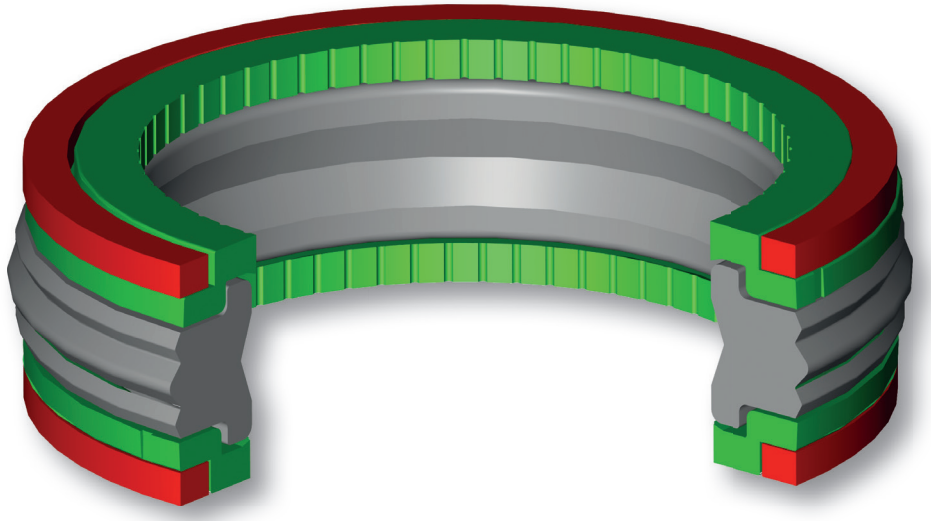
KGD/AE

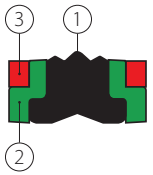


The piston seal type Aston Seals KGD/AE is composed of:

- A sealing rubber element with low permanent deformation which assures good sealing performance. Three compact and small seal edges ensure perfect fluid control and concentrate load against the dynamic surface. The cavities between the external seal edges keep small quantities of fluid reducing friction and wear. The special geometry of static side guaranties a wide contact area and prevents distortion inside the groove during installation
- Two internal anti-extrusion rings with stabilizers to avoid the rotation of the rubber element. A special geometry of grooves assures that pressure loads the energizing seal element without any risk of extrusion of it.
- Two backup rings which offset large gaps or structural deflections without extrusion and assure high longevity

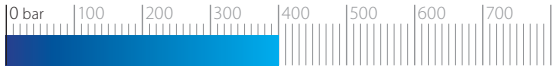
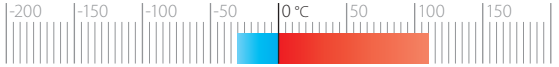
- Good sealing performance as well as at low pressure
- Simple one-part piston design
- High resistance against extrusion
- Perfect fluid control
- Good mechanical stability at high temperature
- Easy installation without expensive auxiliaries
- Good temperature resistance
- Easy installation on a solid piston

MATERIAL



①	Type	Nitril Rubber NBR
	Designation	RUBSEAL 75
	Hardness	75 °ShA
②	Type	Thermoplastic polyester resin
	Designation	SEALITE 63
	Hardness	63 °ShD
③	Type	Acetal resin
	Designation	BEARITE

FIELD OF APPLICATION

Pressure ≤ 400 bar	
Speed ≤ 0.5 m/s	
Temperature –30°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

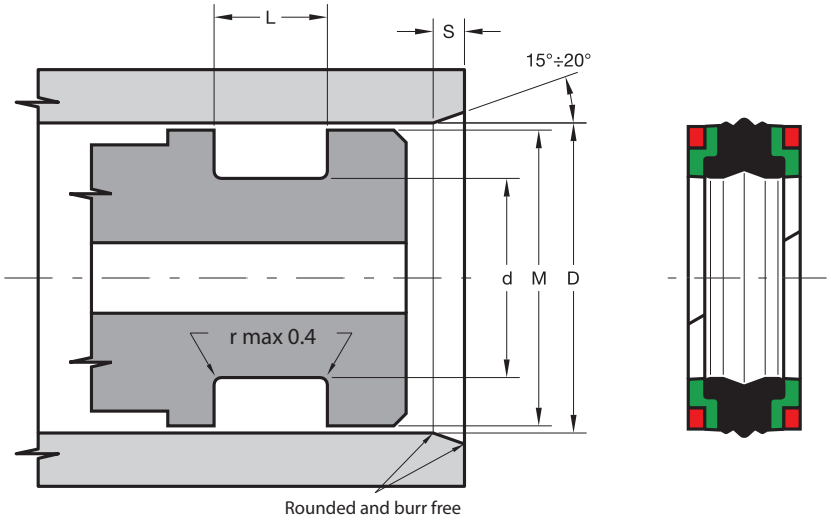
LEAD-IN CHAMFERS

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.

