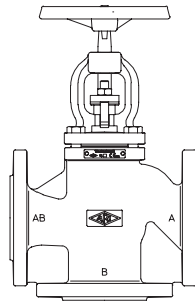


## Change over valve with gland seal

### ARI-Change over valve - 3-way form with flanges

- TA - Luft TÜV-Test-No. 922-9204866 (optional)



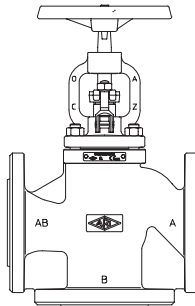
Grey cast iron

**Fig. 017**

Page 2

### ARI-Change over valve - 3-way form with flanges

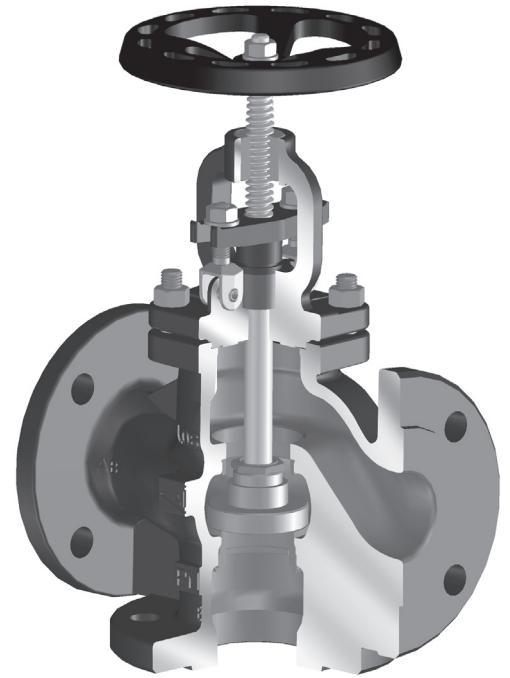
- TRB 801 Annex II No. 45
- TA - Luft TÜV-Test-No. 922-9204866 (optional)
- Bonnet top with threaded bushing
- Pivot mounted bolts



Cast steel

**Fig. 017**

Page 3

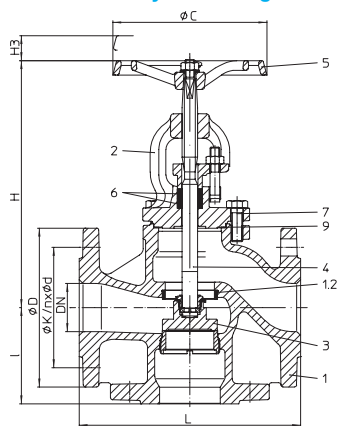


**Fig. 017**

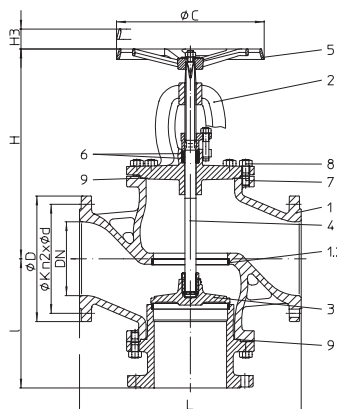
#### Features:

- Proven technology
- Solid plug made of stainless material
- Solid stem made of stainless material
- Solid seat made of stainless material
- Stem with roll hardened thread
- Burnished stem
- High-tensile gland packing
- Favourable zeta-values also for small nominal diameters

### Changeover valve - 3-way with flanges and gland seal (Grey cast iron, SG iron)



DN15-150



DN200-250

#### Parts

Pos.	Description	Fig. 12.017
1	Body	EN-JL1040, EN-GJL-250
1.2	Seat ring	X20Cr13+QT, 1.4021+QT
2	Bonnet	EN-JL1040, EN-GJL-250
3	Plug *	X20Cr13+QT, 1.4021+QT
4	Stem *	X20Cr13+QT, 1.4021+QT (burnished)
5	Handwheel	EN-JL1040, EN-GJL-250 (FE 13 epoxy-coating)
6	Packing ring *	Pure graphite
7	Hexagon screws	DN15-100: 5.6
7	Stud	DN125-250: 25CrMo4, 1.7218
8	Hexagon nut	DN125-250: C35E, 1.1181
9	Gasket *	Pure graphite (CrNi laminated with graphite)

\* 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.

ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110.

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

#### Dimensions

Nominal diameter	(mm)	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
I	(mm)	65	70	75	80	90	100	120	130	150	200	210	350	440
H	(mm)	209	209	220	242	263	257	320	351	400	458	528	562	665
ØC	(mm)	140	140	140	140	160	160	180	200	225	250	400	520	520
H3 (Travel)	(mm)	20	20	20	20	20	20	30	30	30	50	50	90	90
Kvs-value (port A - AB)	(m³/h)	5,9	7,6	9,5	18,8	19,4	37,4	79,5	116	176	256	356	630	1000
Kvs-value (port B - AB)	(m³/h)	9,3	17,9	20,2	29,3	40,1	68,2	107	155	224	395	520	700	1100
Zeta-value (port A - AB)	--	2,4	4,5	6,9	4,7	10,9	7,1	4,5	4,8	5,2	5,9	6,3	6,7	6
Zeta-value (port B - AB)	--	0,9	0,8	1,5	1,9	2,5	2,1	2,5	2,7	3,2	2,5	3	5	4,9

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

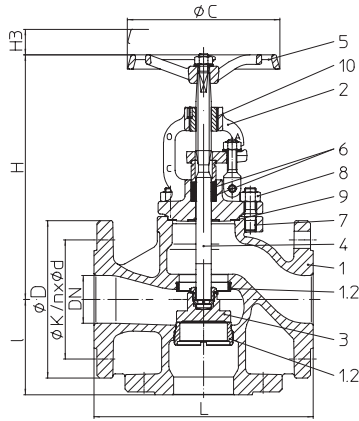
Standard-flange dimensions refer to page 4

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

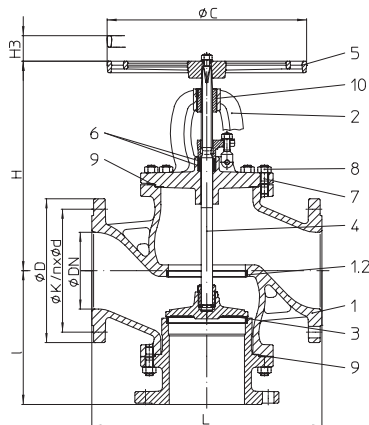
#### Weights

Nominal diameter	(mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
12.017	(kg)	5,6	6,8	7,9	10,9	14,6	18	26,2	37	54	84,2	124	155	290

## Changeover valve - 3-way with flanges and gland seal (Cast steel)



DN15-150



DN200-250

### Parts

Pos.	Description	Fig. 34./35.017
1	Body	GP240GH+N, 1.0619+N
1.2	Seat ring	DN ≤50: X20Cr13+QT, 1.4021+QT / DN >50: G19 9 Nb Si, 1.4551
2	Bonnet	DN ≤80: P250 GH, 1.0460 / DN >80: GP240GH+N, 1.0619+N
3	Plug *	X20Cr13+QT, 1.4021+QT
4	Stem *	X20Cr13+QT, 1.4021+QT (burnished)
5	Handwheel	EN-JL1040, EN-GJL-250 (FE 13 epoxy-coating)
6	Packing ring *	Pure graphite
7	Stud	25CrMo4, 1.7218
8	Hexagon nut	C35E, 1.1181
9	Gasket	Pure graphite (CrNi laminated with graphite)
10	Insert nuts *	11SMn30+C, 1.0715+C

\* 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

Nominal diameter	(mm)	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
l	(mm)	65	70	75	80	90	100	120	130	150	200	210	350	440
H	(mm)	209	209	220	242	263	257	320	351	400	458	528	562	665
H3 (Travel)	(mm)	20	20	20	20	20	20	30	30	30	50	50	90	90
ØC	(mm)	140	140	140	140	160	160	180	200	225	250	400	520	520
Kvs-value (port A - AB)	(m³/h)	5,9	7,6	9,5	18,8	19,4	37,4	79,5	116	176	256	356	630	1000
Kvs-value (port B - AB)	(m³/h)	9,3	17,9	20,2	29,3	40,1	68,2	107	155	224	395	520	700	1100
Zeta-value (port A - AB)	--	2,4	4,5	6,9	4,7	10,9	7,1	4,5	4,8	5,2	5,9	6,3	6,7	6
Zeta-value (port B - AB)	--	0,9	0,8	1,5	1,9	2,5	2,1	2,5	2,7	3,2	2,5	3	5	4,9

