

CARTRIDGE PROGRAM



Stainless Steel Cartridge valves according to DIN24342

The valves are designed for use with water, water and oil emulsions, oil and gases. Their robust construction and compact design provide long life, ease of maintenance, and high performance.

These slip in cartridge type valves can be combined in many different ways to satisfy the requirements of a wide variety of applications. The sealed poppet design provides drop tight, leak free shut off.

Product range:

Cartridges for directional functions

Soft seated ND10 to 100 for water, oil and pneumatic applications up to 350bar

Soft seated ND10 to 250 for water, descaling water and oil up to 350bar

Soft seated ND10 to 40 for water, oil and pneumatic applications up to 800bar

Hard seated ND 16 to 32 water and oil up to 350bar

Cartridges for pressure relief functions

Hard seated ND 16 to 32 for water and oil up to 350bar

Cartridges for pressure reducing functions

Hard seated ND 16 to 32 for water and oil up to 350bar

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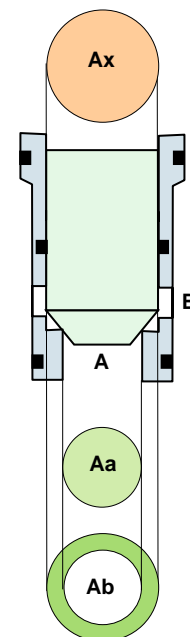
Functional description

These valves are designed for use with special fluids:

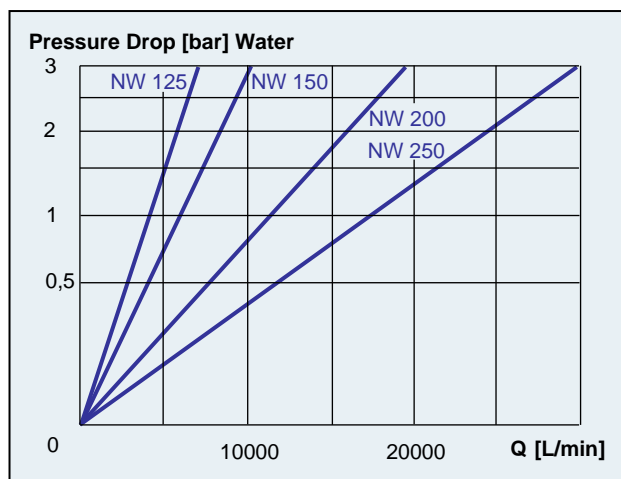
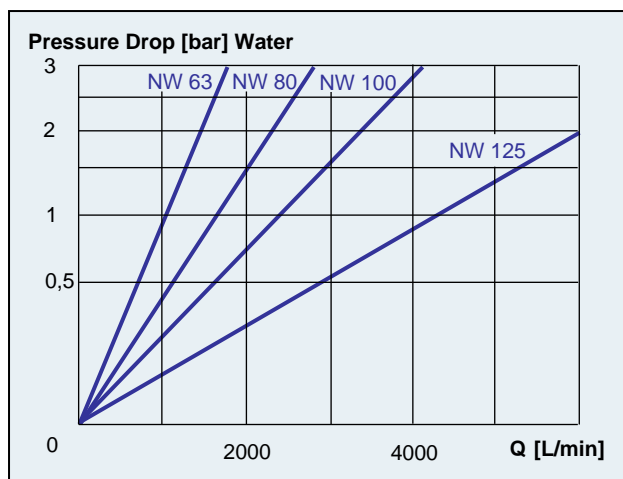
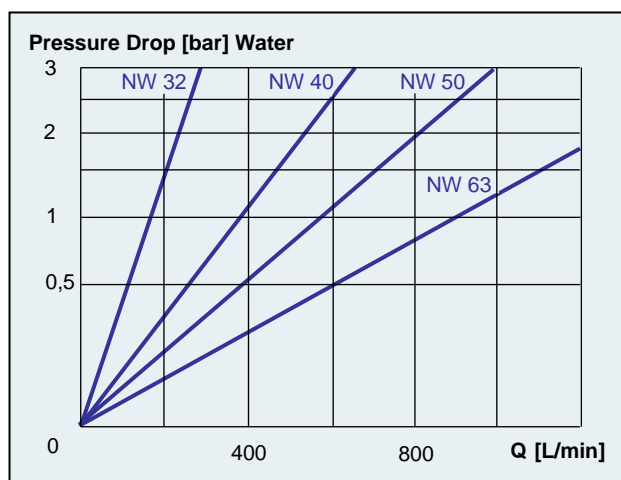
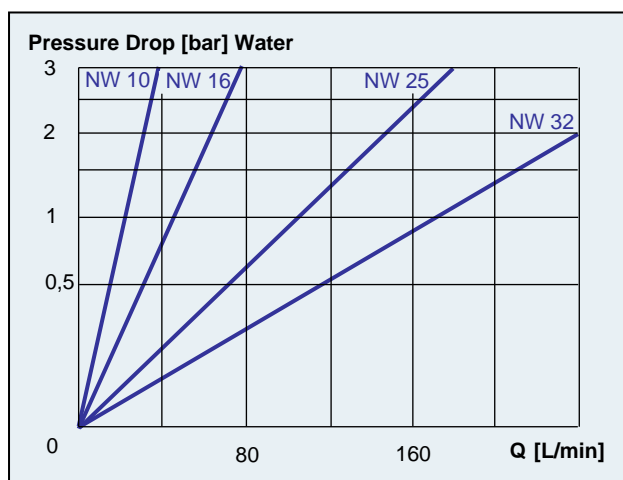
- No metal to metal contact at the sliding surfaces.
 - the use of non-lubricating mediums is possible.
- All pressurized areas are separated by soft seals
 - for thin fluids and gases under high pressure.
- Special geometry and non-corroding material
 - for water and descaling applications.

