

GT 2887A

Single balanced external mechanical seal in cartridge configuration complete with flange, shaft sleeve and auxiliary seal to allow static or continuous atmospheric pressure quenching.

Equipped with ball or roller bearing to reduce seal run-out.

Characteristics

a) Solid rotary seal ring in silicon carbide with Fluigrid and solid stationary seal ring in premium grade graphite suitable for dry running.

b) Retained stationary ring to prevent blow out during reverse pressure.

c) Flange designed to guarantee correct alignment of stationary seal ring.

d) Optional: sanitary flange to prevent product contamination and cooling flange for high temperature applications.

e) Optimised sliding diameter to ensure reliable performance of the dynamic elastomer.

f) Multiple springs outside of the product for uniform load on the seal faces.

g) Setting device for easy and precise installation.

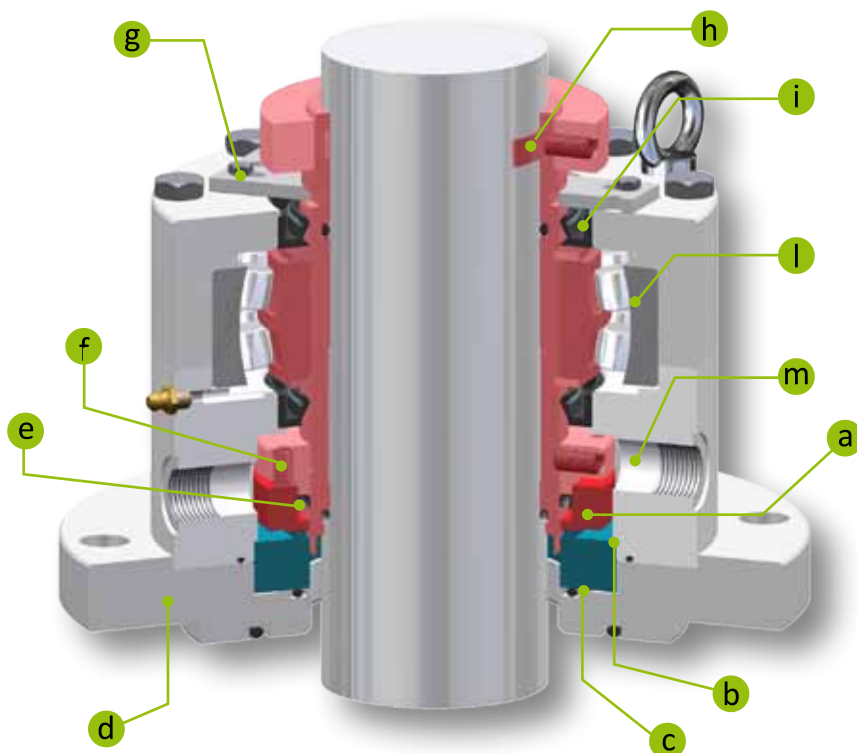
h) Drive collar designed to prevent locking screws damaging the shaft.

i) Bearing protection ring to contain lubrication.

l) Ball or roller bearing to ensure minimum seal run-out.

m) Double purpose connections for:
- continuous or occasional washing with fluid at atmospheric pressure;
- ventilation only.

NOTE: A high pitched squealing sound may occur temporarily under certain operating conditions. This does not indicate a seal defect and does not compromise correct operation.

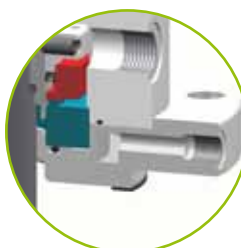


Operating limits

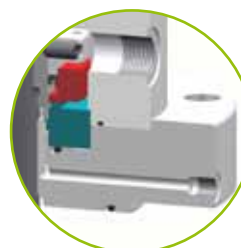
DIAMETER (mm)	FROM 50 TO 240
SPEED (m/s)	≤ 3
TEMPERATURE (°C)	FROM -50 TO 150
PROCESS PRESSURE (bar)	VACUUM TO 6

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure x velocity value (PV) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.

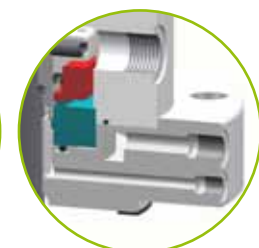
OPTIONAL FLANGES (see pg. 40)



Flange with cooling chamber



Sanitary flange



Sanitary flange with cooling chamber



FOOD
INDUSTRY



CHEMICAL
INDUSTRY



PHARMACEUTICAL
INDUSTRY



DRY
CONTACTING

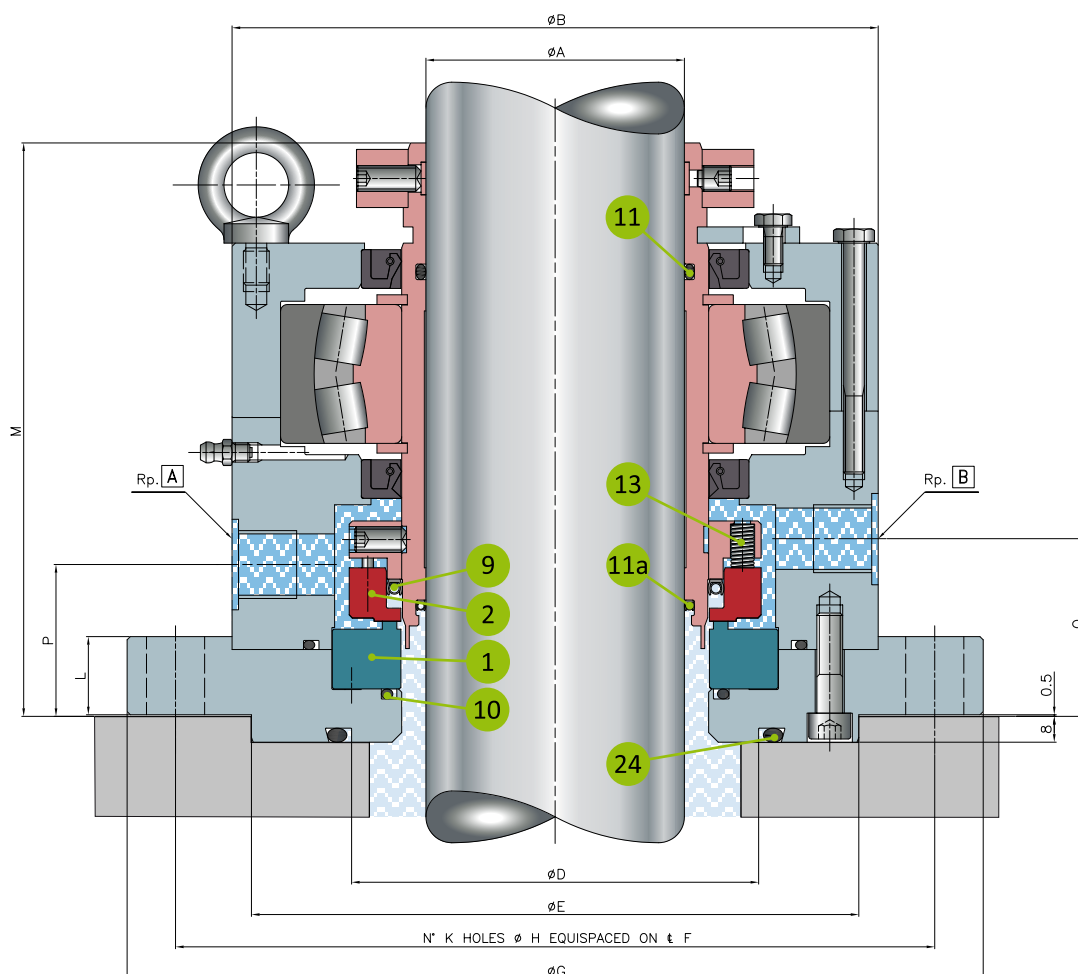


BI-DIRECTIONAL



TOP
ENTRY

Images and dimensions may differ slightly from the standard configuration or refer to different markets. The product may be subjected to technical or commercial modifications without notification.


COMPONENT KEY
(standard materials)

1 Stationary ring in special graphite for dry running (ZD71) or FDA approved graphite for dry running (ZD51)

2 Silicon carbide rotating ring (U31)

9 Rotating seal gasket in FKM (V), EPDM (D) or Fluigam: energized PTFE (T3)

10 Stationary ring gasket in FKM (V), EPDM (D) or FFKM (G720)

11 Atmosphere side sleeve gasket in FKM (V), EPDM (D) or Fluigam: energized PTFE (T3)

11a Product side sleeve gasket in FKM (V), EPDM (D)

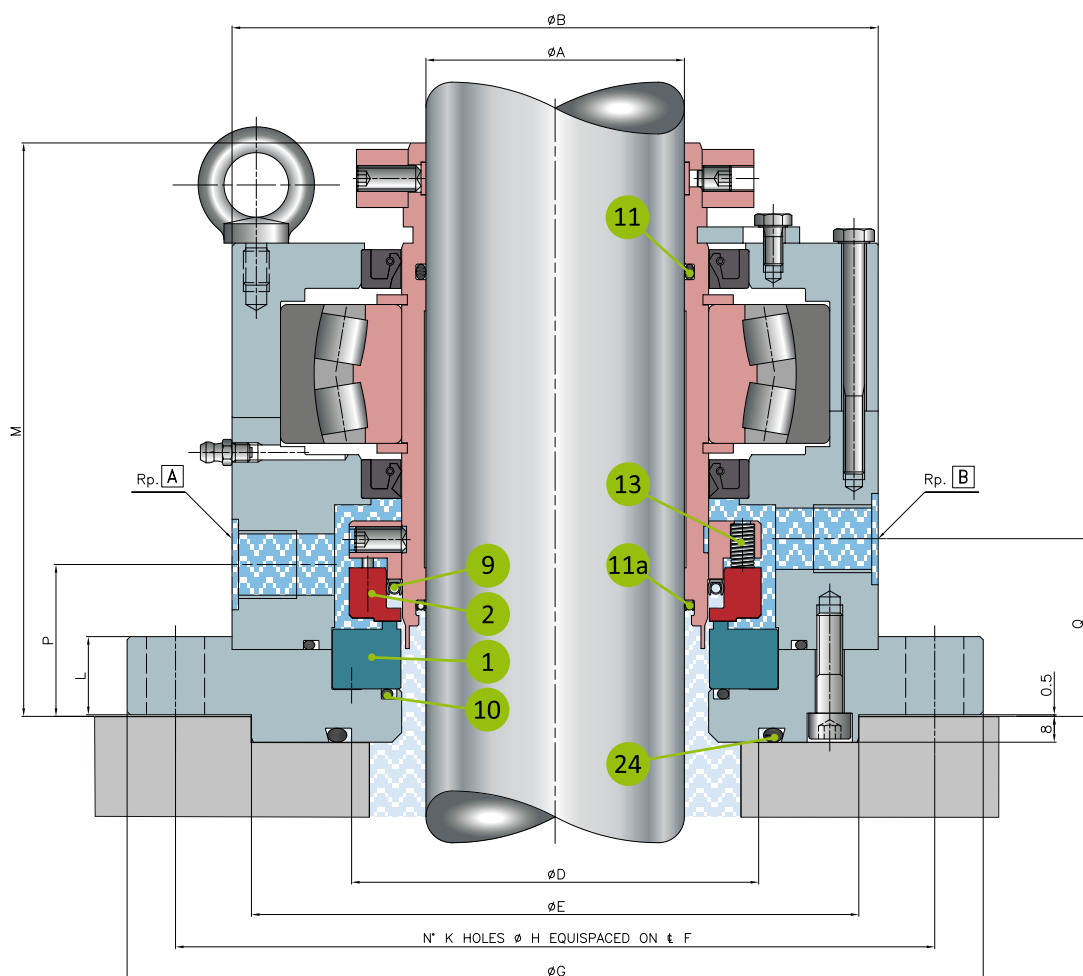
13 Springs and other metal parts in AISI 316

24 Flange gasket in PTFE (T)

Rp. A - Rp. B: input/output for washing or ventilation fluid

A h8	SEAL Ø	B	D	E e8	F	G	K HOLES	H Ø	L	M	P	Q	Rp. A-B UNI ISO 7/1
35 40	50	119	56	120	145	170	6	13	25	133	42	51	3/8"
45 50	60	140	66	130	155	180	6	13	25	142	42	55	3/8"
55 60	70	155	76	150	180	210	6	18	25	152	42	55	3/8"
65 70	80	170	86	165	195	225	6	18	25	160	42	55	3/8"
75 80	95	200	100	180	210	240	6	18	25	180	45	55	1/2"
85 90	100	210	106	180	215	245	8	18	25	180	45	55	1/2"
95 100 105	120	220	127	220	255	285	8	18	30	228	55	90	1/2"
110 115	130	260	137	230	265	295	8	18	30	230	55	90	1/2"
120 125	140	260	146	240	275	305	8	18	30	238	55	90	1/2"
130 135	150	280	159	250	285	315	8	18	30	242	55	90	1/2"
140 145	160	290	172	260	295	325	8	18	35	265	60	105	1/2"
150 155	170	310	178	270	305	335	10	18	35	280	60	105	1/2"
165 170	180	300	191	280	315	345	10	18	35	258	60	105	1/2"
175 180	190	310	197	290	325	355	10	18	35	260	60	105	1/2"
185 190	200	330	210	300	335	365	10	18	35	284	60	105	1/2"
195 200	210	350	222	310	345	375	10	18	35	287	60	105	1/2"
210 220	220	350	229	320	355	385	12	18	35	290	60	110	1/2"
210 220	240	370	248	340	375	405	12	18	35	290	60	115	1/2"

