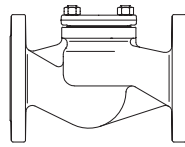


ARI-Check valve, metallic sealing

ARI-CHECKO®-V -
Straight through with flanges

- TRB 801 Annex II No. 45 (except EN-JL1040)
- German TA - Luft TÜV-Test-No. 922-9204866

Grey cast iron
SG iron
Cast steel
Fig. 003/303



Page 2

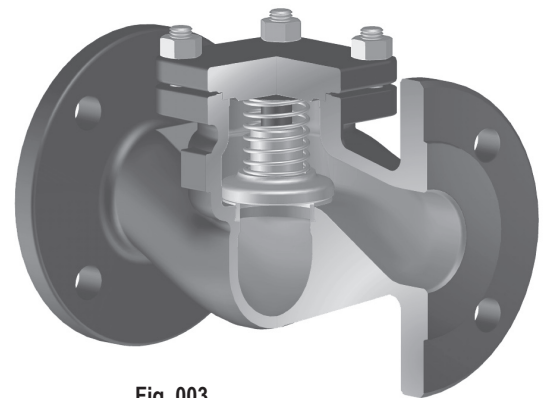
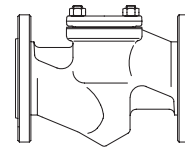


Fig. 003

ARI-CHECKO®-V -
Straight through with flanges

- TRB 801 Annex II No. 45
- German TA - Luft TÜV-Test-No. 922-9204866

Forged steel
Fig. 003

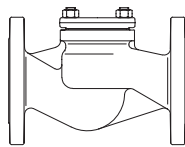


Page 3

ARI-CHECKO®-V -
Straight through with flanges

- TRB 801 Annex II No. 45
- German TA - Luft TÜV-Test-No. 922-9204866

Stainless steel
Fig. 003



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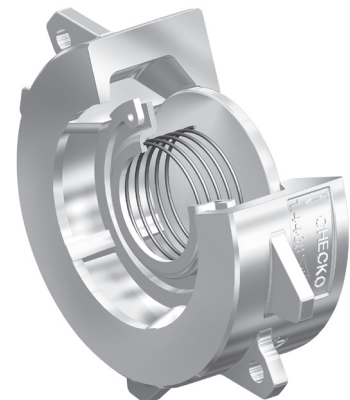
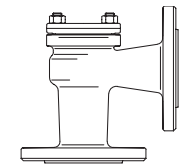


Fig. 001

ARI-CHECKO®-V -
Angle pattern with flanges

- TRB 801 Annex II No. 45 (except EN-JL1040)
- German TA - Luft TÜV-Test-No. 922-9204866

Grey cast iron
SG iron
Cast steel
Fig. 004/304

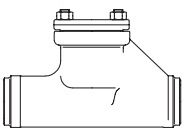


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ARI-CHECKO®-V -
Straight through with butt weld ends

- TRB 801 Annex II No. 45
- German TA - Luft TÜV-Test-No. 922-9204866

Forged steel
Fig. 030

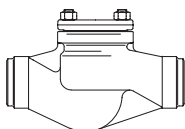


Page 6

ARI-CHECKO®-V -
Straight through with butt weld ends

- TRB 801 Annex II No. 45
- German TA - Luft TÜV-Test-No. 922-9204866

Cast steel
Fig. 030

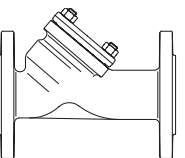


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ARI-CHECKO®-V -
Y-pattern with flanges

- TRB 801 Annex II No. 45
- German TA - Luft TÜV-Test-No. 922-9204866

Stainless steel
Fig. 039

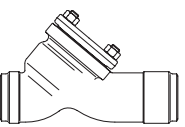


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ARI-CHECKO®-V -
Y-pattern with butt weld ends

- TRB 801 Annex II No. 45
- German TA - Luft TÜV-Test-No. 922-9204866

Cast steel
Fig. 063

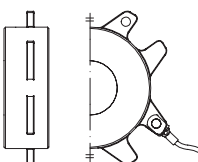


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ARI-CHECKO®-D -
Disc check valve in clamping version

- TRB 801 Annex II No. 45

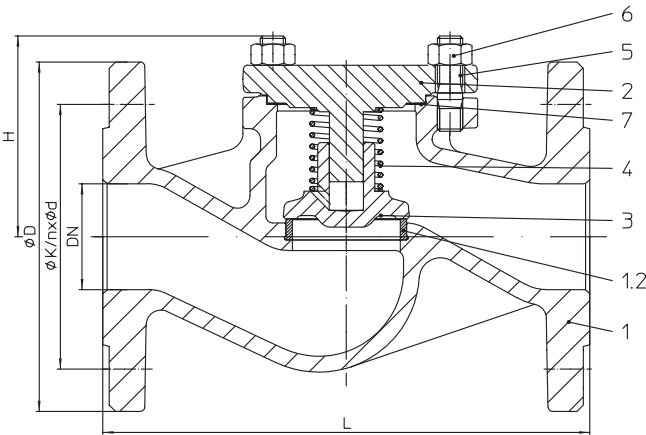
Stainless steel
Fig. 001



Page 10

Features:

- Solid plug / valve plate made of stainless material
- Solid seat made of stainless material
- Re-setting spring made of stainless steel
- Precise plug / valve plate guidance

Check valve - straight through with flanges (Grey cast iron, SG iron, Cast steel)


| Figure | Nominal pressure | Material | Nominal diameter |
|---|------------------|-----------|------------------|
| 10.003 | PN6 | EN-JL1040 | DN15-200 |
| 12.003 / 12.303 | PN16 | EN-JL1040 | DN15-300 |
| 22.003 / 22.003 | PN16 | EN-JS1049 | DN15-350 |
| 23.003 / 23.303 | PN25 | EN-JS1049 | DN15-150 |
| 34.003 / 34.303 | PN25 | 1.0619+N | DN15-500 |
| 35.003 / 35.303 | PN40 | 1.0619+N | DN15-500 |
| Set pressure 0,1 bar | | | |
| Fig. 303: Trim made of RG/MS: CuZn35Ni3Mn2AlPb, CW710R code number 02 CuSn10-Cu, CC480K code number 03 (max. operating temperature: 180°C, code number acc. to DIN 86251) | | | |
| Test: • German TA - Luft TÜV-Test-No. 922-9204866 | | | |

