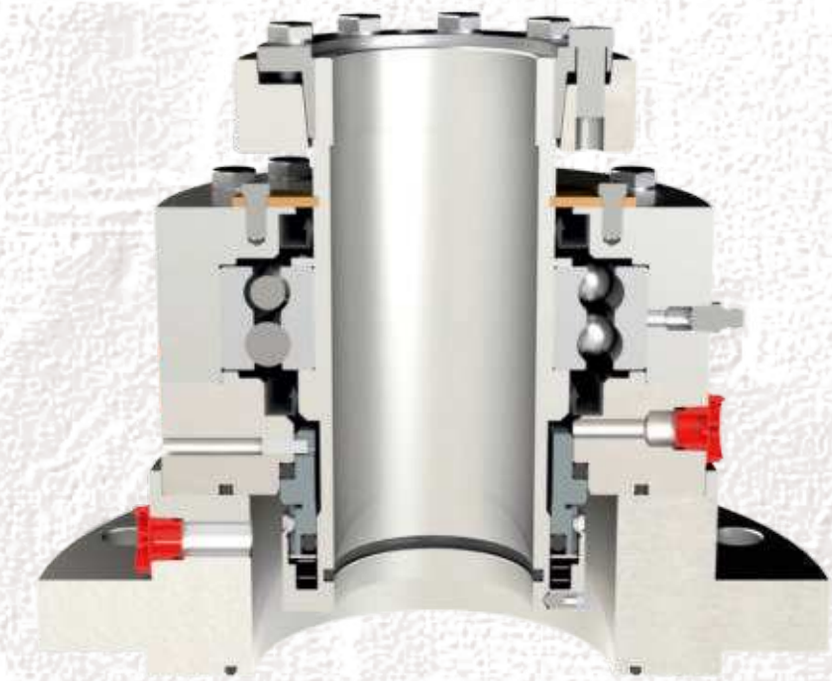
MSG®

MECHANICAL SEALS GERMANY

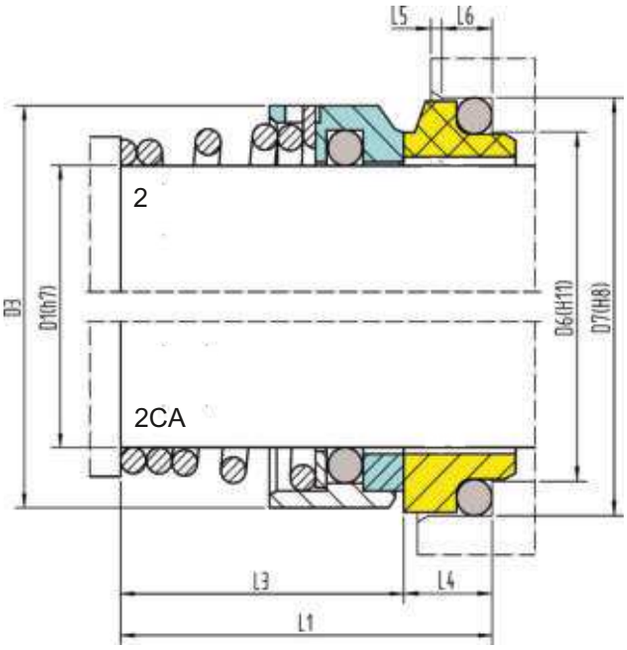


Mixer, agitator
Mechanical seals

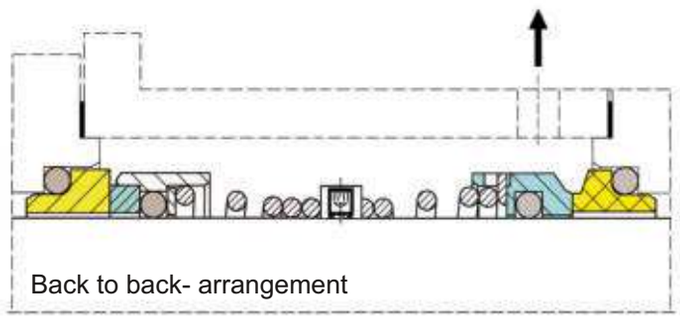
- 2-2CA
- 83K
- EHS
- 7XB
- 7XC
- 7XE
- 74
- RW184 / L
- RW184D / L
- RWVR5D / L
- RWVR34D / L
- Special versions
- Pharmaceutical ind.
- Seal supply systems
- Repair Service

