VAG PICO® H Pilot Operated Control Valve
Pressure reducing valve

PN 10/16 - DN 50...300
KAT-A 2032-DR

Product characteristics and benefits

- Slotted cylinder as standard control insert for cavitation-free regulation
- Chambered and pull-out proof profiled sealing ring
- Welded valve seat enhances resistance to wear
- Independent of variations of the inlet pressure / flow rate, the valve regulates a higher inlet pressure to a constant, lower outlet pressure
- Valve controlled by its own medium
- Pressed-in stainless steel inserts with O-ring seal to connect the control circuit
- Pre-formed diaphragm with sealing bulges
- Separate connection of control circuit and pressure gauges
- Face-to-face length acc. to EN 558 (DN 50 to DN 250)
- With flange ends on both sides acc. to EN 1092-2

Materials

- Main valve:
  - Body: Ductile iron EN-GJS-400-15 (GGG-40)
  - Bonnet: Ductile iron EN-GJS-400-15 (GGG-40)
  - Valve seal: EPDM
  - Control insert: Stainless steel 1.4301
- Control circuit:
  - Piping: Stainless steel A4
  - Rubber parts: EPDM
  - Filter casing: Stainless steel 1.4404
  - Pilot valve body: Stainless steel 1.4404
  - Screwed connection: Stainless steel A4

Corrosion protection

- Internally and externally epoxy coated acc. to GSK guidelines

Versions

- Standard version as described
- Pressure rating PN 25 available on request
- Nominal diameter > DN 300 available upon request
- Further versions available upon request
- Services available upon request

Field of application

- Chamber installation
- Installation in plants

Tests and approvals

- Final inspection test acc. to EN 12266
- DVGW tested and registered

Operation data

- Specify operating pressure when inquiring/ordering.:
  - Maximum flow rate
  - Minimum flow rate
  - Static pressure upstream of valve
  - Dynamic pressure upstream of valve
  - Dynamic pressure downstream of valve

Note

- The pilot-operated control valve should preferably be installed between two shut-off valves and the strainer on the upstream side.
- For pressure-reducing valves we recommend the installation of a safety valve in your plant.
- For valve dimensioning the free VAG UseCAD® software is available on request.

For proper installation and safe operation please follow the installation and operation instructions:
KAT-B 2032

Field of application

DN	PN	Maximum operating pressure [bar]	Maximum operating temperature for neutral liquids [°C]
50...300	16	16	50
200...300	10	10	50

Pressure test acc. to EN 12266

Test pressure body with water [bar]	Test pressure seat with water [bar]	Test pressure seat with air [bar]
24	17.6	6
15	11	6

