. It can also be used alternatively as a leakage drain or a flush.

Compatibility Chart

ACCURA	BURGMANN	CHESTERTON
SINGLE CARTRIDGE		
ASC10	-	-
ASC25	UNITEX	-
ASC38-FQ	MTEX-QNM/TNM	153
ASC40	CARTEX-SNO	-
ASC40-F	CARTEX-SN	-
ASC40-FAS	CARTEX ANSI STANDARD BORE	-
ASC40-FAB	CARTEX ANSI BIG BORE	-
ASC40-FQ0	CARTEX-QN/TN	-
ASC40-FQG	CARTEX-QN/TN	-
ASC40-FQ0AB	CARTEX-QN/TN ANSI BIG BORE	-
ASC40-FQGAS	CARTEX-QN/TN ANSI STANDARD BORE	-
ASC40-FQGAB	CARTEX-QN/TN ANSI BIG BORE	-
ASC40-FQGAS	CARTEX-QN/TN ANSI STANDARD BORE	-
ASC50-F	SPLITEX	442
ASC80	M481KL	-
ASC85	-	-
ASC90	-	-
ASC211A-FD	UNITEX	155

DOUBLE CARTRIDGE		
ADC21	-	-
ADC38	-	255
ASC39-D	-	-
ADC40	CARTEX-DN	255
ADC40-AB	CARTEX DUAL ANSI BIG BORE	-
ADC40-AS	CARTEX DUAL ANSI STANDARD BORE	-
ADC80	M451 M481KD	-
ADC90	-	-

AESEAL	FLOWERVE	CRANE	ROTEN
-	-	-	-
-	-	-	-
-	ISC1BX	5615	-
SMSS	-	-	-
SMSS	ISC1PX	-	902
-	-	-	-
-	-	-	-
CURC/CRCO	-	4610/5610	-
CURC/CRCO	-	4610/5610	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
RDS	PSII	3710	-
-	-	-	-
-	-	-	-
-	-	-	-
CONVERTOR II	-	-	942

-	-	-	-
-	ISC2BB	5625	-
-	-	5620	-
DMSF	ISC2PP	4620 / 5620	922
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

REPAIR WORKSHOP, QUALITY CONTROL

Repair workshop



Accura's modern, adequate equipment enables it to execute repair and transformation operations on mechanical seals and cartridges.

The process commences by diagnosing the condition of the part, and after this, we execute the necessary processes for cleaning, polishing and lapping the contact surfaces, grinding parts and replacing components, etc.



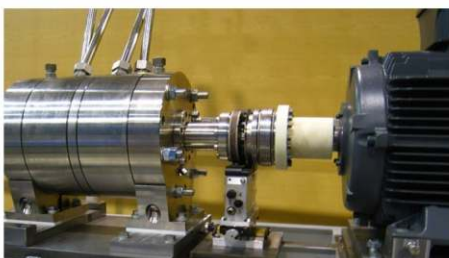
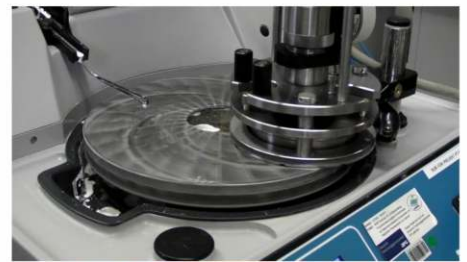
After carrying out these operations, the sealing of the repaired parts is checked by pressure test, to ensure that the part is ready for operation in any application that requires sealing of the highest standard.

We also offer additional services such as a diagnostic report on the sample received and a detailed analysis of the faults observed or laser marking of parts to facilitate their identification and traceability.

Quality control, checking and testing

All the mechanical seals manufactured or repaired by Accura are subject to the strictest quality controls. We guarantee their operation in the most demanding applications.

Furthermore, if the customer wishes, we can provide other services such as sealing controls in static or dynamic conditions and at different pressures before delivering the product. Working along this line we perform static sealing controls on all our cartridges before delivering them to the customer.