Measurements are expressed in millimetres. For measurements differing from those listed or measurements in inches, please contact our Technical Sales Department at info@fluiten.it



COMPONENT KEY
(standard materials)

- 1** Stationary ring in special graphite for dry running (ZD71) or FDA approved graphite for dry running (ZD51)
- 2** Silicon carbide rotating ring (U31)
- 9** Rotating seal gasket in FKM (V), EPDM (D) or Fluigam: energized PTFE (T3)
- 10** Stationary ring gasket in FKM (V), EPDM (D) or FFKM (G720)
- 11** Atmosphere side sleeve gasket in FKM (V), EPDM (D) or Fluigam: energized PTFE (T3)
- 11a** Product side sleeve gasket in FKM (V), EPDM (D)
- 13** Springs and other metal parts in AISI 316
- 24** Flange gasket in PTFE (T)
- Rp. A - Rp. B:** input/output for washing or ventilation fluid

A h8	SEAL Ø	B	D	E e8	F	G	K HOLES	H Ø	L	M	P	Q	Rp.A-B UNI ISO 7/1
35 40	50	119	56	120	145	170	6	13	25	133	42	51	3/8"
45 50	60	140	66	130	155	180	6	13	25	142	42	55	3/8"
55 60	70	155	76	150	180	210	6	18	25	152	42	55	3/8"
65 70	80	170	86	165	195	225	6	18	25	160	42	55	3/8"
75 80	95	200	100	180	210	240	6	18	25	180	45	55	1/2"
85 90	100	210	106	180	215	245	8	18	25	180	45	55	1/2"
95 100 105	120	220	127	220	255	285	8	18	30	228	55	90	1/2"
110 115	130	260	137	230	265	295	8	18	30	230	55	90	1/2"
120 125	140	260	146	240	275	305	8	18	30	238	55	90	1/2"
130 135	150	280	159	250	285	315	8	18	30	242	55	90	1/2"
140 145	160	290	172	260	295	325	8	18	35	265	60	105	1/2"
150 155	170	310	178	270	305	335	10	18	35	280	60	105	1/2"
165 170	180	300	191	280	315	345	10	18	35	258	60	105	1/2"
175 180	190	310	197	290	325	355	10	18	35	260	60	105	1/2"
185 190	200	330	210	300	335	365	10	18	35	284	60	105	1/2"
195 200	210	350	222	310	345	375	10	18	35	287	60	105	1/2"
210 220	220	350	229	320	355	385	12	18	35	290	60	110	1/2"
220	240	370	248	340	375	405	12	18	35	290	60	115	1/2"

Measurements are expressed in millimetres. For measurements differing from those listed or measurements in inches, please contact our Technical Sales Department at info@fluiten.it

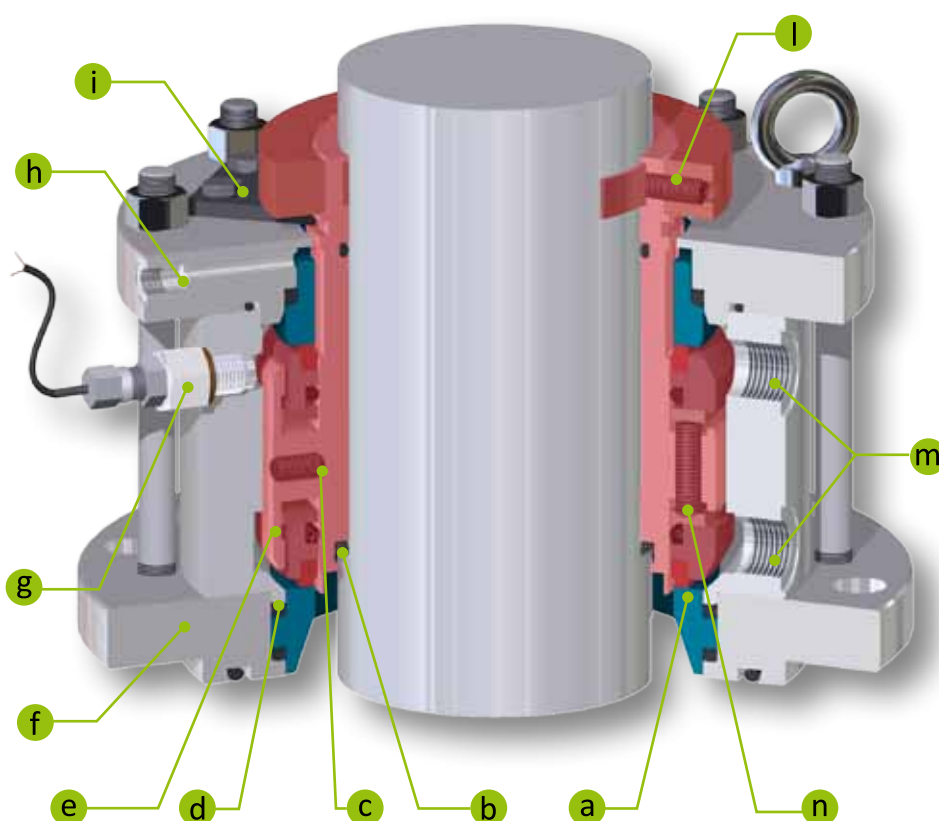
GT 1811 A

A pre-assembled back-to-back double cartridge seal with materials of construction selected according to specific operating conditions. Since 1988, this tried and trusted design has been fitted in thousands of chemical and pharmaceutical plants around the world. The GT 1821 A is available with dimensions compliant with DIN 28138 (flange) and DIN 28159 (shaft).

Characteristics

- a) Robust, carefully designed seal rings.
- b) FLUIGAM: product side PTFE energized gasket.
- c) Single body double seal to reduce axial length.
- d) Retained stationary ring to prevent blow out during reverse pressure.
- e) Robust drive lugs that can tolerate run-out and vibration.
- f) Optional: sanitary flange to prevent product contamination and cooling flange for high temperature applications.
- g) Optional thermocouple for ATEX applications.
- h) Atmosphere leakage monitoring connection.
- i) Positioning device for easy, precise installation.
- l) Drive collar designed to prevent locking screws damaging the shaft.
- m) Flushing connections designed to ensure air is always vented.
- n) Multiple springs outside the product for uniform load on the seal faces.

***NOTE:** barrier fluid pressure must always be higher than the process pressure with ΔP as per operating limits.



Operating limits

DIAMETER (mm)	FROM 35 TO 220
SPEED (m/s)	≤ 10
TEMPERATURE (°C)	FROM -50 TO 250
$\Delta P = 1 - 2$ bar	See NOTE*
PROCESS PRESSURE (bar)	VACUUM TO 18

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure x velocity value (PV) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.

OPTIONAL FLANGES (see pg. 41)



Flange with cooling chamber



Sanitary flange



Sanitary flange with cooling chamber



FOOD
INDUSTRY



CHEMICAL
INDUSTRY



WET
LUBRICATED



BI-DIRECTIONAL

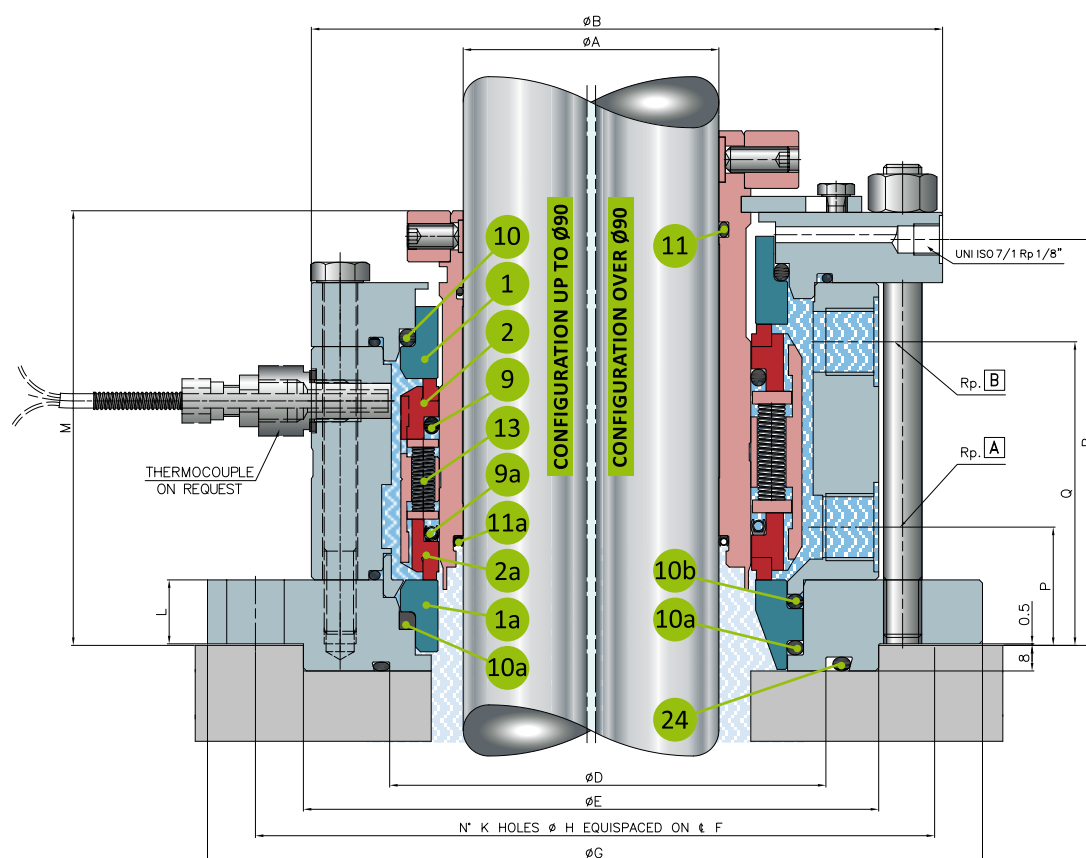


SIDE
ENTRY



TOP
ENTRY

Images and dimensions may differ slightly from the standard configuration or refer to different markets. The product may be subjected to technical or commercial modifications without notification.


COMPONENT KEY
(standard materials)

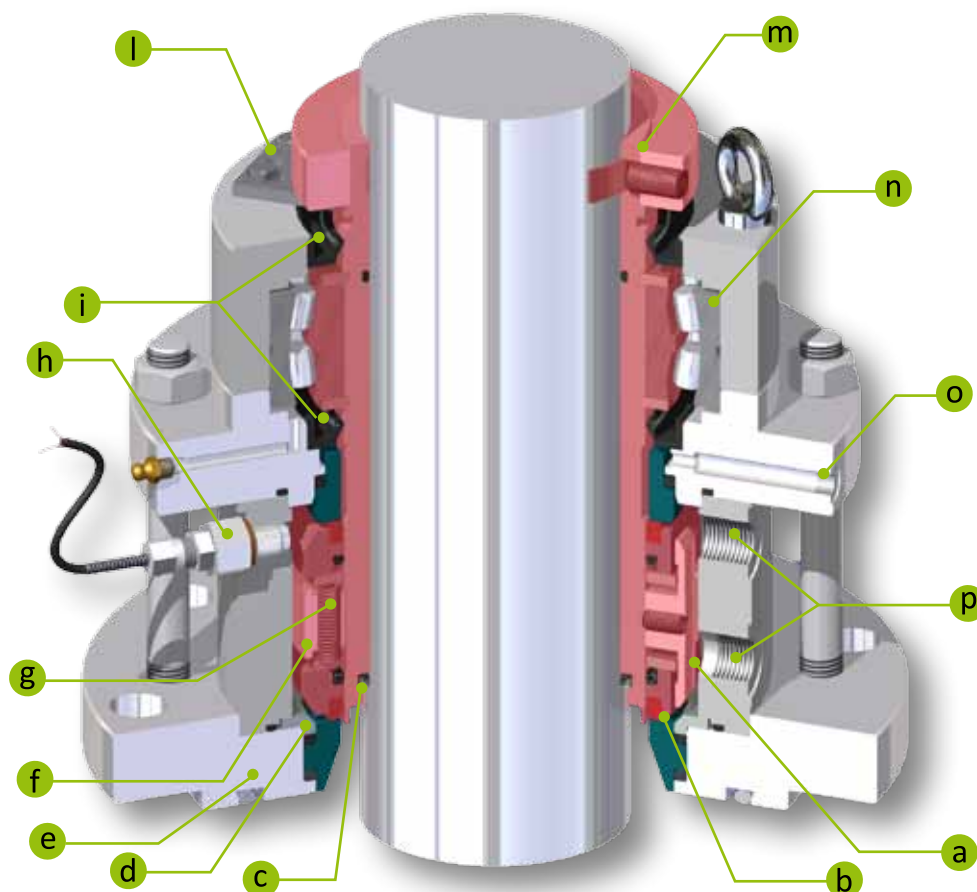
- 1** Silicon carbide stationary ring (U31)
- 1a** Silicon carbide stationary ring (U31)
- 2** Rotating ring in AISI 316 + graphite (Z32) or solid graphite (Z11)
- 2a** Rotating ring in AISI 316 + graphite (Z32) or solid graphite (Z11)
- 9** Rotating seal gasket in FKM (V) or EPDM (D)
- 9a** Rotating ring gasket in FKM (V), EPDM (D) or Fluigam: energized PTFE (T3)
- 10** Stationary ring gasket in FKM (V) or EPDM (D)
- 10a** Stationary ring gasket in FKM (V), EPDM (D) or PTFE (T)
- 10b** Stationary ring gasket in FKM (V) or EPDM (D)
- 11** Atmosphere side sleeve gasket in FKM (V) or EPDM (D)
- 11a** Product side sleeve gasket in FKM (V), EPDM (D) or Fluigam: energized PTFE (T3)
- 13** Springs and other parts in AISI 316 (E)
- 24** Flange gasket in PTFE (T)
- Rp. A - Rp. B:** auxiliary fluid input/output

