

KHT



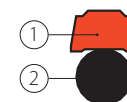
The piston seal type Aston Seals KHT is composed of:

- A dynamic seal element that, due to the special design, improves the pressure distribution and drastically reduces the friction. It is made of a special high resistance polymer that provides a winning combination for many parts and components: it gives the flexibility of rubbers, the strength of plastics, and the process-ability of thermoplastics. It increases the performance and service life in applications where properties such as abrasion resistance and tear strength are critical. Conical shaped notches allow the seal to energize without risk of extrusion of O-Ring.
- A standard size O-Ring with low permanent deformation as energizing component on

the static side.

- Easy installation on a solid piston
- Returns to the size immediately after assembly
- Low friction and no tendency of stick-slip
- Simple groove design and space-saving construction
- Excellent wear-resistance
- High resistance against extrusion
- Extended service life
- Good temperature resistance

MATERIAL



① Type	Thermoplastic polyester resin
Designation	SEALITE 55
Hardness	55 °ShD
② Type	Nitril Rubber NBR
Designation	RUBSEAL 70
Hardness	70 °ShA

FIELD OF APPLICATION

Pressure ≤ 500 bar	0 bar 100 200 300 400 500 600 700
Speed ≤ 0.5 m/s (100°C)	0 m/s 2 4 6 8 10 12 14
≤ 1 m/s (80°C)	0 m/s 2 4 6 8 10 12 14
Temperature -30°C ÷ +100°C	-200 -150 -100 -50 0 °C 50 100 150

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:

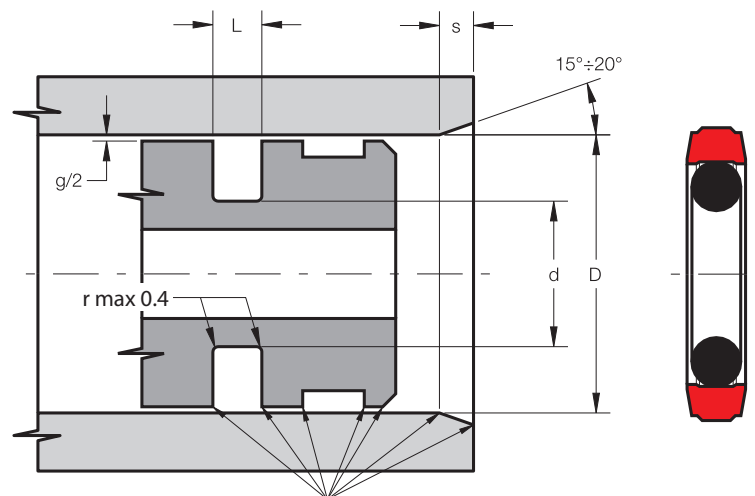
L	100 bar	200 bar	300 bar	400 bar
2.2	0.70	0.45	0.35	0.30
3.2	0.80	0.50	0.40	0.30
4.2	0.80	0.50	0.40	0.35
6.3	0.90	0.55	0.45	0.35
8.1	1.10	0.70	0.50	0.40
$> 400 \text{ bar} \Rightarrow g_{\max} = H8/f8$				

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

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.

KHT



Rounded and burr free

Part.	D ^{H9}	d ^{h9}	L ^{+0.2}	S	OR
KHT 12 7.1 2.2	12	7.1	2.2	2.0	610
KHT 17 12.1 2.2	17	12.1	2.2	2.0	806
KHT 20 12.5 3.2	20	12.5	3.2	2.5	111
KHT 25 17.5 3.2	25	17.5	3.2	2.5	115
KHT 28 20.5 3.2	28	20.5	3.2	2.5	117
KHT 30 22.5 3.2	30	22.5	3.2	2.5	118
KHT 32 24.5 3.2	32	24.5	3.2	2.5	119
KHT 35 27.5 3.2	35	27.5	3.2	2.5	121
KHT 40 29 4.2	40	29.0	4.2	3.5	216
KHT 40 32.5 3.2	40	32.5	3.2	2.5	124
KHT 45 34 4.2	45	34.0	4.2	3.5	219
KHT 48 37 4.2	48	37.0	4.2	3.5	221
KHT 50 34.5 6.3	50	34.5	6.3	5.0	324
KHT 50 39 4.2	50	39.0	4.2	3.5	222

Part.	D ^{H9}	d ^{h9}	L ^{+0.2}	S	OR
KHT 55 44 4.2	55	44.0	4.2	3.5	224
KHT 60 44.5 6.3	60	44.5	6.3	5.0	327
KHT 60 49 4.2	60	49.0	4.2	3.5	225
KHT 63 47.5 6.3	63	47.5	6.3	5.0	328
KHT 63 52 4.2	63	52.0	4.2	3.5	226
KHT 65 49.5 6.3	65	49.5	6.3	5.0	328
KHT 65 52 6.3	65	52.0	6.3	5.0	324
KHT 70 59 4.2	70	59.0	4.2	3.5	228
KHT 75 64 4.2	75	64.0	4.2	3.5	230
KHT 80 64.5 6.3	80	64.5	6.3	5.0	333
KHT 90 74.5 6.3	90	74.5	6.3	5.0	336
KHT 95 79.5 6.3	95	79.5	6.3	5.0	338
KHT 100 84.5 6.3	100	84.5	6.3	5.0	339