An important dimension for the function of cartridge valves is the surface ratio of the seat area A_a and the annulus area A_b to the pilot area P_x . By using a surface ratio of 1:1 the valve can be operated only in one direction. By using a surface ratio of 1:1.6 or 1:2 the valve can be operated in both directions, but cannot be used for pressure functions because of the pressure ratio which creates pre-opening of the pilot valve.

Soft-seated valves are suitable for use in shut-off and directional functions. These valves are absolutely leak-free even for long-term operation in gas or high-pressure circuits. Hard seated valves are suitable for use in pressure control functions. Because of their robust seats they can be used also in high pressure water hydraulic circuits.



Diagrams





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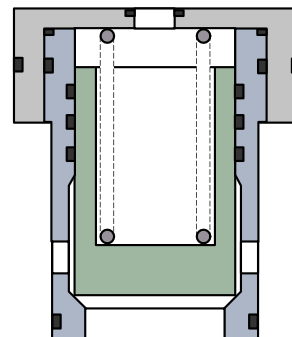
Cartridge Valve Type 1

For directional, pressure and flow-control applications
Dimensions according to DIN 24342
Material: stainless steel
Hard seated
Area ratio 1:1 / 45°

Example / Order code

EO - 025 - 00 - 0.0 - 1D / 0

└─ Nominal size 016, 025, 032



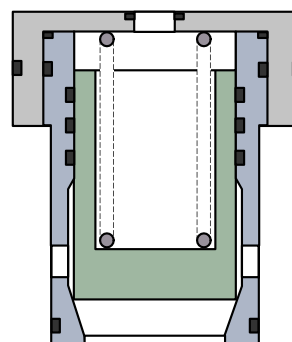
Cartridge Valve Type 2

For pressure-control applications
Dimensions according to DIN 24342
Material: stainless steel
Hard seated
Area ratio 1:1 / 15°

Example / Order code

EO - 025 - 00 - 0.0 - 2D / 0

└─ Nominal. size 016, 025, 032



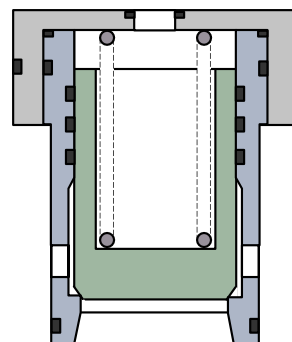
Cartridge Valve Type 3

For directional and shut off applications
Dimensions according to DIN 24342
Material: stainless steel
Hard seated
Area ratio 1:1.6 / 45°

Example / Order code

EO - 025 - 00 - 0.0 - 3D / 0

└─ Nominal. size 016, 025, 032



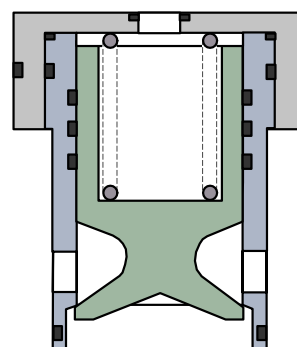
Cartridge Valve Type 4

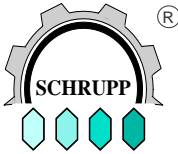
For pressure reducing, check and flow control functions
Dimensions according to DIN 24342
Material: stainless steel
Hard seated
Area ratio 1:1

