#### DOUBLE ACTING PISTON SEAL

# KHT



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## 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

MAIEKIAL										
1-	① Type Designation Hardness		Thermoplastic polyester resin SEALITE 55 55 °ShD							
2-0	② Type Designation Hardness		Nitril Rubber NBR RUBSEAL 70 70 °ShA							
FIELD OF APPLICATION										
<b>Pressure</b> ≤ 500 bar	0 bar 100 20	0 300	400  500	600 700   						
<b>Speed</b> ≤ 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									
<b>Temperature</b> −30°C ÷ +100°C	-200  -150  -10		<b>0 ℃</b> 50	100 150						
Fluids	Hydraulic oils (mineral oil based) For other fluids contact our technical department									
SURFACE ROUGHNESS										
Dynamic surfac Static surface	<b>ce</b> Ra ≤ 0.3 µ Ra ≤ 1.6 µ		Rt ≤ 2.5 μm Rt ≤ 6.3 μm							
GAP DIMENSION "g"										
The largest gap dimension appearing in operation on the non- pressurised side:										
L 10	00 bar 20	0 bar	300 bar	400 bar						
2.2 3.2 4.2 6.3	0.80 ( 0.80 (	).45 ).50 ).50 ).55	0.35 0.40 0.40 0.45	0.30 0.30 0.35 0.35						

MATERIA

8.1 1.10 0.70 0. > 400 bar  $\Rightarrow$  g<sub>max</sub> = 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.

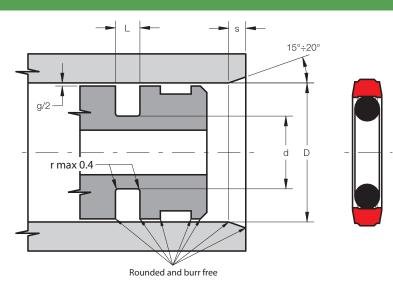
0.50

040

The above data are maximum values, they may be maintained for short periods and can not be used at the same time sim<u>ultaneously.</u>

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Part.	D H9	d <sup>h9</sup>	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 <sup>H9</sup>	<b>d</b> <sup>h9</sup>	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
KHT 140 127.6 5.5	140	127.6	5.5	5.0	250

