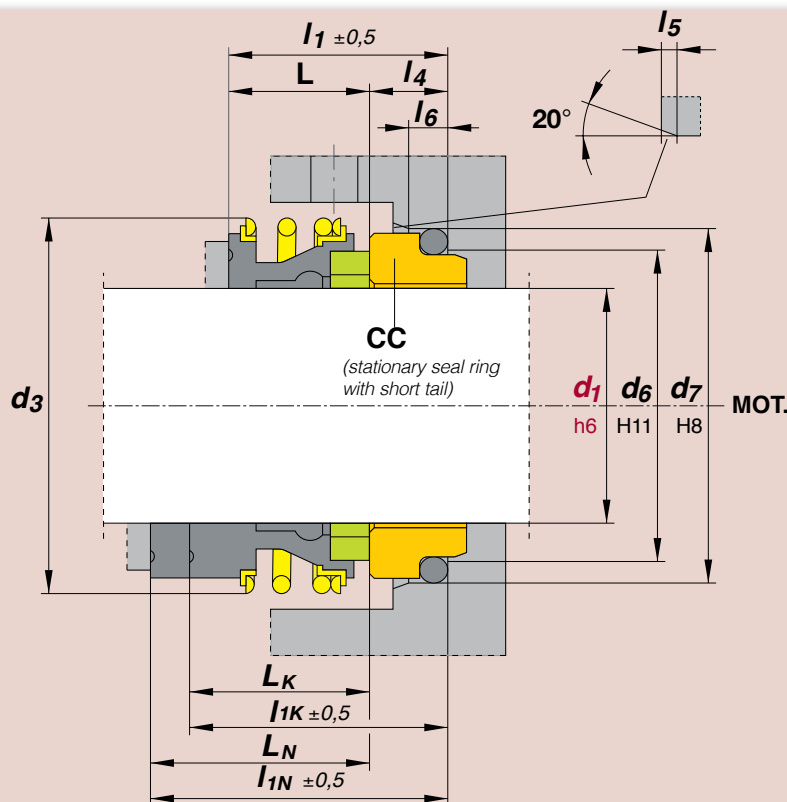
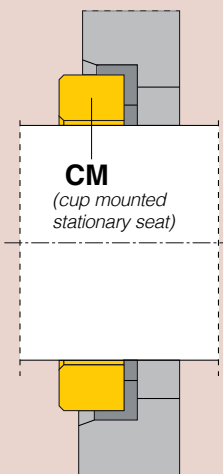


TYPE L3



L3 L3K L3N



UNITEN											EN 12756			
TYPE L3											L3K		L3N	
d_1	d_6	d_7	d_3	l_1	L	l_4	l_6	l_5	l_{1K}	l_{1N}	l_K	l_N		
10	17	21	24	21,1	14,5	6,6	4	1,5	32,5	25,9	40	33,4		
12	19	23	25	21,6	15	6,6	4	1,5	32,5	25,9	40	33,4		
14	21	25	29	23,6	17	6,6	4	1,5	35	28,4	40	33,4		
16	23	27	29	23,6	17	6,6	4	1,5	35	28,4	40	33,4		
18	27	33	32	27	19,5	7,5	5	2	37,5	30	45	37,5		
20	29	35	37	29	21,5	7,5	5	2	37,5	30	45	37,5		
22	31	37	37	29	21,5	7,5	5	2	37,5	30	45	37,5		
24	33	39	42	30	22,5	7,5	5	2	40	32,5	50	42,5		
25	34	40	42	30,5	23	7,5	5	2	40	32,5	50	42,5		
28	37	43	49	34	26,5	7,5	5	2	42,5	35	50	42,5		
30	39	45	49	34	26,5	7,5	5	2	42,5	35	50	42,5		
32	42	48	52	35	27,5	7,5	5	2	42,5	35	55	47,5		
33	42	48	52	35	27,5	7,5	5	2	42,5	35	55	47,5		
35	44	50	56	36	28,5	7,5	5	2	42,5	35	55	47,5		
38	49	56	58	39	30	9	6	2	45	36	55	46		
40	51	58	62	39	30	9	6	2	45	36	55	46		
43	54	61	65	39	30	9	6	2	45	36	60	51		
45	56	63	67	39	30	9	6	2	45	36	60	51		
48	59	66	71	39,5	30,5	9	6	2	45	36	60	51		
50	62	70	73	40	30,5	9,5	6	2,5	47,5	38	60	50,5		
53	65	73	78	44	33	11	6	2,5	47,5	36,5	70	59		
55	67	75	80	46	35	11	6	2,5	47,5	36,5	70	59		
58	70	78	84	48	37	11	6	2,5	52,5	41,5	70	59		
60	72	80	87	49	38	11	6	2,5	52,5	41,5	70	59		
63	75	83	92	55	44	11	6	2,5	52,5	41,5	70	59		
65	77	85	92	51	40	11	6	2,5	52,5	41,5	80	69		
68	81	90	96	51,3	40	11,3	7	2,5	52,5	41,2	80	68,7		
70	83	92	99	51,3	40	11,3	7	2,5	60	48,7	80	68,7		
75	88	97	104	51,3	40	11,3	7	2,5	60	48,7	80	68,7		
80	95	105	112	52	40	12	7	3	60	48	90	78		
85	100	110	120	55	41	14	7	3	60	46	90	76		
90	105	115	127	59	45	14	7	3	65	51	90	76		
95	110	120	132	60	46	14	7	3	65	51	90	76		
100	115	125	137	61	47	14	7	3	65	51	90	76		

Dimensions in mm.

