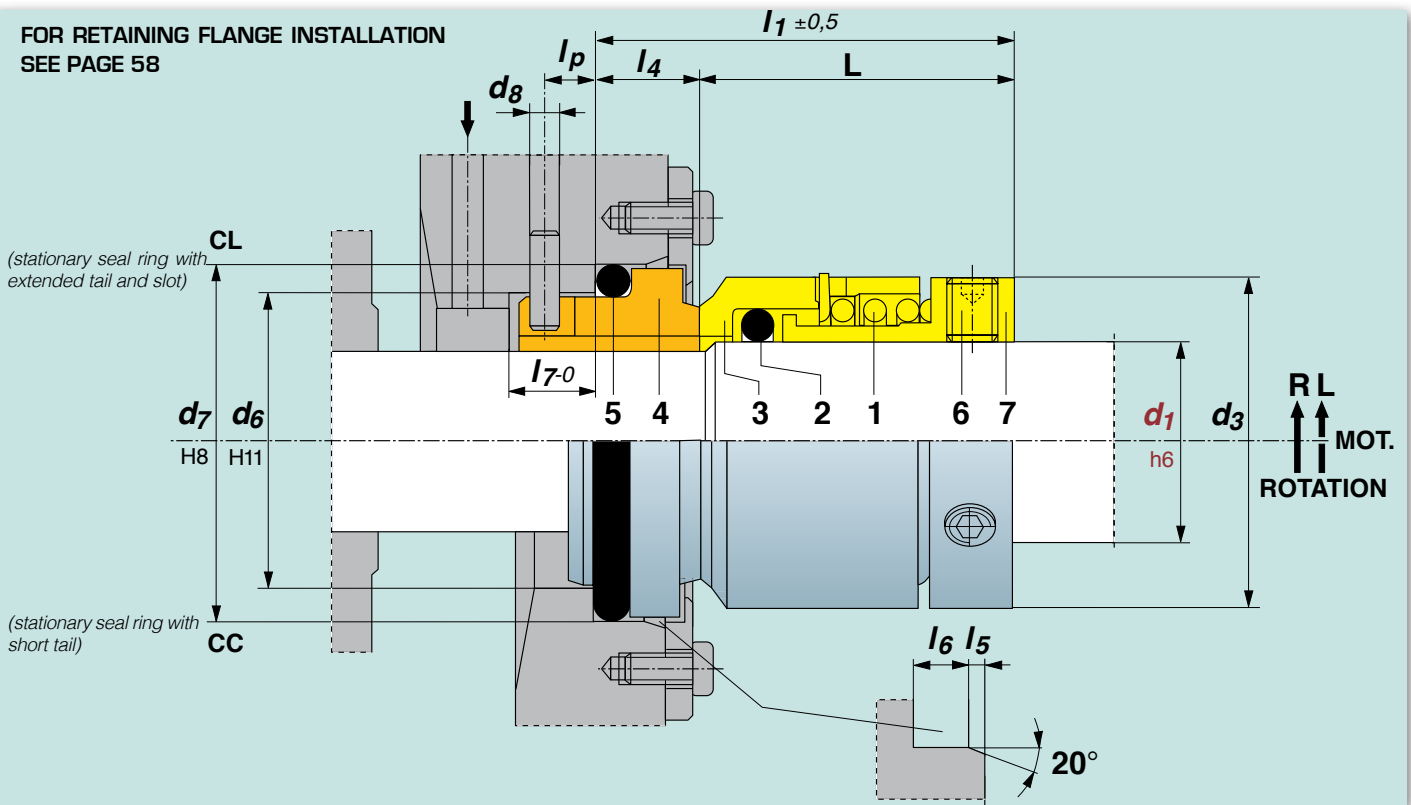


TYPE 7

FOR RETAINING FLANGE INSTALLATION
SEE PAGE 58



ROTEN

TYPE 7-7H-7R-7RH

d_1	d_6	d_7	d_3	l_1	L	l_4	l_6	l_5	d_8	l_7	l_P
10	14	18,1	22	27,5	22	5,5	2,8	1,2	2	6,2	3,5
11÷12	16,5	20,6	24	29,5	24	5,5	2,8	1,2	2	6,2	3,5
13	19	23,1	26	30	24	6	2,8	1,2	2	6,7	4
14	19	23,1	27	32	26	6	2,8	1,2	2	6,7	4
15	21	26,9	28	33	26	7	3,7	1,3	2,5	7,6	4
16÷17	21	26,9	31	34	27	7	3,7	1,3	2,5	7,6	4
18	25	30,9	33	36	28	8	3,7	1,3	3	8,5	4,5
19	25	30,9	36	38	30	8	3,7	1,3	3	8,5	4,5
20	25	30,9	37	39	31	8	3,7	1,3	3	8,5	4,5
21÷22	30	35,4	39	39	31	8	3,7	1,8	3,5	8,5	5
23	30	35,4	42	40	32	8	3,7	1,8	3,5	8,5	5
24	30	35,4	42	42	34	8	3,7	1,8	3,5	8,5	5
25÷27	33	38,2	43	43,5	35	8,5	3,7	1,8	4	9,1	5
28	38	43,3	47	46	37	9	3,7	1,8	4	9,6	6
29÷32	38	43,3	52	48	39	9	3,7	1,8	4	9,6	6
33÷37	45	53,5	56	55,5	44	11,5	5,4	2,1	5	12	7,5
38÷43	52	60,5	69	58,5	47	11,5	5,4	2,1	5	12	7,5
44÷48	57	65,5	74	62,5	51	11,5	5,4	2,1	5	13	8,5
50	64	72,5	77	65,5	54	11,5	5,4	2,1	5	13	8,5
55	64	72,5	83	68,5	57	11,5	5,4	2,1	5	13	8,5
60	72	79,3	89	68,5	57	11,5	5,4	2,1	5	13,5	8,5
65	77	84,5	97	71,5	60	11,5	5,4	2,1	5	13,5	8,5
70	82	89,5	104	71,5	60	11,5	5,4	2,1	5	13,5	8,5
75	87	94,5	100	91,5	80	11,5	5,4	2,1	5	13,5	8,5
80	92	99,5	106	96,5	85	11,5	5,4	2,1	5	13,5	8,5
85	98	105,5	115	101,5	88	13,5	5,4	2,6	5	13,5	8,5
90	105	111,5	118	106,5	93	13,5	5,4	2,6	5	13,5	8,5
95	110	116,5	128	110,5	97	13,5	5,4	2,6	5	13,5	8,5
100	114	119,5	137	121,5	108	13,5	5,4	2,6	5	13,5	8,5
110	124	132,2	152	130,5	113	17,5	7,1	3,9	5	13,5	8,5
