The C1 rod seal is a U-ring with interference fit on the outer diameter. Excellent sealing performance is achieved with minimal profile width and height. Extremely low friction due to short seal contact area. Use in pneumatic equipment is only possible with constant lubricant supply, e.g. oiled air. For non-oiled (dry air) pneumatic systems, we recommend our E5 product series.

- Good wear resistance.
- Easy installation.
- High temperature resistance in case of suitable compound selection.
- Excellent media resistance in case of suitable compound selection.
- Suitable compounds available for special requirements of the chemical process industry.
- Suitable compounds available for special requirements of the food processing industry.
- Installation in closed and undercut housings.

Range of application

The C1 rod seal is particularly suitable for plungers, piston rods, stems and valve lifters as well as for slowly operating pneumatic rotors (v ≤ 0.2 m/s).

Operating pressure [1]	
Hydraulics	≤ 160 bar
Pneumatics	≤ 16 bar
Rotary transmissions	≤ 20 bar
Operating temperature	
Hydraulics	-35 °C to +100 °C
Pneumatics	-35 °C to +80 °C
Sliding speed	
Hydraulics	≤ 0.5 m/s
Pneumatics	≤ 1 m/s
Rotary transmissions	≤ 0.2 m/s

Recommendation for rotary transmissions: P × v ≤ 3
(Definition see catalogue „Hydraulic Seals“, chapter „Rotary Seals“, introduction).

[1] Dependent upon cross-section and compound.

Compounds

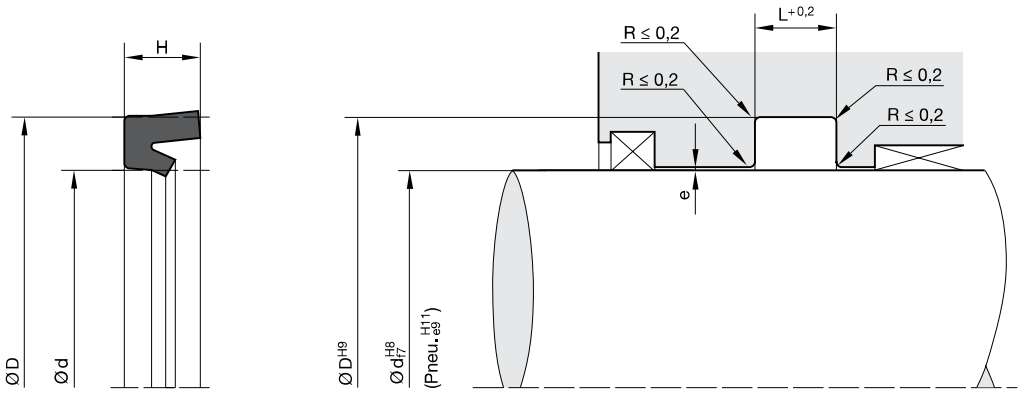
Standard: N3571, NBR compound (≈ 70 Shore A).
For low temperatures: N8602, NBR compound (≈ 70 Shore A).
For high temperatures: V3664, FKM compound (≈ 85 Shore A).

Installation

The profile C1 rod seals are manufactured over-sized on the external diameters in relation to the nominal dimensions. This ensures the required tight fit. Only after installation the sealing lip diameter will show the desired dimensions. Profile C1 can easily be snapped into the grooves.
When choosing a seal for a particular diameter, it is best to select the one with the largest possible cross-section.

Note: For nominal diameters ≤ 25 mm an open housing is recommended, according to the seals cross-section and the position of the groove (stuffing box installation).

In case of special operating conditions (specific pressure loads, temperature, speed, use in water, HFA, HFB fluids etc.), please contact our consultancy service for a selection of the material and design best suiting your particular application requirements.



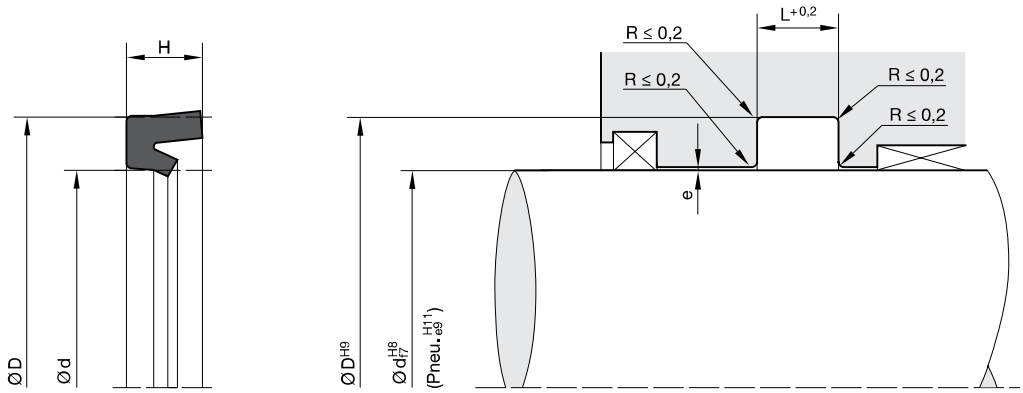
„e“ see chapter „Maximum gap allowance“.

