

# KD



KD

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

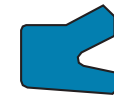
The asymmetric lips are designed to differentiate the behaviour of the lips on the static and dynamic surfaces: the static lip is flexible, more sensitive to pressure fluctuations and it guaranties a wide contact area; the dynamic lip is shorter and stronger to concentrate load against the dynamic surface.

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

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

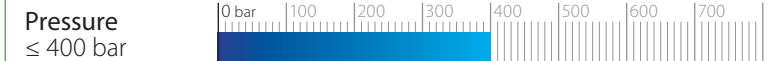
- High resistance against extrusion
- Excellent wear-resistance
- Good temperature resistance
- Easy installation without expensive auxiliaries

## MATERIAL



Type	Designation	Hardness
Polyurethane	SEALPUR 93	93 °ShA

## FIELD OF APPLICATION



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

## SURFACE ROUGHNESS

<b>Dynamic surface</b>	Ra ≤ 0.3 µm	Rt ≤ 2.5 µm
<b>Static surface</b>	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		

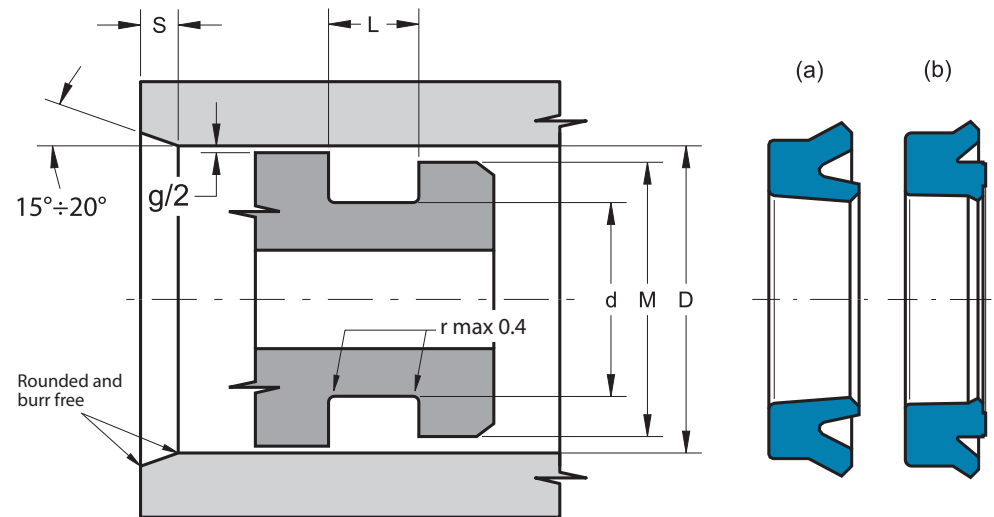
NB: for the Gap calculation, it is necessary to consider the elastic deformation of metal elements under pressure loads.

## 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.

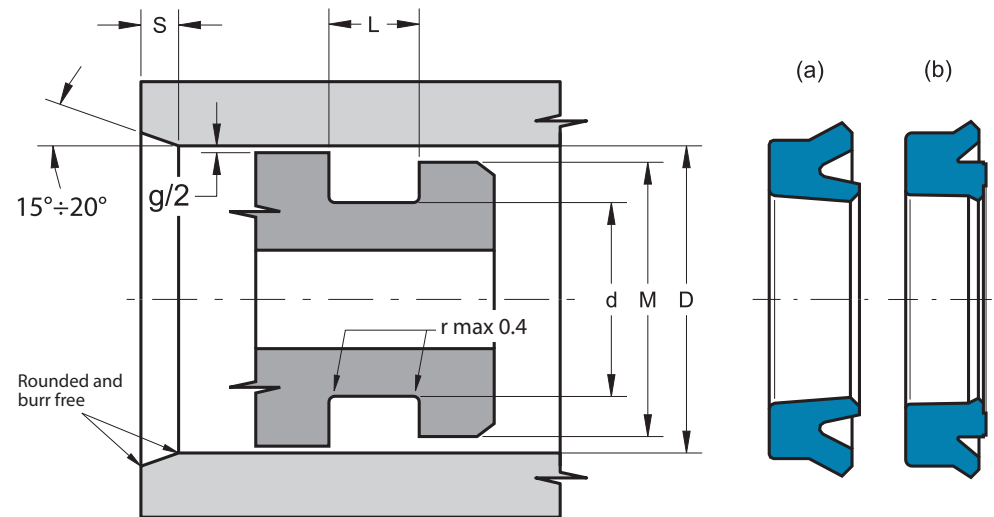
The above data are maximum values, they may be maintained for short periods and can not be used at the same time simultaneously.



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

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

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



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

Part.	D <sup>H10</sup>	d <sup>f8</sup>	L <sup>+0.25</sup>	M	Tp.
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Inch sizes

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

