

Maintenance free stop valve with bellows seal - metallic sealing

ARI-FABA®-Supra I
ARI-FABA®-Supra C
Straight through with flanges

- TA - Luft TÜV-Test-No. 973-10183778
- TRB 801 Annex II No. 45

Cast steel
Forged steel
Stainless steel

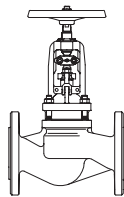


Fig. 146

Page 2-7

ARI-FABA®-Supra I
ARI-FABA®-Supra C
Straight through with butt weld ends

- TA - Luft TÜV-Test-No. 973-10183778
- TRB 801 Annex II No. 45

Forged steel

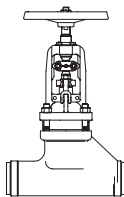


Fig. 140

Page 8-9

ARI-FABA®-Supra I
ARI-FABA®-Supra C
Straight through with butt weld ends

- TA - Luft TÜV-Test-No. 973-10183778
- TRB 801 Annex II No. 45

Cast steel

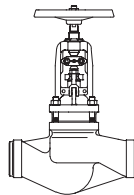


Fig. 140

Page 10-11

ARI-FABA®-Supra I
ARI-FABA®-Supra C
Y-pattern with flanges

- TA - Luft TÜV-Test-No. 973-10183778
- TRB 801 Annex II No. 45

Stainless steel

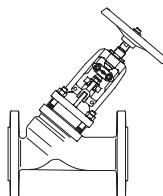


Fig. 169

Page 12-13

ARI-FABA®-Supra I
ARI-FABA®-Supra C
Y-pattern with butt weld ends

- TA - Luft TÜV-Test-No. 973-10183778
- TRB 801 Annex II No. 45

Cast steel
Stainless steel

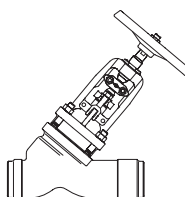


Fig. 166

Page 14-17

ARI-FABA®-Supra I
ARI-FABA®-Supra C
Angle pattern with flanges

- TA - Luft TÜV-Test-No. 973-10183778
- TRB 801 Annex II No. 45

Cast steel

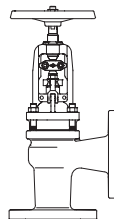


Fig. 147

Page 18-19

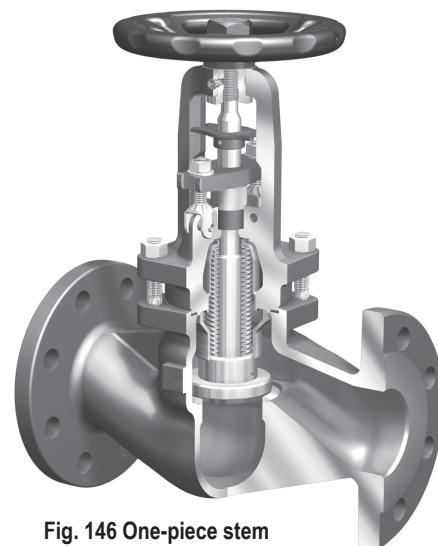


Fig. 146 One-piece stem

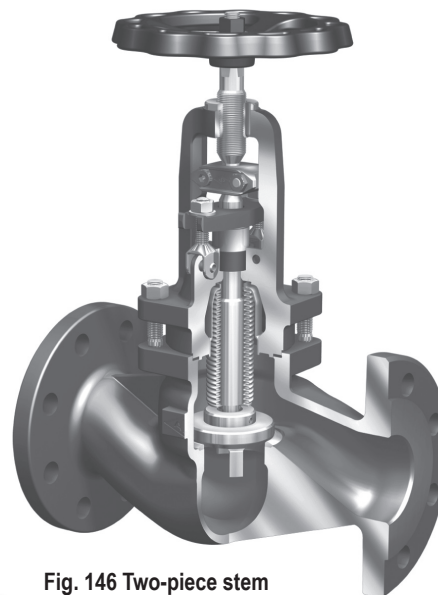


Fig. 146 Two-piece stem

For ANSI versions
refer to data sheet „ARI-FABA®-Plus/Supra ANSI“

Features:

- Double wall bellows seal as standard
- Bellows seal welded to bonnet
- Bellows seal 10.000 load cycles
- Industrial version: Bellows seal shielded
Chemical version: Bellows seal flushed
- Stem back seal
- Yoke gasket, double chambered
- Plug with marginal seat
- Welded seat
- External stem thread
- Actuator retrofitting
- Secondary sealing: gland packing (with bridge)
- Stem with roll hardened thread

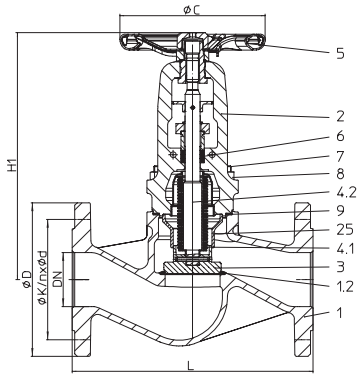
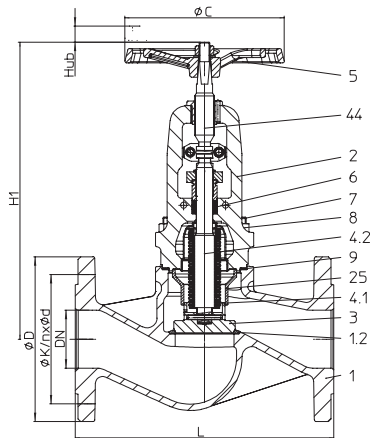
Stop valve - straight through with flanges and bellows seal - Industrial version (Cast steel)

**Fig. 146....111 DN15-150
one-piece stem**

**Fig. 146....112 DN15-150
two-piece stem**

Figure-No.	Nominal pressure	Material	Nominal diameter
34.146....111	PN25	1.0619+N	DN200-400
35.146....111	PN40	1.0619+N	DN15-400
34.146....112	PN25	1.0619+N	DN200-400
35.146....112	PN40	1.0619+N	DN15-400

Test: • TA - Luft TÜV-Test-No. 973-10183778

Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

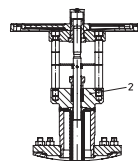
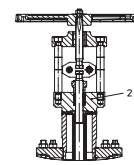
Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)


**Bonnet DN200-400
one-piece stem**

**Bonnet DN200-400
two-piece stem**
Parts

Pos.	Description	Fig. 34. / 35. 146....111 One-piece stem	Fig. 34. / 35. 146....112 Two-piece stem
1	Body	GP240GH+N, 1.0619+N	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	≤DN150: GP240GH+N, 1.0619+N / ≥DN200: P250 GH, 1.0460; P235GH-TC1, 1.0345; P265 GH, 1.0425	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
25	Guide bush	≤DN32: X6CrNiMoTi17 12 2, 1.4571 / ≥DN40: GX5CrNiMo19-11-2, 1.4408	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists / The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
H1 (One-piece stem)	(mm)	225	225	230	230	270	275	300	380	460	500	570	785	940	1025	1210	1270
H1 (Two-piece stem)	(mm)	240	240	240	240	290	295	335	395	505	550	605	810	940	1025	1180	1245
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	520	520	640	640
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520	520	520	640	640
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70	80	90	100
Kvs-value	(m ³ /h)	4,7	6,4	11	15,5	28	42,5	75	105	170	270	405	675	1090	1460	2010	2640
Zeta-value	--	3,7	6,2	5,2	7	5,2	5,5	5,1	5,9	5,5	5,3	4,9	5,6	5,2	6,1	5,9	5,9

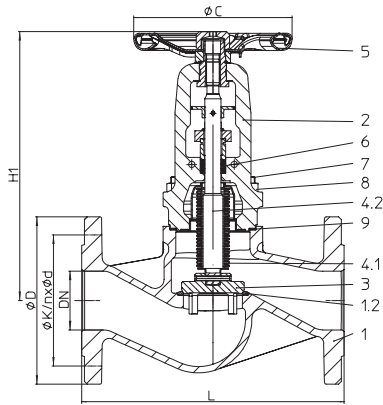
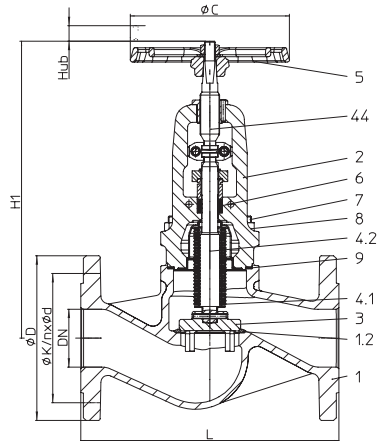
Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Standard-flange dimensions refer to page 25

Face-to-face dimension FTF Series 1 acc. to DIN EN 558

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
34.146	(kg)	--	--	--	--	--	--	--	--	--	--	--	194	296	426	642	894
35.146	(kg)	4,7	5,7	7	8,1	11,6	14,2	21,9	32,3	47,6	70,6	95	245	330	458	693	953

Stop valve - straight through with flanges and bellows seal - Chemical version (Cast steel)

Fig. 146....153 DN15-150 one-piece stem

Fig. 146....154 DN15-150 two-piece stem
Parts

Pos.	Description	Fig. 34. / 35. 146....153 One-piece stem	Fig. 34. / 35. 146....154 Two-piece stem
1	Body	GP240GH+N, 1.0619+N	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	≤DN150: GP240GH+N, 1.0619+N / ≥DN200: P250 GH, 1.0460; P235GH-TC1, 1.0345; P265 GH, 1.0425	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem *	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
H1 (One-piece stem)	(mm)	225	225	230	230	270	275	300	380	460	500	570	785	940	1025	1210	1270
H1 (Two-piece stem)	(mm)	240	240	240	240	290	295	335	395	505	550	605	810	940	1025	1180	1245
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	520	520	640	640
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520	520	520	640	640
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70	80	90	100
Kvs-value	(m³/h)	4,4	6	10	13,3	25,5	38,5	64	90	135	215	325	580	885	1290	1708	2080
Zeta-value	--	4,2	7,1	6,2	9,5	6,3	6,7	7	8,1	8,8	8,4	7,7	7,6	8	7,8	8,3	9,4

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Standard-flange dimensions refer to page 25

Face-to-face dimension FTF Series 1 acc. to DIN EN 558

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
34.146	(kg)	--	--	--	--	--	--	--	--	--	--	--	194	296	426	642	894
35.146	(kg)	4,7	5,7	7	8,1	11,6	14,2	21,9	32,3	47,6	70,6	95	245	330	458	693	953

Figure-No.	Nominal pressure	Material	Nominal diameter
34.146....153	PN25	1.0619+N	DN200-400
35.146....153	PN40	1.0619+N	DN15-400
34.146....154	PN25	1.0619+N	DN200-400
35.146....154	PN40	1.0619+N	DN15-400

