



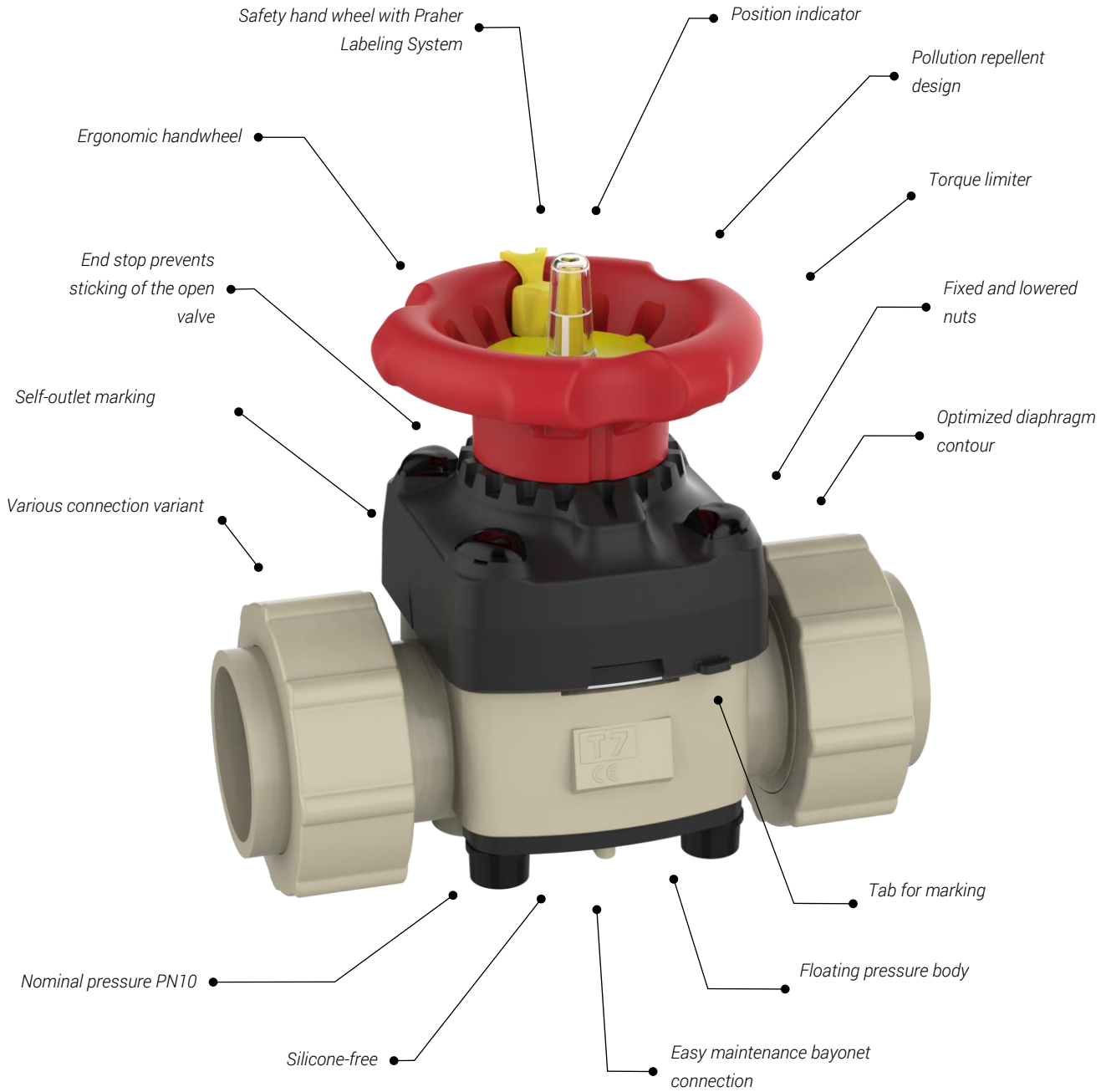
Diaphragm Valve

T7

PP-H

DATASHEET

Diaphragm Valve T7



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Overview

| General | | | |
|---------------------|---------------------------------------|------------------------------|--------------|
| Materials | Body material | PP-H | |
| | Seal material | EPDM / FPM | |
| | Diaphragm | EPDM / EPDM+PTFE / FPM | |
| Dimensions | DN15 – DN50 d20 – d63 1/2" – 2" | | |
| Connection Variants | PP-H Spigot | metric | SDR11 / PN10 |
| | PP-H Fixed flange | DIN / ANSI / JIS | PN10 |
| | <u>Inserts for union:</u> | | |
| | PP-H Fusion socket ends | metric | |
| | PP-H Fusion spigot ends | metric | SDR11 / PN10 |
| | PE100 Spigot | metric | SDR11 / PN16 |
| | PE100 Spigot long | metric | SDR11 / PN16 |
| | PE100 Fusion socket ends | metric | |
| Operating Variants | Handwheel Torque limited | | |
| | Handwheel | | |
| Operating Pressure | DN15 – DN50 Diaphragm EPDM | PN10 | |
| | DN15 – DN50 Diaphragm EPDM + PTFE | PN10 | |
| | DN15 – DN50 Diaphragm FPM | PN10 | |

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Manually Operated Diaphragm Valve