Materials Codes EN 12756)

Contact surfaces (position 1 and 2)

SYNTHETIC CARBONS

- A: Antimony-impregnated carbon
 B: Resin-impregnated carbon
 B₂: Resin-impregnated carbon
 B₃: Pure non-impregnated carbon
 B₅: Hot pressed carbon

METALS

- E: Chromium steel; AISI 420 (1.4021 ; 1.4028)
 F₁: Nickel-chromium steel; AISI 431 (1.4057)
 G: Nickel-chromium-molybdenum steel; AISI 316 (1.4401)
 D: Duplex stainless steel (1.4462 ; 1.4162)
 Z: Nickel-chromium-molybdenum steatite steel
 C: Brass

CARBIDES

- U: Tungsten carbide with welded / inserted nickel
 U₁: Solid tungsten carbide with nickel
 Q₁: Sintered silicon carbide with no free silicon
 Q₂: Sintered silicon carbide
 Q₅: Sintered silicon carbide with carbon

CERAMIC MATERIALS

- V: Alumina oxide 99,5%
 V₂: Alumina oxide 95%
 X: Steatite

SYNTHETIC MATERIALS

- Y: Glass-filled PTFE
 Y₁: PTFE-graphite

Secondary seals (position 3)

ELASTOMERS

- P: Nitrile butadiene rubber (NBR)
 H: Hydrogenated nitrile butadiene rubber (HNBR).
 N: Chloroprene rubber (CR)
 E: Ethylene-propylene diene monomer (EPDM)
 X: Ethylene-propylene diene monomer peroxide (EPDMPX)
 S: Methyl-vinyl silicon rubber (MVQ)
 V: Fluorocarbon (FKM or Viton® Rubber)
 K: Perfluorocarbon rubber (FFKM)
 M: Viton® Rubber coated with PTFE (FEP-FKM / FEP-MVQ)
 A: Tetrafluoro-ethylene Propylene Rubber (TFE/P or Aflas®)

NON-ELASTOMERS

- G: Graphite
 T: PTFE

Springs and other metal parts (position 4 and 5)

- E: Chromium steel; AISI 420 (1.4021; 1.4028)
 F: Nickel-chromium steel; AISI 304 (1.4301)
 F₁: Nickel-chromium steel; AISI 431 (1.4057)
 G: Nickel-chromium-molybdenum steel; AISI 316 (1.4401)
 G₂: AM350 nickel-chromium-molybdenum steel. AM350.
 L: Nickel-chromium-molybdenum steel; AISI 316L (1.4404)
 D: Nickel-chromium-molybdenum duplex stainless steel (1.4462)
 M: Hastelloy® C4
 M₂: Inconel® 718
 M₃: Alloy® 20
 M₄: Monel® 400
 M₅: Hastelloy® C276B: Brass
 C: Alloy® 20
 G4: 316 Ti (1.4571)

Synthetic carbons

Synthetic carbons are the materials most often used due to their intrinsic characteristics: they are self-lubricating, economical and have good chemical resistance. There are several types:

Code A: Antimony-impregnated carbon.

It has less chemical resistance than resin-impregnated carbon but is used due to its resistance to high temperatures (350°C). It is recommended for high pressure applications with hydrocarbons, thermal oils or gases.

Code B: Resin-impregnated carbon.

The most standard and economical. It can withstand temperatures of up to 180°C.

Code B₂: Resin-impregnated carbon.

A mechanised carbon with a more compact internal structure which gives it greater chemical resistance than type B graphite.

Code B₃: Non-impregnated carbon.

A carbon with no resin or metal content with a very high resistance to temperature (3000° C) and chemicals.

Ceramic materials

Ceramic materials have extremely high purity, are very resistant to wear and have high chemical resistance. However, they become fragile in the presence of sudden changes in temperature (thermal shock).

• Code X: Stéatite.

Its composition is silica oxide (SiO₂) 52%, magnesium oxide (MgO) 23%, alumina oxide (Al₂O₃) 5.1%. It is ochre in colour and used in clean water applications. An economical material. Has low chemical resistance and low thermal conductivity, for which reason it does not dissipate heat well. Low resistance to thermal shock.

• Code V: Alumina oxide with a purity of 99.5%.

