# Throttle Valve

## Throttle Valve SW

Nominal diameter:0.25 to 2 mm

Throttle Valve SW


### Introduction and application

- For handling breathable workpieces
- Reduce the suction cup volume flow without contacting the workpiece and maintain the system vacuum
- Can be installed anywhere

### Design

- Threaded joint with cross section at both ends
- Wide range of apertures for different volumetric flows

### Advantage

- Robust construction and long service life
- Automatically reduces the vacuum channel section, especially suitable for handling breathable workpieces
- Suitable for use in small spaces

### Ordering Guide Throttle Valve SW

| | Nominal diameter | Connection thread |
|---|---|---|
| Example SW 25 G1/8-AG | | |
| SW | 25 | G1/8-AG |
| SW | 25=0.25mm | G1/8-AG |
| | to | G1/4-AG |
| | 200=2.00mm | |

Note: AG=external thread (M)

### Ordering Data Throttle Valve SW

| Type | Connection thread | |
|---|---|---|
| | G1/8"-M | G1/4"-M |
| SW 25 | 90.06.01.00032 | – |
| SW 40 | 90.06.01.00033 | 90.06.01.00042 |
| SW 50 | 90.06.01.00034 | 90.06.01.00043 |
| SW 60 | 90.06.01.00035 | 90.06.01.00044 |
| SW 70 | 90.06.01.00036 | 90.06.01.00045 |
| SW 80 | 90.06.01.00037 | 90.06.01.00046 |
| SW 90 | 90.06.01.00038 | 90.06.01.00047 |
| SW 100 | 90.06.01.00039 | 90.06.01.00048 |
| SW 110 | 90.06.01.00040 | 90.06.01.00049 |
| SW 120 | 90.06.01.00041 | 90.06.01.00050 |
| SW 150 | – | 90.06.01.00051 |
| SW 200 | – | 90.06.01.00052 |

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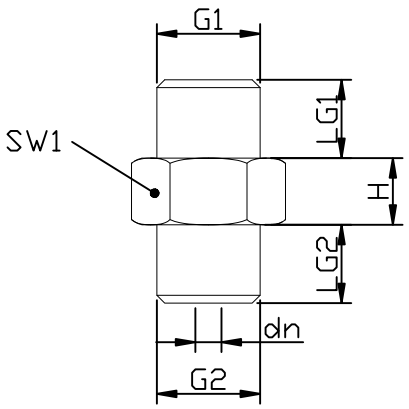
Nominal diameter:0.25 to 2 mm

### Design Data Throttle Valve SW

SW 25 to 200




| Type | Dimensions[mm] | | | | | | |
|---|---|---|---|---|---|---|---|
| | dn | G1 | G2 | H | LG1 | LG2 | SW1 |
| SW 25 G1/8-AG | 0.25 | G1/8"-M | G1/8"-M | 6 | 9.5 | 9.5 | 14 |
| SW 40 G1/8-AG | 0.4 | G1/8"-M | G1/8"-M | 6 | 9.5 | 9.5 | 14 |
| SW 50 G1/8-AG | 0.5 | G1/8"-M | G1/8"-M | 6 | 9.5 | 9.5 | 14 |
| SW 60 G1/8-AG | 0.6 | G1/8"-M | G1/8"-M | 6 | 9.5 | 9.5 | 14 |
| SW 70 G1/8-AG | 0.7 | G1/8"-M | G1/8"-M | 6 | 9.5 | 9.5 | 14 |
| SW 80 G1/8-AG | 0.8 | G1/8"-M | G1/8"-M | 6 | 9.5 | 9.5 | 14 |
| SW 90 G1/8-AG | 0.9 | G1/8"-M | G1/8"-M | 6 | 9.5 | 9.5 | 14 |
| SW 100 G1/8-AG | 1 | G1/8"-M | G1/8"-M | 6 | 9.5 | 9.5 | 14 |
| SW 110 G1/8-AG | 1.1 | G1/8"-M | G1/8"-M | 6 | 9.5 | 9.5 | 14 |
| SW 120 G1/8-AG | 1.2 | G1/8"-M | G1/8"-M | 6 | 9.5 | 9.5 | 14 |
| SW 40 G1/4-AG | 0.4 | G1/4"-M | G1/4"-M | 6 | 10 | 10 | 17 |
| SW 50 G1/4-AG | 0.5 | G1/4"-M | G1/4"-M | 6 | 10 | 10 | 17 |
| SW 60 G1/4-AG | 0.6 | G1/4"-M | G1/4"-M | 6 | 10 | 10 | 17 |
| SW 70 G1/4-AG | 0.7 | G1/4"-M | G1/4"-M | 6 | 10 | 10 | 17 |
| SW 80 G1/4-AG | 0.8 | G1/4"-M | G1/4"-M | 6 | 10 | 10 | 17 |
| SW 90 G1/4-AG | 0.9 | G1/4"-M | G1/4"-M | 6 | 10 | 10 | 17 |
| SW 100 G1/4-AG | 1 | G1/4"-M | G1/4"-M | 6 | 10 | 10 | 17 |
| SW 110 G1/4-AG | 1.1 | G1/4"-M | G1/4"-M | 6 | 10 | 10 | 17 |
| SW 120 G1/4-AG | 1.2 | G1/4"-M | G1/4"-M | 6 | 10 | 10 | 17 |
| SW 150 G1/4-AG | 1.5 | G1/4"-M | G1/4"-M | 5 | 9 | 9 | 17 |
| SW 200 G1/4-AG | 2 | G1/4"-M | G1/4"-M | 5 | 9 | 9 | 17 |

# Throttle Valve

## Throttle Valve SW

Nominal diameter:0.25 to 2 mm

### Technical Data Throttle Valve SW

| Type | Nominal diameter | Evacuation rate for pu = -0.3 bar [$m^3/h$] | Evacuation rate for pu = -0.3 bar [l/min] | Evacuation rate for pu = -0.6 bar [$m^3/h$] | Evacuation rate for pu = -0.6 bar [l/min] |
|---|---|---|---|---|---|
| SW 25 | 0.25mm | 0.01 | 0.2 | 0.02 | 0.3 |
| SW 40 | 0.40mm | 0.06 | 1.0 | 0.08 | 1.3 |
| SW 50 | 0.50mm | 0.13 | 2.2 | 0.15 | 2.5 |
| SW 60 | 0.60mm | 0.18 | 3.0 | 0.19 | 3.1 |
| SW 70 | 0.70mm | 0.24 | 4.0 | 0.26 | 4.3 |
| SW 80 | 0.80mm | 0.3 | 4.9 | 0.32 | 5.3 |
| SW 90 | 0.90mm | 0.39 | 6.5 | 0.42 | 7.0 |
| SW 100 | 1.00mm | 0.47 | 7.8 | 0.5 | 8.4 |
| SW 110 | 1.10mm | 0.62 | 10.3 | 0.63 | 10.5 |
| SW 120 | 1.20mm | 0.74 | 12.3 | 0.76 | 12.7 |
| SW 150 | 1.50mm | 1.32 | 22.0 | 1.4 | 23.4 |
| SW 200 | 2.00mm | 2.05 | 34.1 | 2.18 | 36.4 |

### Throttle Valve SW circuit diagram

SW 25-200 circuit diagram (1 = vacuum generator; 2 = vacuum suction cup)