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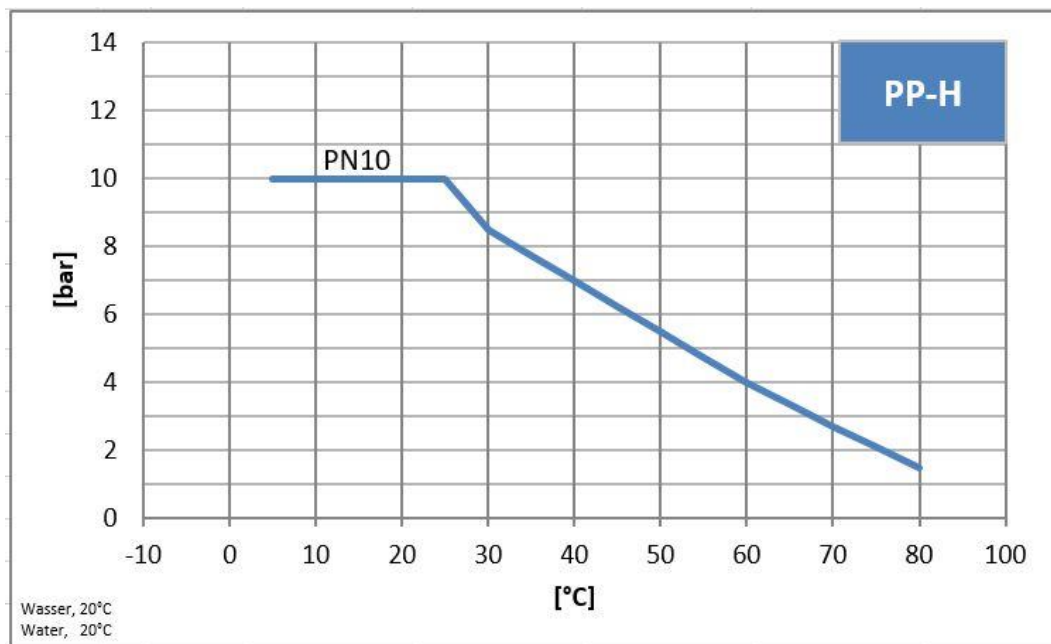


Accessories / Spare Parts

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Technical Data

Pressure-Temperature-Diagram



The values of the pressure-temperature diagram are based on a service life of 25 years at static pressure load with water at 20°C

Torque at Handwheel to Reach Closed Position

| Dimension | Torque Handwheel [Nm] | |
|-----------|-----------------------|-----------|
| | EPDM – FPM | EPDM/PTFE |
| DN15/20 | 3 | 5 |
| DN25 | 4 | 5 |
| DN32/40 | 12 | 16 |
| DN50 | 16 | 19 |

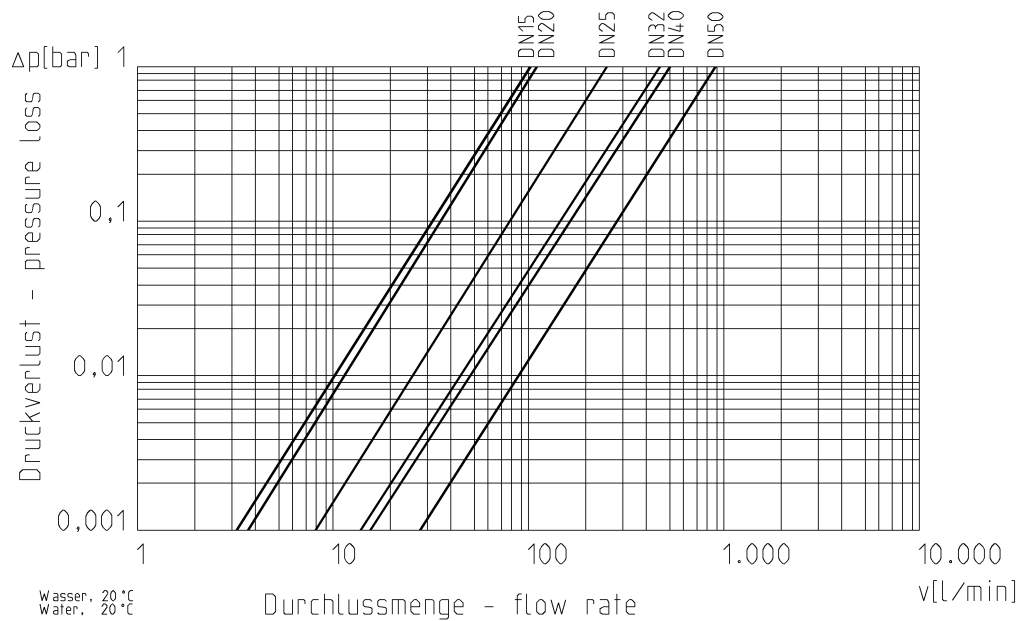
Torque on the Connecting Screws of the Upper and Lower Part

| Screw Torque | |
|--------------|------|
| Dimension | [Nm] |
| DN15/20 | 4 |
| DN25 | 5 |
| DN32/40 | 10 |
| DN50 | 13 |

For further information and notes, see operating instructions.

