

Design

The AB Seals RUD is an asymmetric seal offering superlative dry rod sealing for light and medium duty applications. The RUD has become an industry standard seal worldwide owing to its twin lip profile and consistent performance. Manufactured in polyurethane, the AB Seals RUD is an extremely flexible seal making installation very easy. The ranges cover most standard housings used in Europe, North America and Asia.

NB: Sizes are designed to suit popular Asian housings. Part numbers have housing sizes to meet ISO5597.



Features

- Twin lip design offering: lower friction, improved sealing, primary lip protection, increased seal stability
- Easy installation

MATERIALS

- Polyurethane-PUAB/PUA
- Synthetic rubber- NBR/FPM

APPLICATION

- Mobile hydraulics
- Agriculture equipment
- Machine tools
- Injection cylinder
- lift platefroms
- Hydraulic press

Technical details

	Metric	inch
Operating Condi		
Maximum speed	1.0 m/sce	3.0 ft/ sce
Temperature Ra	-45	-50
Maximum Press	400 bar	6,000 p.s.i

maximum extrusions gap

Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø.

Pressure bar	160	250	400
Maximum Gap mm	0.6	0.5	0.4
pressure p.s.i.	2400	3750	6000
maximum gap in	0.02	0.02	0.016

Surface roughness	umRa	umrt	Uin CLA	UIN RMS
Dynamic Sealing Face Ø d1	0.1<> 0.4	max	4<>16	5<>18
static sealing face Ø D1	1.6	ma:10	max	63 max
static housing faces L1	3.2	ma:16	max	125 max

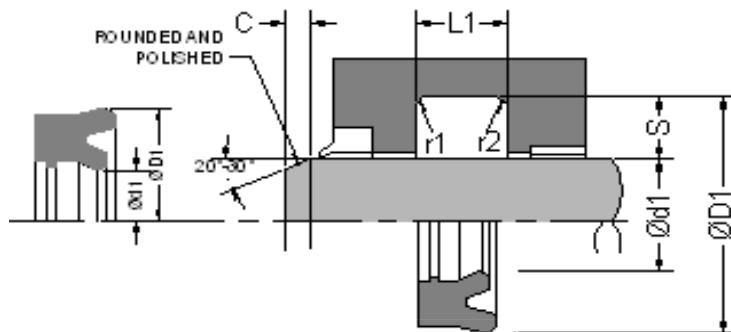
chamfers & Radii

Grove section < s mm	4	5	7.5	10	12.5	15
Min chamfer C mm	3	3.5	5	6.5	7	8
Max Fillet Rad r1 mm	0.2	0.4	0.8	0.8	1.2	1.6
Max fillet Rad r2 mm	0.4	0.8	1.2	1.2	1.6	2.4
Grove section < s in	0.13	0.187	0.25	0.312	0.375	0.5
Min chamfer C in	0.09	0.093	0.125	0.156	0.187	0.217
Max Fillet Rad r1 in	0.01	0.008	0.016	0.032	0.032	0.032
Max fillet Rad r2 in	0.02	0.016	0.032	0.047	0.047	0.047

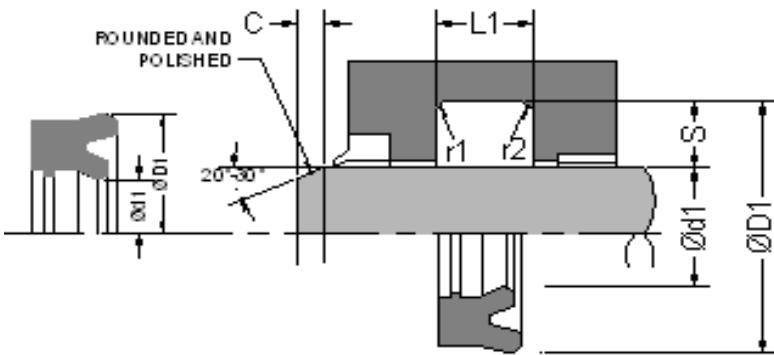
Tolerance	$\emptyset d1$	$\emptyset D1$	L1mm	L1in
	f9	js11	0.25	0.01

* Pressure rating of seal can be extended to 700 bar /10,000p.s.i. with the use of a back up ring.

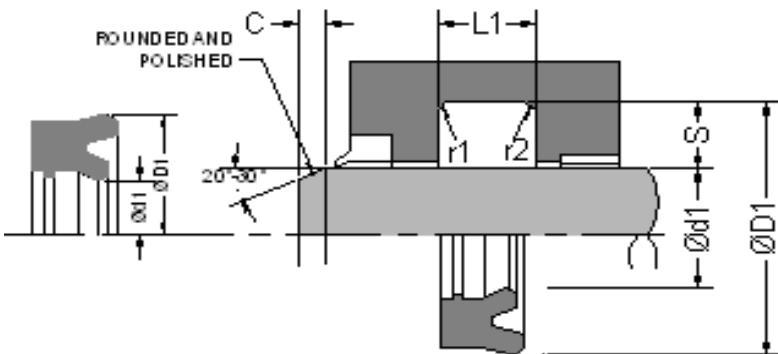
If this option is required seek advice from your local AB sales office.



