



APR profile data

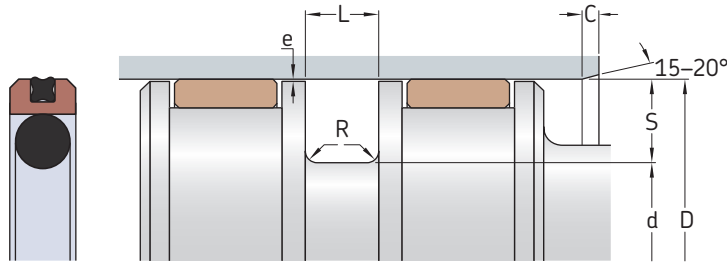


Material codes	Slide ring: 741 X-ring and energizer: A-8501
Pressure	Up to 350 bar (5 075 psi)
Speed	Up to 1 m/s (3.2 ft/s)
Temperature range	<p> ■ Extreme low temperature range: may be intermittently exposed (e.g. cold start-up) without seal damage, but seal performance may be compromised while in this range ■ Temperatures below the recommended operating range: seal performance depends on system design (precision guiding arrangement recommended) ■ Recommended operating temperature range for this profile and material ■ Temperatures above the recommended operating range: acceptable only with reduced pressure, speed, and/or e-gap ■ Extreme high temperature range: only occasional short-term exposure (e.g. cylinder in curing oven of a powder coating process) </p>
Dimension standards	Some metric sizes fit seal housings in accordance with ISO 7425-1.

Maximum values of application parameters (e.g. pressure, speed, temperature, e-gap) should not be applied continuously nor simultaneously.

APR profile piston seals, metric sizes

D 20 – 90 mm



Maximum extrusion gap e

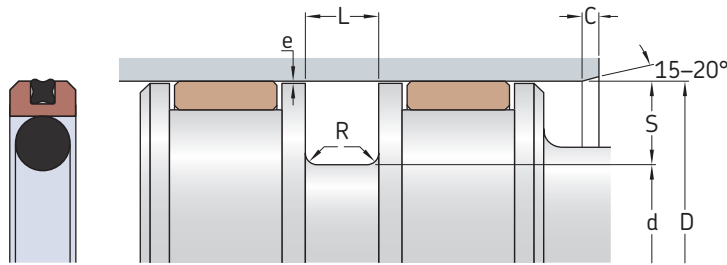
Radial depth S	e _{max} at 80 °C (175 °F) for pressures		
	70 bar	200 bar	350 bar
mm	mm		
5,5	0,46	0,15	0,1
7,75	0,6	0,2	0,13
10,5	0,76	0,25	0,15

Dimensions						Designation
D	d	L	S	R	C	
H9	h9	+0,2		max.	min.	
mm						-
20	9	4,2	5,5	0,4	3	APR-20x9x4.2-AD1
22	11	4,2	5,5	0,4	3	APR-22x11x4.2-AD1
25	14	4,2	5,5	0,4	3	• APR-25x14x4.2-AD1
28	17	4,2	5,5	0,4	3	APR-28x17x4.2-AD1
30	19	4,2	5,5	0,4	3	APR-30x19x4.2-AD1
35	24	4,2	5,5	0,4	3	APR-35x24x4.2-AD1
40	29	4,2	5,5	0,4	3	• APR-40x29x4.2-AD1
42	31	4,2	5,5	0,4	3	APR-42x31x4.2-AD1
45	34	4,2	5,5	0,4	3	APR-45x34x4.2-AD1
50	39	4,2	5,5	0,4	3	• APR-50x39x4.2-AD1
55	44	4,2	5,5	0,4	3	APR-55x44x4.2-AD1
60	49	4,2	5,5	0,4	3	APR-60x49x4.2-AD1
63	52	4,2	5,5	0,4	3	• APR-63x52x4.2-AD1
65	54	4,2	5,5	0,4	3	APR-65x54x4.2-AD1
70	59	4,2	5,5	0,4	3	APR-70x59x4.2-AD1
75	64	4,2	5,5	0,4	3	APR-75x64x4.2-AD1
80	69	4,2	5,5	0,4	3	• APR-80x69x4.2-AD1
85	69,5	6,3	7,75	0,6	4	APR-85x69.5x6.3-AD1
90	74,5	6,3	7,75	0,6	4	APR-90x74.5x6.3-AD1

• Seal housing dimensions in accordance with ISO 7425-1

APR profile piston seals, metric sizes

D 95 – 190 mm



Maximum extrusion gap e

Radial depth S	e _{max} at 80 °C (175 °F) for pressures		
	70 bar	200 bar	350 bar
mm	mm		
5,5	0,46	0,15	0,1
7,75	0,6	0,2	0,13
10,5	0,76	0,25	0,15