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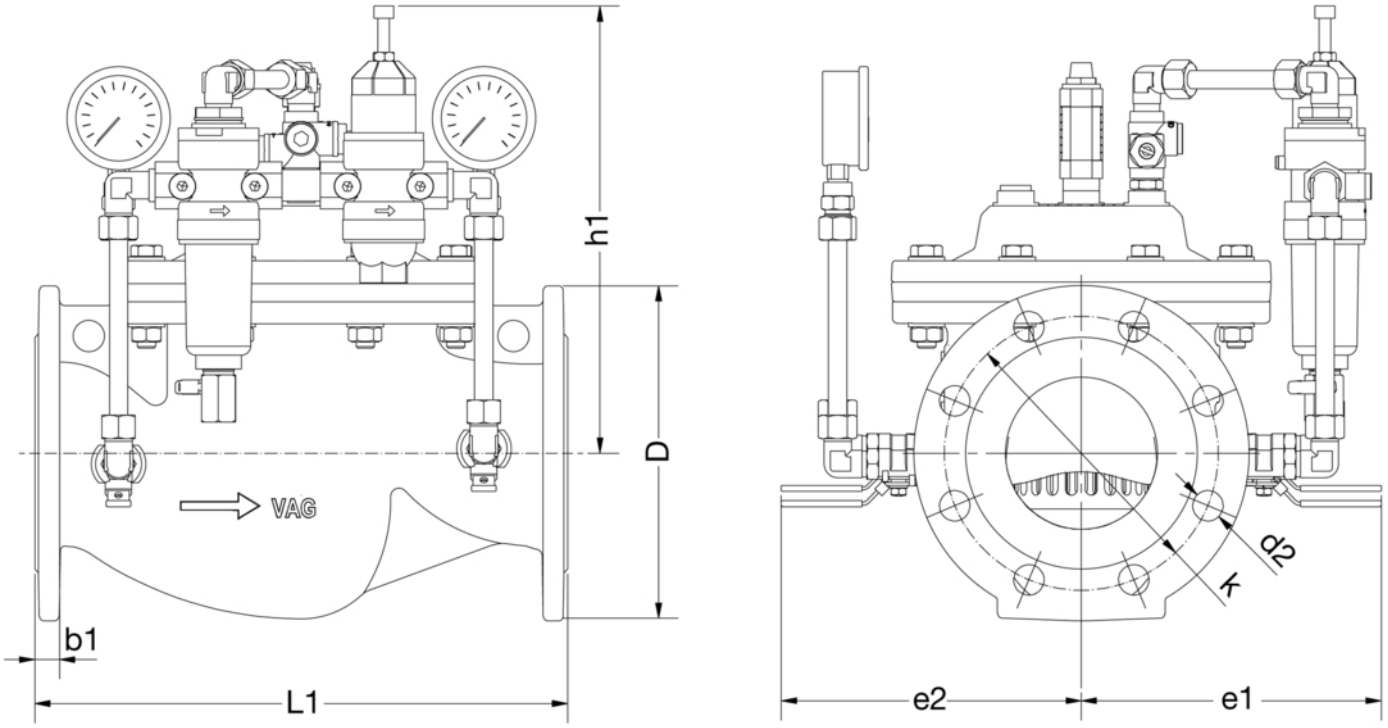
Drawing



Technical data

PN 10

DN		200	250	300
D	[mm]	340	400	455
k	[mm]	295	350	400
L1	[mm]	600	730	710
b1	[mm]	20	22	24.5
d2	[mm]	23	23	23
e1	[mm]	300	340	370
e2	[mm]	280	300	330
h1	[mm]	450	510	520
No. of holes		8	12	12
Weight approx.	[kg]	130.00	214.00	236.00
Volume approx.	[m^3]	0.22	0.33	0.37

PN 16

DN		50	65	80	100	125	150	200	250	300
D	[mm]	165	185	200	220	250	285	340	400	455
k	[mm]	125	145	160	180	210	240	295	355	400
L1	[mm]	230	290	310	350	400	480	600	730	710
b1	[mm]	19	19	19	19	19	19	20	22	24.5
d2	[mm]	19	19	19	19	19	23	23	28	28
e1	[mm]	180	190	200	210	220	270	300	340	370
e2	[mm]	180	190	200	210	220	250	280	300	330
h1	[mm]	250	300	290	300	310	380	450	510	520
No. of holes		4	4	8	8	8	8	12	12	12
Weight approx.	[kg]	18.00	29.00	30.00	37.00	41.00	73.00	130.00	214.00	236.00
Volume approx.	[m^3]	0.04	0.05	0.05	0.06	0.08	0.13	0.22	0.33	0.37