A h8	SEAL Ø	B	D	E e8	F	G	K HOLES	H Ø	L	M	P	Q	Rp.A-B UNI ISO 7/1
35	50	110	70	110	145	175	4	18	17	112	33	60	3/8"
40													
45	60	130	81	135	165	195	6	18	20	125	37	69	3/8"
50													
55	70	145	95	150	180	210	6	18	20	128	37	73	3/8"
60													
65	80	160	114	165	195	225	6	18	20	133	37	76	3/8"
70													
75	95	175	126	180	210	240	6	18	20	136	38	76	1/2"
80													
85	100	180	130	180	215	245	8	18	20	136	38	76	1/2"
90													
95	120	240	167	200	235	265	8	18	20	161	37	95	1/2"
100													
105													
110	130	250	179	210	245	275	8	18	20	161	37	95	1/2"
115													
120	140	260	189	220	255	285	8	18	20	164	37	96	1/2"
125													
130	150	285	209	245	280	310	8	18	25	182	46	112	1/2"
135													
140	160	300	215	250	290	325	8	18	25	191	46	122	1/2"
145													
150	170	310	235	265	300	335	8	18	25	191	46	122	1/2"
155													
160	180	320	240	275	310	345	8	18	25	191	46	122	1/2"
165													
170	190	330	250	285	320	355	8	18	25	192	46	122	1/2"
175													
180	200	345	260	295	340	380	8	22	25	192	46	127	1/2"
185													
190	210	360	275	310	355	395	8	22	25	206	50	138	1/2"
195													
200	220	370	285	320	365	405	10	22	25	211	50	138	1/2"
210													
220	240	390	300	340	385	425	10	22	25	211	50	138	1/2"

Measurements are expressed in millimetres. For measurements differing from those listed or measurements in inches, please contact our Technical Sales Department at info@fluiten.it

GT 1810A

The GT 1810 A is a back-to-back double cartridge seal designed for operation with a pressurized barrier fluid (1 bar > than process pressure). The seal has the addition of an integrated self-aligning roller bearing to minimise shaft run-out. This robust, tried and tested design is available constructed from materials selected according to the specific operating conditions. The GT 1820 A variant is also available with dimensions compliant with DIN 28138 (flange) and DIN 28159 (shaft).



Characteristics

- a) Robust drive lugs that can tolerate run-out and vibration.
- b) Robust, carefully designed seal rings.
- c) FLUIGAM: product side PTFE energized gasket.
- d) Retained stationary ring to prevent blow out during reverse pressure.
- e) Optional: sanitary flange to prevent product contamination and cooling flange for high temperature applications.
- f) Double seal with single piece body to reduce axial length.
- g) Multiple springs outside the product for uniform load on the seal faces.
- h) Optional thermocouple for ATEX solutions.
- i) Bearing protection rings to contain lubrication.
- l) Positioning device for easy, precise installation.
- m) Drive collar designed to prevent locking screws damaging the shaft.
- n) Ball or roller bearing to ensure minimum seal run-out.
- o) Atmosphere leakage monitoring connection.
- p) Flushing connections designed to ensure air is always vented.

***NOTE:** barrier fluid pressure must always be higher than the process pressure with ΔP as per operating limits.

Operating limits

DIAMETER (mm)	FROM 35 TO 220
SPEED (m/s)	≤ 10
TEMPERATURE (°C)	FROM -50 TO 250
ΔP = 1 - 2 bar	See NOTE*
PROCESS PRESSURE (bar)	VACUUM TO 18

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure x velocity value (PV) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.

OPTIONAL FLANGES (see pg. 41)



Flange with cooling chamber



Sanitary flange



Sanitary flange with cooling chamber



FOOD
INDUSTRY



CHEMICAL
INDUSTRY



WET
LUBRICATED



BI-DIRECTIONAL

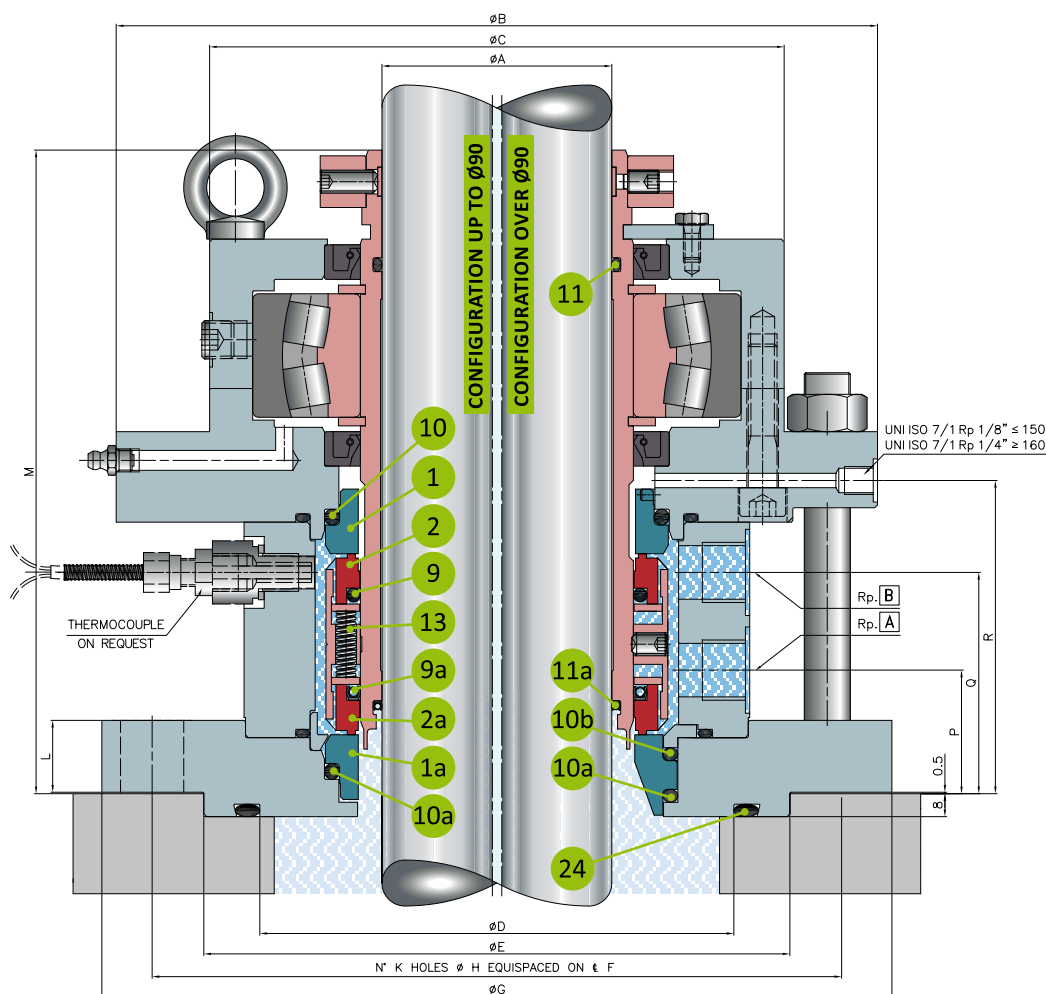


SIDE
ENTRY



TOP
ENTRY

Images and dimensions may differ slightly from the standard configuration or refer to different markets. The product may be subjected to technical or commercial modifications without notification.


COMPONENT KEY
(standard materials)

- 1** Silicon carbide stationary ring (U31)
 - 1a** Silicon carbide stationary ring (U31)
 - 2** Rotating ring in AISI 316 + graphite (Z32) or solid graphite (Z11)
 - 2a** Rotating ring in AISI 316 + solid (Z32) or solid graphite (Z11)
 - 9** Rotating seal gasket in FKM (V) or EPDM (D)
 - 9a** Rotating ring gasket in FKM (V), EPDM (D) or Fluigam: energized PTFE (T3)
 - 10** Stationary ring gasket in FKM (V) or EPDM (D)
 - 10a** Stationary ring gasket in FKM (V), EPDM (D) or PTFE (T)
 - 10b** Stationary ring gasket in FKM (V) or EPDM (D)
 - 11** Atmosphere side sleeve gasket in FKM (V) or EPDM (D)
 - 11a** Product side sleeve gasket in FKM (V), EPDM (D) or Fluigam: energized PTFE (T3)
 - 13** Springs and other parts in AISI 316 (E)
 - 24** Flange gasket in PTFE (T)
- Rp. A - Rp. B:** auxiliary fluid input/output

A h8	SEAL Ø	B	C	D	E e8	F	G	K HOLES	H Ø	L	M	P	Q	R	Rp.A-B UNI ISO 7/1
35 40	50	168	119	70	110	145	175	4	18	22	164	36	60	88	3/8"
45 50	60	183	136	136	176	210	240	8	18	25	181	40	69	98	3/8"
55 60	70	198	151	136	176	210	240	8	18	25	195	40	74	103	3/8"
65 70	80	210	166	136	176	210	240	8	18	25	203	42	77	106	3/8"
75 80	95	265	200	165	204	240	275	8	22	25	224	43	77	109	1/2"
85 90	100	265	200	165	204	240	275	8	22	25	224	43	77	109	1/2"
95 100	120	270	210	184	234	270	305	8	22	28	250	50	97	126	1/2"
110 115	130	320	247	210	260	295	330	8	22	28	258	50	97	129	1/2"
120 125	140	325	254	210	260	295	330	8	22	28	264	50	97	129	1/2"
130 135	150	350	269	267	313	350	395	8	22	35	290	56	113	149	1/2"
140 145	160	360	284	267	313	350	395	12	22	35	304	56	125	160	1/2"
150 155	170	380	304	267	313	350	395	12	22	35	321	56	125	161	1/2"
160 165	180	370	294	267	313	350	395	12	22	35	305	56	125	161	1/2"
170 175	190	380	304	267	313	350	395	12	22	35	308	56	125	162	1/2"
180 185	200	400	323	292	364	400	445	12	22	35	321	56	125	157	1/2"
190 195	210	420	344	292	364	400	445	12	22	35	340	56	135	169	1/2"
200 210	220	420	344	292	364	400	445	12	22	35	342	56	135	172	1/2"
220	240	440	364	350	422	460	505	16	22	35	342	56	135	169	1/2"

Measurements are expressed in millimetres. For measurements differing from those listed or measurements in inches, please contact our Technical Sales Department at info@fluiten.it

GT 1924 A

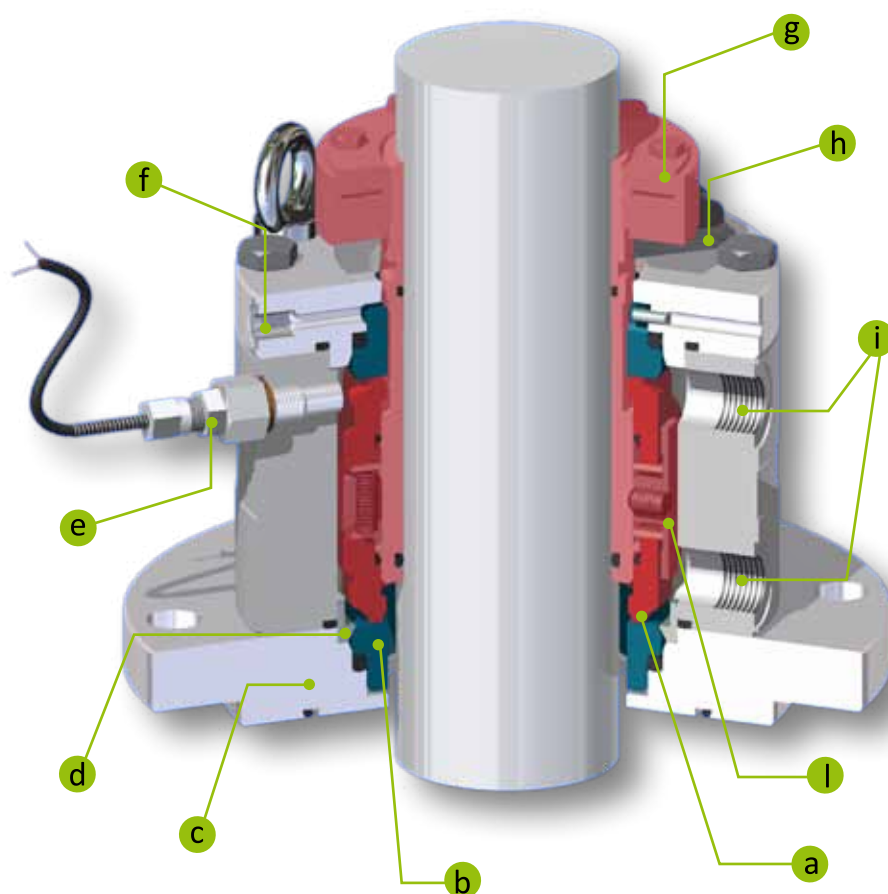
A preassembled, back-to-back double cartridge seal suitable for operation with a pressurised barrier fluid. A double balanced seal suitable for high working pressures and the ability to operate under reverse pressure if there is a loss of barrier fluid pressure.

