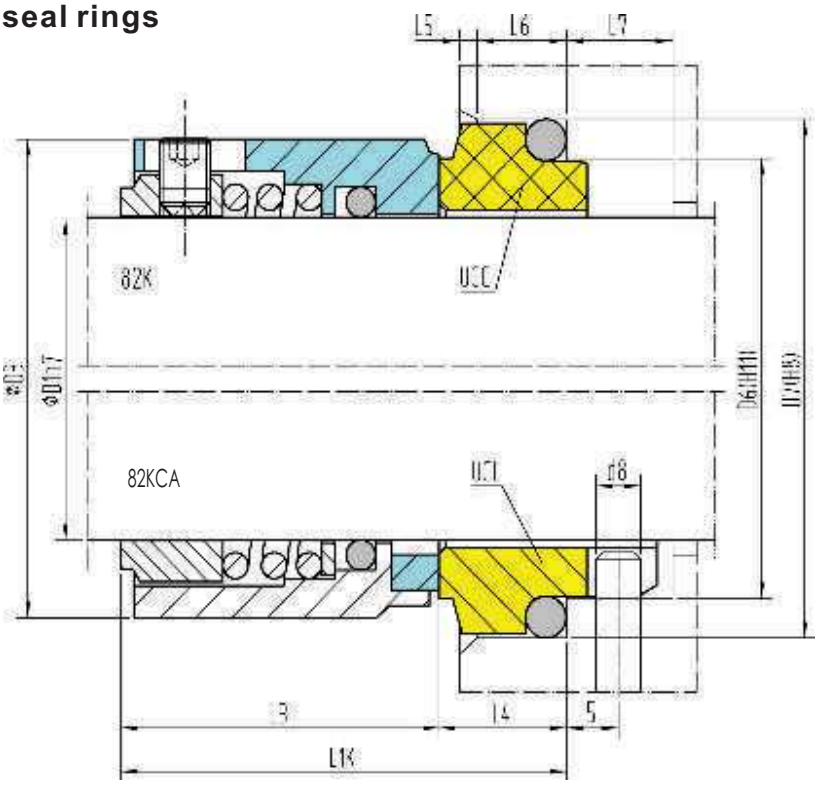
82K-82KCA

Robust norm seal
Massive seal ring frame with flushing whole for self-cleaning
Massive, brazed or shrinked seal rings



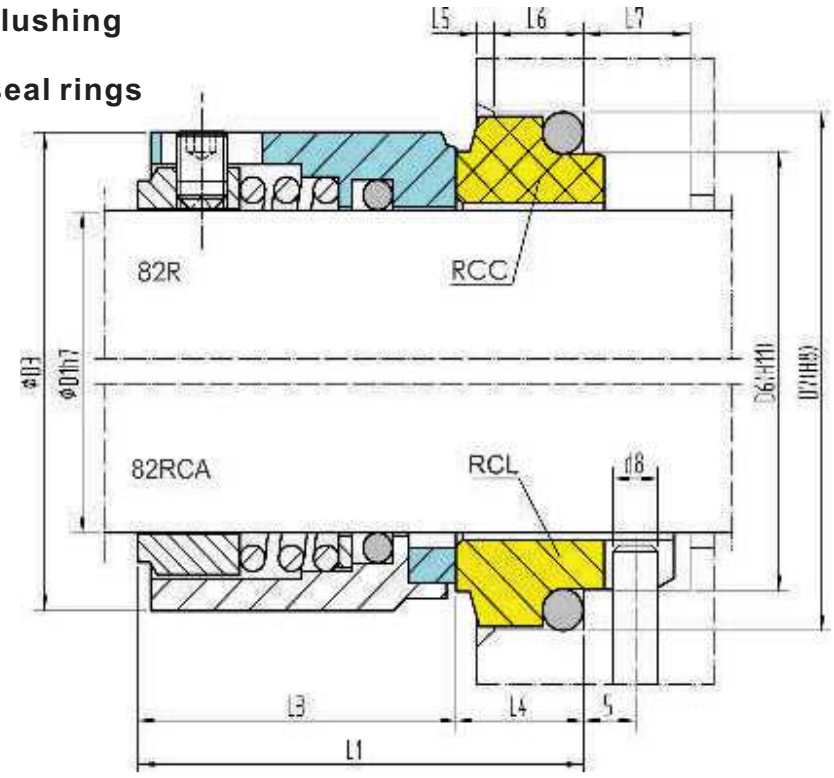
Materials:
Rotary: E, F, G, Q, U
Stationary: A, B, Q, U
Rubber parts: P, E, V, K, M

Operating limits:
(look at working conditions page 112)

82K	82KCA
p⩽ 12 bar	p⩽ 16 bar
t = -35 ÷ 180°C	t = -35 ÷ 140°C
v⩽ 15 m/s	v⩽ 15 m/s

EN 12756 (DIN 24960)									UCC	UCL
D1	D6	D7	D3	L1K	L3	L4	L6	L5	D8	L7
10	17	21	21	32.5	25.5	7	4	1.5	3	8.5
12	19	23	22	32.5	25.5	7	4	1.5	3	8.5
14	21	25	24	35	28	7	4	1.5	3	8.5
16	23	27	26	35	28	7	4	1.5	3	8.5
18	27	33	29	37.5	27.5	10	5	2	3	9
20	29	35	30	37.5	27.5	10	5	2	3	9
22	31	37	34	37.5	27.5	10	5	2	3	9
24	33	39	35	40	30	10	5	2	3	9
25	34	40	37	40	30	10	5	2	3	9
28	37	43	42	42.5	32.5	10	5	2	3	9
30	39	45	45	42.5	32.5	10	5	2	3	9
32	42	48	45	42.5	32.5	10	5	2	3	9
33	42	48	48	42.5	32.5	10	5	2	3	9
35	44	50	50	42.5	32.5	10	5	2	3	9
38	49	56	54	45	32	13	6	2	4	9
40	51	58	56	45	32	13	6	2	4	9
43	54	61	60	45	32	13	6	2	4	9
45	56	63	64	45	32	13	6	2	4	9
48	59	66	67	45	32	13	6	2	4	9
50	62	70	69	47.5	33.5	14	6	2.5	4	9
53	65	73	74	47.5	33.5	14	6	2.5	4	9
55	67	75	74	47.5	33.5	14	6	2.5	4	9
58	70	78	80	52.5	38.5	14	6	2.5	4	9
60	72	80	80	52.5	38.5	14	6	2.5	4	9
63	75	83	87	52.5	38.5	14	6	2.5	4	9
65	77	85	87	52.5	38.5	14	6	2.5	4	9
68	81	90	92	52.5	36.5	16	7	2.5	4	9
70	83	92	92	60	44	16	7	2.5	4	9
75	88	97	97	60	44	16	7	2.5	4	9
80	95	105	102	60	42	18	7	3	4	9
85	100	110	110	60	42	18	7	3	4	9
90	105	115	117	65	47	18	7	3	4	9
95	110	120	122	65	47	18	7	3	4	9
100	115	125	127	65	47	18	7	3	4	9

Robust standard seal
Massive seal ring frame with flushing whole for self-cleaning
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

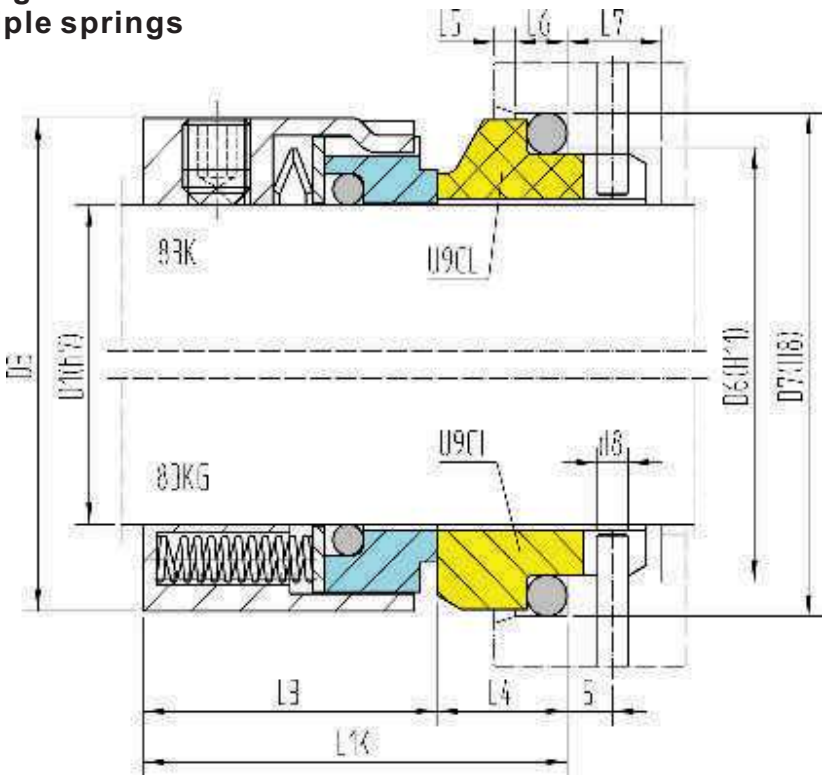
Operating limits:
(look at working conditions page 112)