Selection of possible applications

Industry, power stations, flue gas purification plant, vapour facilities, recycling facilities, shipbuilding, general plant manufacturing
(other applications on request)

Selection of possible flow media

Steam, gases, liquids, etc.
(other flow media on request)

Parts

| Pos. | Description | Fig. 10./12.003 | Fig. 10./12.303 | Fig. 22./23.003 | Fig. 22./23.303 | Fig. 34./35.003 | Fig. 34./35.303 |
|------|--------------|--|--|--|--|--|--|
| 1 | Body | EN-JL1040, EN-GJL-250 | | EN-JS1049, EN-GJS-400-18U-LT | | GP240GH+N, 1.0619+N | |
| 1.2 | Seat ring | DN ≤50: X20Cr13+QT, 1.4021+QT DN >50: G19 9 Nb Si, 1.4551 | CuSn10-Cu, CC480K code number 03 | DN ≤50: X20Cr13+QT, 1.4021+QT DN >50: G19 9 Nb Si, 1.4551 | CuSn10-Cu, CC480K code number 03 | DN ≤50: X20Cr13+QT, 1.4021+QT DN >50: G19 9 Nb Si, 1.4551 | CuSn10-Cu, CC480K code number 03 |
| 2 | Cover | EN-JL1040, EN-GJL-250 | | EN-JS1049, EN-GJS-400-18U-LT | | GP240GH+N, 1.0619+N | |
| 3 | Plug | DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551 | | DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551 | | DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551 | |
| 4 | Spring | X10CrNi18-8, 1.4310 | | X10CrNi18-8, 1.4310 | | | |
| 5 | Hexagon bolt | 5.6 | | -- | | | |
| 5 | Stud | -- | | 25CrMo4, 1.7218 | | | |
| 6 | Hexagon nut | -- | | C35E, 1.1181 | | | |
| 7 | Gasket | Pure graphite (CrNi laminated with graphite) | | | | | |

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.

A production allowance acc. to TRB 801 No. 45 exists (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.)

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 | 500 |
|------------|--------|-----|-----|------|------|------|------|------|-----|-----|-----|-----|-----|------|------|------|------|------|
| L | (mm) | 130 | 150 | 160 | 180 | 200 | 230 | 290 | 310 | 350 | 400 | 480 | 600 | 730 | 850 | 980 | 1100 | 1350 |
| H | (mm) | 70 | 70 | 80 | 80 | 85 | 95 | 110 | 130 | 155 | 165 | 215 | 285 | 325 | 365 | 420 | 430 | 530 |
| Kvs-value | (m³/h) | 5,7 | 7,8 | 11,8 | 17,9 | 27,5 | 48,0 | 77,6 | 109 | 168 | 251 | 389 | 664 | 1017 | 1446 | 2042 | 2725 | 4167 |
| Zeta-value | -- | 2,5 | 4,2 | 4,5 | 5,2 | 5,4 | 4,3 | 4,7 | 5,5 | 5,7 | 6,2 | 5,3 | 5,8 | 6,0 | 6,2 | 5,7 | 5,5 | 5,7 |

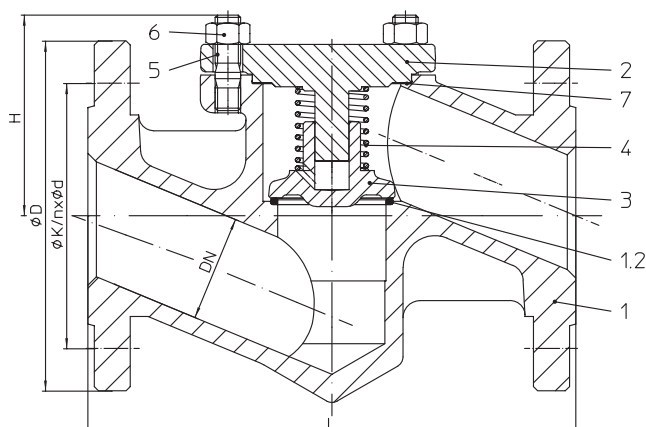
Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Standard-flange dimensions refer to page 11

Face-to-face dimension FTF series 1 according to DIN EN 558 (DN500: Face-to-face dimension acc. to ARI-works standard)

Weights

| Figure-No. | DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 500 |
|--------------|------|-----|-----|-----|-----|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 10.003 / 303 | (kg) | 2,4 | 2,9 | 3,5 | 4,8 | 6,4 | 8,2 | 12,2 | 18,6 | 27 | 42 | 67 | 112 | -- | -- | -- | -- | -- |
| 12.003 / 303 | (kg) | 2,4 | 3 | 3,8 | 5,7 | 7,4 | 10,3 | 15,2 | 20,4 | 31 | 49 | 69 | 132 | 198 | 278 | -- | -- | -- |
| 22.003 / 303 | (kg) | 3,5 | 4 | 5 | 6 | 8 | 11 | 16 | 21 | 31 | 49 | 69 | 132 | 198 | 278 | 383 | -- | -- |
| 23.003 / 303 | (kg) | 3,5 | 4 | 5 | 6 | 8 | 11 | 16 | 21 | 32 | 51 | 70 | -- | -- | -- | -- | -- | -- |
| 34.003 / 303 | (kg) | 3,8 | 4,9 | 5,9 | 7,1 | 10,4 | 12,3 | 22,7 | 28,5 | 40 | 64 | 90 | 160 | 222 | 337 | 461 | 709 | 989 |
| 35.003 / 303 | (kg) | 3,8 | 4,9 | 5,9 | 7,1 | 10,4 | 12,3 | 22,7 | 28,5 | 40 | 64 | 90 | 170 | 240 | 374 | 508 | 786 | 1044 |