For surface finish, lead in chamfer and other installation dimensions see „General installation guidelines“.

d	D	H	L	Order code
2	7	3.5	4	C1 0003 N3571
3	7	3	3.5	C1 0005 N3571
3	9	4.5	5	C1 0009 N3571
3	10	5	5.5	C1 0011 N3571
4	8	3	3.5	C1 0013 N3571
4	9	3.5	4	C1 0016 N3571
4	10	4.2	4.7	C1 0019 N3571
4	12	4.5	5	C1 0022 N3571
4	12	5.5	6	C1 0024 N3571
4.5	8	3	3.5	C1 0032 N3571
5	9	2.5	3	C1 0035 N3571
5	10	4	4.5	C1 0038 N3571
5	12	4.5	5	C1 0041 N3571
6	10	3	3.5	C1 0055 N3571
6	12	4.2	4.7	C1 0058 N3571
6	13	5	5.5	C1 0059 N3571
6	15	7	7.5	C1 0062 N3571
6	16	5	5.5	C1 0065 N3571
7	13	4	4.5	C1 0070 N3571
8	14	4	4.5	C1 0074 N3571
8	14.5	4.5	5	C1 0077 N3571
8	16	5.5	6	C1 0080 N3571
8	18	8	8.5	C1 0083 N3571
9	14	3.5	4	C1 0087 N3571
9.3	14	3	3.5	C1 0090 N3571
9.5	18.5	7	7.5	C1 0094 N3571
10	13.6	2.3	2.7	C1 1002 N3571
10	15	3.5	4	C1 1005 N3571
10	16	4.5	5	C1 1008 N3571
10	16	6	6.5	C1 1011 N3571
10	18	5.5	6	C1 1015 N3571
10	20	7	7.5	C1 1018 N3571
11	17	4	4.5	C1 1022 N3571
11	18	4.5	5	C1 1025 N3571

d	D	H	L	Order code
12	18.5	4.5	5	C1 1028 N3571
12	19	4.5	5	C1 1030 N3571
12	20	5.5	6	C1 1033 N3571
12.75	19.2	3.8	4.3	C1 1035 N3571
13	17.5	2.8	3.3	C1 1036 N3571
13.8	22	5.5	6	C1 1037 N3571
14	19	3.5	4	C1 1039 N3571
14	20	4.8	5.3	C1 1040 N3571
14	22	5.5	6	C1 1041 N3571
14	25	8	8.5	C1 1042 N3571
15	22	5	5.5	C1 1044 N3571
16	22.5	4.5	5	C1 1049 N3571
16	23	5.5	6	C1 1051 N3571
16	24	5.5	6	C1 1053 N3571
16	26	7	7.5	C1 1056 N3571
17	25	5.5	6	C1 1060 N3571
18	25	4.5	5	C1 1062 N3571
18	25	5.5	6	C1 1063 N3571
18	26	5.5	6	C1 1066 N3571
18.5	25.5	5.5	6	C1 1074 N3571
20	26	4	4.5	C1 2003 N3571
20	26	4.8	5.3	C1 2005 N3571
20	28	5.5	6	C1 2009 N3571
20	28	8	8.5	C1 2013 N3571
20	30	7	7.5	C1 2020 N3571
20	32	7	7.5	C1 2022 N3571
22	29	5.5	6	C1 2025 N3571
22	30	5.5	6	C1 2029 N3571
23	31	5.5	6	C1 2038 N3571
24	32	5.5	6	C1 2043 N3571
25	32	5.5	6	C1 2053 N3571
25	33	5.5	6	C1 2058 N3571
25	33	8	8.5	C1 2061 N3571
25	35	6	6.5	C1 2064 N3571

Further sizes on request.



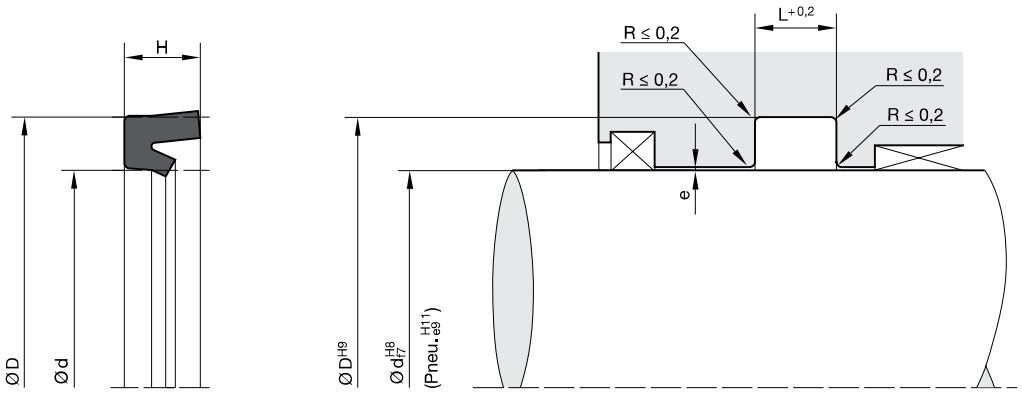
„e“ see chapter „Maximum gap allowance“.

