



The single-acting profile DE is a complete pneumatic piston with a cup seal and a vulcanized metal disc support. It performs three functions: **Sealing, guiding and cushioning.**

- Due to application-optimized geometry and compounds suitable for use in oiled as well as in oil-free air (after initial lubrication on assembly).
- Cushioning buffers on the piston's front faces with integrated ventilation ducts provide for mechanical cushioning of the cylinders.
- Multi-functional element: seal, guiding and cushioning element.
- Immediate response (full pressure load) thanks to incorporated venting channels.
- Good wear resistance.
- Ideal corrosion protection thanks to complete elastomer covering.
- Smooth running due to optimum adjustment of the functional lips.
- Easy attachment to the piston rod without additional sealing elements.
- Easy installation due to integrated static sealing function.
- Excellent media resistance in case of suitable compound selection.
- Also available as double-acting version.
- Low assembly height of the complete piston enables short cylinder designs.
- Versatile complete piston for nearly all cylinder designs.

Range of application

Complete piston for single-acting pneumatic cylinders with end cushioning, provided that no excessive lateral guidance loads will occur (long strokes and buckling).

Working pressure	≤ 12 bar
Working temperature	-30 °C to +80 °C
Surface speed	≤ 1 m/s
Media	Oiled as well as oil-free compressed air (after initial lubrication during assembly).

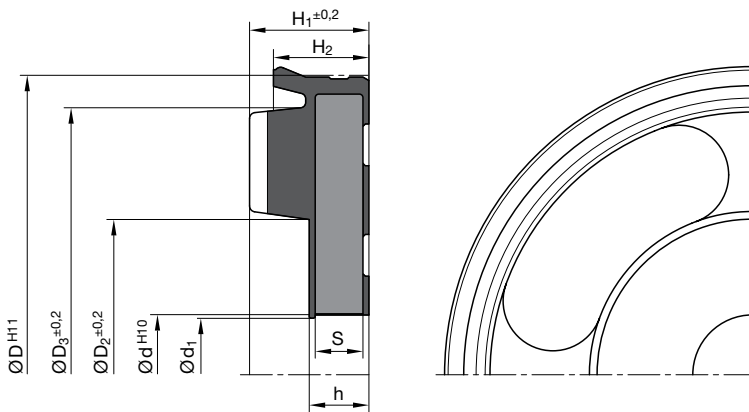
Compounds

Standard compound is an elastomer (NBR-based) with a hardness of approx. 71 Shore A and vulcanized to a metal disc.

Installation

The profile DE complete piston is fixed to the piston rod with a locknut to avoid loosening. For use with dry and oil-free air, the piston and cylinder tube must be prelubricated with a suitable long-life lubricant.

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 ₁	H ₂	S	h	D ₂	D ₃	Order code
6	2	2.8	2.3	1.25	1.45	3.2	5	DE 0602 Z5144*
8	3	3.7	3	1.5	1.8	4.2	6.3	DE 0803 Z5117
10	3	3.7	3	1.5	1.8	5.2	8	DE 1003 Z5117*
12	4.5	4.4	3.4	2	2.3	6.9	9.4	DE 1203 Z5117
16	4.5	4.4	3.4	2	2.3	6.9	13.2	DE 1603 Z5117
20	6	5.5	4.4	2.5	2.8	9.4	17	DE 2005 Z5117
25	7	6.4	5.4	3	3.5	10.8	21.2	DE 2506 Z5117
32	8	7.5	6	3	3.5	12.5	27	DE 3208 Z5117
40	8	8.5	7	4	4.5	17	34.9	DE 4008 Z5117
50	10	10	8	4	4.5	26	43.9	DE 5010 Z5117
63	12	10	8	4	4.5	26	56.6	DE 6312 Z5117
80	16	11.4	9.4	5	5.5	30	72	DE 8016 Z5117
100	20	12.9	10.9	6	6.5	35	91	DE A020 Z5117

* Moulds not available on the date of printing.
Further sizes on request.