



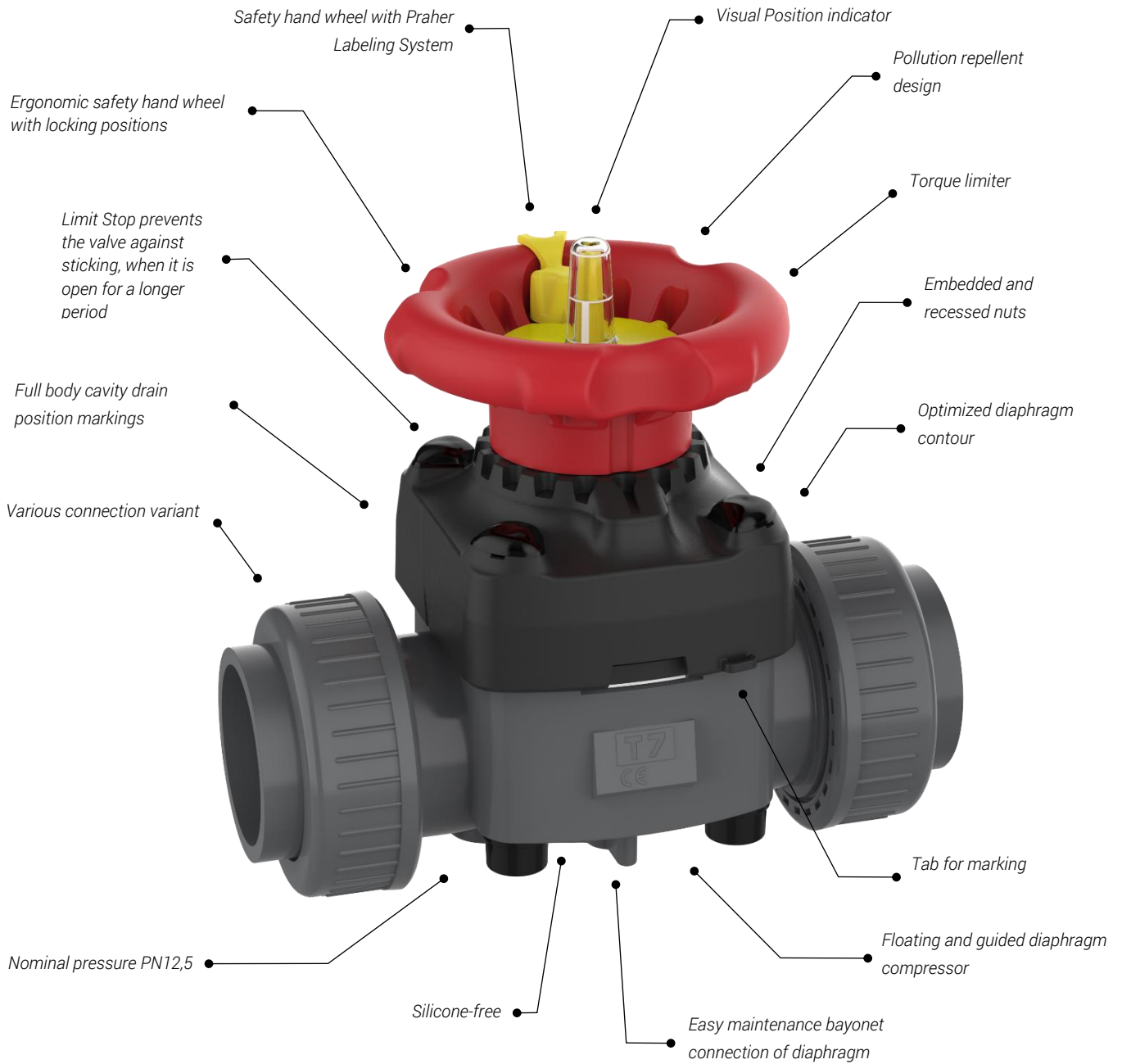
Diaphragm Valve

**T7**

PVC-U

**DATASHEET**

# Diaphragm Valve T7



# Overview

General				
Materials	Body material	PVC-U		
	Seal material	EPDM / FPM		
	Diaphragm	EPDM / EPDM+PTFE / FPM		
Dimensions	DN15 – DN50 d20 – d63 1/2" – 2"			
Connection Variants	PVC-U spigot	metric	SDR11 / PN16	
	PVC-U fixed flange	DIN / ANSI / JIS	PN16	
	<u>Inserts for union:</u>			
	PVC-U socket ends	metric / ASTM / JIS		
	PVC-U thread socket	BSP	G- Norm Thread	
	PE100 fusion spigot	metric	SDR11 / PN16	
	PE100 fusion spigot long	metric	SDR11 / PN16	
	PE100 fusion socket	metric		
Operating Variants	Handwheel Torque limited			
	Handwheel			
Operating Pressure	DN15 – DN50 Diaphragm EPDM	PN12,5		
	DN15 – DN50 Diaphragm EPDM + PTFE	PN12,5		
	DN15 – DN50 Diaphragm FPM	PN10		

