

### DESCRIPTION

Double acting piston seal

### MATERIAL OF SEAL RING

Type: Nitril Rubber NBR  
 Designation: RUBSEAL 75  
 Hardness: 75 °ShA

### MATERIAL OF INTERNAL ANTI-EXTRUSION RINGS

Type: Thermoplastic polyester resin  
 Designation: SEALITE 63  
 Hardness: 63 °ShD

### MATERIAL OF EXTERNAL ANTI-EXTRUSION RINGS

Type: Acetal resin  
 Designation: BEARITE

### MAIN FEATURES

The piston seal type KGD 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

### FIELD OF APPLICATION

Pressure	≤ 400 bar
Speed	≤ 0.5 m/s
Temperature	-40°C ÷ +110°C
Fluids	Hydraulic oils (mineral oil based). <i>For other fluids contact our technical department</i>

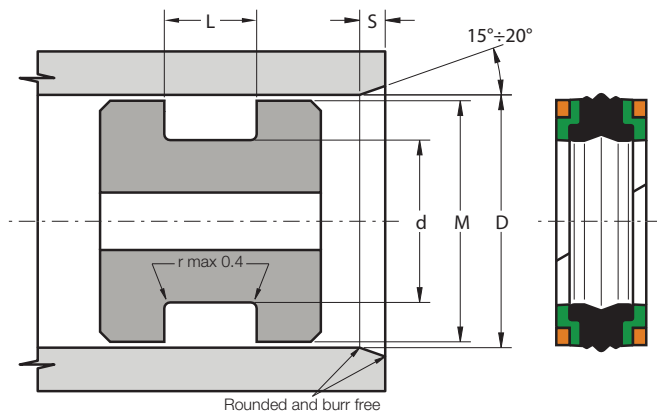
### SURFACE ROUGHNESS

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

### LEAD-IN CHAMFERS

D	S MIN
• 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



Part.	D <sup>H10</sup>	d <sup>+0.1</sup>	L <sup>+0.2</sup>	M <sup>±0.2</sup>
<b>KGD 40 30/AE</b>	40	30	16.4	38.5
<b>KGD 45 29/AE</b>	45	29	18.4	43.7
<b>KGD 45 35/AE</b>	45	35	16.4	43.5
<b>KGD 50 34/AE</b>	50	34	18.4	48.5
<b>KGD 50 40/AE</b>	50	40	12.5	49.0
<b>KGD 60 44/AE</b>	60	44	18.4	58.5
<b>KGD 60 44/A/AE</b>	60	44	20.5	59.0
<b>KGD 70 50/AE</b>	70	50	22.4	68.3
<b>KGD 75 55/AE</b>	75	55	22.4	73.3
<b>KGD 80 60/AE</b>	80	60	22.4	78.3
<b>KGD 85 65/AE</b>	85	65	22.4	83.3
<b>KGD 90 70/AE</b>	90	70	22.4	88.3
<b>KGD 95 75/AE</b>	95	75	22.4	93.3
<b>KGD 105 80/AE</b>	105	80	22.4	103.0
<b>KGD 120 106/AE</b>	120	106	22.5	119.4
<b>Inch sizes</b>				
<b>KGD 2000 1500/AE</b>	50.80	38.10	14.91	49.53
<b>KGD 2500 2000/AE</b>	63.50	50.80	14.91	62.23
<b>KGD 3000 2500/AE</b>	76.20	63.50	14.91	74.68