Check valve - straight through with flanges (Forged steel)


| Figure | Nominal pressure | Material | Nominal diameter |
|---|------------------|----------|------------------|
| 45.003 | PN40 | 1.0460 | DN15-50 |
| Set pressure 0,1 bar | | | |
| Test: • German TA - Luft TÜV-Test-No. 922-9204866 | | | |

Selection of possible applications

Industry, power stations, flue gas purification plant, vapour facilities, recycling facilities, shipbuilding, general plant manufacturing
(other applications on request)

Selection of possible flow media

Steam, gases, liquids, etc.
(other flow media on request)

Parts

| Pos. | Description | Fig. 45.003 |
|------|-------------|--|
| 1 | Body | P250 GH, 1.0460 |
| 1.2 | Seat ring | G19 9 Nb Si, 1.4551 |
| 2 | Cover | P250 GH, 1.0460 |
| 3 | Plug | X20Cr13+QT, 1.4021+QT |
| 4 | Spring | X10CrNi18-8, 1.4310 |
| 5 | Stud | 25CrMo4, 1.7218 |
| 6 | Hexagon nut | C35E, 1.1181 |
| 7 | Gasket | Pure graphite (CrNi laminated with graphite) |

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.

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 |
| H | (mm) | 87 | 89 | 97 | 103 | 95 | 95 |
| Kvs-value | (m³/h) | 3,3 | 5,5 | 9,2 | 15 | 29,3 | 36 |
| Zeta-value | -- | 7,4 | 8,4 | 7,4 | 7,4 | 4,8 | 7,7 |

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

Standard-flange dimensions refer to page 11

Face-to-face dimension FTF series 1 according to DIN EN 558

Weights

| Figure-No. | DN | 15 | 20 | 25 | 32 | 40 | 50 |
|------------|------|-----|-----|-----|-----|-----|----|
| 45.003 | (kg) | 3,2 | 4,5 | 4,6 | 7,3 | 9,5 | 12 |

Check valve - straight through with flanges (Stainless steel)

| Figure | Nominal pressure | Material | Nominal diameter |
|--------|------------------|----------|------------------|
| 52.003 | PN16 | 1.4408 | DN65-200 |
| 54.003 | PN25 | 1.4408 | DN15-200 |
| 55.003 | PN40 | 1.4408 | DN15-200 |

Set pressure 0,1 bar

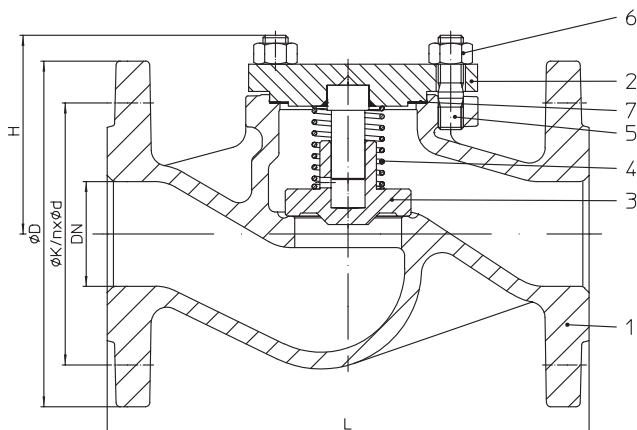
Test: • German TA - Luft TÜV-Test-No. 922-9204866

Selection of possible applications

Recycling facilities, chemical industry, hospital technology, process water installations, installations with aggressive media (other applications on request)

Selection of possible flow media

Process water, aggressive media, etc. (other flow media on request)


Parts

| Pos. | Description | Fig. 52./54./55.003 |
|------|-------------|--|
| 1 | Body | GX5CrNiMo19-11-2, 1.4408 |
| 2 | Cover | X6CrNiMoTi17-12-2, 1.4571 |
| 3 | Plug | X6CrNiMoTi17-12-2, 1.4571 |
| 4 | Spring | X10CrNi18-8, 1.4310 |
| 5 | Stud | A4-70 |
| 6 | Hexagon nut | A4 |
| 7 | Gasket | Pure graphite (CrNi laminated with graphite) |

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.

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

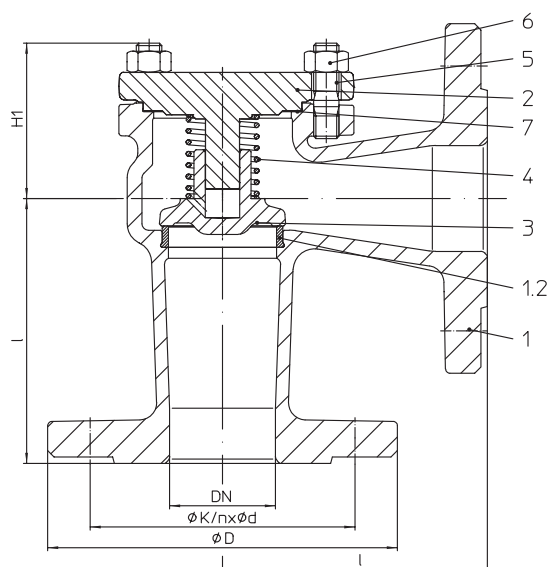
| | DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | |
|------------|---------------------|-----|-----|------|------|------|------|------|-----|-----|-----|-----|-----|------------|-----|-----|-----|-----|--|
| L | (mm) | 130 | 150 | 160 | 180 | 200 | 230 | 290 | 310 | 350 | 400 | 480 | 600 | on request | | | | | |
| H | (mm) | 70 | 70 | 80 | 80 | 85 | 95 | 110 | 130 | 155 | 165 | 215 | 285 | | | | | | |
| Kvs-value | (m ³ /h) | 5,7 | 7,8 | 11,8 | 17,9 | 27,5 | 48,0 | 77,6 | 109 | 168 | 251 | 389 | 664 | | | | | | |
| Zeta-value | -- | 2,5 | 4,2 | 4,5 | 5,2 | 5,4 | 4,3 | 4,7 | 5,5 | 5,7 | 6,2 | 5,3 | 5,8 | | | | | | |

Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173 Standard-flange dimensions refer to page 11

Face-to-face dimension FTF series 1 according to DIN EN 558

Weights

| Figure-No. | DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 500 | |
|------------|------|-----|-----|-----|-----|----|----|------|------|-----|-----|-----|-----|------------|-----|-----|-----|-----|--|
| 52.003 | (kg) | -- | -- | -- | -- | -- | -- | 22,5 | 28,5 | 38 | 61 | 87 | 154 | on request | | | | | |
| 54.003 | (kg) | 3,8 | 4,9 | 5,9 | 7,1 | 10 | 12 | 22,5 | 28,5 | 40 | 64 | 90 | 160 | | | | | | |
| 55.003 | (kg) | 3,8 | 4,9 | 5,9 | 7,1 | 10 | 12 | 22,5 | 28,5 | 40 | 64 | 90 | 170 | | | | | | |

Check valve - angle pattern with flanges (Grey cast iron, SG iron, Cast steel)


| Figure | Nominal pressure | Material | Nominal diameter |
|-----------------|------------------|-----------|------------------|
| 12.004 / 12.304 | PN16 | EN-JL1040 | DN15-300 |
| 22.004 / 22.304 | PN16 | EN-JS1049 | DN15-350 |
| 23.004 / 23.304 | PN25 | EN-JS1049 | DN15-150 |
| 34.004 / 34.304 | PN25 | 1.0619+N | DN15-500 |
| 35.004 / 35.304 | PN40 | 1.0619+N | DN15-500 |

Set pressure 0,1 bar

Fig. 304: Trim made of RG/MS:

CuZn35Ni3Mn2AlPb, CW710R code number 02

CuSn10-Cu, CC480K code number 03

(max. operating temperature: 180°C, code number acc. to DIN 86251)

Test: • German TA - Luft TÜV-Test-No. 922-9204866

Selection of possible applications

 Industry, power stations, flue gas purification plant, vapour facilities, recycling facilities, shipbuilding, general plant manufacturing
 (other applications on request)

Selection of possible flow media

 Steam, gases, liquids, etc.
 (other flow media on request)

Parts

| Pos. | Description | Fig. 10/12.004 | Fig. 10/12.304 | Fig. 22/23.004 | Fig. 22/23.304 | Fig. 34./35.004 | Fig. 34./35.304 |
|------|--------------|--|--|--|--|--|--|
| 1 | Body | EN-JL1040, EN-GJL-250 | | EN-JS1049, EN-GJS-400-18U-LT | | GP240GH+N, 1.0619+N | |
| 1.2 | Seat ring | DN ≤50: X20Cr13+QT, 1.4021+QT DN >50: G19 9 Nb Si, 1.4551 | CuSn10-Cu, CC480K code number 03 | DN ≤50: X20Cr13+QT, 1.4021+QT DN >50: G19 9 Nb Si, 1.4551 | CuSn10-Cu, CC480K code number 03 | DN ≤50: X20Cr13+QT, 1.4021+QT DN >50: G19 9 Nb Si, 1.4551 | CuSn10-Cu, CC480K code number 03 |
| 2 | Cover | EN-JL1040, EN-GJL-250 | | EN-JS1049, EN-GJS-400-18U-LT | | GP240GH+N, 1.0619+N | |
| 3 | Plug | DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551 | CuSn10-Cu, CC480K code number 03 | DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551 | CuSn10-Cu, CC480K code number 03 | DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551 | CuSn10-Cu, CC480K code number 03 |
| 4 | Spring | X10CrNi18-8, 1.4310 | | X10CrNi18-8, 1.4310 | | | |
| 5 | Hexagon bolt | 5.6 | | -- | | | |
| 5 | Stud | -- | | 25CrMo4, 1.7218 | | | |
| 6 | Hexagon nut | -- | | C35E, 1.1181 | | | |
| 7 | Gasket | Pure graphite (CrNi laminated with graphite) | | | | | |

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.

A production allowance acc. to TRB 801 No. 45 exists (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.)

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 | 500 |
|------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| l | (mm) | 90 | 95 | 100 | 105 | 115 | 125 | 145 | 155 | 175 | 200 | 225 | 275 | 325 | 375 | 425 | 475 | 525 |
| H1 | (mm) | 40 | 35 | 45 | 45 | 55 | 60 | 65 | 95 | 105 | 120 | 150 | 195 | 220 | 240 | 300 | 310 | 380 |
| Kvs-value | (m³/h) | 4,8 | 8,5 | 13 | 22 | 34 | 53 | 88 | 138 | 216 | 331 | 469 | 832 | 1315 | 1876 | 2553 | 3406 | 5207 |
| Zeta-value | -- | 3,5 | 3,5 | 3,7 | 3,5 | 3,5 | 3,6 | 3,7 | 3,4 | 3,4 | 3,6 | 3,7 | 3,7 | 3,6 | 3,7 | 3,7 | 3,5 | 3,7 |

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

Standard-flange dimensions refer to page 11

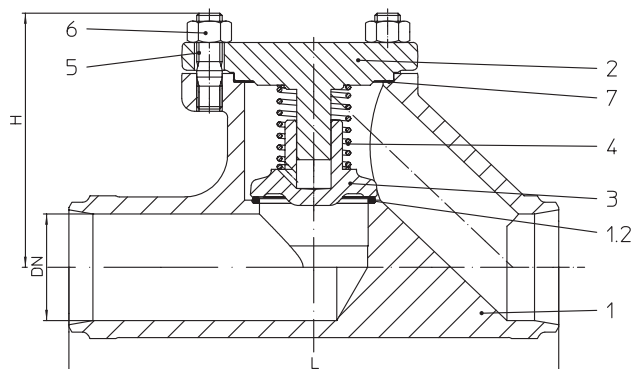
Face-to-face dimension CTF series 8 according to DIN EN 558 (DN500: Face-to-face dimension acc. to ARI-works standard)