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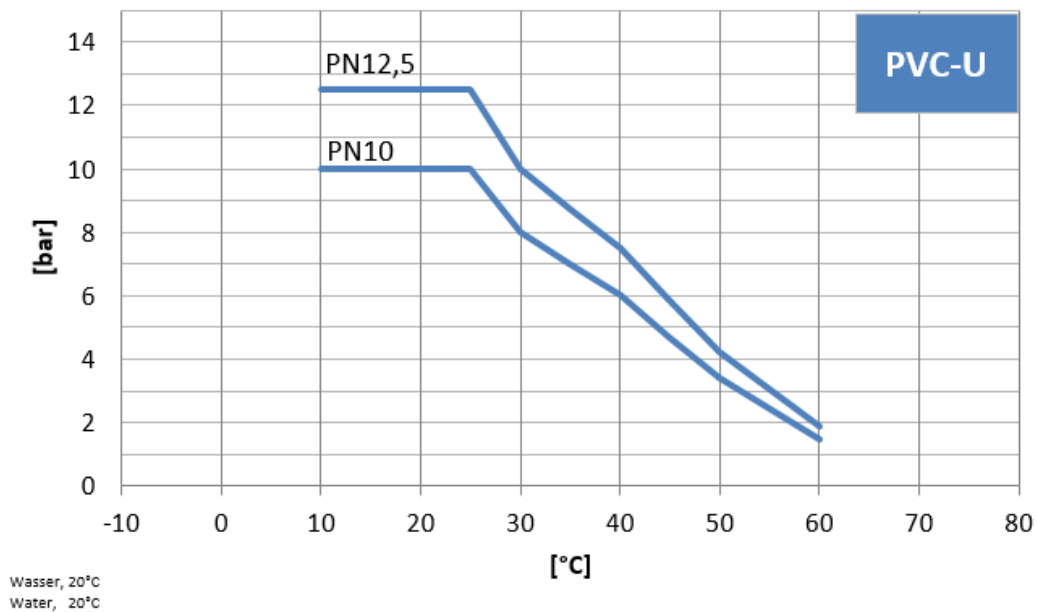


Accessories / Spare Parts

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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
DN 15/20	3	5
DN25	4	5
DN32/40	12	16
DN50	16	19

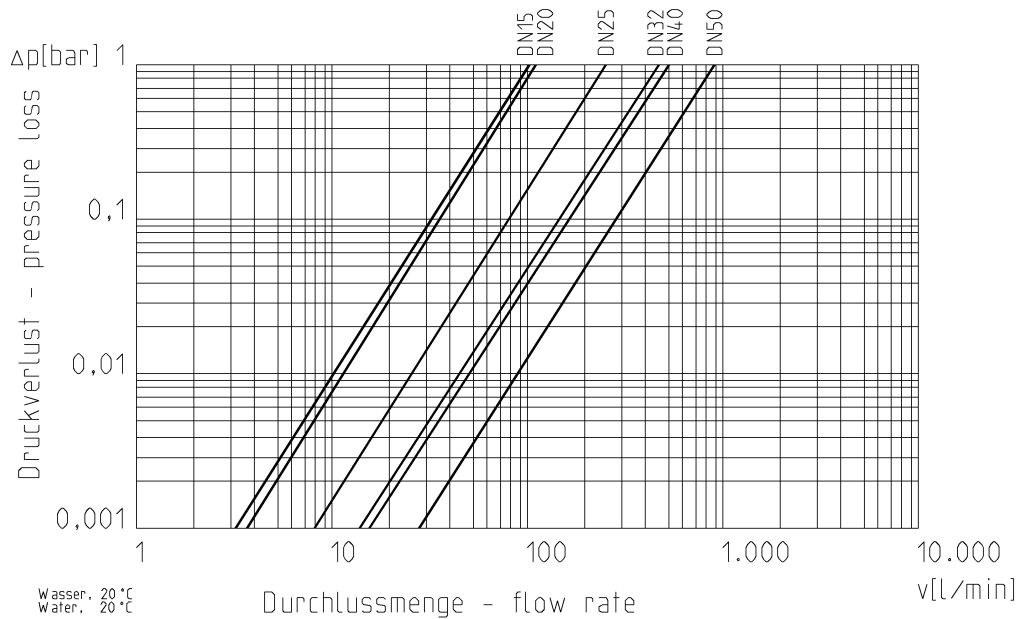
## Torque on the Connecting Screws of the Upper and Lower Part

Screw Torque	
Dimension	[Nm]
DN 15/20	4
DN25	5
DN32/40	10
DN50	13

For further information and notes, see operating instructions.