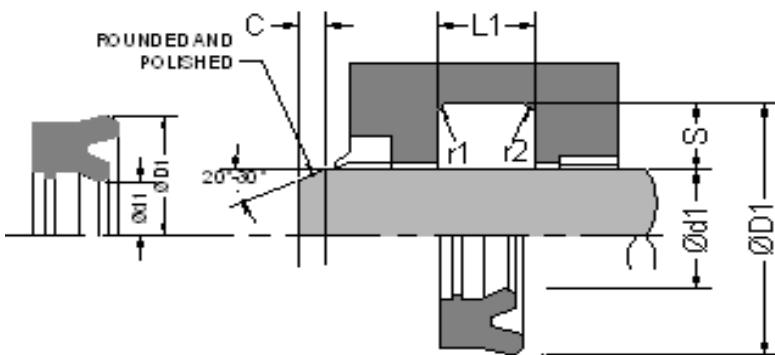
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6	-0.01 -0.04	15	0.06 -0.06	7.3	8	RUD- 6x15x8	12	-0.016 -0.059	22	0.07 -0.07	7.7	9	RUD- 12x22x9
6	-0.01 -0.04	16	0.06 -0.06	7	8	RUD- 6x16x8	12.7	-0.016 -0.059	18	0.06 -0.06	5.5	6	RUD- 12.7x18x6
8	-0.013 -0.049	18	0.06 -0.06	7	8	RUD- 8x18x8	13	-0.016 -0.059	20	0.07 -0.07	4.5	5	RUD- 13x20x5
10	-0.013 -0.049	15	0.06 -0.06	3.6	4	RUD- 10x15x4	14	-0.016 -0.059	21	0.07 -0.07	5.1	5.6	RUD- 14x21x5.6
12	-0.016 -0.059	18	0.06 -0.06	4	4.5	RUD- 12x18x4.5	14	-0.016 -0.059	22	0.07 -0.07	5.7	6.3	RUD- 14x22x6.3
12	-0.016 -0.059	18	0.06 -0.06	5.7	6.3	RUD- 12x18x6.3	14	-0.016 -0.059	24	0.07 -0.07	7.3	8	RUD- 14x24x8
12	-0.016 -0.059	19	0.07 -0.07	4.5	5	RUD- 12x19x5	15	-0.016 -0.059	22	0.07 -0.07	5.7	6.3	RUD- 15x22x6.3
12	-0.016 -0.059	19	0.07 -0.07	5.1	5.6	RUD- 12x19x5.6	15.37	-0.016 -0.059	25.5	0.07 -0.07	6.35	7.4	RUD- 15.4x25.5x7.4
12	-0.016 -0.059	20	0.07 -0.07	5.7	6.3	RUD- 12x20x6.3	16	-0.016 -0.059	22	0.07 -0.07	4.5	5	RUD- 16x22x5
12	-0.016 -0.059	20	0.07 -0.07	5	6	RUD- 12x20x6.3	16	-0.016 -0.059	22	0.07 -0.07	5	6	RUD- 16x22x6



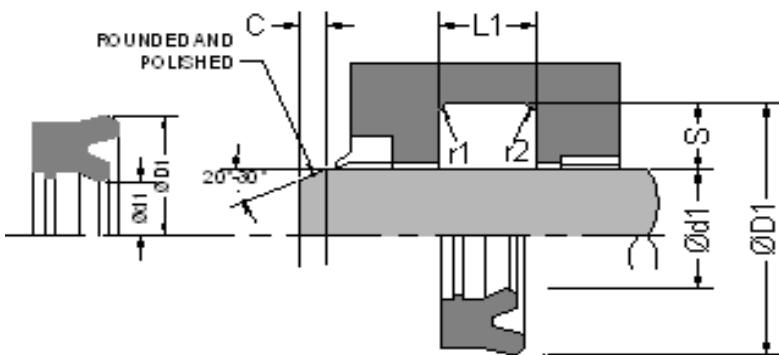
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16	-0.016 -0.059	22	0.07 -0.07	10	11	RUD-16x22x11	20	-0.02 -0.072	30	0.07 -0.07	10	11	RUD-20x30x11
16	-0.016 -0.059	24	0.07 -0.07	5.8	6.3	RUD-16x24x6.3	20	-0.02 -0.072	30	0.07 -0.07	7	8	RUD- 20x30x8
16	-0.016 -0.059	26	0.07 -0.07	7.7	9	RUD-16x26x9	22	-0.02 -0.072	30	0.07 -0.07	5	5.7	RUD- 22x30x5.7
18	-0.016 -0.059	24	0.07 -0.07	4.5	5	RUD-18x24x5	22	-0.02 -0.072	30	0.07 -0.07	5.7	6.3	RUD- 22x30x6.3
18	-0.016 -0.059	25	0.07 -0.07	5	6	RUD-18x25x6	22	-0.02 -0.072	30	0.07 -0.07	7.3	8	RUD- 22x30x8
18	-0.016 -0.059	26	0.07 -0.07	5	5.7	RUD-18x26x5.7	22	-0.02 -0.072	32	0.8 -0.08	7.3	8	RUD- 22x32x8
18	-0.016 -0.059	26	0.07 -0.07	5.7	6.3	RUD-18x26x6.3	22	-0.02 -0.072	32	0.08 -0.08	10	11	RUD-22x32x11
18	-0.016 -0.059	26	0.07 -0.07	6	7	RUD-18x26x7	22	-0.02 -0.072	30	0.08 -0.08	7	8	RUD- 22x30x8
18	-0.016 -0.059	28	0.07 -0.07	7.7	9	RUD-18x28x9	22	-0.02 -0.072	32	0.08 -0.08	7.3	8	RUD- 22x32x8
18	-0.016 -0.059	28	0.07 -0.07	7.3	8.5	RUD-18x28x8.5	22.4	-0.02 -0.072	30	0.08 -0.08	5	5.7	RUD- 22.4x30x5.7
20	-0.02 -0.072	25	0.07 -0.07	3.2	3.5	RUD-20x25x3.5	22.4	-0.02 -0.072	30	0.08 -0.08	8	9	RUD- 22.4x30x9
20	-0.02 -0.072	26	0.07 -0.07	5	5.5	RUD-20x26x5.5	24	-0.02 -0.072	30	0.08 -0.08	4.5	5	RUD- 24x30x5
20	-0.02 -0.072	26	0.07 -0.07	6.5	7.6	RUD-20x26x7.6	25	-0.02 -0.072	33	0.08 -0.08	5	5.7	RUD- 25x33x5.7
20	-0.02 -0.072	27	0.07 -0.07	6.1	6.7	RUD-20x27x6.7	25	-0.02 -0.072	33	0.08 -0.08	5.7	6.3	RUD- 25x33x6.3
20	-0.02 -0.072	28	0.07 -0.07	5	5.7	RUD-20x28x5.7	25	-0.02 -0.072	33	0.08 -0.08	6.8	7.5	RUD- 25x33x7.5
20	-0.02 -0.072	28	0.07 -0.07	5.7	6.3	RUD-20x28x6.3	25	-0.02 -0.072	33	0.08 -0.08	8	9	RUD- 25x33x9
20	-0.02 -0.072	30	0.07 -0.07	6	7	RUD-20x30x7	25	-0.02 -0.072	33	0.08 -0.08	10	11	RUD-25x33x11
20	-0.02 -0.072	30	0.07 -0.07	7.7	9	RUD-20x30x9	25	-0.02 -0.072	35	0.08 -0.08	7.3	8	RUD- 25x35x8



