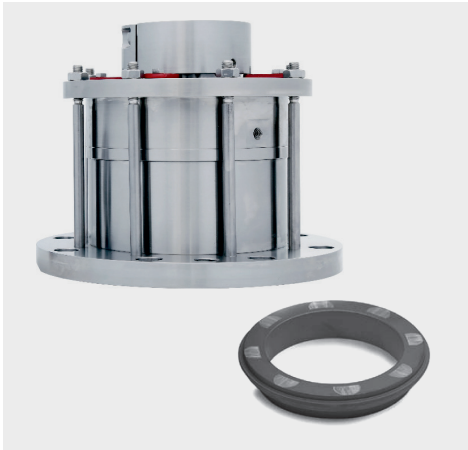


HTBA Dual Seals Agitator Seals - Gas Lubricated



Product Description

1. Dual seal configuration
2. Balanced design
3. Independent of direction of rotation
4. Cartridge construction
5. Gas-lubricated design
6. Designed for top entry vessels

Technical Features

1. Seal faces are designed to be non-contacting during operation
2. Designed for environmental protection with high efficiency
3. Due to non-contacting design there is no friction on the seal faces and there is no heat generated at the seal or in the medium
4. Trouble free operations as complex components are not required to dissipate frictional heat
5. To accommodate large axial movement torque transmission is through clamping ring
6. Rotating seat is designed and arranged in the center

Typical Industrial Applications

Agitators
 Chemical industry
 Environmental harmful media with double seals
 Food and beverage industry
 Gases and liquids
 Media which require high purity
 Pharmaceutical industry

Performance Capabilities

Shaft diameter: $d_3 = 40 \dots 220 \text{ mm}$ (1.6" ... 8.7")
 Pressure $p_1 = \text{vacuum} \dots 6 \text{ bar}$ (87 PSI),
 $\Delta p = \text{min. } 3 \text{ bar}$ (44 PSI), $p_3 = 9 \text{ bar}$ (131 PSI)
 Temperature: $t_1 = -20^\circ\text{C} \dots +150^\circ\text{C}$ (-4°F ... +302°F),
 with cooling flange 250°C (482 °F)
 Speed = $0 \dots 10 \text{ m/s}$ (0 ... 33 ft/s)

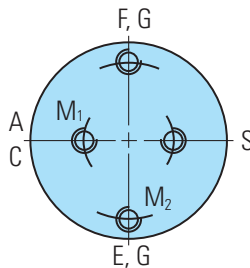
Standards

DIN 28136 T2 (for steel vessels)
 DIN 28141 (flange connection for steel)
 DIN 28154 (shaft end for steel vessel)
 DIN 28136 T3 (for glass-lined vessels)
 DIN 28137 T2 (flange connection for glass-lined vessels)

Notes

Options:
 Cooling or heating flange
 Flush
 Polymerization barrier

Installation, Details, Options



Supply connections

Designation and positions of supply connections, pull-off and jacket threads acc. to DIN 28138 T3.

A	Barrier gas IN
C	Leakage
E	Cooling IN
F	Cooling OUT
S	Flush
G	Grease

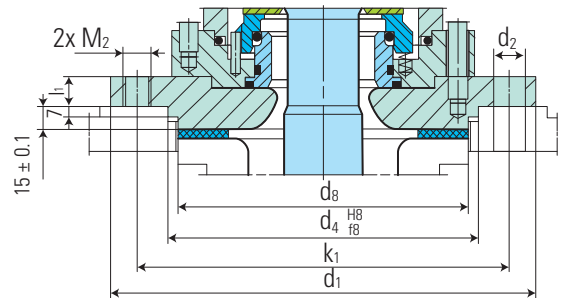
Item	Description
1	Seal face(Diamond Coated), atmosphere side
2	Seal face (Q1), product side
6,7	O-ring
11	Seat (Q1)
17	Flange
22	Clamping ring

Design Variations

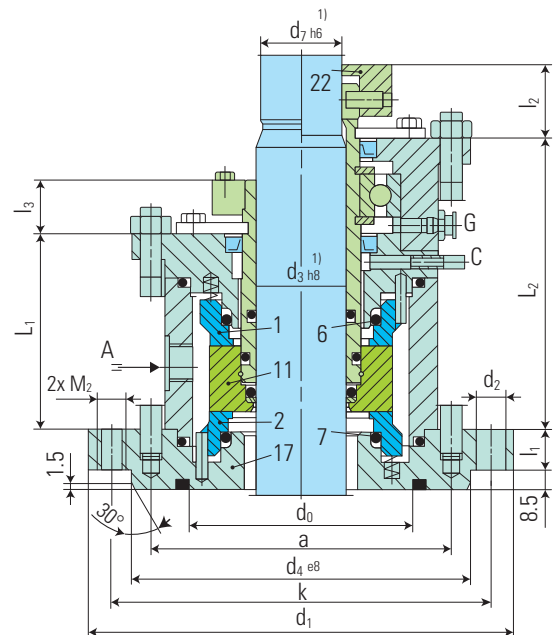
GSAZ184K(L)-D

Double seal (with integrated bearing) for steel vessels to DIN 28136, connection flange to DIN 28141 and shaft ends to DIN 28154.

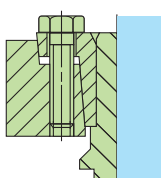
Flange connection acc. to DIN 28137 T2 for nominal diameters 40 ... 100.



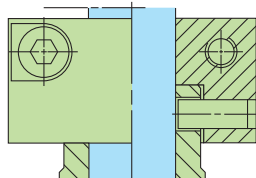
Note: The item numbers as depicted above are based on our technical experience and knowledge and are placed in the chronological order of their assembly procedure.