82R	82RCA
p≤ 12 bar	p≤ 16 bar
t = -35 ÷ 180°C	t = -35 ÷ 140°C
v≤ 15 m/s	v≤ 15 m/s

Special fitting dimensions — RCC RCL

D1	D6	D7	D3	L1	L3	L4	L6	L5	D8	L7
10	14	18.1	21	20.5	15	5.5	2.8	1.2	2	6.2
11	16.5	20.6	21	23.5	18	5.5	2.8	1.2	2	6.2
12	16.5	20.6	22	23.5	18	5.5	2.8	1.2	2	6.2
14	19	23.1	24	28	22	6	2.8	1.2	2	6.7
16	21	26.9	26	30	23	7	3.7	1.3	2.5	7.6
18	25	30.9	29	32	24	8	3.7	1.3	3	8.5
19	25	30.9	30	33	25	8	3.7	1.3	3	8.5
20	25	30.9	30	33	25	8	3.7	1.3	3	8.5
22	30	35.4	34	33	25	8	3.7	1.8	3.5	8.5
24	30	35.4	35	35	27	8	3.7	1.8	3.5	8.5
25	33	38.2	37	35.5	27	8.5	3.7	1.8	4	9.1
28	38	43.3	42	38	29	9	3.7	1.8	4	9.6
29	38	43.3	42	38	29	9	3.7	1.8	4	9.6
30	38	43.3	45	38	29	9	3.7	1.8	4	9.6
32	38	43.3	45	38	29	9	3.7	1.8	4	9.6
33	45	53.5	48	44.5	33	11.5	5.4	2.1	5	12
35	45	53.5	50	46.5	35	11.5	5.4	2.1	5	12
38	52	60.5	54	46.5	35	11.5	5.4	2.1	5	12
40	52	60.5	56	46.5	35	11.5	5.4	2.1	5	12
42	52	60.5	59	46.5	35	11.5	5.4	2.1	5	12
43	52	60.5	60	46.5	35	11.5	5.4	2.1	5	12
44	57	65.5	60	48.5	37	11.5	5.4	2.1	5	13
45	57	65.5	64	48.5	37	11.5	5.4	2.1	5	13
48	57	65.5	67	48.5	37	11.5	5.4	2.1	5	13
50	64	72.5	69	50.5	39	11.5	5.4	2.1	5	13
55	64	72.5	74	50.5	39	11.5	5.4	2.1	5	13
60	72	79.3	80	51.5	40	11.5	5.4	2.1	5	13.5
65	77	84.5	87	52,5	41	11.5	5.4	2.1	5	13.5
70	82	89.5	92	52,5	41	11.5	5.4	2.1	5	13.5
75	87	94.5	97	55.5	44	11.5	5.4	2.1	5	13.5
80	92	99.5	102	59.5	48	11.5	5.4	2.1	5	13.5
85	98	105.5	110	61.5	48	13.5	5.4	2.6	5	13.5
90	105	111.5	117	61.5	48	13.5	5.4	2.6	5	13.5
95	110	116.5	122	66.5	53	13.5	5.4	2.6	5	13.5
100	114	119.5	127	69.5	56	13.5	5.4	2.6	5	13.5
110	124	132.2	143	81.5	64	17.5	7.1	3.9	5	13.5
120	134	142.2	155	97.5	80	17.5	7.1	3.9	5	13.5
130	145	153.2	166	97.5	80	17.5	7.1	3.9	5	13.5

Universal norm seal
Massive replaceable seal rings
Super-sinus-spring or multiple springs



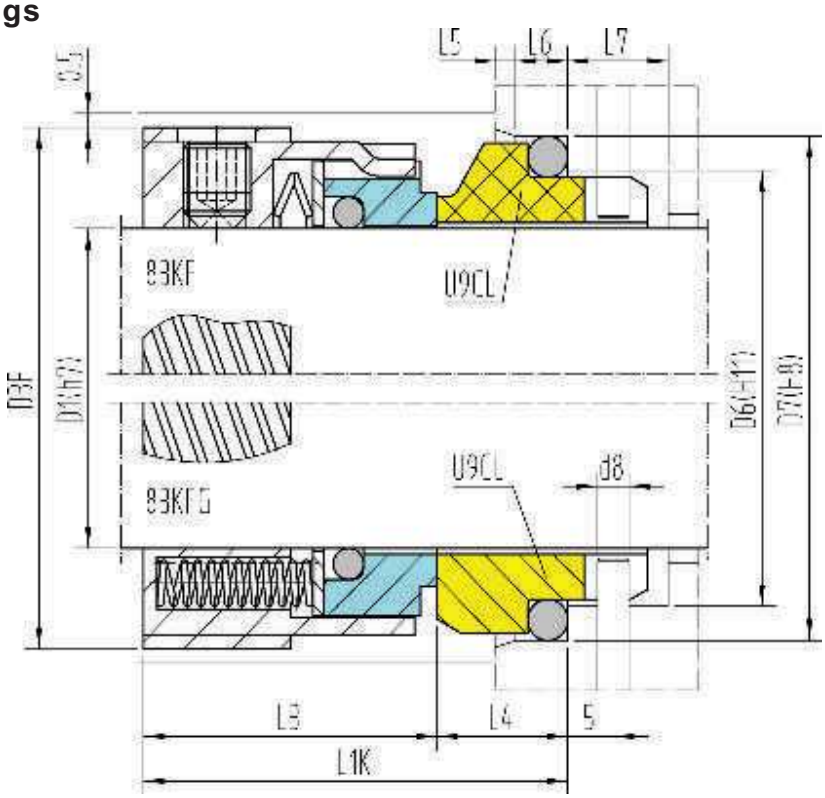
Materials:
Rotary: E, F, G, Q, U
Stationary: A, B, Q, U
Rubber parts: P, E, V, K, M

Operating limits:
(look at working conditions page 112)

p≤	16 bar
t=	-35 ÷ 200°C
v≤	15 m/s

EN 12756 (DIN 24960)									U9CL	
D1	D6	D7	D3	L1K	L3	L4	L6	L5	D8	L7
14	21	25	25	35	25	10	4	1.5	3	8.5
16	23	27	27	35	25	10	4	1.5	3	8.5
18	27	33	33	37.5	26	11.5	5	2	3	9
20	29	35	35	37.5	26	11.5	5	2	3	9
22	31	37	37	37.5	26	11.5	5	2	3	9
24	33	39	39	40	28.5	11.5	5	2	3	9
25	34	40	40	40	28.5	11.5	5	2	3	9
28	37	43	43	42.5	31	11.5	5	2	3	9
30	39	45	45	42.5	31	11.5	5	2	3	9
32	42	48	47	42.5	31	11.5	5	2	3	9
33	42	48	48	42.5	31	11.5	5	2	3	9
35	44	50	50	42.5	31	11.5	5	2	3	9
38	49	56	55	45	31	14	6	2	4	9
40	51	58	57	45	31	14	6	2	4	9
43	54	61	60	45	31	14	6	2	4	9
45	56	63	62	45	31	14	6	2	4	9
48	59	66	65	45	31	14	6	2	4	9
50	62	70	67	47.5	32.5	15	6	2.5	4	9
53	65	73	70	47.5	32.5	15	6	2.5	4	9
55	67	75	72	47.5	32.5	15	6	2.5	4	9
58	70	78	79	52.5	37.5	15	6	2.5	4	9
60	72	80	81	52.5	37.5	15	6	2.5	4	9
63	75	83	84	52.5	37.5	15	6	2.5	4	9
65	77	85	86	52.5	37.5	15	6	2.5	4	9
68	81	90	89	52.5	34.5	18	7	2.5	4	9
70	83	92	91	60	42	18	7	2.5	4	9
75	88	97	99	60	42	18	7	2.5	4	9
80	95	105	104	60	41.8	18.2	7	3	4	9
85	100	110	109	60	41.8	18.2	7	3	4	9
90	105	115	114	65	46.8	18.2	7	3	4	9
95	110	120	119	65	47.8	17.2	7	3	4	9
100	115	125	124	65	47.8	17.2	7	3	4	9