Test: • TA - Luft TÜV-Test-No. 973-10183778

V-port plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

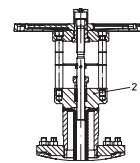
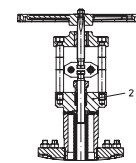
Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)


Bonnet DN200-400 one-piece stem

Bonnet DN200-400 two-piece stem

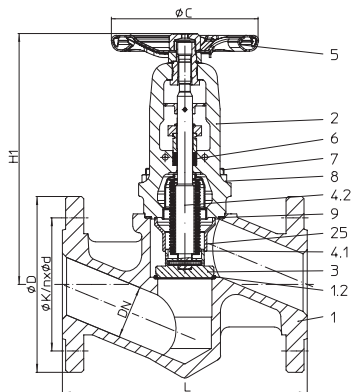
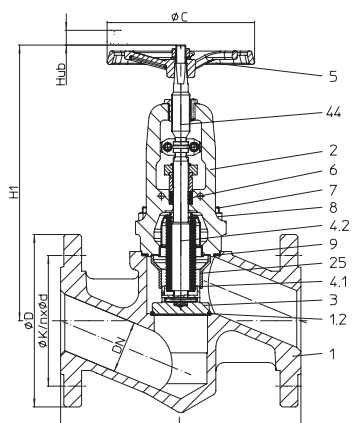
Stop valve - straight through with flanges and bellows seal - Industrial version (Forged steel)

**Fig. 146....111 DN40-50
one-piece stem**

**Fig. 146....112 DN40-50
two-piece stem**

Figure-No.	Nominal pressure	Material	Nominal diameter
45.146....111	PN40	1.0460	DN15-50
45.146....112	PN40	1.0460	DN15-50
DN >50 refer to Fig. 35.146 (1.0619+N)			
Test: • TA - Luft TÜV-Test-No. 973-10183778			
Plug with marginal seat standard			

Selection of possible applications

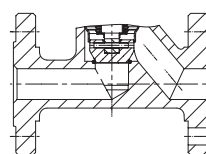
Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)


DN15-32
Parts

Pos.	Description	Fig. 45. 146....111 One-piece stem	Fig. 45. 146....112 Two-piece stem
1	Body	P250 GH, 1.0460	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	GP240GH+N, 1.0619+N	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X20Cr13+QT, 1.4021+QT	
5	Handwheel *	St (cataphoretic coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
25	Guide bush	≤DN32: X6CrNiMoTi17 12 2, 1.4571 / ≥DN40: GX5CrNiMo19-11-2, 1.4408	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50
L	(mm)	130	150	160	180	200	230
H1 (One-piece stem)	(mm)	235	235	245	250	275	275
H1 (Two-piece stem)	(mm)	250	250	255	260	295	295
ØC (One-piece stem)	(mm)	125	125	125	125	150	150
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160
Travel	(mm)	6	6	8	8	13	13
Kvs-value	(m³/h)	3,4	6	9,5	12,5	21	31
Zeta-value	--	7	7,1	6,9	10,7	9,3	10,4

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173 Standard-flange dimensions refer to page 25

Face-to-face dimension FTF Series 1 acc. to DIN EN 558

Weights

Figure-No.	DN	15	20	25	32	40	50
45.146	(kg)	4,4	5,4	6,3	7,8	11	13,5

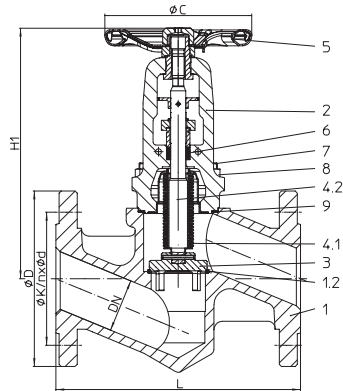
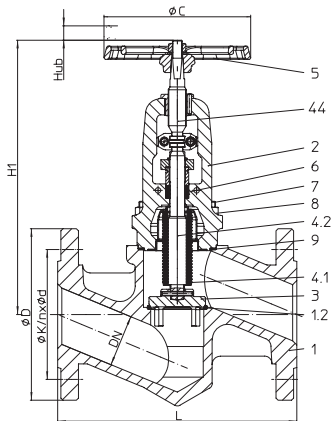
Stop valve - straight through with flanges and bellows seal - Chemical version (Forged steel)

**Fig. 146...153 DN40-50
one-piece stem**

**Fig. 146...154 DN40-50
two-piece stem**

Figure-No.	Nominal pressure	Material	Nominal diameter
45.146...153	PN40	1.0460	DN15-50
45.146...154	PN40	1.0460	DN15-50
DN >50 refer to Fig. 35.146 (1.0619+N)			
Test: • TA - Luft TÜV-Test-No. 973-10183778			
V-port plug with marginal seat standard			

Selection of possible applications

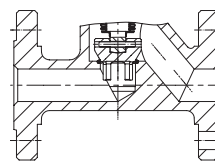
Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)


DN15-32
Parts

Pos.	Description	Fig. 45. 146...153 One-piece stem	Fig. 45. 146...154 Two-piece stem
1	Body	P250 GH, 1.0460	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	GP240GH+N, 1.0619+N	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X20Cr13+QT, 1.4021+QT	
5	Handwheel *	St (cataphoretic coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

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A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50
L	(mm)	130	150	160	180	200	230
H1 (One-piece stem)	(mm)	235	235	245	250	275	275
H1 (Two-piece stem)	(mm)	250	250	255	260	295	295
ØC (One-piece stem)	(mm)	125	125	125	125	150	150
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160
Travel	(mm)	6	6	8	8	13	13
Kvs-value	(m³/h)	3,3	5,8	9,2	11,5	21,5	32
Zeta-value	--	7,4	7,6	7,4	12,7	8,8	9,7

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Standard-flange dimensions refer to page 25

Face-to-face dimension FTF Series 1 acc. to DIN EN 558

Weights

Figure-No.	DN	15	20	25	32	40	50
45.146	(kg)	4,4	5,4	6,3	7,8	11	13,5

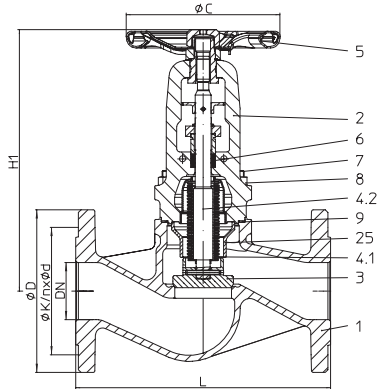
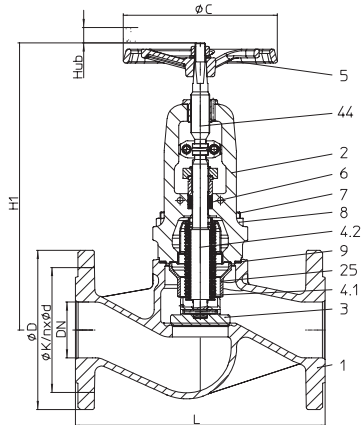
Stop valve - straight through with flanges and bellows seal - Industrial version (Stainless steel)

**Fig. 146....111 DN15-150
one-piece stem**

**Fig. 146....112 DN15-150
two-piece stem**

Figure-No.	Nominal pressure	Material	Nominal diameter
54.146....111	PN25	1.4408	DN200-250
55.146....111	PN40	1.4408	DN15-250
54.146....112	PN25	1.4408	DN200-250
55.146....112	PN40	1.4408	DN15-250

Test: • TA - Luft TÜV-Test-No. 973-10183778

Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

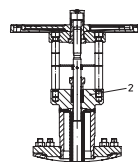
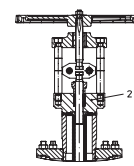
Recycling facilities, Chemical industry, Processing technology, Process water installations, Installations with aggressive media, etc.

(other applications on request)

Selection of possible flow media

Aggressive media, etc.

(other flow media on request)


**Bonnet DN200-400
one-piece stem**

**Bonnet DN200-400
two-piece stem**
Parts

Pos.	Description	Fig. 54. / 55. 146....111 One-piece stem	Fig. 54. / 55. 146....112 Two-piece stem
1	Body	GX5CrNiMo19-11-2, 1.4408	
2	Bonnet	≤DN150: GX5CrNiMo19-11-2, 1.4408 / ≥DN200: X6CrNiMoTi17-12-2, 1.4571	
3	Plug *	X6CrNiMoTi17 12 2, 1.4571 / Stellite 6	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	A4-70	
8	Hexagon nut	A4	
9	Gasket *	Pure graphite (with CrNi-grooved)	
25	Guide bush	≤DN32: X6CrNiMoTi17 12 2, 1.4571 / ≥DN40: GX5CrNiMo19-11-2, 1.4408	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
H1 (One-piece stem)	(mm)	225	225	230	230	270	275	300	380	460	500	570	780	935
H1 (Two-piece stem)	(mm)	240	240	240	240	290	295	335	395	505	550	605	805	935
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	520
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520	520
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70
Kvs-value	(m ³ /h)	4,7	6,4	11	15,5	28	42,5	75	105	170	270	405	675	1090
Zeta-value	--	3,7	6,2	5,2	7	5,2	5,5	5,1	5,9	5,5	5,3	4,9	5,6	5,2

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Standard-flange dimensions refer to page 25

Face-to-face dimension FTF Series 1 acc. to DIN EN 558

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200	250
54.146	(kg)	--	--	--	--	--	--	--	--	--	--	--	213	300
55.146	(kg)	4,9	5,4	7,1	8,1	11,3	14,1	21,8	30	45,5	63,5	78	245	347

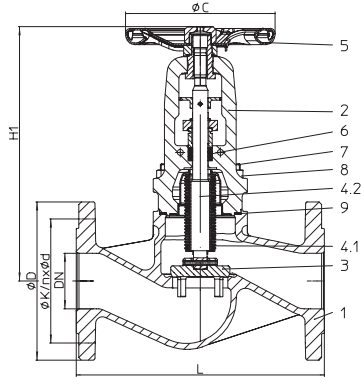
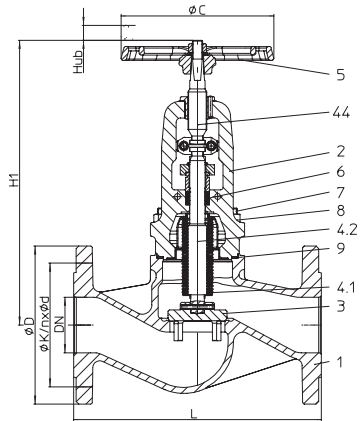
Stop valve - straight through with flanges and bellows seal - Chemical version (Stainless steel)

Fig. 146....153 DN15-150 one-piece stem

Fig. 146....154 DN15-150 two-piece stem

Figure-No.	Nominal pressure	Material	Nominal diameter
54.146....153	PN25	1.4408	DN200-250
55.146....153	PN40	1.4408	DN15-250
54.146....154	PN25	1.4408	DN200-250
55.146....154	PN40	1.4408	DN15-250

Test: • TA - Luft TÜV-Test-No. 973-10183778

V-port plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

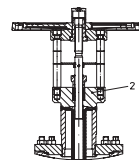
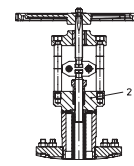
Recycling facilities, Chemical industry, Process pipes, Processing technology, Process water installations, Installations with aggressive media, etc.

