

KD



The piston seal type Aston Seals KD assures a good reaction against shock pressure peaks and low friction in the low pressure range.

The asymmetric lips are designed to differentiate the behaviour of the lips on the static and dynamic surfaces: the static lip is flexible, more sensitive to pressure fluctuations and it guarantees a wide contact area; the dynamic lip is shorter and stronger to concentrate load against the dynamic surface.

They can also be used in back-to-back arrangement for double acting piston.

- Extended service life
- Simple groove design
- Insensitive to structural deflections

- High resistance against extrusion
- Excellent wear-resistance
- Good temperature resistance
- Easy installation without expensive auxiliaries

MATERIAL



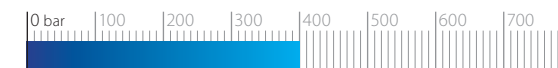
Type
Polyurethane

Designation
SEALPUR 93

Hardness
93 °ShA

FIELD OF APPLICATION

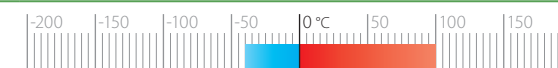
Pressure
≤ 400 bar



Speed
≤ 0.5 m/s



Temperature
-40°C ÷ +100°C



Fluids
Hydraulic oils (mineral oil based)
For other fluids contact our technical department

SURFACE ROUGHNESS

Dynamic surface	Ra ≤ 0.3 µm	Rt ≤ 2.5 µm
Static surface	Ra ≤ 1.6 µm	Rt ≤ 6.3 µm

GAP DIMENSION "g"

The largest gap dimension appearing in operation on the non-pressurised side:

50 bar	1.20 mm	300 bar	0.25 mm
100 bar	0.80 mm	400 bar	0.17 mm
200 bar	0.40 mm		

NB: for the Gap calculation, it is necessary to consider the elastic deformation of metal elements under pressure loads.

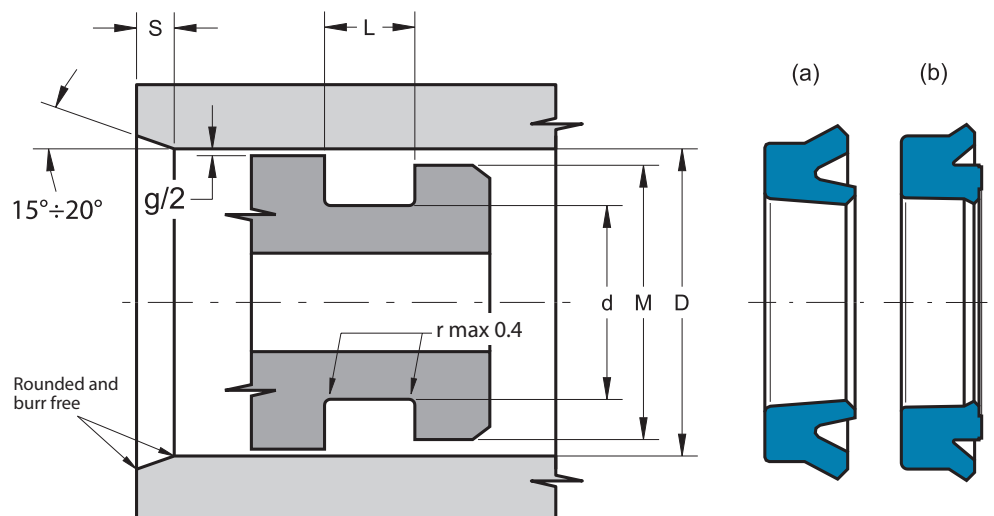
LEAD-IN CHAMFERS

d	Smin
less 100	5 mm
100÷200	7 mm
over 200	10 mm

To avoid damaging the sealing lips during installation, housing must have rounded chamfers. Sharp edges and burrs within the installation area of the seal must be removed.

The above data are maximum values, they may be maintained for short periods and can not be used at the same time simultaneously.