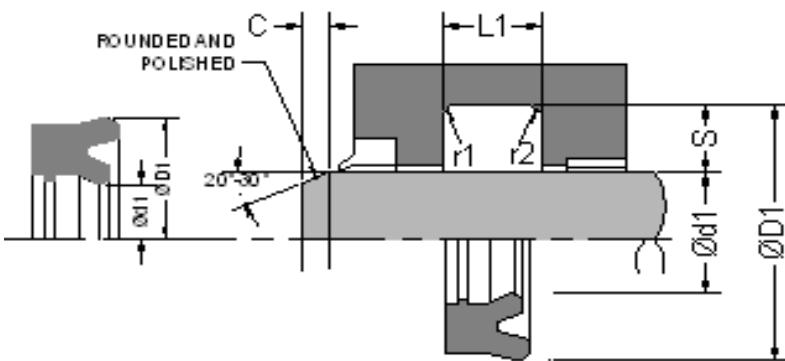
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25	-0.02 -0.072	35	0.08 -0.08	7.7	9	RUD- 25x35x9	30	-0.02 -0.072	45	0.08 -0.08	9	10	RUD- 30x45x10
25	-0.02 -0.072	35	0.08 -0.08	10	11	RUD- 25x35x11	30	-0.02 -0.072	50	0.08 -0.08	10	11	RUD- 30x50x11
25	-0.02 -0.072	35	0.08 -0.08	7	8	RUD- 25x35x8	32	-0.025 -0.087	40	0.08 -0.08	6	7	RUD- 32x40x7
25	-0.02 -0.072	40	0.08 -0.08	10	11	RUD-25x40x11	32	-0.025 -0.087	40	0.08 -0.08	6.7	7.7	RUD- 32x40x7.7
25	-0.02 -0.072	37	0.08 -0.08	10	11	RUD-25x37x11	32	-0.025 -0.087	40	0.08 -0.08	7.7	9	RUD- 32x40x9
25	-0.02 -0.072	40	0.08 -0.08	10	11	RUD-25x40x11	32	-0.025 -0.087	41.5	0.08 -0.08	7.9	8.9	RUD- 32x41.5x8.9
26	-0.02 -0.072	36	0.08 -0.08	7	8	RUD- 26x36x8	32	-0.025 -0.087	42	0.08 -0.08	5.7	6.3	RUD- 32x42x6.3
28	-0.02 -0.072	35.5	0.08 -0.08	5	5.7	RUD- 28x35.5x5.7	32	-0.025 -0.087	42	0.08 -0.08	6	7	RUD- 32x42x7
28	-0.02 -0.072	36	0.08 -0.08	5.7	6.3	RUD-28x36x6.3	32	-0.025 -0.087	42	0.08 -0.08	7.3	8	RUD- 32x42x8
28	-0.02 -0.072	38	0.08 -0.08	7.3	8	RUD- 28x38x8	32	-0.025 -0.087	42	0.08 -0.08	10	11	RUD- 32x42x11
28	-0.02 -0.072	43	0.08 -0.08	11.4	12.5	RUD- 28x43x12.5	32	-0.025 -0.087	45	0.08 -0.08	9.5	10.5	RUD-32x45x10.5
30	-0.02 -0.072	38	0.08 -0.08	5.7	6.3	RUD-30x38x6.3	32	-0.025 -0.087	45	0.08 -0.08	10	11	RUD- 32x45x11
30	-0.02 -0.072	38	0.08 -0.08	6.3	7	RUD- 30x38x7	32	-0.025 -0.087	47	0.08 -0.08	9.1	10	RUD- 32x47x10
30	-0.02 -0.072	40	0.08 -0.08	6	7	RUD- 30x40x7	32	-0.025 -0.087	47	0.08 -0.08	10	11	RUD- 32x47x11
30	-0.02 -0.072	40	0.08 -0.08	7	7.7	RUD-30x40x7.7	32	-0.025 -0.087	48	0.08 -0.08	10	11	RUD- 32x48x11
30	-0.02 -0.072	40	0.08 -0.08	8.5	9.5	RUD-30x40x9.5	35	-0.025 -0.087	43	0.08 -0.08	5.7	6.3	RUD- 35x43x6.3
30	-0.02 -0.072	40	0.08 -0.08	10	11	RUD-30x40x11	35	-0.025 -0.087	43	0.08 -0.08	6.3	7	RUD- 35x43x7
30	-0.02 -0.072	42	0.08 -0.08	10.9	12	RUD-30x42x12	35	-0.025 -0.087	43	0.08 -0.08	8.2	9	RUD- 35x43x9