# Technical Data

## Flow - Pressure Drop

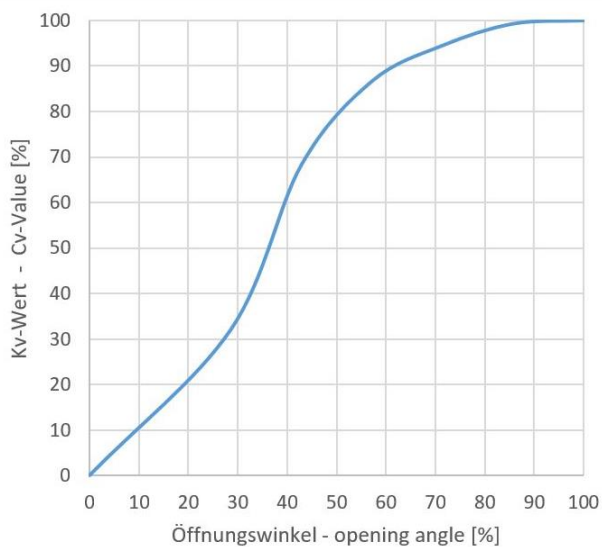


## CV-Value-Table

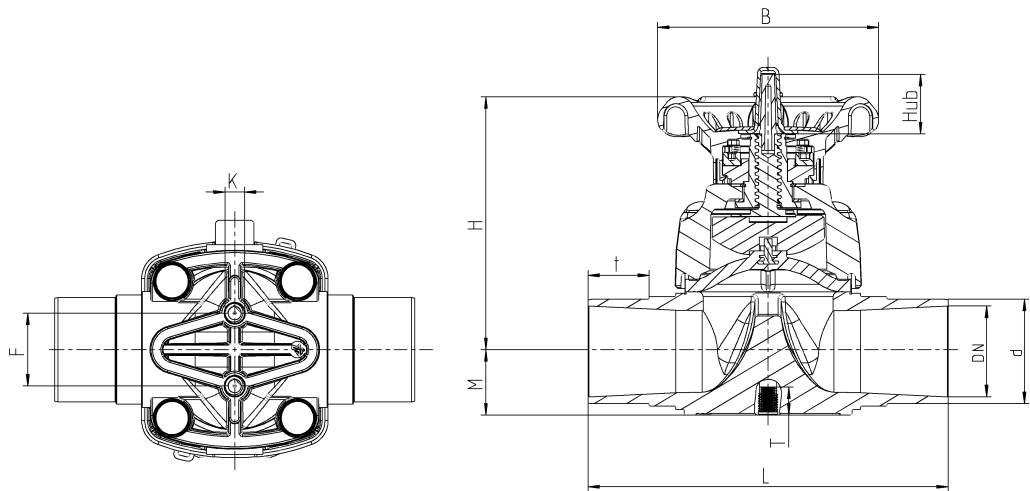
Pressure Loss	DN15 d20	DN20 d25	DN25 d32	DN32 d40	DN40 d50	DN50 d63
0,001 bar	3,2	3,6	7,9	14,2	15,8	27,8
1 bar	102	114	250	450	500	880

Figures in l/min (PN10 pipe)

