

Type DU

Pressure reducing valve with integrated atomising steam cooling for heavy steam conversion applications



> Type DU, front view



> Type DU, sectional view

Produktfeatures

- Particularly large power range thanks to integrated motive steam cooling system for perfect cooling
- For optimum handling of difficult operating conditions, high-quality temperature control and optimum protection against temperature shocks (valve and piping)
- Low-noise, multi-stage design of the throttle body (perforated bushing)
- Screwed cover or self-sealing design
- High quality multi-level perforated bushing design for pressure control and quiet operation
- Special solutions for installation in existing systems possible

Applications

- Steam conversion for high pressure and high temperature reduction, e.g. high pressure to low pressure bypass stations and for process steam conversion

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Technical data

Nominal diameter	DN 25–1200 / NPS 1–48
Pressure class	PN 40–640/Class 150 –4500
Temperature (max.)	Up to 600 °C / 1120 °F and above
Housing materials	1.0460 / A105 1.5415 1.7335 / A182F12Cl.2 1.7383 / A182F22Cl.3 1.4903 / A182F91
Housing type	Forged
Media	Superheated steam
Flanges	EN 1092-1, ASME B16.5, ISO 7005, JIS, JPI, welding ends on request
Designs	Angle type, globe type
Actuators	Pneumatic, electric, hydraulic
Number of stages (max.)	9
Number of controlled stages (max.)	4
Operating range (max.)	1:40
Other	The DU type requires injection pressure control valve AK

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Function

SCHROEDAHL belongs to the internationally leading suppliers of innovative, modern steam converting technology.

Our intensive development work means that we are always able to overcome barriers and implement new, ground breaking solutions in the fields of steam conversion valves and steam cooling in the interest of our customers. In addition, we develop our own mathematical models through a sophisticated engineering, analyse different loads and stresses and detect potential weak spots.

For the manufacturing, we have an extensive amount of CNC-machines. Based on our considerable material know-how, we use selective material characteristics and construct high-quality welding connections.

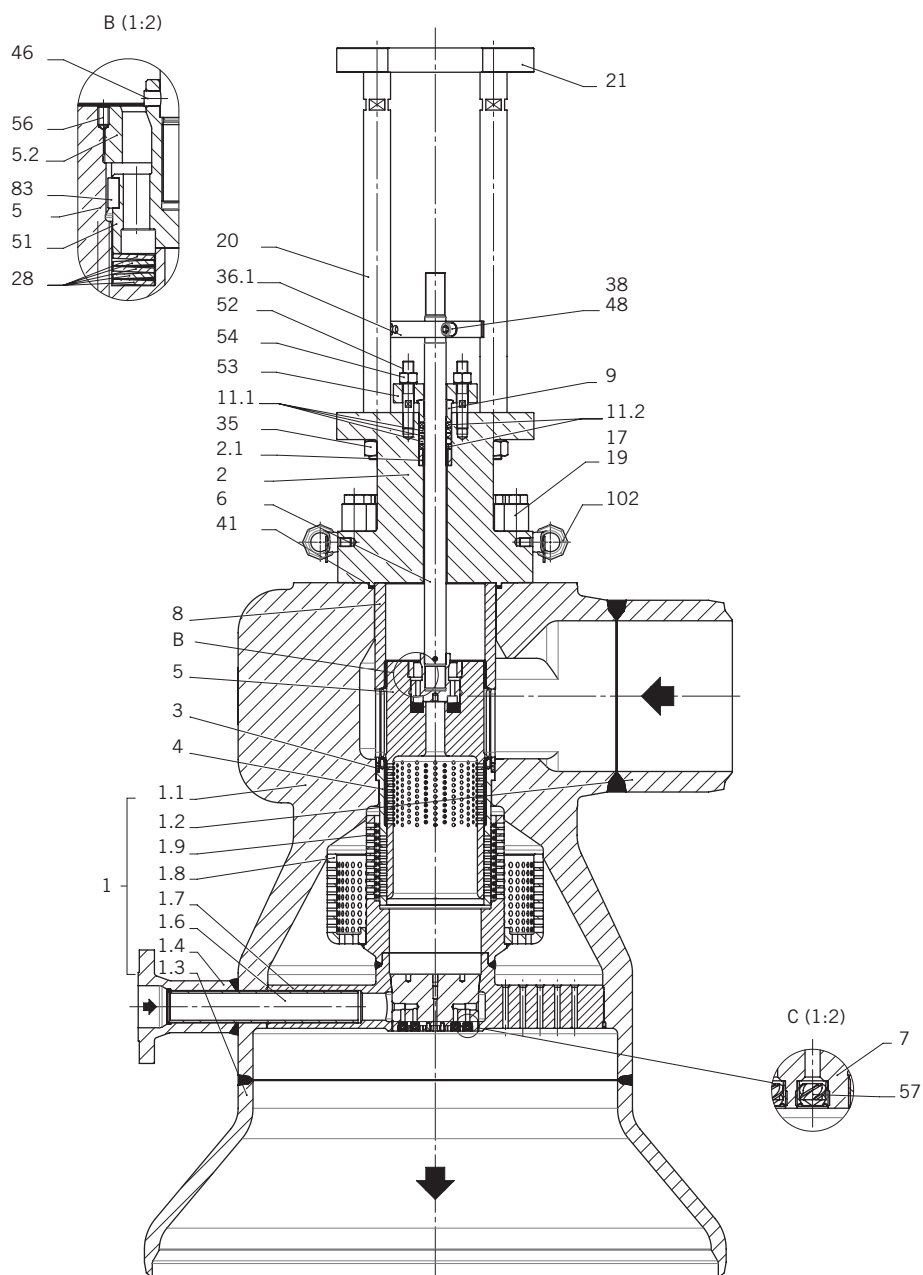
Thus, we are able consistently to expand the limits of what is technically possible. Even within the scope of extremely challenging, highly complex processes and tasks, we will find the technically appropriate solution.