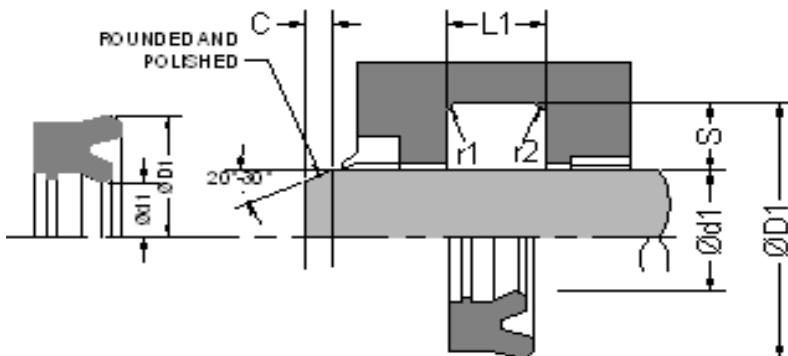
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35	-0.025 -0.087	45	0.08 -0.08	6	7	RUD- 35x45x7	38	-0.025 -0.087	53	0.08 -0.08	10	11	RUD- 38x53x11
35	-0.025 -0.087	45	0.08 -0.08	7	8	RUD- 35x45x8	40	-0.025 -0.087	48	0.08 -0.08	5.7	6.3	RUD- 40x48x6.3
35	-0.025 -0.087	45	0.08 -0.08	7.3	8	RUD- 35x45x8	40	-0.025 -0.087	48	0.08 -0.08	8.2	9	RUD- 40x48x9
35	-0.025 -0.087	45	0.08 -0.08	7.7	9	RUD - 35x45x9	40	-0.025 -0.087	49.52	0.08 -0.08	9.5	10.5	RUD- 40x49.52x10.5
35	-0.025 -0.087	45	0.08 -0.08	10	11	RUD-35x45x11	40	-0.025 -0.087	50	0.08 -0.08	6	7	RUD- 40x50x7
35	-0.025 -0.087	50	0.08 -0.08	9	10	RUD-35x50x10	40	-0.025 -0.087	55	0.08 -0.08	7.3	8	RUD- 40x55x8
35	-0.025 -0.087	50	0.08 -0.08	10	11	RUD-35x50x11	40	-0.025 -0.087	50	0.08 -0.08	7.3	8	RUD- 40x50x8
35.5	-0.025 -0.087	45	0.08 -0.08	6	7	RUD-35.5x45x7	40	-0.025 -0.087	50	0.08 -0.08	10	11	RUD- 40x50x11
35.5	-0.025 -0.087	50.5	0.08 -0.08	10	11	RUD- 35.5x50.5x11	40	-0.025 -0.087	52	0.095 -0.095	10.9	12	RUD- 40x52x12
36	-0.025 -0.087	44	0.08 -0.08	6.4	7.5	RUD-36x44x7.5	40	-0.025 -0.087	55	0.095 -0.095	7.3	8	RUD- 40x55x8
36	-0.025 -0.087	44	0.08 -0.08	8.2	9	RUD- 36x44x9	40	-0.025 -0.087	55	0.095 -0.095	9	10	RUD- 40x55x10
36	-0.025 -0.087	46	0.08 -0.08	5.7	6.3	RUD-36x44x6.3	40	-0.025 -0.087	55	0.095 -0.095	10	11	RUD- 40x55x11
36	-0.025 -0.087	46	0.08 -0.08	7.3	8	RUD- 36x46x8	42	-0.025 -0.087	50	0.095 -0.095	7.5	8	RUD- 42x50x8
36	-0.025 -0.087	46	0.08 -0.08	10	11	RUD-36x46x11	42	-0.025 -0.087	50	0.095 -0.095	5.7	6.3	RUD- 42x50x6.3
36	-0.025 -0.087	51	0.08 -0.08	10	11	RUD-36x51x11	42	-0.025 -0.087	52	0.095 -0.095	6	7	RUD- 42x52x7
38	-0.025 -0.087	48	0.08 -0.08	8	9	RUD- 38x48x9	42	-0.025 -0.087	52	0.095 -0.095	10	11	RUD- 42x52x11
38	-0.025 -0.087	48	0.08 -0.08	10	11	RUD-38x48x11	43	-0.025 -0.087	53	0.095 -0.095	6	7	RUD- 43x53x7
38	-0.025 -0.087	50	0.08 -0.08	10	11	RUD-38x50x11	43.5	-0.025 -0.087	53.5	0.095 -0.095	6.3	8	RUD- 43.5x53.5x8