ROTEN											TYPE L3B			
d_1	d_6	d_7	d_3	l_1	L	l_4	l_6	l_5						
10	15,5	19,2	24	21,1	14,5	6,6	3,8	1,2						
12	17,5	21,6	25	20,6	15	5,6	3,8	1,2						
14	20,5	24,6	29	22,6	17	5,6	3,8	1,2						
15	20,5	24,6	29	23,6	17	6,6	3,8	1,2						
16	22	28	29	24,5	17	7,5	5	1,5						
18	24	30	32	27,5	19,5	8	5	1,5						
20	29,5	35	37	29	21,5	7,5	5	1,5						
22	29,5	35	37	29	21,5	7,5	5	1,5						
24	32	38	42	30	22,5	7,5	5	1,5						
25	32	38	42	30,5	23	7,5	5	1,5						
28	36	42	49	35,5	26,5	9	5	1,5						
30	39,2	45	49	37	26,5	10,5	5	1,5						
32	42,2	48	52	38	27,5	10,5	5	1,5						
35	46,2	52	56	39,5	28,5	11	5	1,5						
38	49,2	55	58	40,3	30	10,3	5	1,5						
40	52,2	58	62	40,8	30	10,8	5	1,5						
45	55,3	64	67	41,6	30	11,6	6	2						
48	59,7	68,4	71	42,1	30,5	11,6	6	2						
50	60,8	69,3	73	42,1	30,5	11,6	6	2						
55	66,5	75,4	80	48,3	35	13,3	6	2						
58	69,5	78,4	84	50,3	37	13,3	6	2						
60	71,5	80,4	87	51,3	38	13,3	6	2						
65	76,5	85,4	92	53	40	13	6	2						
68	82,7	91,5	96	53,7	40	13,7	6	2						
70	83	92	99	53	40	13	6	2						
75	90,2	99	104	54	40	14	6	2						
80	95,2	104	112	55	40	15	6	2						

Dimensions in mm.

ROTEN															
TYPE L3C															
d_1 mm	d_1 inch	d_6	d_7	d_3	l_1	L	l_4	l_6	r						
10	0,375"	11	24,6	24	34	25	9	7,5	1,2						
12	0,500"	13,5	27,8	25	34	25	9	7,5	1,2						
14		17	30,95	29	35,5	25	10,5	9	1,2						
15		17	30,95	29	35,5	25	10,5	9	1,2						
16	0,625"	17	30,95	29	35,5	25	10,5	9	1,5						
18	0,750"	20	34,15	32	35,5	25	10,5	9	1,5						
20		21,5	35,7	37	35,5	25	10,5	9	1,5						
22	0,875"	23	37,3	37	35,5	25	10,5	9	1,5						
24		26,5	40,5	42	35,5	25	10,5	9	1,5						
25	1,000"	26,5	40,5	42	35,5	25	10,5	9	1,5						
28	1,125"	29,5	47,65	49	45	33	12	10,5	1,5						
30		32,5	50,8	49	45	33	12	10,5	1,5						
32	1,250"	32,5	50,8	52	45	33	12	10,5	1,5						
33		36,5	54	52	45	33	12	10,5	1,5						
35	1,375"	36,5	54	56	45	33	12	10,5	1,5						
38	1,500"	39,5	57,15	58	45	33	12	10,5	1,5						
40	1,625"	42,5	60,35	62	45	33	12	10,5	1,5						
43	1,750"	46	63,5	65	53	41	12	10,5	2,5						
45		46	63,5	67	53	41	12	10,5	2,5						
48	1,875"	49	66,7	71	53	41	12	10,5	2,5						
50	2,000"	52	69,85	73	54,5	41	13,5	12	2,5						
53	2,125"	55,5	73,05	78	54,5	41	13,5	12	2,5						
55	2,250"	58,5	76,2	80	54,5	41	13,5	12	2,5						
58		61,5	79,4	84	54,5	41	13,5	12	2,5						
60	2,375"	61,5	79,4	87	54,5	41	13,5	12	2,5						
63	2,500"	65	82,55	92	54,5	41	13,5	12	2,5						
65	2,625"	68	92,1	92	65	49	16	14,5	2,5						
68		71	95,25	96	65	49	16	14,5	2,5						
70	2,750"	71	95,25	99	65	49	16	14,5	2,5						
	2,875"	74,5	98,25	104	68	52	16	14,5	2,5						
75	3,000"	77,5	101,6	104	68	52	16	14,5	2,5						
	3,125"	80,5	111,15	112	76	56	20	18,5	2,5						
80	3,250"	84	114,3	112	76	56	20	18,5	2,5						
85	3,375"	87	117,5	120	76	56	20	18,5	2,5						
	3,500"	90,5	120,65	127	76	56	20	18,5	2,5						
90	3,625"	93,5	123,85	127	79	59	20	18,5	2,5						
95	3,750"	96,5	127	132	79	59	20	18,5	2,5						
	3,875"	100	130,2	137	82	62	20	18,5	2,5						
100	4,000"	103	133,35	137	82	62	20	18,5	2,5						

TYPE L3

It's a rubber bellow seal with the drive of the rotating part made by the friction between the shaft and inside diameter of the rubber bellow. The common materials for the faces are SiC/SiC and Carbon/SiC. The rubber parts can be supplied with material NBR, EPDM and FPM. The metal parts are supplied in stainless steel 304 or 316. It has a great flexibility because can accept more better small shaft misalignment and small axial movement.