120	134	142,2	165	137,5	120	17,5	7,1	3,9	5	13,5	8,5
130	145	153,2	176	142,5	125	17,5	7,1	3,9	5	13,5	8,5
135	152	161,2	183	155,5	137	18,5	7,1	3,9	5	13,5	8,5
140	157	164,3	188	165,5	147	18,5	7,1	3,9	5	13,5	8,5
150	167	174,2	200	165,5	147	18,5	7,1	3,9	5	13,5	8,5

Dimensions in mm.

UNITEN

EN 12756

TYPE 7-7H-7R-7RH

d_1	d_6	d_7	d_3	l_1	L	l_4	l_6	l_5	d_8	l_7	l_P
10	17	21	22	29	22	7	4	1,5	3	8,5	5
12	19	23	24	31	24	7	4	1,5	3	8,5	5
14	21	25	27	33	26	7	4	1,5	3	8,5	5
16	23	27	31	34	27	7	4	1,5	3	8,5	5
18	27	33	33	38	28	10	5	2	3	9	5
20	29	35	37	41	31	10	5	2	3	9	5
22	31	37	39	41	31	10	5	2	3	9	5
24	33	39	42	44	34	10	5	2	3	9	5
25	34	40	43	45	35	10	5	2	3	9	5
28	37	43	47	47	37	10	5	2	3	9	5
30	39	45	50	49	39	10	5	2	3	9	5
32	42	48	52	49	39	10	5	2	3	9	5
33	42	48	54	54	44	10	5	2	3	9	5
35	44	50	56	54	44	10	5	2	3	9	5
38	49	56	62	60	47	13	6	2	4	9	5
40	51	58	64	60	47	13	6	2	4	9	5
43	54	61	69	60	47	13	6	2	4	9	5
45	56	63	71	64	51	13	6	2	4	9	5
48	59	66	74	64	51	13	6	2	4	9	5
50	62	70	77	68	54	14	6	2,5	4	9	5
53	65	73	83	71	57	14	6	2,5	4	9	5
55	67	75	83	71	57	14	6	2,5	4	9	5
58	70	78	89	71	57	14	6	2,5	4	9	5
60	72	80	89	71	57	14	6	2,5	4	9	5
63	75	83	97	74	60	14	6	2,5	4	9	5
65	77	85	97	74	60	14	6	2,5	4	9	5
68	81	90	104	76	60	16	7	2,5	4	9	5
70	83	92	104	76	60	16	7	2,5	4	9	5
75	88	97	100	96	80	16	7	2,5	4	9	5
80	95	105	106	103	85	18	7	3	4	9	5
85	100	110	115	106	88	18	7	3	4	9	5
90	105	115	118	111	93	18	7	3	4	9	5
95	110	120	128	115	97	18	7	3	4	9	5
100	115	125	137	126	108	18	7	3	4	9	5