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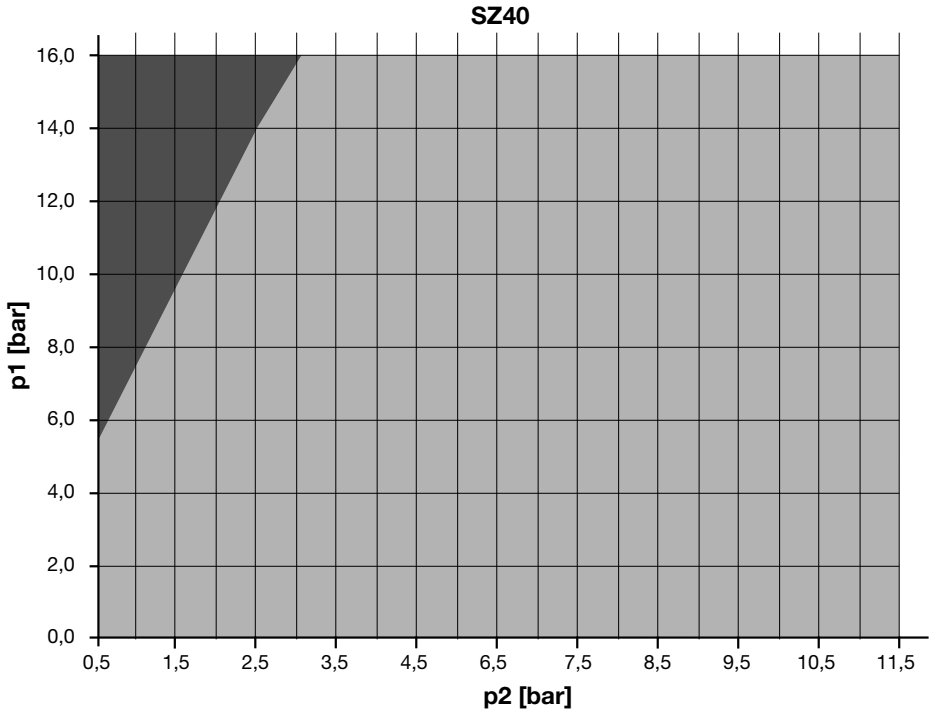
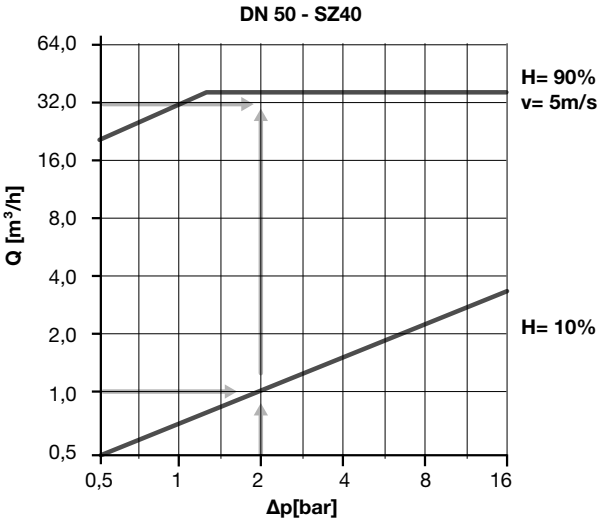
Further information

Cavitation diagram



Min. differential pressure: 0,5 bar (lower differential pressure on request)
Max. differential pressure:acc. to cavitation diagram
Max. flow velocity: 5 m/s
SZ = Slotted cylinder
Dark gray= full cavitation
Light gray = SZ40
Further slotted cylinder (SZ10, SZ20, SZ60) on request

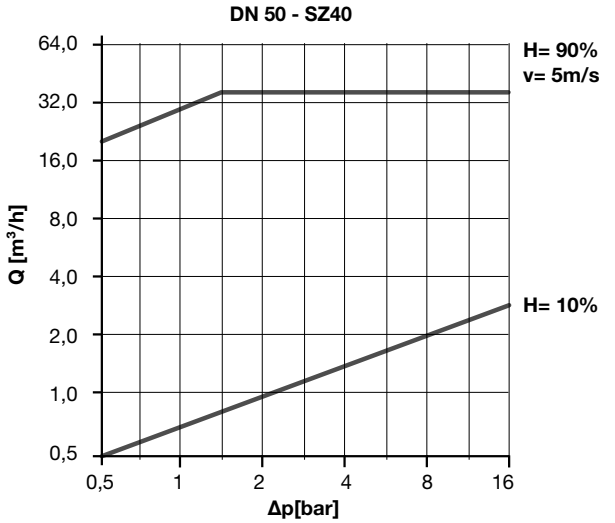
With the help of the flow charts the optimal flow for the different diameter between the minimum opening degree of 10% and maximum opening degree of 90% by a given pressure difference can be identified.