(other applications on request)

Selection of possible flow media

Aggressive media, Chemical products, etc.

(other flow media on request)


Bonnet DN200-250 one-piece stem

Bonnet DN200-250 two-piece stem
Parts

Pos.	Description	Fig. 54. / 55. 146....153 One-piece stem	Fig. 54. / 55. 146....154 Two-piece stem
1	Body	GX5CrNiMo19-11-2, 1.4408	
2	Bonnet	≤DN150: GX5CrNiMo19-11-2, 1.4408 / ≥DN200: X6CrNiMoTi17-12-2, 1.4571	
3	Plug *	X6CrNiMoTi17 12 2, 1.4571 / Stellite 6	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	A4-70	
8	Hexagon nut	A4	
9	Gasket *	Pure graphite (with CrNi-grooved)	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600	730
H1 (One-piece stem)	(mm)	225	225	230	230	270	275	300	380	460	500	570	780	935
H1 (Two-piece stem)	(mm)	240	240	240	240	290	295	335	395	505	550	605	805	935
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	520
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520	520
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70
Kvs-value	(m³/h)	4,4	6	10	13,3	25,5	38,5	64	90	135	215	325	580	885
Zeta-value	--	4,2	7,1	6,2	9,5	6,3	6,7	7	8,1	8,8	8,4	7,7	7,6	8

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/DE 2173

Standard-flange dimensions refer to page 25

Face-to-face dimension FTF Series 1 acc. to DIN EN 558

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200	250
54.146	(kg)	--	--	--	--	--	--	--	--	--	--	--	213	300
55.146	(kg)	4,9	5,4	7,1	8,1	11,3	14,1	21,8	30	45,5	63,5	78	245	347

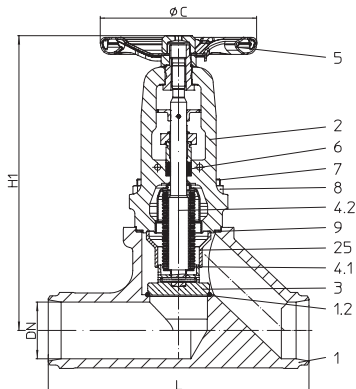
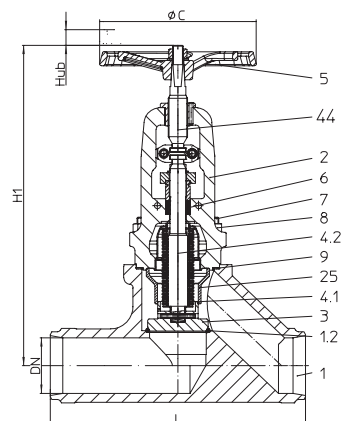
Stop valve - straight through with butt weld ends and bellows seal - Industrial version (Forged steel)

**Fig. 140....111
one-piece stem**

**Fig. 140....112
two-piece stem**

Figure-No.	Nominal pressure	Material	Nominal diameter
45.140....111	PN40	1.0460	DN15-50
45.140....112	PN40	1.0460	DN15-50
DN >50 refer to Fig. 35.040 (1.0619+N)			
Butt weld ends according to DIN EN 12627 - 4 (refer to page 20)			
Test: • TA - Luft TÜV-Test-No. 973-10183778			
Plug with marginal seat standard			

Selection of possible applications

Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)

Parts

Pos.	Description	Fig. 45. 140....111 One-piece stem	Fig. 45. 140....112 Two-piece stem
1	Body	P250 GH, 1.0460	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	GP240GH+N, 1.0619+N	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X20Cr13+QT, 1.4021+QT	
5	Handwheel *	St (cataphoretic coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
25	Guide bush	≤DN32: X6CrNiMoTi17 12 2, 1.4571 / ≥DN40: GX5CrNiMo19-11-2, 1.4408	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50
L	(mm)	130	150	160	180	200	230
H1 (One-piece stem)	(mm)	235	235	245	250	295	300
H1 (Two-piece stem)	(mm)	250	250	255	260	315	320
ØC (One-piece stem)	(mm)	125	125	125	125	150	150
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160
Travel	(mm)	6	6	8	8	13	13
Kvs-value	(m³/h)	3,4	6	9,5	12,5	18,5	28
Zeta-value	--	7	7,1	6,9	10,7	11,9	12,7

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Face-to-face dimension ETE series 1 according to DIN EN 12982

Weights

Figure-No.	DN	15	20	25	32	40	50
45.140	(kg)	3,2	3,4	4,6	5	6,8	9,7

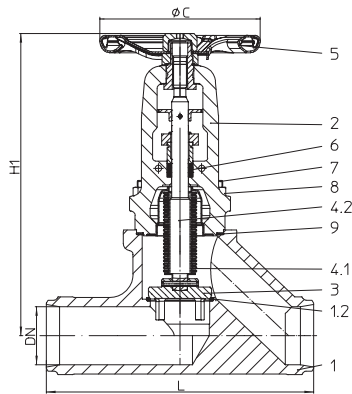
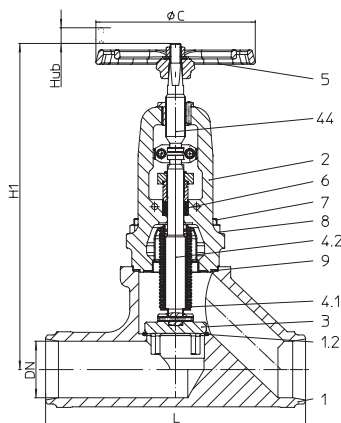
Stop valve - straight through with butt weld ends and bellows seal - Chemical version (Forged steel)

**Fig. 140....153
one-piece stem**

**Fig. 140....154
two-piece stem**

Figure-No.	Nominal pressure	Material	Nominal diameter
45.140....153	PN40	1.0460	DN15-50
45.140....154	PN40	1.0460	DN15-50
DN >50 refer to Fig. 35.040 (1.0619+N)			
Butt weld ends according to DIN EN 12627 - 4 (refer to page 20)			
Test: • TA - Luft TÜV-Test-No. 973-10183778			
V-port plug with marginal seat standard			

Selection of possible applications

Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)

Parts

Pos.	Description	Fig. 45. 140....153 One-piece stem	Fig. 45. 140....154 Two-piece stem
1	Body	P250 GH, 1.0460	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	GP240GH+N, 1.0619+N	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X20Cr13+QT, 1.4021+QT	
5	Handwheel *	St (cataphoretic coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50
L	(mm)	130	150	160	180	200	230
H1 (One-piece stem)	(mm)	235	235	245	250	295	300
H1 (Two-piece stem)	(mm)	250	250	255	260	315	320
ØC (One-piece stem)	(mm)	125	125	125	125	150	150
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160
Travel	(mm)	6	6	8	8	13	13
Kvs-value	(m³/h)	3,3	5,8	9,2	11,5	19	29
Zeta-value	--	7,4	7,6	7,4	12,7	11,3	11,9

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Face-to-face dimension ETE series 1 according to DIN EN 12982

Weights

Figure-No.	DN	15	20	25	32	40	50
45.140	(kg)	3,2	3,4	4,6	5	6,8	9,7

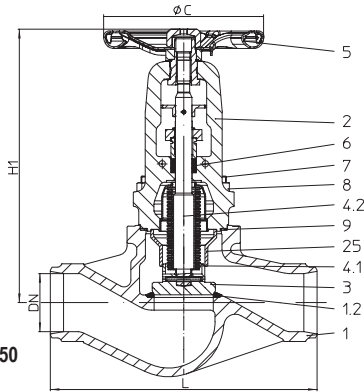
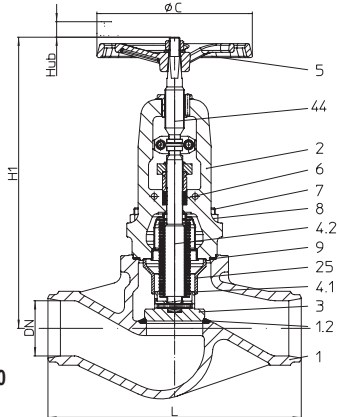
Stop valve - straight through with butt weld ends and bellows seal - Industrial version (Cast steel)

Fig. 140....111 DN65-150 one-piece stem

Fig. 140....112 DN65-150 two-piece stem

Figure-No.	Nominal pressure	Material	Nominal diameter
34.140....111	PN25	1.0619+N	DN200-300
35.140....111	PN40	1.0619+N	DN65-250
34.140....112	PN25	1.0619+N	DN200-300
35.140....112	PN40	1.0619+N	DN65-250

Butt weld ends according to DIN EN 12627 - 4 (refer to page 20)

alternative: DN 65-200 with shoed ends of P235GH

Test: • TA - Luft TÜV-Test-No. 973-10183778

Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

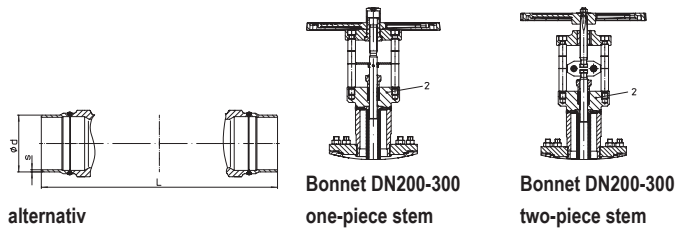
Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)


Parts

Pos.	Description	Fig. 34. / 35.140....111 One-piece stem	Fig. 34. / 35.140....112 Two-piece stem
1	Body	GP240GH+N, 1.0619+N	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	≤DN150: GP240GH+N, 1.0619+N / ≥DN200: P250 GH, 1.0460; P235GH-TC1, 1.0345; P265 GH, 1.0425	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X20Cr13+QT, 1.4021+QT	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
25	Guide bush	≤DN32: X6CrNiMoTi17 12 2, 1.4571 / ≥DN40: GX5CrNiMo19-11-2, 1.4408	
37	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	65	80	100	125	150	200	250	300
L	(mm)	290	310	350	400	480	600	730	850
H1 (One-piece stem)	(mm)	300	380	460	500	570	785	940	1025
H1 (Two-piece stem)	(mm)	335	390	505	550	605	810	940	1025
ØC (One-piece stem)	(mm)	175	225	300	300	400	520	520	520
ØC (Two-piece stem)	(mm)	180	225	300	300	400	520	520	520
Travel	(mm)	16	20	25	32	40	50	70	80
Kvs-value	(m³/h)	75	105	170	270	405	675	1090	1460
Zeta-value	--	5,1	5,9	5,5	5,3	4,9	5,6	5,2	6,1