Technical Data

Flow - Pressure Drop

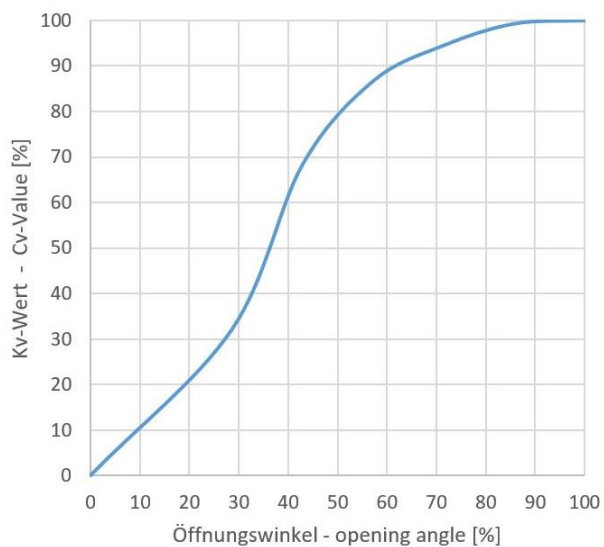


CV-Value-Table

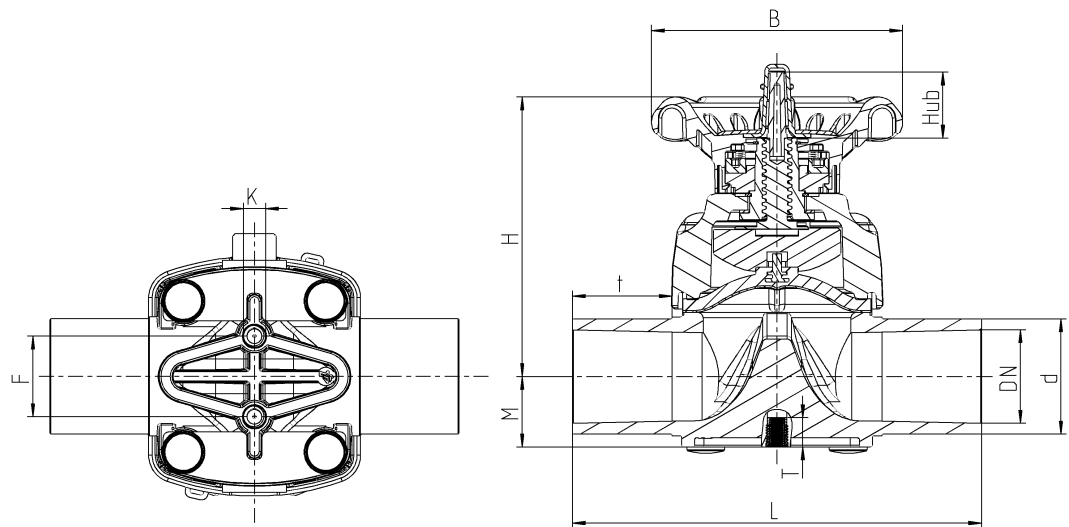
| Pressure Loss | DN15 d20 | DN20 d25 | DN25 d32 | DN32 d40 | DN40 d50 | DN50 d63 |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 0,001 bar | 3,2 | 3,6 | 7,9 | 14,2 | 15,8 | 27,8 |
| 1 bar | 102 | 114 | 250 | 450 | 500 | 880 |

Figures in l/min (PN10 pipe)

Flow characteristics



Dimensions Manually Operated Valve



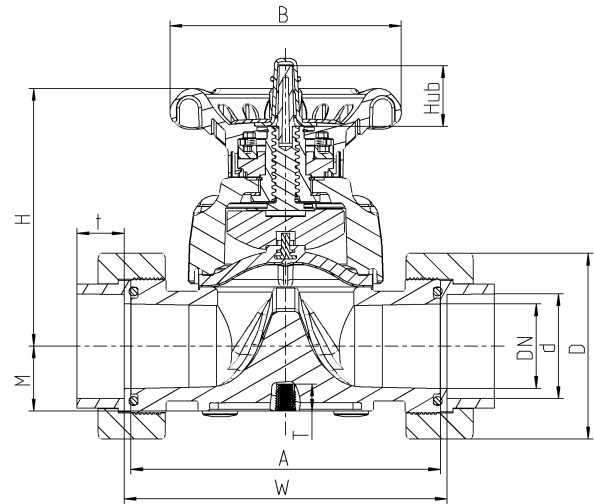
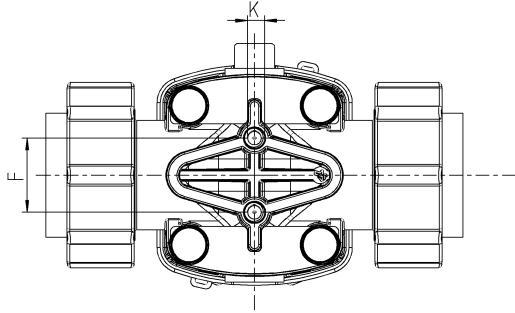
Connection Variant

PP-H Fusion Spigot metric

| DN | 15 | 20 | 25 | 32 | 40 | 50 |
|------|------|------|-----|--------|--------|------|
| d | 20 | 25 | 32 | 40 | 50 | 63 |
| Inch | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
| H | 87 | 89 | 96 | 135 | 140 | 153 |
| B | 85 | 85 | 85 | 138 | 138 | 138 |
| F | 25 | 25 | 25 | 44 | 44 | 44 |
| K | M6 | M6 | M6 | M8 | M8 | M8 |
| Hub | 13 | 13 | 15 | 22 | 22 | 30 |
| t | 36 | 36 | 36 | 36 | 48 | 54,5 |
| L | 133 | 144 | 154 | 174 | 194 | 224 |
| M | 18,6 | 16,5 | 20 | 25,5 | 32 | 38,5 |

(Dimensions in mm)

Dimensions Manually Operated Valve



Connection Variant

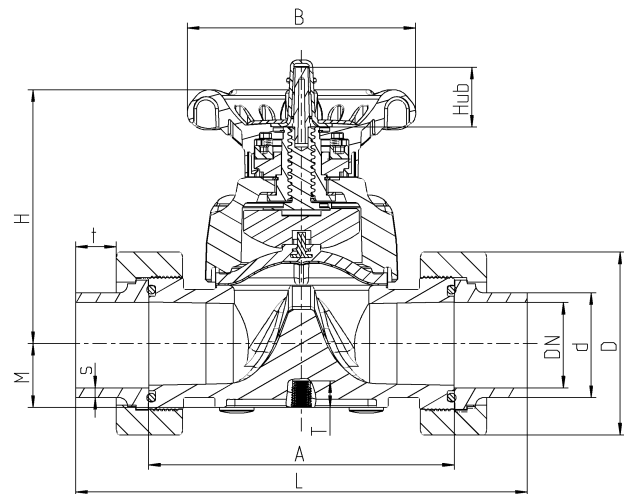
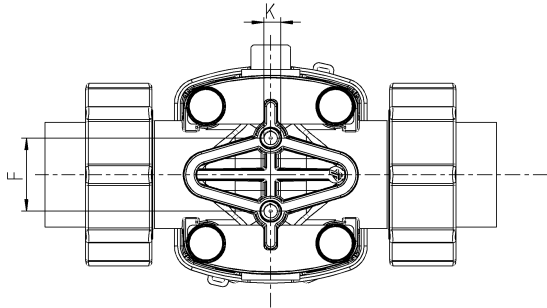
PP-H Fusion socket Ends via Union Metric

| DN | 15 | 20 | 25 | 32 | 40 | 50 |
|------|------|------|-----|--------|--------|------|
| d | 20 | 25 | 32 | 40 | 50 | 63 |
| Inch | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
| H | 87 | 89 | 96 | 135 | 140 | 153 |
| B | 85 | 85 | 85 | 138 | 138 | 138 |
| F | 25 | 25 | 25 | 44 | 44 | 44 |
| K | M6 | M6 | M6 | M8 | M8 | M8 |
| Hub | 13 | 13 | 15 | 22 | 22 | 30 |
| t | 16 | 18 | 19 | 22 | 24.5 | 28 |
| A | 90 | 108 | 116 | 134 | 154 | 184 |
| D | 48 | 58 | 65 | 78 | 91 | 110 |
| M | 18,6 | 16,5 | 20 | 25,5 | 32 | 38,5 |
| W | 97 | 114 | 124 | 140,5 | 161,5 | 192 |