Dimensions

D	d	L	S	R	C
H9	h9	+0,2		max.	min.

mm

Designation

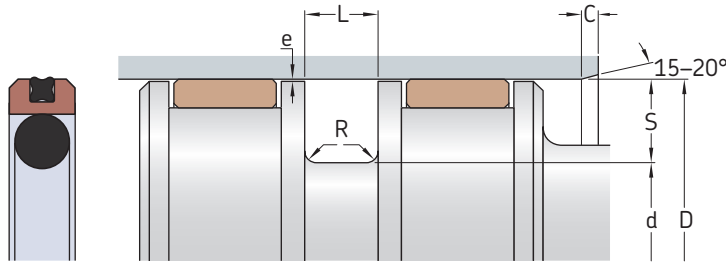
D	d	L	S	R	C	Designation
95	79,5	6,3	7,75	0,6	4	APR-95x79.5x6.3-AD1
100	84,5	6,3	7,75	0,6	4	• APR-100x84.5x6.3-AD1
105	89,5	6,3	7,75	0,6	4	APR-105x89.5x6.3-AD1
110	94,5	6,3	7,75	0,6	4	APR-110x94.5x6.3-AD1
115	99,5	6,3	7,75	0,6	4	APR-115x99.5x6.3-AD1
120	104,5	6,3	7,75	0,6	4	APR-120x104.5x6.3-AD1
125	109,5	6,3	7,75	0,6	4	• APR-125x109.5x6.3-AD1
130	114,5	6,3	7,75	0,6	4	APR-130x114.5x6.3-AD1
132	116,5	6,3	7,75	0,6	4	APR-132x116.5x6.3-AD1
135	119,5	6,3	7,75	0,6	4	APR-135x119.5x6.3-AD1
140	124,5	6,3	7,75	0,6	4	APR-140x124.5x6.3-AD1
145	129,5	6,3	7,75	0,6	4	APR-145x129.5x6.3-AD1
150	134,5	6,3	7,75	0,6	4	APR-150x134.5x6.3-AD1
155	139,5	6,3	7,75	0,6	4	APR-155x139.5x6.3-AD1
160	139	8,1	10,5	0,75	4	• APR-160x139x8.1-AD1
165	144	8,1	10,5	0,75	4	APR-165x144x8.1-AD1
170	149	8,1	10,5	0,75	4	APR-170x149x8.1-AD1
175	154	8,1	10,5	0,75	4	APR-175x154x8.1-AD1
180	159	8,1	10,5	0,75	4	APR-180x159x8.1-AD1
190	169	8,1	10,5	0,75	4	APR-190x169x8.1-AD1

Other sizes are available on request

- Seal housing dimensions in accordance with ISO 7425-1

APR profile piston seals, inch sizes

D 1 – 6 in.



Maximum extrusion gap e

Radial depth S
 Series e_{max} at 80 °C (175 °F)
 for pressures
 1 000 psi 3 000 psi 5 075 psi

in. – in.