Weights

| Figure-No. | DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 500 |
|--------------|------|-----|-----|-----|-----|----|----|------|------|-----|-----|-----|------------|-----|-----|-----|-----|-----|
| 12.004 / 304 | (kg) | 3 | 3,5 | 4 | 6 | 8 | 10 | 14 | 19 | 25 | 45 | 70 | 112 | 179 | 248 | 345 | -- | -- |
| 22.004 / 304 | (kg) | 3 | 3,5 | 4 | 6 | 8 | 10 | 14 | 19 | 25 | 45 | 70 | 112 | 179 | 248 | 345 | -- | -- |
| 23.004 / 304 | (kg) | 3 | 3,5 | 4,1 | 6 | 8 | 10 | 14 | 20 | 29 | 49 | 73 | on request | | | | | |
| 34.004 / 304 | (kg) | 4,2 | 4,9 | 5 | 7,6 | 10 | 12 | 24,5 | 28,5 | 42 | 55 | 90 | 145 | 170 | 225 | 383 | 623 | 870 |
| 35.004 / 304 | (kg) | 4,2 | 4,9 | 5 | 7,6 | 10 | 12 | 24,5 | 28,5 | 42 | 55 | 90 | 155 | 188 | 262 | 430 | 700 | 925 |

Check valve - straight through with butt weld ends (Forged steel)

| Figure | Nominal pressure | Material | Nominal diameter |
|---|------------------|----------|------------------|
| 45.030 | PN40 | 1.0460 | DN15-50 |
| Set pressure 0,1 bar | | | |
| Butt weld ends according to DIN EN 12627 - 4 (refer to page 12) | | | |
| Test: • German TA - Luft TÜV-Test-No. 922-9204866 | | | |


Selection of possible applications

Industry, power stations, flue gas purification plant, vapour facilities, recycling facilities, shipbuilding, general plant manufacturing (other applications on request)

Selection of possible flow media

Steam, gases, liquids, etc. (other flow media on request)

Parts

| Pos. | Description | Fig. 35.030 |
|------|-------------|--|
| 1 | Body | P250 GH, 1.0460 |
| 1.2 | Seat ring | G19 9 Nb Si, 1.4551 |
| 2 | Cover | P250 GH, 1.0460 |
| 3 | Plug | X20Cr13+QT, 1.4021+QT |
| 4 | Spring | X10CrNi18-8, 1.4310 |
| 5 | Stud | 25CrMo4, 1.7218 |
| 6 | Hexagon nut | C35E, 1.1181 |
| 7 | Gasket | Pure graphite (CrNi laminated with graphite) |

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.

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

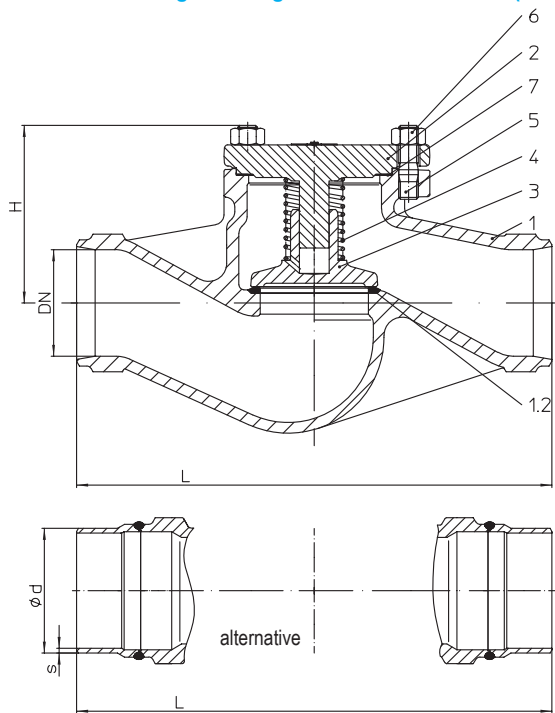
| | DN | 15 | 20 | 25 | 32 | 40 | 50 |
|------------|---------------------|-----|-----|-----|-----|------|-----|
| L | (mm) | 130 | 150 | 160 | 180 | 200 | 230 |
| H | (mm) | 70 | 70 | 80 | 80 | 85 | 95 |
| Kvs-value | (m ³ /h) | 3,3 | 5,5 | 9,2 | 15 | 29,3 | 36 |
| Zeta-value | -- | 7,4 | 8,4 | 7,4 | 7,4 | 4,8 | 7,7 |

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 |
|------------|------|----|-----|-----|-----|-----|-----|
| 45.030 | (kg) | 3 | 3,9 | 4,6 | 5,3 | 8,5 | 9,7 |

Check valve - straight through with butt weld ends (Cast steel)


| Figure | Nominal pressure | Material | Nominal diameter |
|--|------------------|----------|------------------|
| 35.030 | PN40 | 1.0619+N | DN65-300 |
| Set pressure 0,1 bar | | | |
| Butt weld ends according to DIN EN 12627 - 4 (refer to page 12) | | | |
| alternative: DN 65-200 with shoed ends of P235GH | | | |
| Test: • German TA - Luft TÜV-Test-No. 922-9204866 | | | |

Selection of possible applications

Industry, power stations, flue gas purification plant, vapour facilities, recycling facilities, shipbuilding, general plant manufacturing
(other applications on request)

Selection of possible flow media

Steam, gases, liquids, etc.
(other flow media on request)

Parts

| Pos. | Description | Fig. 35.030 |
|------|-------------|---|
| 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 | Cover | GP240GH+N, 1.0619+N |
| 3 | Plug | DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551 |
| 4 | Spring | X10CrNi18-8, 1.4310 |
| 5 | Stud | 25CrMo4, 1.7218 |
| 6 | Hexagon nut | C35E, 1.1181 |
| 7 | Gasket | Pure graphite (CrNi laminated with graphite) |

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.

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 |
| H | (mm) | 110 | 130 | 155 | 165 | 215 | 285 | 325 | 365 |
| Kvs-value | (m³/h) | 77,6 | 109 | 168 | 251 | 389 | 664 | 1017 | 1446 |
| Zeta-value | -- | 4,7 | 5,5 | 5,7 | 6,2 | 5,3 | 5,8 | 6 | 6,2 |

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

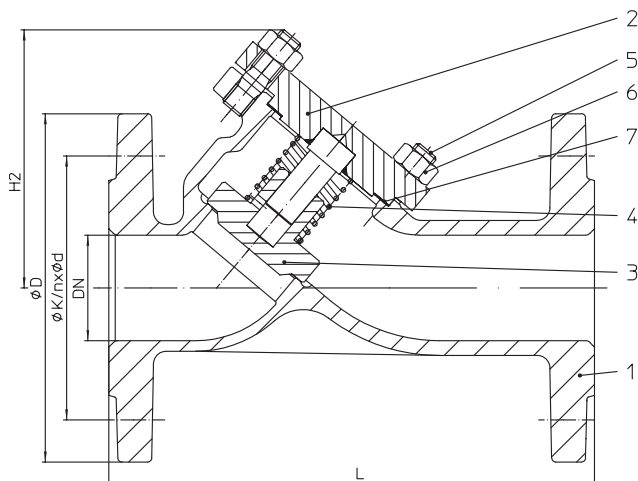
Face-to-face dimension ETE series 1 according to DIN EN 12982

Weights

| Figure-No. | DN | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|------------|------|------|----|-----|-----|-----|-----|-----|-----|
| 35.030 | (kg) | 19,2 | 24 | 34 | 56 | 80 | 152 | 222 | 300 |

Check valve - Y-pattern with flanges (Stainless steel)

| Figure | Nominal pressure | Material | Nominal diameter |
|---|------------------|----------|------------------|
| 55.039 | PN40 | 1.4408 | DN15-200 |
| Set pressure 0,1 bar | | | |
| Test: • German TA - Luft TÜV-Test-No. 922-9204866 | | | |


Selection of possible applications

Recycling facilities, chemical industry, hospital technology, process water installations, installations with aggressive media (other applications on request)

Selection of possible flow media

Process water, aggressive media, etc. (other flow media on request)

Parts

| Pos. | Description | Fig. 55.039 |
|------|-------------|--|
| 1 | Body | GX5CrNiMo19-11-2, 1.4408 |
| 2 | Cover | X6CrNiMoTi17-12-2, 1.4571 |
| 3 | Plug | X6CrNiMoTi17-12-2, 1.4571 |
| 4 | Spring | X10CrNi18-8, 1.4310 |
| 5 | Stud | A4-70 |
| 6 | Hexagon nut | A4 |
| 7 | Gasket | Pure graphite (CrNi laminated with graphite) |

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.

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 | (mm) | 75 | 75 | 90 | 90 | 110 | 110 | 135 | 160 | 200 | 245 | 300 | 390 |
| Kvs-value | (m³/h) | 6,7 | 8,5 | 14,9 | 18,8 | 33 | 50,9 | 78,5 | 124 | 181 | 302 | 450 | 791 |
| Zeta-value | -- | 1,8 | 3,5 | 2,8 | 4,7 | 3,8 | 3,9 | 4,6 | 4,3 | 4,9 | 4,3 | 4 | 4,1 |

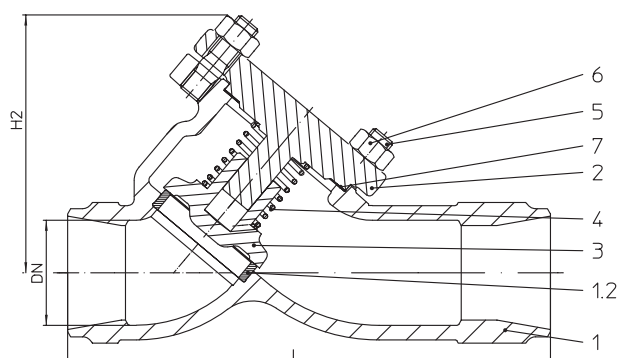
Zeta-value ... range of tolerance for Kvs-values acc. to VDI/VDE 2173

Standard-flange dimensions refer to page 11

Face-to-face dimension FTF series 1 according to DIN EN 558

Weights

| Figure-No. | DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 |
|------------|------|-----|-----|----|----|-----|----|------|----|-----|-----|-----|-----|
| 55.039 | (kg) | 3,1 | 3,8 | 5 | 7 | 8,4 | 11 | 15,5 | 22 | 31 | 45 | 68 | 135 |

Check valve - Y-pattern with butt weld ends (Cast steel)


| Figure | Nominal pressure | Material | Nominal diameter |
|---|------------------|----------|------------------|
| 35.063 | PN40 | 1.0619+N | DN15-250 |
| Set pressure 0,1 bar | | | |
| Butt weld ends according to DIN EN 12627 - 4 (refer to page 12) | | | |
| Test: • German TA - Luft TÜV-Test-No. 922-9204866 | | | |

Selection of possible applications

Industry, power stations, flue gas purification plant, vapour facilities, recycling facilities, shipbuilding, general plant manufacturing (other applications on request)

Selection of possible flow media

Steam, gases, liquids, etc.
(other flow media on request)

Parts

| Pos. | Description | Fig. 35.063 |
|------|-------------|--|
| 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 | Cover | GP240GH+N, 1.0619+N |
| 3 | Plug | DN ≤200: X20Cr13+QT, 1.4021+QT DN >200: P265 GH, 1.0425 / G19 9 Nb Si, 1.4551 |
| 4 | Spring | X10CrNi18-8, 1.4310 |
| 5 | Stud | 25CrMo4, 1.7218 |
| 6 | Hexagon nut | C35E, 1.1181 |
| 7 | Gasket | Pure graphite (CrNi laminated with graphite) |

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.