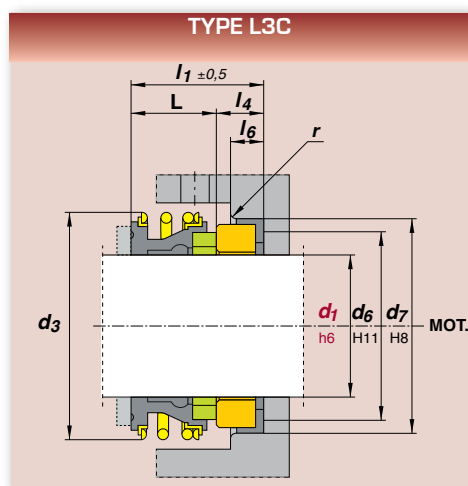
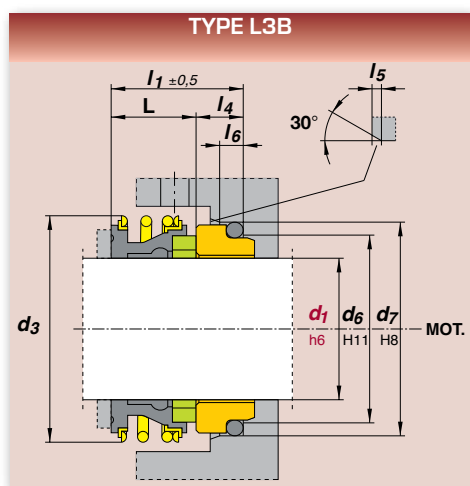
MAX. WORKING CONDITIONS

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

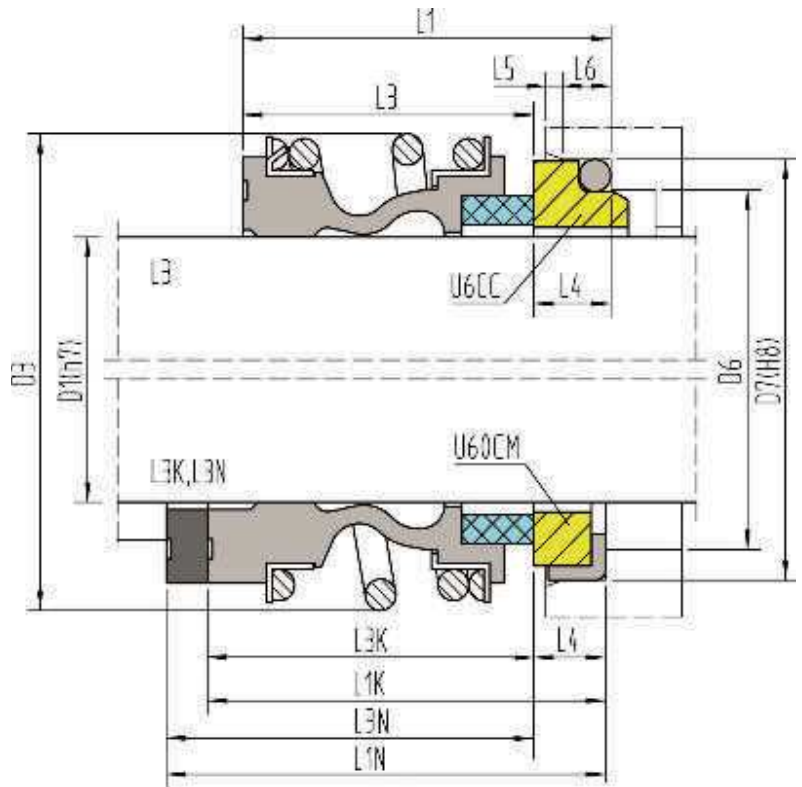
$$p \leq 10 \text{ bar}$$

$$t = -10 \div 120^{\circ}\text{C}$$

$$v \leq 10 \text{ m/s}$$



Robust single seal
Shaft protecting
Easy mounting
Independent of rotation



Materials:

Rotary: A, B, Q, U

Stationary: Q, U, V

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

Operating limits:

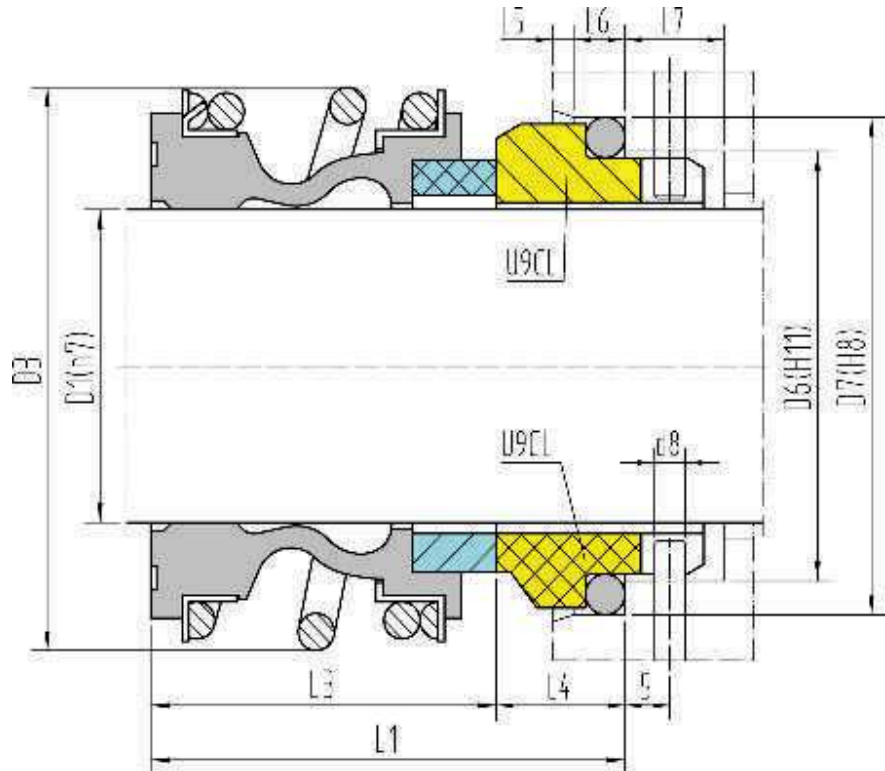
(look at working conditions page 112)