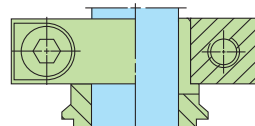
Torque Transmissions



Shrink disk



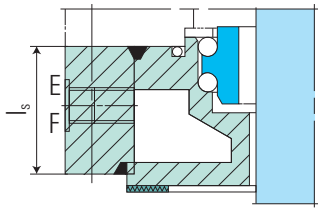
Clamping ring with pin



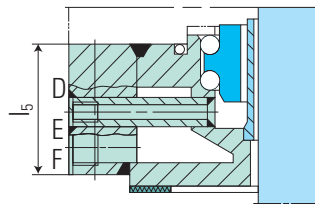
Clamping ring



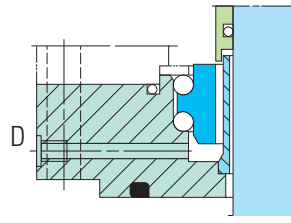
Installation, Details, Options



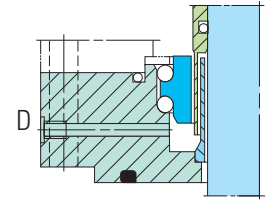
Option
Cooling flange, can be used alternatively as a heating flange (tmax. = 350°C (662 °F)).



Option
Leakage drain, can be used alternatively as a flush or as a heating flange.

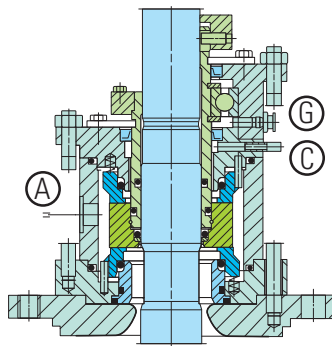


Option
Leakage drain, can be used alternatively as a flush



Option
Polymerization barrier, can be used alternatively as a leakage drain or a flush.

Design Variations



GSAZ164K(L)-D

Double seal (with integrated bearing) for glass-lined vessels to DIN 28136, connection flange to DIN 28137 and shaft ends to DIN 28159.

Flange connection acc. to DIN 28137 T2 for nominal diameters 125 ... 161.

Dimensional Data

GSAZ184 - Dimensions in millimeter

d3 ¹⁾	d7 ¹⁾	d1	nx d2	d4	d0	k	L1	L2	Lw ¹⁾	l1	l2	l3	a	M1	M2	A, B
40	38	175	4x18	110	90	145	81	137	143	15	35	28	122	M12	M16	G3/8
50	48	240	8x18	176	135	210	82.5	130.5	148	17	42	28	155	M12	M16	G3/8
60	58	240	8x18	176	135	210	78.5	128	158	18	39	28	176	M12	M16	G3/8
80	78	275	8x22	204	155	240	94.5	146	168	20	50	34	203	M16	M20	G1/2
100	98	305	8x22	234	190	270	95	156.5	178	20	56.5	34	228	M16	M20	G1/2
125	120	330	8x22	260	215	295	95	163.5	203	20	60	39	268	M20	M20	G1/2
140	135	395	12x22	313	250	350	97	168.5	208	20	82	41	285	M20	M20	G1/2
160	150	395	12x22	313	265	350	97	176.5	213	25	81	41	302	M20	M20	G1/2
180	170	445	12x22	364	310	400	-	-	233	25	-	-	332	M24	M20	G1/2
200	190	445	12x22	364	310	400	-	-	243	25	-	-	352	M24	M20	G1/2
220	210	505	16x22	422	340	460	-	-	263	25	-	-	-	M24	M20	G1/2

1) Shaft diameters d3 and d7, to DIN 28154

GSAZ164 - Dimensions in millimeter

d3 ¹⁾	d7 ¹⁾	Nominal size	Flange size ²⁾	d1	nx d2	d4	nx d5	d6	d7	k1	k2	l1	l2	l1	l2	l3	l4	l5	M1	M2	A
40	38	40	E125	175	4x18	110	-	-	102	145	-	142	184	25	35	28	50	50	M12	M16	G3/8
50	48	50	E200	240	8x18	176	-	-	138	210	-	147	195	25	40	28	50	50	M12	M16	G3/8
60	58	60	E250	275	8x22	204	-	-	188	240	-	158	203	25	42	28	50	60	M12	M20	G3/8
80	78	80	E300	305	8x22	234	-	-	212	270	-	170	240	30	45	34	60	60	M16	M20	G1/2
100	98	100	E400	395	12x22	313	-	-	268	350	-	177	240	30	52	34	60	60	M16	M20	G1/2
100	98	100	E500	395	12x22	313	-	-	268	350	-	177	240	30	52	34	60	60	M16	M20	G1/2
125	120	125	E700	505	4x22	422	12x22	320	306	460	350	208	266	30	75	40	60	80	M20	M20	G1/2
140	135	140	E700	505	4x22	422	12x22	320	306	460	350	223	282	30	79	40	60	80	M20	M20	G1/2
160	150	160	E700	505	4x22	422	12x22	320	306	460	350	228	282	30	77	40	60	85	M20	M20	G1/2
160	150	160	E900	505	4x22	422	12x22	320	306	460	350	228	282	30	77	40	60	85	M20	M20	G1/2
160	150	161	E901	565	4x26	474	12x22	370	356	515	400	228	282	30	77	40	60	85	M20	M20	G1/2

1) Shaft diameters d3 and d7 to DIN 28159

2) Flange size to DIN 28137T2

Note: Additional technical & dimensional information will be provided on request