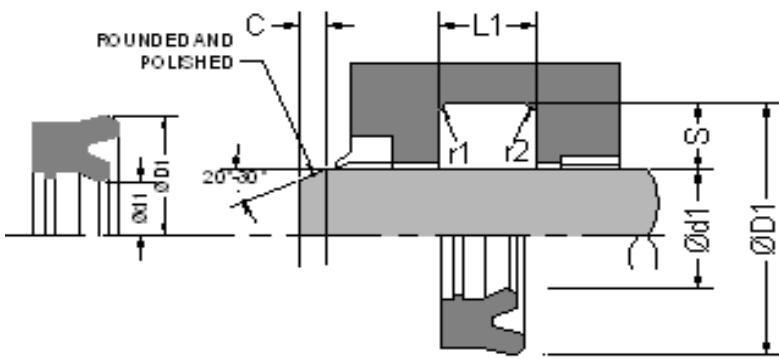
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45	-0.025 -0.087	53	0.095 -0.095	7.3	8	RUD- 45x53x8	50	-0.025 -0.087	60	0.095 -0.095	6	7	RUD- 50x60x7
45	-0.025 -0.087	53	0.095 -0.095	8.1	9	RUD- 45x53x9	50	-0.025 -0.087	60	0.095 -0.095	7.3	8	RUD- 50x60x8
45	-0.025 -0.087	53	0.095 -0.095	11.8	13	RUD- 45x53x13	50	-0.025 -0.087	60	0.095 -0.095	8.2	9	RUD- 50x60x9
45	-0.025 -0.087	55	0.095 -0.095	5.6	6.3	RUD- 45x55x6.3	50	-0.025 -0.087	60	0.095 -0.095	10	11	RUD- 50x60x11
45	-0.025 -0.087	55	0.095 -0.095	6	7	RUD- 45x55x7	50	-0.025 -0.087	60	0.095 -0.095	11.8	13	RUD- 50x60x13
45	-0.025 -0.087	55	0.095 -0.095	7.3	8	RUD- 45x55x8	50	-0.025 -0.087	62.7	0.095 -0.095	9.5	10.5	RUD- 50x62.7x10.5
45	-0.025 -0.087	55	0.095 -0.095	8	9	RUD- 45x55x9	50	-0.025 -0.087	63	0.095 -0.095	10	11	RUD- 50x63x11
45	-0.025 -0.087	55	0.095 -0.095	10	11	RUD- 45x55x11	50	-0.025 -0.087	65	0.095 -0.095	9	10	RUD- 50x65x10
45	-0.025 -0.087	57.7	0.095 -0.095	9.5	10.5	RUD- 45x57.7x10.5	50	-0.025 -0.087	65	0.095 -0.095	9.5	10.5	RUD- 50x65x10.5
45	-0.025 -0.087	60	0.095 -0.095	10	11	RUD- 45x60x11	50	-0.025 -0.087	65	0.095 -0.095	10	11	RUD- 50x65x11
45	-0.025 -0.087	55	0.095 -0.095	9.8	10.5	RUD- 45x55x10.5	50	-0.025 -0.087	65	0.095 -0.095	10.9	12	RUD- 50x65x12
45	-0.025 -0.087	55	0.095 -0.095	10	11	RUD- 45x55x11	50	-0.025 -0.087	65	0.095 -0.095	14.5	16	RUD- 50x65x16
45	-0.025 -0.087	60	0.095 -0.095	11.4	12.5	RUD- 45x60x12.5	50	-0.025 -0.087	70	0.095 -0.095	12	13	RUD- 50x70x13
45	-0.025 -0.087	65	0.095 -0.095	10	11	RUD- 45x65x11	53	-0.03 -0.104	63	0.095 -0.095	6	7	RUD- 53x63x7
47	-0.025 -0.087	56.33	0.095 -0.095	9	10	RUD- 47x56.33x10	53	-0.03 -0.104	65	0.095 -0.095	9	10	RUD- 53x65x10
48	-0.025 -0.087	60	0.095 -0.095	10	11	RUD- 48x60x11	55	-0.03 -0.104	65	0.095 -0.095	6	7	RUD- 55x65x7
50	-0.025 -0.087	57	0.095 -0.095	9	10	RUD- 50x57x10	55	-0.03 -0.104	65	0.095 -0.095	7.3	8	RUD- 55x65x8
50	-0.025 -0.087	60	0.095 -0.095	12	13	RUD- 50x60x13	55	-0.03 -0.104	65	0.095 -0.095	8.2	9	RUD- 55x65x9



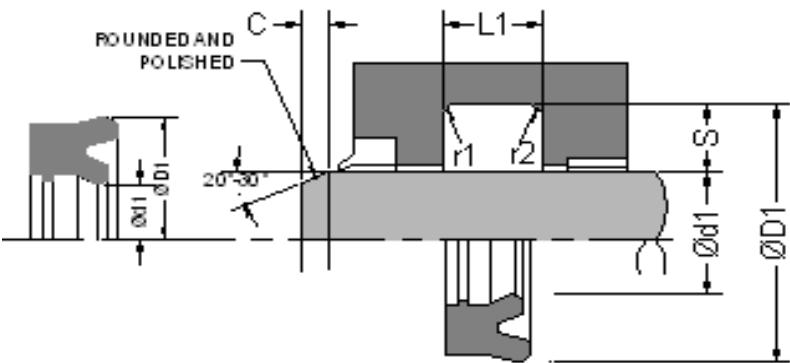
$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	SL	L1 +0.25.	PART NO.	$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	SL	L1 +0.25.	PART NO.
55	-0.03 -0.104	65	0.095 -0.095	10	11	RUD-55x65x11	60	-0.03 -0.104	75	0.095 -0.095	9	10	RUD- 60x75x10
55	-0.03 -0.104	65	0.095 -0.095	11.8	13	RUD-55x65x13	60	-0.03 -0.104	75	0.095 -0.095	10	11	RUD- 60x75x11
55	-0.03 -0.104	68	0.095 -0.095	10	11	RUD-55x68x11	60	-0.03 -0.104	75	0.095 -0.095	11.8	13	RUD- 60x75x13
55	-0.03 -0.104	70	0.095 -0.095	9	10	RUD-55x70x10	60	-0.03 -0.104	75	0.095 -0.095	20.5	22.5	RUD-60x75x22.5
55	-0.03 -0.104	70	0.095 -0.095	11.8	13	RUD-55x70x13	60	-0.03 -0.104	76	0.095 -0.095	10	11	RUD- 60x76x11
55	-0.03 -0.104	71	0.095 -0.095	12	13	RUD-55x71x13	60	-0.03 -0.104	80	0.095 -0.095	11.4	12.5	RUD-60x80x12.5
55	-0.03 -0.104	75	0.095 -0.095	12	13	RUD-55x75x13	60	-0.03 -0.104	80	0.095 -0.095	12	13	RUD- 60x80x13
56	-0.03 -0.104	66	0.095 -0.095	10	11	RUD-56x66x11	63	-0.03 -0.104	73	0.095 -0.095	6	7	RUD- 63x73x7
56	-0.03 -0.104	71	0.095 -0.095	10	11	RUD-56x71x11	63	-0.03 -0.104	73	0.095 -0.095	11.8	13	RUD- 63x73x13
56	-0.03 -0.104	71	0.095 -0.095	11.4	12.5	RUD- 56x71x12.5	63	-0.03 -0.104	78	0.095 -0.095	10	11	RUD- 63x73x11
60	-0.03 -0.104	68	0.095 -0.095	11.4	12.5	RUD- 60x68x12.5	63	-0.03 -0.104	78	0.095 -0.095	11.4	12.5	RUD-63x73x12.5
60	-0.03 -0.104	70	0.095 -0.095	6	7	RUD- 60x70x7	65	-0.03 -0.104	75	0.095 -0.095	6	7	RUD- 65x75x7
60	-0.03 -0.104	70	0.095 -0.095	7.3	8	RUD- 60x70x8	65	-0.03 -0.104	75	0.095 -0.095	7.7	9	RUD- 65x75x9
60	-0.03 -0.104	70	0.095 -0.095	10	11	RUD-60x70x11	65	-0.03 -0.104	75	0.095 -0.095	11.8	13	RUD- 65x75x13
60	-0.03 -0.104	70	0.095 -0.095	11.8	13	RUD-60x70x13	65	-0.03 -0.104	77	0.095 -0.095	9	10	RUD- 65x77x10
60	-0.03 -0.104	71	0.095 -0.095	7	8	RUD- 60x71x8	65	-0.03 -0.104	77.7	0.095 -0.095	9.5	10.5	RUD- 65x77.7x10.5
60	-0.03 -0.104	72	0.095 -0.095	10	11	RUD-60x72x11	65	-0.03 -0.104	78	0.095 -0.095	10	11	RUD- 65x78x11
60	-0.03 -0.104	73	0.095 -0.095	10	11	RUD-60x73x11	65	-0.03 -0.104	80	0.095 -0.095	9	10	RUD- 65x80x10