Designed using API 682 construction guidelines.

Characteristics

- a) Double balanced design able to tolerate unexpected reverse pressure.
- b) High performance solid seal rings developed with FEA Analysis to avoid deformation.
- c) Optional: sanitary gland to avoid product contamination and cooling jacket for high temperature applications.
- d) Retained stationary ring to prevent blow out during reverse pressure.
- e) Optional thermocouple for ATEX applications.
- f) Atmosphere leakage monitoring connection.
- g) Shrink disk drive to guarantee and maintain correct seal axial position under high process pressure conditions.
- h) Positioning device for easy, precise installation.
- i) Flushing connections designed to ensure air is always vented.
- l) Robust drive lugs that can tolerate run-out and vibration.

***NOTE:** barrier fluid pressure must always be higher than the process pressure with ΔP as per operating limits.

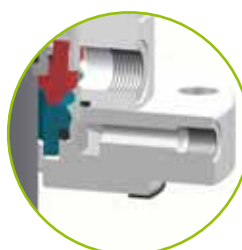


Operating limits

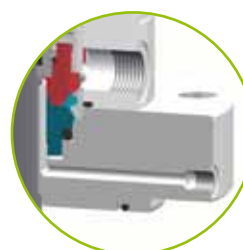
DIAMETER (mm)	FROM 50 TO 250
SPEED (m/s)	≤ 20
TEMPERATURE (°C)	FROM -50 TO 250
ΔP= minimum 1 - 2 bar	<i>See NOTE*</i>
PROCESS PRESSURE (bar)	VACUUM TO 75

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure x velocity value (PV) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.

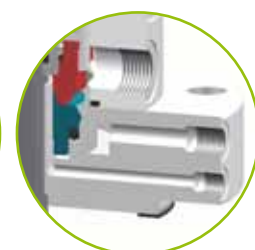
OPTIONAL FLANGES (see pg. 41)



Flange with cooling chamber



Sanitary flange



Sanitary flange with cooling chamber



FOOD
INDUSTRY



CHEMICAL
INDUSTRY



PHARMACEUTICAL
INDUSTRY



WET
LUBRICATED

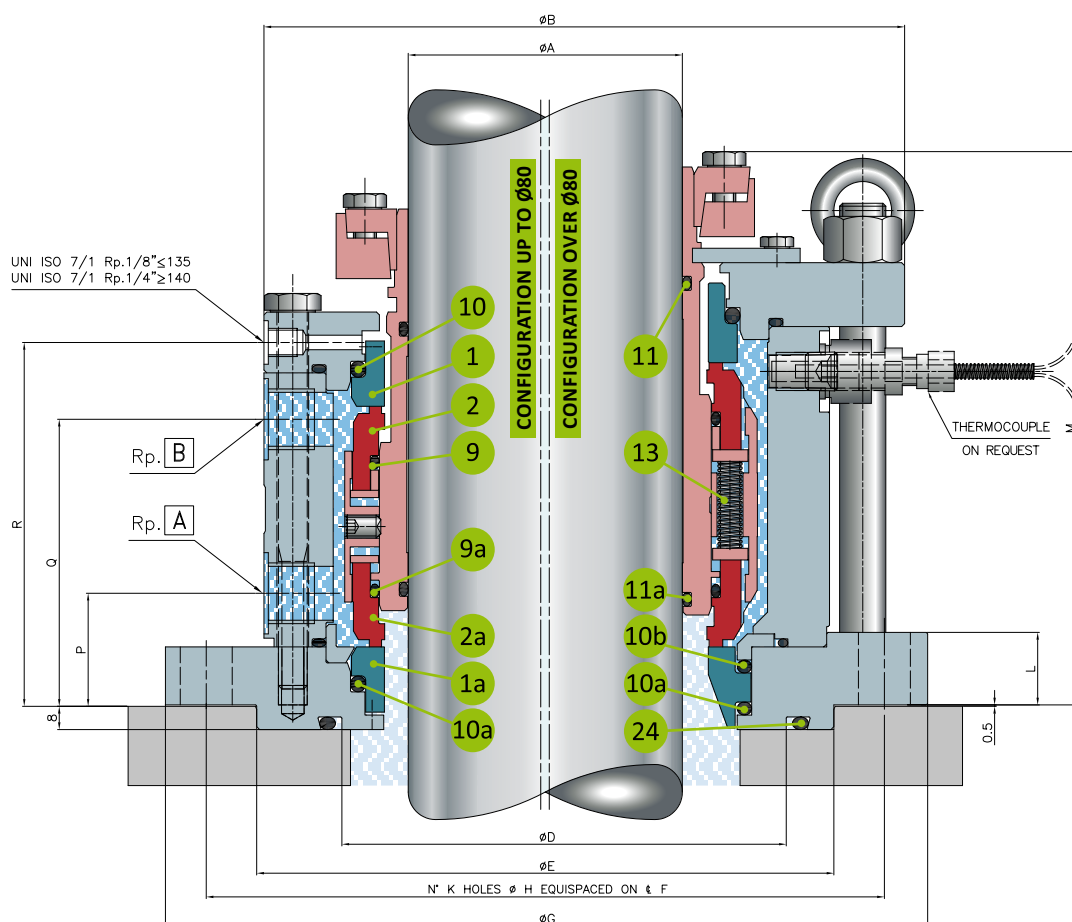


BI-DIRECTIONAL



TOP
ENTRY

Images and dimensions may differ slightly from the standard configuration or refer to different markets. The product may be subjected to technical or commercial modifications without notification.



COMPONENT KEY (standard materials)

- 1** Silicon carbide stationary ring (U31)
- 1a** Silicon carbide stationary ring (U31)
- 2** Rotating ring in AISI 316 + graphite (Z32) or solid graphite (Z11)
- 2a** Rotating ring in AISI 316 + graphite (Z32) or solid graphite (Z11)
- 9** Rotating seal gasket in FKM (V) or EPDM (D)
- 9a** Rotating ring gasket in FKM (V), EPDM (D) or FFKM (G720)
- 10** Stationary ring gasket in FKM (V) or EPDM (D)
- 10a** Stationary ring gasket in FKM (V), EPDM (D) or PTFE (T)
- 10b** Stationary ring gasket in FKM (V) or EPDM (D)
- 11** Atmosphere side sleeve gasket in FKM (V) or EPDM (D)
- 11a** Product side sleeve gasket in FKM (V), EPDM (D) or Fluigam: energized PTFE (T3)
- 13** Springs and other metal parts in AISI 316 (E)
- 24** Flange gasket in PTFE (T)

Rp. A - Rp. B: auxiliary fluid input/output



II 1 GD c X

Model GT 1924 is available in version GT 1934, ATEX certified for Zone 0 Cat. 1 (see pg. 8). Requests for this particular configuration should be referred to the Technical Sales Department during the offer negotiation phase.

A h6	SEAL Ø	B	D	E e8	F	G	K HOLES	H Ø	L	M	P	Q	R	Rp.A-B UNI ISO 7/1
35 40	50	124	76	130	155	185	6	18	20	148	37	84	107	3/8"
45 50	60	138	83	135	165	195	6	18	20	156	37	89	115	3/8"
55 60	70	160	114	165	195	225	6	18	20	165	37	97	122	3/8"
65 70	80	170	127	180	210	240	6	18	20	177	38	97	123	3/8"
75 80	95	180	126	180	215	245	8	18	20	177	39	99	126	1/2"
85 90 95	115	249	167	200	235	265	8	18	25	192	43	116	144	1/2"
100 105	125	270	173	210	260	290	8	18	30	200	50	119	147	1/2"
110 115	140	310	186	240	285	320	8	22	28	209	50	123	154	1/2"
120 125	150	315	210	250	285	320	8	22	28	210	50	121	153	1/2"
130 135	160	340	210	260	305	340	8	22	35	242	56	150	182	1/2"
140 145	170	345	229	285	330	365	12	22	35	247	56	153	185	1/2"
145 150	180	370	254	300	340	380	12	22	35	247	56	153	187	1/2"
155 160	190	370	267	310	350	390	12	22	35	247	56	153	187	1/2"
165 170	200	380	280	320	360	400	12	22	35	257	56	153	187	1/2"
175 180	210	390	290	330	370	410	12	22	35	266	56	161	195	1/2"
185 190	220	400	300	340	380	420	12	22	35	261	56	156	190	1/2"
195 200	230	410	310	350	390	430	12	22	35	261	56	156	190	1/2"
210 220	250	420	311	360	400	440	12	22	35	261	56	156	190	1/2"

Measurements are expressed in millimetres. For measurements differing from those listed or measurements in inches, please contact our Technical Sales Department at info@fluiten.it

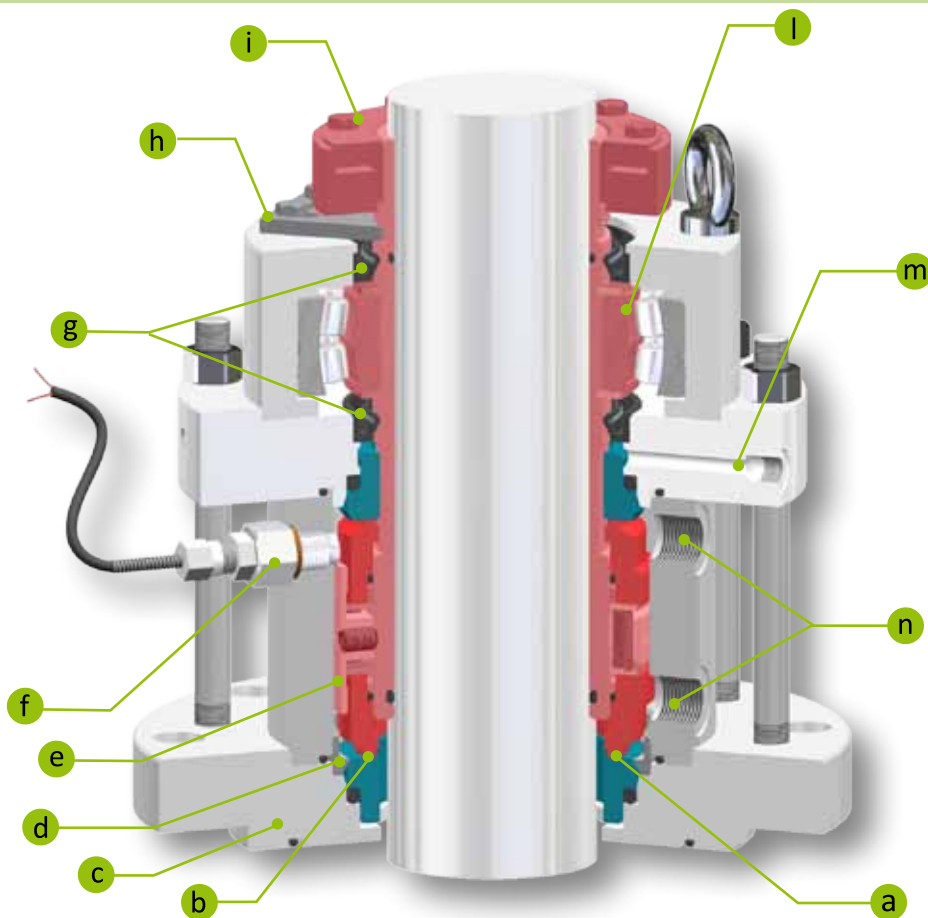
GT 1923 A

A preassembled, back-to-back double cartridge seal with an integrated, self aligning roller bearing. Suitable for operation with a pressurised fluid. A double balanced seal suitable for high working pressure and the ability to operate under reverse pressure if there is a loss of barrier fluid pressure. Designed using API 682 construction guidelines.

Characteristics

- a) Double balanced design able to tolerate unexpected reverse pressure.
- b) High performance solid seal rings developed with FEA Analysis to avoid deformation.
- c) Optional: sanitary gland to avoid product contamination and cooling jacket for high temperature applications.
- d) Retained stationary ring to prevent blow out during reverse pressure.
- e) Robust drive lugs that can tolerate run-out and vibration.
- f) Optional thermocouple for ATEX applications.
- g) Bearing protection ring to contain lubrication.
- h) Positioning device for easy, precise installation.
- i) Shrink disk drive to guarantee and maintain correct seal axial position under high process pressure conditions.
- l) Self aligning roller bearing to ensure minimum seal run-out.
- m) Atmosphere leakage monitoring connection.
- n) Flushing connections designed to ensure air is always vented.