## Flow characteristics



# Dimensions Manually Operated Valve



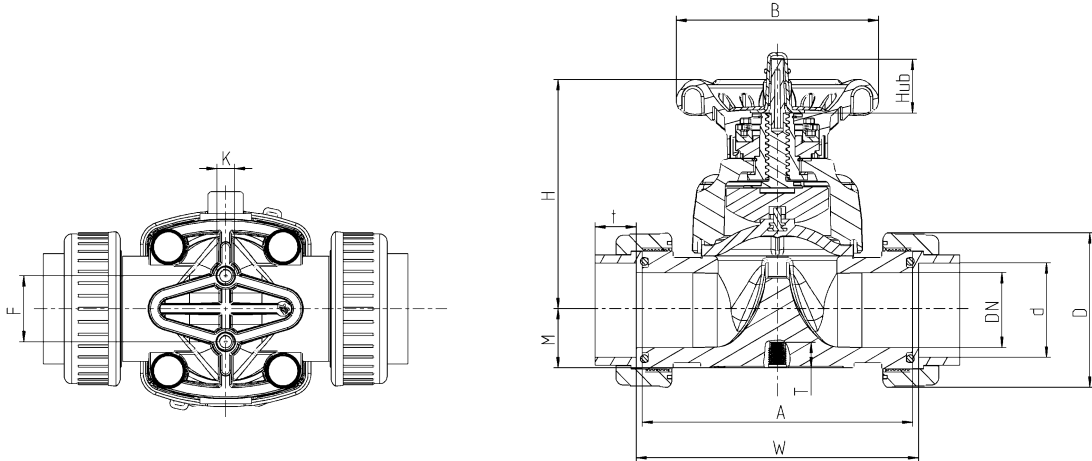
## Connection Variant

### PVC-U Solvent 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	16	19	22	36	33,5	38
L	124	144	154	174	194	224
M	18,6	16,5	20	25,5	32	39,5

(Dimensions in mm)

# Dimensions Manually Operated Valve



## Connection Variant

### PVC-U Solvent Socket Metric / ASTM / JIS via Union

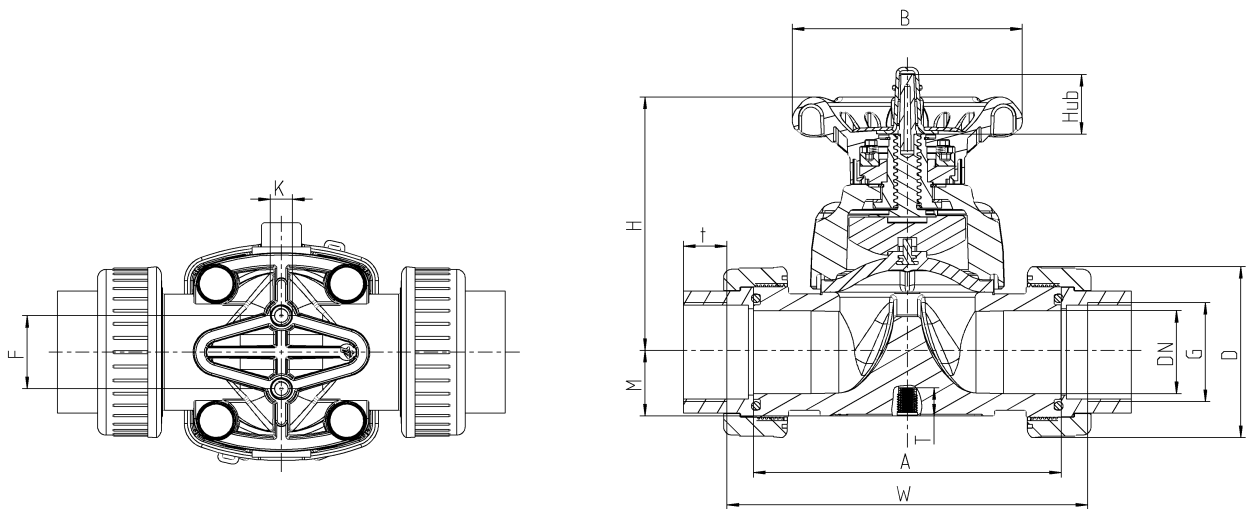
DN	15	20	25	32	40	50
d	20	25	32	40	50	63
Inch	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
H	87	89	96	135	140	153
B	85	85	85	138	138	138
F	25	25	25	44	44	44
K	M6	M6	M6	M8	M8	M8
Hub	13	13	15	22	22	30
t <sub>metr.</sub>	17	18,5	22	27	27	28
t <sub>ASTM</sub>	16.5	19.5	23	27	31,5	39
t <sub>JIS</sub>	17	19,5	22,5	27	31,5	*
A	90	108	116	136	154	184
D	44	53	60	74	83	103
M	18,6	16,5	20	25,5	32	39,5
W <sub>metr</sub>	96	115	122	142	171	192
W <sub>ASTM</sub>	95	115	122	142	160	190
W <sub>JIS</sub>	96	115	123	142	160	*

\* on request

(Dimensions in mm)