KD

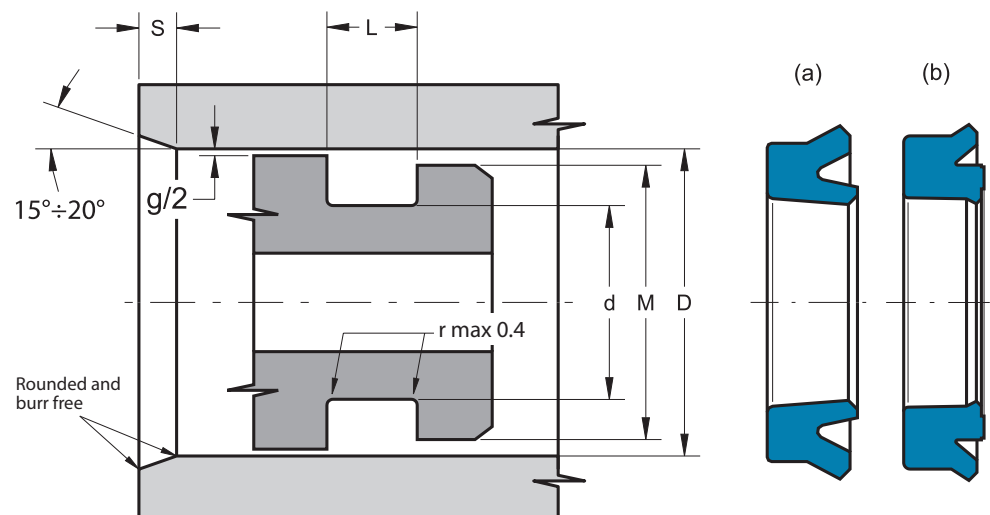


Part.	D ^{H10}	d ^{f8}	L ^{+0.25}	M	Tp.
KD 11 4 8	11	4	9.0	7	(a)
KD 16 8 5.8	16	8	6.3	11	(a)
KD 16 10 5.7	16	10	6.2	13	(a)
KD 17 13 3.5	17	13	4.0	15	(b)
KD 18 12.1 3.93	18	12.1	4.43	15	(a)
KD 20 10 7.5	20	10	8.5	14	(a)
KD 20 12 5.3	20	12	5.8	15	(a)
KD 22 12 8	22	12	9.0	16	(a)
KD 25 13 7	25	13	8.0	17	(a)
KD 25 15 8	25	15	9.0	19	(a)
KD 25 17 10	25	17	11.0	21	(b)
KD 30 15 10	30	15	11.0	20	(a)
KD 30 20 8	30	20	9.0	24	(a)
KD 30 22 6	30	22	7.0	25	(a)
KD 31.75 19 7	31.75	19	8.0	24	(a)
KD 32 17 10	32	17	11.0	22	(a)
KD 32 22 10	32	22	11.0	26	(a)
KD 32 26 5	32	26	5.5	29	(a)
KD 32 26 6	32	26	7.0	29	(a)
KD 35 20 10	35	20	11.0	25	(a)
KD 35 22.5 6	35	22.5	7.0	27	(a)
KD 35 25 8	35	25	9.0	29	(a)
KD 38 31 4.7	38	31	5.2	34	(a)
KD 40 25 10	40	25	11.0	30	(a)

Part.	D ^{H10}	d ^{f8}	L ^{+0.25}	M	Tp.
KD 40 30 6.5	40	30	7.5	34	(a)
KD 40 33 8	40	33	9.0	36	(a)
KD 42 32 10	42	32	11.0	36	(b)
KD 45 30 10	45	30	11.0	35	(a)
KD 45 34 3.7	45	34	4.2	39	(b)
KD 46 39.4 4	46	39.4	4.5	42	(a)
KD 50 35 10	50	35	11.0	40	(a)
KD 50 40 5	50	40	5.5	44	(a)
KD 50 40 7.3	50	40	8.3	44	(a)
KD 50 40 10	50	40	11.0	44	(a)
KD 50 42 5.5	50	42	6.0	45	(a)
KD 50 42 8	50	42	9.0	45	(a)
KD 55 40 10	55	40	11.0	45	(a)
KD 55 45 6.5	55	45	7.5	49	(a)
KD 56 46 7	56	46	8.0	50	(a)
KD 60 40 12	60	40	13.0	45	(a)
KD 60 40 13.5	60	40	14.5	45	(a)
KD 60 45 10	60	45	11.0	50	(a)
KD 60 50 7	60	50	8.0	54	(a)
KD 63 45 10	63	45	11.0	50	(a)
KD 63 48 10	63	48	11.0	53	(a)
KD 63 48 12	63	48	13.0	53	(a)
KD 63 53 7	63	53	8.0	57	(a)
KD 65 45 12	65	45	13.0	50	(a)

