



The profile EP pneumatic rod seal, wiper and guidance system is used for rods in pneumatic cylinders. It combines the following functional features:
Sealing, wiping, fixing.

- Due to application-optimized geometry and compounds suitable for use in oiled as well as in oil-free air (after initial lubrication on assembly).
- Multi-functional element: seal, wiper and guiding element.
- Extreme wear resistance.
- Smooth running due to optimum lubricant-retaining sealing lip geometry.
- Simple fabrication of the housing.
- Short radial assembly depth.
- Low compression set.
- The coordinated geometries of the seal and wiper lips achieve favourable friction coefficients and long service life.
- Multi-functionality provides warehousing cost benefits.

Range of application

Working pressure	≤ 16 bar
Working temperature	-35 °C to +80 °C
Surface speed	≤ 1 m/s
Media	Oiled as well as oil-free compressed air (after initial lubrication during assembly).

Compounds

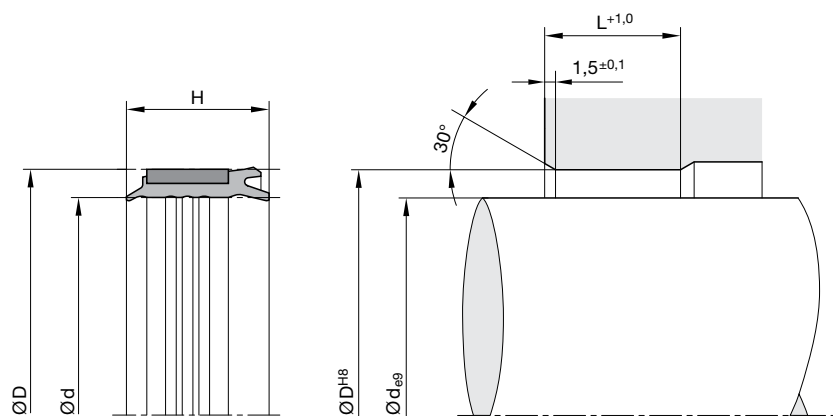
The profile EP pneumatic rod seal, wiper and guidance system is made of a polyurethane compound (P5008) which we process in-house to ensure consistent quality.

The advantages of this compound are the high resistance to wear, the excellent compression set and the extended temperature range in comparison to conventional polyurethane compounds. The supporting/reinforcement part is made of an aluminum alloy chemically bonded to the polyurethane compound. Reinforcement parts made of other materials are available on request.

Installation

Profile EP is pressed into the bore and retained by a press fit between cylinder housing and an aluminum ring. Care should be taken that neither the scraper nor the sealing lips are damaged by sharp edges during installation. When pressing the sealing element into the groove, pressure should only be put upon the metal part. During a normal cylinder life span, replacement is not necessary. However, disassembly is possible after dismantling the cylinder head and forcing out the seal.

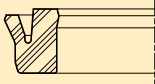
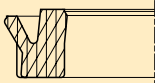
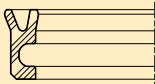
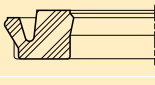
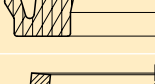

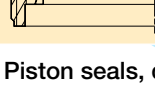

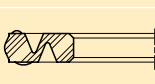
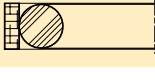
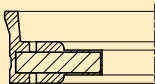
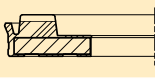
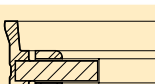
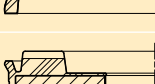

In case of special operating conditions (specific pressure loads, temperature, speed, use in water, HFA, HFB fluids etc.), please contact our consultancy service for a selection of the material and design best suited to your particular application requirements.



For surface finish, lead in chamfer and other installation dimensions see "General installation guidelines".

d	D	H	L	Order code
8	15	17.5	15	EP 0815 Z5074
10	17	20.5	18	EP 1017 Z5074
11	19	20	17	EP 1119 Z5074
12	19	22.5	19.5	EP 1219 Z5074
14	21	23.5	20.5	EP 1421 Z5074
16	25	25.5	21.5	EP 1625 Z5074
18	27	28.5	23.5	EP 1827 Z5074
20	29	30.5	26.5	EP 2029 Z5074
22	31	30.5	26.5	EP 2231 Z5074
25	35	35.5	31.5	EP 2535 Z5074
30	41	41	37	EP 3041 Z5074
32	43	41	37	EP 3243 Z5074
35	46	41	37	EP 3546 Z5074
40	51	43	39	EP 4051 Z5074

Further sizes on request.

Profile cross-section	Profile reference	Page
Piston seals, single-acting		
	E4 (NBR)	54
	E4 (PUR)	56
	Z7	58
	Z8 (NBR)	60
	Z8 (PUR)	62
	C2	64
	MK	67
Piston seals, double-acting		
	Z5	69
	PZ	71
	OA	73
Complete pistons, single-acting		
	EK	76
	DE	78
Complete pistons, double-acting		
	DK	80
	DP	83
	DR	85