Example / Order code

EO - 025 - 00 - 0.0 - 4D / 0

└─ Nominal. size 016, 025, 032





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Cartridge Valve Type 6

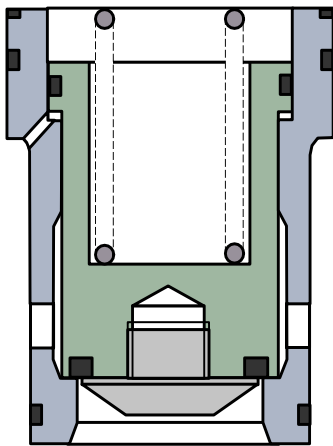
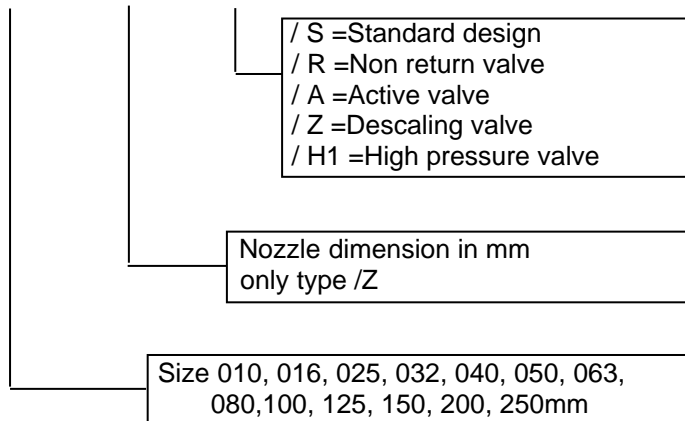
For directional and shut off applications

Dimensions according to DIN 24342

Material: stainless steel, soft seated, metal support
area ratio 1:2, Type /Z 1:1.6

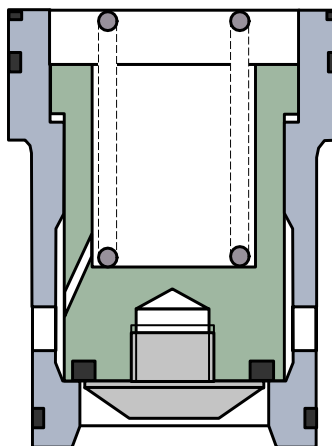
Example / Order code

EO – 125 – 00 – 5.5 – 6D / Z



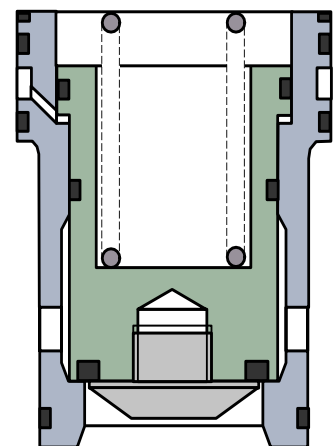
**Standard design
Type 6D / S**

350bar - ND 010 to 100
for water, oil and gas.
For descaling applications up
to size ND 250



**Non return valve
Type 6D / R**

Up to 350bar - ND 010, 016,
025 for water, descaling water,
oil and gas.



**Active valve
Type 6D / A**

Up to 350 bar - ND 16 to 100
for water, oil and gas

OPTIONS:

Seawater resistant versions, expanded temperature range (200°C),
expanded pressure range to 420bar (10% reduced flow rate)

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High pressure valve Type 6D / H1

These valves are designed for static pressures up to 1000bar.
Pressurized opening and closing is possible with the following pressure differences:

Continuous operation water 600bar, frequently operation water 800bar.
Continuous operation oil, compressed air 800bar

Media: water, emulsions, oil and compressed air.

Because of the stronger wall thickness the flow rate is reduced.

For calculation please use the following flow curves:

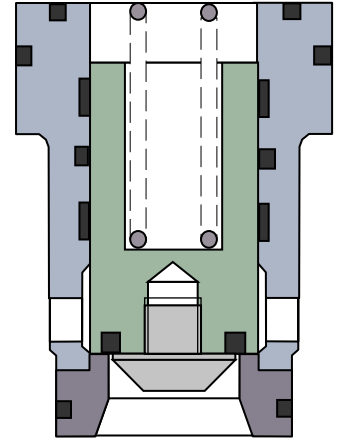
ND 16 = flow curve ND 10

ND 25 = flow curve ND 16

ND 32 = flow curve ND 25

ND 40 = flow curve ND 32

Options on request: larger sizes, sea water resistant versions, extended temperature versions (200°C)