Universal norm seal with pumping screw
Massive replaceable seal rings
Super-sinus-spring or
Multiple springs



Pumping direction of the screw
look at page 121

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

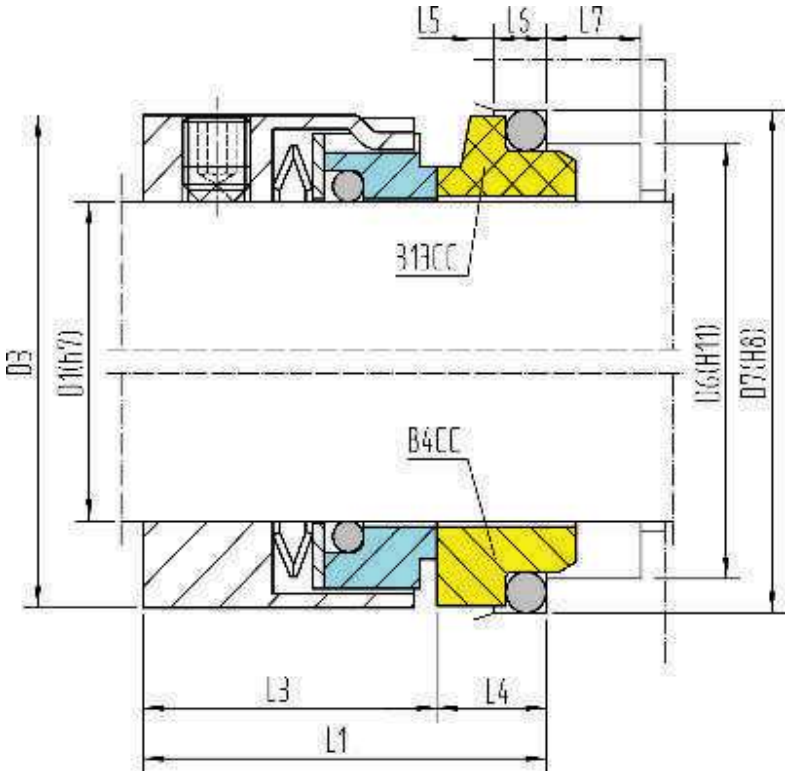
Operating limits:
(look at working conditions page 112)

p≤	16 bar
t=	-35 ÷ 200°C
v≤	15 m/s

EN 12756 (DIN 24960) — **U9CL**

D1	D6	D7	D3F	L1K	L3	L4	L6	L5	D8	L7
14	21	25	34	35	25	10	4	1.5	3	8.5
16	23	27	36	35	25	10	4	1.5	3	8.5
18	27	33	38	37.5	26	11.5	5	2	3	9
20	29	35	40	37.5	26	11.5	5	2	3	9
22	31	37	42	37.5	26	11.5	5	2	3	9
24	33	39	44	40	28.5	11.5	5	2	3	9
25	34	40	45	40	28.5	11.5	5	2	3	9
28	37	43	47	42.5	31	11.5	5	2	3	9
30	39	45	49	42.5	31	11.5	5	2	3	9
32	42	48	51	42.5	31	11.5	5	2	3	9
33	42	48	51	42.5	31	11.5	5	2	3	9
35	44	50	54	42.5	31	11.5	5	2	3	9
38	49	56	59	45	31	14	6	2	4	9
40	51	58	61	45	31	14	6	2	4	9
43	54	61	65	45	31	14	6	2	4	9
45	56	63	66	45	31	14	6	2	4	9
48	59	66	69	45	31	14	6	2	4	9
50	62	70	71	47.5	32.5	15	6	2.5	4	9
53	65	73	75	47.5	32.5	15	6	2.5	4	9
55	67	75	76	47.5	32.5	15	6	2.5	4	9
58	70	78	83	52.5	37.5	15	6	2.5	4	9
60	72	80	85	52.5	37.5	15	6	2.5	4	9
63	75	83	88	52.5	37.5	15	6	2.5	4	9
65	77	85	95	52.5	37.5	15	6	2.5	4	9
68	81	90	93	52.5	34.5	18	7	2.5	4	9
70	83	92	95	60	42	18	7	2.5	4	9
75	88	97	105	60	42	18	7	2.5	4	9
80	95	105	109	60	41.8	18.2	7	3	4	9
85	100	110	114	60	41.8	18.2	7	3	4	9
90	105	115	119	65	46.8	18.2	7	3	4	9
95	110	120	124	65	47.8	17.2	7	3	4	9
100	115	125	129	65	47.8	17.2	7	3	4	9

Universal seal
Massive replaceable seal rings
Super-sinus-spring



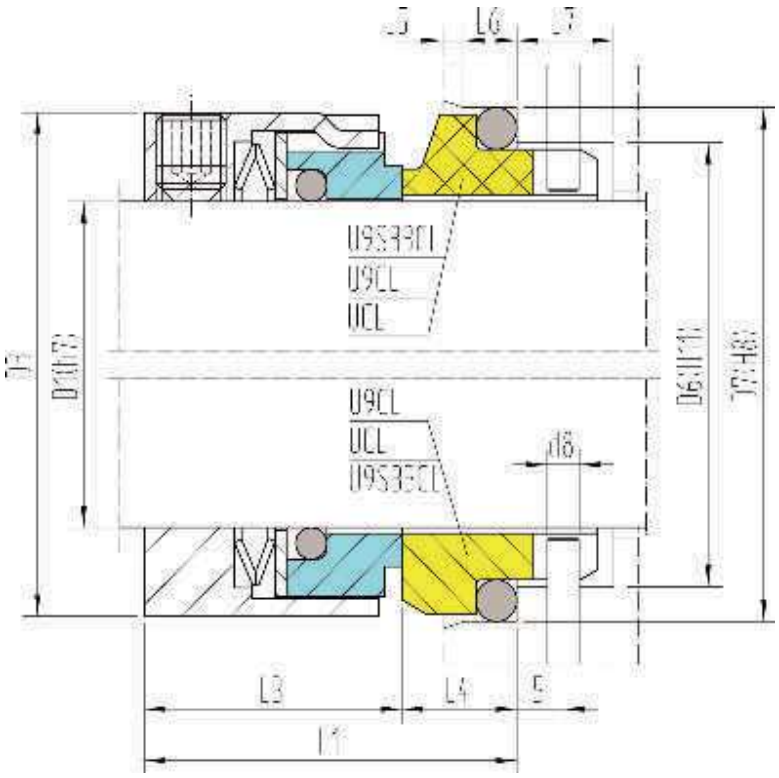
Materials:
Rotary: E, F, G, Q, U
Stationary: A, B, Q, U
Rubber parts: P, E, V, K, M

Operating limits:
(look at working conditions page 112)