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Face-to-face dimension ETE series 1 according to DIN EN 12982

Weights

Figure-No.	DN	65	80	100	125	150	200	250	300
34. / 35.140	(kg)	14,8	22	36,2	50	63	186	270	409

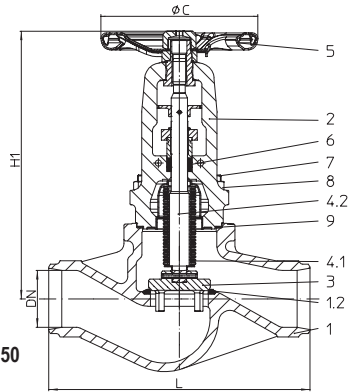
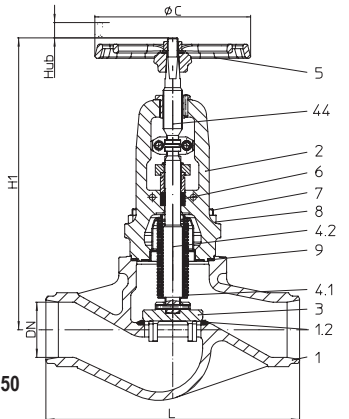
Stop valve - straight through with butt weld ends and bellows seal - Chemical version (Cast steel)

Fig. 140....153 DN65-150 one-piece stem

Fig. 140....154 DN65-150 two-piece stem

Figure-No.	Nominal pressure	Material	Nominal diameter
34.140....153	PN25	1.0619+N	DN200-300
35.140....153	PN40	1.0619+N	DN65-250
34.140....154	PN25	1.0619+N	DN200-300
35.140....154	PN40	1.0619+N	DN65-250
Butt weld ends according to DIN EN 12627 - 4 (refer to page 20) alternative: DN 65-200 with shoed ends of P235GH			
Test: • TA - Luft TÜV-Test-No. 973-10183778			
V-port plug with marginal seat standard			
At high differential pressures a balancing plug is necessary! (refer to page 21)			

Selection of possible applications

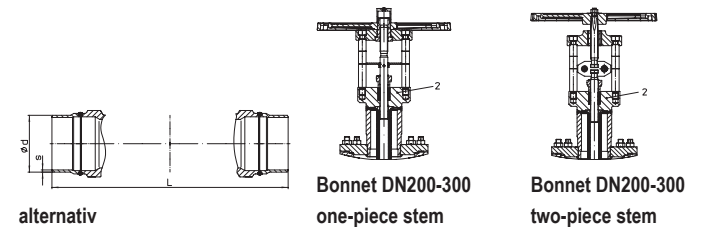
Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)


Parts

Pos.	Description	Fig. 34. / 35.140....153 One-piece stem	Fig. 34. / 35.140....154 Two-piece stem
1	Body	GP240GH+N, 1.0619+N	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	≤DN150: GP240GH+N, 1.0619+N / ≥DN200: P250 GH, 1.0460; P235GH-TC1, 1.0345; P265 GH, 1.0425	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X20Cr13+QT, 1.4021+QT	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	65	80	100	125	150	200	250	300
L	(mm)	290	310	350	400	480	600	730	850
H1 (One-piece stem)	(mm)	300	380	460	500	570	785	940	1025
H1 (Two-piece stem)	(mm)	335	390	505	550	605	810	940	1025
ØC (One-piece stem)	(mm)	175	225	300	300	400	520	520	520
ØC (Two-piece stem)	(mm)	180	225	300	300	400	520	520	520
Travel	(mm)	16	20	25	32	40	50	70	80
Kvs-value	(m³/h)	64	90	135	215	325	580	885	1290
Zeta-value	--	7	8,1	8,8	8,4	7,7	7,6	8	7,8

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Face-to-face dimension ETE series 1 according to DIN EN 12982

Weights

Figure-No.	DN	65	80	100	125	150	200	250	300
34. / 35.140	(kg)	14,8	22	36,2	50	63	186	270	409

Stop valve - Y-pattern with flanges and bellows seal - Industrial version (Stainless steel)

Figure-No.	Nominal pressure	Material	Nominal diameter
54.169....111	PN25	1.4408	DN15-200
55.169....111	PN40	1.4408	DN15-150
54.169....112	PN25	1.4408	DN15-200
55.169....112	PN40	1.4408	DN15-150

Test: • TA - Luft TÜV-Test-No. 973-10183778

Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

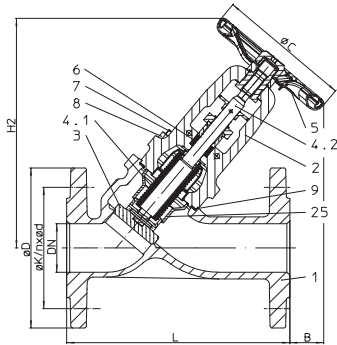
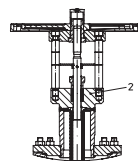
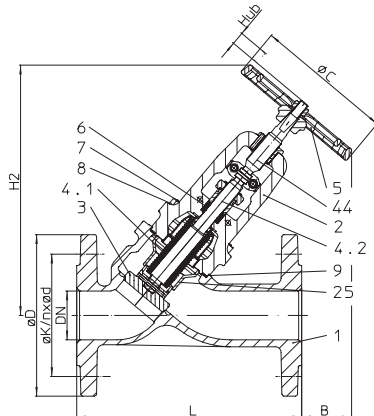
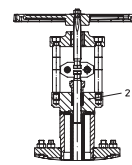
Recycling facilities, Chemical industry, Processing technology, Process water installations, Installations with aggressive media, etc.

(other applications on request)

Selection of possible flow media

Aggressive media, etc.

(other flow media on request)

Fig. 169....111 DN15-150
one-piece stem

Fig. 169....112 DN15-150
two-piece stem

Bonnet DN200
one-piece stem

Bonnet DN200
two-piece stem
Parts

Pos.	Description	Fig. 54. / 55.169....111 One-piece stem	Fig. 54. / 55.169....112 Two-piece stem
1	Body	GX5CrNiMo19-11-2, 1.4408	
2	Bonnet	≤DN150: GX5CrNiMo19-11-2, 1.4408 / ≥DN200: X6CrNiMoTi17-12-2, 1.4571	
3	Plug *	X6CrNiMoTi17 12 2, 1.4571 / Stellite 6	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	A4-70	
8	Hexagon nut	A4	
9	Gasket *	Pure graphite (with CrNi-grooved)	
25	Guide bush	≤DN32: X6CrNiMoTi17 12 2, 1.4571 / ≥DN40: GX5CrNiMo19-11-2, 1.4408	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists / The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600
H2 (One-piece stem)	(mm)	210	210	220	220	270	270	310	385	455	500	590	795
H2 (Two-piece stem)	(mm)	225	225	230	230	285	285	365	400	490	535	615	840
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520
B (One-piece stem)	(mm)	110	85	85	70	95	65	50	125	185	170	180	255
B (Two-piece stem)	(mm)	120	95	90	75	110	80	75	135	210	200	205	590
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50
Kvs-value	(m³/h)	6	9	14	19	32,5	48	83	119	190	300	450	745
Zeta-value	--	2,2	3,2	3,2	4,6	3,9	4,3	4,1	4,6	4,4	4,3	4	4,6

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Standard-flange dimensions refer to page 25

Face-to-face dimension FTF Series 1 acc. to DIN EN 558

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200
52. / 54.169	(kg)	4,6	5,1	6,2	7,3	9,5	13,2	18,8	26,8	43,7	53,8	69	206

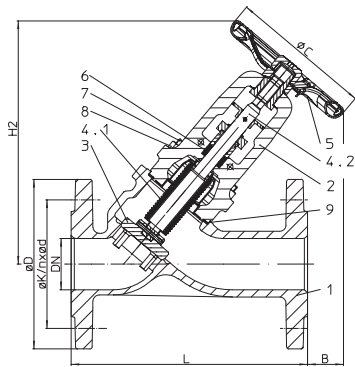
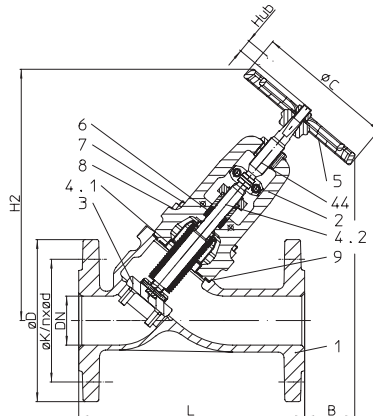
Stop valve - Y-pattern with flanges and bellows seal - Chemical version (Stainless steel)

Fig. 169....153 DN15-150 one-piece stem

Fig. 169....154 DN15-150 two-piece stem

Figure-No.	Nominal pressure	Material	Nominal diameter
54.169....153	PN25	1.4408	DN15-200
55.169....153	PN40	1.4408	DN15-150
54.169....154	PN25	1.4408	DN15-200
55.169....154	PN40	1.4408	DN15-150

Test: • TA - Luft TÜV-Test-No. 973-10183778

V-port plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)
Selection of possible applications

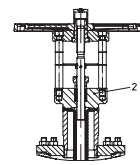
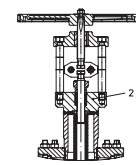
Recycling facilities, Chemical industry, Process pipes, Processing technology, Process water installations, Installations with aggressive media, etc.

(other applications on request)

Selection of possible flow media

Aggressive media, Chemical products, etc.