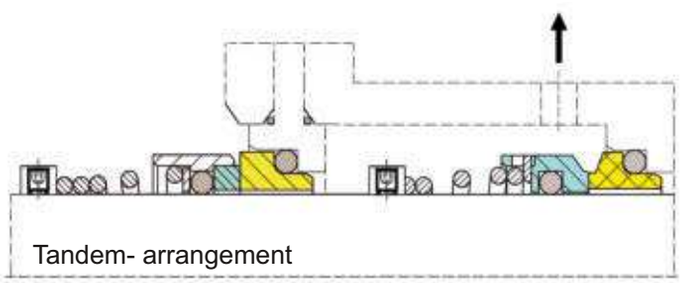
2-2CA

Standard applications

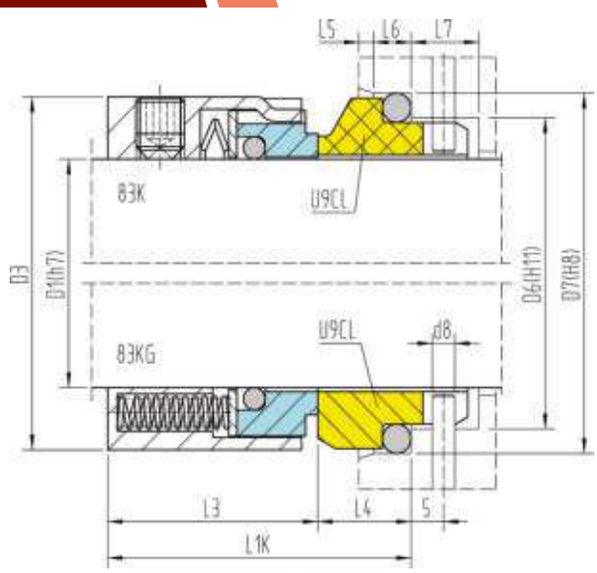


Look at main catalogue 3.0 page 12-17





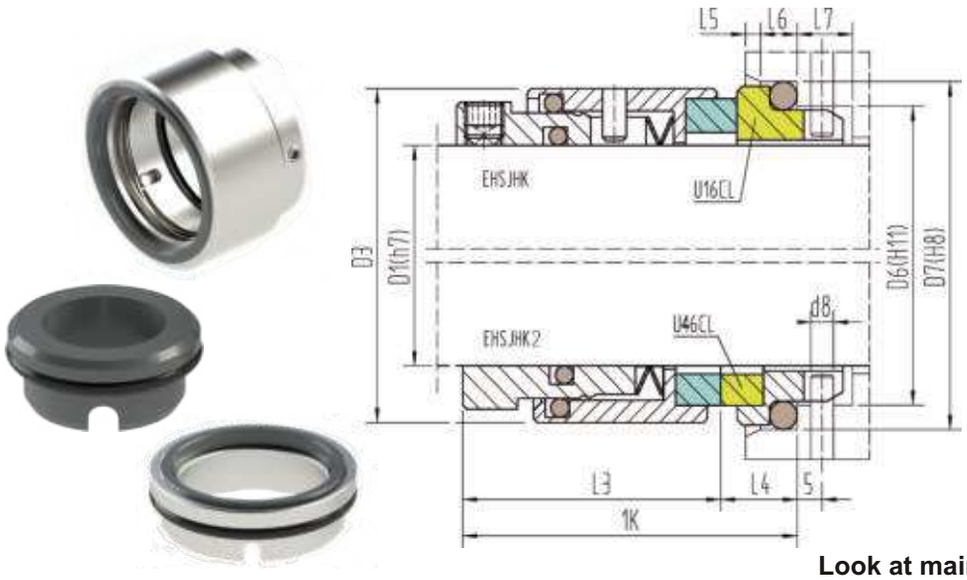
83K-83KG



Look at main catalogue 3.0 page 28

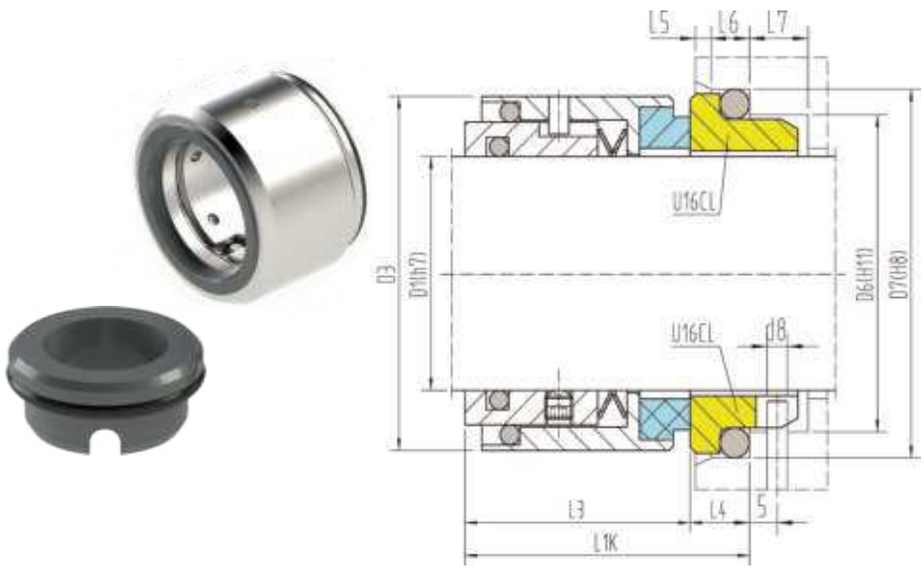
EHSJHK-EHSJHK2

Solid - applications



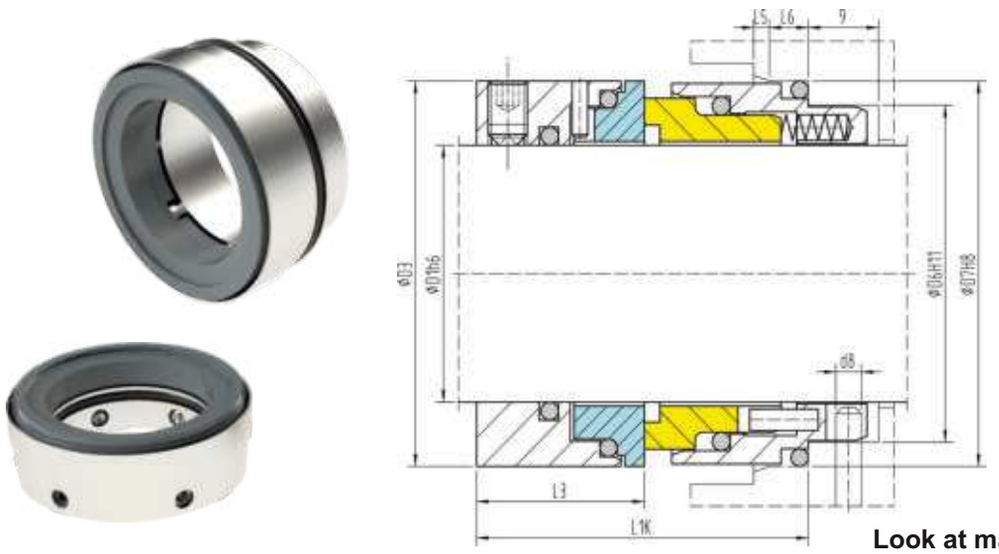
Look at main catalogue 3.0 page 44-45

EHSKS



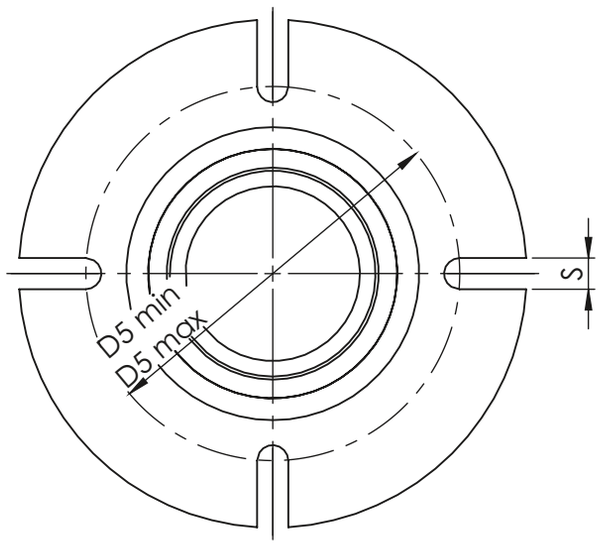
Look at main catalogue 3.0 page 47

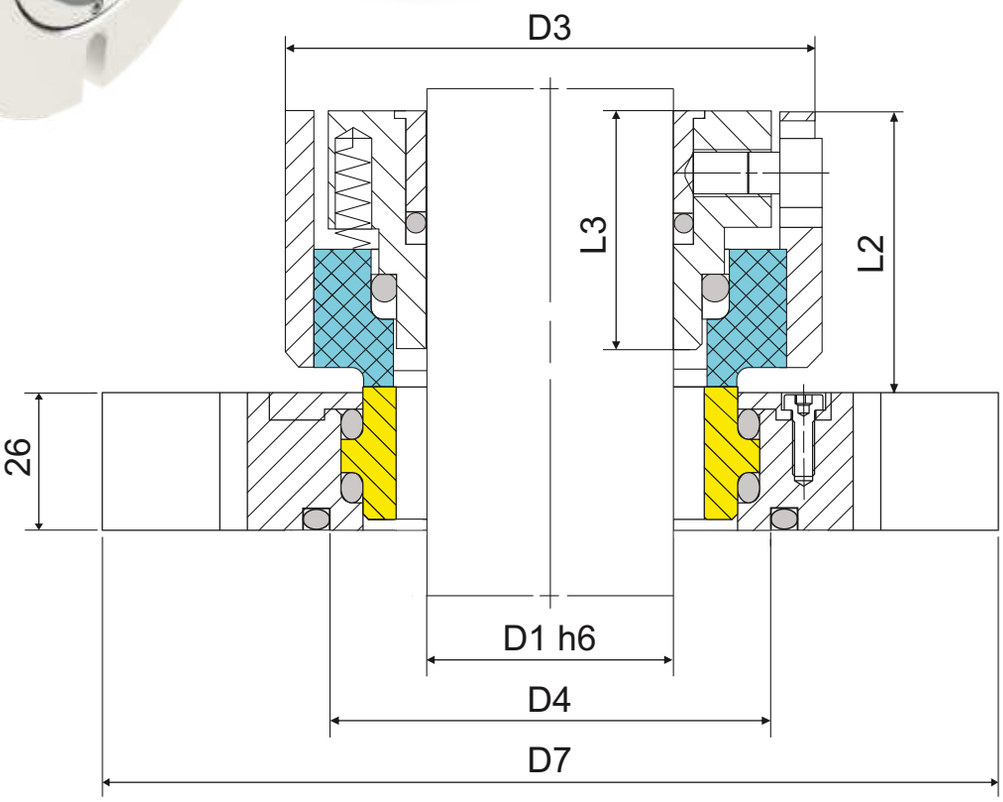
EHS9



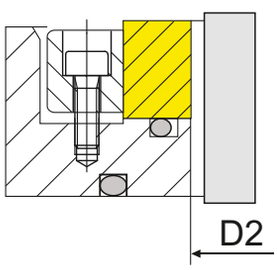
Look at main catalogue 3.0 page 50

Dry running, balanced, outside mounted
ATEX category 1 (zone 0) possible
Single or cartridge – version
Independent of rotation
Shrinked seal rings
FDA – conform

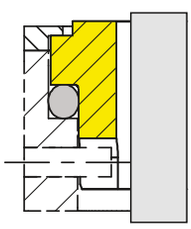




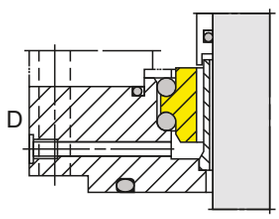
Options



Shrinked version
7XB1

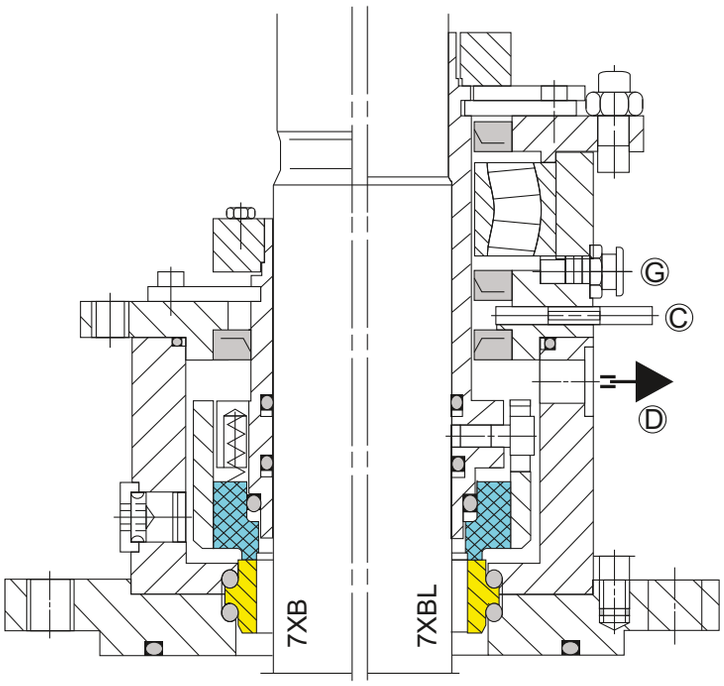


UFLCL version
7XB2



Leakage trigger, alternatively applicable as flushing
7XB3

Cartridge RW7XB/L



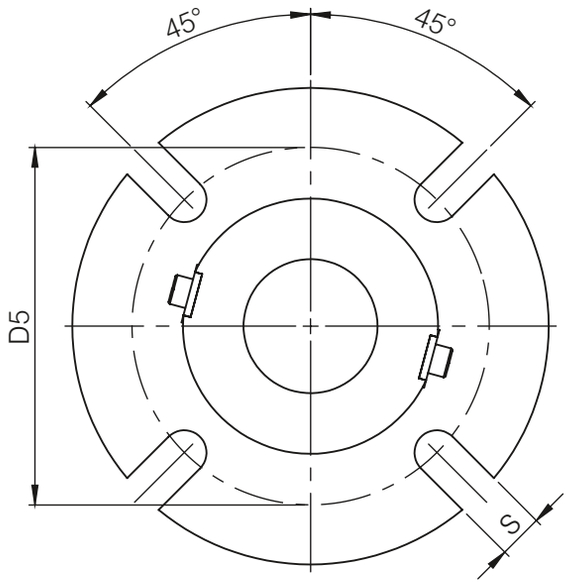
Materials:
Rotary: B, C
Stationary: Q1, V
Rubber parts: P, E, V, K, M