# Dimensions Manually Operated Valve



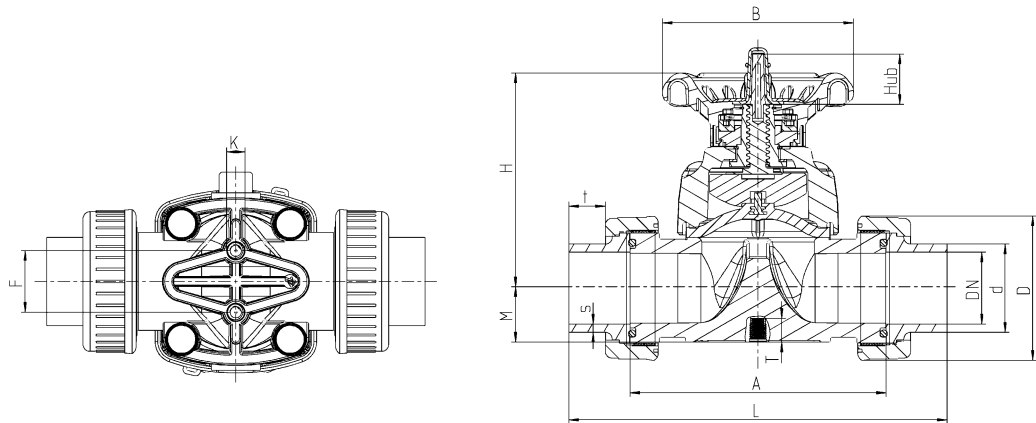
## Connection Variant

### PVC-U Threaded Socket BSP 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	16.5	18.5	18,5	22	22	26
W	97	115	129	152	180	216
M	18,6	16,5	20	25,5	32	39,5
A	90	108	116	136	154	184
D	44	53	60	74	83	103

(Dimensions in mm)

# Dimensions Manually Operated Valve



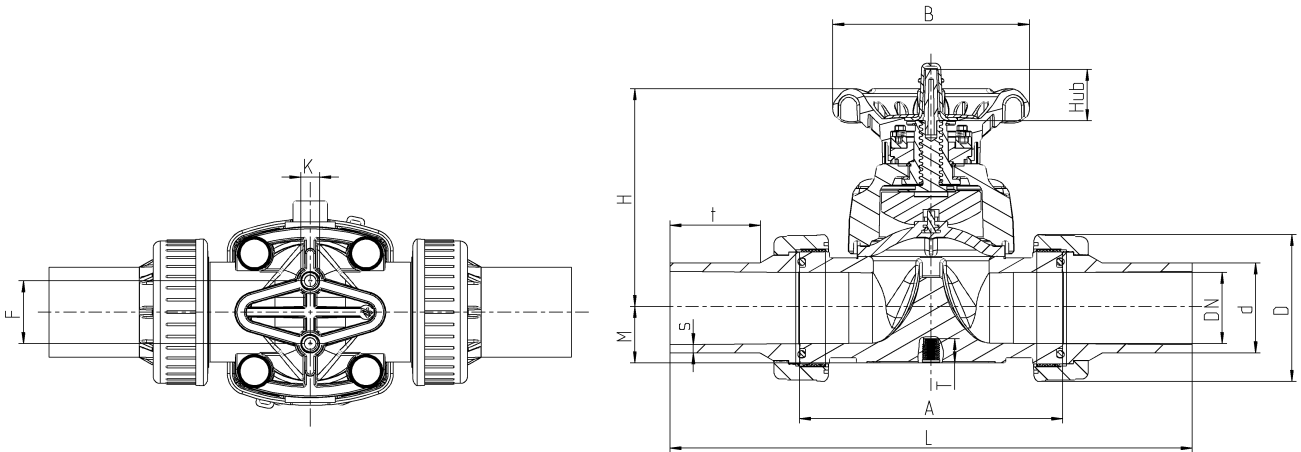
## Connection Variant

### 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	194	240	272
M	18,6	16,5	20	25,5	32	39,5
A	90	108	116	136	154	184
D	44	53	60	74	83	103
s	2,1	2,5	3,1	3,7	5,2	5,8

(Dimensions in mm)