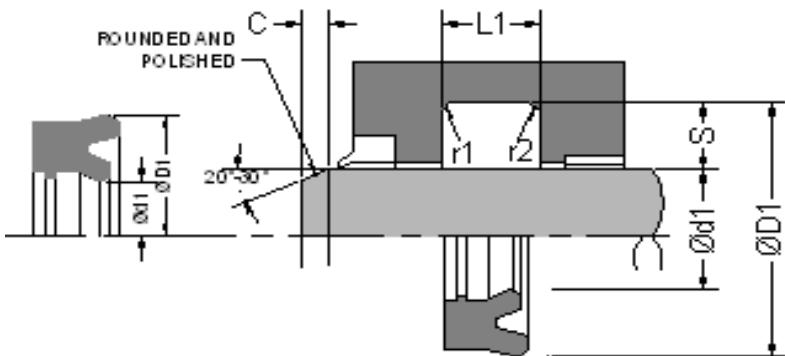
$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	SL	L1 +0.25.	PART NO.	$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	SL	L1 +0.25.	PART NO.
65	-0.03 -0.104	80	0.095 -0.095	11.8	13	RUD-65x80x13	72	-0.03 -0.104	87	0.11 -0.11	13.5	14.5	RUD-72x87x14.5
65	-0.03 -0.104	85	0.095 -0.095	12	13	RUD-65x85x13	75	-0.03 -0.104	83	0.11 -0.11	11.4	12.5	RUD-75x83x12.5
67	-0.03 -0.104	77	0.095 -0.095	6	7	RUD- 67x77x7	75	-0.03 -0.104	85	0.11 -0.11	6	7	RUD- 75x85x7
70	-0.03 -0.104	80	0.095 -0.095	6	7	RUD- 70x80x7	75	-0.03 -0.104	85	0.11 -0.11	11.8	13	RUD- 75x85x13
70	-0.03 -0.104	78	0.095 -0.095	13	14	RUD-70x78x14	75	-0.03 -0.104	88	0.11 -0.11	10	11	RUD- 75x88x11
70	-0.03 -0.104	80	0.095 -0.095	10	11	RUD-70x80x11	75	-0.03 -0.104	90	0.11 -0.11	9	10	RUD- 75x90x10
70	-0.03 -0.104	80	0.095 -0.095	12	13	RUD-70x80x13	75	-0.03 -0.104	95	0.11 -0.11	12	13	RUD- 75x95x13
70	-0.03 -0.104	82	0.095 -0.095	12	13	RUD-70x82x13	78	-0.03 -0.104	86	0.11 -0.11	9	10	RUD- 78x86x10
70	-0.03 -0.104	80	0.095 -0.095	11.8	12.5	RUD-70x80x12.5	80	-0.03 -0.104	88	0.11 -0.11	10.9	12	RUD- 80x88x12
70	-0.03 -0.104	82	0.11 -0.11	8.7	9.6	RUD-70x82x9.6	80	-0.03 -0.104	90	0.11 -0.11	6	7	RUD- 80x90x7
70	-0.03 -0.104	82	0.11 -0.11	10	11	RUD-70x82x11	80	-0.03 -0.104	90	0.11 -0.11	14	15	RUD- 80x90x15
70	-0.03 -0.104	82	0.11 -0.11	15	16	RUD-70x82x16	80	-0.03 -0.104	90	0.11 -0.11	10	11	RUD- 80x90x11
70	-0.03 -0.104	83	0.11 -0.11	10	11	RUD-70x83x11	80	-0.03 -0.104	90	0.11 -0.11	11.8	13	RUD- 80x90x13
70	-0.03 -0.104	85	0.11 -0.11	9	10	RUD-70x85x10	80	-0.03 -0.104	92	0.11 -0.11	8.7	9.6	RUD- 80x92x9.6
70	-0.03 -0.104	85	0.11 -0.11	10	11	RUD-70x85x11	80	-0.03 -0.104	93	0.11 -0.11	10	11	RUD- 80x93x11
70	-0.03 -0.104	85	0.11 -0.11	11.4	12.5	RUD- 70x85x12.5	80	-0.03 -0.104	95	0.11 -0.11	9	10	RUD - 80x95x10
70	-0.03 -0.104	85	0.11 -0.11	20.5	22.5	RUD- 70x85x22.5	80	-0.03 -0.104	95	0.11 -0.11	10	11	RUD- 80x95x11
70	-0.03 -0.104	90	0.11 -0.11	12	13	RUD-70x90x13	80	-0.03 -0.104	95	0.11 -0.11	11.4	12.5	RUD-80x95x12.5



