

AV 100 Shut-Off Valves

Light-duty design

Application

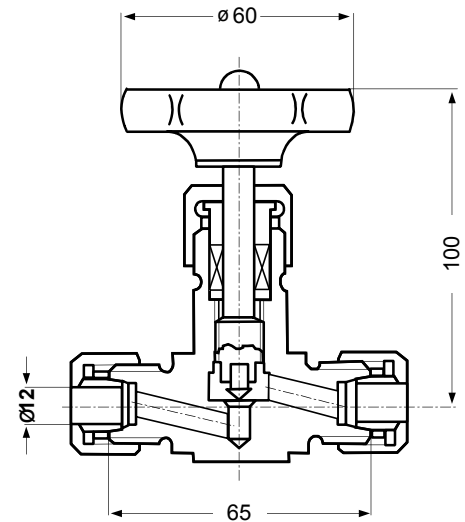
For flow-rate measurement instruments (gases, steams and fluids) to shut-off joints of DP-Flow elements.

Construction

Casing and head end completely forged out of unalloyed high-grade steel C22 or stainless steel 1.4571 according to conditions of operation. Seat is mounted into casing and not exchangeable. For oxygen a design free from grease is possible (additional costs).

Technical Details

Nominal pressure:	DN 5 (ANSI xxx)
Nominal diameter:	up to PN 100 (ANSI xxx)
Temperature:	up to 250°C Depending on operating pressure The diagram on page 97.4 shows span of application
Spindle:	with enrolled cone
Packing:	Pure graphite resp. PTFE
Handwheel:	Polyamide fortified with fibre glass with recessed square



AV 100 E

Connections

Type	Material	Inlet	Outlet
AV 100 E	C22	E 12	E 12
	1.4571	E 12	E 12

E = compression-type fitting DIN 2353

Special Designs

The shut-off valve AV 100 may also be delivered made out of material C22 as special design for all gases according "DVGW-Arbeitsblatt" (worksheet) with DVGW-test according to DIN 3537.

AV 400 Shut-Off Valves

Heavy-duty design

Application

For flow-rate measurement instruments (gases, steams and fluids) to shut-off joints of DP-Flow elements.

Construction

With exchangeable head end and enclosed spindle thread. Valve body forged out of unalloyed high-grade steel C22 and stainless steel 1.4571.

For oxygen a design free from grease is possible (additional costs).

Technical Details

Nominal pressure: DN 8 (ANSI xxx)

Nominal diameter: up to PN 400 (ANSI xxx)

Temperature: up to 250°C
Depending on operating pressure
The diagram on page 97.4 shows span of application