# Dimensions Manually Operated Valve



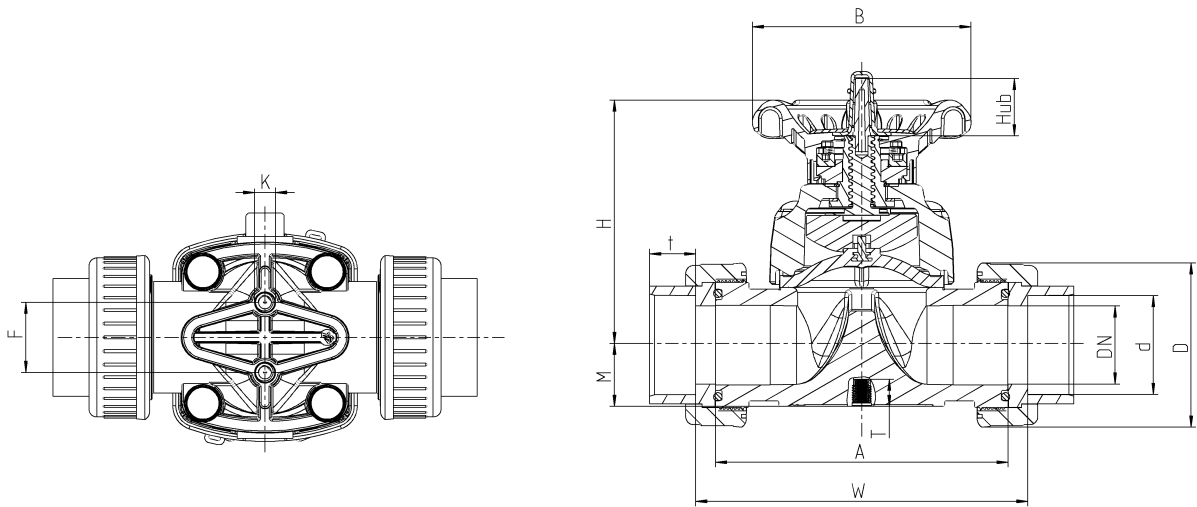
## Connection Variant

### PE Fusion 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	294	323	365
M	18,6	16,5	20	25,5	32	39,5
A	90	108	116	136	154	184
D	44	53	60	74	83	103
s	3	3	2,9	3,7	4,6	5,8

(Dimensions in mm)

# Dimensions Manually Operated Valve



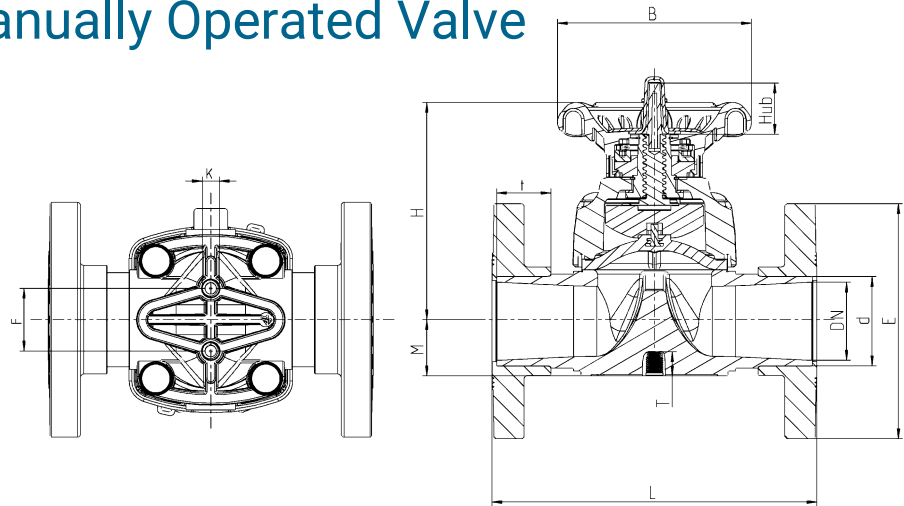
## Connection Variant

### PE Fusion Socket 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	148	173	209
M	18,6	16,5	20	25,5	32	39,5
A	90	108	116	136	154	184
D	44	53	60	74	83	103

(Dimensions in mm)

# Dimensions Manually Operated Valve

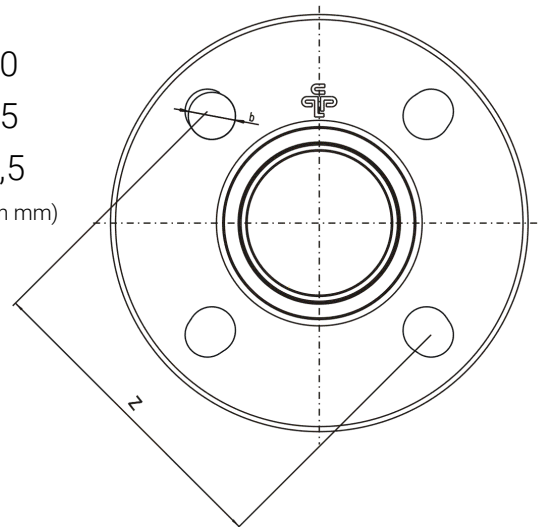


## Connection Variant

### PVC-U 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	131	151	162	180	200	230
E	97	105	125	140	150	165
M	18,6	16,5	20	25,5	32	39,5