We were, for instance, the first supplier to develop a steam converting valve with a nominal size of just one inch. We have exceeded the temperature range limit of 560° C/1040° F. Some of the SCHROEDAHL products can also resist a pressure of up to 500 bar/7250 psi.

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Sectional drawing (angle type)



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Parts list (angle type)

Pos.	Item	Material
1	Housing cpl.	*
1.1	Housing	*
1.2	Pipe	*
1.3	Plug	*
1.4	Flange	*
1.6	Protection pipe	*
1.7	Orifice	*
1.8	Perforated bushing	*
1.9	Perforated bushing	*
2	Cap	*
2.1	Bushing	**
3	Profile ring	Grafit
4	Seat bushing	**
5	Valve plug	1.4903/A182F91
5.1	Pilot plug	2.4668
5.2	Ring	1.4903/A182F91
6	Valve spindle	1.4922
7	Insert	1.4057
8	Bushing	**
9	Packing follower	1.4122
11.1	Packing	Grafit
11.2	Packing	Grafit
17	Hexagon nut	**
19	Stud bolt	**
20	Spacer bolt	1.7709
21	Plate	1.0460/A105
28	Washer	2.4668
36.1	Bridge	1.4571
38	Socket head screw	8.8
41	Spiral gasket	1.4541/Grafit
46	Pin	1.4301
48	Lock washer	1.1211
52	Stud bolt	**
53	Gland plate	*
54	Hexagon nut	**
56	Threaded pin	A4
57	Spray nozzle	1.4301/1.4313
83	Parallel key	A4
102	Starpoint Vrs-F	1.6541

* See table "Technical data"

** Depending on customer requirements

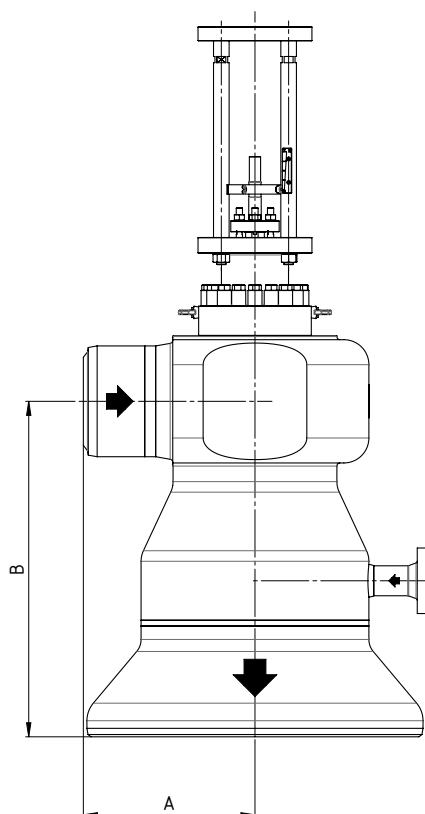
Parts list as an example of the standard configuration

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Dimensions (angle type)

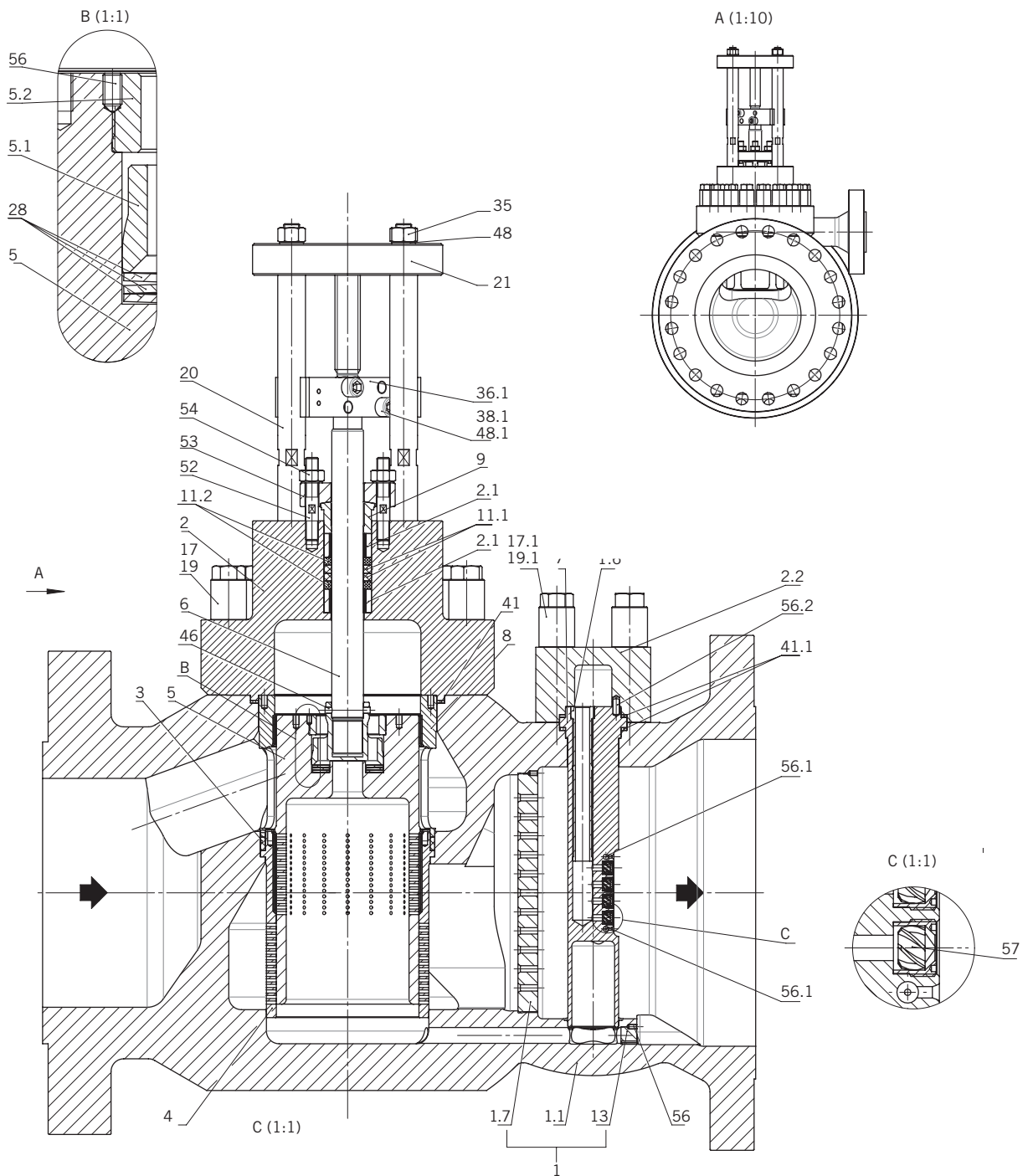
Seat- \varnothing (mm)	Measures A (mm)	Measures B (mm)	Weight (kg)
40	150	125	120
50	175	130	200
65	200	140	250
80	250	170	350
100	300	185	550
125	400	210	700
150	475	240	1000
180	550	250	1400
210	725	250	1800
250	850	275	2200



