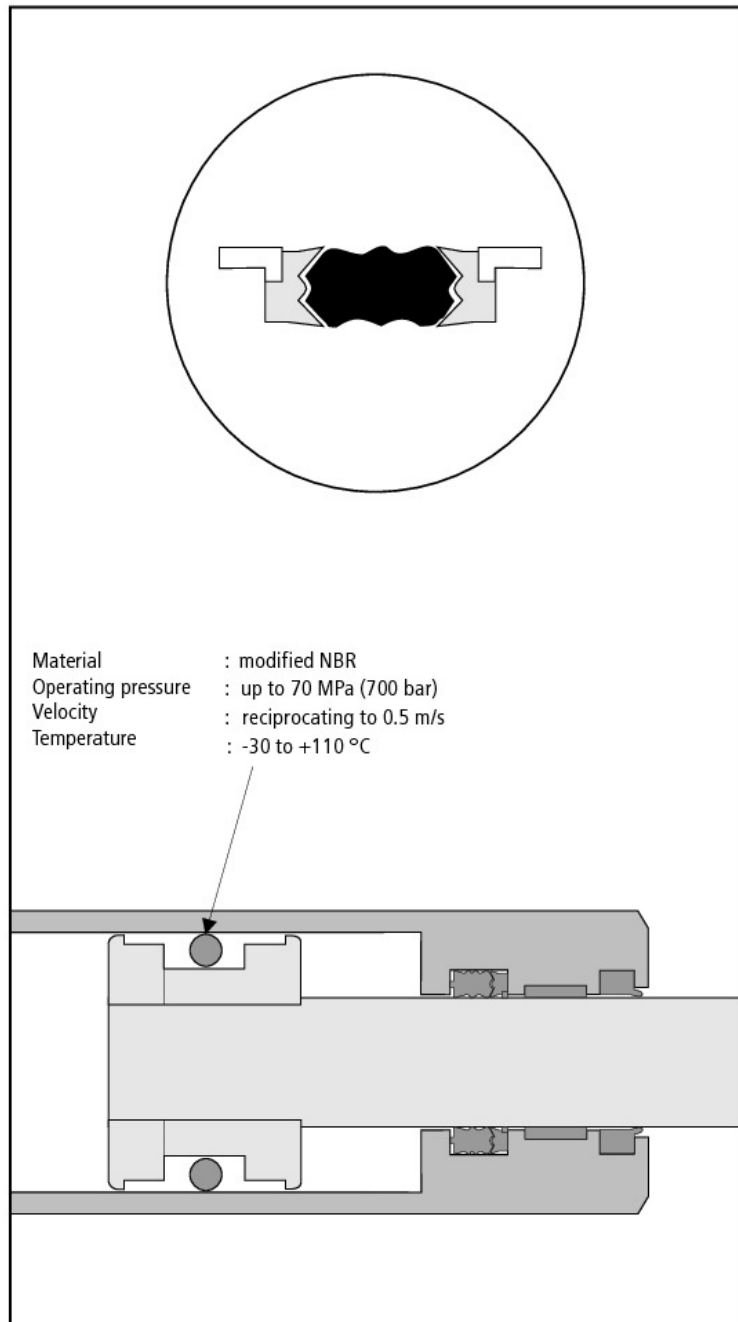
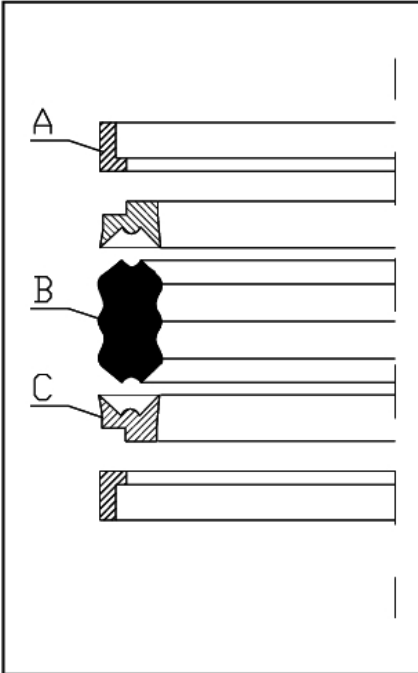


Piston seals of the HK 105 series are designed to automatically exhibit very good sealing characteristics and low friction at high stress values. Multiple lip type of sealing element design on the static as well as dynamic sides ensure guaranteed sealing even at low pressures.