Part.	D ^{H10}	d ^{f8}	L ^{+0.25}	M	Tp.
KD 65 50 10	65	50	11.0	55	(a)
KD 65 55 10	65	55	11.0	59	(a)
KD 70 50 12	70	50	13.0	64	(b)
KD 70 50 15	70	50	16.0	55	(a)
KD 70 60 7	70	60	8.0	64	(a)
KD 70 60 8	70	60	9.0	64	(a)
KD 70 60 12	70	60	13.0	64	(a)
KD 75 65 5	75	65	5.5	69	(a)
KD 75 65 7	75	65	8.0	69	(a)
KD 75 65 10	75	65	11.0	69	(a)
KD 75 65 12	75	65	13.0	69	(a)
KD 80 60 12	80	60	13.0	65	(a)
KD 80 60 13.5	80	60	14.5	65	(a)
KD 80 65 12	80	65	13.0	70	(a)
KD 80 70 7	80	70	8.0	74	(a)
KD 80 70 12	80	70	13.0	74	(a)
KD 85 65 13.5	85	65	14.5	70	(a)
KD 85 74 3.9	85	74	4.3	79	(a)
KD 90 70 12	90	70	13.0	75	(a)
KD 90 70 13.5	90	70	14.5	75	(a)
KD 90 75 10	90	75	11.0	80	(a)
KD 90 75 12	90	75	13.0	80	(a)
KD 90 80 5	90	80	5.5	84	(a)
KD 90 80 10	90	80	11.0	84	(a)

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Part.	D ^{H10}	d ^{f8}	L ^{+0.25}	M	Tp.
KD 90 80 12	90	80	13.0	84	(a)
KD 95 80 12	95	80	13.0	90	(b)
KD 95 85 7	95	85	7.5	89	(b)
KD 95 85 8.5	95	85	9.5	89	(a)
KD 95 87 4	95	87	4.5	91	(a)
KD 100 80 12	100	80	13.0	85	(a)
KD 100 85 12	100	85	13.0	90	(a)
KD 100 90 8	100	90	9.0	94	(a)
KD 105 85 12	105	85	13.0	90	(a)
KD 110 90 15	110	90	16.0	104	(b)
KD 110 100 7	110	100	8.0	104	(a)
KD 120 100 12	120	100	13.0	105	(a)
KD 125 105 12	125	105	13.0	110	(a)
KD 140 120 7.5	140	120	8.5	134	(b)
KD 160 140 8.25	160	140	8.5	145	(a)
KD 170 152 7	170	152	8.0	157	(a)
KD 180 160 13.5	180	160	14.5	165	(a)
KD 180 160 15	180	160	16.0	174	(b)
KD 190 172 7	190	172	8.0	177	(a)
KD 215 197 7.5	215	197	8.5	202	(b)
KD 220 200 15	220	200	16.0	214	(b)
KD 250 220 18	250	220	19.0	240	(b)

Part.	D ^{H10}	d ^{f8}	L ^{+0.25}	M	Tp.
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Inch sizes

KD 1500 1125 0187	38.10	28.57	5.25	35.1	(b)
KD 1750 1375 0187	44.45	34.92	5.25	41.5	(b)
KD 2000 1625 0187	50.80	41.27	5.25	47.8	(b)
KD 2500 1875 0312	63.50	47.62	8.92	58.3	(b)
KD 2500 2125 0187	63.50	53.97	5.25	60.5	(b)
KD 3000 2375 0312	76.20	60.32	8.92	71.0	(b)
KD 3000 2385 0535	76.20	60.58	14.60	71.0	(a)
KD 3000 2500 0250	76.20	63.50	6.85	72.0	(b)
KD 3250 2750 0250	82.55	69.85	6.85	78.4	(b)
KD 3500 2750 0375	88.90	69.85	10.52	82.7	(b)
KD 4000 3250 0375	101.60	82.55	10.52	95.4	(b)
KD 4000 3500 0250	101.60	88.90	6.85	97.4	(b)
KD 4250 3640 0535	107.95	92.46	14.60	103.0	(a)
KD 4500 3750 0375	114.30	95.25	10.52	108.1	(b)
KD 5500 4750 0375	139.70	120.65	10.52	133.5	(b)
KD 8000 7000 0750	203.20	177.80	20.05	194.8	(b)