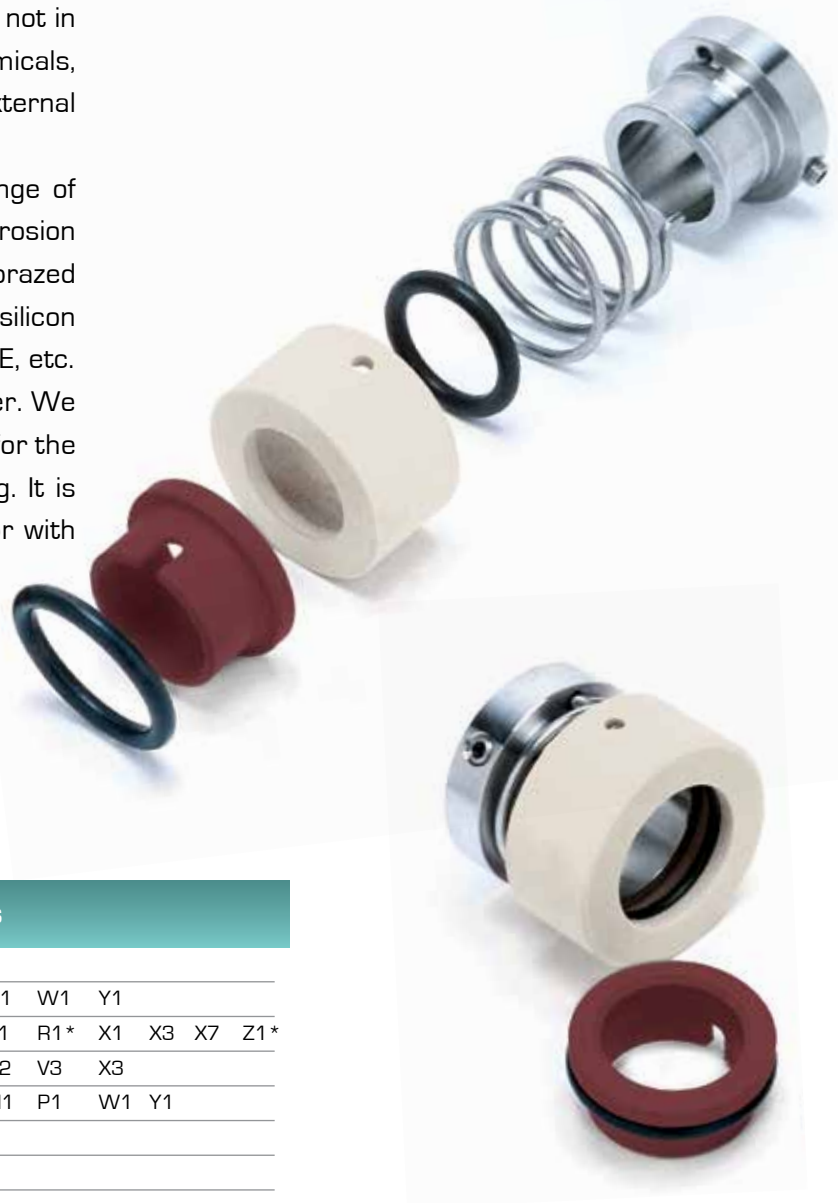
Dimensions in mm.

d_3 = depends on the material of which the rotary ring is built. The indicated value is the maximum for this quote.

TYPE 7

The Roten mechanical seal **TYPE 7** is designed for external mounting. The spring and sleeve are not in contact with the pumped liquid (foods, chemicals, corrosives, etc.) and unlike some other external seals it can work against internal pressure.

These seals are available in an extensive range of materials including all stainless steels, anticorrosion superalloys, alumina ceramic, hard facings, brazed or massive anticorrosion hard metal, solid silicon carbide, normal and special carbon, filled PTFE, etc. "O" rings can be supplied in all types of rubber. We always advise the mounting of the seal plate for the conditions under which the seal is operating. It is ideal with high or pulsing counterpressure or with viscous or sticky fluids.