$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	SL	L1 +0.25.	PART NO.	$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	SL	L1 +0.25.	PART NO.
80	-0.03 -0.104	95	0.11 -0.11	11.8	13	RUD-80x95x13	90	-0.036 -0.123	105	0.11 -0.11	11.4	12.5	RUD-90x105x12.5
80	-0.03 -0.104	100	0.11 -0.11	12	13	RUD-80x100x13	90	-0.036 -0.123	110	0.11 -0.11	12	13	RUD-90x110x13
80	-0.03 -0.104	100	0.11 -0.11	14.5	16	RUD-80x100x16	95	-0.036 -0.123	110	0.11 -0.11	9	10	RUD-95x110x10
80	-0.03 -0.104	110	0.11 -0.11	16.4	18	RUD-80x100x18	95	-0.036 -0.123	110	0.11 -0.11	10	11	RUD-95x110x11
85	-0.036 -0.123	93	0.11 -0.11	8.2	9	RUD-85x93x9	95	-0.036 -0.123	110	0.11 -0.11	11.8	13	RUD-95x110x13
85	-0.036 -0.123	93	0.11 -0.11	10	11	RUD-85x93x11	95	-0.036 -0.123	115	0.11 -0.11	12	13	RUD-95x115x13
85	-0.036 -0.123	93	0.11 -0.11	11.4	12.5	RUD-85x93x12.5	96	-0.036 -0.123	104	0.11 -0.11	10.9	12	RUD-96x104x12
85	-0.036 -0.123	100	0.11 -0.11	9	10	RUD-85x100x10	98	-0.036 -0.123	112	0.11 -0.11	8.5	9.5	RUD-98x112x9.5
85	-0.036 -0.123	100	0.11 -0.11	10	11	RUD-85x100x11	100	-0.036 -0.123	108	0.11 -0.11	10.9	12	RUD-100x108x12
85	-0.036 -0.123	100	0.11 -0.11	11.8	13	RUD-85x100x13	100	-0.036 -0.123	110	0.11 -0.11	10.9	12	RUD-100x110x12
85	-0.036 -0.123	105	0.11 -0.11	12	13	RUD-85x105x13	100	-0.036 -0.123	115	0.11 -0.11	9	10	RUD-100x115x10
90	-0.036 -0.123	98	0.11 -0.11	11.4	12.5	RUD-90x98x12.5	100	-0.036 -0.123	115	0.11 -0.11	11.8	13	RUD-100x115x13
90	-0.036 -0.123	100	0.11 -0.11	6.8	7.5	RUD-90x100x7.5	100	-0.036 -0.123	115	0.11 -0.11	10	11	RUD-100x115x11
90	-0.036 -0.123	100	0.11 -0.11	9	10	RUD-90x100x10	100	-0.036 -0.123	120	0.11 -0.11	11.8	13	RUD-100x120x13
90	-0.036 -0.123	100	0.11 -0.11	11.8	13	RUD-90x100x13	100	-0.036 -0.123	120	0.11 -0.11	14.5	16	RUD-100x120x16
90	-0.036 -0.123	102	0.11 -0.11	8.7	9.6	RUD-90x102x9.6	105	-0.036 -0.123	113	0.11 -0.11	10	11	RUD-105x113x11
90	-0.036 -0.123	105	0.11 -0.11	9	10	RUD-90x105x10	105	-0.036 -0.123	115	0.11 -0.11	13.2	14.5	RUD-105x115x14.5
90	-0.036 -0.123	105	0.11 -0.11	10	11	RUD-90x105x11	105	-0.036 -0.123	120	0.11 -0.11	9	10	RUD-105x120x10