* on request

(Dimensions in mm)

Dimensions Manually Operated Valve



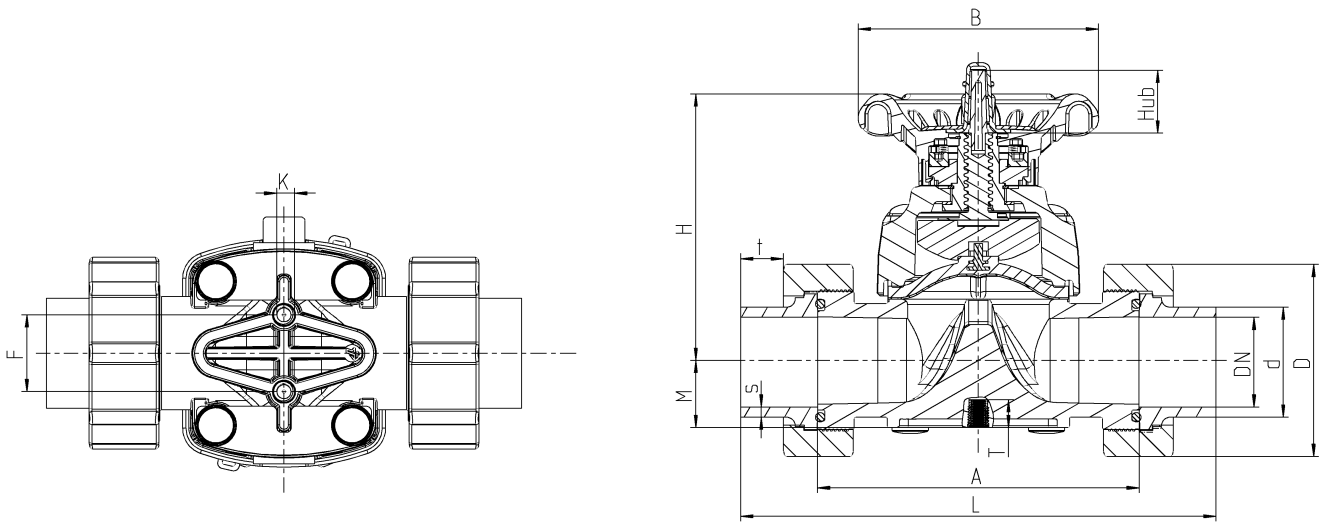
Connection Variant

PP-H Spigot metric via Union

| DN | 15 | 20 | 25 | 32 | 40 | 50 |
|------|------|------|-----|--------|--------|------|
| d | 20 | 25 | 32 | 40 | 50 | 63 |
| Inch | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
| H | 87 | 89 | 96 | 135 | 140 | 153 |
| B | 85 | 85 | 85 | 138 | 138 | 138 |
| F | 25 | 25 | 25 | 44 | 44 | 44 |
| K | M6 | M6 | M6 | M8 | M8 | M8 |
| Hub | 13 | 13 | 15 | 22 | 22 | 30 |
| t | 38,5 | 38 | 40 | 42 | 44,5 | 43 |
| L | 199 | 221 | 238 | 260 | 290 | 319 |
| M | 18,6 | 16,5 | 20 | 25,5 | 32 | 38,5 |
| A | 90 | 108 | 116 | 134 | 154 | 184 |
| D | 48 | 58 | 65 | 78 | 91 | 110 |
| s | 1,9 | 2,3 | 3 | 3,7 | 4,6 | 5,8 |

(Dimensions in mm)

Dimensions Manually Operated Valve



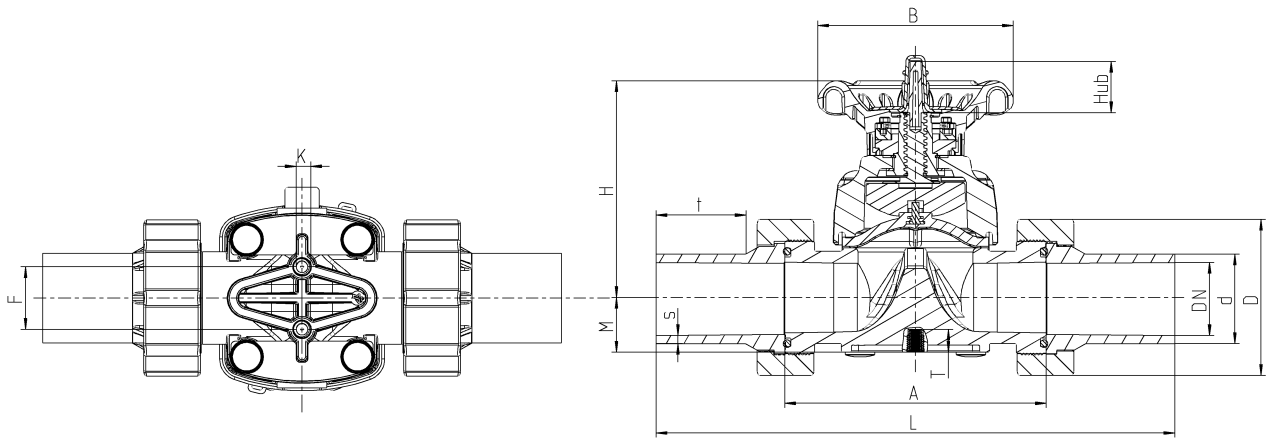
Connection Variant

PE Fusion Spigot Metric via Union

| DN | 15 | 20 | 25 | 32 | 40 | 50 |
|------|------|------|-----|--------|--------|------|
| d | 20 | 25 | 32 | 40 | 50 | 63 |
| Inch | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
| H | 87 | 89 | 96 | 135 | 140 | 153 |
| B | 85 | 85 | 85 | 138 | 138 | 138 |
| F | 25 | 25 | 25 | 44 | 44 | 44 |
| K | M6 | M6 | M6 | M8 | M8 | M8 |
| Hub | 13 | 13 | 15 | 22 | 22 | 30 |
| t | 14 | 16 | 18 | 15 | 29 | 26 |
| L | 150 | 180 | 194 | 192 | 240 | 272 |
| M | 18,6 | 16,5 | 20 | 25,5 | 32 | 38,5 |
| A | 90 | 108 | 116 | 134 | 154 | 184 |
| D | 48 | 58 | 65 | 78 | 91 | 110 |
| s | 2,1 | 2,5 | 3,1 | 3,7 | 5,2 | 5,8 |