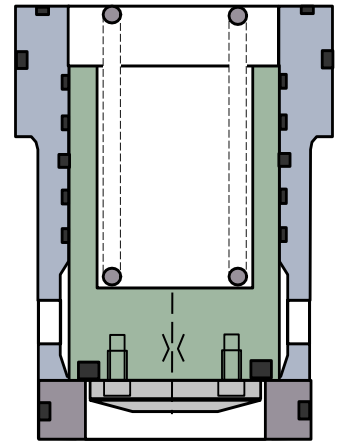
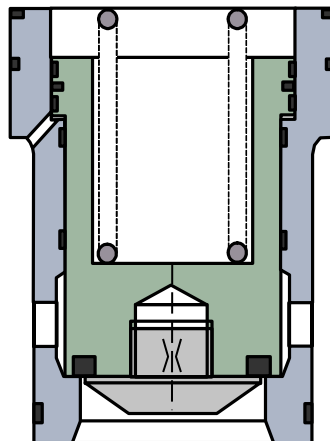
Descaling valve Type 6D / Z

Up to 350bar - ND 063 to 250

ND 63 – 100mm area ratio 1:2

ND125 – 250mm area ratio 1:1.6

for water, descaling water and oil



Manual operated Valve Type 7D

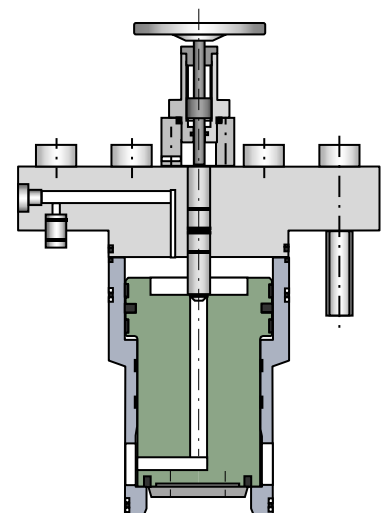
Up to 350bar - ND 063 to 150

for Water and Oil

These valves are designed for shut off functions. The servo system reduces the necessary manual power so that the valve can be operated under high pressure.

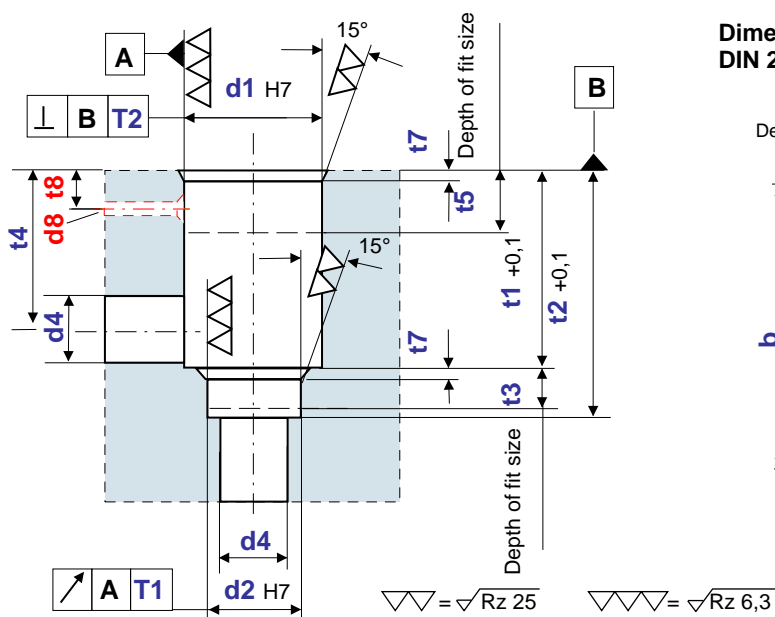
The manual spindle locks the piston in closed position even under pressure.