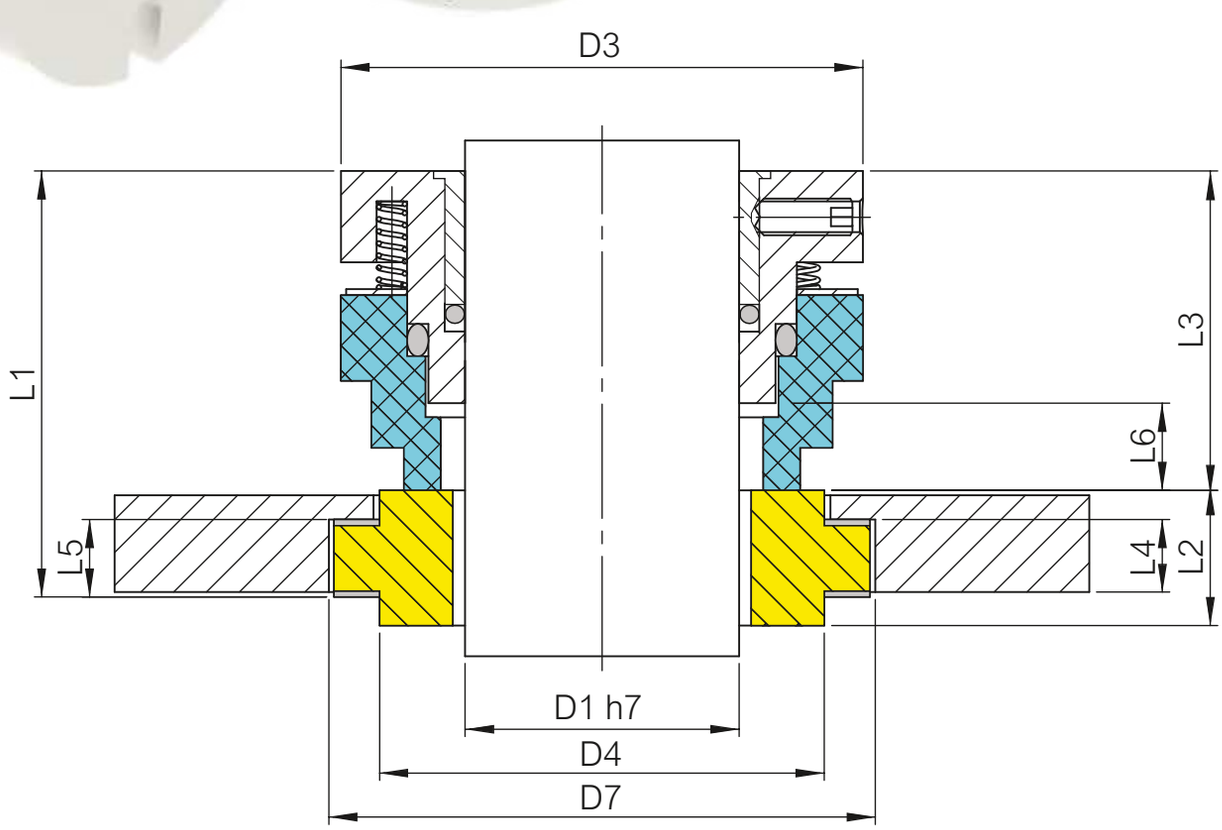
Operating limits:

p⩽	vacuum... 6 bar
t=	-40 ÷ 150°C (250°C)
v⩽	0..2 m/s

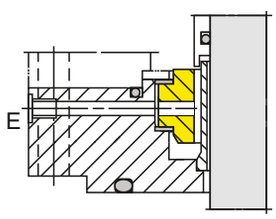
D1mm	D1 inch	D2	D3	D4	D7	L2	L3	D5 min	D5 max	S
25	**1.000**	34	68	-	148	41.5	40.5	100	132	11
28	**1.125**	34	68	55	148	41.5	40.5	100	132	11
30	**-**	34	68	55	148	41.5	40.5	100	132	11
32	**1.250**	39	73	60	153	41.5	40.5	105	137	11
35	**1.375**	39	73	60	153	41.5	40.5	105	137	11
38	**1.500**	44	78	65	158	41.5	40.5	110	142	11
40	**-**	44	78	65	158	41.5	40.5	110	142	11
45	**1.625**	49	83	68	163	41.5	40.5	115	152	11
-	**1.750**	49	83	68	163	41.5	40.5	115	152	11
48	**1.875**	54	88	73	178	41.5	40.5	125	160	14
50	**-**	54	88	73	178	41.5	40.5	125	160	14
55	**2.000**	59	93	78	183	41.5	40.5	130	165	14
-	**2.125**	59	93	78	183	41.5	40.5	130	165	14
60	**2.250**	64	98	85	188	41.5	40.5	135	170	14
65	**2.375**	69	103	90	193	44.5	40.5	140	175	14
-	**2.500**	69	103	90	193	44.5	40.5	140	175	14
70	**2.625**	74	108	95	198	44.5	43.5	145	180	14
-	**2.750**	74	108	95	198	44.5	43.5	145	180	14
75	**2.875**	79	113	100	203	44.5	43.5	150	185	14
80	**3.000**	84	118	105	208	44.5	43.5	155	190	14
85	**3.250**	89	123	110	213	44.5	43.5	160	195	14
90	**3.500**	94	128	115	218	44.5	43.5	165	200	14
95	**3.750**	99	133	120	223	44.5	43.5	170	205	14
100	**-**	104	138	125	228	44.5	43.5	175	210	14
105	**4.000**	109	143	130	233	44.5	43.5	180	215	14
110	**4.250**	114	148	135	238	44.5	43.5	185	220	14
115	**4.500**	119	153	140	267	44.5	43.5	196	243	18
125	**4.750**	129	163	150	277	44.5	43.5	206	253	18
140	**5.000**	144	178	165	297	44.5	43.5	221	273	18
-	**5.250**	144	178	165	297	44.5	43.5	221	273	18
-	**5.500**	144	178	165	297	44.5	43.5	221	273	18
150	**5.750**	154	188	175	307	44.5	43.5	231	283	18
160	**6.000**	164	198	185	317	44.5	43.5	241	293	18
-	**6.250**	164	198	185	317	44.5	43.5	241	293	18

Dry running, balanced, outside mounted
ATEX category 1 (zone 0) possible
Single or cartridge – Version
Independent of rotation
Massive seal rings
FDA – conform