(other flow media on request)


Bonnet DN200 one-piece stem

Bonnet DN200 two-piece stem
Parts

Pos.	Description	Fig. 54. / 55.169....153 One-piece stem	Fig. 54. / 55.169....154 Two-piece stem
1	Body	GX5CrNiMo19-11-2, 1.4408	
2	Bonnet	≤DN150: GX5CrNiMo19-11-2, 1.4408 / ≥DN200: X6CrNiMoTi17-12-2, 1.4571	
3	Plug *	X6CrNiMoTi17 12 2, 1.4571 / Stellite 6	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	A4-70	
8	Hexagon nut	A4	
9	Gasket *	Pure graphite (with CrNi-grooved)	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600
H2 (One-piece stem)	(mm)	210	210	220	220	270	270	310	385	455	500	590	795
H2 (Two-piece stem)	(mm)	225	225	230	230	285	285	365	400	490	535	615	840
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520
B (One-piece stem)	(mm)	110	85	85	70	95	65	50	125	185	170	180	255
B (Two-piece stem)	(mm)	120	95	90	75	110	80	75	135	210	200	205	590
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50
Kvs-value	(m³/h)	5,5	8	12,5	17	28	42	72	100	150	239	360	595
Zeta-value	--	2,7	4	4	5,8	5,2	5,7	5,5	6,5	7,1	6,8	6,2	7,2

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Standard-flange dimensions refer to page 25

Face-to-face dimension FTF Series 1 acc. to DIN EN 558

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200
52. / 54.169	(kg)	4,6	5,1	6,2	7,3	9,5	13,2	18,8	26,8	43,7	53,8	69	206

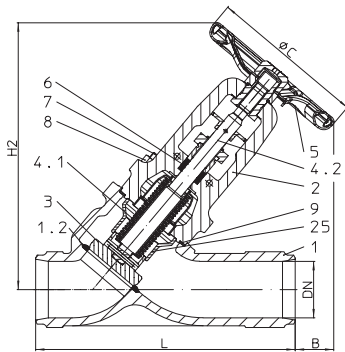
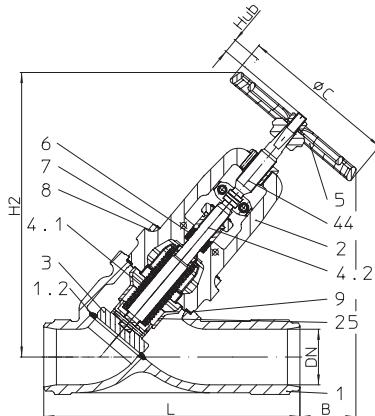
Stop valve - Y-pattern with butt weld ends and bellows seal - Industrial version (Cast steel)

Fig. 166....111 DN15-150
one-piece stem

Fig. 166....112 DN15-150
two-piece stem

Figure-No.	Nominal pressure	Material	Nominal diameter
34.166....111	PN25	1.0619+N	DN200-300
35.166....111	PN40	1.0619+N	DN15-250
34.166....112	PN25	1.0619+N	DN200-300
35.166....112	PN40	1.0619+N	DN15-250

Butt weld ends according to DIN EN 12627 - 4 (refer to page 20)

Test: • TA - Luft TÜV-Test-No. 973-10183778

Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

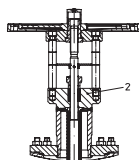
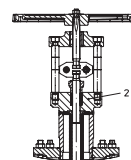
Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)


Bonnet DN200-300
one-piece stem

Bonnet DN200-300
two-piece stem
Parts

Pos.	Description	Fig. 34. / 35.166....111 One-piece stem	Fig. 34. / 35.166....112 Two-piece stem
1	Body	GP240GH+N, 1.0619+N	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	≤DN150: GP240GH+N, 1.0619+N / ≥DN200: P250 GH, 1.0460; P235GH-TC1, 1.0345; P265 GH, 1.0425	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
25	Guide bush	≤DN32: X6CrNiMoTi17 12 2, 1.4571 / ≥DN40: GX5CrNiMo19-11-2, 1.4408	
37	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists / The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600	730	850
H2 (One-piece stem)	(mm)	210	210	220	220	270	270	310	385	455	500	590	795	905	990
H2 (Two-piece stem)	(mm)	225	225	230	230	285	285	365	400	490	535	615	840	950	1035
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	520	520
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520	520	520
B (One-piece stem)	(mm)	110	85	85	70	95	65	50	125	185	170	180	255	235	205
B (Two-piece stem)	(mm)	120	95	90	75	110	80	75	135	210	200	205	290	270	240
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70	80
Kvs-value	(m³/h)	6	9	14	19	32,5	48	83	119	190	300	450	745	1200	1610
Zeta-value	--	2,2	3,2	3,2	4,6	3,9	4,3	4,1	4,6	4,4	4,3	4	4,6	4,3	5

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Face-to-face dimension ETE series 1 according to DIN EN 12982

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
34. / 35.166	(kg)	3,4	3,6	4,2	4,4	5,5	8,8	11,8	16,5	42,5	52,5	69	164	257	349

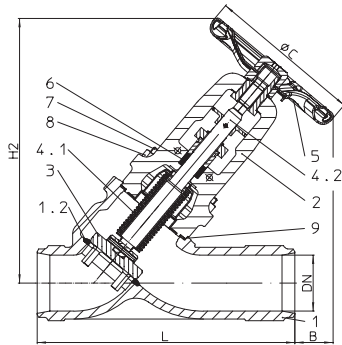
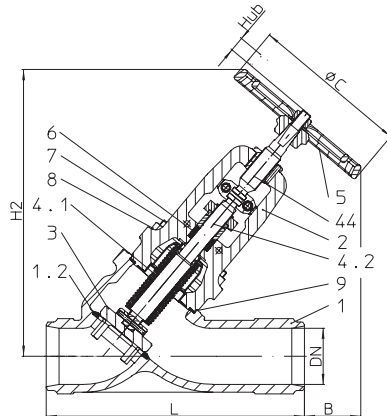
Stop valve - Y-pattern with butt weld ends and bellows seal - Chemical version (Cast steel)

Fig. 166....153 DN15-150 one-piece stem

Fig. 166....154 DN15-150 two-piece stem

Figure-No.	Nominal pressure	Material	Nominal diameter
34.166....153	PN25	1.0619+N	DN200-300
35.166....153	PN40	1.0619+N	DN15-250
34.166....154	PN25	1.0619+N	DN200-300
35.166....154	PN40	1.0619+N	DN15-250

Butt weld ends according to DIN EN 12627 - 4 (refer to page 20)

Test: • TA - Luft TÜV-Test-No. 973-10183778

V-port plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

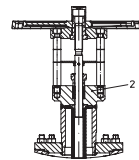
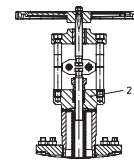
Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)


Bonnet DN200-300 one-piece stem

Bonnet DN200-300 two-piece stem
Parts

Pos.	Description	Fig. 34. / 35.166....153 One-piece stem	Fig. 34. / 35.166....154 Two-piece stem
1	Body	GP240GH+N, 1.0619+N	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	≤DN150: GP240GH+N, 1.0619+N / ≥DN200: P250 GH, 1.0460; P235GH-TC1, 1.0345; P265 GH, 1.0425	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600	730	850
H2 (One-piece stem)	(mm)	210	210	220	220	270	270	310	385	455	500	590	795	905	990
H2 (Two-piece stem)	(mm)	225	225	230	230	285	285	365	400	490	535	615	840	950	1035
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	520	520
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520	520	520
B (One-piece stem)	(mm)	110	85	85	70	95	65	50	125	185	170	180	255	235	205
B (Two-piece stem)	(mm)	120	95	90	75	110	80	75	135	210	200	205	290	270	240
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70	80
Kvs-value	(m³/h)	5,5	8	12,5	17	28	42	72	100	150	239	360	595	960	1280
Zeta-value	--	2,7	4	4	5,8	5,2	5,7	5,5	6,5	7,1	6,8	6,2	7,2	6,8	7,9

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Face-to-face dimension ETE series 1 according to DIN EN 12982

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
34. / 35.166	(kg)	3,4	3,6	4,2	4,4	5,5	8,8	11,8	16,5	42,5	52,5	69	in preparation		

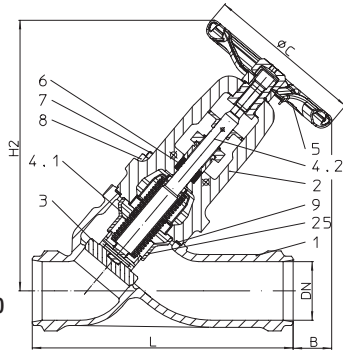
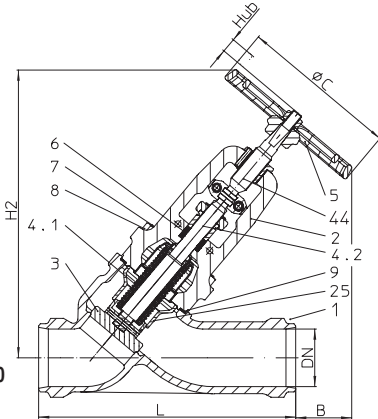
Stop valve - Y-pattern with butt weld ends and bellows seal - Industrial version (Stainless steel)

Fig. 166....111 DN15-150 one-piece stem

Fig. 166....112 DN15-150 two-piece stem

Figure-No.	Nominal pressure	Material	Nominal diameter
54.166....111	PN25	1.4581	DN200
55.166....111	PN40	1.4581	DN15-150
54.166....112	PN25	1.4581	DN200
55.166....112	PN40	1.4581	DN15-150

Butt weld ends according to DIN EN 12627 - 4 (refer to page 20)

Test: • TA - Luft TÜV-Test-No. 973-10183778

Plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

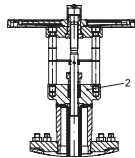
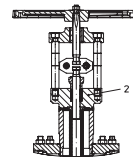
Recycling facilities, Chemical industry, Processing technology, Process water installations, Installations with aggressive media, etc.

(other applications on request)

Selection of possible flow media

Aggressive media, etc.

(other flow media on request)


Bonnet DN200 one-piece stem

Bonnet DN200 two-piece stem
Parts

Pos.	Description	Fig. 54. / 55.166....111 One-piece stem	Fig. 54. / 55.166....112 Two-piece stem
1	Body	GX5CrNiMoN19-11-2, 1.4581	
2	Bonnet	≤DN150: GX5CrNiMo19-11-2, 1.4408 / ≥DN200: X6CrNiMoTi17-12-2, 1.4571	
3	Plug *	X6CrNiMoTi17 12 2, 1.4571 / Stellite 6	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	A4-70	
8	Hexagon nut	A4	
9	Gasket *	Pure graphite (with CrNi-grooved)	
25	Guide bush	≤DN32: X6CrNiMoTi17 12 2, 1.4571 / ≥DN40: GX5CrNiMo19-11-2, 1.4408	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600
H2 (One-piece stem)	(mm)	210	210	220	220	270	270	310	385	455	500	590	795
H2 (Two-piece stem)	(mm)	225	225	230	230	285	285	365	400	490	535	615	840
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520
B (One-piece stem)	(mm)	110	85	85	70	95	65	50	125	185	170	180	255
B (Two-piece stem)	(mm)	120	95	90	75	110	80	75	135	210	200	205	290
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50
Kvs-value	(m³/h)	6	9	14	19	32,5	48	83	119	190	300	450	745
Zeta-value	--	2,2	3,2	3,2	4,6	3,9	4,3	4,1	4,6	4,4	4,3	4	4,6

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Face-to-face dimension ETE series 1 according to DIN EN 12982

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200
54. / 55.166	(kg)	3,8	4,2	4,8	5,6	7,8	10	12,8	18,9	45	55,3	73	183

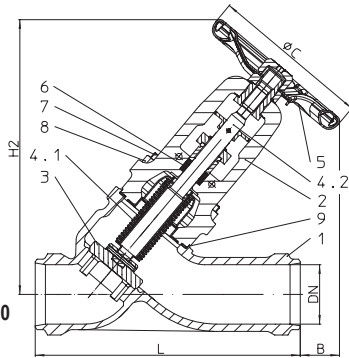
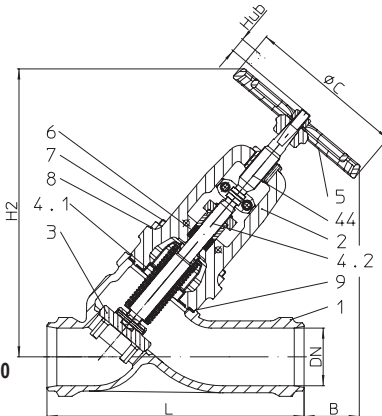
Stop valve - Y-pattern with butt weld ends and bellows seal - Chemical version (Stainless steel)

Fig. 166....153 DN15-150 one-piece stem

Fig. 166....154 DN15-150 two-piece stem

Figure-No.	Nominal pressure	Material	Nominal diameter
54.166....153	PN25	1.4581	DN200
55.166....153	PN40	1.4581	DN15-150
54.166....154	PN25	1.4581	DN200
55.166....154	PN40	1.4581	DN15-150

Butt weld ends according to DIN EN 12627 - 4 (refer to page 20)

Test: • TA - Luft TÜV-Test-No. 973-10183778

V-port plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

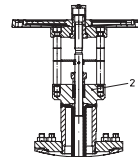
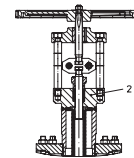
Recycling facilities, Chemical industry, Process pipes, Processing technology, Process water installations, Installations with aggressive media, etc.

(other applications on request)

Selection of possible flow media

Aggressive media, Chemical products, etc.

(other flow media on request)


Bonnet DN200 one-piece stem

Bonnet DN200 two-piece stem
Parts

Pos.	Description	Fig. 54. / 55.166....153 One-piece stem	Fig. 54. / 55.166....154 Two-piece stem
1	Body	GX5CrNiMoN19-11-2, 1.4581	
2	Bonnet	≤DN150: GX5CrNiMo19-11-2, 1.4408 / ≥DN200: X6CrNiMoTi17-12-2, 1.4571	
3	Plug *	X6CrNiMoTi17 12 2, 1.4571 / Stellite 6	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	A4-70	
8	Hexagon nut	A4	
9	Gasket *	Pure graphite (with CrNi-grooved)	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600
H2 (One-piece stem)	(mm)	210	210	220	220	270	270	310	385	455	500	590	795
H2 (Two-piece stem)	(mm)	225	225	230	230	285	285	365	400	490	535	615	840
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520
B (One-piece stem)	(mm)	110	85	85	70	95	65	50	125	185	170	180	255
B (Two-piece stem)	(mm)	120	95	90	75	110	80	75	135	210	200	205	290
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50
Kvs-value	(m³/h)	5,5	8	12,5	17	28	42	72	100	150	239	360	595
Zeta-value	--	2,7	4	4	5,8	5,2	5,7	5,5	6,5	7,1	6,8	6,2	7,2

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Face-to-face dimension ETE series 1 according to DIN EN 12982

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200
54. / 55.166	(kg)	3,8	4,2	4,8	5,6	7,8	10	12,8	18,9	45	55,3	73	183

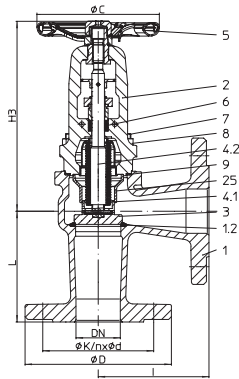
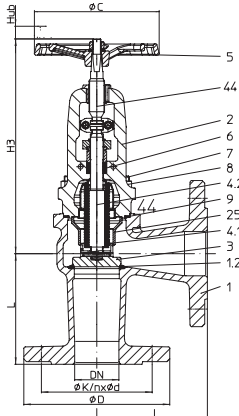
Stop valve - angle pattern with flanges and bellows seal - Industrial version (Cast steel)

**Fig. 147....111 DN15-150
one-piece stem**

**Fig. 147....112 DN15-150
two-piece stem**

Figure-No.	Nominal pressure	Material	Nominal diameter
34.147....111	PN25	1.0619+N	DN200-300
35.147....111	PN40	1.0619+N	DN15-150
34.147....112	PN25	1.0619+N	DN200-300
35.147....112	PN40	1.0619+N	DN15-150

Test: • TA - Luft TÜV-Test-No. 973-10183778
 Plug with marginal seat standard
At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

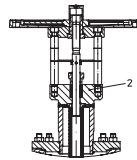
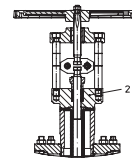
Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)


**Bonnet DN200-300
one-piece stem**

**Bonnet DN200-300
two-piece stem**
Parts

Pos.	Description	Fig. 34. / 35.147....111 One-piece stem	Fig. 34. / 35.147....112 Two-piece stem
1	Body	GP240GH+N, 1.0619+N	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	≤DN150: GP240GH+N, 1.0619+N / ≥DN200: P250 GH, 1.0460; P235GH-TC1, 1.0345; P265 GH, 1.0425	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
25	Guide bush	≤DN32: X6CrNiMoTi17 12 2, 1.4571 / ≥DN40: GX5CrNiMo19-11-2, 1.4408	
37	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
I	(mm)	90	95	100	105	115	125	145	155	175	200	225	275	325	375
H3 (One-piece stem)	(mm)	210	210	215	215	255	255	275	350	420	450	510	720	835	915
H3 (Two-piece stem)	(mm)	225	225	225	225	275	275	310	365	465	500	545	745	835	915
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	520	520
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520	520	520
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70	80
Kvs-value	(m³/h)	6	9	14	19	33	49	85	129	220	350	530	760	1225	1645
Zeta-value	--	2,2	3,2	3,2	4,6	3,8	4,2	3,9	3,9	3,3	3,2	2,9	4,4	4,2	4,8

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Standard-flange dimensions refer to page 25

Face-to-face dimension CTF Series 8 acc. to DIN EN 558

Weights

Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
34. / 35.147	(kg)	5,2	7	7,5	8,3	11,1	14,2	20,3	27	46,5	59	67	180	270	347

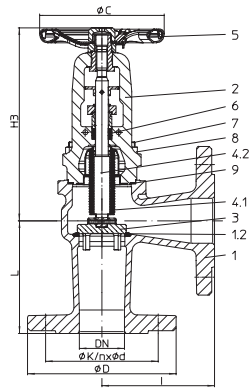
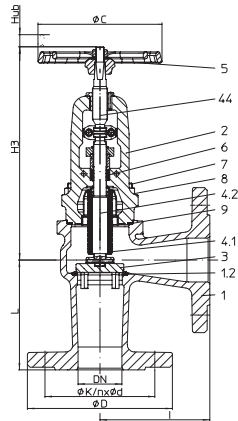
Stop valve - angle pattern with flanges and bellows seal - Chemical version (Cast steel)

Fig. 147....153 DN15-150 one-piece stem

Fig. 147....154 DN15-150 two-piece stem

Figure-No.	Nominal pressure	Material	Nominal diameter
34.147....153	PN25	1.0619+N	DN200-300
35.147....153	PN40	1.0619+N	DN15-150
34.147....154	PN25	1.0619+N	DN200-300
35.147....154	PN40	1.0619+N	DN15-150

Test: • TA - Luft TÜV-Test-No. 973-10183778

V-port plug with marginal seat standard

At high differential pressures a balancing plug is necessary! (refer to page 21)

Selection of possible applications

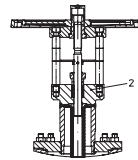
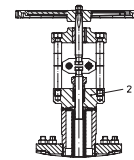
Industry, Power plant, Flue gas purification plant, Processing technology, Gas supply, Vapour facilities, Recycling facilities, Vacuum plant, Thermaloil-systems, General plant manufacturing, etc.

(other applications on request)

Selection of possible flow media

Steam, Gases, Hot water, Heat transfer oil, Ammonia, etc.

(other flow media on request)


Bonnet DN200 one-piece stem

Bonnet DN200 two-piece stem
Parts

Pos.	Description	Fig. 34. / 35.147....153 One-piece stem	Fig. 34. / 35.147....154 Two-piece stem
1	Body	GP240GH+N, 1.0619+N	
1.2	Seat	G19 9 NbSi, 1.4551	
2	Bonnet	≤DN150: GP240GH+N, 1.0619+N / ≥DN200: P250 GH, 1.0460; P235GH-TC1, 1.0345; P265 GH, 1.0425	
3	Plug *	X20Cr13+QT, 1.4021+QT (hardened)	
4.1	Bellows seal	X6CrNiMoTi17 12 2, 1.4571	
4.2	Stem	X6CrNiMoTi17 12 2, 1.4571	
5	Handwheel *	≤DN125: St (cataphoretic coating) / ≥DN150: EN-GJS-400-15, EN-JS1030 (epoxy-coating)	EN-GJS-400-15, EN-JS1030 (epoxy-coating)
6	Packing ring	Pure graphite	
7	Stud	25CrMo4, 1.7218	
8	Hexagon nut	C35E, 1.1181	
9	Gasket *	Pure graphite (with CrNi-grooved)	
44	Stem, top	--	X39CrMo17-1+QT, 1.4122+QT

* Spare part

Information / restriction of technical rules need to be observed!

Operating instructions can be ordered by phone +49 (0)5207 / 994-0 or fax +49 (0)5207 / 994-158 or -159.

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

Dimensions

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
l	(mm)	90	95	100	105	115	125	145	155	175	200	225	275	325	375
H3 (One-piece stem)	(mm)	210	210	215	215	255	255	275	350	420	450	510	720	835	915
H3 (Two-piece stem)	(mm)	225	225	225	225	275	275	310	365	465	500	545	745	835	915
ØC (One-piece stem)	(mm)	125	125	125	125	150	150	175	225	300	300	400	520	520	520
ØC (Two-piece stem)	(mm)	140	140	140	140	160	160	180	225	300	300	400	520	520	520
Travel	(mm)	6	6	8	8	13	13	16	20	25	32	40	50	70	80
Kvs-value	(m³/h)	5,5	8	12,5	17	28	42	80	100	155	245	370	530	850	1140
Zeta-value	--	2,7	4	4	5,8	5,2	5,7	4,5	6,5	6,6	6,5	5,9	9,1	8,6	10

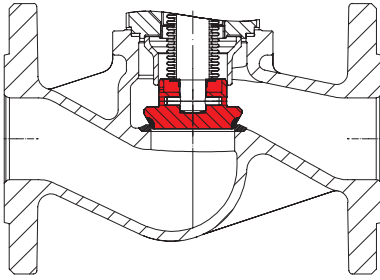
Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Standard-flange dimensions refer to page 25

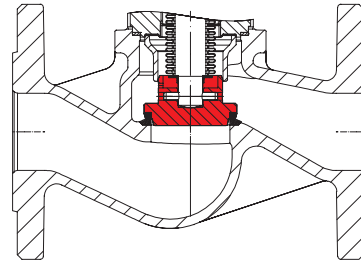
Face-to-face dimension CTF Series 8 acc. to DIN EN 558