***NOTE:** barrier fluid pressure must always be higher than the process pressure with ΔP as per operating limits.

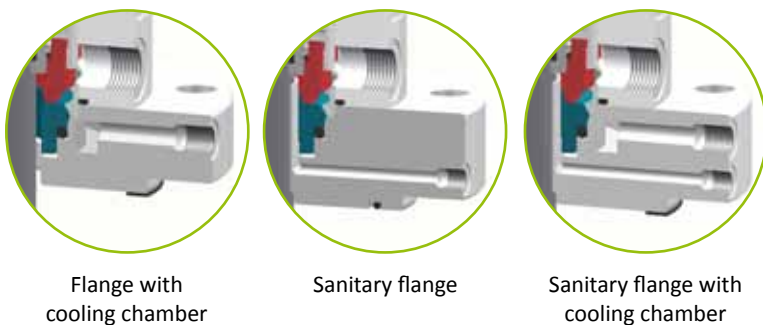


Operating limits

DIAMETER (mm)	FROM 50 TO 250
SPEED (m/s)	≤ 20
TEMPERATURE (°C)	FROM -50 TO 250
ΔP= minimum 1 - 2 bar	See NOTE*
PROCESS PRESSURE (bar)	VACUUM TO 75

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure x velocity value (PV) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.

OPTIONAL FLANGES (see pg. 41)



FOOD
INDUSTRY



CHEMICAL
INDUSTRY



PHARMACEUTICAL
INDUSTRY



WET
LUBRICATED

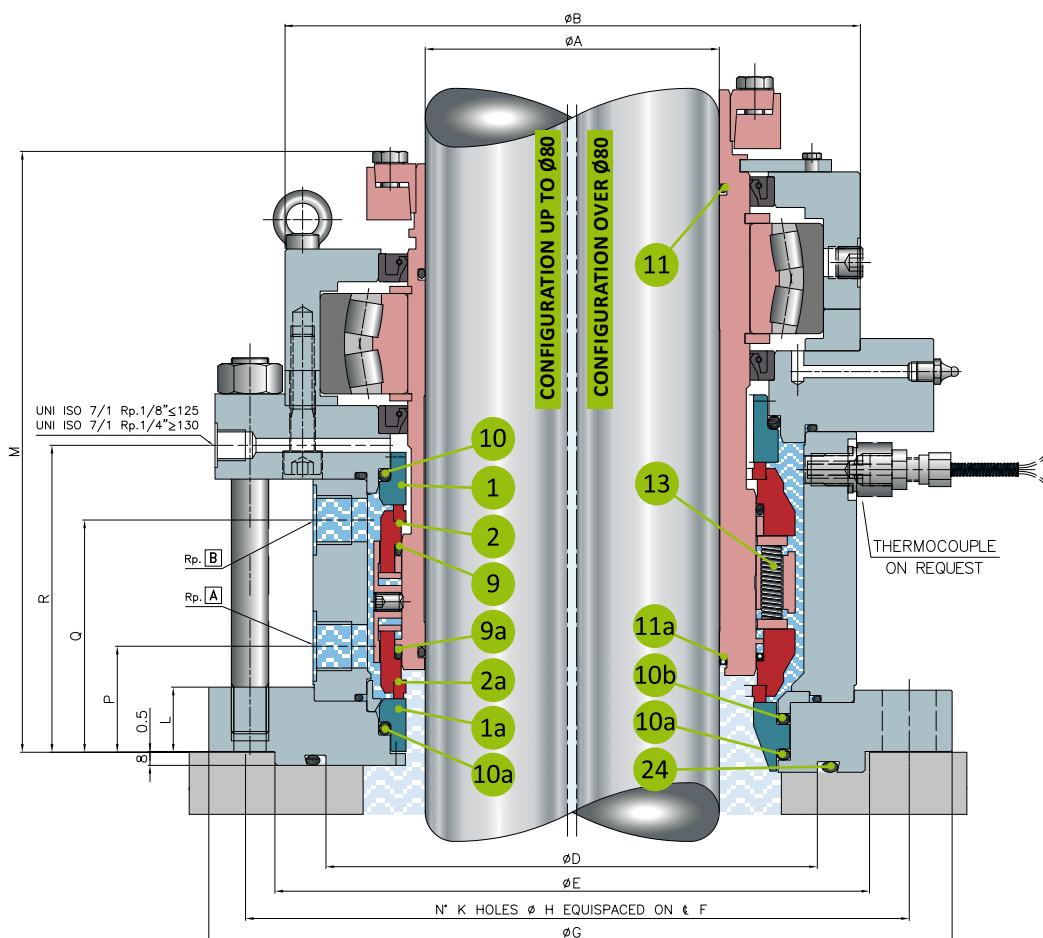


BI-DIRECTIONAL



TOP
ENTRY

Images and dimensions may differ slightly from the standard configuration or refer to different markets. The product may be subjected to technical or commercial modifications without notification.


COMPONENT KEY
(standard materials)

- 1** Silicon carbide stationary ring (U31)
- 1a** Silicon carbide stationary ring (U31)
- 2** Rotating ring in AISI 316 + graphite (Z32) or solid graphite (Z11)
- 2a** Rotating ring in AISI 316 + graphite (Z32) or solid graphite (Z11)
- 9** Rotating seal gasket in FKM (V) or EPDM (D)
- 9a** Rotating ring gasket in FKM (V), EPDM (D) or FFKM (G720)
- 10** Stationary ring gasket in FKM (V) or EPDM (D)
- 10a** Stationary ring gasket in FKM (V), EPDM (D) or PTFE (T)
- 10b** Stationary ring gasket in FKM (V) or EPDM (D)
- 11** Atmosphere side sleeve gasket in FKM (V) or EPDM (D)
- 11a** Product side sleeve gasket in FKM (V), EPDM (D) or Fluigam: energized PTFE (T3)
- 13** Springs and other metal parts in AISI 316 (E)
- 24** Flange gasket in PTFE (T)

Rp. A - Rp. B: auxiliary fluid input/output



II 1 GD c X

Model GT 1923 is available in version GT 1933, ATEX certified for Zone 0 Cat. 1 (see pg. 8). Requests for this particular configuration should be referred to the Technical Sales Department during the offer negotiation phase.

A h6	SEAL Ø	B	C	D	E e8	F	G	K HOLES	H Ø	L	M	P	Q	R	Rp.A-B UNI ISO 7/1
35 40	50	168	119	70	110	145	175	4	18	22	191	36	80	108	3/8"
45 50	60	183	136	136	176	210	240	8	18	25	207	40	89	118	3/8"
55 60	70	199	151	136	176	210	240	8	18	25	224	40	97	124	3/8"
65 70	80	210	166	136	176	210	240	8	18	25	236	42	97	124	3/8"
75 80	95	268	200	165	204	240	275	8	22	25	255	43	97	129	1/2"
85 90 95	115	260	200	165	204	240	275	8	22	25	276	43	116	148	1/2"
100 105	125	270	210	184	234	270	305	8	22	28	285	50	119	148	1/2"
110 115	140	320	247	210	260	295	330	8	22	28	297	50	123	155	1/2"
120 125	150	325	254	210	260	295	330	8	22	28	304	50	121	153	1/2"
130	160	350	269	267	313	350	395	8	22	35	341	56	150	186	1/2"
135 140	170	360	284	267	313	350	395	12	22	35	347	56	153	188	1/2"
145 150	180	380	304	267	313	350	395	12	22	35	357	56	153	189	1/2"
155 160	190	370	294	267	313	350	395	12	22	35	345	56	153	189	1/2"
165 170	200	380	304	267	313	350	395	12	22	35	353	56	153	190	1/2"
175 180	210	400	324	292	364	400	445	12	22	35	370	57	162	198	1/2"
185 190 195 200	230	435	344	292	364	400	445	12	22	35	368	56	156	193	1/2"

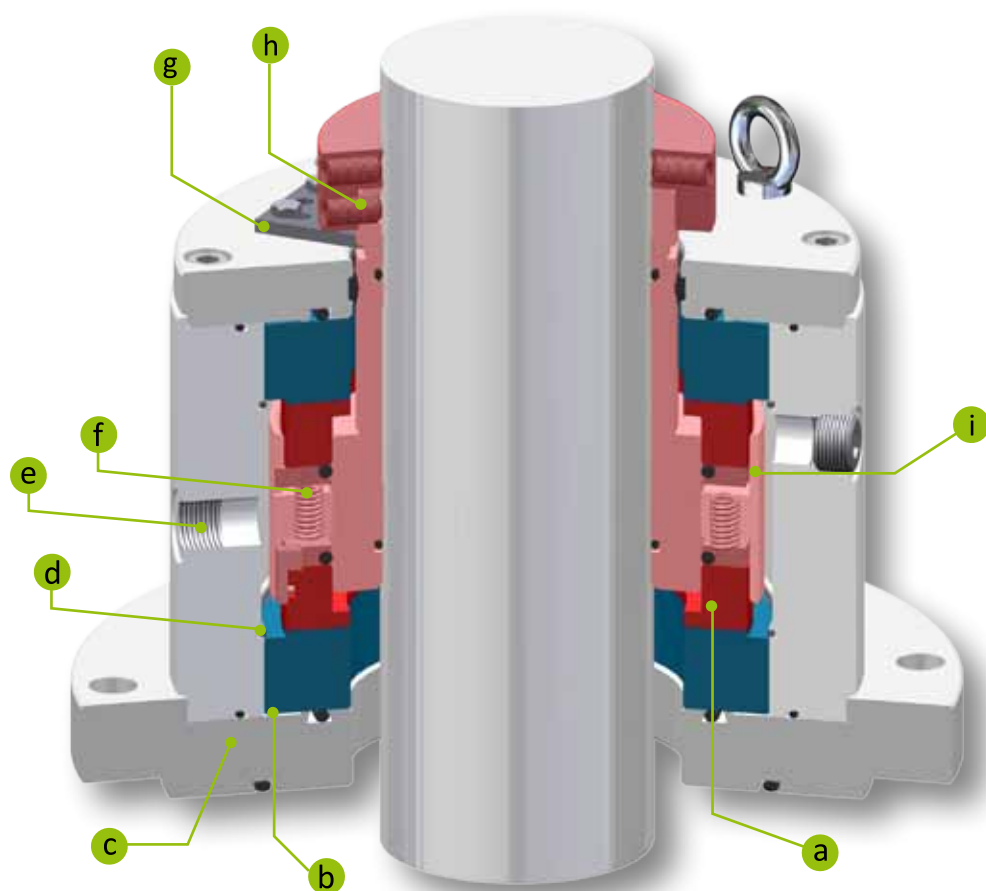
Measurements are expressed in millimetres. For measurements differing from those listed or measurements in inches, please contact our Technical Sales Department at info@fluiten.it

GT 1911 A

Latest generation gas lubricated double seal developed to safeguard the environment and eliminate process contamination. The seal is designed with "Fluilift" non contacting face technology (see pg. 10), and is pressurized with an inert gas that lubricates the faces and provides a gas barrier between process and atmosphere.

The seal incorporates laser etched grooves that maintain a controlled gap between the faces, even at low rotating speeds, eliminating friction, heat generation and process contamination. Power consumption is also reduced.

Designed using API 682 construction guidelines.



Characteristics

a) Seal rings designed using FEA to ensure correct flatness in all operating conditions.

b) Flange designed to guarantee correct stationary ring alignment.

c) Optional: sanitary gland to avoid product contamination and cooling jacket for high temperature applications.

d) Retained stationary ring to prevent blow out during reverse pressure.

e) Connection for gas flushing.

f) Multiple springs for uniform face loading.

g) Positioning device for easy, precise installation.

h) Self-aligning drive collar.

i) Three robust drive lugs that can tolerate run-out and vibration.

***NOTE:** barrier fluid pressure must always be higher than the process pressure with ΔP as per operating limits.

Operating limits for non-contacting gas operation

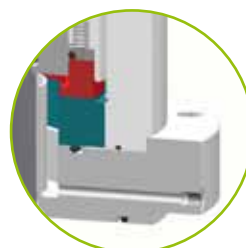
DIAMETER (mm)	FROM 35 TO 200
SPEED (m/s)	≤ 10
TEMPERATURE (°C)	FROM -20 TO 200
ΔP = minimum 2 - 2.5 bar See NOTE*	
PROCESS PRESSURE (bar)	VACUUM TO 10

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure x velocity value (PV) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.