(Dimensions in mm)

Dimensions Manually Operated Valve



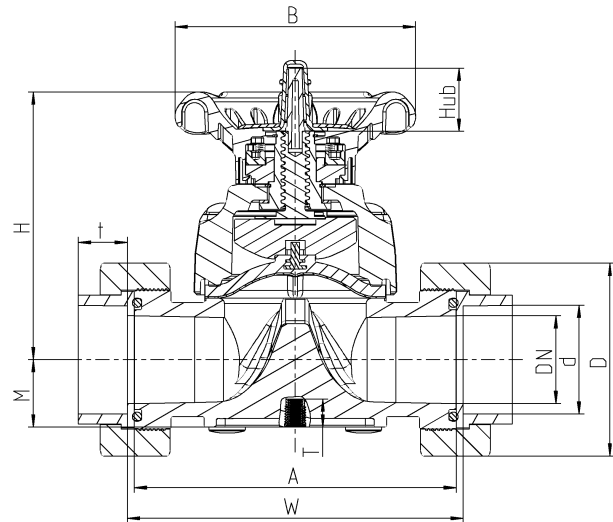
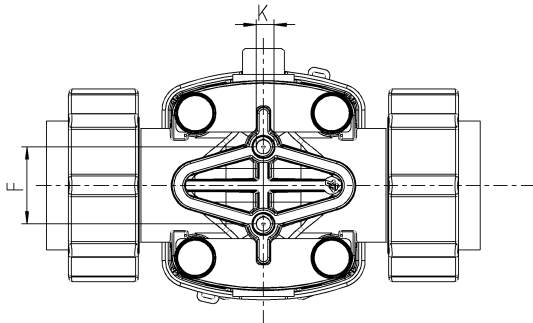
Connection Variant

PE Spigot Long metric via Union

| | | | | | | |
|------|------|------|------|--------|--------|------|
| DN | 15 | 20 | 25 | 32 | 40 | 50 |
| d | 20 | 25 | 32 | 40 | 50 | 63 |
| Inch | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
| H | 87 | 89 | 96 | 135 | 140 | 153 |
| B | 85 | 85 | 85 | 138 | 138 | 138 |
| F | 25 | 25 | 25 | 44 | 44 | 44 |
| K | M6 | M6 | M6 | M8 | M8 | M8 |
| Hub | 13 | 13 | 15 | 22 | 22 | 30 |
| t | 46 | 47 | 71,5 | 55 | 59,5 | 63 |
| L | 214 | 245 | 286 | 292 | 323 | 365 |
| M | 18,6 | 16,5 | 20 | 25,5 | 32 | 38,5 |
| A | 90 | 108 | 116 | 134 | 154 | 184 |
| D | 48 | 58 | 65 | 78 | 91 | 110 |
| s | 3 | 3 | 2,9 | 3,7 | 4,6 | 5,8 |

(Dimensions in mm)

Dimensions Manually Operated Valve



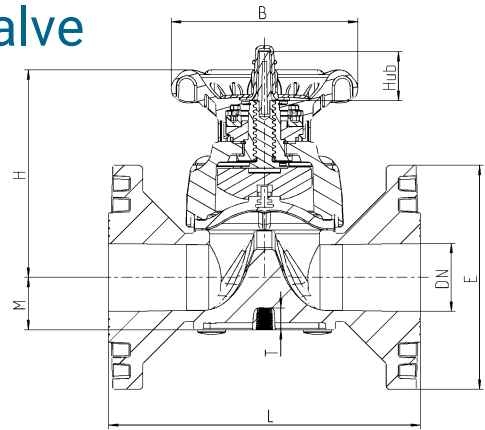
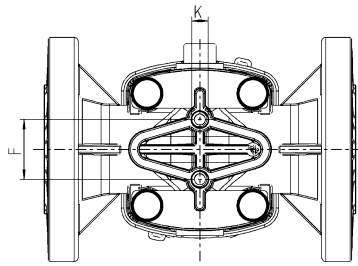
Connection Variant

PE Fusion socket ends metric via Union

| DN | 15 | 20 | 25 | 32 | 40 | 50 |
|------|------|------|------|--------|--------|------|
| d | 20 | 25 | 32 | 40 | 50 | 63 |
| Inch | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
| H | 87 | 89 | 96 | 135 | 140 | 153 |
| B | 85 | 85 | 85 | 138 | 138 | 138 |
| F | 25 | 25 | 25 | 44 | 44 | 44 |
| K | M6 | M6 | M6 | M8 | M8 | M8 |
| Hub | 13 | 13 | 15 | 22 | 22 | 30 |
| t | 16 | 17,5 | 19,5 | 22 | 25 | 29 |
| W | 95 | 116 | 126 | 146 | 173 | 209 |
| M | 18,6 | 16,5 | 20 | 25,5 | 32 | 38,5 |
| A | 90 | 108 | 116 | 134 | 154 | 184 |
| D | 48 | 58 | 65 | 78 | 91 | 110 |

(Dimensions in mm)