p≤	16 bar
t=	-35 ÷ 200°C
v≤	15 m/s

Special fitting dimensions							B4CC		B13CC		
D1	D6	D7	D3	L1	L3	L4	L6	L5	L1	L3	L4
14	20.5	24.6	25.0	30.6	25.0	5.6	4.0	1.5	32.6	25.0	7.6
16	22.0	28.0	27.0	32.5	25.0	7.5	4.0	1.5	34.0	25.0	9.0
18	24.0	30.0	33.0	34.0	26.0	8.0	5.0	2.0	36.0	26.0	10.0
20	29.5	35.0	35.0	33.5	26.0	7.5	5.0	2.0	35.5	26.0	9.5
22	29.5	35.0	37.0	33.5	26.0	7.5	5.0	2.0	35.5	26.0	9.5
24	32.0	38.0	39.0	36.0	28.5	7.5	5.0	2.0	38.0	28.5	9.5
25	32.0	38.0	40.0	36.0	28.5	7.5	5.0	2.0	38.0	28.5	9.5
28	36.0	42.0	43.0	40.0	31.0	9.0	5.0	2.0	42.0	31.0	11.0
30	39.2	45.0	45.0	41.5	31.0	10.5	5.0	2.0	42.0	31.0	11.0
32	42.5	48.0	47.0	41.5	31.0	10.5	5.0	2.0	42.0	31.0	11.0
33	44.2	50.0	48.0	41.5	31.0	10.5	5.0	2.0	42.5	31.0	11.5
35	46.2	52.0	50.0	42.0	31.0	11.0	5.0	2.0	42.5	31.0	11.5
38	49.2	55.0	55.0	41.3	31.0	10.3	5.0	2.0	42.5	31.0	11.5
40	52.2	58.0	57.0	41.8	31.0	10.8	5.0	2.0	42.5	31.0	11.5
43	53.3	62.0	60.0	43.0	31.0	12.0	6.0	2.0	45.3	31.0	14.3
45	55.3	64.0	62.0	42.6	31.0	11.6	6.0	2.0	45.3	31.0	14.3
48	59.7	68.4	65.0	42.6	31.0	11.6	6.0	2.0	45.3	31.0	14.3
50	60.8	69.3	67.0	44.1	32.5	11.6	6.0	2.5	46.8	32.5	14.3
53	63.8	72.3	70.0	44.8	32.5	12.3	6.0	2.5	46.8	32.5	14.3
55	66.5	75.4	72.0	45.8	32.5	13.3	6.0	2.5	47.8	32.5	15.3
58	69.5	78.4	79.0	50.8	37.5	13.3	6.0	2.5	52.8	37.5	15.3
60	71.5	80.4	81.0	50.8	37.5	13.3	6.0	2.5	52.8	37.5	15.3
63	74.5	83.4	84.0	50.8	37.5	13.3	6.0	2.5	52.8	37.5	15.3
65	76.5	85.4	86.0	50.5	37.5	13.0	6.0	2.5	52.8	37.5	15.3
68	82.7	91.5	89.0	48.2	34.5	13.7	7.0	2.5	50.5	34.5	16.0
70	83.0	92.0	91.0	55.0	42.0	13.0	7.0	2.5	57.3	42.0	15.3
75	90.2	99.0	99.0	56.0	42.0	14.0	7.0	2.5	57.3	42.0	15.3
80	95.2	104.0	104.0	56.8	41.8	15.0	7.0	3.0	58.1	41.8	16.3
85	100.2	109.0	109.0	56.6	41.8	14.8	7.0	3.0	58.1	41.8	16.3
90	105.2	114.0	114.0	61.6	46.8	14.8	7.0	3.0	63.1	46.8	16.3
95	111.6	120.3	119.0	63.6	47.8	15.8	7.0	3.0	65.1	47.8	17.3
100	114.5	123.3	124.0	63.6	47.8	15.8	7.0	3.0	65.1	47.8	17.3

Shorter norm seal
Massive replaceable seal rings
Super-sinus-spring
Shorter fitting length



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

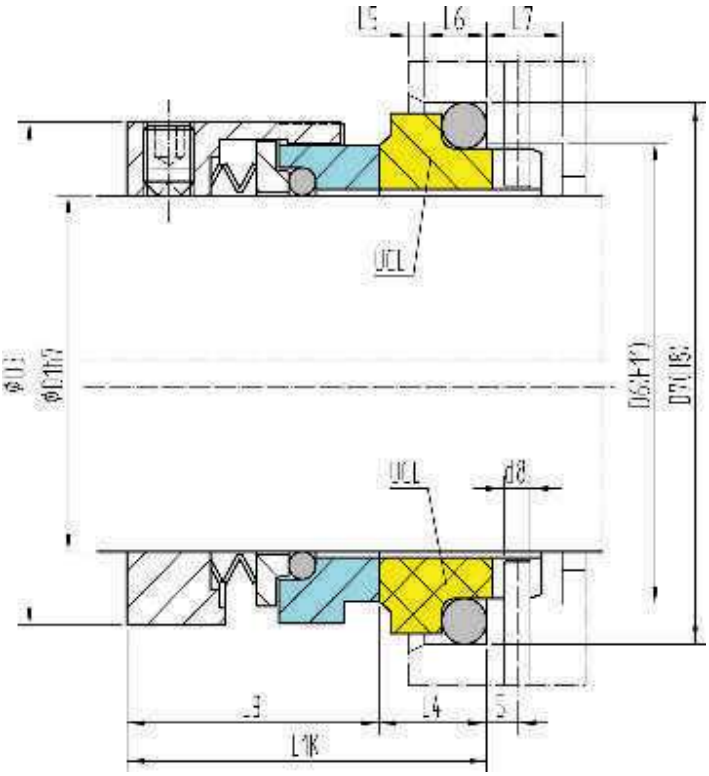
Operating limits:
(look at working conditions page 112)

p⩽	16 bar
t=	-35 ÷ 200°C
v⩽	15 m/s

EN 12756 (DIN24960)

D1	D6	D7	D3	L1	L3	L4	L6	L5	D8	L7	Typ
14	21	25	25	28	21	7	4	1.5	3	8.5	UCL
16	23	27	27	28	21	7	4	1.5	3	8.5	UCL
18	27	33	33	30.5	20.5	10	5	2	3	9	UCL
20	29	35	35	30.5	20.5	10	5	2	3	9	UCL
22	31	37	37	30.5	20.5	10	5	2	3	9	UCL
24	33	39	39	32.5	22.5	10	5	2	3	9	UCL
25	34	40	40	33.5	22	11.5	5	2	3	9	U9CL
28	37	43	43	33.5	22	11.5	5	2	3	9	U9CL
30	39	45	45	34.5	23	11.5	5	2	3	9	U9CL
32	42	48	47	34.5	23	11.5	5	2	3	9	U9CL
33	42	48	48	34.5	23	11.5	5	2	3	9	U9CL
35	44	50	50	34.5	23	11.5	5	2	3	9	U9CL
38	49	56	55	38	24	14	6	2	4	9	U9CL
40	51	58	57	39	25	14	6	2	4	9	U9CL
43	54	61	60	39	28	11	6	2	4	9	U9S33CL
45	56	53	62	39	28	11	6	2	4	9	U9S33CL
48	59	66	65	39	25	14	6	2	4	9	U9CL
50	62	70	67	40	30	12	6	2.5	4	9	U9S33CL
53	65	73	70	40	26	14	6	2.5	4	9	UCL
55	67	75	72	40	25	15	6	2.5	4	9	U9CL
58	70	78	79	42	31	11	6	2.5	4	9	U9S33CL
60	72	80	81	42	31	11	6	2.5	4	9	U9S33CL
63	75	83	84	45	30	15	6	2.5	4	9	U9CL
65	77	85	86	45	32	13	6	2.5	4	9	U9S33CL
70	83	92	91	47	34	13	7	2.5	4	9	U9S33CL
75	88	97	99	47	31	16	7	2.5	4	9	UCL
80	95	105	104	48	32	16	7	3	4	9	U9S33CL
85	100	110	109	48	32	16	7	3	4	9	U9S33CL
90	105	115	114	54	35.8	18.2	7	3	4	9	U9CL
95	110	120	119	54	36.8	17.2	7	3	4	9	U9CL
100	115	125	124	54	36.8	17.2	7	3	4	9	U9CL

Robust norm seal
Massive replaceable seal rings
Super-sinus-spring



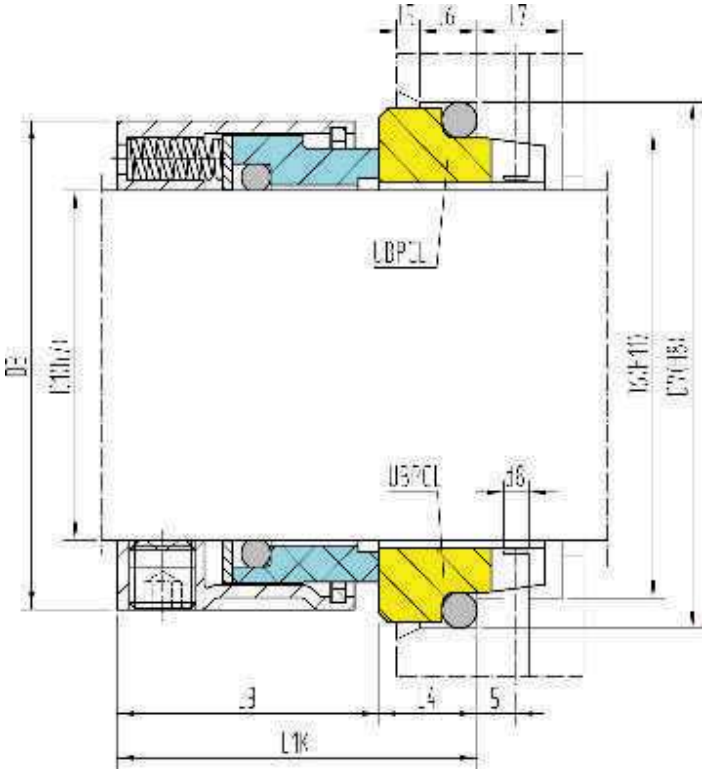
Materials:
Rotary: E, F, G, Q, U
Stationary: A, B, Q, U
Rubber parts: P, E, V, K, M