TYPE 7 - 7H - 7R - 7RH		STANDARD MATERIALS											
POS.	COMPONENTS												
1	Self-driving spring	X1											
2	Shaft gasket	B1	E1	F1	N1	P1	W1	Y1					
3	Rotary seal ring	D5	D6	J1	K1*	L1	R1*	X1	X3	X7	Z1*		
4	Stationary seal ring	C4	K1	R1	V1	V2	V3	X3					
5	Stationary gasket	B1	C1	E1	F1	N1	P1	W1	Y1				
6	Grub screws	H1	L1	X1									
7	Driving sleeve	X1	L1										

*Materials available only for type 7

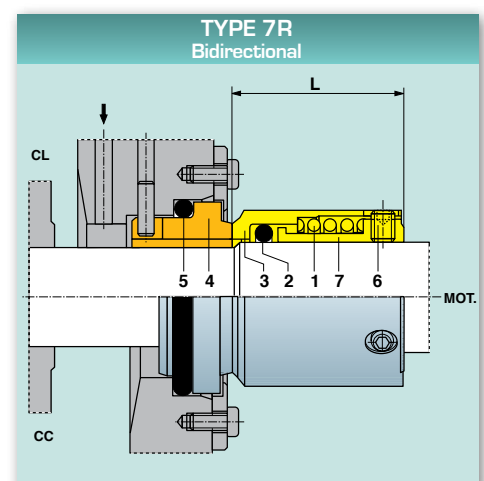
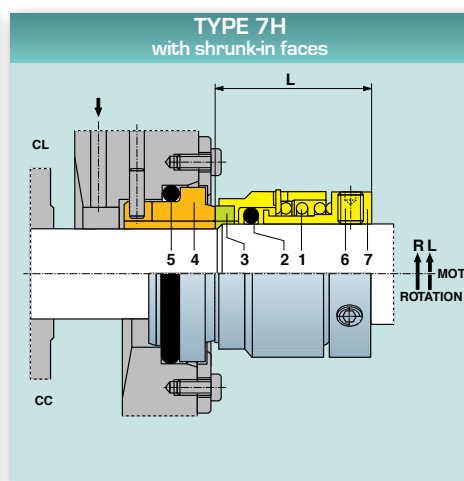
MAX. WORKING CONDITIONS

These depend on: $\varnothing$ shaft, pressure, speed, temperature and fluid to be sealed.

$$p \leq 12 \text{ bar}$$

$$t = -35 \div 180^\circ\text{C}$$

$$v \leq 15 \text{ m/s}$$



Outside mounted universal seal
Short mounting length
Counterpressure possible
Massive, brazed or shrinked seal rings

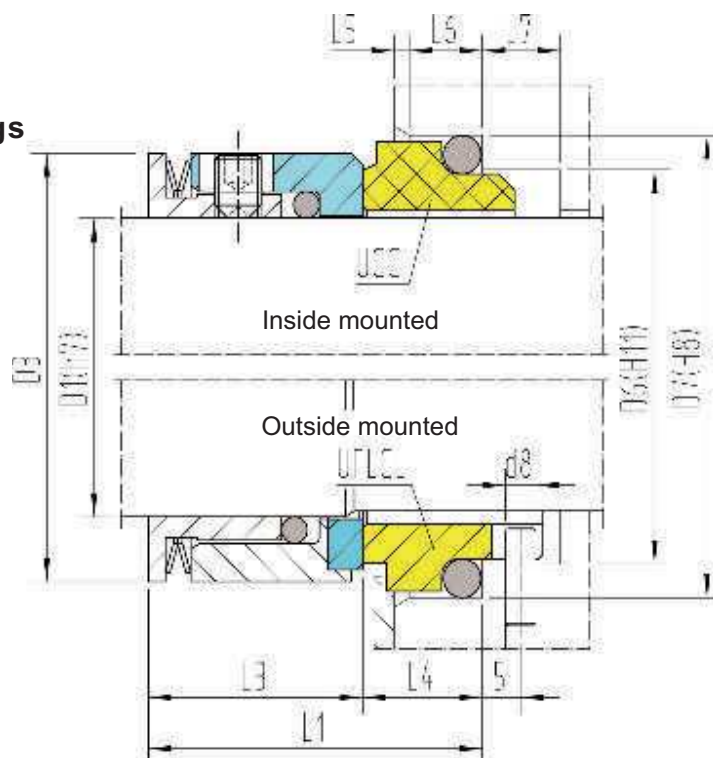


Materials:

Rotary: E, F, G, Q, U

Stationary: A, B, Q, U

Rubber parts: P, E, V, K, M



Operating limits:

(look at working conditions page 112)

7K	
p ≤	12 bar (16bar)
t =	-35 ÷ 140°C (180°C)
v ≤	15 m/s
Axial movement	+0,5mm

EN 12756 (DIN 24960)

UCC UFLCL

D1	D6	D7	D3	L1	L3	L4	L6	L5	D8	L7
10	17	21	21	25	18	7	4	1.5	3	8.5
12	19	23	23	25	18	7	4	1.5	3	8.5
14	21	25	25	25	18	7	4	1.5	3	8.5
16	23	27	26	26.1	19.1	7	4	1.5	3	8.5
18	27	33	29	29.1	19.1	10	5	2	3	9
20	29	35	32	29.1	19.1	10	5	2	3	9
22	31	37	35	29.1	19.1	10	5	2	3	9
24	33	39	37	29.1	19.1	10	5	2	3	9
25	34	40	37	29.1	19.1	10	5	2	3	9
28	37	43	41	29.1	19.1	10	5	2	3	9
30	39	45	43	29.1	19.1	10	5	2	3	9
32	42	48	47	29.1	19.1	10	5	2	3	9
33	42	48	48	29.1	19.1	10	5	2	3	9
35	44	50	49	29.1	19.1	10	5	2	3	9
38	49	56	53	34.1	21.1	13	6	2	4	9
40	51	58	55	34.1	21.1	13	6	2	4	9
43	54	61	60	34.1	21.1	13	6	2	4	9
45	56	63	60	34.1	21.1	13	6	2	4	9
48	59	66	65	34.1	21.1	13	6	2	4	9
50	62	70	65	35.1	21.1	14	6	2.5	4	9
53	65	73	74	36.1	22.1	14	6	2.5	4	9
55	67	75	74	36.1	22.1	14	6	2.5	4	9
58	70	78	79	39.8	25.8	14	6	2.5	4	9
60	72	80	79	39.8	25.8	14	6	2.5	4	9
63	75	83	87	39.8	25.8	14	6	2.5	4	9
65	77	85	87	39.8	25.8	14	6	2.5	4	9
68	81	90	93	41.8	25.8	16	7	2.5	4	9
70	83	92	93	41.8	25.8	16	7	2.5	4	9
75	88	97	98	41.8	25.8	16	7	2.5	4	9
80	95	105	104	43.8	25.8	18	7	3	4	9
85	100	110	108	43.8	25.8	18	7	3	4	9
90	105	115	113	43.8	25.8	18	7	3	4	9
95	110	120	118	43.8	25.8	18	7	3	4	9
100	115	125	123	43.8	25.8	18	7	3	4	9

Outside mounted universal seal
Short mounting length
Counterpressure possible
Massive, brazed or shrinked seal ring

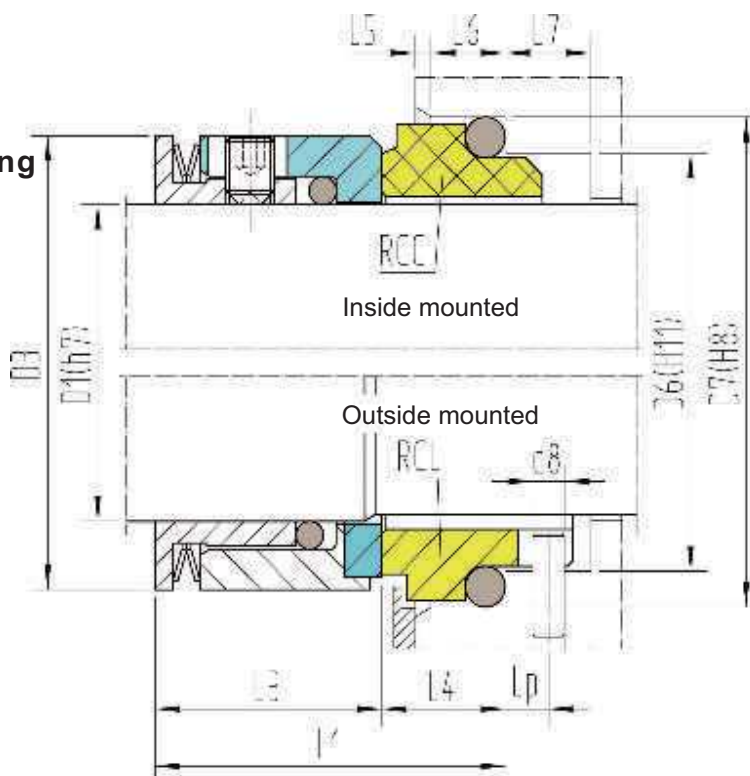


Materials:

Rotary: E, F, G, Q, U

Stationary: A, B, Q, U

Rubber parts: P, E, V, K, M



Operating limits:

(look at working conditions page 112)

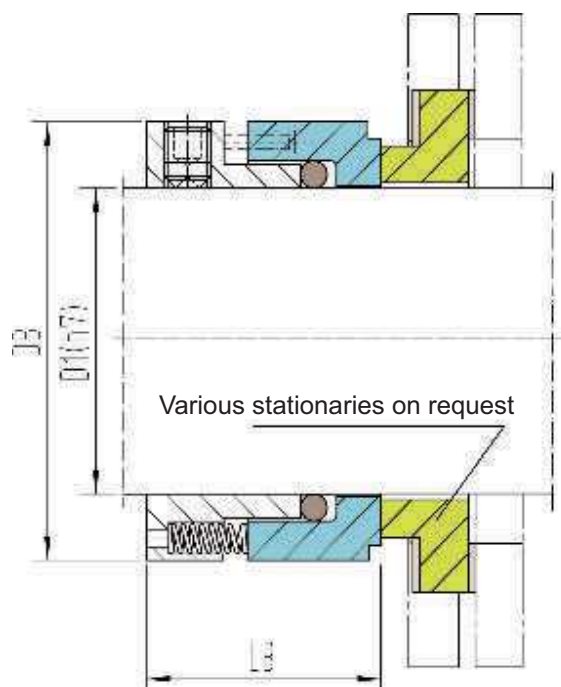
7KR	
p ≤	12 bar (16bar)
t =	-35 ÷ 140°C (180°C)
v ≤	15 m/s
Axial movement	+0,5mm

Special fitting dimensions

RCC RCL

D1	D6	D7	D3	L1	L3	L4	L6	L5	D8	L7	Lp
10	14	18.1	21	23.5	18	5.5	2.8	1.2	2	6.2	3.5
11÷12	16.5	20.6	23	23.5	18	5.5	2.8	1.2	2	6.2	3.5
13	19	23.1	25	24	18	6	2.8	1.2	2	6.7	4
14	19	23.1	25	24	18	6	2.8	1.2	2	6.7	4
15	21	26.9	26	26.1	19.1	7	3.7	1.3	2.5	7.6	4
16÷17	21	26.9	29	26.1	19.1	7	3.7	1.3	2.5	7.6	4
18	25	30.9	29	27.1	19.1	8	3.7	1.3	3	8.5	4.5
19	25	30.9	32	27.1	19.1	8	3.7	1.3	3	8.5	4.5
20	25	30.9	32	27.1	19.1	8	3.7	1.3	3	8.5	4.5
21÷22	30	35.4	35	27.1	19.1	8	3.7	1.8	3.5	8.5	5
23	30	35.4	37	27.1	19.1	8	3.7	1.8	3.5	8.5	5
24	30	35.4	37	27.1	19.1	8	3.7	1.8	3.5	8.5	5
25÷27	33	38.2	41	27.6	19.1	8.5	3.7	1.8	4	9.1	5
28	38	43.3	41	28.1	19.1	9	3.7	1.8	4	9.6	6
29÷32	38	43.3	47	28.1	19.1	9	3.7	1.8	4	9.6	6
33	45	53.5	48	30.6	19.1	11.5	5.4	2.1	5	12	7.5
35	45	53.5	49	30.6	19.1	11.5	5.4	2.1	5	12	7.5
38	52	60.5	53	32.6	21.1	11.5	5.4	2.1	5	12	7.5
40	52	60.5	55	32.6	21.1	11.5	5.4	2.1	5	12	7.5
43	52	60.5	60	32.6	21.1	11.5	5.4	2.1	5	12	7.5
44	57	65.5	60	32.6	21.1	11.5	5.4	2.1	5	13	8.5
45	57	65.5	60	32.6	21.1	11.5	5.4	2.1	5	13	8.5
48	57	65.5	65	32.6	21.1	11.5	5.4	2.1	5	13	8.5
50	64	72.5	65	32.6	21.1	11.5	5.4	2.1	5	13	8.5
55	64	72.5	74	33.6	22.1	11.5	5.4	2.1	5	13	8.5
60	72	79.3	79	37.3	25.8	11.5	5.4	2.1	5	13.5	8.5
65	77	84.5	87	37.3	25.8	11.5	5.4	2.1	5	13.5	8.5
70	82	89.5	93	37.3	25.8	11.5	5.4	2.1	5	13.5	8.5
75	87	94.5	98	37.3	25.8	11.5	5.4	2.1	5	13.5	8.5
80	92	99.5	104	37.3	25.8	11.5	5.4	2.1	5	13.5	8.5
85	98	105.5	108	39.3	25.8	13.5	5.4	2.6	5	13.5	8.5
90	105	111.5	113	39.3	25.8	13.5	5.4	2.6	5	13.5	8.5
95	110	116.5	118	39.3	25.8	13.5	5.4	2.6	5	13.5	8.5
100	114	119.5	123	39.3	25.8	13.5	5.4	2.6	5	13.5	8.5

