

KDA



The piston seals type Aston Seals KDA is mainly used with high pressure and the backup ring offsets large gaps or structural deflections without extrusion.

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.

- Very high resistance against extrusion (backup ring)

- Insensitive to structural deflections
- Extended service life
- Simple groove design
- Excellent wear-resistance
- Good temperature resistance
- Easy installation without expensive auxiliaries

MATERIAL



① **Type** Polyurethane
Designation SEALPUR 94
Hardness 94 °ShA

② **Type** Acetal resin
Designation BEARITE

FIELD OF APPLICATION

Pressure ≤ 500 bar

Speed ≤ 0.5 m/s

Temperature -40°C ÷ +110°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:

200 bar	0.80 mm	400 bar	0.50 mm
300 bar	0.65 mm	500 bar	0.40 mm

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

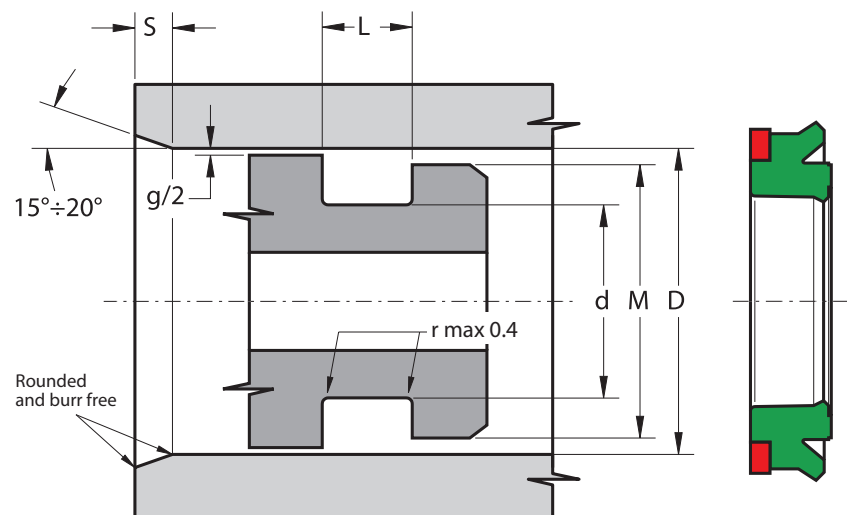
LEAD-IN CHAMFERS

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.

KDA



Part.	D ^{H10}	d ^{f8}	L ^{+0.25}	M
KDA 35 25 8	35	25	8.5	30
KDA 40 25 9	40	25	9.5	35
KDA 45 30 9	45	30	9.5	40
KDA 45 35 6	45	35	6.5	40
KDA 45 35 9	45	35	9.5	40
KDA 48 40 5.8	48	40	6.3	44
KDA 50 35 9	50	35	9.5	45
KDA 50 40 9	50	40	9.5	45
KDA 55 40 9	55	40	9.5	50
KDA 55 45 6	55	45	6.5	50
KDA 60 40 14	60	40	14.5	54
KDA 60 45 9	60	45	9.5	55
KDA 63 48 9	63	48	9.5	58
KDA 65 50 9	65	50	9.5	60
KDA 70 50 12	70	50	12.5	64
KDA 70 55 9	70	55	9.5	64
KDA 75 55 12	75	55	12.5	69
KDA 80 60 12	80	60	12.5	74
KDA 80 60 14	80	60	14.5	74

Part.	D ^{H10}	d ^{f8}	L ^{+0.25}	M
KDA 80 65 9	80	65	9.5	75
KDA 85 69.9 5.8	85	69.9	6.3	75
KDA 85 70 9	85	70	9.5	80
KDA 90 70 12	90	70	12.5	84
KDA 90 75 9	90	75	9.5	85
KDA 100 80 12	100	80	12.5	94
KDA 100 84.5 5.8	100	84.5	6.3	90
KDA 100 85 9	100	85	9.5	95
KDA 100 85 14	100	85	14.5	95
KDA 105 85 12	105	85	12.5	99
KDA 110 90 12	110	90	12.5	104
KDA 110 95 9	110	95	9.5	105
KDA 115 95 12	115	95	12.5	109
KDA 120 104.5 5.8	120	104.5	6.3	110
KDA 120 105 9	120	105	9.5	115
KDA 125 100 15	125	100	15.5	117
KDA 125 105 12	125	105	12.5	119
KDA 130 110 12	130	110	12.5	124
KDA 130 114.5 5.8	130	114.5	6.3	120

Part.	D ^{H10}	d ^{f8}	L ^{+0.25}	M
KDA 140 115 15	140	115	15.5	132
KDA 140 120 12	140	120	12.5	134
KDA 145 125 15	145	125	15.5	139
KDA 145 129.5 5.8	145	129.5	6.3	135
KDA 150 120 18.5	150	120	19.0	140
KDA 150 130 12	150	130	12.5	144
KDA 160 130 18.5	160	130	19.0	150
KDA 160 140 12	160	140	12.5	154
KDA 170 150 12	170	150	12.5	164
KDA 180 150 18.5	180	150	19.0	170
KDA 180 160 12	180	160	12.5	174
KDA 190 170 12	190	170	12.5	184
KDA 198 178 12.5	198	178	13.0	192
KDA 200 170 18.5	200	170	19.0	190
KDA 200 175 15	200	175	15.5	192
KDA 220 200 15	220	200	15.5	214
KDA 250 220 18.5	250	220	19.0	240
KDA 250 225 15	250	225	15.5	242