Operating limits:
(look at working conditions page 112)

p≤	16 bar
t=	-35 ÷ 200°C
v≤	15 m/s

EN 12756 (DIN 24960)									UCL	
D1	D6	D7	D3	L1K	L3	L4	L6	L5	D8	L7
14	21	25	25	35	28	7	4	1.5	3	8.5
16	23	27	27	35	28	7	4	1.5	3	8.5
18	27	33	31	37.5	27.5	10	5	2	3	9
20	29	35	33	37.5	27.5	10	5	2	3	9
22	31	37	37	37.5	27.5	10	5	2	3	9
24	33	39	39	40	30	10	5	2	3	9
25	34	40	40	40	30	10	5	2	3	9
28	37	43	43	42.5	32.5	10	5	2	3	9
30	39	45	45	42.5	32.5	10	5	2	3	9
32	42	48	47	42.5	32.5	10	5	2	3	9
33	42	48	48	42.5	32.5	10	5	2	3	9
35	44	50	50	42.5	32.5	10	5	2	3	9
38	49	56	55	45	32	13	6	2	4	9
40	51	58	57	45	32	13	6	2	4	9
43	54	61	60	45	32	13	6	2	4	9
45	56	63	62	45	32	13	6	2	4	9
48	59	66	66	45	32	13	6	2	4	9
50	62	70	68	47.5	33.5	14	6	2.5	4	9
53	65	73	71	47.5	33.5	14	6	2.5	4	9
55	67	75	74	47.5	33.5	14	6	2.5	4	9
58	70	78	79	52.5	38.5	14	6	2.5	4	9
60	72	80	82	52.5	38.5	14	6	2.5	4	9
63	75	83	85	52.5	38.5	14	6	2.5	4	9
65	77	85	87	52.5	38.5	14	6	2.5	4	9
68	81	90	92	52.5	36.5	16	7	2.5	4	9
70	83	92	92	60	44	16	7	2.5	4	9
75	88	97	99	60	44	16	7	2.5	4	9
80	95	105	105	60	42	18	7	3	4	9
85	100	110	110	60	42	18	7	3	4	9
90	105	115	116	65	47	18	7	3	4	9
95	110	120	121	65	47	18	7	3	4	9
100	115	125	126	65	47	18	7	3	4	9

Universal norm seal
Massive seal rings
Multiple springs
Vibration practica



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)

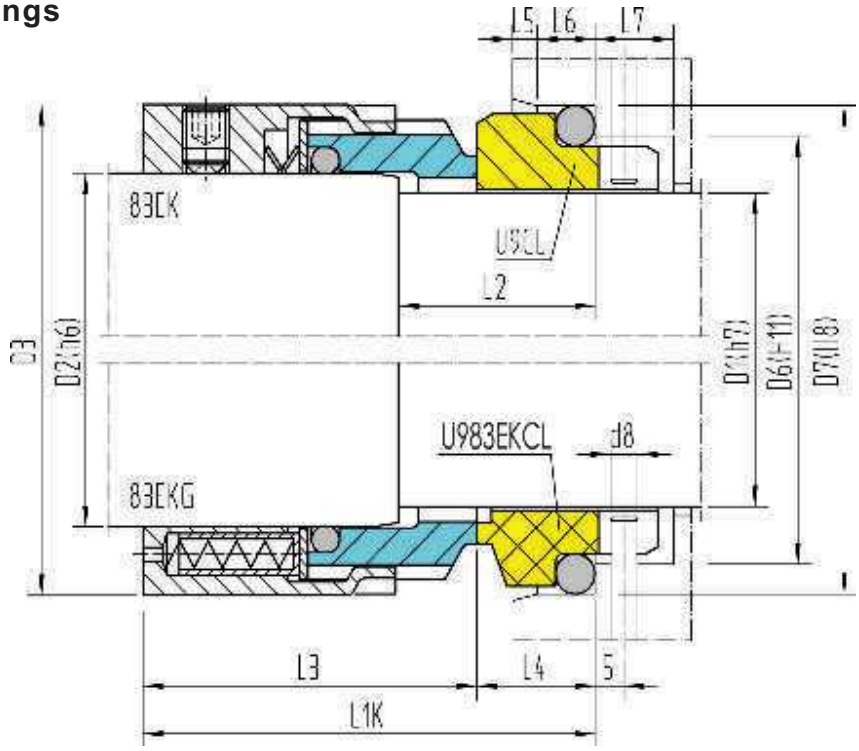
p⩽	16 bar
t=	-35 ÷ 200°C
v⩽	15 m/s

EN 12756 (DIN 24960) — **UBPCL**

D1	D6	D7	D3	L1K	L3	L4	L6	L5	D8	L7
14	21	25	24	35	23	12	4	1.5	3	8.5
16	23	27	26	35	23	12	4	1.5	3	8.5
18	27	33	32	37.5	24	13.5	5	2	3	9
20	29	35	34	37.5	24	13.5	5	2	3	9
22	31	37	36	37.5	24	13.5	5	2	3	9
24	33	39	38	40	26.5	13.5	5	2	3	9
25	34	40	39	40	27	13	5	2	3	9
28	37	43	42	42.5	30	12.5	5	2	3	9
30	39	45	44	42.5	30.5	12	5	2	3	9
32	42	48	46	42.5	30.5	12	5	2	3	9
33	42	48	47	42.5	30.5	12	5	2	3	9
35	44	50	49	42.5	30.5	12	5	2	3	9
38	49	56	54	45	32	13	6	2	4	9
40	51	58	56	45	32	13	6	2	4	9
43	54	61	59	45	32	13	6	2	4	9
45	56	63	61	45	32	13	6	2	4	9
48	59	66	64	45	32	13	6	2	4	9
50	62	70	66	47.5	34	13.5	6	2.5	4	9
53	65	73	69	47.5	34	13.5	6	2.5	4	9
55	67	75	71	47.5	34	13.5	6	2.5	4	9
58	70	78	78	52.5	39	13.5	6	2.5	4	9
60	72	80	80	52.5	39	13.5	6	2.5	4	9
63	75	83	83	52.5	39	13.5	6	2.5	4	9
65	77	85	85	52.5	39	13.5	6	2.5	4	9
68	81	90	88	52.5	39	13.5	7	2.5	4	9
70	83	92	90	60	45.5	14.5	7	2.5	4	9
75	88	97	95	60	45.5	14.5	7	2.5	4	9
80	95	105	104	60	45	15	7	3	4	9
85	100	110	109	60	45	15	7	3	4	9
90	105	115	114	65	50	15	7	3	4	9
95	110	120	119	65	50	15	7	3	4	9
100	115	125	124	65	50	15	7	3	4	9

83EK-83EKG

Universal norm seal for high pressure applications
Stepped shaft/shaft sleeve
Massive replaceable seal rings
Super-sinus-spring
Multiple springs



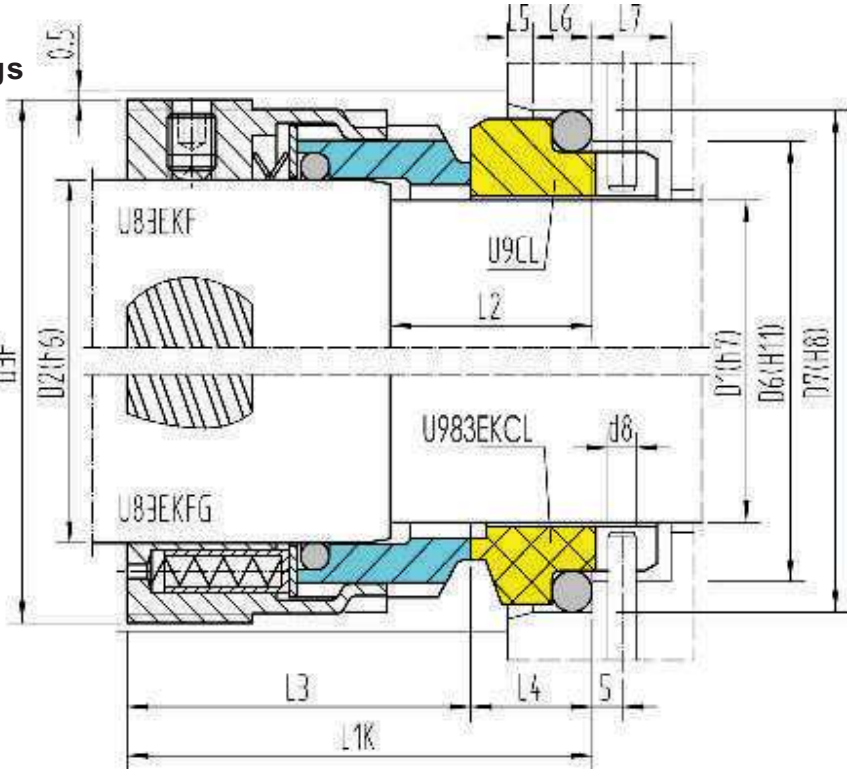
Materials:
Rotary: Q, U
Stationary: A, B, Q, U
Rubber parts: P, E, V, K, M