p ≤	12 bar
t =	-20 ÷ 120°C
v ≤	10 m/s

EN 12756 (DIN 24960)

										U6CC	U60CM	
D1	D6	D7	D3	L1	L3	L1K	L3K	L1N	L3N	L4	L6	L5
10	17	21	22.5	21.1	14.5	32.5	25.9	40	33.4	6.6	4	1.5
12	19	23	25	21.6	15	32.5	25.9	40	33.4	6.6	4	1.5
14	21	25	28.5	23.6	17	35	28.4	40	33.4	6.6	4	1.5
15	23	27	28.5	23.6	17	—	—	—	—	6.6	—	—
16	23	27	28.5	23.6	17	35	28.4	40	33.4	6.6	4	1.5
18	27	33	32	27	19.5	37.5	30	45	37.5	7.5	5	2
20	29	35	37	29	21.5	37.5	30	45	37.5	7.5	5	2
22	31	37	37	29	21.5	37.5	30	45	37.5	7.5	5	2
24	33	39	42.5	30	22.5	40	32.5	50	42.5	7.5	5	2
25	34	40	42.5	30.5	23	40	32.5	50	42.5	7.5	5	2
28	37	43	49	34	26.5	42.5	35	50	42.5	7.5	5	2
30	39	45	49	34	26.5	42.5	35	50	42.5	7.5	5	2
32	42	48	53.5	35	27.5	42.5	35	55	47.5	7.5	5	2
33	42	48	53.5	35	27.5	42.5	35	55	47.5	7.5	5	2
35	44	50	57	36	28.5	42.5	35	55	47.5	7.5	5	2
38	49	56	59	39	30	45	36	55	46	9	6	2
40	51	58	62	39	30	45	36	55	46	9	6	2
43	54	61	65.5	39	30	45	36	60	51	9	6	2
45	56	63	68	39	30	45	36	60	51	9	6	2
48	59	66	70.5	39.5	30.5	45	36	60	51	9	6	2
50	62	70	74	40	30.5	47.5	38	60	50.5	9.5	6	2.5
53	65	73	78.5	44	33	47.5	36.5	70	59	11	6	2.5
55	67	75	81	46	35	47.5	36.5	70	59	11	6	2.5
58	70	78	85.5	48	37	52.5	41.5	70	59	11	6	2.5
60	72	80	88.5	49	38	52.5	41.5	70	59	11	6	2.5
63	75	83	92.5	51	40	52.5	41.5	70	59	11	6	2.5
65	77	85	93.5	51	40	52.5	41.5	80	69	11	6	2.5
68	81	90	96.5	51.3	40	52.5	41.2	80	68.7	11.3	7	2.5
70	83	92	99.5	51.3	40	60	48.7	80	68.7	11.3	7	2.5
75	88	97	107	51.3	40	60	48.7	80	68.7	11.3	7	2.5
80	95	105	112	52	40	60	48	90	78	12	7	3
85	100	110	120	55	41	60	46	90	76	14	7	3
90	105	115	127	59	45	65	46	90	76	14	7	3
95	110	120	132	60	46	65	46	90	76	14	7	3
100	115	125	137	61	47	65	46	90	76	14	7	3

Robust single seal
Shaft protecting
Easy mounting
Independent of rotation



Materials:

Rotary: A, B, Q, U

Stationary: A, B, Q, U, V

Rubber parts: P, E, V

Operating limits:

(look at working conditions page 112)

p ≤	12 bar
t =	-20 ÷ 120 °C
v ≤	10 m/s

EN 12756 (DIN 24960)								U9CL	
D1	D6	D7	D3	L1	L3	L4	L6	L5	L7
10	17	21	22.5	24.5	14.5	10	4	1.5	8.5
12	19	23	25	25	15	10	4	1.5	8.5
14	21	25	28.5	27	17	10	4	1.5	8.5
16	23	27	28.5	27	17	10	4	1.5	8.5
18	27	33	32	31	19.5	11.5	5	2	9
20	29	35	37	33	21.5	11.5	5	2	9
22	31	37	37	33	21.5	11.5	5	2	9
24	33	39	42.5	34	22.5	11.5	5	2	9
25	34	40	42.5	34.5	23	11.5	5	2	9
28	37	43	49	38	26.5	11.5	5	2	9
30	39	45	49	38	26.5	11.5	5	2	9
32	42	48	53.5	39	27.5	11.5	5	2	9
33	42	48	53.5	39	27.5	11.5	5	2	9
35	44	50	57	40	28.5	11.5	5	2	9
38	49	56	59	44	30	14	6	2	9
40	51	58	62	44	30	14	6	2	9
43	54	61	65.5	44	30	14	6	2	9
45	56	63	68	44	30	14	6	2	9
48	59	66	70.5	44.5	30.5	14	6	2	9
50	62	70	74	45.5	30.5	15	6	2.5	9
53	65	73	78.5	48	33	15	6	2.5	9
55	67	75	81	50	35	15	6	2.5	9
58	70	78	85.5	52	37	15	6	2.5	9
60	72	80	88.5	53	38	15	6	2.5	9
63	75	83	92.5	55	40	15	6	2.5	9
65	77	85	93.5	55	40	15	6	2.5	9
68	81	90	96.5	58	40	18	7	2.5	9
70	83	92	99.5	58	40	18	7	2.5	9
75	88	97	107	58	40	18	7	2.5	9
80	95	105	112	58.2	40	18.2	7	3	9
85	100	110	120	59.2	41	18.2	7	3	9
90	105	115	127	63.2	45	18.2	7	3	9
95	110	120	132	63.2	46	17.2	7	3	9
100	115	125	137	64.2	47	17.2	7	3	9

**Robust single seal or
Economic allround seal
Shaft protecting
Independent of rotation**

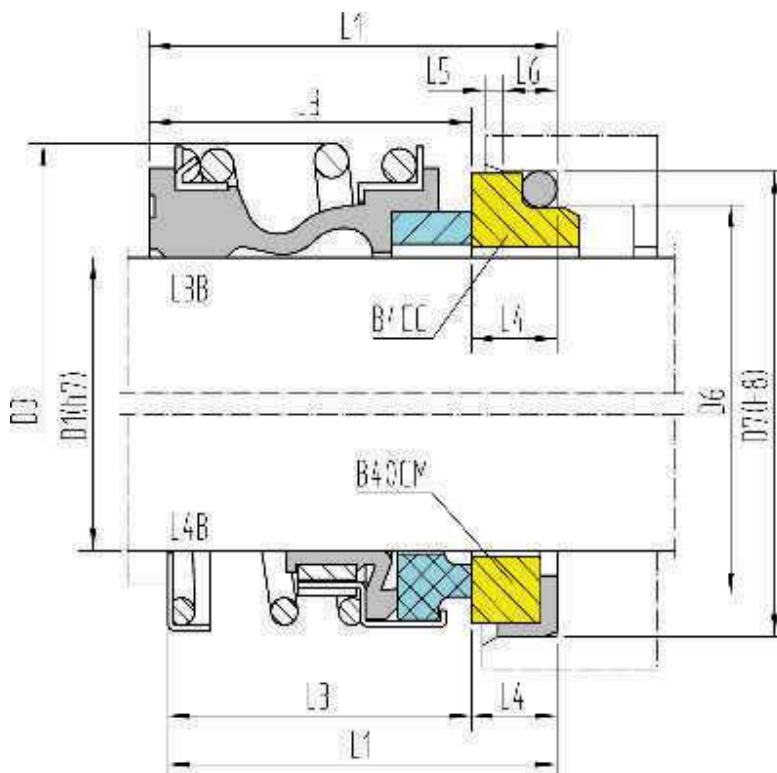


Materials:

Rotary: A, B, Q, U

Stationary: Q, U, V

Rubber parts: P, E, V



Operating limits:

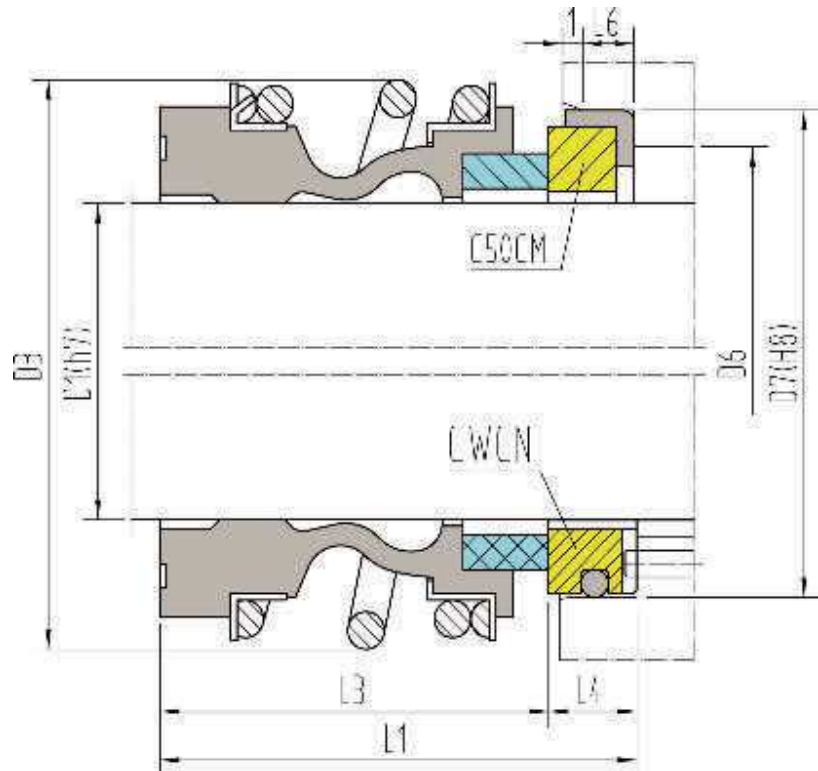
(look at working conditions page 112)