Special Features:

- Five part construction consisting of anti-wear NBR gasket, two polyester elastomer thrust rings and two POM slide rings
- Assembly in split/multi part piston
- Special design for single part piston available
- Outstanding uptake of pressure surges and transverse loadings
- No rotation of sealing components due to form-closing combination with thrust ring
- Available for cylinder diameter up to 350 mm





Angular Slide Rings - Part A

Material: filled Polyamide

Constructive and practical design enables proper distribution of transverse forces. Relief grooves ensure short response time of the seal in case of rapid load variations. Special material ensures high resistance to compression at variable thermic conditions.

Close ring tolerances lead to better piston sliding and optimize sealing function.

Elastomer Sealing Component - Part B

Material: NBR

Robust sealing element from special anti wear NBR is characterized by low compression strain and high tensile resistance. Axial length to radial width ratio is chosen so that it is no longer possible to tilt the NBR sealing component.

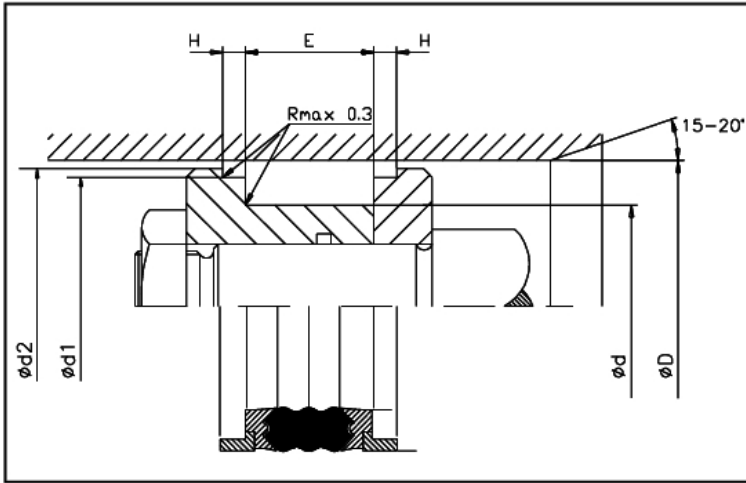
The three sealing lips on the dynamic side ensure optimal sealing and good frictional behaviour even at the highest of pressures. In cases of long service life the cementing of the seal is avoided by the so called "lubricant reserve" and good frictional values are achieved.

Thrust Rings - Part C (back-up-ring)

Material: Polyester Elastomer

Their form closing design with respect to slide rings and sealing components yield optimal efficiency of the multi-part piston seal. In case of an (internal) axial movement of parts themselves, displacement is not possible due to the design. Also, NBR seals are protective against dirt and the occasional diesel effect.

HK 105 is a very safe seal for the heaviest of applications. It is specially used in mobile cranes and feed cylinders (Mining engineering). A special design of this seal also finds use in unsplit pistons.



Limitations on Use	
Operating Pressure	: up to 70 MPa (700 bar)
Velocity	: reciprocating to 0.5 m/s
Temperature	: -30 to +110 °C

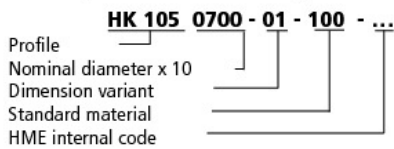
Media for Use	
Mineral oil based hydraulic oils, flame resistant pressure media and emulsions (HFA, HFB, HFC), Bio Oils.	