KGD/AE

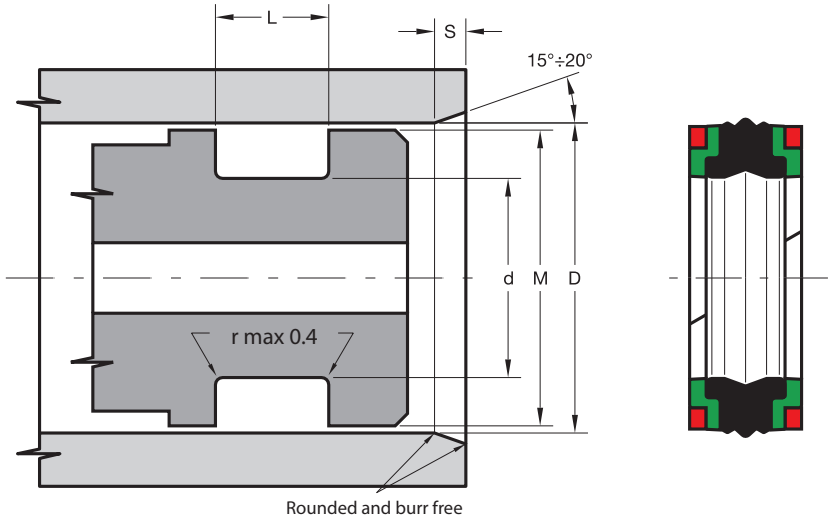


Part.	D H10	d +0.1	L +0.2	M +0.2
KGD 20 11/AE	20	11	13.5	19.0
KGD 25 15/A/AE	25	15	12.0	23.0
KGD 25 15/AE	25	15	16.4	23.5
KGD 25 15/B/AE	25	15	12.5	24.0
KGD 25 16/AE	25	16	13.5	24.0
KGD 25 17/A/AE	25	17	13.5	24.0
KGD 25 17/AE	25	17	10.0	24.0
KGD 30 17/AE	30	17	15.4	29.0
KGD 30 21/AE	30	21	13.5	29.0
KGD 32 22/A/AE	32	22	15.5	31.0
KGD 32 22/AE	32	22	16.4	30.5
KGD 32 22/C/AE	32	22	12.5	31.0
KGD 32 24/A/AE	32	24	10.0	31.0
KGD 32 24/AE	32	24	15.5	31.4
KGD 35 25/A/AE	35	25	15.5	34.0
KGD 35 25/AE	35	25	16.4	33.5
KGD 40 24/AE	40	24	18.4	38.5
KGD 40 26/AE	40	26	15.5	39.0
KGD 40 30/A/AE	40	30	12.5	38.0
KGD 40 30/AE	40	30	16.4	38.5
KGD 40 30/B/AE	40	30	12.5	39.0
KGD 40 32/A/AE	40	32	10.0	39.0
KGD 40 32/AE	40	32	15.5	39.4
KGD 45 29/AE	45	29	18.4	43.7

Part.	D H10	d +0.1	L +0.2	M +0.2
KGD 45 31/AE	45	31	15.5	44.0
KGD 45 35/AE	45	35	16.4	43.5
KGD 50 34/A/AE	50	34	20.5	49.0
KGD 50 34/AE	50	34	18.4	48.5
KGD 50 35/AE	50	35	20.0	48.5
KGD 50 38/AE	50	38	20.5	49.4
KGD 50 40/AE	50	40	12.5	49.0
KGD 55 39/A/AE	55	39	20.5	54.0
KGD 55 39/AE	55	39	18.4	53.5
KGD 55 43/AE	55	43	20.5	54.4
KGD 55 45/AE	55	45	12.5	54.0
KGD 60 44/A/AE	60	44	20.5	59.0
KGD 60 44/AE	60	44	18.4	58.5
KGD 60 48/AE	60	48	20.5	59.4
KGD 63 47/A/AE	63	47	20.5	62.0
KGD 63 47/AE	63	47	18.4	61.5
KGD 63 47/B/AE	63	47	19.4	61.5
KGD 63 48/AE	63	48	20.0	61.5
KGD 63 51/AE	63	51	20.5	62.4
KGD 63 53/AE	63	53	12.5	62.0
KGD 65 49/AE	65	49	20.5	64.0
KGD 65 50/AE	65	50	18.4	63.5
KGD 70 50/AE	70	50	22.4	68.3
KGD 70 54/AE	70	54	20.5	69.0