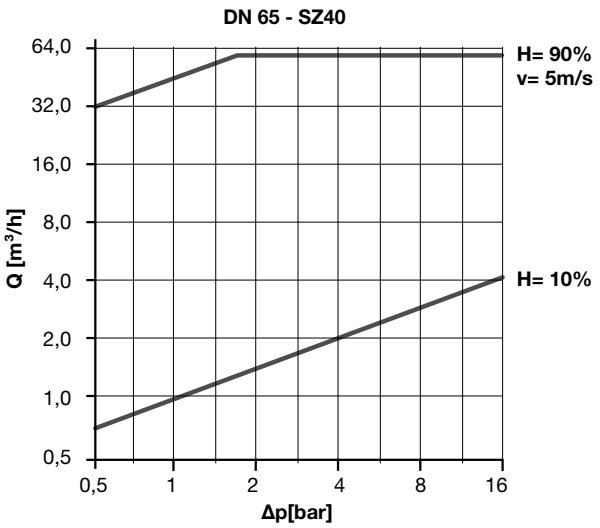


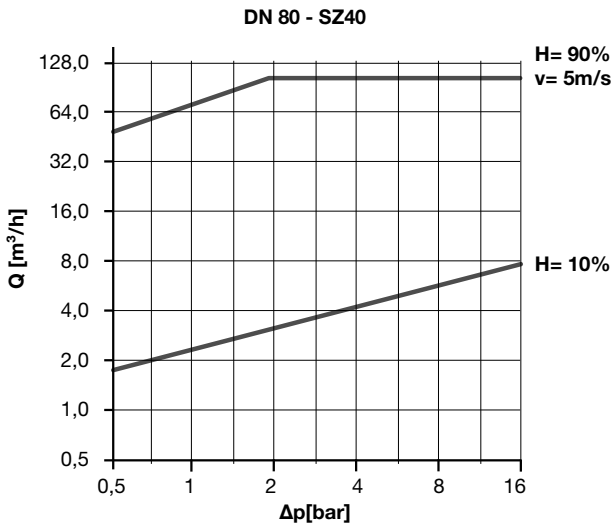
Example: The optimal flow area with max. (H = 90%) and min. (H = 10%) opening degree has to be within the given blue lines.
Pressure difference Δp = 2 bar • max. flow ca. 32 m^3/h • min. flow ca. 1,0 m^3/h

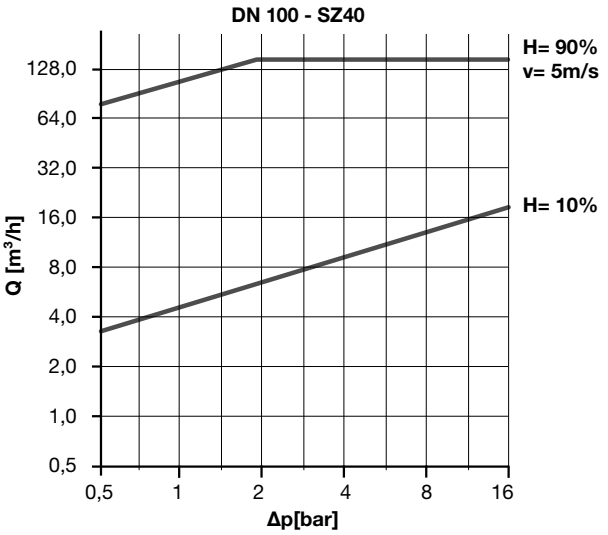
Further information

Flow chart









Q = flow rate [m³/h]
Δp = pressure difference between upstream and downstream [bar]
H = 10% min. opening degree
H = 90% max. opening degree
v = 5m/s max. velocity

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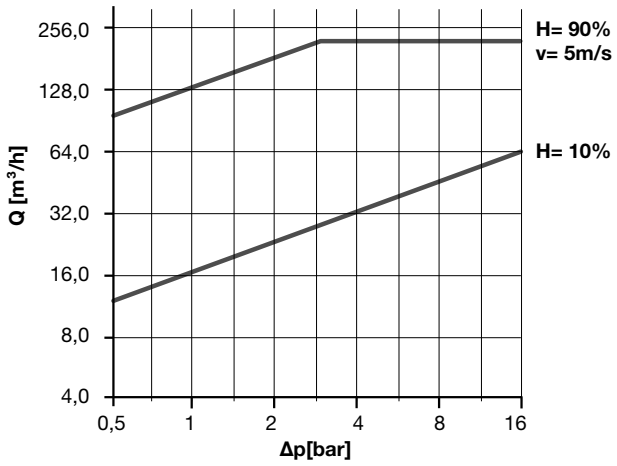
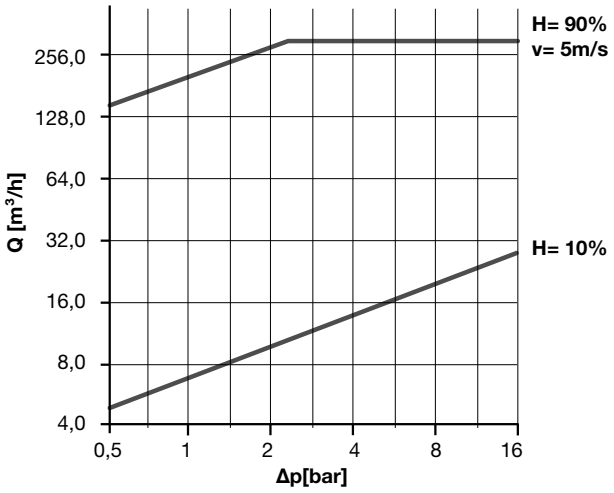
Further information