It is chemically inert and has excellent resistance to wear. Due to its purity, it can withstand a higher degree of thermal shock than other types of ceramic. It is recommended in clean water operations, in combination with graphite (B).

Low thermal conductivity and poor heat dissipation. Low resistance to thermal shock.

Metal carbides

Metal carbides are extremely hard materials manufactured by sintering. They have high chemical and wear resistance and are used in environments with solids or particles which can attack soft materials such as carbon.

• Code U: Inserted / welded tungsten carbide.

An extremely hard and tenacious material. It is appropriate for applications with a pH of more than 6 (in the case of welded parts). Good behaviour with respect to wear under severe conditions. Good thermal conductivity. High elastic modulus, meaning it is not likely to become deformed, especially in high pressure applications. Limited chemical resistance, especially to acid products. A very high density material, which can be critical in high speed rotating operations. Limited capacity to withstand dry operation conditions or extremely limited lubrication conditions, especially when working with the same material.

• Code U₁: Solid tungsten carbide with nickel.

An extremely hard and tenacious material. Limited chemical resistance, especially to acid products. Suitable for applications with pH values above 2. Good behaviour with respect to wear under severe conditions. Good thermal conductivity. High elastic modulus, meaning it is not likely to become deformed in comparison with metal materials. A very high density material, which can be critical in high speed rotating operations. Limited capacity to withstand dry operation conditions or extremely limited lubrication conditions, especially when working with the same material.

• Code Q: Silicon carbide.

Good resistance to wear and to friction in heavy duty work. It is the perfect material for working in contact with abrasive and corrosive fluids, and at high pressures. Its main characteristics are as follows:

- High thermal conductivity, comparable to tungsten carbide.
- Low resistance to thermal shock.
- High elasticity modulus.
- Good chemical resistance.
- Lower density than tungsten carbide.

May be subject to chemical attack by certain strong alkaline products. For that reason it is important to choose the most appropriate silicon carbide grade:

Q₁: Contains no free silicon. It has the best chemical resistance of all carbides, but low tenacity. Its friction characteristics are poorer than grade Q₂, but higher than those of tungsten carbide.

Q₂: Contains free silicon. It has the best friction characteristics of all silicon carbides. Some acid or alkaline substances may cause lamination in free silicon but in general, it is more inert than tungsten carbide.

Q₆: Has a silicon and graphite carbide base. This mixture combines the high resistance to wear of silicon carbide and the lubricant properties of graphite.

Silicon carbide normally runs against resin-impregnated graphite (B), but metal carbons may also be used for high performance (hot water applications).

The silicon carbide and carbon combination is frequently used, providing long life in a wide range of conditions due to its excellent resistance to thermal shock.

In applications with abrasives, it is advisable to use silicon carbide against tungsten carbide, which is the most effective combination due to its resistance to wear and friction.

Silicon carbide may work against itself in very abrasive conditions but the friction characteristics are not as good as silicon carbide against tungsten carbide.

When silicon carbide is used against itself, the best results are obtained using different types, for instance Q₁ against Q₂ or Q₂ against Q₆.

When hard material is worked against hard, the limited conditions of the application may give rise to sudden changes in surface temperature and dry operation. Although this occurs with a short space of time, it is best to use silicon carbide with graphite-impregnated silicon carbide (Q₆). Due to its graphite content, this combination is resistant to the absence of lubrication for a limited time.

Metals

• **Code E: AISI 420 chromium steel.** This is tempered stainless steel with a surface hardness of less than 50 HRC. It is used with fluids such as water or oils.

• **Code F: Nickel-chromium steel AISI 304.** Stainless steel used to manufacture springs and auxiliary parts.

• **Code F: Nickel-chromium steel.** Stainless steel with good chemical resistance, used for fluids such as water, oils, chemicals, etc.

• **Code G: AISI 316 nickel-chromium-molybdenum steel.** Stainless steel with very good chemical resistance used with water, oils, hydrocarbons and chemicals.

• **Code G₂: AM350 nickel-chromium-molybdenum steel.** Specifically for metal bellows that must work at high temperatures up to +300°C.