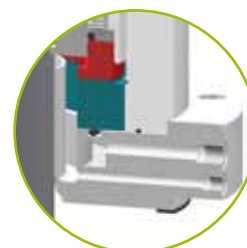
OPTIONAL FLANGES (see pg. 41)



Flange with cooling chamber



Sanitary flange



Sanitary flange with cooling chamber



FOOD
INDUSTRY



CHEMICAL
INDUSTRY



PHARMACEUTICAL
INDUSTRY



GAS
NON-CONTACTING



DRY CONTACTING
UPON REQUEST

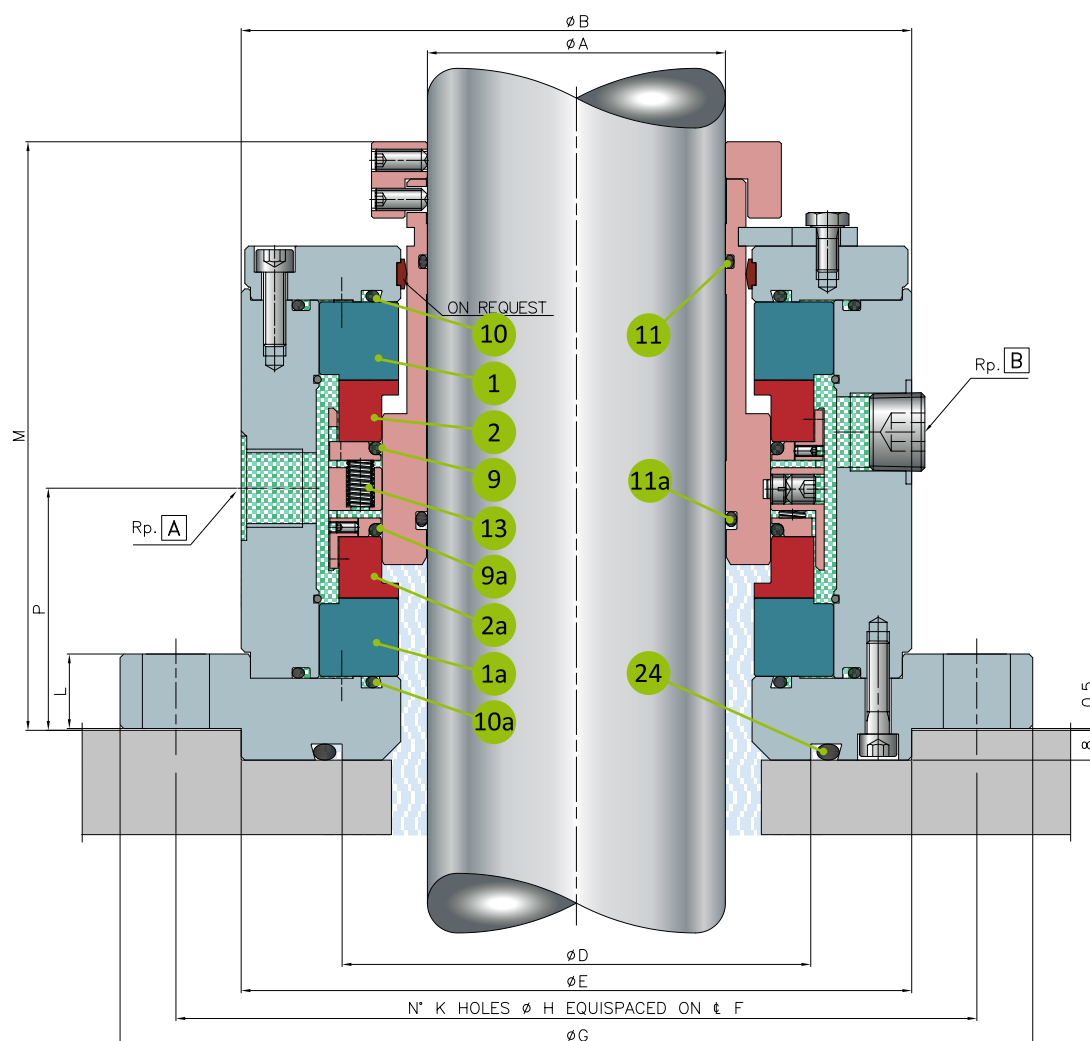


BI-DIRECTIONAL



TOP
ENTRY

Images and dimensions may differ slightly from the standard configuration or refer to different markets. The product may be subjected to technical or commercial modifications without notification.


COMPONENT KEY
(standard materials)

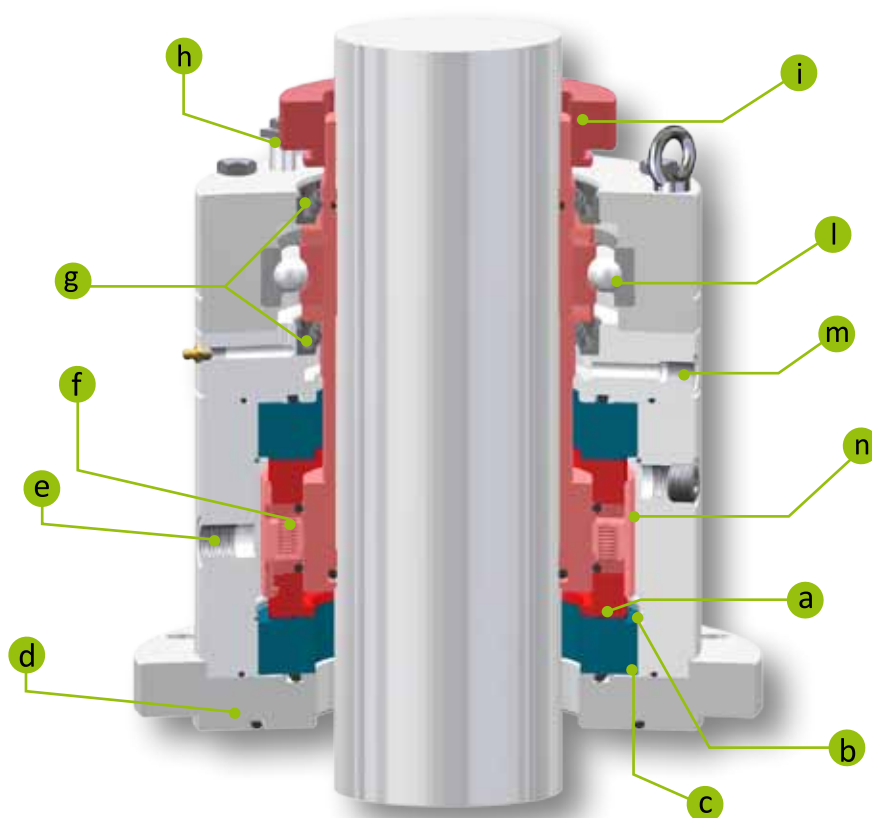
- 1** Stationary ring in graphite for dry running (ZD71) or FDA approved graphite for dry running (ZD51)
 - 1a** Stationary ring in graphite for dry running (ZD71) or FDA approved graphite for dry running (ZD51)
 - 2** Silicon carbide rotating ring (U31)
 - 2a** Silicon carbide rotating ring (U31)
 - 9** Rotating seal gasket in FKM (V) or EPDM (D)
 - 9a** Rotating seal gasket in FKM (V), EPDM (D) or FFKM (G720)
 - 10** Stationary ring gasket in FKM (V) or EPDM (D)
 - 10a** Stationary ring gasket in FKM (V), EPDM (D) or FFKM (G720)
 - 11** Atmosphere side sleeve gasket in FKM (V) or EPDM (D)
 - 11a** Product side sleeve gasket in FKM (V), EPDM (D), FFKM (G720) or Fluigam: energized PTFE (T3)
 - 13** Springs and other parts in AISI 316 (E)
 - 24** Flange gasket in PTFE (T)
- Rp. A - Rp. B:** connections for pressurization

A	SEAL	B	D	E	F	G	K	H	L	M	P	Q	Rp.A-B
h8	ø			e8			HOLES	ø					UNI ISO 7/1
35	55	140	76	120	145	170	6	13	20	158	64	80	1/2"
40													
45	65	150	89	130	155	180	6	13	20	158	64	80	1/2"
50													
55	75	160	98	150	180	210	6	18	20	158	64	80	1/2"
60													
65	85	170	111	165	195	225	6	18	20	158	64	80	1/2"
70													
75	95	180	126	180	210	240	6	18	20	158	64	80	1/2"
80													
85	110	243	130	180	215	245	8	18	30	237	96	127	1/2"
90													
95													
100	120	253	165	220	255	285	8	18	30	237	96	127	1/2"
105													
110	135	268	175	230	265	295	8	18	30	237	96	127	1/2"
115													
120	145	278	191	240	275	305	8	18	30	237	96	127	1/2"
125													
130	155	288	201	250	285	315	8	18	30	237	96	127	1/2"
135													
140	165	298	211	260	295	325	8	18	30	237	96	127	1/2"
145													
150	175	308	218	270	305	335	10	18	30	237	96	127	1/2"
155													
160	185	318	234	280	315	345	10	18	30	240	96	127	1/2"
165													
170	195	328	239	290	325	355	10	18	30	240	96	127	1/2"
175													
180	205	338	249	300	335	365	10	18	30	240	96	127	1/2"
185													
190	215	348	255	310	345	375	10	18	30	240	96	127	1/2"
195													
200	225	358	261	320	355	385	12	18	30	240	96	127	1/2"

Measurements are expressed in millimetres. For measurements differing from those listed or measurements in inches, please contact our Technical Sales Department at info@fluiten.it

GT 1910 A

Latest generation gas lubricated double seal developed to safeguard the environment and eliminate process contamination. The seal is designed with "Fluilift" non contacting face technology (see pg. 10), and is pressurized with an inert gas that lubricates the faces and provides a gas barrier between process and atmosphere. The seal incorporates laser etched grooves that maintain a controlled gap between the faces, even at low rotating speeds, eliminating friction, heat generation and process contamination. Power consumption is also reduced. Equipped with ball or roller bearing to minimise seal run-out. Designed using API 682 construction guidelines.



Characteristics

- a) Seal rings designed using FEA to ensure correct flatness in all operating conditions.
- b) Retained stationary ring to prevent blow out during reverse pressure.
- c) Flange designed to guarantee correct stationary ring alignment.
- d) Optional: sanitary gland to avoid product contamination and cooling jacket for high temperature applications.
- e) Connection for gas flushing.
- f) Multiple springs for uniform face loading.
- g) Bearing protection ring to contain lubrication.
- h) Positioning device for easy, precise installation.
- i) Self-aligning drive collar.
- l) Ball or roller bearing to ensure minimum seal run-out.
- m) Atmosphere leakage monitoring connection.
- n) Three robust drive lugs that can tolerate run-out and vibration.

***NOTE:** barrier fluid pressure must always be higher than the process pressure with ΔP as per operating limits.

Operating limits for non-contacting gas operation

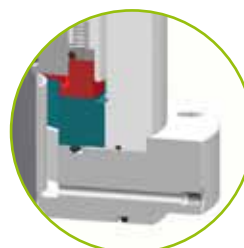
DIAMETER (mm)	FROM 35 TO 200
SPEED (m/s)	≤ 10
TEMPERATURE (°C)	FROM -20 TO 200
ΔP= minimum 2 - 2.5 bar	<i>See NOTE*</i>
PROCESS PRESSURE (bar)	VACUUM TO 10

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure x velocity value (PV) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.

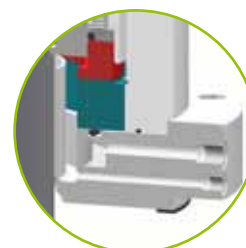
OPTIONAL FLANGES (see pg. 41)



Flange with cooling chamber



Sanitary flange



Sanitary flange with cooling chamber



FOOD
INDUSTRY



CHEMICAL
INDUSTRY



PHARMACEUTICAL
INDUSTRY



GAS
NON-CONTACTING



DRY CONTACTING
UPON REQUEST

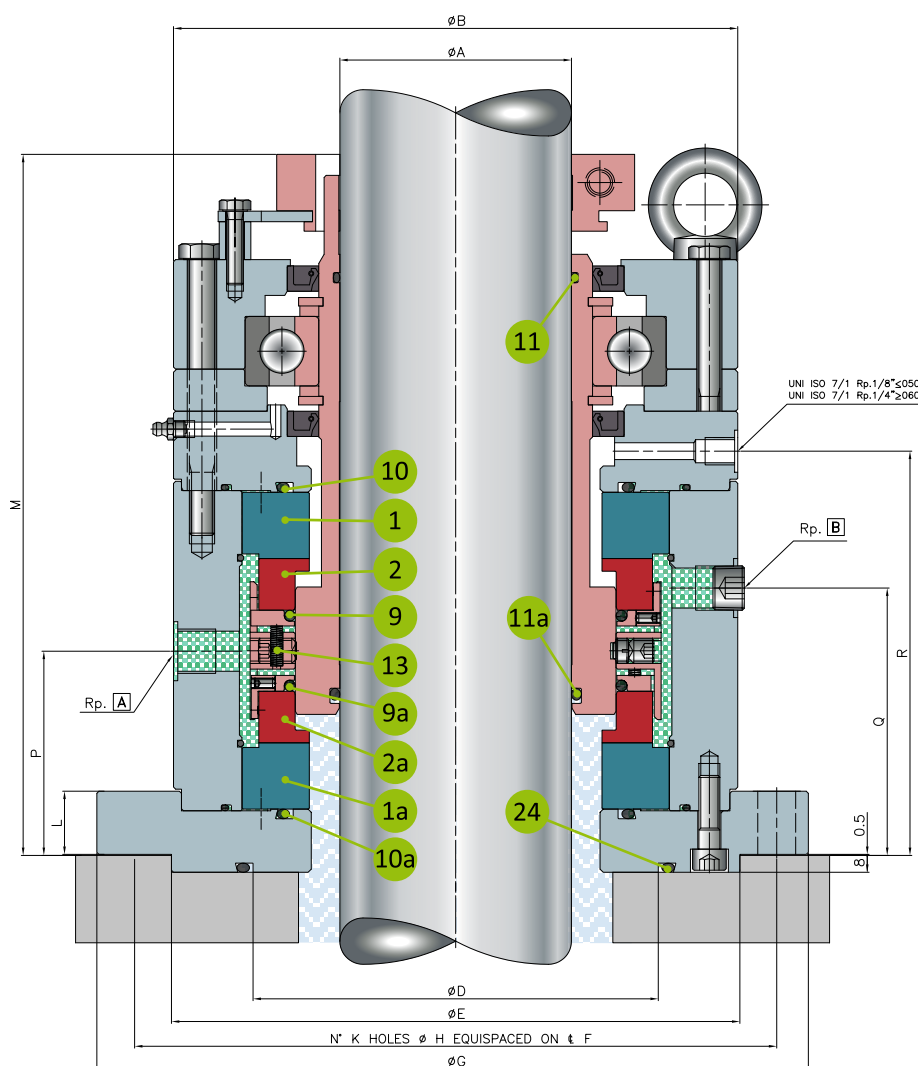


BI-DIRECTIONAL



TOP
ENTRY

Images and dimensions may differ slightly from the standard configuration or refer to different markets. The product may be subjected to technical or commercial modifications without notification.