Part.	D H10	d +0.1	L +0.2	M +0.2
KGD 70 55/A/AE	70	55	22.4	68.5
KGD 70 55/AE	70	55	20.0	68.5
KGD 70 58/AE	70	58	20.5	69.4
KGD 75 55/AE	75	55	22.4	73.3
KGD 75 59/AE	75	59	20.5	74.0
KGD 80 60/AE	80	60	22.4	78.3
KGD 80 62/A/AE	80	62	23.8	78.5
KGD 80 62/AE	80	62	22.5	79.0
KGD 80 65/AE	80	65	20.0	78.5
KGD 80 66/AE	80	66	22.5	79.4
KGD 85 65/AE	85	65	22.4	83.3
KGD 90 70/AE	90	70	22.4	88.3
KGD 90 72/AE	90	72	22.5	89.0
KGD 90 75/AE	90	75	20.0	88.5
KGD 90 76/AE	90	76	22.5	89.4
KGD 95 75/AE	95	75	22.4	93.3
KGD 100 75/AE	100	75	22.4	98.0
KGD 100 80/A/AE	100	80	30.0	98.0
KGD 100 80/AE	100	80	25.4	98.3
KGD 100 80/D/AE	100	80	25.0	98.0
KGD 100 82/AE	100	82	22.5	99.0
KGD 100 85/AE	100	85	20.0	98.5
KGD 100 86/AE	100	86	22.5	99.4
KGD 105 80/AE	105	80	22.4	103.0

KGD/AE



Part.	D H10	d +0.1	L +0.2	M +0.2
KGD 110 85/A/AE	110	85	25.4	108.0
KGD 110 85/AE	110	85	22.4	108.0
KGD 110 92/AE	110	92	22.5	109.0
KGD 110 95/AE	110	95	20.0	108.5
KGD 110 96/AE	110	96	22.5	109.4
KGD 115 90/AE	115	90	22.4	113.0
KGD 120 95/AE	120	95	22.4	118.1
KGD 120 106/AE	120	106	22.5	119.4
KGD 125 100/A/AE	125	100	32.0	123.0
KGD 125 100/AE	125	100	25.4	123.0
KGD 125 103/AE	125	103	26.5	124.0
KGD 125 105/A/AE	125	105	25.4	123.3
KGD 125 105/AE	125	105	25.0	123.0
KGD 125 108/AE	125	108	26.5	124.4
KGD 130 105/AE	130	105	25.4	127.5
KGD 135 110/AE	135	110	25.4	133.0
KGD 140 115/AE	140	115	25.4	137.5
KGD 140 118/AE	140	118	26.5	139.0
KGD 140 120/AE	140	120	25.0	138.0
KGD 140 123/AE	140	123	26.5	139.4
KGD 145 120/AE	145	120	25.4	142.95
KGD 150 125/AE	150	125	25.4	147.5
KGD 150 128/A/AE	150	128	26.5	149.0
KGD 150 128/AE	150	128	25.4	149.0

Part.	D H10	d +0.1	L +0.2	M +0.2
KGD 160 130/AE	160	130	25.4	157.5
KGD 160 135/AE	160	135	25.4	157.5
KGD 160 140/AE	160	140	25.0	158.0
KGD 165 140/AE	165	140	25.4	162.5
KGD 170 145/AE	170	145	25.4	167.1
KGD 175 150/AE	175	150	25.4	172.1
KGD 180 150/AE	180	150	35.4	177.9
KGD 180 155/AE	180	155	25.4	177.1
KGD 185 160/AE	185	160	25.4	182.1
KGD 190 165/AE	190	165	25.4	187.0
KGD 200 170/A/AE	200	170	35.4	198.0
KGD 200 170/AE	200	170	36.0	197.0
KGD 200 175/AE	200	175	25.4	197.0
KGD 210 185/AE	210	185	25.4	207.0
KGD 220 190/AE	220	190	35.4	217.9
KGD 220 195/AE	220	195	25.4	217.0
KGD 225 200/AE	225	200	25.4	222.0
KGD 230 205/AE	230	205	25.4	227.0
KGD 240 215/AE	240	215	25.4	237.0
KGD 250 220/AE	250	220	35.4	247.9
KGD 250 225/AE	250	225	25.4	247.0

Part.	D H10	d +0.1	L +0.2	M +0.2

Inch sizes

KGD 1500 1125/AE	38.10	28.57	11.48	36.83
KGD 2000 1375/AE	50.8	34.92	19.05	49.48
KGD 2000 1500/AE	50.80	38.10	14.91	49.53
KGD 2500 1875/AE	63.50	47.62	19.05	62.12
KGD 2500 2000/AE	63.50	50.80	14.91	62.23
KGD 3000 2500/AE	76.20	63.50	14.91	74.68
KGD 3500 3000/AE	88.90	76.20	14.91	87.38
KGD 4000 3250/A/AE	101.60	82.55	19.81	99.92
KGD 4000 3250/AE	101.60	82.55	23.79	99.92
KGD 4500 3750/AE	114.30	95.25	19.81	112.78
KGD 5000 4250/AE	127.00	107.95	19.81	124.71
KGD 6000 5250/AE	152.40	133.35	19.81	150.11