(Dimensions in mm)



## Screw Connection Diagram Fixed Flange

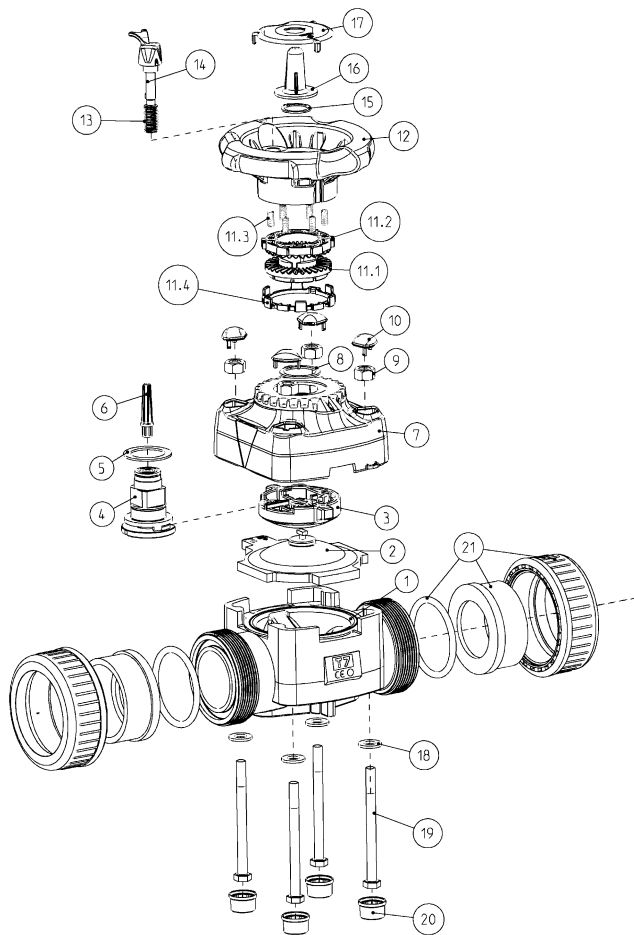
### Multinorm DIN-ANSI-JIS

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

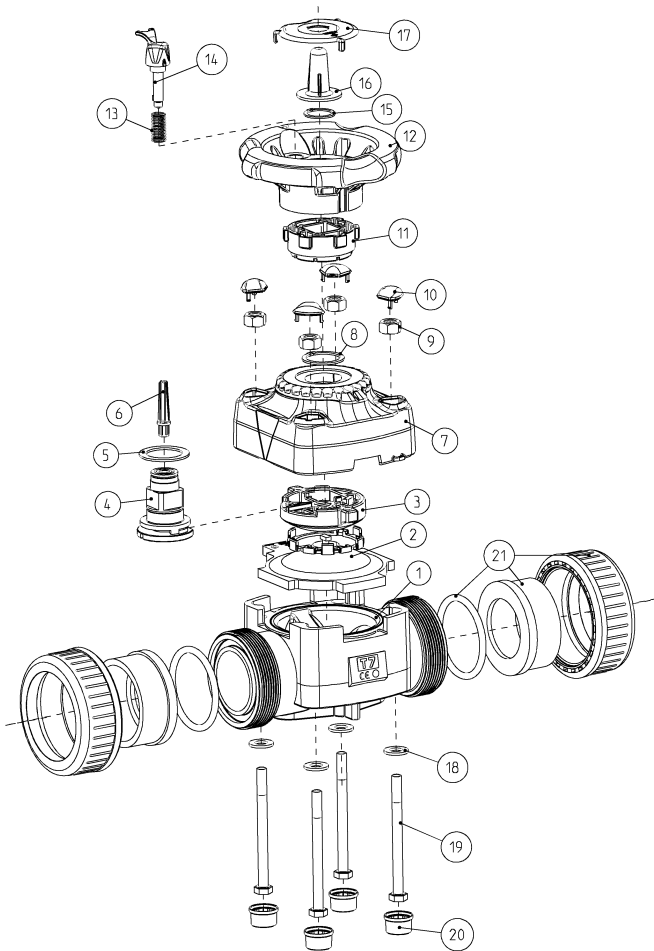
with Torque Limiter



No.	Description	Material
1.	Lower part	PVC-U
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	PVC-U
	Solvent socket	PVC-U
	Thread socket	PVC-U
	PE spigot	PE
	PE socket	PE

# EXPLOSION DRAWING

without Torque Limiter



No.	Description	Material
1.	Lower part	PVC-U
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	PVC-U
	Solvent socket	PVC-U
	Thread socket	PVC-U
	PE spigot	PE
	PE socket	PE