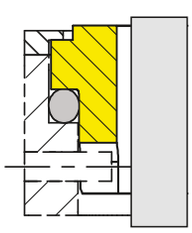




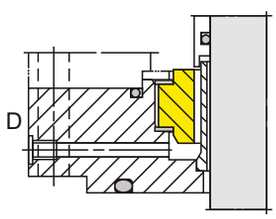
Options



Shrinked version

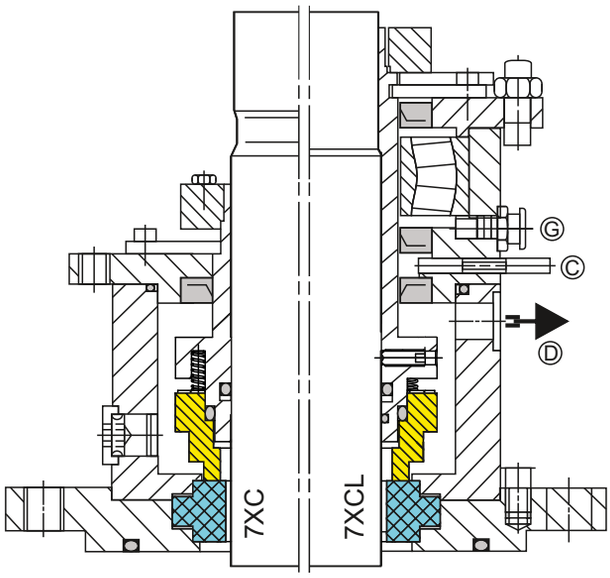


UFLCL version



Leakage trigger, alternatively applicable as flushing

Cartridge RW7XC/L



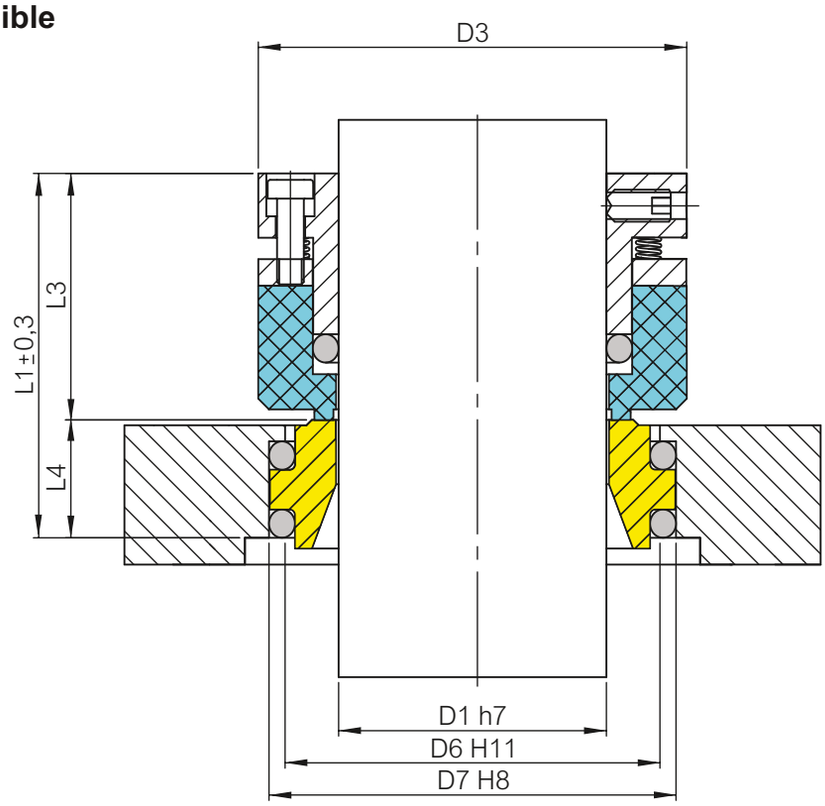
Materials:
Rotary: B, C
Stationary: Q1, V
Rubber parts: P, E, V, K, M

Operating limits:

p⩽	vacuum... 6 bar
t=	-40 ÷ 150°C (250°C)
v⩽	0..2 m/s

D1	D3	D4	D7	D5 min	D5 max	S	L1	L2	L3	L4	L5	L6
25	63.5	47.6	57.9	100	132	11	69.0	20.6	52.4	12.7	11.9	14.3
28	66.6	50.8	61.1	100	132	11	69.0	20.6	52.4	12.7	11.9	14.3
30	69.8	53.9	67.5	100	132	11	69.9	20.6	52.4	12.7	11.9	14.3
32	69.8	53.9	67.5	105	137	11	69.9	20.6	52.4	12.7	11.9	14.3
33	73.0	57.1	70.6	105	137	11	69.9	22.2	52.4	12.7	11.9	14.3
35	73.0	57.1	70.6	105	137	11	69.9	22.2	52.4	12.7	11.9	14.3
38	76.2	63.5	77.0	110	142	11	69.9	22.2	52.4	12.7	11.9	14.3
40	79.3	66.6	80.2	115	152	11	69.9	22.2	52.4	12.7	11.9	14.3
43	82.5	69.8	83.3	115	152	11	69.9	22.2	52.4	12.7	11.9	14.3
45	85.7	73	89.7	115	152	11	69.9	22.2	52.4	12.7	11.9	14.3
50	88.9	79.3	96.0	125	160	14	73.0	25.4	52.4	15.9	15.1	14.3
53	92.0	82.5	99.2	125	160	14	73.0	25.4	52.4	15.9	15.1	14.3
55	95.2	85.7	102.4	130	165	14	73.0	25.4	52.4	15.9	15.1	14.3
58	98.4	88.9	105.6	130	170	14	73.0	25.4	52.4	15.9	15.1	14.3
60	98.4	88.9	105.6	135	175	14	73.0	25.4	52.4	15.9	15.1	14.3
63	101.6	92.0	108.7	135	175	14	73.0	25.4	52.4	15.9	15.1	14.3
65	104.7	95.2	111.9	140	175	14	73.0	25.4	52.4	15.9	15.1	14.3
68	107.9	98.4	115.1	140	180	14	73.0	25.4	52.4	15.9	15.1	14.3
70	107.9	98.4	115.1	145	180	14	73.0	25.4	52.4	15.9	15.1	14.3
75	114.3	103.2	119.8	150	190	14	73.0	25.4	52.4	15.9	15.1	14.3
80	120.6	111.1	127.8	155	195	14	73.0	25.4	52.4	15.9	15.1	14.3
85	123.8	114.3	131.0	160	200	14	73.0	25.4	52.4	15.9	15.1	14.3
90	130.2	120.6	137.3	165	205	14	73.0	25.4	52.4	15.9	15.1	14.3
95	133.3	123.8	140.5	170	210	14	73.0	25.4	52.4	15.9	15.1	14.3
100	139.7	133.3	150.0	175	215	14	73.0	25.4	52.4	15.9	15.1	14.3
105	142.9	136.5	153.2	180	220	14	73.0	25.4	52.4	15.9	15.1	14.3
110	149.2	142.8	159.5	185	243	18	73.0	25.4	52.4	15.9	15.1	14.3
115	155.5	149.2	165.9	196	253	18	73.0	25.4	52.4	15.9	15.1	14.3
120	158.7	152.4	169.1	196	253	18	73.0	25.4	52.4	15.9	15.1	14.3
125	165.1	158.7	175.4	206	273	18	73.0	25.4	52.4	15.9	15.1	14.3
130	168.2	168.2	184.9	206	273	18	73.0	25.4	52.4	15.9	15.1	14.3
135	174.6	174.6	191.3	206	273	18	73.0	25.4	52.4	15.9	15.1	14.3
140	180.9	180.9	197.6	221	273	18	73.0	25.4	52.4	15.9	15.1	14,3
145	184.1	184.1	200.8	221	273	18	73.0	25.4	52.4	15.9	15.1	14.3
150	190.5	190.5	207.2	231	283	18	73.0	25.4	52.4	15.9	15.1	14.3
155	193.6	193.6	210.3	241	293	18	73.0	25.4	52.4	15.9	15.1	14.3
160	200.0	200.0	216.7	241	293	18	73.0	25,4	52.4	15.9	15.1	14.3
165	203.2	203.2	219.9	241	293	18	73.0	25.4	52.4	15.9	15.1	14.3
170	209.5	209.5	226.2	241	293	18	73.0	25.4	52.4	15.9	15.1	14.3
175	215.9	215.9	232.6	241	293	18	73.0	25.4	52.4	15,9	15.1	14.3

Dry running, balanced, outside mounted
Independent of rotation
Massive seal rings
FDA – conform
ATEX category 1 (zone 0) possible



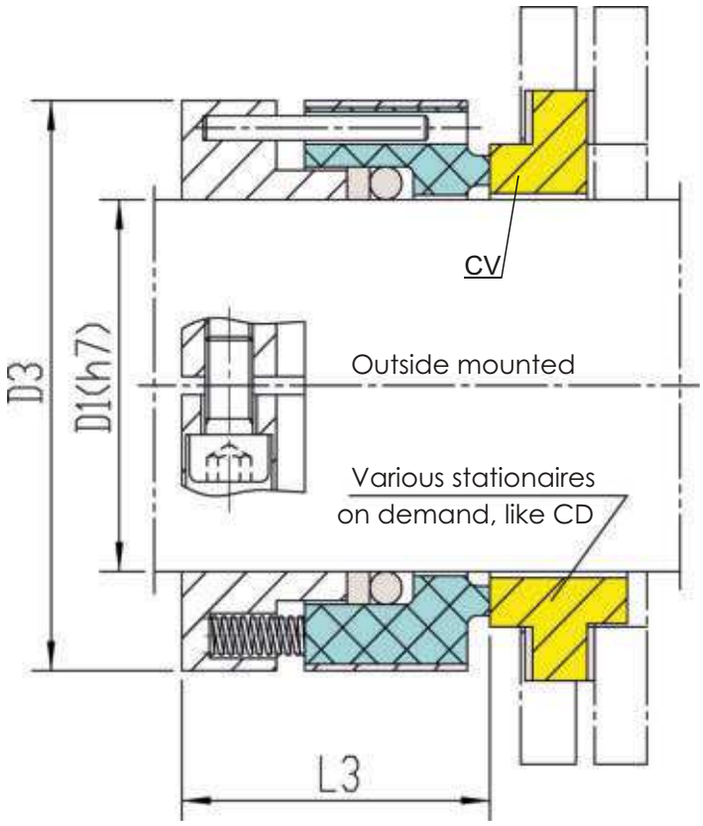
Materials:
Rotary: T1. T2
Stationary: Q1, V
Rubber parts: P, E, V, K, M

Operating limits:

p⩽	vacuum... 6 bar
t=	-40 ÷ 175°C
v⩽	1 m/s

D1	D6	D7	D3	L1	L3	L4
20	36	42	46	63	43	20
25	41	47	51	63	43	20
30	46	52	56	63	43	20
35	51	57	61	63	43	20
40	60	66	70	68	46	22
45	65	71	75	68	46	22
50	70	76	80	68	46	22
55	75	81	85	68	46	22
60	85	91	92	74	50	24
65	90	96	97	74	50	24
70	95	101	102	76	50	26
75	104	110	109	76	50	26
80	109	115	114	83	56	27
85	114	120	120	83	56	27
90	119	125	124	83	56	27
95	124	130	130	83	56	27
100	129	135	134	83	56	27
105	134	140	140	83	56	27
110	139	145	146	83	56	27
120	150	160	160	95	62	33
130	160	170	170	95	62	33
140	175	185	180	95	62	33
150	190	200	200	120	84	36
160	200	210	210	120	84	36
170	210	220	220	120	84	36
180	220	230	230	120	84	36

Dry running, outside mounted version
Double pressure balanced
Clamping sleeve, shaft protecting



Materials:
Rotary: A, B, C
Stationary: Q1, V
Rubber parts: P, E, V, K, M

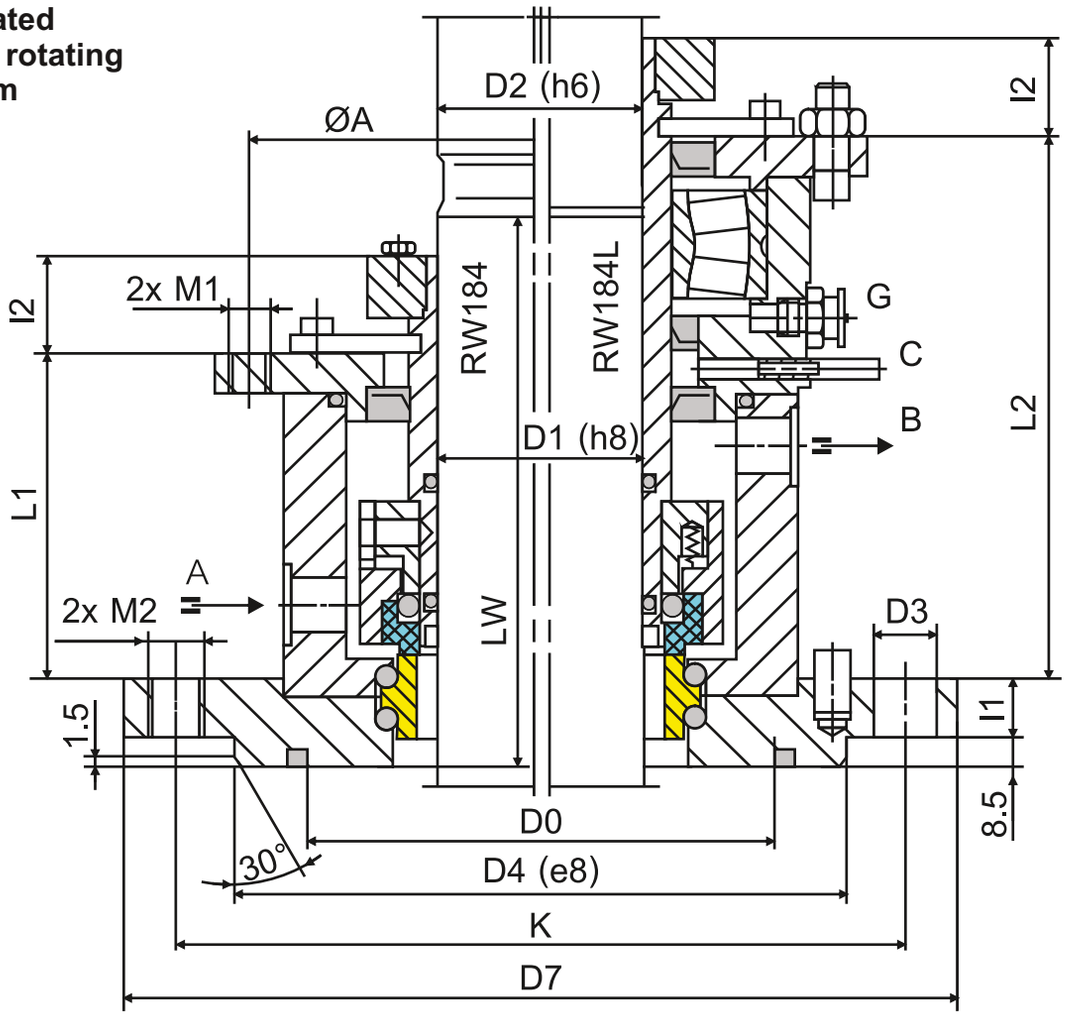
Operating limits:

p⩽	vacuum... 6 bar
t=	-40 ÷ 180°C
v⩽	15m/s

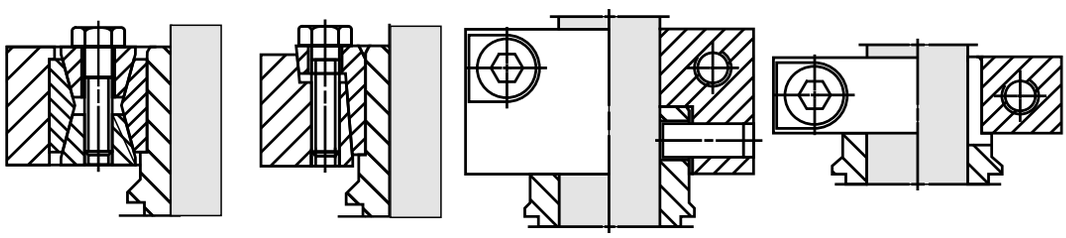
Special fitting dimensions

D1	D3	L3
24	49	38
25	51	38
28	54	38
30	57	38
33	59	38
35	60	38
38	63	38
40	67	38
43	68	38
45	70	38
48	74	38
50	76	38
55	79	38
60	86	38
65	92	38
70	98	41
75	104	41
80	108	41
85	114	41
90	118	41
95	123	41
100	129	41
125	171	62
140	186	62
160	206	62
180	226	62

Single or double seal
Independent on rotation
Cartridge – version
Unbalanced
Liquid lubricated
Multi springs rotating
FDA - conform

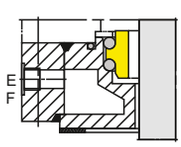


Torque Transmissions

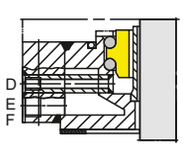


Clamping set | Shrink disk | Clamping ring with pin | Clamping ring

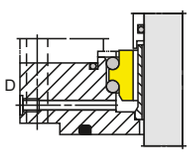
Options



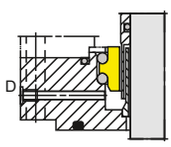
Cooling flange, can be used alternatively as a heating flange (tmax. = 350 °C (662 °F).



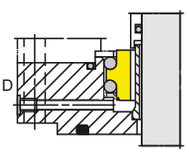
Leakage drain, can be used alternatively as a flush or as a heating flange.



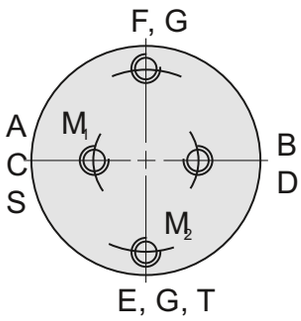
Leakage drain, can be used alternatively as a flush.

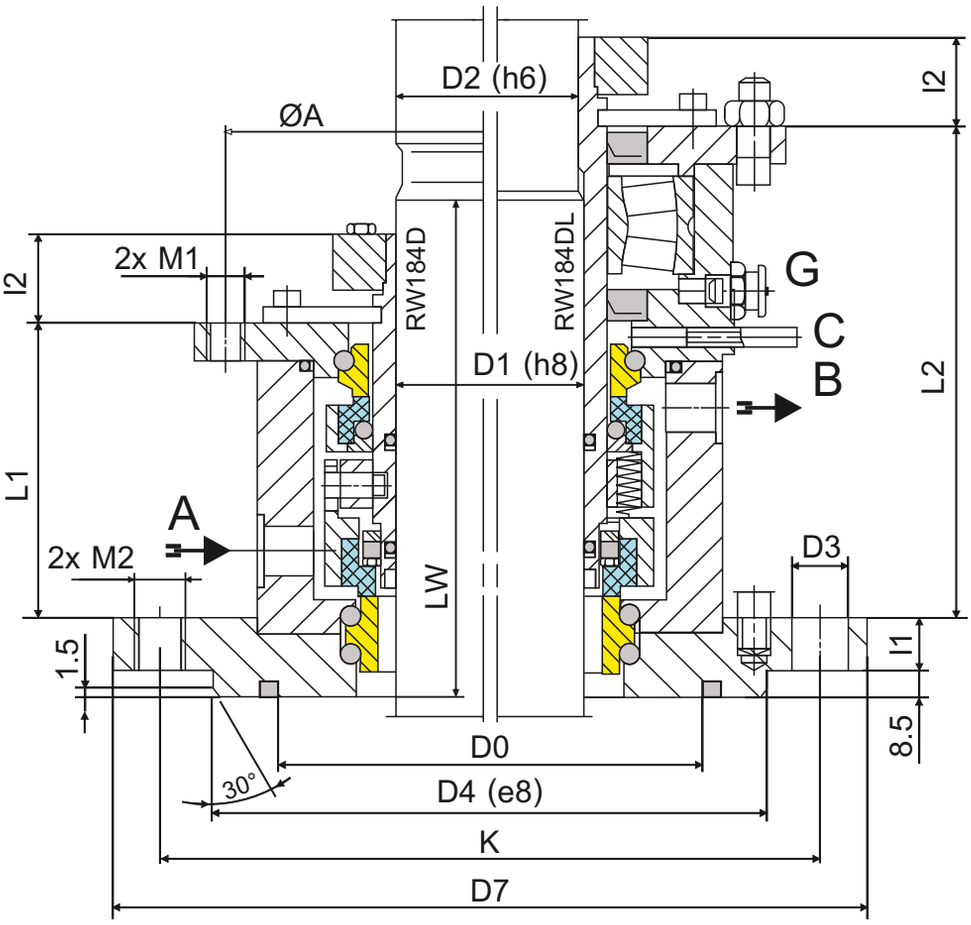


Polymerization barrier, can be used alternatively as a leakage drain or a flush.

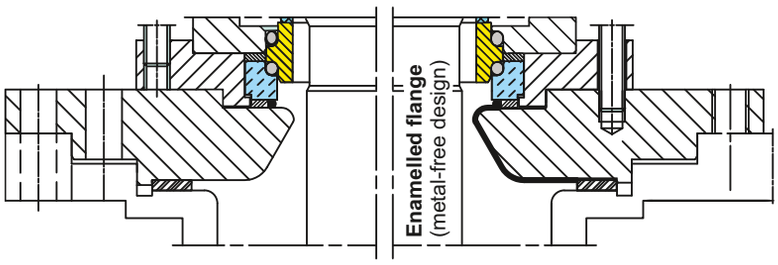


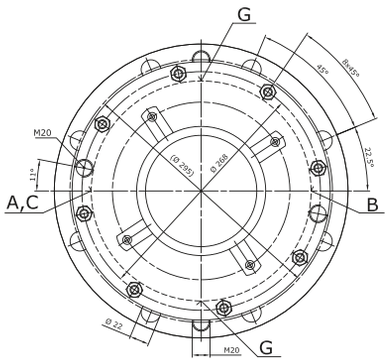
Scraper, media with particles, Pharma use.





Flange for chemistry and food sector





A - Barrier fluid resp. quench IN
B - Barrier fluid resp. quench OUT
C - Drainage
D - Leakage drain G1/8"
E - Cooling IN G3/8"
F - Cooling OUT G3/8"
G - Grease
S - Flush
T - Temperature metering

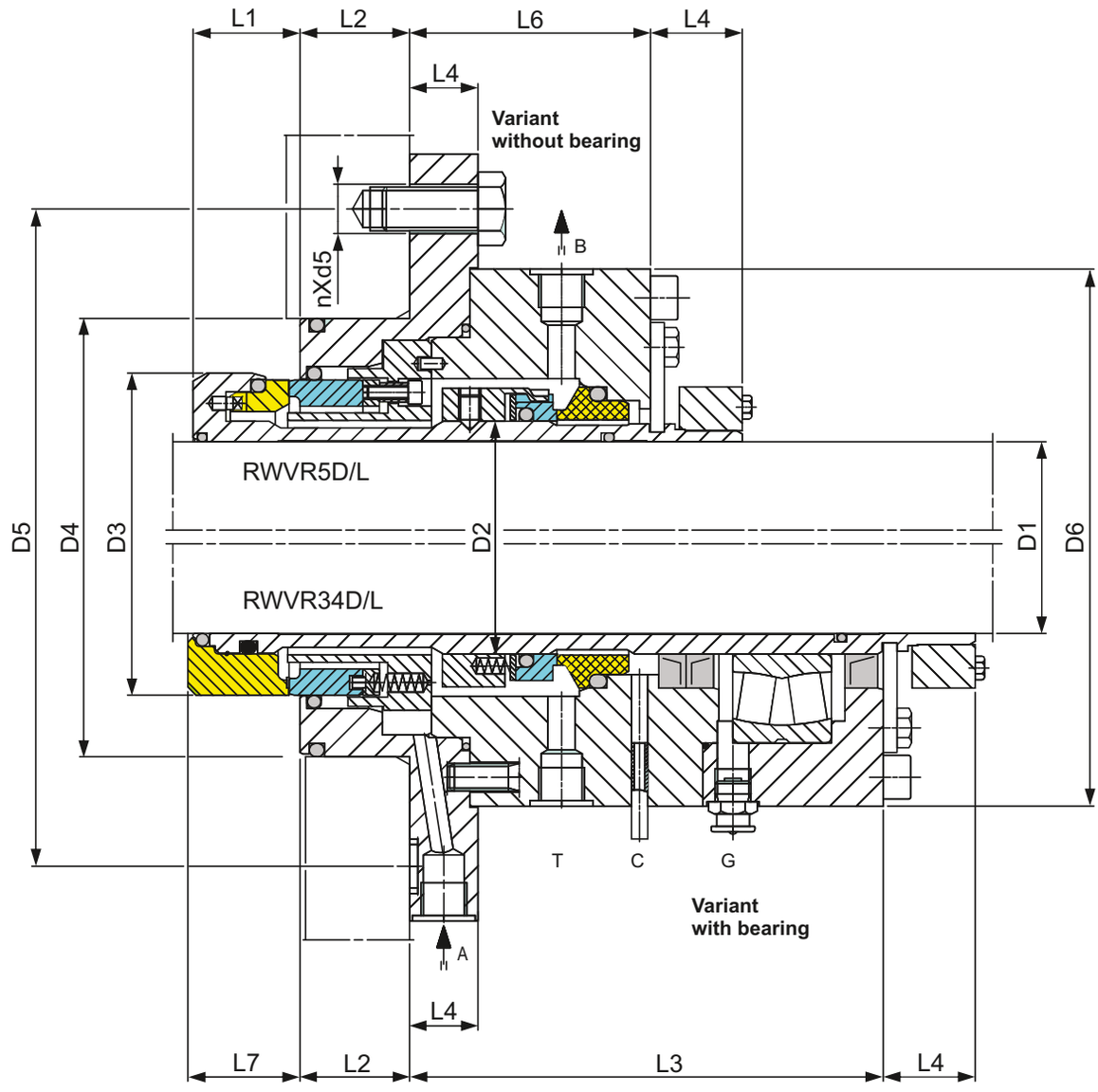
Materials:
Rotary: B, Q, U
Stationary: Q, U
Rubber parts: P, E, V, K, M

Operating limits:

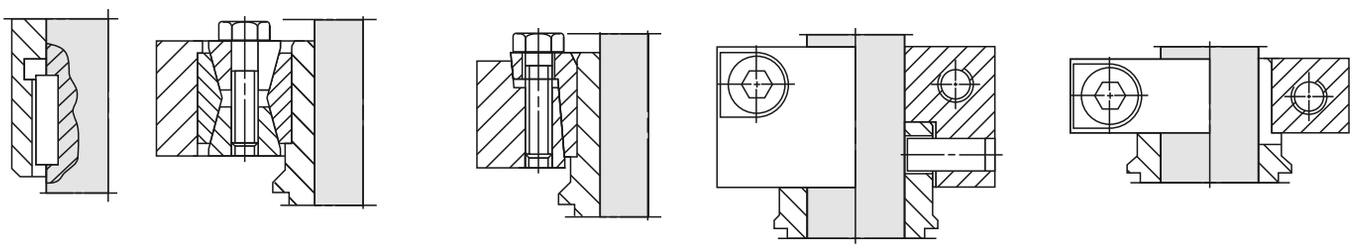
p≤	vacum... 6 bar
t=	-40 ÷ 150°C (250°C)
v≤	5 m/s

D1	D2	D7	NXD3	D4	D0	K	L1	L2	LW	l1	l2	A	M1	M2	A.B
40	38	175	4X18	110	90	145	87	136	143	15	28	122	M12	M16	G3/8
50	48	240	8X18	176	135	210	89	149	148	17	28	157	M12	M16	G3/8
60	58	240	8X18	176	135	210	93.5	156	158	17	28	168	M12	M16	G3/8
80	78	275	8X22	204	155	240	104.5	189	168	20	34	203	M16	M20	G1/2
100	98	305	8X22	234	190	270	109	190	178	20	34	228	M16	M20	G1/2
125	120	330	8X22	260	215	295	110	205	203	20	40	268	M20	M20	G1/2
140	135	395	12X22	313	250	350	124	222	208	20	40	285	M20	M20	G1/2
160	150	395	12X22	313	265	350	127.5	219.5	213	25	40	297	M20	M20	G1/2
180	170	445	12X22	364	310	400	132.5	230	233	25	45	332	M24	M20	G1/2
200	190	445	12X22	364	310	400	137.5	237.5	243	25	45	352	M24	M20	G1/2
220	210	505	16X22	422	340	460	149.5	249.5	263	25	50	381	M24	M20	G1/2

Single or double seal
Independent on rotation
Cartridge – version
Unbalanced
Liquid lubricated
Multi springs rotating
FDA - conform

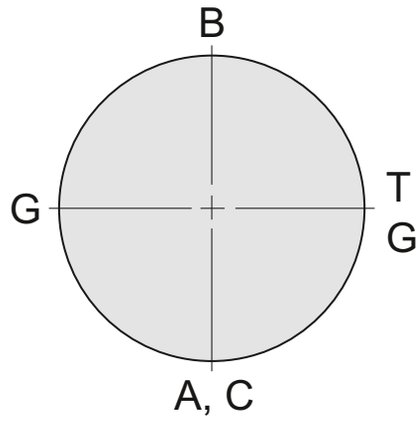


Torque Transmissions



Drive key | Clamping set | Shrink disc | Clamping ring with pin | Clamping ring

RWVR34D/L



A - Barrier fluid IN
B - Barrier fluid OUT
C - Drainage
G - Grease
T - Temperature measuring

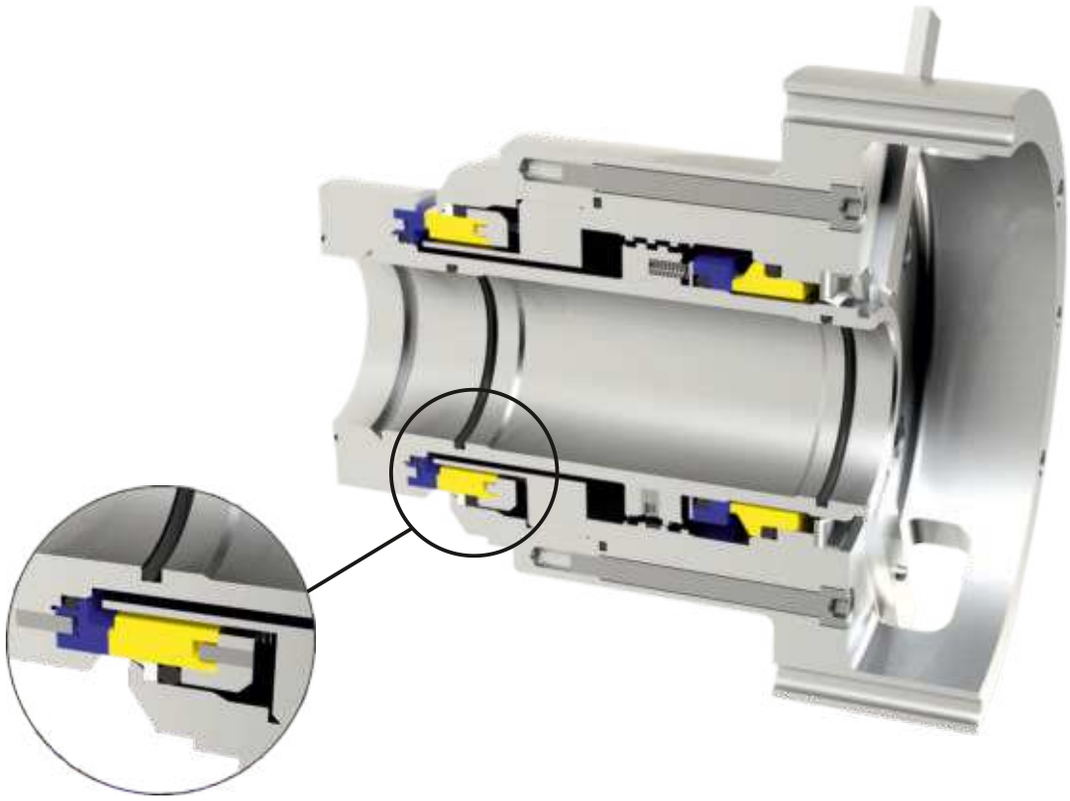
Materials:
Rotary: B, Q, U
Stationary: Q, U
Rubber parts: P, E, V, K, M

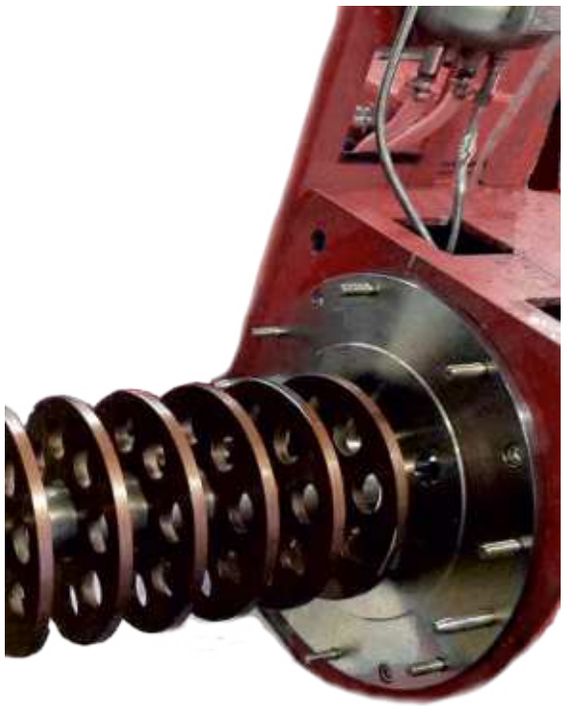
Operating limits:

p⩽	vacuum... 6 bar
t=	-40 ÷ 150°C (250°C)
v⩽	5 m/s

D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L6	L7	A.B	nxd5
20	30	52	117	140	118	35	30	114	30	75	41	G3/8	6X11
25	35	58	124	150	128	35	30	127	30	85	41	G3/8	6X11
30	40	62	134	165	138	35	30	129	30	89	41	G3/8	6X11
35	45	68	140	175	148	35	30	130	30	89	41	G3/8	6X11
40	50	75	145	175	148	35	30	133	34	90	41	G3/8	8X11
45	55	82.7	150	175	148	35	30	135	34	90	41	G3/8	8X11
50	60	85	160	185	158	41	30	150	34	105	41	G3/8	8X11
50	65	90	170	195	168	41	30	160	34	105	41	G3/8	8X11
55	70	95	175	205	178	41	30	160	34	105	41	G3/8	8X11
60	75	100	180	205	178	41	30	160	34	105	41	G3/8	8X11
65	80	110	190	220	188	41	40	190	44	105	41	G3/8	8X11
70	85	115	195	230	198	41	40	190	44	105	41	G3/8	8X11
75	90	120	200	230	198	41	40	190	44	105	41	G3/8	8X11
80	95	127	205	235	203	41	40	190	44	105	41	G3/8	8X11
80	100	130	210	240	208	41	40	190	44	105	45	G3/8	8X11
85	105	135	215	250	218	41	40	190	44	105	45	G1/2	8X11
90	110	140	230	260	228	41	40	190	44	110	45	G1/2	8X11
95	115	145	235	270	238	41	40	190	44	110	45	G1/2	8X11
100	120	150	240	270	238	42	40	200	44	120	46	G1/2	8X11
110	130	160	255	290	258	42	40	200	50	120	46	G1/2	8X11
120	140	172	265	305	268	43	50	220	50	130	46	G1/2	8X11
130	150	185	275	315	278	43	50	220	50	130	46	G1/2	8X11
140	160	195	290	335	298	43	50	220	50	130	46	G1/2	8X11
150	170	205	300	335	298	47	50	220	50	130	46	G1/2	8X11
160	180	220	330	355	323	47	50	250	50	140	46	G1/2	8X11
170	190	230	345	375	358	47	50	250	55	140	46	G1/2	8X11
180	200	240	365	395	358	47	50	250	55	140	51	G1/2	8X11
190	210	260	385	415	378	50	50	250	55	140	51	G1/2	12X18
190	220	270	395	425	388	50	50	250	55	140	51	G1/2	12X18
200	230	280	395	425	388	50	50	300	55	160	51	G1/2	12X18

Application in a bead mill / ball mill
e.g. chocolate production
e.g. production of paints (crushing of colour pigments)