For more information please see catalogue DE2.4.13

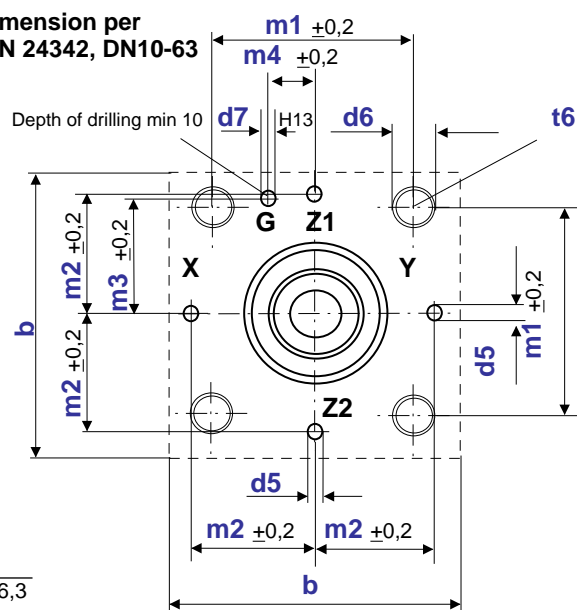




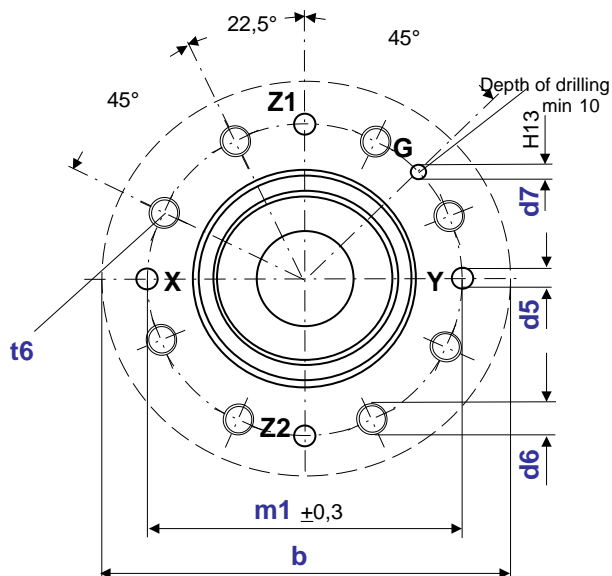
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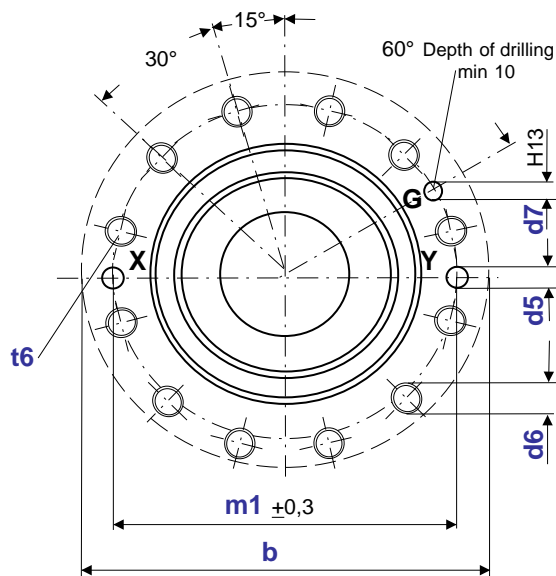
Dimension per
DIN 24342, DN10-63



Dimensions per DIN 24342, DN80-100



Dimensions per DIN 24342, DN125-250





CARTRIDGE COVERS

These stainless steel cartridge covers are used for complete valve assemblies with Schrupp cartridge valves according to DIN 24342 and Schrupp pilot valves.

In addition to the standard types shown it is possible to produce special versions for individual applications:

Special covers for descaling valves

Cover with integrated functions such as position indicators, pilot combinations, special dimensions.

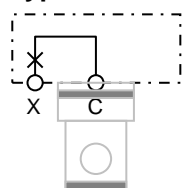
Covers for compressed air pilot valve ND6

Covers for filter

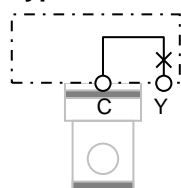
Covers with stroke limiter

Hydraulic piloting and non-return function

Type HX



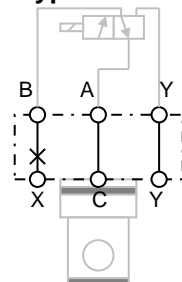
Type HY



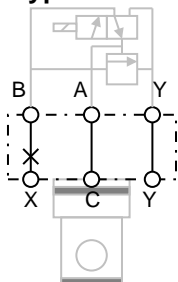
10	16	25	32	40	50	63	Size
25	35	35	35	40	45	50	Height
M5 x30	M8 x40	M12 x40	M16 x45	M20 x55	M20 x60	M30 x70	Fixing screws

Pressure and directional functions

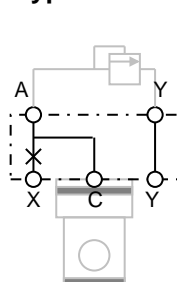
Type WX



Type WX



Type DX



16	25	32	Size
35	35	35	Height
M8 x40	M12 x40	M16 x45	Fixing screws

Example / Ordering Code

WX – 025 – 0.5

Orifice 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2

Sizes 010, 025, 032, 040, 050, 063 for HX and HY
016, 025, 032 for WX and DX

Cover type WX, DX, HX, HY