$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	SL	L1 +0.25.	PART NO.	$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	SL	L1 +0.25.	PART NO.
105	-0.036 -0.123	120	0.11 -0.11	10	11	RUD-105x120x11	120	-0.036 -0.123	140	0.125 -0.125	12	13	RUD-120x140x13
105	-0.036 -0.123	120	0.11 -0.11	14.5	16	RUD-105x120x16	120	-0.036 -0.123	140	0.125 -0.125	14.5	16	RUD-120x140x16
105	-0.036 -0.123	125	0.125 -0.125	14.5	16	RUD-105x125x16	124	-0.043 -0.143	134	0.125 -0.125	6	7	RUD-124x134x7
108	-0.036 -0.123	123	0.125 -0.125	10.9	12	RUD-108x123x12	125	-0.043 -0.143	133	0.125 -0.125	10	11	RUD-125x133x11
110	-0.036 -0.123	125	0.125 -0.125	9	10	RUD-110x125x10	125	-0.043 -0.143	133	0.125 -0.125	11.4	12.5	RUD-125x133x12.5
110	-0.036 -0.123	125	0.125 -0.125	11	12	RUD-110x125x12	125	-0.043 -0.143	140	0.125 -0.125	9	10	RUD-125x140x10
110	-0.036 -0.123	125	0.125 -0.125	14.5	16	RUD-110x125x16	125	-0.043 -0.143	140	0.125 -0.125	10	11	RUD-125x140x11
110	-0.036 -0.123	130	0.125 -0.125	11.8	13	RUD-110x130x13	125	-0.043 -0.143	140	0.125 -0.125	10.9	12	RUD-125x140x12
110	-0.036 -0.123	130	0.125 -0.125	14.5	16	RUD-110x130x16	125	-0.043 -0.143	145	0.125 -0.125	12	13	RUD-125x145x13
110	-0.036 -0.123	135	0.125 -0.125	14.5	16	RUD-110x135x16	125	-0.043 -0.143	145	0.125 -0.125	14.5	16	RUD-125x145x16
112	-0.036 -0.123	125	0.125 -0.125	9	10	RUD-112x125x10	125	-0.043 -0.143	150	0.125 -0.125	12.5	14	RUD-125x150x14
115	-0.036 -0.123	125	0.125 -0.125	11	12	RUD-115x125x12	130	-0.043 -0.143	140	0.125 -0.125	14.5	16	RUD-130x140x16
115	-0.036 -0.123	130	0.125 -0.125	9	10	RUD-115x130x10	130	-0.043 -0.143	145	0.125 -0.125	9	10	RUD-130x145x10
115	-0.036 -0.123	130	0.125 -0.125	10.9	12	RUD-115x130x12	130	-0.043 -0.143	145	0.125 -0.125	10	11	RUD-130x145x11
115	-0.036 -0.123	130	0.125 -0.125	14.5	16	RUD-115x130x16	130	-0.043 -0.143	150	0.125 -0.125	12	13	RUD-130x150x13
120	-0.036 -0.123	128	0.125 -0.125	11.4	12.5	RUD-120x128x12.5	130	-0.043 -0.143	150	0.125 -0.125	14.5	16	RUD-130x150x16
120	-0.036 -0.123	130	0.125 -0.125	10.9	12	RUD-120x130x12	132.5	-0.043 -0.143	157.5	0.125 -0.125	13.2	14.5	RUD-132.5x157.5x16
120	-0.036 -0.123	135	0.125 -0.125	9	10	RUD-120x135x10	135	-0.043 -0.143	145	0.125 -0.125	11	12	RUD-135x145x12



$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	SL	L1 +0.25.	PART NO.	$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	SL	L1 +0.25.	PART NO.
135	-0.043 -0.143	150	0.125 -0.125	9	10	RUD-135x150x10	160	-0.043 -0.143	175	0.125 -0.125	9	10	RUD-160x175x10
135	-0.043 -0.143	150	0.125 -0.125	11.4	12.5	RUD-135x150x12.5	160	-0.043 -0.143	175	0.125 -0.125	10.9	12	RUD-160x175x12
140	-0.043 -0.143	150	0.125 -0.125	6	7	RUD-140x150x7	160	-0.043 -0.143	180	0.125 -0.125	12	13	RUD-160x180x13
140	-0.043 -0.143	150	0.125 -0.125	10.9	12	RUD-140x150x12	160	-0.043 -0.143	180	0.125 -0.125	14.5	16	RUD-160x180x16
140	-0.043 -0.143	155	0.125 -0.125	9	10	RUD-140x155x10	165	-0.043 -0.143	180	0.125 -0.125	9	10	RUD-165x180x10
140	-0.043 -0.143	155	0.125 -0.125	11.8	13	RUD-140x155x13	170	-0.043 -0.143	180	0.125 -0.125	6	7	RUD-170x180x7
140	-0.043 -0.143	160	0.125 -0.125	11.8	13	RUD-140x160x13	170	-0.043 -0.143	185	0.145 -0.145	9	10	RUD-170x185x10
140	-0.043 -0.143	160	0.125 -0.125	14.5	16	RUD-140x160x16	170	-0.043 -0.143	190	0.145 -0.145	14.5	16	RUD-170x190x16
150	-0.043 -0.143	160	0.125 -0.125	11	12	RUD-150x160x12	180	-0.043 -0.143	190	0.145 -0.145	11	12	RUD-180x190x12
150	-0.043 -0.143	165	0.125 -0.125	9	10	RUD-150x165x10	180	-0.043 -0.143	192	0.145 -0.145	12.5	14	RUD-180x192x14
150	-0.043 -0.143	170	0.125 -0.125	12	13	RUD-150x170x13	180	-0.043 -0.143	200	0.145 -0.145	11.8	13	RUD-180x200x13
150	-0.043 -0.143	170	0.125 -0.125	13.2	14.5	RUD-150x170x14.5	180	-0.043 -0.143	200	0.145 -0.145	14.5	16	RUD-180x200x16
150	-0.043 -0.143	170	0.125 -0.125	14.5	16	RUD-150x170x16	185	-0.043 -0.143	200	0.145 -0.145	10.9	12	RUD-185x200x12
151	-0.043 -0.143	159	0.125 -0.125	9	10	RUD-151x159x10	190	-0.043 -0.143	215	0.145 -0.145	18.5	20	RUD-190x215x20
155	-0.043 -0.143	165	0.125 -0.125	6	7	RUD-155x165x7	200	-0.043 -0.143	220	0.145 -0.145	12	13	RUD-200x220x13
155	-0.043 -0.143	165	0.125 -0.125	11	12	RUD-155x165x12	200	-0.043 -0.143	220	0.145 -0.145	14.5	16	RUD-200x220x16
155	-0.043 -0.143	170	0.125 -0.125	9	10	RUD-155x170x10	205	-0.043 -0.143	220	0.145 -0.145	12.2	13.5	RUD-205x220x13.5
155	-0.043 -0.143	170	0.125 -0.125	14.5	16	RUD-155x170x16	220	-0.043 -0.143	240	0.145 -0.145	14.5	16	RUD-220x240x16