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Sectional drawing (globe type)



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Parts list (globe type)

Pos.	Item	Material
1	Housing cpl.	
1.1	Housing	*
1.3	Insert	*
1.6	Protection pipe	*
1.7	Orifice	*
2	Cap	*
2.1	Bushing	*
2.2	Cover	*
3	Profile ring	Grafit
4	Seat bushing	*2
5	Valve plug	1.4903/A182F91
5.1	Pilot plug	2.4668
5.2	Ring	1.4903/A182F91
6	Valve spindle	1.4922
7	Insert	1.4903/A182F91
8	Bushing	**
9	Packing follower	1.4122
11.1	Packing	Grafit
11.2	Packing	Grafit
17	Capsule nut	**
17.1	Capped nut	**
19	Stud bolt	**
19.1	Stud bolt	**
20	Spacer bolt	**
21	Flange	1.0460
28	Washer	2.4668
35	Hexagon nut	8
36.1	Coupling	1.4571
38.1	Socket head screw	A4-70
41	Spiral gasket	1.4541/Grafit
41.1	Spiral gasket	1.4541/Grafit
46	Pin	1.4301
48	Lock washer	1.1211
48.1	Lock washer	1.1211
52	Stud bolt	**
53	Gland plate	*
54	Hexagon nut	**
56	Threaded pin	A4
56.1	Threaded pin	A4
56.2	Guide pin	A2
57	Spray nozzle	1.4301/1.4313

* See table "Technical data"

** Depending on customer requirements

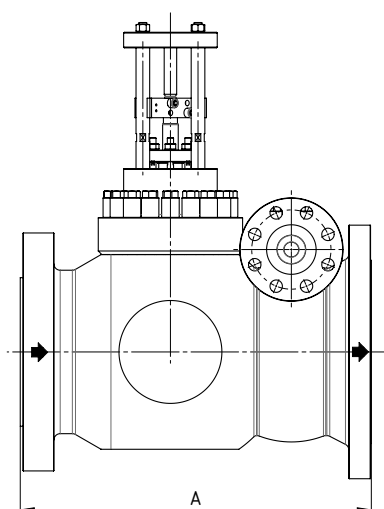
Parts list as an example of the standard configuration

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Dimensions (global type)