Operating limits:
(look at working conditions page 112)

p≤	25 bar
t=	-35 ÷ 220°C
v≤	20 m/s

EN 12756 (DIN 24960)									U983EKCL U9CL			
D1	D2	D6	D7	D3	L1K	L3	L4	L2	L6	L5	D8	L7
14	18	21	25	33	42.5	32.5	10	18	4	1.5	3	8.5
16	20	23	27	35	42.5	32.5	10	18	4	1.5	3	8.5
18	22	27	33	37	45	33.5	11.5	20	5	2	3	9
20	24	29	35	39	45	33.5	11.5	20	5	2	3	9
22	26	31	37	41	45	33.5	11.5	20	5	2	3	9
24	28	33	39	43	47.5	36	11.5	20	5	2	3	9
25	30	34	40	45	47.5	36	11.5	20	5	2	3	9
28	33	37	43	48	50	38.5	11.5	20	5	2	3	9
30	35	39	45	50	50	38.5	11.5	20	5	2	3	9
32	38	42	48	55	50	38.5	11.5	20	5	2	3	9
33	38	42	48	55	50	38.5	11.5	20	5	2	3	9
35	40	44	50	57	50	38.5	11.5	20	5	2	3	9
38	43	49	56	60	52.5	38.5	14	23	6	2	4	9
40	45	51	58	62	52.5	38.5	14	23	6	2	4	9
43	48	54	61	65	52.5	38.5	14	23	6	2	4	9
45	50	56	63	67	52.5	38.5	14	23	6	2	4	9
48	53	59	66	70	52.5	38.5	14	23	6	2	4	9
50	55	62	70	72	57.5	42.5	15	25	6	2.5	4	9
53	58	65	73	79	57.5	42.5	15	25	6	2.5	4	9
55	60	67	75	81	57.5	42.5	15	25	6	2.5	4	9
58	63	70	78	84	62.5	47.5	15	25	6	2.5	4	9
60	65	72	80	86	62.5	47.5	15	25	6	2.5	4	9
63	68	75	83	89	62.5	47.5	15	25	6	2.5	4	9
65	70	77	85	91	62.5	47.5	15	25	6	2.5	4	9
70	75	83	92	99	70	52	18	28	7	2.5	4	9
75	80	88	97	104	70	52	18	28	7	2.5	4	9
80	85	95	105	109	70	51.8	18.2	28	7	3	4	9
85	90	100	110	114	75	56.8	18.2	28	7	3	4	9
90	95	105	115	119	75	56.8	18.2	28	7	3	4	9
95	100	110	120	124	75	57.8	17.2	28	7	3	4	9
100	105	115	125	129	75	57.8	17.2	28	7	3	4	9

Universal norm seal for high pressure applications
with pumping screw
Stepped shaft/shaft sleeve
Massive replaceable seal rings
Super-sinus-spring
Multiple springs



Pumping direction of the screw
look at page 121

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

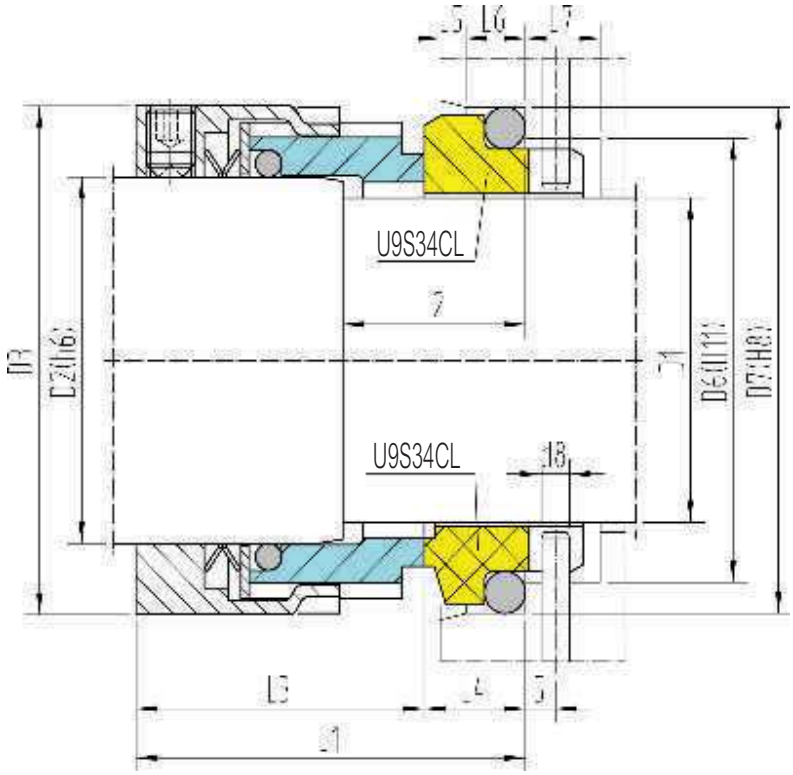
Einsatzgrenzen:
(siehe Betriebsbedingungen Seite 112)

p⩽	25 bar
t=	-35 ÷ 220°C
v⩽	20 m/s

EN 12756 (DIN 24960) — **U983EKCL U9CL**

D1	D2	D6	D7	D3F	L1K	L3	L4	L2	L6	L5	D8	L7
14	18	21	25	37	42.5	32.5	10	18	4	1.5	3	8.5
16	20	23	27	30	42.5	32.5	10	18	4	1.5	3	8.5
18	22	27	33	41	45	33.5	11.5	20	5	2	3	9
20	24	29	35	43	45	33.5	11.5	20	5	2	3	9
22	26	31	37	44	45	33.5	11.5	20	5	2	3	9
24	28	33	39	46	47.5	36	11.5	20	5	2	3	9
25	30	34	40	48	47.5	36	11.5	20	5	2	3	9
28	33	37	43	50	50	38.5	11.5	20	5	2	3	9
30	35	39	45	53	50	38.5	11.5	20	5	2	3	9
32	38	42	48	58	50	38.5	11.5	20	5	2	3	9
33	38	42	48	58	50	38.5	11.5	20	5	2	3	9
35	40	44	50	60	50	38.5	11.5	20	5	2	3	9
38	43	49	56	64	52.5	38.5	14	23	6	2	4	9
40	45	51	58	65	52.5	38.5	14	23	6	2	4	9
43	48	54	61	68	52.5	38.5	14	23	6	2	4	9
45	50	56	63	70	52.5	38.5	14	23	6	2	4	9
48	53	59	66	74	52.5	38.5	14	23	6	2	4	9
50	55	62	70	75	57.5	42.5	15	25	6	2.5	4	9
53	58	65	73	82	57.5	42.5	15	25	6	2.5	4	9
55	60	67	75	84	57.5	42.5	15	25	6	2.5	4	9
58	63	70	78	87	62.5	47.5	15	25	6	2.5	4	9
60	65	72	80	94	62.5	47.5	15	25	6	2.5	4	9
63	68	75	83	92	62.5	47.5	15	25	6	2.5	4	9
65	70	77	85	94	62.5	47.5	15	25	6	2.5	4	9
70	75	83	92	104	70	52	18	28	7	2.5	4	9
75	80	88	97	108	70	52	18	28	7	2.5	4	9
80	85	95	105	113	70	51.8	18.2	28	7	3	4	9
85	90	100	110	118	75	56.8	18.2	28	7	3	4	9
90	95	105	115	123	75	56.8	18.2	28	7	3	4	9
95	100	110	120	128	75	57.8	17.2	28	7	3	4	9
100	105	115	125	133	75	57.8	17.2	28	7	3	4	9