• **Code L: Nickel-chromium-molybdenum steel; AISI 316L.** Stainless steel with excellent chemical resistance. It provides a homogeneous surface with no pores and is recommended for hygienic applications.

• **Code Z: Nickel-chromium-molybdenum stellite steel.** To obtain it, the steel surface is treated with plasma, leaving a thickness of 0.2 to 0.3 mm. with considerable surface hardness and increased resistance to wear.

• **Code D: Nickel-molybdenum duplex stainless steel,** used for highly corrosive environments: marine, industrial, etc.

• **Code M: Hastelloy® C276.** A nickel, chromium and molybdenum alloy with great mechanical resistance and excellent chemical resistance for general use. It is used to make springs or auxiliary parts.

- **Code M₂: Inconel®718.** A nickel (53%), chromium (18%), tantalum-niobium (5%) and molybdenum (3%) alloy. Good resistance to corrosion and excellent resistance to extreme temperatures, both high (600°C) and low (-250°C).
- **Code M₄: Monel®400.** A nickel (63%) and copper (23%) alloy. High resistance to corrosion in saline, caustic and acid environments (hydrochloric acid, hydrofluoric acid, sulphuric acid) and at high and low temperatures. Good mechanical properties. Due to its copper content, it has low resistance to nitric acid and ammonia. Very often used in the naval sector.
- **Code M₁: Hastelloy® C276.** A nickel, chromium and molybdenum alloy with great mechanical resistance and excellent chemical resistance for general use. It is used to make springs or auxiliary parts.

Synthetic or plastic materials

These materials are widely recommended for cases in which carbon lacks the adequate chemical resistance. They are manufactured with a PTFE base mixed with different additives and have very high chemical resistance. They withstand temperatures of up to +240°C. Their use is limited to low pressures and speeds (PV factor).

- **Code Y:** Glass-filled
- **Code Y₁:** Graphite-filled PTFE

Secondary seals

- **Code P: Nitrile butadiene rubber NBR.**

For working with water, oil, grease, etc. Temperature resistance from -30°C to +100°C.

- **Code H: Hydrogenated NBR.**

Excellent resistance to lubricants and products refrigerants at temperatures of up to +150°C.

- **Code N: Chlorobutadiene rubber Neoprene® or CR.**

For fluids such as refrigerants, ozone, glycols, etc. Temperature resistance of from -40°C to +100°C.

- **Code E: Ethylene-propylene diene monomer EPDM.**

Good behaviour in the presence of hot water, steam, acetone, alcohol, etc. Temperature resistance from -40°C to +120°C.

- **Code X: Ethylene-propylene rubberhardened with peroxide (EPDMPX).** Good behaviour in the presence of hot water, steam, acetone, alcohol, etc. In contact with steam up to +130°C in continuous operation and peaks of +150°C.

- **Code S: Methyl-vinyl silicon rubber MVQ.**

Indicated for applications at low temperatures from -60°C to +200°C.

- **Code V: FKM.**

High chemical and temperature resistance. Withstands temperatures of -15°C to +200°C except in hot water applications, in which case the temperature should not exceed 120°C.

- **Code K: Perfluorelastomer rubber FFKM.**

Excellent chemical resistance to a wide range of working fluids. Withstands temperatures ranging from -30 to +250 or +320°C depending on the type.

- **Code M: FEP encapsulated seals.**

Their chemical resistance is similar to that of PTFE. They are suitable for working at high temperatures ranging from -15°C to +200°C. Their main problem is the plastic behaviour of their surface, which makes them difficult to assemble in closed housings and they have a greater risk of being damaged.

- **Code A: Tetrafluoroethylene rubber, Aflas® or TPE/P.**

A material with high chemical resistance to most products and suitable for working with steam at temperatures up to +170°C and lubricants at temperatures up to +200°C.

- **Code G:**

Non-elastomer material with a graphite base used for high temperature applications. Withstands temperatures up to +400°C.