Dimensions Manually Operated Valve

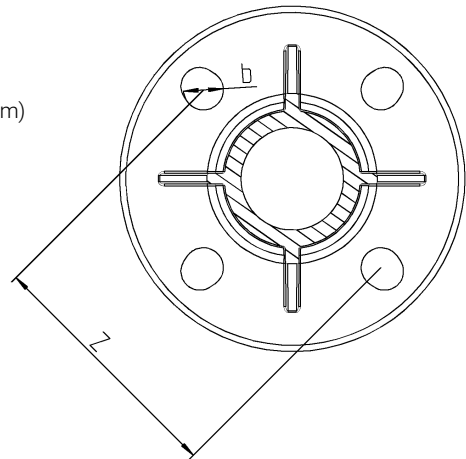


Connection Variant

PP-H Fixed flange DIN-ANSI-JIS

| | | | | | | |
|------|------|------|-----|--------|--------|------|
| DN | 15 | 20 | 25 | 32 | 40 | 50 |
| d | 20 | 25 | 32 | 40 | 50 | 63 |
| Inch | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
| H | 87 | 89 | 96 | 135 | 140 | 153 |
| B | 85 | 85 | 85 | 138 | 138 | 138 |
| F | 25 | 25 | 25 | 44 | 44 | 44 |
| K | M6 | M6 | M6 | M8 | M8 | M8 |
| Hub | 13 | 13 | 15 | 22 | 22 | 30 |
| L | 130 | 150 | 160 | 180 | 200 | 230 |
| E | 96 | 105 | 125 | 140 | 150 | 165 |
| M | 18,6 | 16,5 | 20 | 25,5 | 32 | 38,5 |

(Dimensions in mm)



Screw Connection Diagram Fixed Flange

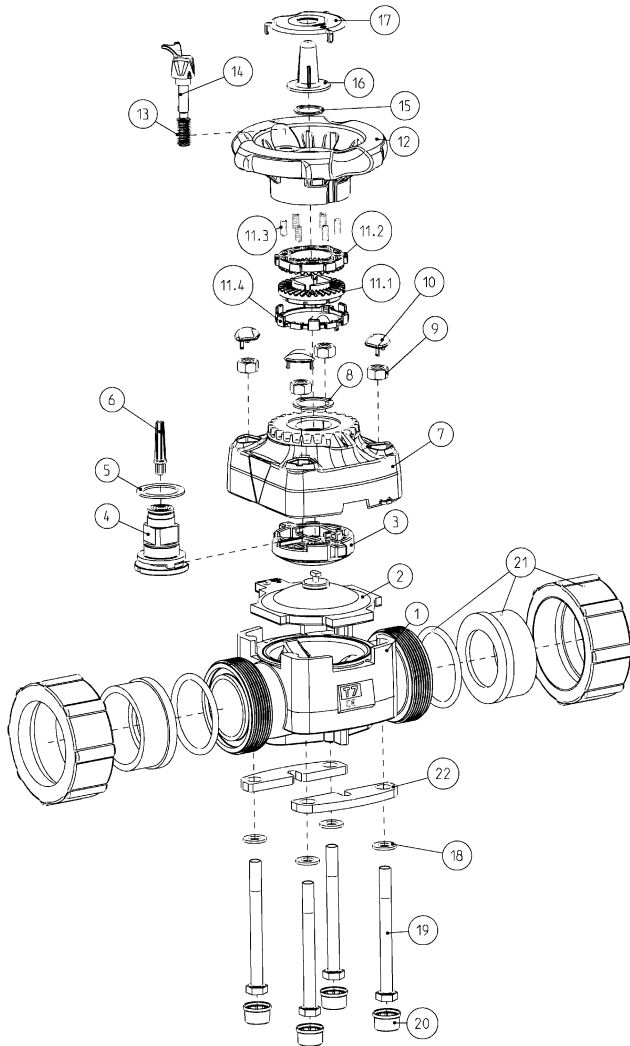
Multinorm DIN-ANSI-JIS

| | | | | | | | |
|----------------|------|------|------|------|--------|--------|-------|
| Norm | DN | 15 | 20 | 25 | 32 | 40 | 50 |
| | d | 20 | 25 | 32 | 40 | 50 | 63 |
| | Inch | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" |
| DIN 2501 | b | 14 | 14 | 14 | 18 | 18 | 18 |
| | Z | 65 | 75 | 85 | 100 | 110 | 125 |
| ANSI Class 150 | b | 15,5 | 15,5 | 15,5 | 15,5 | 15,5 | 19 |
| | Z | 60,3 | 69,8 | 79,3 | 89 | 98,5 | 120,6 |
| JIS 10 k | b | 15 | 15 | 19 | 19 | 19 | 19 |
| | Z | 70 | 75 | 90 | 100 | 105 | 120 |

(Dimensions in mm)