Shorter norm seal for high pressure applications
Stepped shaft/shaft sleeve
Massive replaceable seal rings
Super-sinus-spring



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

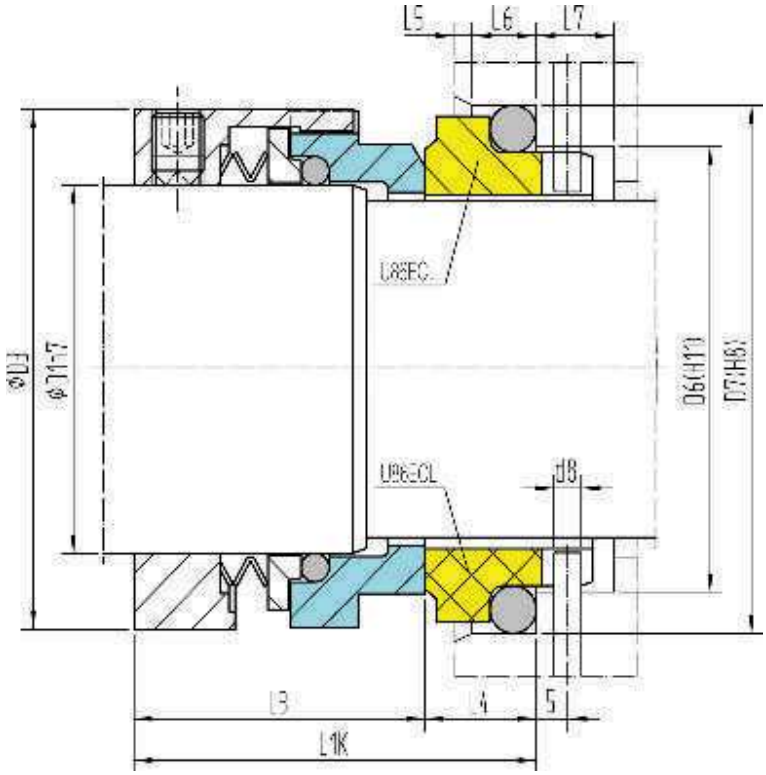
Operating limits:
(look at working conditions page 112)

p≤	25 bar
t=	-35 ÷ 220°C
v≤	20 m/s

EN 12756 (DIN 24960) — **U9S34CL**

D1	D2	D6	D7	D3	L1	L3	L4	L2	L6	L5	D8	L7
14	18	21	25	33	37	28.5	8.5	18	4	1.5	3	8.5
16	20	23	27	35	37	28.5	8.5	18	4	1.5	3	8.5
18	22	27	33	37	38.5	28.5	10	20	5	2	3	9
20	24	29	35	39	41.5	31.5	10	20	5	2	3	9
22	26	31	37	41	42.5	32.5	10	20	5	2	3	9
24	28	33	39	43	42.5	32.5	10	20	5	2	3	9
25	30	34	40	45	43.5	33.5	10	20	5	2	3	9
28	33	37	43	48	43.5	33.5	10	20	5	2	3	9
30	35	39	45	50	43.5	33.5	10	20	5	2	3	9
33	38	42	48	55	44.5	34.5	10	20	5	2	3	9
35	40	44	50	57	45.5	35.5	10	20	5	2	3	9
38	43	49	56	60	49	38	11	23	6	2	4	9
40	45	51	58	62	49	38	11	23	6	2	4	9
43	48	54	61	65	49	38	11	23	6	2	4	9
45	50	56	63	67	49	38	11	23	6	2	4	9
48	53	59	66	70	49	38	11	23	6	2	4	9
50	55	62	70	72	51	38	13	25	6	2.5	4	9
53	58	65	73	79	52	39	13	25	6	2.5	4	9
55	60	67	75	81	52	39	13	25	6	2.5	4	9
58	63	70	78	84	55	42	13	25	6	2.5	4	9
60	65	72	80	86	55	44	11	25	6	2.5	4	9
63	68	75	83	89	55	42	13	25	6	2.5	4	9
65	70	77	85	91	55	42	13	25	6	2.5	4	9
70	75	83	92	99	58	44.5	13.5	28	7	2.5	4	9
75	80	88	97	104	59	44	15	28	7	2.5	4	9
80	85	95	105	109	59	44	15	28	7	3	4	9
85	90	100	110	114	66	50.5	15.5	28	7	3	4	9
90	95	105	115	119	66	50.5	15.5	28	7	3	4	9
95	100	110	120	124	66	50.5	15.5	28	7	3	4	9
100	105	115	125	129	66	50.5	15.5	28	7	3	4	9

Robust norm seal for high pressure applications
Stepped shaft/shaft sleeve
Massive replaceable seal rings
Super-sinus-spring



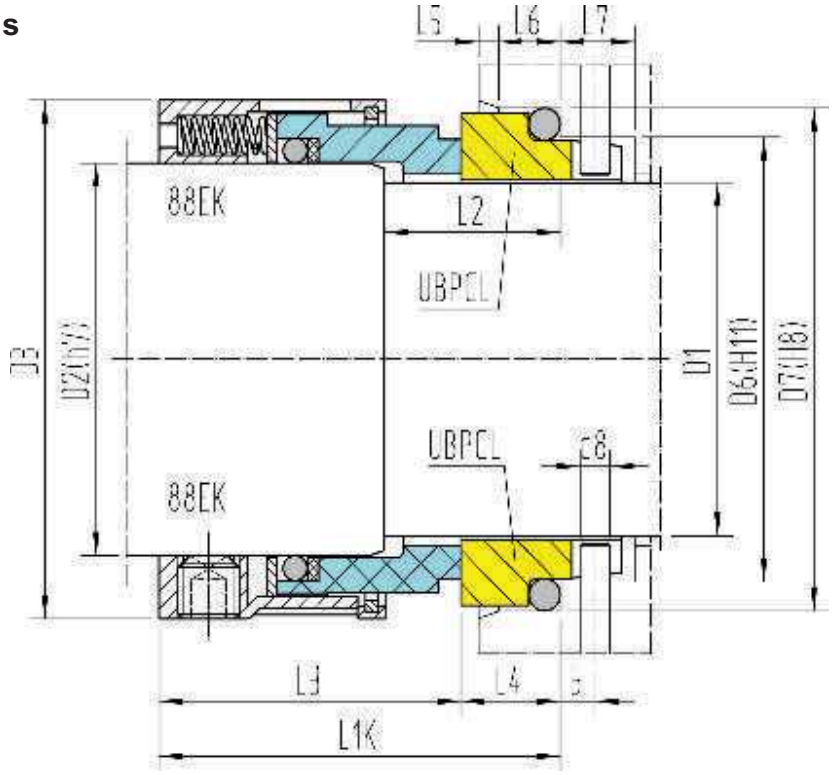
Materials:
Rotary: Q, U
Stationary: A, B, Q, U
Rubber parts: P, E, V, K, M

Operating limits:
(look at working conditions page 112)

p≤	25 bar
t=	-35 ÷ 220°C
v≤	20 m/s

EN 12756 (DIN 24960)											U86ECL	
D1	D2	D6	D7	D3	L1K	L3	L4	L2	L6	L5	D8	L7
14	18	21	25	31	42.5	32.5	10	18	4	1.5	3	8.5
16	20	23	27	33	42.5	32.5	10	18	4	1.5	3	8.5
18	22	27	33	37	45	33.5	11.5	20	5	2	3	9
20	24	29	35	39	45	33.5	11.5	20	5	2	3	9
22	26	31	37	41	45	33.5	11.5	20	5	2	3	9
24	28	33	39	43	47.5	36	11.5	20	5	2	3	9
25	30	34	40	45	47.5	36	11.5	20	5	2	3	9
28	33	37	43	48	50	38.5	11.5	20	5	2	3	9
30	35	39	45	50	50	38.5	11.5	20	5	2	3	9
32	38	42	48	55	50	38.5	11.5	20	5	2	3	9
33	38	42	48	55	50	38.5	11.5	20	5	2	3	9
35	40	44	50	57	50	38.5	11.5	20	5	2	3	9
38	43	49	56	60	52.5	39.5	13	23	6	2	4	9
40	45	51	58	62	52.5	39.5	13	23	6	2	4	9
43	48	54	61	66	52.5	39.5	13	23	6	2	4	9
45	50	56	63	68	52.5	39.5	13	23	6	2	4	9
48	53	59	66	71	52.5	39.5	13	23	6	2	4	9
50	55	62	70	74	57.5	43.5	14	25	6	2.5	4	9
53	58	65	73	79	57.5	43.5	14	25	6	2.5	4	9
55	60	67	75	82	57.5	43.5	14	25	6	2.5	4	9
58	63	70	78	85	62.5	48.5	14	25	6	2.5	4	9
60	65	72	80	87	62.5	48.5	14	25	6	2.5	4	9
63	68	75	83	90	62.5	48.5	14	25	6	2.5	4	9
65	70	77	85	92	62.5	48.5	14	25	6	2.5	4	9
70	75	83	92	100	70	54	16	28	7	2.5	4	9
75	80	88	97	105	70	54	16	28	7	2.5	4	9
80	85	95	105	110	70	54	16	28	7	3	4	9
85	90	100	110	116	75	59	16	28	7	3	4	9
90	95	105	115	121	75	59	16	28	7	3	4	9
95	100	110	120	126	75	59	16	28	7	3	4	9
100	105	115	125	131	75	59	16	28	7	3	4	9