For surface finish, lead in chamfer and other installation dimensions see „General installation guidelines“.

d	D	H	L	Order code
25	35	7	7.5	C1 2065 N3571
25	37	8.5	9.5	C1 2069 N3571
25	40	10	11	C1 2075 N3571
26	36	7	7.5	C1 2078 N3571
28	36	5.5	6	C1 2085 N3571
28	38	7	7.5	C1 2089 N3571
30	38	5.5	6	C1 3005 N3571
30	38	8	8.5	C1 3010 N3571
30	40	7	7.5	C1 3015 N3571
30	42	8	8.5	C1 3019 N3571
30	42	8.5	9.5	C1 3020 N3571
32	40	5.5	6	C1 3025 N3571
32	42	7	7.5	C1 3030 N3571
33	43	7	7.5	C1 3035 N3571
34	44	7	7.5	C1 3040 N3571
35	43	8	8.5	C1 3045 N3571
35	45	7	7.5	C1 3050 N3571
36	46	7	7.5	C1 3055 N3571
36	50	10	11	C1 3057 N3571
38	48	7	7.5	C1 3060 N3571
40	48	8	8.5	C1 4010 N3571
40	50	7	7.5	C1 4015 N3571
40	52	8.5	9.5	C1 4020 N3571
42	52	7	7.5	C1 4025 N3571
44	54	7	7.5	C1 4030 N3571
45	55	7	7.5	C1 4035 N3571
46	56	7	7.5	C1 4046 N3571
47	57	7	7.5	C1 4055 N3571
48	58	7	7.5	C1 4060 N3571
50	58	8	8.5	C1 5005 N3571
50	60	7	7.5	C1 5010 N3571
50	63	8.5	9.5	C1 5015 N3571
50	66	11	12	C1 5020 N3571
54	64	7	7.5	C1 5035 N3571

d	D	H	L	Order code
55	65	7	7.5	C1 5040 N3571
56	66	7	7.5	C1 5043 N3571
58	68	7	7.5	C1 5058 N3571
60	72	8.5	9.5	C1 6005 N3571
60	80	14	15	C1 6010 N3571
63	73	7	7.5	C1 6025 N3571
63	75	8.5	9.5	C1 6035 N3571
63	78	8.5	9.5	C1 6036 N3584
64	76	7.5	8	C1 6040 N3571
65	77	8.5	9.5	C1 6055 N3571
68	80	8.5	9.5	C1 6070 N3571
70	82	8.5	9.5	C1 7003 N3571
75	87	8.5	9.5	C1 7020 N3571
80	90	7	7.5	C1 8010 N3571
80	92	8.5	9.5	C1 8015 N3571
80	100	14	15	C1 8025 N3571
85	97	8.5	9.5	C1 8040 N3571
85	100	10	11	C1 8045 N3571
90	102	8.5	9.5	C1 9015 N3571
95	107	8.5	9.5	C1 9035 N3571
100	110	7	7.5	C1 A010 N3571
100	115	10	11	C1 A015 N3571
105	120	10	11	C1 A051 N3571
105	125	12	13	C1 A055 N3571
110	125	10	11	C1 B015 N3571
110	130	14	15	C1 B020 N3571
115	130	10	11	C1 B040 N3571
120	135	10	11	C1 C015 N3571
120	140	14	15	C1 C020 N3571
125	140	10	11	C1 C035 N3571
125	145	12	13	C1 C037 N3571
130	145	10	11	C1 D015 N3571
135	150	10	11	C1 D035 N3571
140	160	14	15	C1 E015 N3571

Further sizes on request.



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d	D	H	L	Order code
145	165	13	14	C1 E050 N3571
150	170	14	15	C1 F020 N3571
155	170	10	11	C1 F053 N3571
160	180	14	15	C1 G015 N3571
160	184	15	16	C1 G024 N3571
170	190	14	15	C1 H007 N3571
170	194	15	16	C1 H010 N3571
180	200	14	15	C1 J005 N3571
190	210	14	15	C1 K010 N3571
200	220	14	15	C1 L015 N3571
200	230	15	16	C1 L025 N3571
210	230	14	15	C1 L040 N3571
225	250	14	15	C1 M020 N3571
235	265	21	22	C1 M030 N3571
240	270	20	21	C1 N035 N3571
260	280	14	15	C1 O007 N3571
260	290	21	22	C1 O010 N3571
280	310	20	21	C1 O031 N3571
320	350	20	21	C1 Q050 N3571

Further sizes on request.