COMPONENT KEY (standard materials)

1 Stationary ring in graphite for dry running (ZD71) or FDA approved graphite for dry running (ZD51)

1a Stationary ring in graphite for dry running (ZD71) or FDA approved graphite for dry running (ZD51)

2 Silicon carbide rotating ring (U31)

2a Silicon carbide rotating ring (U31)

9 Rotating seal gasket in FKM (V) or EPDM (D)

9a Rotating seal gasket in FKM (V), EPDM (D) or FFKM (G720)

10 Stationary ring gasket in FKM (V) or EPDM (D)

10a Stationary ring gasket in FKM (V), EPDM (D) or FFKM (G720)

11 Atmosphere side sleeve gasket in FKM (V) or EPDM (D)

11a Product side sleeve gasket in FKM (V), EPDM (D), FFKM (G720) or Fluigam: energized PTFE (T3)

13 Springs and other parts in AISI 316 (E)

24 Flange gasket in PTFE (T)

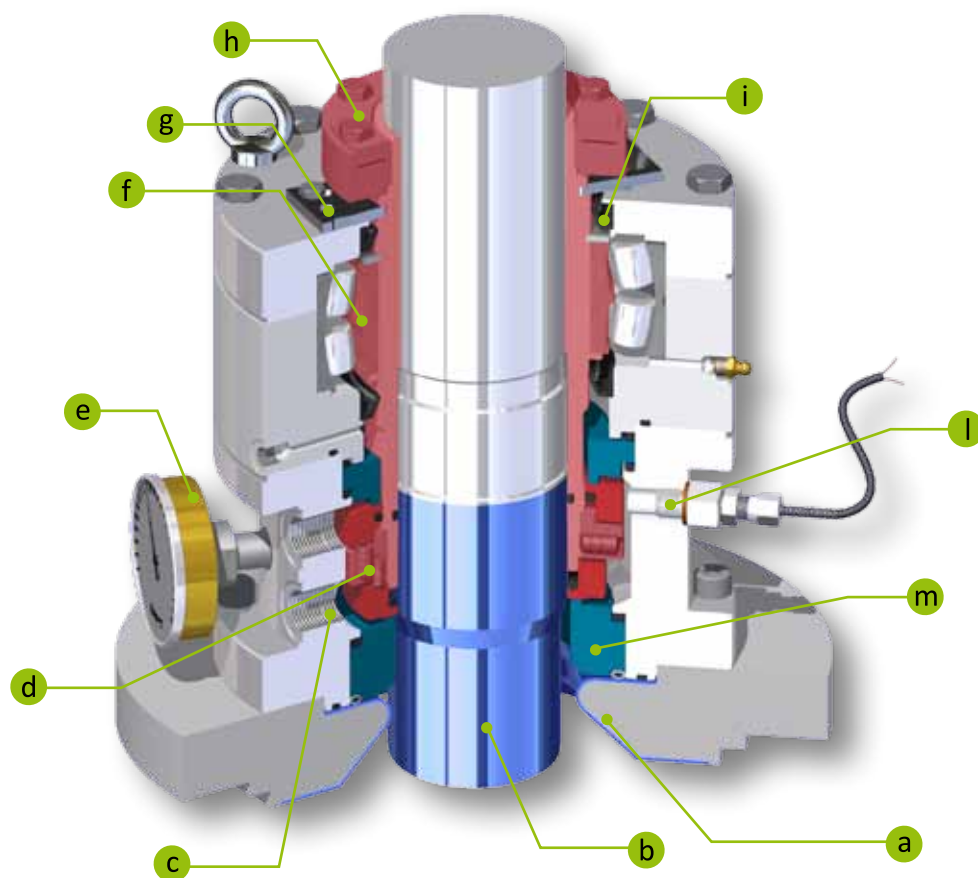
Rp. A - Rp. B: connections for pressurization

A h8	SEAL Ø	B	D	E e8	F	G	K HOLES	H Ø	L	M	P	Q	R	Rp.A-B UNI ISO 7/1
35 40	55	140	76	120	145	170	6	13	20	222	65	80	129	1/2"
45 50	65	150	89	130	155	180	6	13	20	228	65	80	129	1/2"
55 60	75	168	98	150	180	210	6	18	20	239	65	80	132	1/2"
65 70	85	178	111	165	195	225	6	18	20	249	65	80	132	1/2"
75 80	100	208	126	180	210	240	6	18	20	266	65	80	136	1/2"
85 90	110	243	130	180	215	245	8	18	30	335	97	127	192	1/2"
95 100 105	135	268	165	220	255	285	8	18	30	346	97	127	192	1/2"
110 115	135	268	175	230	265	295	8	18	30	346	97	127	192	1/2"
120 125	145	278	191	240	275	305	8	18	30	353	97	127	192	1/2"
130 135	155	288	201	250	285	315	8	18	30	356	97	127	192	1/2"
140 145	165	298	211	260	295	325	8	18	30	363	97	127	192	1/2"
150 155 160	175	308	218	270	305	335	10	18	30	370	97	127	192	1/2"
165 170	185	318	234	280	315	345	10	18	30	355	97	127	192	1/2"
175 180	195	328	239	290	325	355	10	18	30	355	97	127	192	1/2"
185 190	205	338	249	300	335	365	10	18	30	367	97	127	192	1/2"
195 200	225	358	255	310	345	375	10	18	30	369	97	127	192	1/2"
	245	378	261	320	355	385	12	18	30	369	97	127	192	1/2"

Measurements are expressed in millimetres. For measurements differing from those listed or measurements in inches, please contact our Technical Sales Department at info@fluiten.it

GT 1165 A

Latest generation cartridge solution for enamelled (glass lined) mixers, used for highly aggressive processes and where easy cleaning is required for surfaces in contact with the process. A double back-to-back seal with chemically inert wetted parts, the seal can be supplied with either a ball or roller bearing. The seal is designed to be pressurised with a compatible barrier fluid which prevents harmful emissions to the atmosphere and is balanced to operate under reverse pressure for short periods. Dry running configurations of this seal are also available.



Characteristics

- a) Flange with enamelled wetted surfaces to prevent corrosion.
- b) Enamel coated shaft to prevent corrosion.
- c) Liquid or gas flushing connections designed to facilitate venting.
- d) Multiple springs for uniform face loading.
- e) Thermometer.
- f) Ball or roller bearing, to ensure minimum seal run-out.
- g) Positioning device for easy, precise installation.
- h) Shrink disk to ensure reliable seal drive.
- i) Bearing protection ring to contain lubrication.
- l) Optional thermocouple for ATEX applications.
- m) Solid graphite stationary seal ring, retained to prevent blow out during reverse pressure.

***NOTE:** barrier fluid pressure must always be higher than the process pressure with ΔP as per operating limits.

Operating limits

DIAMETER (mm)	FROM 40 TO 160
SPEED (m/s)	≤ 8
TEMPERATURE (°C)	FROM -50 TO 250
ΔP= minimum 1 - 2 bar See NOTE*	
PROCESS PRESSURE (bar)	VACUUM TO 10

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure x velocity value (PV) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.



CHEMICAL
INDUSTRY



PHARMACEUTICAL
INDUSTRY



GAS NON-CONTACT-
ING UPON REQUEST



DRY CONTACTING
UPON REQUEST



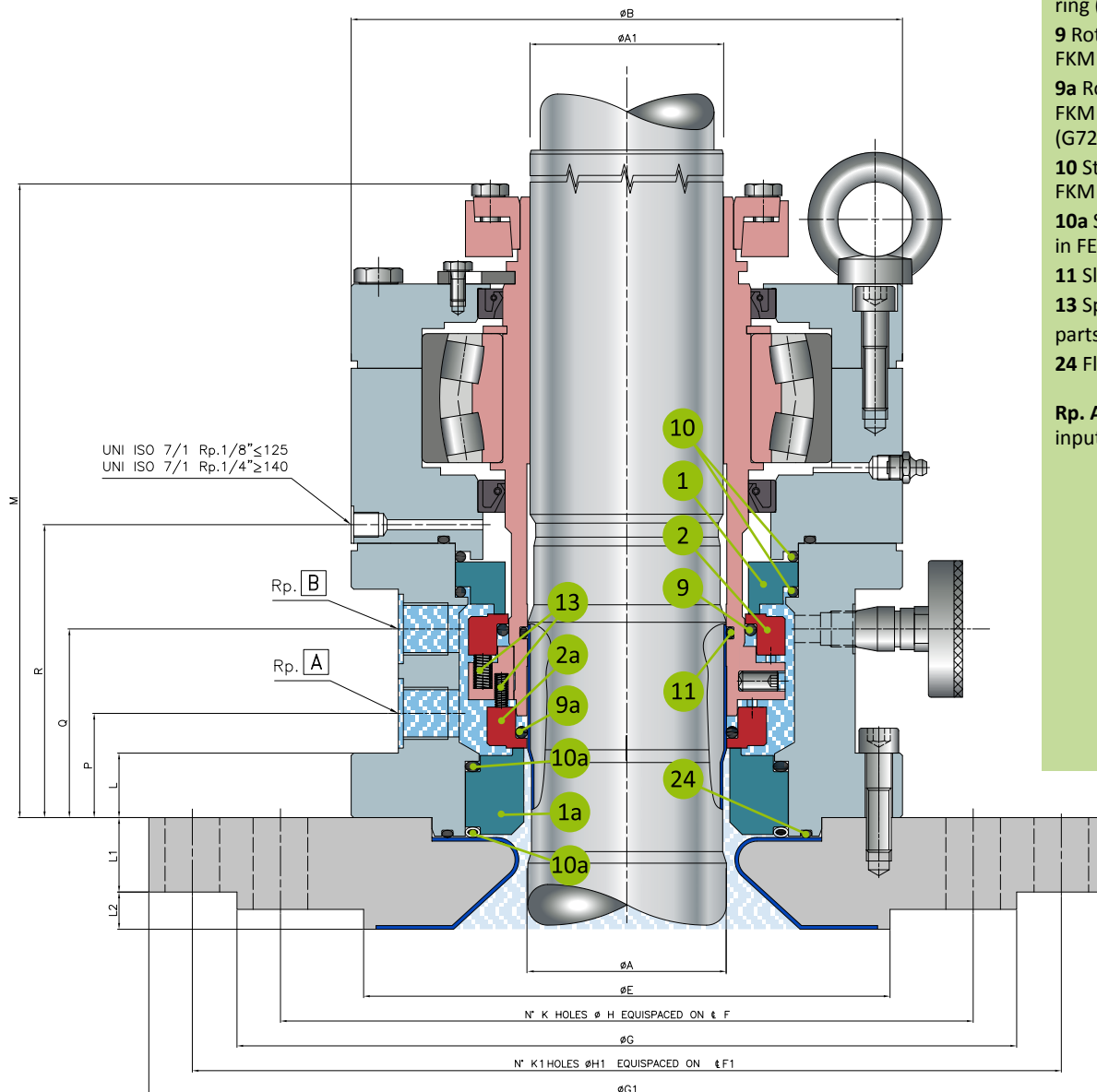
WET
LUBRICATED



BI-DIRECTIONAL



TOP
ENTRY


COMPONENT KEY
(standard materials)

- 1** Graphite stationary ring (Z31)
- 1a** Graphite stationary ring (Z31)
- 2** Silicon carbide rotating ring (U31)
- 2a** Silicon carbide rotating ring (U31)
- 9** Rotating seal gasket in FKM (V)
- 9a** Rotating seal gasket in FKM (V), EPDM (D) or FFKM (G720)
- 10** Stationary ring gasket in FKM (V)
- 10a** Stationary ring gasket in FEP (V2) or FKM (V)
- 11** Sleeve gasket in FKM (V)
- 13** Springs and other metal parts in Hastelloy (I)
- 24** Flange gasket in FKM (V)