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

Standard-flange dimensions refer to page 4

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

### Weights

Nominal diameter	(mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
34.017	(kg)	6,1	7,4	8,5	11,8	15,8	19,4	28,2	39,8	58,1	90,6	133,5	167	320
35.017	(kg)	6,1	7,4	8,5	11,8	15,8	19,4	28,2	39,8	58,1	90,6	133,5	177	338

**Standard-flange dimensions**

Flangeholes / -thickness tol. acc. To DIN 2533/2544/2545

DN		(mm)	15	20	25	32	40	50	65	80	100	125	150	200	250
PN16	ØD	(mm)	95	105	115	140	150	165	185	200	220	250	285	340	405
PN16	ØK	(mm)	65	75	85	100	110	125	145	160	180	210	240	295	355
PN16	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	4x18	8x18	8x18	8x18	8x22	12x22	12x26
PN25	ØD	(mm)	95	105	115	140	150	165	185	200	235	270	300	360	425
PN25	ØK	(mm)	65	75	85	100	110	125	145	160	190	220	250	310	370
PN25	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x26	12x30
PN40	ØD	(mm)	95	105	115	140	150	165	185	200	235	270	300	375	450
PN40	ØK	(mm)	65	75	85	100	110	125	145	160	190	220	250	320	385
PN40	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x30	12x33

**Pressure-temperature-ratings**

acc. to DIN EN 1092-2

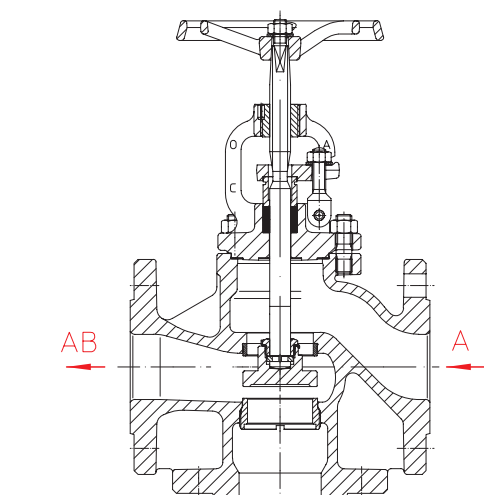
Material	PN		-60°C to <-10°C *	-10°C to 120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
EN-JL1040	16	bar	--	16	14,4	12,8	11,2	9,6	--	--	--

acc. to DIN EN 1092-1

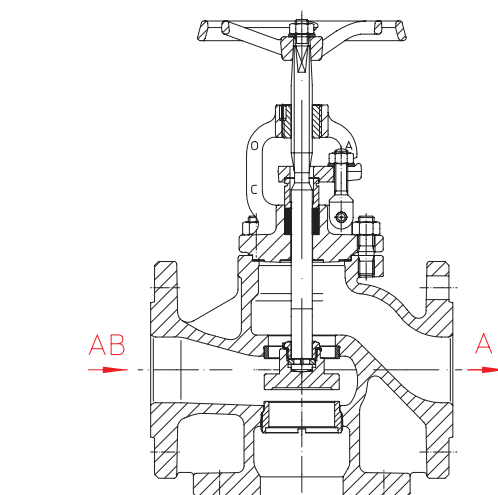
Material	PN		-60°C to <-10°C *	-10°C to 50°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.0619+N	25	bar	18,7	25	23,3	21,7	19,4	17,8	16,1	15	14,4	13,9
1.0619+N	40	bar	30	40	37,3	34,7	30,2	28,4	25,8	24	23,1	22,2

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)

**Flow**


Function: 3-way mixing valve



Function: 3-way diverting valve

**Please indicate when ordering**

- Figure-No.
- Nominal pressure
- Nominal diameter

**Example:**

 Figure 35.017;  
 Nominal pressure PN40;  
 Nominal diameter DN100

**Max. Operating range**

	DN	125	150	200	250
max. differential pressure (ΔP)	(bar)	25	21	14	9

 Dimensions in mm  
 Weights in kg  
 1 bar  $\hat{=}$  10<sup>5</sup> Pa  $\hat{=}$  0,1 MPa  
 Kvs in m<sup>3</sup>/h