Surface Finish		
Surfaces	Rz	Ra
Faces	2,2 µm	0,4 µm
Groove root	6,0 µm	1,6 µm
Groove flanks or sides	10,3 µm	3,2 µm

D H11	d sj11	E +0,35	H +0,1	d1 h8	d2 h11	Part N°.
45,00	29,00	32,00	6,35	38,77	43,85	HK105 0450-01-100
50,00	34,00	32,00	6,35	43,77	47,85	HK105 0500-01-100
55,00	40,00	32,00	6,35	48,77	52,85	HK105 0550-01-100
60,00	44,00	32,00	6,35	53,80	57,80	HK105 0600-01-100
63,00	47,00	32,00	6,35	56,74	60,81	HK105 0630-01-100
65,00	49,00	32,00	6,35	58,70	62,80	HK105 0650-01-100
70,00	50,00	35,00	9,52	62,62	67,54	HK105 0700-01-100
75,00	55,00	35,00	9,52	67,70	72,54	HK105 0750-01-100
80,00	60,00	35,00	9,52	72,62	77,52	HK105 0800-01-100
80,00	64,00	32,00	9,52	72,62	77,52	HK105 0800-02-100
85,00	65,00	35,00	9,52	77,62	82,54	HK105 0850-01-100
90,00	70,00	35,00	9,52	82,58	87,79	HK105 0900-01-100
90,00	74,00	32,00	9,52	82,87	87,79	HK105 0900-02-100
95,00	75,00	35,00	9,52	87,60	92,50	HK105 0950-01-100
100,00	80,00	35,00	9,52	92,60	97,50	HK105 1000-01-100
110,00	85,00	45,00	12,70	101,82	107,33	HK105 1100-01-100
110,00	90,00	35,00	9,52	102,70	107,51	HK105 1100-02-100
115,00	90,00	45,00	12,70	106,82	112,33	HK105 1150-01-100
120,00	95,00	45,00	12,70	111,82	117,33	HK105 1200-01-100
120,00	100,00	35,00	9,52	112,80	117,51	HK105 1200-02-100
125,00	100,00	45,00	12,70	116,82	122,33	HK105 1250-01-100
130,00	105,00	45,00	12,70	121,82	127,33	HK105 1300-01-100
130,00	110,00	35,00	9,52	122,70	127,33	HK105 1300-02-100
135,00	110,00	45,00	12,70	126,82	132,33	HK105 1350-01-100
140,00	115,00	45,00	12,70	131,72	137,30	HK105 1400-01-100
140,00	120,00	35,00	9,52	132,70	137,30	HK105 1400-02-100
145,00	120,00	45,00	12,70	136,72	142,30	HK105 1450-01-100
150,00	125,00	45,00	12,70	141,72	147,30	HK105 1500-01-100
160,00	135,00	45,00	12,70	151,72	157,10	HK105 1600-01-100
170,00	140,00	45,00	12,70	163,00	167,87	HK105 1700-01-100
180,00	155,00	45,00	12,70	171,60	177,10	HK105 1800-01-100
185,00	160,00	45,00	12,70	176,72	182,10	HK105 1850-01-100
190,00	165,00	45,00	12,70	181,72	187,10	HK105 1900-01-100
200,00	175,00	45,00	12,70	191,72	197,10	HK105 2000-01-100
210,00	185,00	45,00	12,70	201,60	207,10	HK105 2100-01-100
220,00	195,00	45,00	12,70	211,60	217,10	HK105 2200-01-100
230,00	205,00	45,00	12,70	221,72	227,10	HK105 2300-01-100
240,00	215,00	45,00	12,70	231,72	237,10	HK105 2400-01-100
250,00	225,00	45,00	12,70	241,72	247,10	HK105 2500-01-100
260,00	235,00	45,00	12,70	251,72	257,10	HK105 2600-01-100
270,00	245,00	45,00	12,70	261,72	267,10	HK105 2700-01-100
280,00	255,00	45,00	12,70	271,72	277,10	HK105 2800-01-100
290,00	265,00	45,00	12,70	281,72	287,10	HK105 2900-01-100
300,00	275,00	45,00	12,70	291,72	297,10	HK105 3000-01-100
350,00	325,00	45,00	12,70	341,72	347,10	HK105 3500-01-100

Extensive range of inch measurement diagrams available on request.

Example for ordering Piston Seal:



Material Key:

Gasket
100 - NBR
120 - FPM

Issue

01	05
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WARNING: Limits of application stated herein are standard values. They could be individually transgressed with due consideration to respective service conditions. In the event of a large duty cycle, pulsating operation and other complex operational conditions, simultaneous transgression of these values is not recommended. Due to a large variety of service conditions that may arise in course of actual use, the company does not take responsibility of or guarantee the functional accuracy of the individual components. Rights for changes are reserved.