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

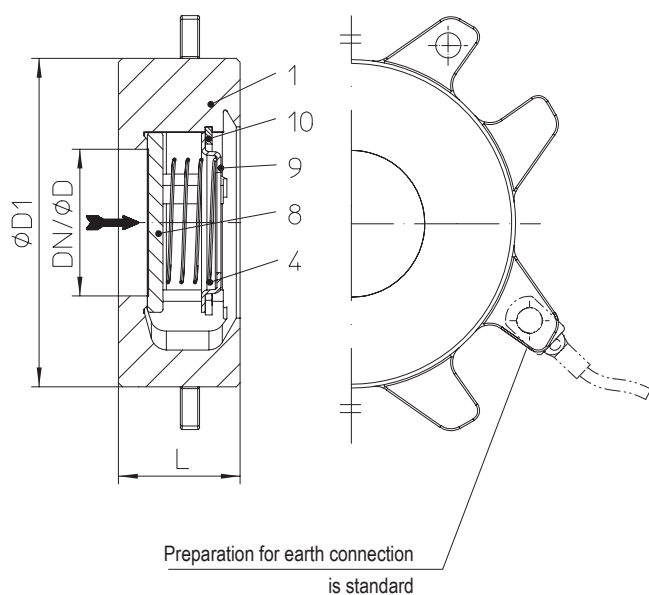
| | DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|------------|---------------------|-----|-----|------|------|-----|------|------|-----|-----|-----|-----|-----|------|------------|
| L | (mm) | 130 | 150 | 160 | 180 | 200 | 230 | 290 | 310 | 350 | 400 | 480 | 600 | 730 | on request |
| H2 | (mm) | 75 | 75 | 90 | 90 | 110 | 110 | 135 | 160 | 200 | 245 | 300 | 390 | 470 | |
| Kvs-value | (m ³ /h) | 6,7 | 8,5 | 14,9 | 18,8 | 33 | 50,9 | 78,5 | 124 | 181 | 302 | 450 | 791 | 1230 | |
| Zeta-value | -- | 1,8 | 3,5 | 2,8 | 4,7 | 3,8 | 3,9 | 4,6 | 4,3 | 4,9 | 4,3 | 4 | 4,1 | 4,1 | |

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 | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|------------|------|-----|-----|-----|-----|-----|-----|-----|------|-----|------|------|-----|-----|------------|
| 35.063 | (kg) | 2,3 | 2,4 | 3,1 | 3,4 | 4,5 | 5,7 | 9,8 | 13,3 | 20 | 25,5 | 43,8 | 140 | 162 | on request |

Disc check valve in clamping version (Stainless steel)


| Figure | Nominal pressure | Material | Nominal diameter |
|--------|------------------|----------|------------------|
| 55.001 | PN40 | 1.4408 | DN15-100 |

Set pressure 0,02 barg
Sealing of the valve plate

 standard: metallic sealing
 Leakage rate BN2/BO3 acc. to DIN 3230-3

 optional: EPDM-soft sealing (max. 120°C)
 Leakage rate A acc. to DIN EN 12266-1

Selection of possible applications

Recycling facilities, chemical industry, hospital technology, process water installations, installations with aggressive media (other applications on request)

Selection of possible flow media

Process water, aggressive media, etc. (other flow media on request)

Parts

| Pos. | Description | Fig. 55.001 |
|------|----------------|---------------------------|
| 1 | Body | GX5CrNiMo19-11-2, 1.4408 |
| 4 | Spring | X10CrNi18-8, 1.4310 |
| 8 | Valve plate * | X6CrNiMoTi17-12-2, 1.4571 |
| 9 | Spring plate | X6CrNiMoTi17-12-2, 1.4571 |
| 10 | Retaining ring | 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 |
|---------------------------|--------|------|-----|------|------|------|------|-----|------|-------|
| L | (mm) | 16 | 19 | 22 | 28 | 31,5 | 40 | 46 | 50 | 60 |
| ØD (acc. to DIN EN 14341) | (mm) | 13 | 19 | 25 | 31 | 38 | 50 | 63 | 76 | 100 |
| ØD1 | (mm) | 45 | 55 | 65 | 75 | 85 | 98 | 118 | 134 | 154 |
| Kvs-value | (m³/h) | 4,4 | 7,1 | 12 | 19,5 | 25 | 46 | 69 | 87 | 122 |
| Zeta-value | -- | 4,18 | 5 | 4,33 | 4,4 | 6,54 | 4,72 | 6 | 8,64 | 10,73 |

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

Face-to-face dimension FTF series 49 according to DIN EN 558

Weights

| Figure-No. | DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 |
|------------|------|------|------|------|------|------|------|-----|-----|-----|
| 55.001 | (kg) | 0,14 | 0,32 | 0,42 | 0,67 | 0,92 | 1,32 | 1,9 | 2,5 | 3,7 |