EXPLOSION DRAWING

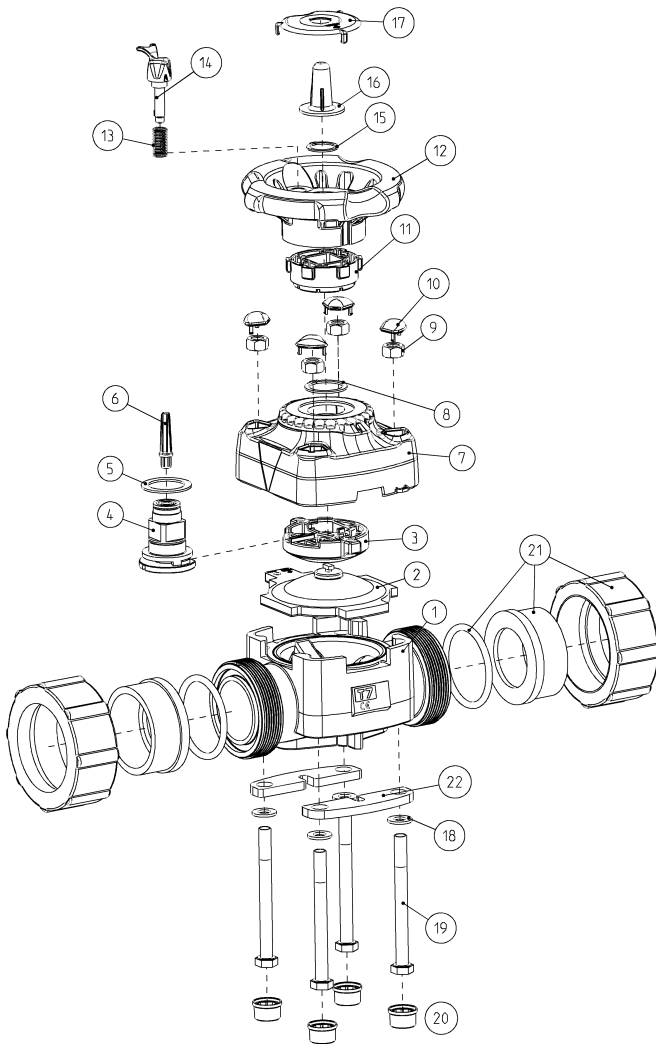
With Torque Limiter



| No. | Description | Material |
|-------|----------------------------|----------------------------|
| 1. | Lower part | PP-H |
| 2. | Diaphragm | EPDM FPM EPDM+PTFE |
| 3. | Pressure body | PP-GF |
| 4. | Spindle assembly | Brass +1.4305 |
| 5. | Sliding washer | PTFE |
| 6. | Indicator pin | PS |
| 7. | Upper part | PP-GF |
| 8. | Circlip | A4 |
| 9. | Hexagon nut | PTFE-coated |
| 10. | Cover cap | ABS |
| 11. | Torque Limiter | |
| 11.1. | Lower part | POM |
| 11.2. | Upper part | PA |
| 11.3. | Spring | 1.4310 |
| 11.4. | Support- Ring(DN32-50) | ABS |
| 12. | Handwheel | PP-CF |
| 13. | Spring | 1.4401 |
| 14. | Latch pin | PBT |
| 15. | Circlip | Galvanized spring steel |
| 16. | Inspection glass | ABS |
| 17. | Inspection glass Holder | ABS |
| 18. | Rip-Lock washer | A4 |
| 19. | Hexagon screw | A2 |
| 20. | Cover cap | PE |
| 21. | Connection variant | Union |
| | O-Ring | EPDM / FPM |
| | Union nut | PP-H |
| | Fusion socket | PP-H |
| | Fusion spigot | PP-H |
| | PE spigot | PE |
| | PE socket | PE |
| 22. | Support Plate | PBT-GF |

EXPLOSION DRAWING

without Torque Limiter



| No. | Description | Material |
|-----|----------------------------|----------------------------|
| 1. | Lower part | PP-H |
| 2. | Diaphragm | EPDM FPM EPDM+PTFE |
| 3. | Pressure body | PP-GF |
| 4. | Spindle assembly | Brass +1.4305 |
| 5. | Sliding washer | PTFE |
| 6. | Indicator pin | PS |
| 7. | Upper part | PP-GF |
| 8. | Circlip | A4 |
| 9. | Hexagon nut | PTFE-coated |
| 10. | Cover cap | ABS |
| 11. | Actuating unit | PP-CF |
| 12. | Handwheel | PP-CF |
| 13. | Spring | 1.4401 |
| 14. | Latch pin | PBT |
| 15. | Circlip | Galvanized spring steel |
| 16. | Inspection glass | ABS |
| 17. | Inspection glass Holder | ABS |
| 18. | Rip-Lock washer | A4 |
| 19. | Hexagon screw | A2 |
| 20. | Cover cap | PE |
| 21. | Connection variant Union | |
| | O-Ring | EPDM / FPM |
| | Union nut | PP-H |
| | Fusion socket | PP-H |
| | Fusion spigot | PP-H |
| | PE spigot | PE |
| | PE socket | PE |
| 22. | Support Plate | PBT-GF |

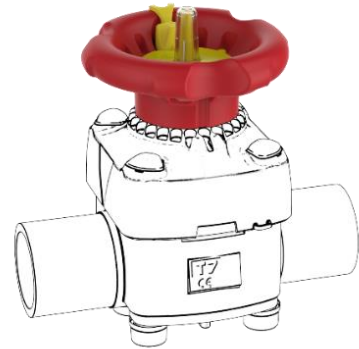
ACCESSORIES / Spare Parts

Handwheel Unit

With Torque Limiter DN15 – DN50

Consisting of:

- Handwheel
- With Marking at Handwheel (see sketch detail)
- Torque – Limiter elements
- Latch pin + Spring
- Circlip
- Inspection Glass
- Inspection Glass Holder



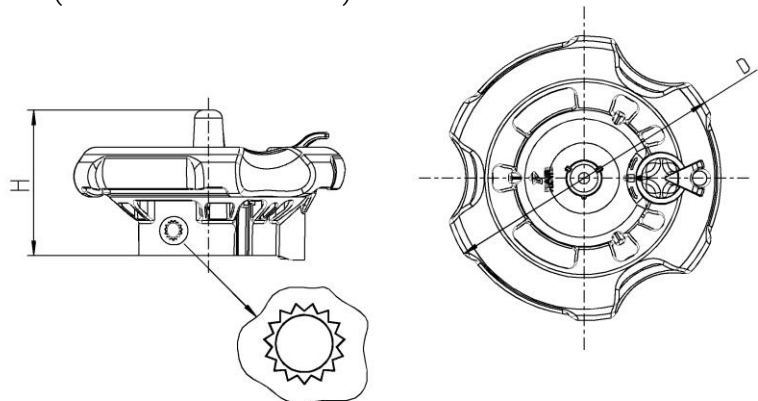
Handwheel Versions:

- 1 Version = DN15/DN20/DN25 für EPDM, FPM und PTFE Diaphragm
- 2 Version = DN32/DN40 für EPDM und FPM Diaphragm
- 3 Version = DN32/DN40 für PTFE Diaphragm
- 4 Version = DN50 für EPDM und FPM Diaphragm
- 5 Version = DN50 for PTFE Diaphragm

Without Torque Limiter DN15 – DN50

Consisting of:

- Handwheel
- Without Marking at Handwheel (siehe Skizze Detail)
- Actuating Unit
- Latch pin + Spring
- Circlip
- Inspection Glass
- Inspection Glass Holder



Handwheel Versions:

- 6 Version = DN15/DN20/DN25
- 7 Version = DN32/DN40/DN50

| | | |
|------|-----------|-------------|
| DN | 15 – 25 | 32 – 50 |
| d | 20 – 32 | 40 – 63 |
| Inch | 1/2" – 1" | 1 1/4" – 2" |
| D | 85 | 138 |
| H | 42 | 70 |

(Dimensions in mm)

ACCESSORIES / Spare Parts

Upper part assembly

Consisting of:

- Pressure body
- Spindle assembly
- Sliding washer
- Indicator pin
- Upper part
- Circlip
- Hexagon nut
- Cover cap (No. 10)