Weights

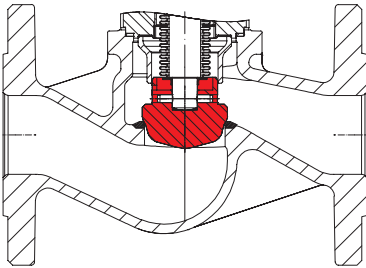
Figure-No.	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300
34. / 35.147	(kg)	5,2	7	7,5	8,3	11,1	14,2	20,3	27	46,5	59	67	180	270	347



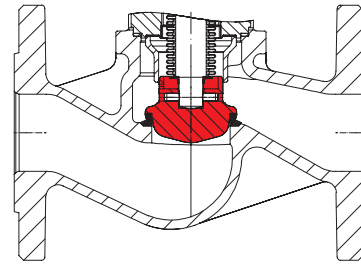
Isolation plug with marginal seat, stellited



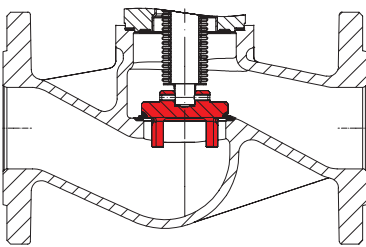
Plug with soft seal
Max. operating temperature 200°C at PTFE + 25% carbon



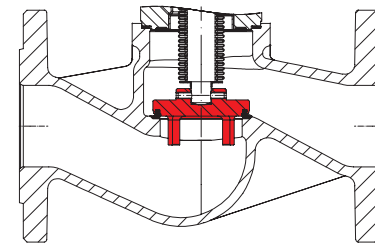
Regulating plug with marginal seat



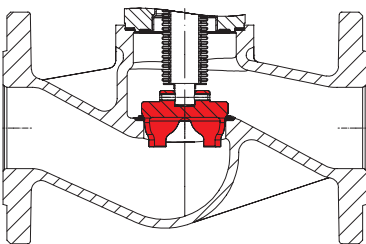
Regulating plug with soft seal
Max. operating temperature 200°C at PTFE + 25% carbon



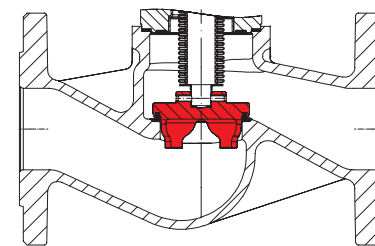
V-port plug with marginal seat, stellited



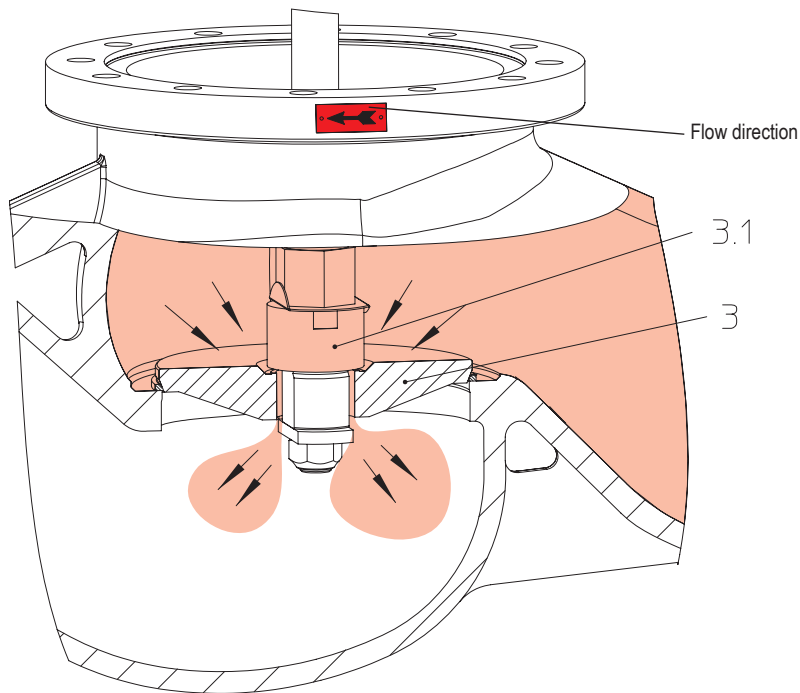
V-port plug with soft seal
Max. operating temperature 200°C at PTFE + 25% carbon



V-port regulating plug with marginal seat



V-port regulating plug with soft seal
Max. operating temperature 200°C at PTFE + 25% carbon



Valves with balancing plugs have to be installed with medium flowing over the plug (3) as indicated by flow direction arrow on valve body.

Working principles:

When the valve is closed, anticlockwise rotation of the hand wheel lifts the pilot plug (3.1) off the larger balancing plug (3).

This allows the medium to pass through the plug and equalizes the pressure of the medium under the plug (3). After the pressures have been equalized within the values stated in the table, the valve can be opened by turning the valve further with normal manual force.

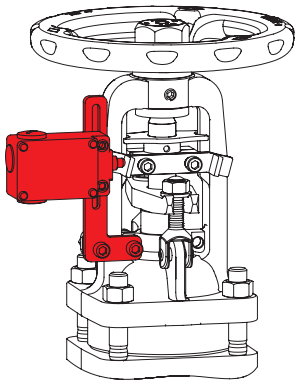
Balancing plugs are fully effective only in closed systems.

The pressures of the medium on either side of the plug can not be equalized if the medium is discharged into open air.

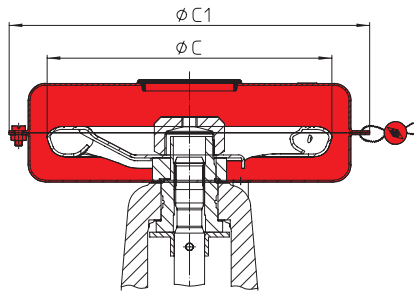
A bypass line or some other arrangement is necessary if too much time is required for pressure equalization owing to the volume in the piping system.

ARI-stop valves with differential pressures exceeding the following pressures, have to be fitted with pressure balancing plugs

	DN	125	150	200	250	300	350	400	500
Differential pressure (ΔP)	(bar)	25	21	14	9	6	4,5	3,5	1,5



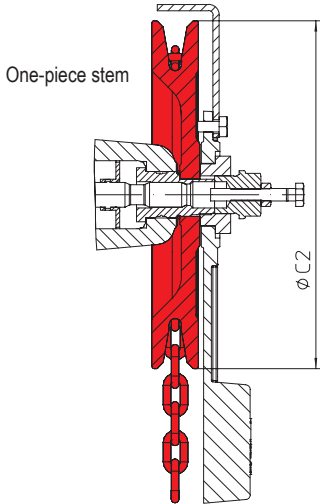
Limit switch



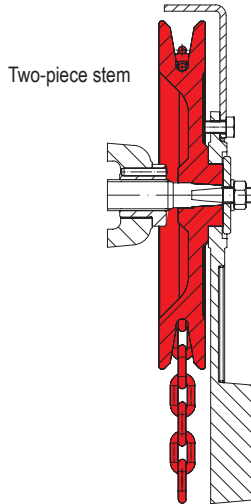
Hood valve acc.to DIN EN 12828
(tamper-proof handwheel cover)

Size	DN	ØC	ØC1
	(mm)	(mm)	(mm)
I	15-32	126	170
II	40-80	150	190
III	100-150	225	330

Handwheel-Ø from DN 65 reduced!



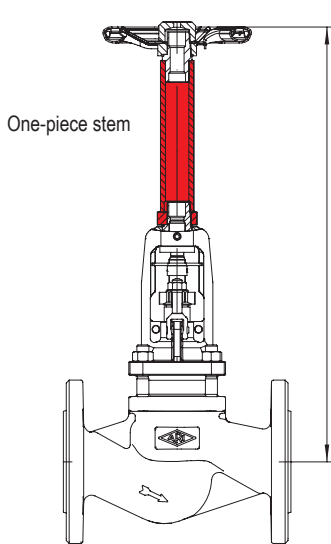
One-piece stem



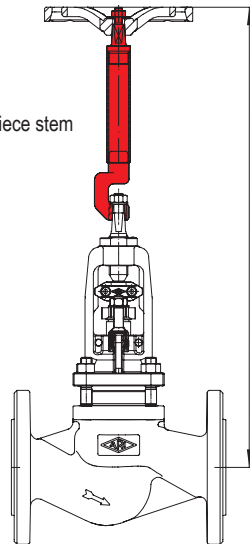
Two-piece stem

DN	ØC2	Weight
(mm)	(mm)	(kg)
15-32	180	2,5
40-80	220	7
100-150	260	8,9
200-400	300	11

Chain wheel

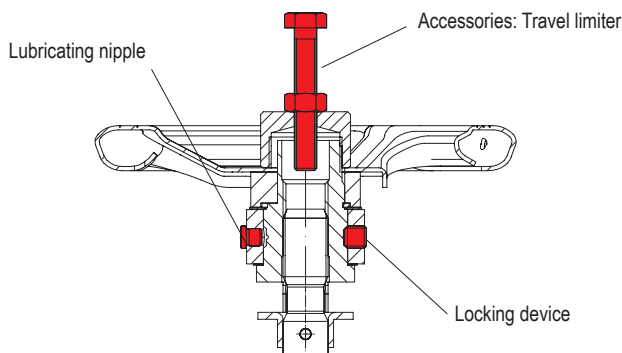


One-piece stem



Two-piece stem

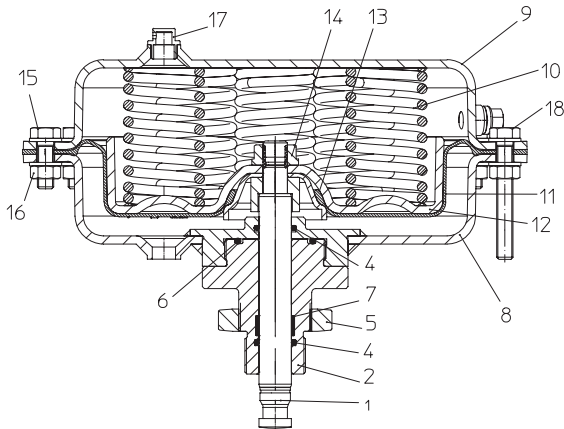
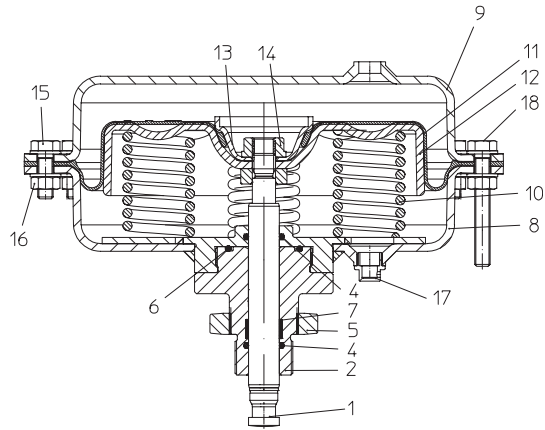
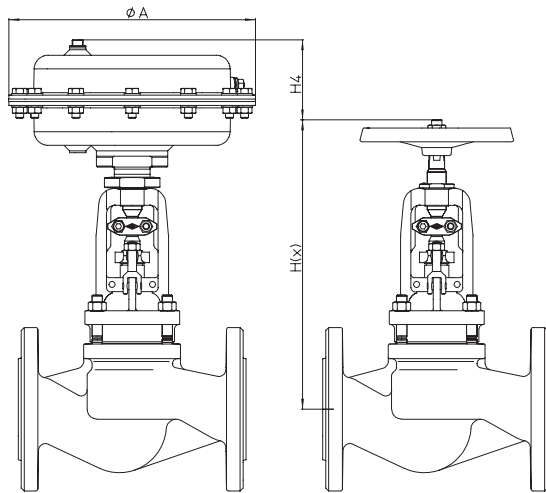
Stem extension (please specify height in your order!)