Flow chart

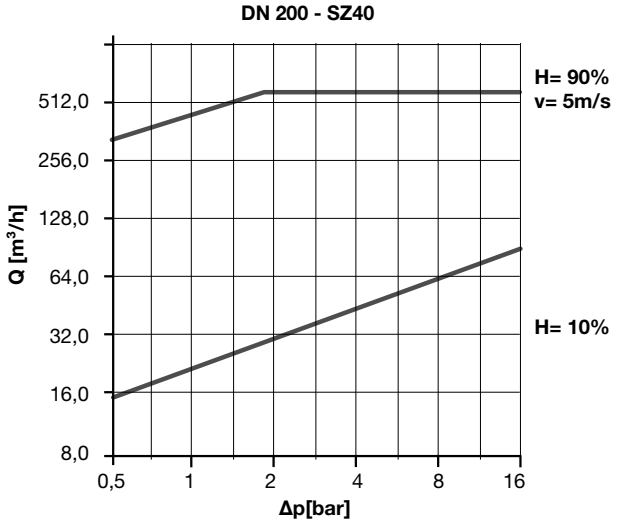
DN 125 - SZ40



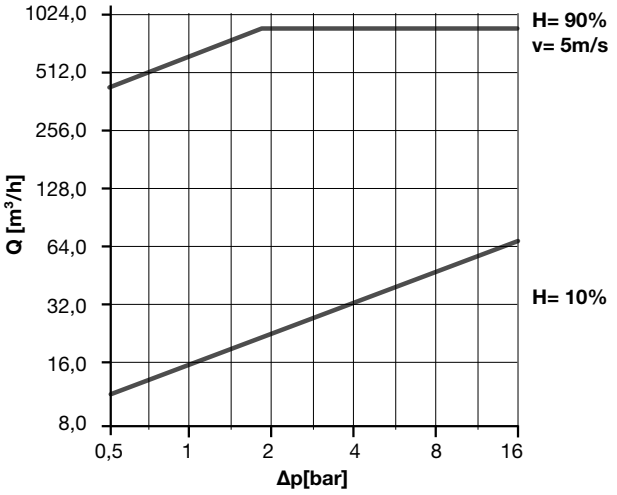
DN 150 - SZ40



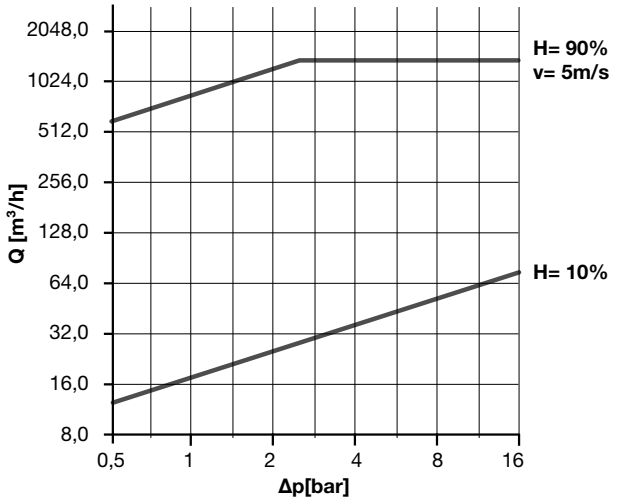
DN 200 - SZ40



DN 250 - SZ40



DN 300 - SZ40



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