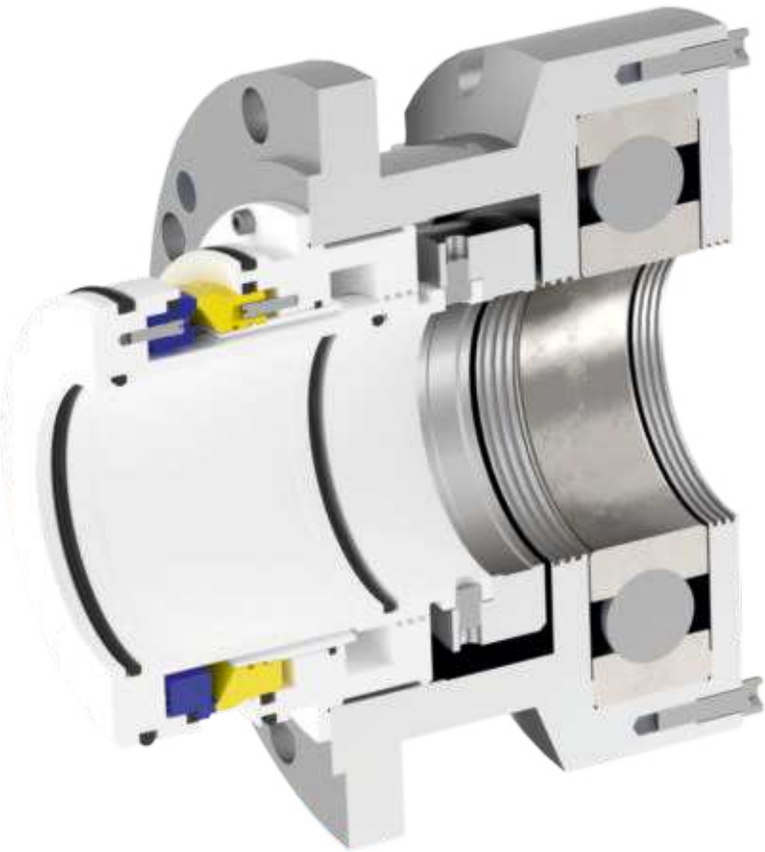


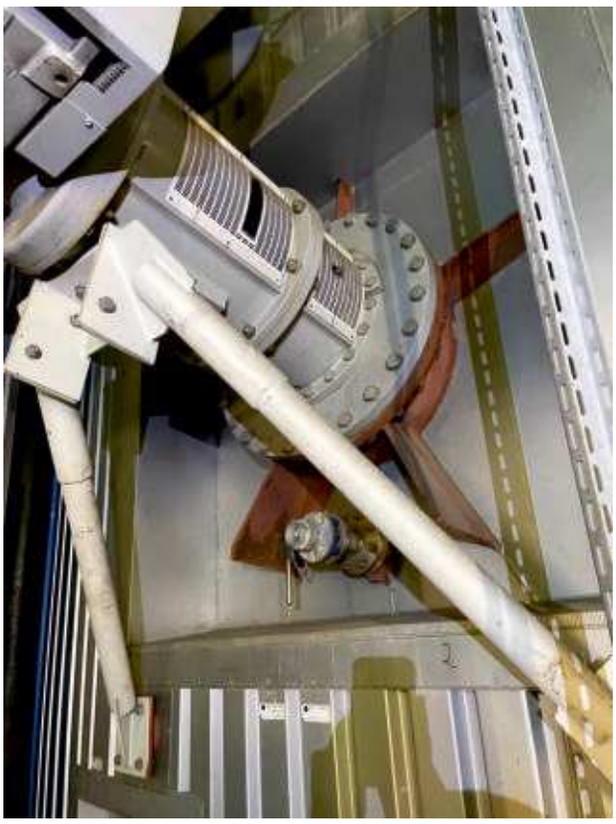


Product information on request

Special versions

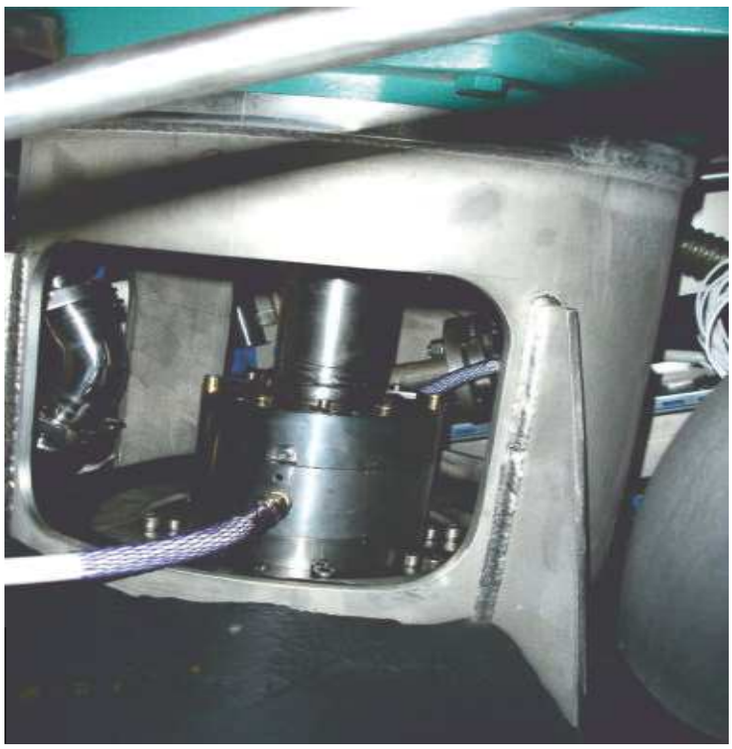
Application in a tank agitator - medium milk of lime flue gas desulphurisation plant in a coal-fired power station



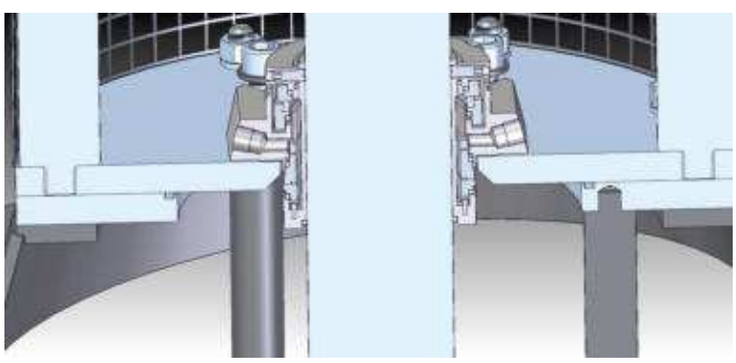


Product information on request

Reference Agitators



Housing mechanical seal for food, chemical and pharmaceutical processes (Granulierer-Mixer- Dryer from Bio-Inox Pharma®)



Double - Cartridge type 922CX according to API Plan for drug production

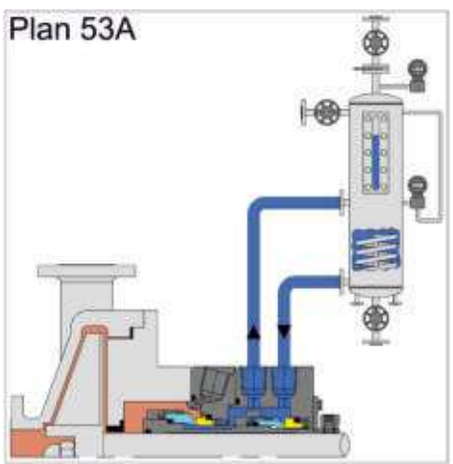
API Circulation plans (selection)

Avoidance of crystallisation of the leakage
Avoidance of icing up

Pressureless liquid reservoir
Submission fluid „Quench“
No circulation „Dead End“

Avoidance of crystallisation of the leakage
Avoidance of icing up
Improving heat dissipation on the product side

Pressureless submission fluid „forced circulation



Complete prevention of product leakage to the atmosphere

Pressurized liquid reservoir (barrier) „forced circulation“

Attachment to the repair order

REPAIR REPORT

Key data on the application

Description of the condition of the used seal and its components as delivered, after disassembly and cleaning if necessary.
Additional assessment of the state of wear / ageing and the functionality of the components, taking into account the machine and environment.
If applicable, identification of possible cause of damage and suggestions for improvement

Informations of the mechanical seal		**Identification image**
Name		
Drawing-nr.		
Fabrication-nr.		
Material code		
Application		
Maschine type		
Installation location		
Pump type & size		
First installation date		
Commissioning		
Operating time		

Know operating conditions as specified by the customer			**Identification image**
Speed		min^{-1}	
Product media			
Media designation			
Viscosity during use		cSt	
Density		kg/m^3	
Temperature		°C	
Static pressure		bar	
Dynamic pressure		bar	
Quench liquid- / barrier liquid (if present)			
Media designation			
Viscosity during use		cSt	
Density		kg/m^3	
Temperature – IN		°C	
Temperature – OUT		°C	
Pressure		bar	
Flushing (if present)			
API plan			

Scope and purpose of the investigation			
Client			
Expansion reason			
Received from			
Date of receipt			
Input status			
Purpose of the Investigation	☐Repair offer	☐Expert opinions for clients	☐Complaint
Further procedure of the Examined parts	☐Return	☐Repair order	☐Waste diposal

Repair service

An additional service of MechanicalSealsGermany is our own repair department. We can analyse, examine, clean, recondition, repair, supplement and test all types of models from a wide range of manufacturers and all diverse materials in their various applications. On request, of course, on a cost estimate and with a test certificate!




Let´s give a new life to your seal !

Damage analysis & assessment

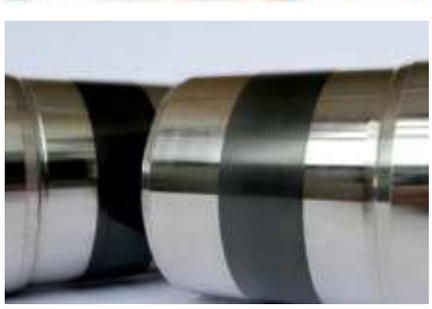
Condition of the running surfaces
- ▪Uniformity of the contact
- ▪Running lines
- ▪Cracking
- ▪Chipping
- ▪Chipping on the edges
- ▪Chemical attack of the material

Condition of the side seals
- ▪Elasticity
- ▪Overheating signs
- ▪Cracks or fractures
- ▪Chemical attack of the material

Torque driving condition
- ▪Mechanical wear
- ▪Movement
- ▪Cracks or fractures

General condition
- ▪Abrasion marks on sealing surfaces for secondary seals
- ▪Chemical attack of the materials
- ▪Product deposits / adhesions

Wear protection
- ▪Diamond coating
- ▪Chrome oxide coating



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