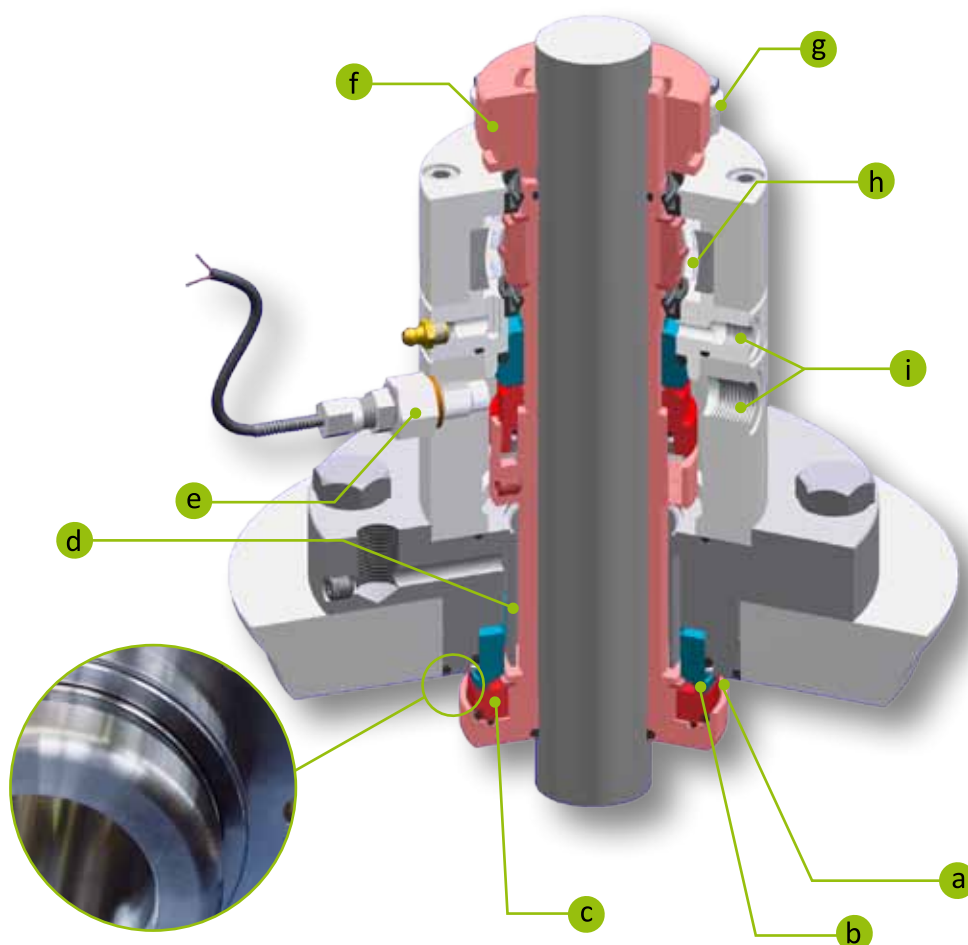
Rp. A - Rp. B: auxiliary fluid input/output

ØA	SEAL	ØA1	B	D	E	F	F1	G	G1	K	K1	H	H1	L	L1	L2	M	P	Q	R	Rp.A-B
h8	ø	h6	ø	H7/g6	ø			d9	ø	HOLES	HOLES	ø	ø		±0,1						UNI ISO 7/1
40	40	38	130	110	102	145		110	175	4		18		20	25	15	206	33	79	118,5	3/8"
50	50	48	155	116	138	210		176	240	8		18		25	25	15	214,5	40	77	119	3/8"
60	60	58	165	160	188	240		204	275	8		22		39	25	15	217,5	25	77	120	3/8"
80	80	78	222	157	212	270		234	305	8		22		26	30	15	285,3	42	76	118	1/2"
100	100	98	255	185	268	350		313	395	12		22		33	30	15	291,5	50	110,5	149,5	1/2"
125	125	120	265	210	320	350	460	422	505	12	4	22	22	41	28	20	321,5	25	132	178,5	1/2"
140	140	135	295	226	320	350	460	422	505	12	4	22	22	41	28	20	375	25	147	197	1/2"
160	160	150	315	250	320	350	460	422	505	12	4	22	22	41	28	20	363,3	25	147	198	1/2"

Measurements are expressed in millimetres. For measurements differing from those listed or measurements in inches, please contact our Technical Sales Department at info@fluiten.it

GTAW - GTAF - GTAD

Double cartridge seal with clean profile suitable for hygienic applications, slurries, high viscosity liquids and polymeric solutions. The cartridge includes an integrated roller bearing to minimise seal run-out for improved reliability. The seal can be supplied with custom designed flange and shaft sleeve and can be configured as wet running, dry contacting or lift off.



Characteristics

- a) Process side clean profile without bug traps and designed for cleaning and sterilization in accordance with CIP&SIP directives.
- b) Double balanced seal that can tolerate unexpected reverse pressure.
- c) High performance solid rotary seal ring.
- d) Flushing fluid circulation circuit with deflector for effective heat removal.
- e) Optional thermocouple for ATEX applications.
- f) Drive system that allows shaft expansion whilst maintaining the correct axial position of the seal.
- g) Positioning device for easy, precise installation.
- h) Ball or roller bearing to ensure minimum seal run-out.
- i) Flushing connections designed to ensure air is always vented.

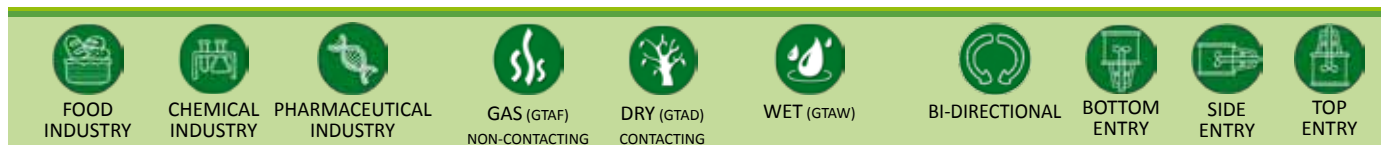
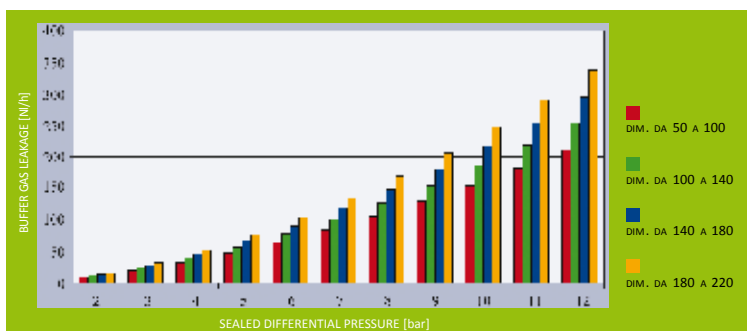


Model GTA is available ATEX certified for Zone 0 Cat. 1 (see pg. 8). Request for this particular configuration should be referred to the Technical Sales Department during the offer negotiation phase.

*NOTE: barrier fluid pressure must always be higher than the process pressure with ΔP as per operating limits.

	GTAF (non contacting)	GTAD (dry contacting)	GTAW (wet lubricated)
Temperature	-50 up to 200	-50 up to 150	-50 up to 250
Peripheral velocity (m/s)	10	3	10
ΔP See NOTE*	2 ÷ 2,5 minimum	2 ÷ 2,5	1 ÷ 2 minimum
Process Pressure (bar)	Vacuum - 10	Vacuum - 6	Vacuum - 25

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure x velocity value (PV) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.



Images and dimensions may differ slightly from the standard configuration or refer to different markets. The product may be subjected to technical or commercial modifications without notification.

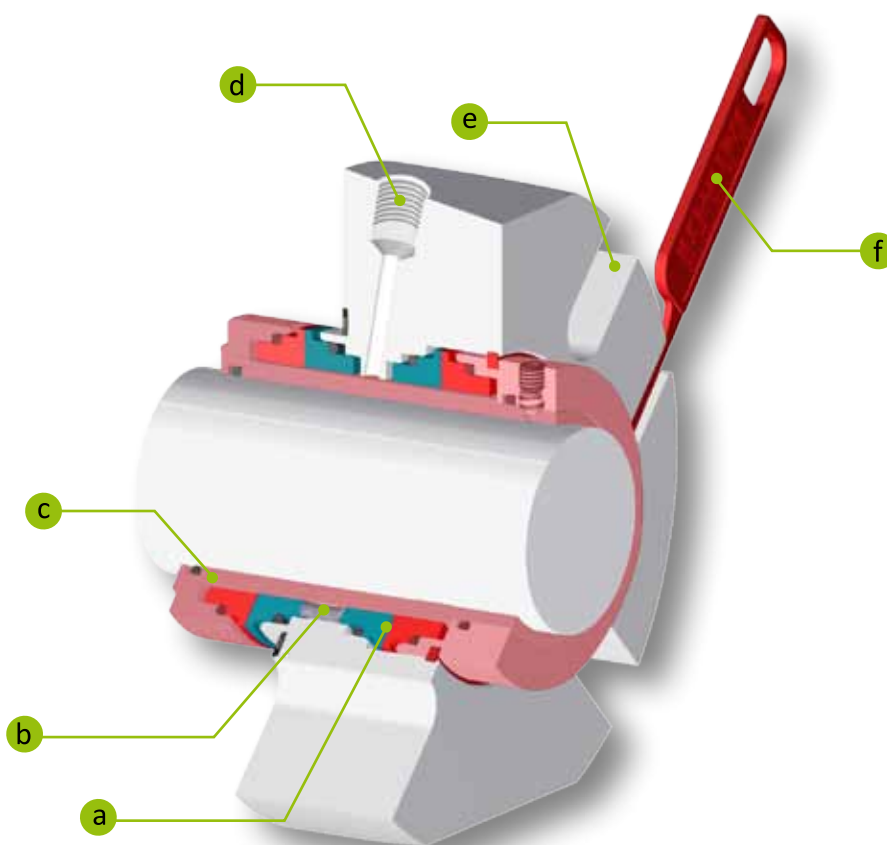
Characteristics

- a) Seal rings designed using FEA to ensure correct flatness in all operating conditions.
- b) Springs outside the product for high reliability even with viscous media. Clean profile enables seal to tolerate products that crystallise during manufacture.
- c) Increased sleeve thickness and space under the seal rings to prevent deformation and enable the seal to tolerate higher run-out levels.
- d) Connection for gas flushing.
- e) Slotted flange for greater versatility.
- f) Fluistrip: seal setting device easily pulled clear after seal is installed.

*NOTE: barrier fluid pressure must always be higher than the process pressure with ΔP as per operating limits.

CB4F

Gas lubricated double seal developed to safeguard the environment and eliminate process contamination. The seal is designed with "Fluilift" (see pg.10) non contacting face technology and is pressurised with an inert gas that lubricates the faces and provides a gas barrier between process and atmosphere. The seal incorporates laser etched grooves that maintain a controlled gap between the faces, even at low rotating speeds, eliminating friction, heat generation and process contamination. Power consumption is also reduced.



Operating limits

DIAMETER (mm)	FROM 20 TO 90
SPEED (m/s)	≤ 25
TEMPERATURE (°C)	FROM -20 TO 150
ΔP = minimum 2 - 2.5 bar See NOTE*	
PROCESS PRESSURE (bar)	VACUUM TO 25

For operating limits other than those specified, please consult our Technical Department. The pressure and speed values indicated are not absolute limits, but should be evaluated by calculating the pressure x velocity value (PV) and considering the temperature, chemical and physical characteristics of the fluid to be sealed.



FOOD
INDUSTRY



CHEMICAL
INDUSTRY



PHARMACEUTICAL
INDUSTRY



GAS
NON-CONTACTING



BI-DIRECTIONAL



BOTTOM
ENTRY



SIDE
ENTRY



TOP
ENTRY

Every mechanical seal can be equipped with optional flanges for specific applications.

A cooled flange is available for higher temperature applications, identified with the letter C in the seal code.

A sanitary flange is available for hygienic applications to prevent particles or leakage from entering the process and potentially contaminating the product. This flange is identified with letter D in the seal code.

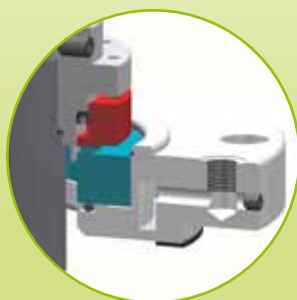
A cooled sanitary flange has both features and is suitable for applications having both high temperature and hygienic requirements. This flange is identified with the letter E in the seal code. The standard flange is identified with the letter A in the seal code.

GT 2888/GT 2887

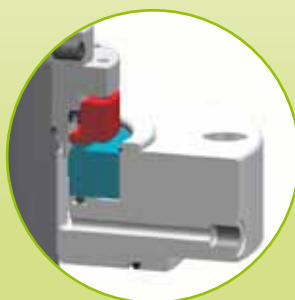
Alternative flanges for single mechanical seal suitable for dry running.

The cooling chamber flange is recommended for temperatures exceeding 80°C.

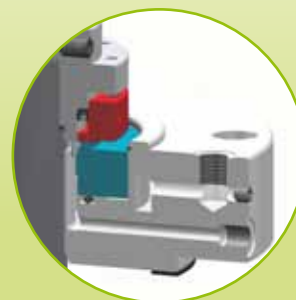
Flange with
cooling chamber (C)



Sanitary flange (D)



Sanitary flange
with cooling
chamber (E)



GT 1855

Alternative flange for single mechanical seal suitable for dry running.

Sanitary flange (D)