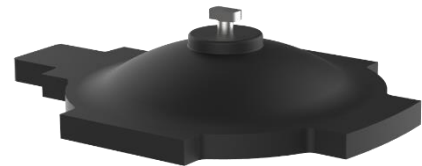


Upper part Versions:

- 1 Version = DN15/DN20
- 2 Version = DN25
- 3 Version = DN32/DN40
- 4 Version = DN50

Diaphragm

- Material: EPDM / FPM
- Bayonet connection
- Optimized contour



Coated Diaphragm

- Material: EPDM PTFE coated
- Bayonet connection
- Optimized contour



ACCESSORIES / Spare Parts

Accessories / Spare Parts for Union Variant

Union End / Union Nut / Connection O-Ring

- The inserts and union nuts from the Accessories Diaphragm Valve, can be combined.
- O-rings from the PVC-U IBG range for fittings can be used with the same nominal diameter of the diaphragm valve.



PLS – Praher Labeling System

Features

- Material ABS
- Unique permanent marking
- Reliable, indelible marking by paint pen or laser
- Standard version in the colors yellow, blue, green and red
- Marking plates are simple to replace
- Corrosion resistant
- No effect on the function of the handle

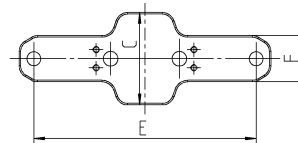
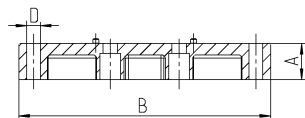


ACCESSORIES / Spare Parts

Mounting Plates

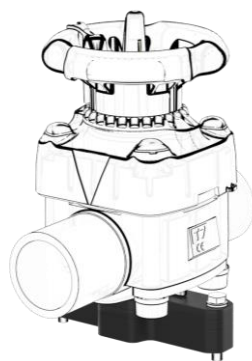
Use as mounting aid and height compensation.

- Material: PP-CF
- Floor / ceiling / wall -mounting
- Additional screws necessary



| DN | 15 - 25 | | | 32 - 50 | | |
|---------|-----------|-----|-----|-------------|-------|-------|
| d | 20 - 32 | | | 40 - 63 | | |
| Inch | 1/2" - 1" | | | 1 1/4" - 2" | | |
| Version | 1 | 2 | 3 | 4 | 5 | 6 |
| A | 23 | 16 | 3,5 | 23,5 | 18,5 | 7,5 |
| B | 104 | 104 | 104 | 164,5 | 164,5 | 164,5 |
| C | 45 | 45 | 45 | 60 | 60 | 60 |
| D | 7 | 7 | 7 | 9 | 9 | 9 |
| E | 90 | 90 | 90 | 145,5 | 145,5 | 145,5 |
| F | 22 | 22 | 22 | 30 | 30 | 30 |

(Dimensions in mm)



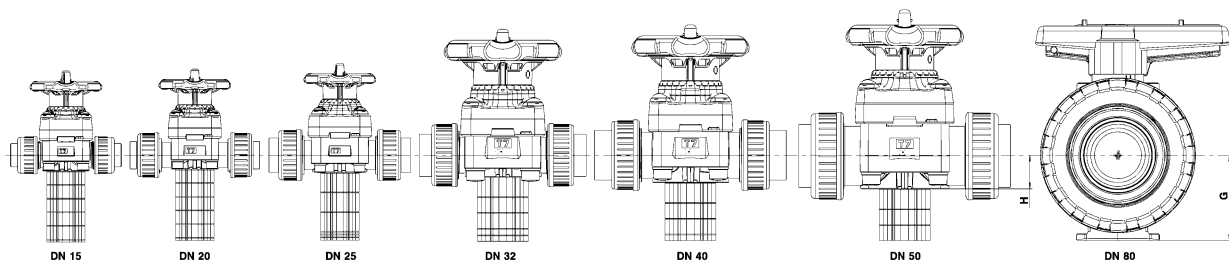
Note on the Use of Mounting Plates:

The table shows the number of mounting plates (e.g. 1x) and the mounting plate version (e.g. **2**).

These combinations can be used to compensate for height differences between the various nominal diameters from the M1 ball valve to the T7 diaphragm valve.

| | | Ball Valve M1 | | | | | | | | |
|--------------------|------|---------------|----------|----------|--------------|--------------|--------------|----------------------|--------------|----------------------|
| | | G[mm] | 33 | 40 | 43 | 51 | 56 | 64 | 85 | 100 |
| H [mm] | | DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 |
| Diaphragm Valve T7 | 18,6 | 15 | 1x 2 | 1x 1 | 1x 1 1x 3 | 1x 1 3x 3 | 2x 2 2x 3 | 2x 1 | 4x 2 1x 3 | 5x 2 1x 3 |
| | 16,5 | 20 | | 1x 1 | 1x 1 1x 3 | 1x 1 3x 3 | 2x 2 2x 3 | 2x 1 | 4x 2 1x 3 | 5x 2 1x 3 |
| | 20 | 25 | | | 1x 1 | 1x 1 2x 3 | 2x 2 1x 3 | 1x 1 1x 2 1x 3 | 4x 2 | 3x 1 3x 3 |
| | 25,5 | 32 | | | | 1x 4 | 1x 4 1x 6 | 1x 4 2x 6 | 2x 5 3x 6 | 1x 4 2x 5 2x 6 |
| | 32 | 40 | | | | | 1x 4 | 1x 4 1x 6 | 2x 5 2x 6 | 1x 4 2x 5 1x 6 |
| | 38,5 | 50 | | | | | | 1x 4 | 1x 4 3x 6 | 1x 4 2x 5 |

Examples for all nominal diameters of the Diaphragm Valve T7 combined with a Ball Valve M1 DN80:





Praher Plastics Austria GmbH

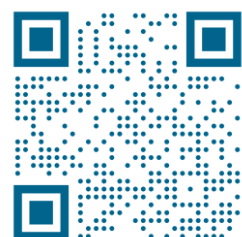
Poneggenstraße 5
4311 Schwertberg
Österreich

T +43 7262 61179-0
F +43 7262 61203
sales@praherplastics.com

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