Universal norm seal for high pressure applications
Stepped shaft/shaft sleeve
Massive replaceable seal rings
Multiple springs
Vibration practica



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

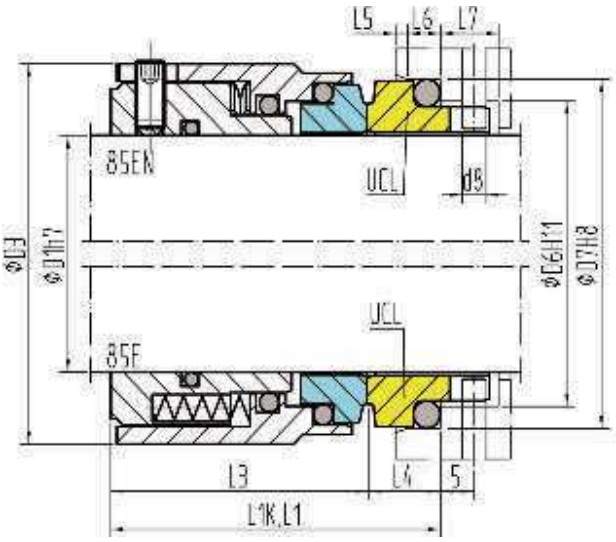
Operating limits:
(look at working conditions page 112)

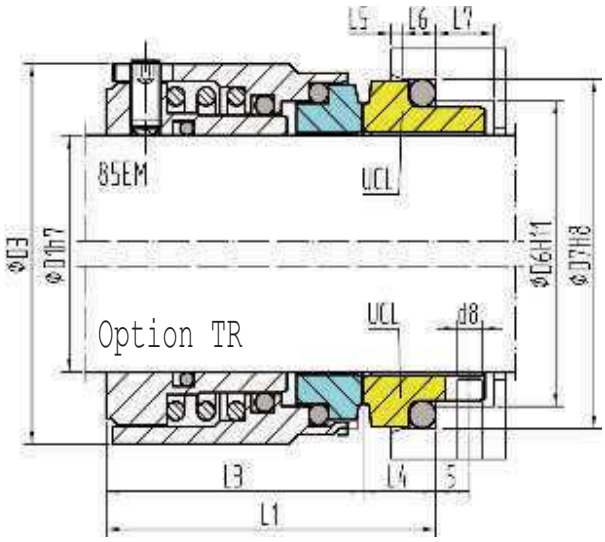
p≤	25 bar
t=	-35 ÷ 220°C
v≤	20 m/s

EN 12756 (DIN 24960) — **UBPCL**

D1	D2	D6	D7	D3	L1K	L3	L4	L2	L6	L5	D8	L7
14	18	21	25	32	42.5	30.5	12	18	4	1.5	3	8.5
16	20	23	27	34	42.5	30.5	12	18	4	1.5	3	8.5
18	22	27	33	36	45	31.5	13.5	20	5	2	3	9
20	24	29	35	38	45	31.5	13.5	20	5	2	3	9
22	26	31	37	40	45	31.5	13.5	20	5	2	3	9
24	28	33	39	42	47.5	34	13.5	20	5	2	3	9
25	30	34	40	44	47.5	34.5	13	20	5	2	3	9
28	33	37	43	47	50	37.5	12.5	20	5	2	3	9
30	35	39	45	49	50	38	12	20	5	2	3	9
32	38	42	48	54	50	38	12	20	5	2	3	9
33	38	42	48	54	50	38	12	20	5	2	3	9
35	40	44	50	56	50	38	12	20	5	2	3	9
38	43	49	56	59	52.5	39.5	13	23	6	2	4	9
40	45	51	58	61	52.5	39.5	13	23	6	2	4	9
43	48	54	61	64	52.5	39.5	13	23	6	2	4	9
45	50	56	63	66	52.5	39.5	13	23	6	2	4	9
48	53	59	66	69	52.5	39.5	13	23	6	2	4	9
50	55	62	70	71	57.5	44	13.5	25	6	2.5	4	9
53	58	65	73	78	57.5	44	13.5	25	6	2.5	4	9
55	60	67	75	80	57.5	44	13.5	25	6	2.5	4	9
58	63	70	78	83	62.5	49	13.5	25	6	2.5	4	9
60	65	72	80	85	62.5	49	13.5	25	6	2.5	4	9
63	68	75	83	88	62.5	49	13.5	25	6	2.5	4	9
65	70	77	85	90	62.5	49	13.5	25	6	2.5	4	9
70	75	83	92	95	70	55.5	14.5	28	7	2.5	4	9
75	80	88	97	104	70	55.5	14.5	28	7	2.5	4	9
80	85	95	105	109	70	55	15	28	7	3	4	9
85	90	100	110	114	75	60	15	28	7	3	4	9
90	95	105	115	119	75	60	15	28	7	3	4	9
95	100	110	120	124	75	60	15	28	7	3	4	9
100	105	115	125	129	75	60	15	28	7	3	4	9

Special high-pressure seal for plain shafts
Massive replaceable seal rings
Sinus-spring
Cylindrical single spring or multiple springs





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

Operating limits:
(look at working conditions page 112)

p⩽	30 bar
t=	-35 ÷ 200°C
v⩽	15m/s

EN 12756 (DIN 24960)										UCL	85EM UCL	
D1	D6	D7	D3	L1K	L3	L4	L6	L5	D8	L7	L1	L3
20	29	35	40	37.5	27.5	10	5	2	3	9	45	35
22	31	37	43	37.5	27.5	10	5	2	3	9	45	35
24	33	39	44	40	30	10	5	2	3	9	47.5	37.5
25	34	40	47	40	30	10	5	2	3	9	47.5	37.5
28	37	43	49	42.5	32.5	10	5	2	3	9	50	40
30	39	45	54	42.5	32.5	10	5	2	3	9	50	40
32	42	48	55	42.5	32.5	10	5	2	3	9	50	40
33	42	48	55	42.5	32.5	10	5	2	3	9	50	40
35	44	50	57	42.5	32.5	10	5	2	3	9	50	40
38	49	56	60	45	32	13	6	2	4	9	52.5	39.5
40	51	58	63	45	32	13	6	2	4	9	52.5	39.5
43	54	61	70	45	32	13	6	2	4	9	52.5	39.5
45	56	63	73	45	32	13	6	2	4	9	52.5	39.5
48	59	66	77	45	32	13	6	2	4	9	52.5	39.5
50	62	70	80	47.5	33.5	14	6	2.5	4	9	57.5	43.5
53	65	73	83	47.5	33.5	14	6	2.5	4	9	57.5	43.5
55	67	75	85	47.5	33.5	14	6	2.5	4	9	57.5	43.5
58	70	78	88	52.5	38.5	14	6	2.5	4	9	62.5	48.5
60	72	80	90	52.5	38.5	14	6	2.5	4	9	62.5	48.5
63	75	83	93	52.5	38.5	14	6	2.5	4	9	62.5	48.5
65	77	85	95	52.5	38.5	14	6	2.5	4	9	62.5	48.5
70	83	92	105	60	44	16	7	2.5	4	9	70	54
75	88	97	110	60	44	16	7	2.5	4	9	70	54
80	95	105	115	60	42	18	7	3	4	9	70	52
85	100	110	120	60	42	18	7	3	4	9	75	57
90	105	115	125	65	47	18	7	3	4	9	75	57
95	110	120	132	65	47	18	7	3	4	9	75	57
100	115	125	140	65	47	18	7	3	4	9	75	57