Outside mounted seal
Counterpressure possible
Massive seal rings



Operating limits:
 (look at working conditions page 112)

7K1	
p ≤	12 bar
t =	-35 ÷ 140°C (180°C)
v ≤	15 m/s
Axial movement	± 0,2mm

Materials:

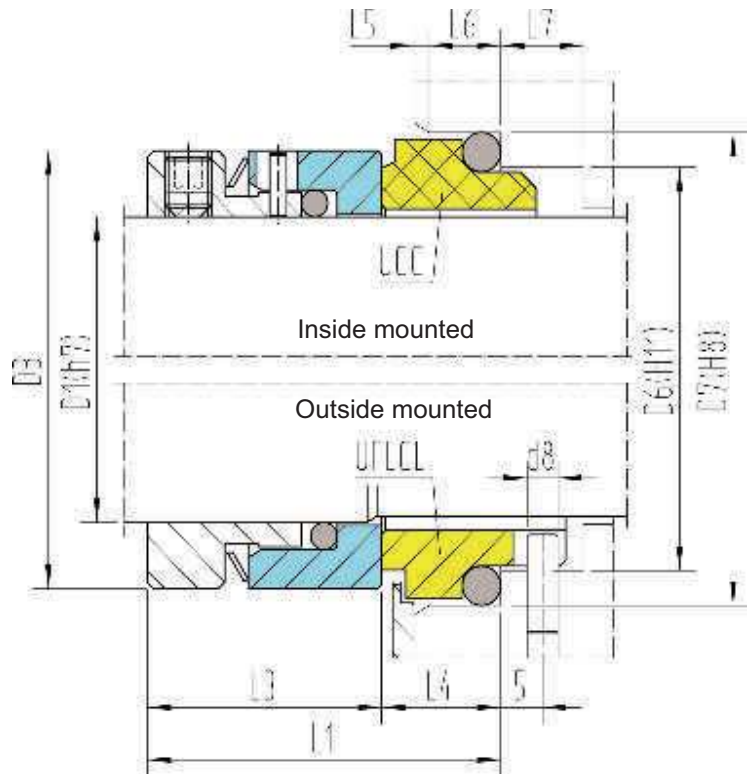
Rotary: A, B, Q, U

Stationary: on demand

Rubber parts: P, E, V, K, M

D1	D3	L3
20	40	22
22	42	22
24	44	22
25	47	24
28	50	24
30	52	24
32	54	24
33	55	24
35	57	24
38	65	29
40	67	29
42	69	29
43	70	29
45	72	29
48	75	29
50	77	29
53	80	29
55	82	29
58	85	29
60	87	29
63	90	29
65	92	29
68	95	29
70	97	29
75	102	29
80	112.5	31
85	117.5	31
90	122.5	31
95	127.5	31
100	132.5	31
105	137.5	31
110	142.5	31
115	156	55
120	161	55
125	166	55
130	171	55
140	181	55
150	191	55

Outside mounted universal seal
Short mounting length
Counterpressure possible
Massive seal rings



Materials:

Rotary: E, F, G, Q, U

Stationary: A, B, Q, U

Rubber parts: P, E, V, K, M

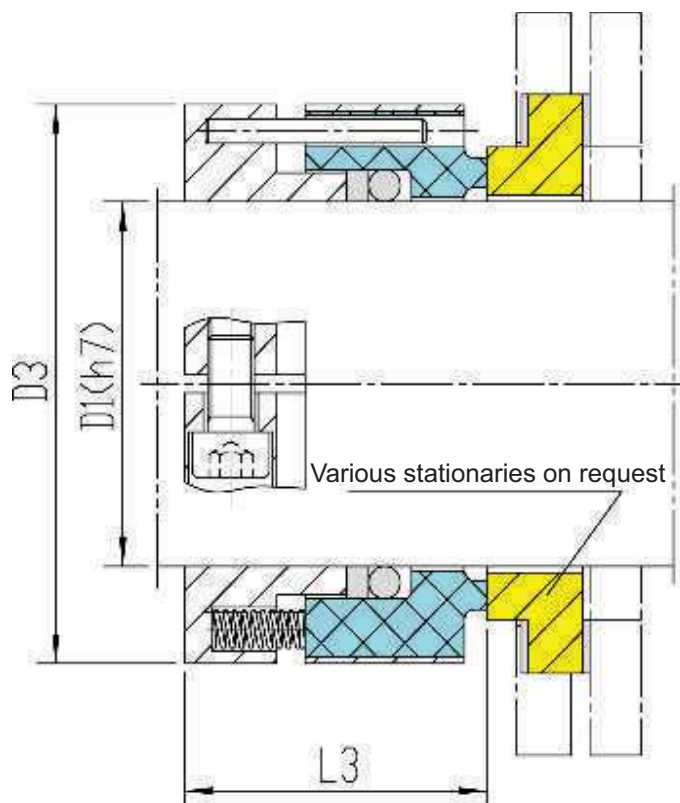
Operating limits:

(look at working conditions page 112)

p ≤	12 bar (16 bar)
t =	-35 ÷ 180°C
v ≤	15 m/s
Axial movement + 0,5 mm	

EN 12756 (DIN 24960)										UCC UFLCL
D1	D6	D7	D3	L1	L3	L4	L6	L5	D8	L7
10	17	21	21	25	18	7	4	1.5	3	8.5
12	19	23	23	25	18	7	4	1.5	3	8.5
14	21	25	25	25	18	7	4	1.5	3	8.5
16	23	27	26	26.1	19.1	7	4	1.5	3	8.5
18	27	33	29	29.1	19.1	10	5	2	3	9
20	29	35	32	29.1	19.1	10	5	2	3	9
22	31	37	35	29.1	19.1	10	5	2	3	9
24	33	39	37	29.1	19.1	10	5	2	3	9
25	34	40	37	29.1	19.1	10	5	2	3	9
28	37	43	41	29.1	19.1	10	5	2	3	9
30	39	45	43	29.1	19.1	10	5	2	3	9
32	42	48	47	29.1	19.1	10	5	2	3	9
33	42	48	48	29.1	19.1	10	5	2	3	9
35	44	50	49	29.1	19.1	10	5	2	3	9
38	49	56	53	34.1	21.1	13	6	2	4	9
40	51	58	55	34.1	21.1	13	6	2	4	9
43	54	61	60	34.1	21.1	13	6	2	4	9
45	56	63	60	34.1	21.1	13	6	2	4	9
48	59	66	65	34.1	21.1	13	6	2	4	9
50	62	70	65	35.1	21.1	14	6	2.5	4	9
53	65	73	74	36.1	22.1	14	6	2.5	4	9
55	67	75	74	36.1	22.1	14	6	2.5	4	9
58	70	78	79	39.8	25.8	14	6	2.5	4	9
60	72	80	79	39.8	25.8	14	6	2.5	4	9
63	75	83	87	39.8	25.8	14	6	2.5	4	9
65	77	85	87	39.8	25.8	14	6	2.5	4	9
68	81	90	93	41.8	25.8	16	7	2.5	4	9
70	83	92	93	41.8	25.8	16	7	2.5	4	9
75	88	97	98	41.8	25.8	16	7	2.5	4	9
80	95	105	104	43.8	25.8	18	7	3	4	9
85	100	110	108	43.8	25.8	18	7	3	4	9
90	105	115	113	43.8	25.8	18	7	3	4	9
95	110	120	118	43.8	25.8	18	7	3	4	9
100	115	125	123	43.8	25.8	18	7	3	4	9

Special outside mounted seal
Counterpressure possible
Clamping sleeve, shaft protecting



Materials:

Rotary: A, B, Q, U

Stationary: on demand

Rubber parts: P, E, V, K, M

Operating limits:

(look at working conditions page 112)

$p \leq$	12 bar
$t =$	$-35 \div 180^\circ\text{C}$
$v \leq$	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