0.212	APR2	0.018	0.006	0.004
0.308	APR3	0.024	0.008	0.005
0.42	APR4	0.03	0.01	0.006
0.46	APR5	0.03	0.01	0.006

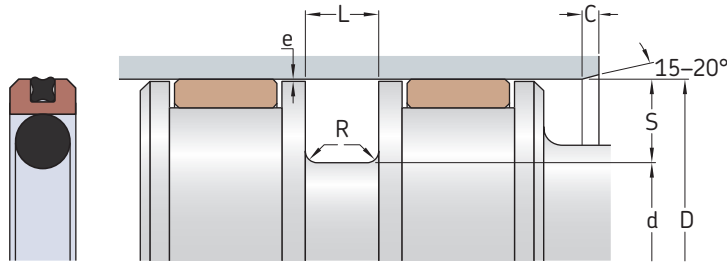
Dimensions

Designation

D	Tolerance	d	Tolerance	L +0.005	S	R max.	C min.	Designation
in.								–
1	+0.003	0.576	-0.003	0.21	0.212	0.015	0.156	APR2-1000-AD1
1.25	+0.003	0.826	-0.003	0.21	0.212	0.015	0.156	APR2-1250-AD1
1.5	+0.003	1.076	-0.003	0.21	0.212	0.015	0.156	APR2-1500-AD1
1.75	+0.003	1.326	-0.003	0.21	0.212	0.015	0.156	APR2-1750-AD1
2	+0.003	1.576	-0.003	0.21	0.212	0.015	0.156	APR2-2000-AD1
2.25	+0.004	1.634	-0.004	0.288	0.308	0.025	0.187	APR3-2250-AD1
2.5	+0.004	1.884	-0.004	0.288	0.308	0.025	0.187	APR3-2500-AD1
2.75	+0.004	2.134	-0.004	0.288	0.308	0.025	0.187	APR3-2750-AD1
3	+0.004	2.384	-0.004	0.288	0.308	0.025	0.187	APR3-3000-AD1
3.25	+0.004	2.634	-0.004	0.288	0.308	0.025	0.187	APR3-3250-AD1
3.5	+0.004	2.884	-0.004	0.288	0.308	0.025	0.187	APR3-3500-AD1
3.75	+0.004	3.134	-0.004	0.288	0.308	0.025	0.187	APR3-3750-AD1
4	+0.004	3.384	-0.004	0.288	0.308	0.025	0.187	APR3-4000-AD1
4.25	+0.004	3.634	-0.004	0.288	0.308	0.025	0.187	APR3-4250-AD1
4.5	+0.004	3.884	-0.004	0.288	0.308	0.025	0.187	APR3-4500-AD1
4.75	+0.004	4.134	-0.004	0.288	0.308	0.025	0.187	APR3-4750-AD1
5	+0.004	4.384	-0.004	0.288	0.308	0.025	0.187	APR3-5000-AD1
5.25	+0.004	4.634	-0.004	0.288	0.308	0.025	0.187	APR3-5250-AD1
5.5	+0.005	4.66	-0.005	0.375	0.42	0.035	0.25	APR4-5500-AD1
5.75	+0.005	4.91	-0.005	0.375	0.42	0.035	0.25	APR4-5750-AD1
6	+0.005	5.16	-0.005	0.375	0.42	0.035	0.25	APR4-6000-AD1

APR profile piston seals, inch sizes

D 6.25 – 14 in.



Maximum extrusion gap e

Radial Series e_{max} at 80 °C (175 °F)
depth S for pressures
1 000 psi 3 000 psi 5 075 psi

in. – in.

0.212	APR2	0.018	0.006	0.004
0.308	APR3	0.024	0.008	0.005
0.42	APR4	0.03	0.01	0.006
0.46	APR5	0.03	0.01	0.006

Dimensions

D	Tolerance	d	Tolerance	L	S	R	C	Designation
in.				+0.005		max.	min.	
6.25	+0.005	5.41	-0.005	0.375	0.42	0.035	0.25	APR4-6250-AD1
6.5	+0.005	5.66	-0.005	0.375	0.42	0.035	0.25	APR4-6500-AD1
6.75	+0.005	5.91	-0.005	0.375	0.42	0.035	0.25	APR4-6750-AD1
7	+0.005	6.16	-0.005	0.375	0.42	0.035	0.25	APR4-7000-AD1
7.25	+0.005	6.41	-0.005	0.375	0.42	0.035	0.25	APR4-7250-AD1
7.5	+0.005	6.66	-0.005	0.375	0.42	0.035	0.25	APR4-7500-AD1
7.75	+0.005	6.91	-0.005	0.375	0.42	0.035	0.25	APR4-7750-AD1
8	+0.006	7.16	-0.006	0.375	0.42	0.035	0.25	APR4-8000-AD1
8.5	+0.006	7.66	-0.006	0.375	0.42	0.035	0.25	APR4-8500-AD1
9	+0.006	8.16	-0.006	0.375	0.42	0.035	0.25	APR4-9000-AD1
9.5	+0.006	8.66	-0.006	0.375	0.42	0.035	0.25	APR4-9500-AD1
10	+0.006	9.16	-0.006	0.375	0.42	0.035	0.25	APR4-10000-AD1
10.5	+0.008	9.58	-0.008	0.375	0.46	0.035	0.25	APR5-10500-AD1
11	+0.008	10.08	-0.008	0.375	0.46	0.035	0.25	APR5-11000-AD1
11.5	+0.008	10.58	-0.008	0.375	0.46	0.035	0.25	APR5-11500-AD1
12	+0.008	11.08	-0.008	0.375	0.46	0.035	0.25	APR5-12000-AD1
12.5	+0.008	11.58	-0.008	0.375	0.46	0.035	0.25	APR5-12500-AD1
13	+0.008	12.08	-0.008	0.375	0.46	0.035	0.25	APR5-13000-AD1
13.5	+0.008	12.58	-0.008	0.375	0.46	0.035	0.25	APR5-13500-AD1
14	+0.008	13.08	-0.008	0.375	0.46	0.035	0.25	APR5-14000-AD1

Other sizes are available on request



Seal & Design
Corporate Headquarters
Ph: (716)-759-3344
Info@SealAndDesign.com
www.SealAndDesign.com