p ≤	12 bar
t =	-20 ÷ 120 °C
v ≤	10 m/s

Special fitting dimensions

B4CC B40CM									L4B B4CC B40CM		
D1	D6	D7	D3	L1	L3	L4	L6	L5	L1	L3	L4
10	15.5	19.2	22.5	21.1	14.5	6.6	3.8	1.2	22.6	16	6.6
12	17.5	21.6	25	20.6	15	5.6	3.8	1.2	23.1	17.5	5.6
14	20.5	24.6	28.5	22.6	17	5.6	3.8	1.2	23.1	17.5	5.6
15	20.5	24.6	28.5	23.6	17	6.6	3.8	1.2	24.1	17.5	6.6
16	22	28	28.5	24.5	17	7.5	5	1.5	26.5	19	7.5
18	24	30	32	27.5	19.5	8	5	1.5	28.5	20.5	8
19	29.5	35	37	29	21.5	7.5	5	1.5	29.5	22	7.5
20	29.5	35	37	29	21.5	7.5	5	1.5	29.5	22	7.5
22	29.5	35	37	29	21.5	7.5	5	1.5	31	23.5	7.5
24	32	38	42.5	30	22.5	7.5	5	1.5	32.5	25	7.5
25	32	38	42.5	30.5	23	7.5	5	1.5	34	26.5	7.5
28	36	42	49	35.5	26.5	9	5	1.5	35.5	26.5	9
30	39.2	45	49	37	26.5	10.5	5	1.5	35.5	25	10.5
32	42.2	48	53.5	38	27.5	10.5	5	1.5	39	28.5	10.5
33	44.5	50	53.5	38.5	27.5	11	5	1.5	39.5	28.5	11
35	46.2	52	57	39.5	28.5	11	5	1.5	39.5	28.5	11
38	49.2	55	59	40.3	30	10.3	5	1.5	42.5	32.2	10.3
40	52.2	58	62	40.8	30	10.8	5	1.5	45.5	34.7	10.8
43	53.3	62	65.5	42	30	12	6	2	49.3	37.3	12
45	55.3	64	68	41.6	30	11.6	6	2	50.8	39.2	11.6
48	59.7	68.4	70.5	42.1	30.5	11.6	6	2	56.3	44.7	11.6
50	60.8	69.3	74	42.1	30.5	11.6	6	2	57.3	45.7	11.6
53	63.8	72.3	78.5	45.3	33	12.3	6	2	60.3	48	12.3
55	66.5	75.4	81	48.3	35	13.3	6	2	62.3	49	13.3
58	69.5	78.4	85.5	50.3	37	13.3	6	2	65.3	52	13.3
60	71.5	80.4	88.5	51.3	38	13.3	6	2	66.3	53	13.3
63	74.5	83.4	92.5	53.3	40	13.3	6	2	-	-	13.3
65	76.5	85.4	93.5	53	40	13	6	2	67.3	54.3	13
68	82.7	91.5	96.5	53.7	40	13.7	6	2	69	55.3	13.7
70	83	92	99.5	53	40	13	6	2	69.3	56.3	13
75	90.2	99	107	54	40	14	6	2	70.3	56.3	14
80	95.2	104	112	55	40	15	6	2	74.3	59.3	15
85	100.2	109	120	55.8	41	14.8	6	2	-	-	-
90	105.2	114	127	59.8	45	14.8	6	2	-	-	-
95	111.6	120.3	132	61.8	46	15.8	6	2	-	-	-
100	114.5	123.3	137	62.8	47	15.8	6	2	-	-	-

Robust single seal
Shaft protecting
Easy mounting
Independent of rotation



Materials:

Rotary: A, B, Q, U
 Stationary: Q, U, V
 Rubber parts: P, E, V

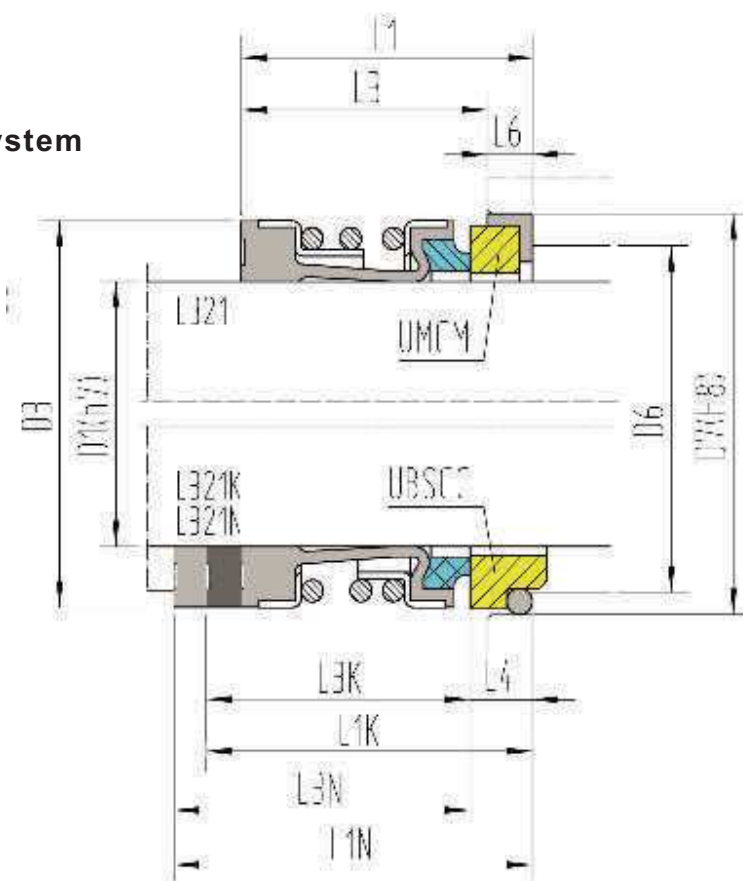
Operating limits:

(look at working conditions page 112)

p ≤	12 bar
t =	-20 ÷ 120°C
v ≤	10 m/s

European standards							C50CM	CWCN
D1	D1Inch	D6	D7	D3	L1	L3	L4	L6
10	0,375	11	24.6	22.5	34	25	9	7.5
12	0,500	13.5	27.8	25	34	25	9	7.5
14	-	17	30.95	28.5	35.5	25	10.5	9
15	-	17	30.95	28.5	35.5	25	10.5	9
16	0,625	17	30.95	28.5	35.5	25	10.5	9
18	0,750	20	34.15	32	35.5	25	10.5	9
20	-	21.5	35.7	37	35.5	25	10.5	9
22	0,875	23	37.3	37	35.5	25	10.5	9
24	-	26.5	40.5	42.5	35.5	25	10.5	9
25	1,000	26.5	40.5	42.5	35.5	25	10.5	9
28	1,125	29.5	47.65	49	45	33	12	10.5
30	-	32.5	50.8	49	45	33	12	10.5
32	1,250	32.5	50.8	53.5	45	33	12	10.5
33	-	36.5	54	53.5	45	33	12	10.5
35	1,375	36.5	54	57	45	33	12	10.5
38	1,500	39.5	57.15	59	45	33	12	10.5
40	1,625	42.5	60.35	62	45	33	12	10.5
42	-	46	63.5	65.5	53	41	12	10.5
43	1,750	46	63.5	65.5	53	41	12	10.5
45	-	46	63.5	68	53	41	12	10.5
48	1,875	49	66.7	70.5	53	41	12	10.5
50	2,000	52	69.85	74	54.5	41	13.5	12
53	2,125	55.5	73.05	78.5	54.5	41	13.5	12
55	2,250	58.5	76.2	81	54.5	41	13.5	12
58	-	61.5	79.4	85.5	54.5	41	13.5	12
60	2,375	61.5	79.4	88.5	54.5	41	13.5	12
	2,500	65	82.55	92.5	54.5	41	13.5	12
65	2,625	68	92.1	93.5	65	49	16	14.5
68	-	71	95.25	96.5	65	49	16	14.5
70	2,750	71	95.25	99.5	65	49	16	14.5
	2,875	74.5	98.45	-	68	52	16	14.5
75	3,000	77.5	101.6	107	68	52	16	14.5
	3,125	80.5	111.15	-	76	56	20	14.5
80	3,250	84	114.3	112	76	56	20	18.5
85	3,375	87	117.5	120	76	56	20	18.5
	3,500	90.5	120.65	-	76	56	20	18.5
90	3,625	93.5	123.85	127	79	59	20	18.5
95	3,750	96.5	127	132	79	59	20	18.5
	3,875	100	130.2	-	82	62	20	18.5
100	4,000	103	133.35	137	82	62	20	18.5

Robust single seal
Shaft protecting
Easy mounting
Torque transmission over claw system
Independent of rotation



Operating limits:
(look at working conditions page 112)

p ≤	12 bar
t =	-20 ÷ 120°C
v ≤	10m/s

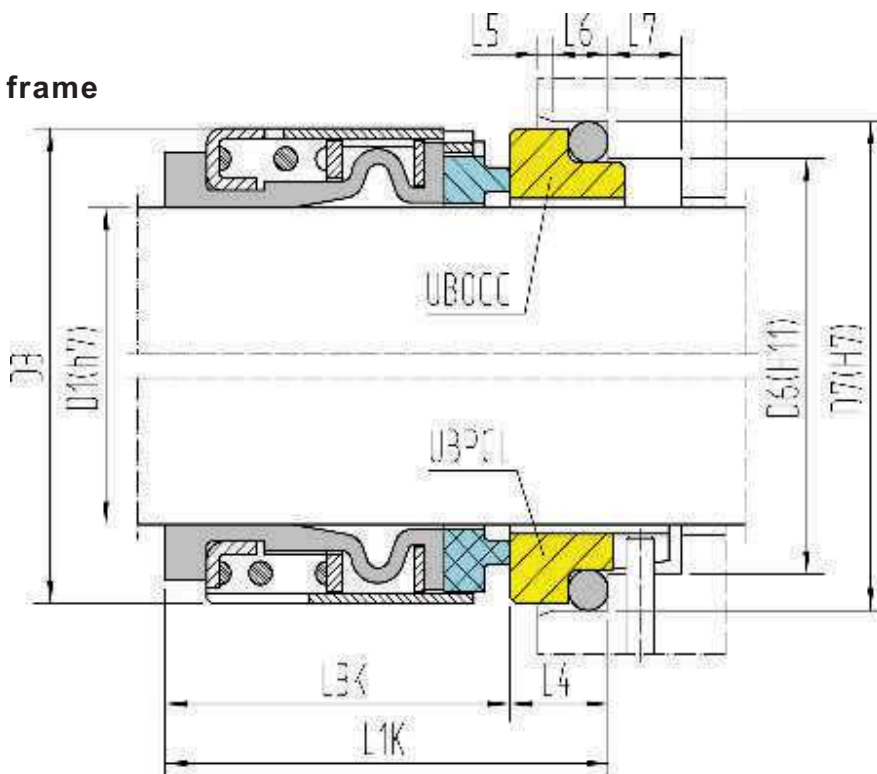
Materials:

Rotary: A, B, Q
Stationary: Q, V
Rubber parts: P, E, V

EN 12756 (DIN 24960)

										UBSCC	UMCM
D1	D6	D7	D3	L1	L3	L1K	L3K	L1N	L3N	L4	L6
10	17	21	20	20	15	32.5	27.5	40	35	5	4
12	19	23	22	21	15	32.5	26.5	40	34	6	4
14	21	25	24	21	15	35	29	40	34	6	4
15	23	27	25	21	15	—	—	—	—	6	4
16	23	27	26	21	15	35	29	40	34	6	4
18	27	33	32	26	20	37.5	31.5	45	39	6	5
20	29	35	34	26	20	37.5	31.5	45	39	6	5
22	31	37	36	26	20	37.5	31.5	45	39	6	5
24	33	39	38	26	20	40	34	50	44	6	5
25	34	40	39	26	20	40	34	50	44	6	5
28	37	43	42	32	26	42.5	36.5	50	44	6	5
30	39	45	44	33	26	42.5	35.5	50	43	7	5
32	42	48	46	33	26	42.5	35.5	55	48	7	5
33	42	48	47	33	26	42.5	35.5	55	48	7	5
35	44	50	49	34	26	42.5	34.5	55	47	8	5
38	49	56	54	38	30	45	37	55	47	8	6
40	51	58	56	38	30	45	37	55	47	8	6
43	54	61	59	38	30	45	37	60	52	8	6
45	56	63	61	38	30	45	37	60	52	8	6
48	59	66	64	40	30	45	35	60	50	10	6
50	62	70	66	40	30	47.5	37.5	60	50	10	6
53	65	73	69	40	30	47.5	37.5	70	60	10	6
55	67	75	71	40	30	47.5	37.5	70	60	10	6
58	70	78	78	43	33	52.5	42.5	70	60	10	6
60	72	80	80	45	33	52.5	40.5	70	58	12	6
63	75	83	83	45	33	52.5	40.5	70	58	12	6
65	77	85	85	45	33	52.5	40.5	80	68	12	6
68	81	90	88	45	33	52.5	40.5	80	68	12	7
70	83	92	90	45	33	60	48	80	68	12	7
75	88	97	99	52	40	60	48	80	68	12	7
80	95	105	104	52.5	40	60	47.5	90	77.5	12.5	7
85	100	110	109	52.5	40	60	47.5	90	77.5	12.5	7
90	105	115	114	52.5	40	65	52.5	90	77.5	12.5	7
95	110	120	119	52.5	40	65	52.5	90	77.5	12.5	7
100	115	125	124	52.5	40	65	52.5	90	77.5	12.5	7

Robust single seal
Shaft protecting
Massive frame
Torque transmission over frame
Independent of rotation



Materials:

Rotary: A, B, Q
 Stationary: Q, U, V
 Rubber parts: P, E, V

Operating limits:

(look at working conditions page 112)

p ≤	12 bar
t =	-20 ÷ 120 °C
v ≤	10 m/s

Elastomere
bellows seals

EN 12756 (DIN 24960)								UBOCC UBPC	
D1	D6	D7	D3	L1K	L3K	L4	L7	L6	L5
14	21	25	24	35	23	12	8.5	4	1.5
16	23	27	26	35	23	12	8.5	4	1.5
18	27	33	32	37.5	24	13.5	9	5	2
20	29	35	34	37.5	24	13.5	9	5	2
22	31	37	36	37.5	24	13.5	9	5	2
24	33	39	38	40	26.5	13.5	9	5	2
25	34	40	39	40	27	13	9	5	2
28	37	43	42	42.5	30	12.5	9	5	2
30	39	45	44	42.5	30.5	12	9	5	2
32	42	48	46	42.5	30.5	12	9	5	2
33	42	48	47	42.5	30.5	12	9	5	2
35	44	50	49	42.5	30.5	12	9	5	2
38	49	56	54	45	32	13	9	6	2
40	51	58	56	45	32	13	9	6	2
43	54	61	59	45	32	13	9	6	2
45	56	63	61	45	32	13	9	6	2
48	59	66	64	45	32	13	9	6	2
50	62	70	66	47.5	34	13.5	9	6	2.5
53	65	73	69	47.5	34	13.5	9	6	2.5
55	67	75	71	47.5	34	13.5	9	6	2.5
58	70	78	78	52.5	39	13.5	9	6	2.5
60	72	80	80	52.5	39	13.5	9	6	2.5
63	75	83	83	52.5	39	13.5	9	6	2.5
65	77	85	85	52.5	39	13.5	9	6	2.5
68	81	90	88	52.5	39	13.5	9	7	2.5
70	83	92	89	60	45.5	14.5	9	7	2.5
75	88	97	96	60	45.5	14.5	9	7	2.5
80	95	105	104	60	45	15	9	7	3
85	100	110	108	60	45	15	9	7	3
90	105	115	114	65	45	15	9	7	3
95	110	120	118	65	45	15	9	7	3
100	115	125	124	65	45	15	9	7	3