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 |
|------|--------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| PN6 | ØD | (mm) | 80 | 90 | 100 | 120 | 130 | 140 | 160 | 190 | 210 | 240 | 265 | 320 | -- | -- | -- | -- | -- |
| PN6 | ØK | (mm) | 55 | 65 | 75 | 90 | 100 | 110 | 130 | 150 | 170 | 200 | 225 | 280 | -- | -- | -- | -- | -- |
| PN6 | n x Ød | (mm) | 4x11 | 4x11 | 4x11 | 4x14 | 4x14 | 4x14 | 4x14 | 4x18 | 4x18 | 8x18 | 8x18 | 8x18 | -- | -- | -- | -- | -- |
| PN16 | ØD | (mm) | 95 | 105 | 115 | 140 | 150 | 165 | 185 | 200 | 220 | 250 | 285 | 340 | 405 | 460 | 520 | 580 | 715 |
| PN16 | ØK | (mm) | 65 | 75 | 85 | 100 | 110 | 125 | 145 | 160 | 180 | 210 | 240 | 295 | 355 | 410 | 470 | 525 | 650 |
| PN16 | n x Ød | (mm) | 4x14 | 4x14 | 4x14 | 4x18 | 4x18 | 4x18 | 4x18 | 8x18 | 8x18 | 8x18 | 8x22 | 12x22 | 12x26 | 12x26 | 16x26 | 16x30 | 20x33 |
| 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 DIN EN 1092-2

| 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 |
|-----------|----|-------|------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| EN-JL1040 | 6 | (bar) | -- | 6 | 5,4 | 4,8 | 4,2 | 3,6 | -- | -- | -- |
| EN-JL1040 | 16 | (bar) | -- | 16 | 14,4 | 12,8 | 11,2 | 9,6 | -- | -- | -- |
| EN-JS1049 | 16 | (bar) | on request | 16 | 15,5 | 14,7 | 13,9 | 12,8 | 11,2 | -- | -- |
| EN-JS1049 | 25 | (bar) | on request | 25 | 24,3 | 23 | 21,8 | 20 | 17,5 | -- | -- |

Pressure-temperature-ratings acc. to manufacturers standard

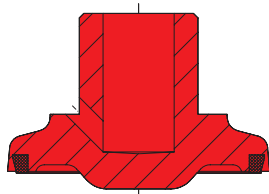
| Material | | | -60°C to <-10°C* | -10°C to 120°C | 150°C | 200°C | 250°C | 300°C | 350°C | 400°C | 450°C |
|----------|----|-------|------------------|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1.0619+N | 25 | (bar) | 18,7 | 25 | 23,9 | 22 | 20 | 17,2 | 16 | 14,8 | 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 | 16 | (bar) | 16 | 16 | 14,5 | 13,4 | 12,7 | 11,8 | 11,4 | 10,9 | -- |
| 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 | -- |

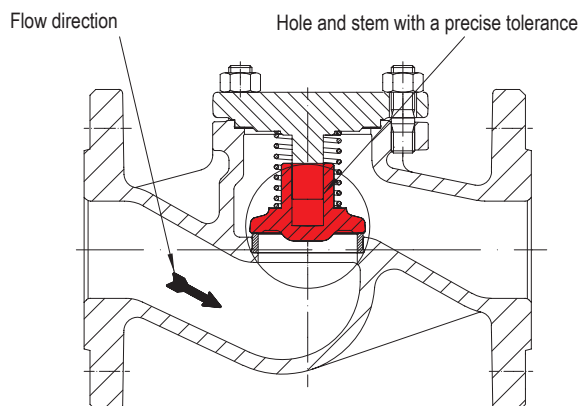
Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

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

CHECKO®-V: Plug design


Soft sealing plug

Max. operating temperature 200°C at PTFE + 25% carbon



Check valve with damper

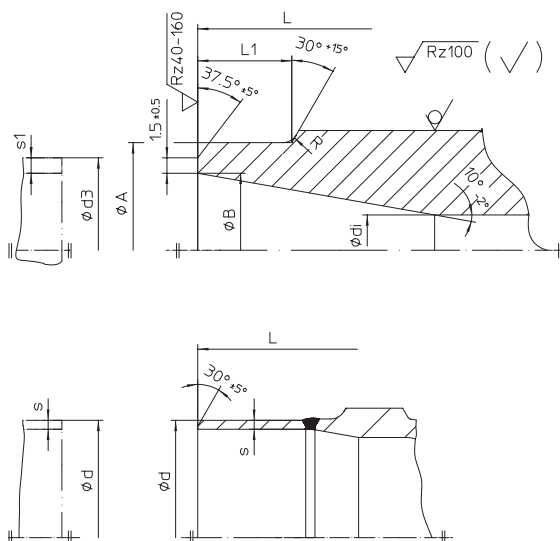
In special applications, like high flow turbulences, check valves with damper should be used:

- if check valves are mounted directly by centrifuged pumps;
- behind pressure reduction stations;
- behind pipe elbows;
- in compact plants;
- if expansion joints are missing;
- if the pump is not mounted on a damper;
- if there is no flow stabilizing pipe dimension;
- if there is no start-up bypass line;
- when chosen valve diameter to large.

Working principle

The precise tolerance between shaft and plug hole prevents an abrupt displacement of medium out of the plug.

L = Face-to-face dimension
 Edge shaping acc. to DIN EN 25817


Butt weld ends acc. to DIN EN 1262 -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 | 257,0 | 307,9 | 338,0 | 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 | 273,0 | 323,9 | 355,6 | 406,4 |
| s1 | (mm) | 2,0 | 2,3 | 2,6 | 2,6 | 2,6 | 3,2 | 3,6 | 4,0 | 5,0 | 4,5 | 5,6 | 7,1 | 8,0 | 8,0 | 8,8 | 11,0 |

Shoed ends of P235GH (Pipe connection Δ 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 | 4,0 | 4,5 | 6,3 | -- | -- | -- | -- |

Face-to-face dimension acc. to DIN EN 12982 ETE-1
Butt weld ends acc. to DIN EN 1262 -4
Weld joint according to DIN EN 29692 code number 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,
 P250 GH, 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.

Because of the different material compositions and wall thickness of the steam traps and the pipe gas welding shall not be applied. Quenching cracks and coarse grain structure may develop.

Please indicate when ordering

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

Example:

Figure 35.003; nominal pressure PN40; nominal diameter DN100.

| |
|---|
| Dimensions in mm Weights in kg 1 bar Δ 10 ⁵ Pa Δ 0,1 MPa Kvs in m ³ /h |
|---|



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