Lubricating nipple / Locking device / Travel limiter (only construction with one-piece stem)

Travel limiter
(Accessories are not included !)

DN	Hexagon bolt
(mm)	(mm x mm)
15-80	M8 x 55
100	M12 x 70
125-150	M12 x 80
200	M12 x 100
250-300	M12 x 120
350-400	M16 x 160

Pneumatic actuator ARI-FA

Pneumatic actuator ARI-FA
Spring closes

Pneumatic actuator ARI-FA
Spring opens on air failure

Important:

The pneumatic actuator ARI-FA can be combined with all ARI-FABA-Supra versions with two-piece stem!

Max. medium temperatur in the valve 250°C !

Not applicable for design with balancing plugs !

Parts

Pos.	Description	Material
1	Stem	X20Cr13+QT, 1.4021+QT
2	Head	X20Cr13+QT, 1.4021+QT
4	O-ring *	NBR
5	Lock nut	5.8 - A2G
6	O-ring *	NBR
7	Guiding band *	PTFE ->25%C
8	Lower diaphragm casing	DD13+QT, 1.0335+QT (powder coated)
9	Upper diaphragm casing	DD13+QT, 1.0335+QT (powder coated)
10	Spring *	FDSiCr
11	Rolling diaphragm *	NBR + webbing
12	Diaphragm plate	DD13+QT, 1.0335+QT (Fe/Zn12C)
13	Diaphragm flange	DD13+QT, 1.0335+QT (Fe/Zn12C)
14	Collar nut *	8 - A4G
15	Hexagon bolt	8.8 - A4G
16	Hexagon nut	8 - A4G
17	Vent plug *	Polyäthylen

* Spare part

Type of actuator		FA160	FA250	FA400	FA800
$\varnothing A$	(mm)	210	250	300	405
H(x)	(mm)	refert to page 2 -19			
max. H4	(mm)	90	105	120	165
max. pressure	(bar)	6	6	6	6
Weight (actuator)	(kg)	6,5	9	17	50

max. permissible closing pressures on flow-to-open P2 = 0 (Observe regulations, refer to page 25.)

Spring closes												
DN		15	20	25	32	40	50	65	80	100	125	150
Travel (mm)		6	6	8	8	13	13	16	20	25	32	40
Actuator FA160	Air supply pressure min. (bar)	4	40	40	26,7	18						
		4,5				40	20,5	11,1	1,6			
		4,5					40	31	14,8	6,5	1,4	
		5									17,4	8,9
Req. air supply press. for pneumatic actuators FA:				max. permissible		6 bar						

max. permissible closing pressures on flow-to-open P2 = 0 (Observe regulations, refer to page 25.)

Spring opens on air failure												
DN		15	20	25	32	40	50	65	80	100	125	150
Travel (mm)		6	6	8	8	13	13	16	20	25	32	40
Actuator FA160	Air supply pressure min. (bar)	3	40	40	21,1	13,7						
		4	40	40	40	31,9						
		5	40	40	40	40						
		6	40	40	40	40						
Actuator FA250	Air supply pressure min. (bar)	3				38,4	13,8	6,9				
		4				40	30	17,3	6,2			
		5				40	40	27,8	12,5			
		6				40	40	38,2	18,7			
Actuator FA400	Air supply pressure min. (bar)	3						9,6	3,9			
		4						19,6	10,5	4,7		
		5							29,6	17,1	9	
		6							39,5	23,8	13,2	
Actuator FA800	Air supply pressure min. (bar)	3								10,4	4,5	1,8
		4								18,9	10	5,6
		5								27,5	15,5	9,4
		6								36	21	13,2
Req. air supply press. for pneumatic actuators FA:				max. permissible		6 bar						

Standard-flange dimensions

Flanges acc. to DIN EN 1092-1/-2 (Flangeholes / -thickness tol. acc. To DIN 2533/2544/2545)

DN		(mm)	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	500
PN25	ØD	(mm)	95	105	115	140	150	165	185	200	235	270	300	360	425	485	555	620	730
PN25	ØK	(mm)	65	75	85	100	110	125	145	160	190	220	250	310	370	430	490	550	660
PN25	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x26	12x30	16x30	16x33	16x36	20x36
PN40	ØD	(mm)	95	105	115	140	150	165	185	200	235	270	300	375	450	515	580	660	755
PN40	ØK	(mm)	65	75	85	100	110	125	145	160	190	220	250	320	385	450	510	585	670
PN40	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x30	12x33	16x33	16x36	16x39	20x42

Pressure-temperature-ratings acc. to manufacturers standard

Material			-60°C to <-10°C*	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.0619+N	25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	8,2
1.0619+N	40	(bar)	30	40	38,1	35	32	28	25,7	23,8	13,1
1.0460	25	(bar)	18,7	25	23,9	22	20	17,2	16	14,8	10
1.0460	40	(bar)	30	40	38,1	35	32	28	25,7	23,8	16

Pressure-temperature-ratings acc. to DIN EN 1092-1

Material			-60°C to <-10°C*	-10°C to 100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.4408	25	(bar)	25	25	22,7	21	19,8	18,5	17,8	17,1	--
1.4408	40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4	--
1.4581	25	(bar)	12,5	25	24,5	23,3	22,1	20,8	20,1	19,5	--
1.4581	40	(bar)	20	40	39,2	37,3	35,4	33,3	32,1	31,2	--

Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

* Studs and nuts made of A4-70 (at temperatures below -10°C)

Please indicate when ordering

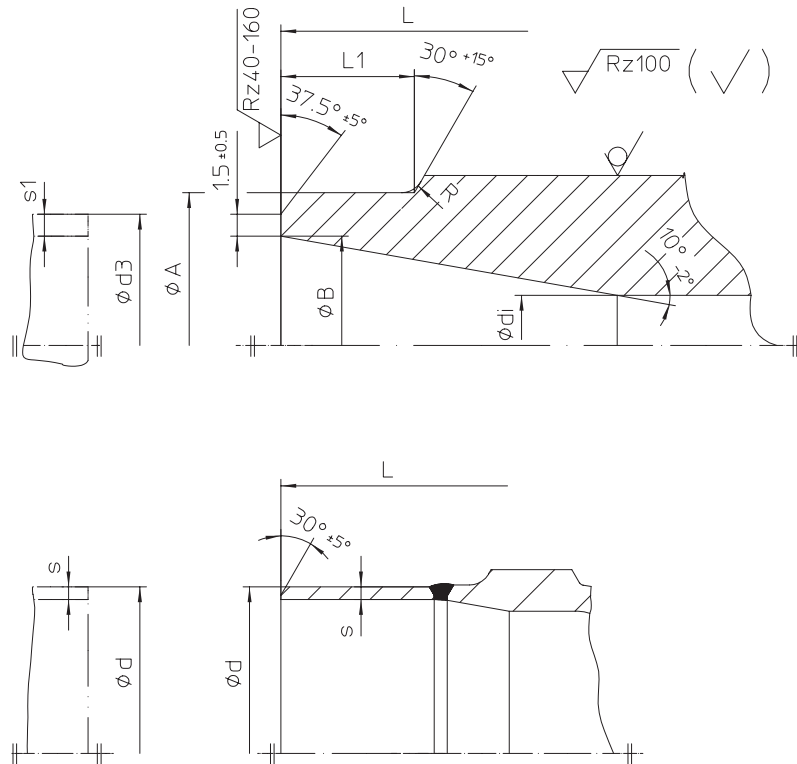
- Figure-No.
- Nominal pressure
- Nominal diameter
- Special design / accessories

Example:

Figure 35.146; nominal pressure PN40; nominal diameter DN100.

 Dimensions in mm
 Weights in kg
 1 bar $\hat{=}$ 10⁵ Pa $\hat{=}$ 0,1 MPa
 Kvs in m³/h

L = Face-to-face dimension
 Edge shaping acc. to DIN EN ISO 5817


Butt weld ends according to DIN EN 12627 - 4

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
L	(mm)	130	150	160	180	200	230	290	310	350	400	480	600	730	850	980	1100
ØA	(mm)	22	28	35	44	50	62	77	91	117	144	172	223	278	329	362	413
ØB	(mm)	17,3	22,3	28,5	37,2	43,1	53,9	68,9	80,9	104,3	130,7	157,1	204,9	257,	307,9	338,	384,4
Ødi	(mm)	15	20	25	32	40	50	65	80	100	125	150	200	250	300	330	375
R	(mm)	3	3	3	3	3	3	3	3	3	3	3	5	5	5	5	5
L1	(mm)	10	10	10	10	10	10	10	12	14	18	20	20	25	33	45	45
Ød3	(mm)	21,3	26,9	33,7	42,4	48,3	60,3	76,1	88,9	114,3	139,7	168,3	219,1	273	323,9	355,6	406,4
s1	(mm)	2	2,3	2,6	2,6	2,6	3,2	3,6	4	5	4,5	5,6	7,1	8	8	8,8	11

Shoed ends of P235GH (Pipe connection ≙ welding neck flanges)

	DN	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
Ød	(mm)	--	--	--	--	--	--	76,1	88,9	114,3	139,7	168,3	219,1	--	--	--	--
Øs	(mm)	--	--	--	--	--	--	2,9	3,2	3,6	4	4,5	6,3	--	--	--	--

Face-to-face dimension ETE series 1 according to DIN EN 12982.

Butt weld ends according to DIN EN 12627 - 4.

Weld joint according to DIN EN 29692 code numer 1.3.3.

The material used for ARI valves with butt weld ends are:

GP240GH+N, 1.0619+N acc. to DIN EN 10213-2,

P250GH, 1.0460 acc. to DIN EN 10222-2.

The material used for ARI valves with shoed ends (DN 65-200) P235GH according to DIN EN 10216-2.

Based on our experience we recommend electric welding process for connecting valves or strainers with tubes or with each other

Lime based electrodes with an appropriate composite material should be used as filler material for welding.

Gas welding should be avoided.

Due to the different material composition and material thickness of valves and tubes, gas welding is more susceptible to produce faults than electric welding (hardness cracks, coarse-grained structure).



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 GERMAN QUALITY VALVES

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