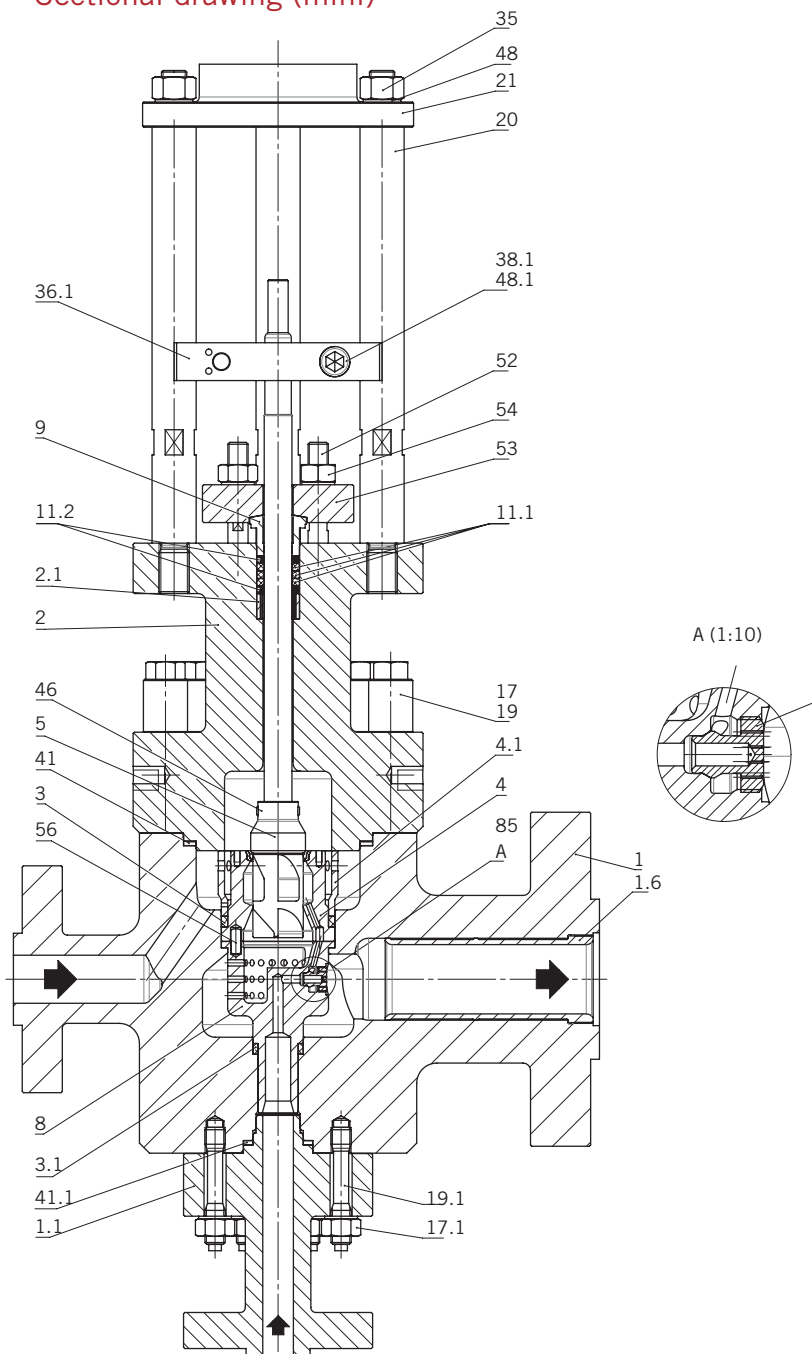
Seat- \varnothing (mm)	Measures A (mm)	Weight (kg)
40	275	150
50	300	260
65	350	320
80	425	450
100	475	700
125	600	900
150	725	1250
180	800	1750
210	975	2300
250	1125	2800



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Sectional drawing (mini)



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Parts list (mini)

Pos.	Item	Material
1	Gehäuse	*
1.1	Deckel	*
1.6	Schutzrohr	*
2	Deckel	*
2.1	Buchse	*
3	Profilring	Grafit
3.1	Profilring	Grafit
4	Sitzbuchse	**
4.1	Hülse	**
5	Ventilkörper	1.4903/A182F91
6	Ventilspindel	1.4922
7	Sprühkopf	1.4903/A182F91
8	Düse	**
9	Stopfbuchsendrucker	1.4122
11.1	Packung	Grafit
11.2	Packung	Grafit
17	Kapselmutter	**
17.1	Sechskantmutter	**
19	Stiftschraube	**
19.1	Stiftschraube	**
20	Distanzbolzen	**
21	Anbaufansch	1.0460/A105
35	Sechskantmutter	8
36.1	Steg	1.4571
38.1	Zylinderschraube	8.8
41	Spiraldichtung	1.4541/Grafit
41.1	Spiraldichtung	1.4541/Grafit
46	Stift	1.4301
48	Sicherungsscheibe	1.8159
48.1	Sicherungsscheibe	1.8159
52	Stiftschraube	**
53	Stopfbuchsenscheibe	*
54	Sechskantmutter	**
56	Gewindestift	A4
56.1	Gewindestift	A4
56.2	Steckkerbstift	A2
57	Sprühdüse	1.4301/1.4313

* See table „Technical data“

** Depending on customer requirements

Parts list as an example of the standard configuration

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Dimensions (mini)

Seat- \varnothing (mm)	Measures A (mm)	Weight (kg)
22	350	225
30	400	250
40	450	275