Spindle: back sealing

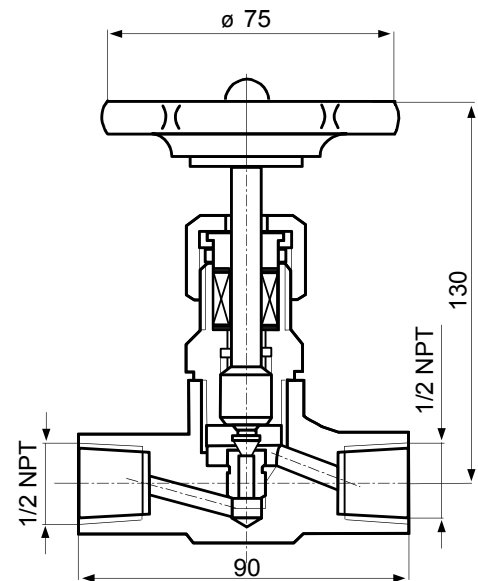
Cone: Enrolled, movable

Seat: Exchangeable

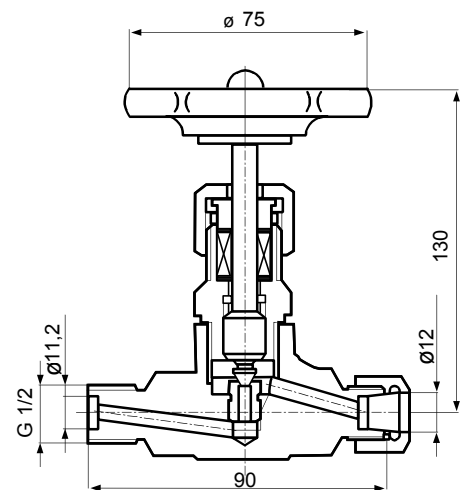
Packing: Pure graphite resp. PTFE

Handwheel: moulded

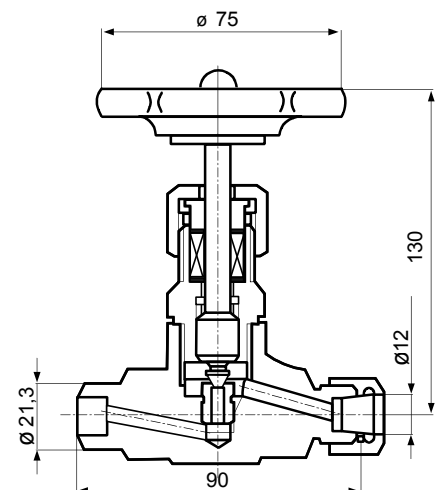
Connections: As standard design according to following table. Additionally it is possible to manufacture according to customer specification and DIN 19208 (weld joint 21,3 x 6,3 and 24 x 7,1).



AV 400 M



AV 400 F



AV 400 S

Type	Material	Inlet	Outlet
AV 400 M	C22 and 1.4571	1/2 NPT 1/2 NPT G 1/2	1/2 NPT E 12 E 12
AV 400 E	C22 C22 1.4571	E 16 E 12 E 12	E 12 E 12 E 12
AV 400 F	C22 C22 1.4571	G 1/2 * G 5/8 * G 1/2 *	E 12 E 12 E 12
AV 400 S	C22 and 1.4571	S 17,2 x 4 S 21,3 x 4 S 21,3 x 4 S 21,3 x 4	E 12 S 21,3 x 4 S 14 x 2,5 E 12

E = compression-type fitting

S = welding connection

* = thread union for flange connection DIN 19207 (for accessories see page 97.4)

AV 320 Shut-Off Valves

Heavy-duty design

Application

For flow-rate measurement instruments (gases, steams and fluids) to shut-off joints of DP-Flow elements.

Construction

With exchangeable head end and spindle thread positioned outside. Valve body forged out of alloyed, heat resistant steel 13CrMo44 (1.7335) and for type AV320 T also out of 10CrMo910 (1.7380).

Technical Details

Nominal pressure: AV 320 B DN 8 (ANSI xxx)
AV 320 T DN 12 (ANSI xxx)

Nominal diameter: up to 500 bar

Temperature: up to 550°C
Depending on operating pressure and Material. The diagram on page 97.4 shows span of application

Spindle: back sealing

Cone: Enrolled, movable

Seat: Exchangeable

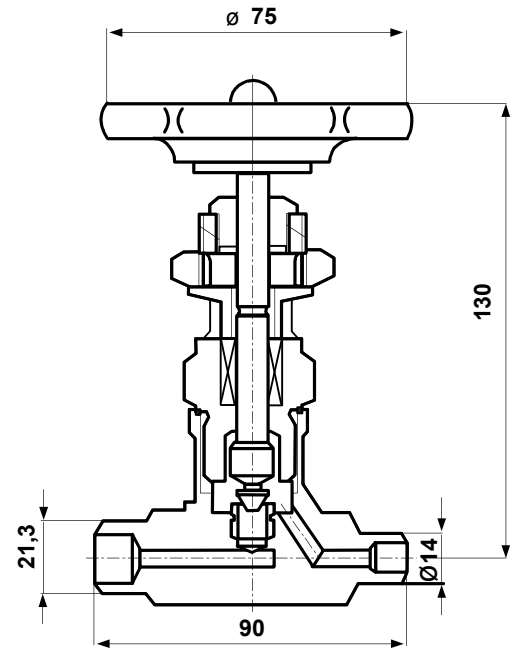
Packing: Superheated steam out of pure graphite

Handwheel: Drawn out of steel panel with recessed square

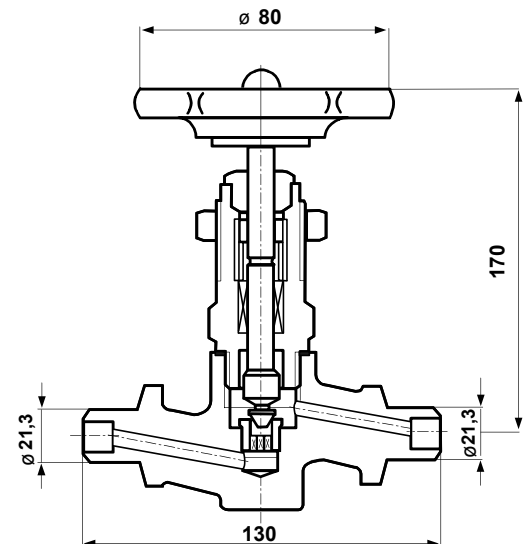
Connections: As standard design according to following table. Additionally it is possible to manufacture according to customer specification and DIN 19208 (weld joint 21,3 x 6,3 and 24 x 7,1).

Type	Material	Inlet	Outlet
AV 320 B	13CrMo44	S 21,3 x 4	S 21,3 x 4
		S 21,3 x 4	S 14 x 2,5
		S 21,3 x 4	E 12
		G 5/8 *	E12
AV 320 T	13CrMo44	S 21,3 x 4	S 21,3 x 4
		S 21,3 x 4	S 14 x 2,5
		S 21,3 x 4	E 12
	10CrMo910	S 21,3 x 4	S 21,3 x 4
		S 21,3 x 4	S 14 x 2,5

E = compression-type fitting
S = welding connection
* = DIN 19207



AV 320 B



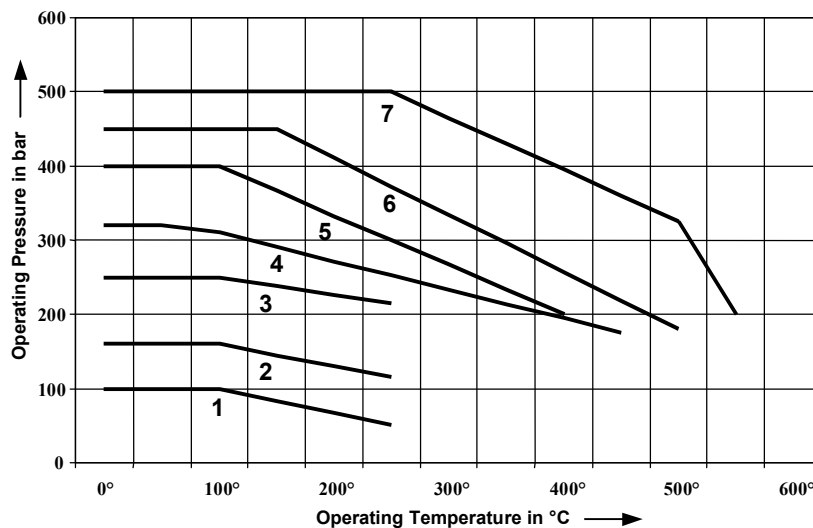
AV 320 T

Span of application for valves and materials

You may take the span of application from following diagram.

The pressure-temperature course is much more determined by forged ring than by the joints. Therefore this diagram is only guiding data.

Curve	Type	Materials	Joint
1	AV 100	C22, 1.4571	E
2	AV 400M	C22, 1.4571	G 1/2
	AV 400F	C22, 1.4571	G 1/2
3	AV 400F	C22	G 5/8
4	AV 320B	13CrMo44	G 5/8
5	AV 400E	C22, 1.4571	E
	AV 400S	C22, 1.4571	S
6	AV 320B	13CrMo44	S
	AV 320T	13CrMo44	S
7	AV 320T	10CrMo910	S



Material Certificates

Material certificates for valve body according to EN 10204 (DIN 50049 3.1B).
For type **AV 320T** consisting of 1.7335 and 1.7380 also with 3.1A (TÜV).

Materials

	Carbon Steel		Alloyed Structural Steel (heatresistant)		Stainless Steel	
Casing	C22.8	1.0460	13CrMo44 and 10CrMo910	1.7335 1.7380	X6CrNiTi17122	1,4571
Spindle	X12CrMoS17	1.4104	X6CrNiTi17122	1,4571	X6CrNiTi17122	1,4571
Cone	X12CrMoS17	1.4104	X6CrNiTi17122	1,4571	X6CrNiTi17122	1,4571
Seat	X12CrMoS17	1.4104	X6CrNiTi17122	1,4571	X6CrNiTi17122	1,4571
compression gland	9S20	1.0711	X10CrNiS189	1.4305	X10CrNiS189	1.4305
coupling nut	9S20	1.0711	X10CrNiS189	1.4305	X10CrNiS189	1.4305
Packing	Pure Graphite	/	Pure Graphite	/	PTFE	/
Handwheel	Moulded	/	Steel Panel	/	Moulded	/

Accessories for Flange Joint according to DIN 19207

For every connection according to DIN 19207 following accessories are necessary and has to be ordered separately:

G 1/2	2 Thread Flanges G 1/2 1 Gasket 17x11,2x1,5 4 Screws M10x45 DIN 931 with nuts	G 5/8	2 Thread Flanges G 5/8 1 Gasket 20,x11,7x1,5 4 Screw bolts M12x70 DIN 2510 with nuts
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The materials of the flanges and screws correspond to the valve type and the application.

Additional Accessories

- Ball valves and transverse valves out of steel, stainless steel and plastics
- Bellow valves out of steel and stainless steel