



The double-acting profile DP is a complete pneumatic piston with a double 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.
- Low assembly height of the complete piston enables short cylinder designs.
- Versatile complete piston for nearly all cylinder designs.

## Range of application

Complete piston with end cushioning for double-acting pneumatic cylinders, 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).

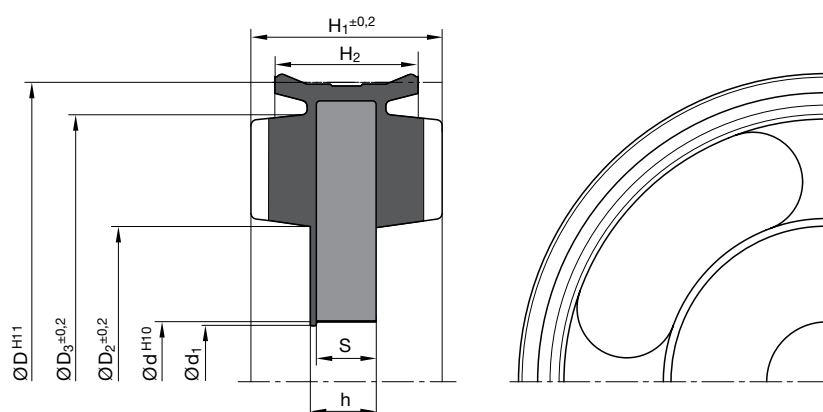
## Compounds

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

## Installation

The profile DP pneumatic complete piston should be 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 <sub>1</sub>	H <sub>2</sub>	S	h	D <sub>2</sub>	D <sub>3</sub>	Order code
6	2	3.8	3	1.25	1.45	3.2	5	DP 0602 Z5051
8	3	5	4	1.5	1.8	4.2	6.3	DP 0803 Z5051
10	3	5	4	1.5	1.8	5.2	8	DP 1003 Z5051
12	4.5	6	4	2	2.3	6.9	9.4	DP 1203 Z5051
12	4.5	6	5	2	2.3	6.9	10.2	DP 1204 Z5058
16	4.5	6.5	4.5	2	2.3	6.9	13.2	DP 1603 Z5051
16	4.5	6.5	5.5	2	2.4	6.9	13.9	DP 1604 Z5067
20	6	7.5	5.5	2.5	2.8	9.4	17	DP 2005 Z5051
20	6	7.5	6.3	2.5	2.9	8.8	17.3	DP 2006 Z5051
25	7	8.8	7	3	3.5	10.8	21.2	DP 2506 Z5051
25	7	8.8	7.6	3	3.5	10.8	22	DP 2507 Z5058
32	8	11	8	3	3.5	12.5	27	DP 3208 Z5051
40	8	11.8	8.8	4	4.5	17	34.9	DP 4008 Z5051
50	10	14	10	4	4.5	26	43.9	DP 5010 Z5051
63	12	14	10	4	4.5	26	56.6	DP 6312 Z5051
80	16	16	12	5	5.5	30	72	DP 8016 Z5051
100	20	18	14	6	6.5	35	91	DP A020 Z5051

Further sizes on request.