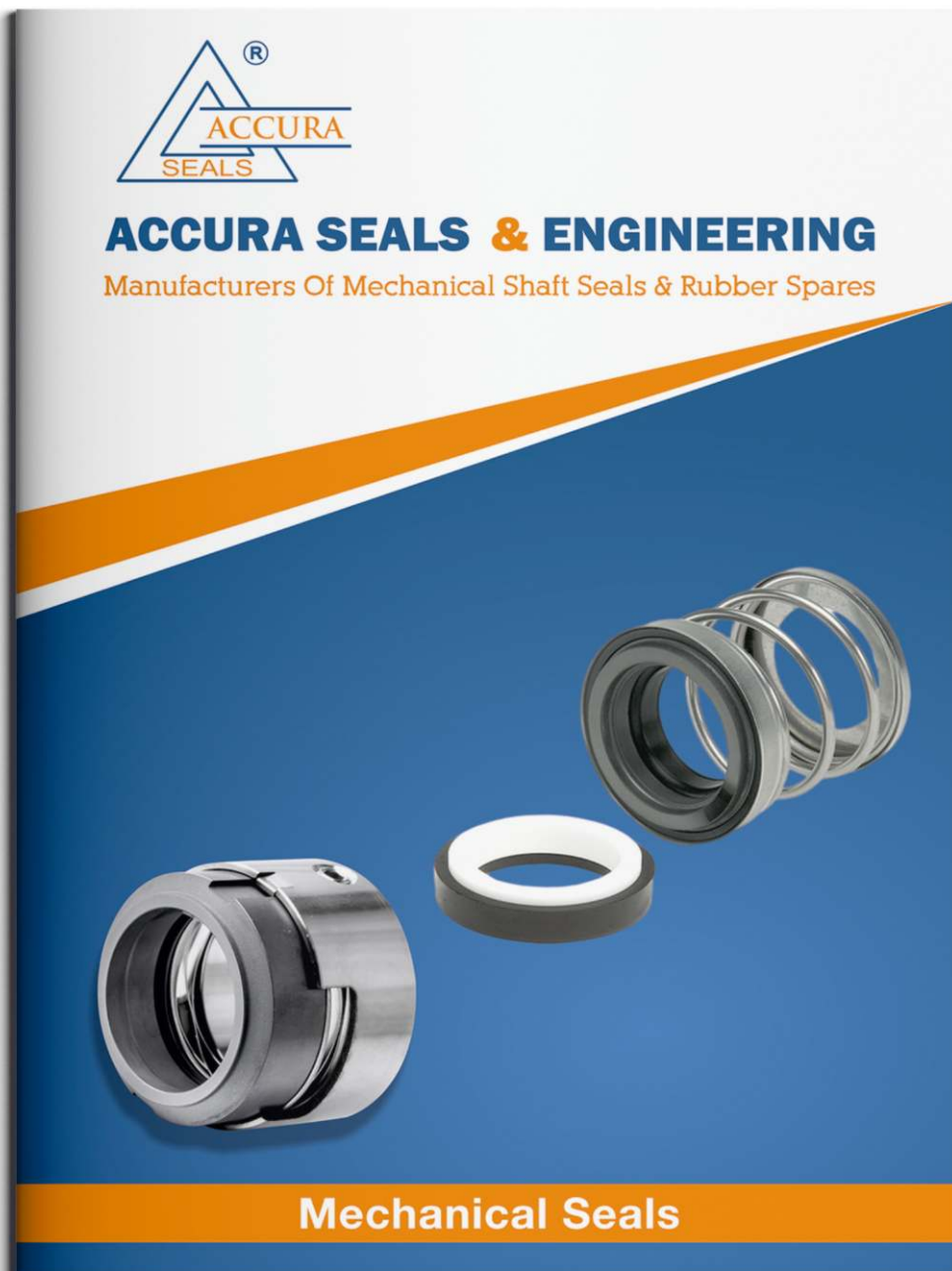
- **Code T: Polytetrafluorethylene PTFE.**

High chemical resistance to practically all substances. Withstands temperatures ranging from -200°C to +260°C.

Today, many demanding industrial sectors need sealing systems that guarantee safety for both people and facilities. It is very important to offer quality products that are resistant to extreme conditions such as high pressures and temperatures and that also guarantee impeccable sealing.

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