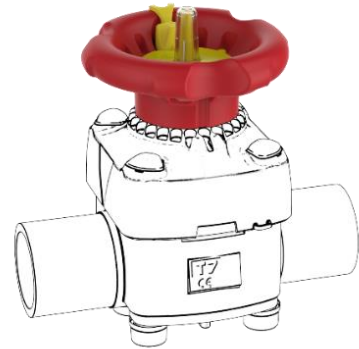
# ACCESSORIES / Spare Parts

## 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



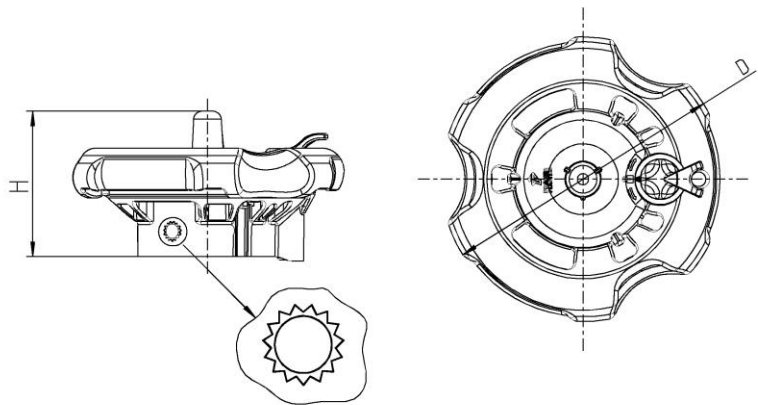
Handwheel Versions:

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

### Without Torque Limiter DN15 – DN50

Consisting of:

- Handwheel
- Without Marking at Handwheel (see sketch detail)
- Actuating unit
- Latch pin + Spring
- Circlip
- Inspection glass
- Inspection glass holder



Handwheel Versions:

- 6 Version = DN15/DN20/DN25
- 7 Version = DN32/DN40
- 8 Version = 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 unit

Consisting of:

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



Upper part Versions:

1 Version = DN15/DN20

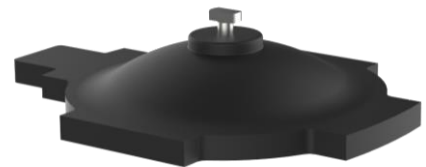
2 Version = DN25

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

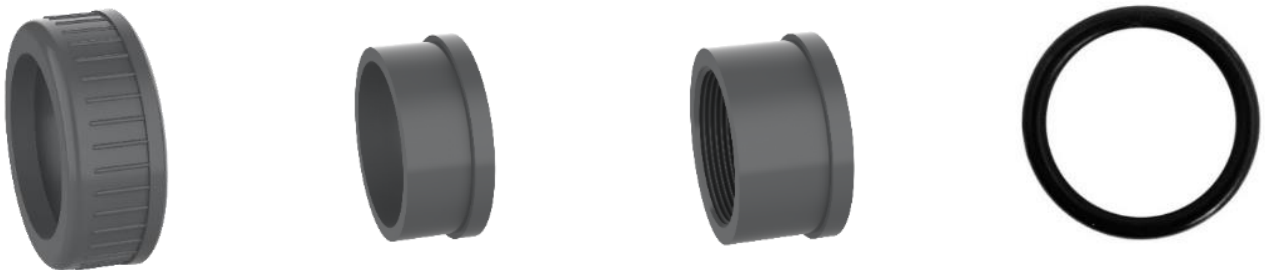


# ACCESSORIES / Spare Parts

## Accessories / Spare Parts for Union Variant

### Union End / Union Nut / Connection O-Ring

- The Union end, Union nut and O-Rings from the PVC-U IBG range for Unions, can be combined with the same nominal diameter of the Diaphragm valves with Union.



## 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

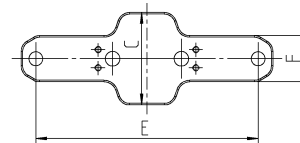
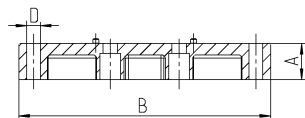


# ACCESSORIES / Spare Parts

## Mounting Plates

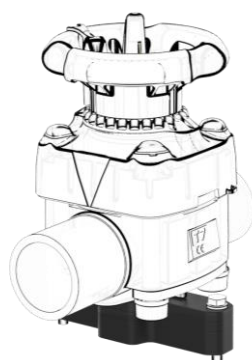
Use as mounting aid and height compensation.

- 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
	39,5	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:

