

## 2 way ball valve M1 manual with position feedback



### General:

- Body material: PP-H / PVDF
- Seal material: EPDM / FPM
- Ball seating joint: PTFE
- Dimensions: DN10 – DN80  
d16 – d110  
d3/8" – d4"

### Connection types:

- PP / PVDF fusion socket DIN
- PP / PVDF fusion spigot DIN
- PE fusion socket / -spigot DIN
- Backing flange DIN / ANSI

### Operating pressure:

- PP DN10 – DN80 d110 PN10
- PVDF DN10 – DN80 d110 PN16

### Technical features:

- Silicone free
- Union with buttress thread
- Safety locking handle
- Double axial gasket
- Floating ball
- Double sided blocked ball
- Adjustable ball seating joint
- Integrated bottom mounting stand
- Radial installation or removal
- Maintenance free

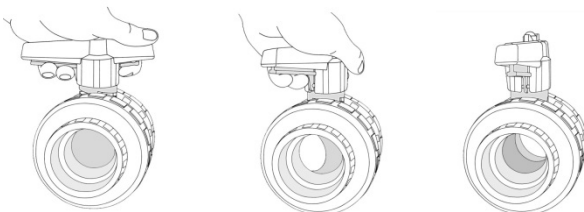
### Position feedback

- Limit switch IP67
  - mechanical
    - Ag-Ni NO
    - Ag-Ni NC (on request)
    - Au NO (on request)
    - Au NC (on request)
  - inductive (on request)
    - PNP
    - NPN (on request)
  - Namur (on request)
- adjustable
- incl. stainless steel bolts
- incl. device plug

### Accessories:

- Clamping / spacing element

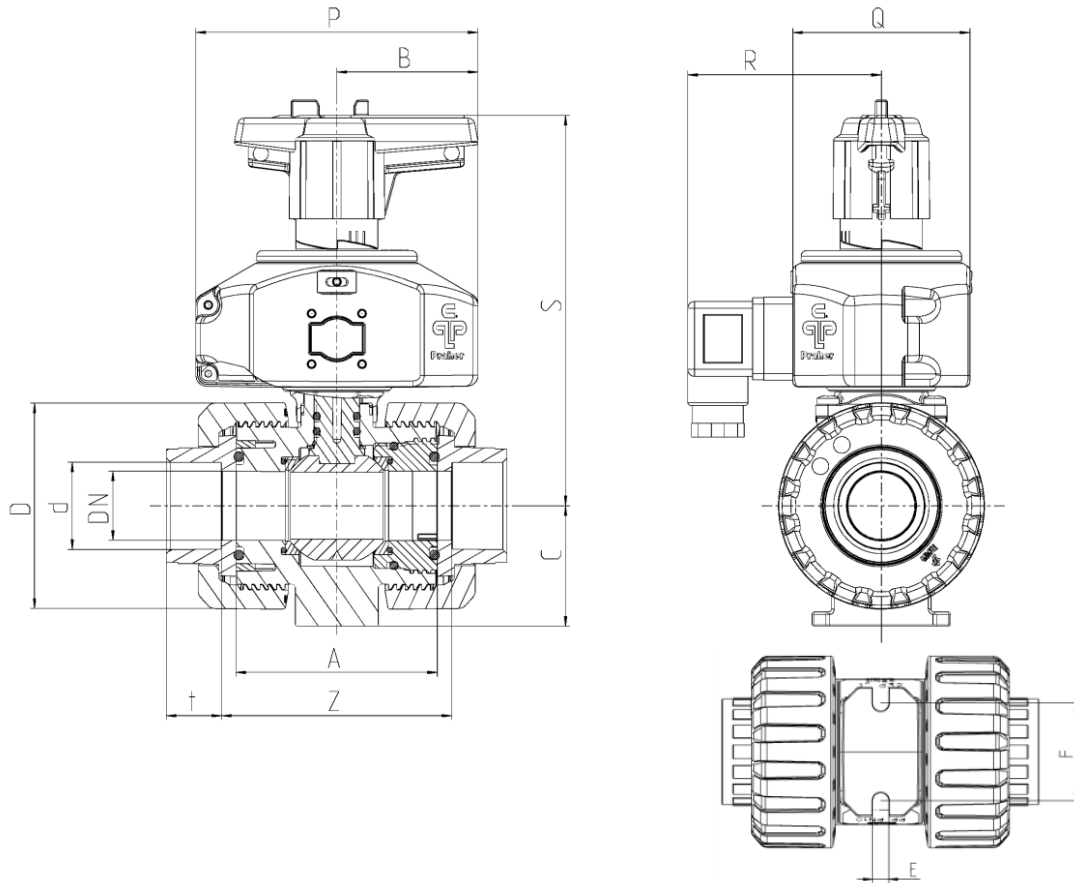
### **SAFETY LOCKABLE HANDLE SYSTEM**



This document does not constitute a guarantee, it is for initial information purposes only. The product range is continually upgraded, the designs and types therefore only reflect the state of the art at the time of printing. Subject to technical modifications!

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### Dimensions:



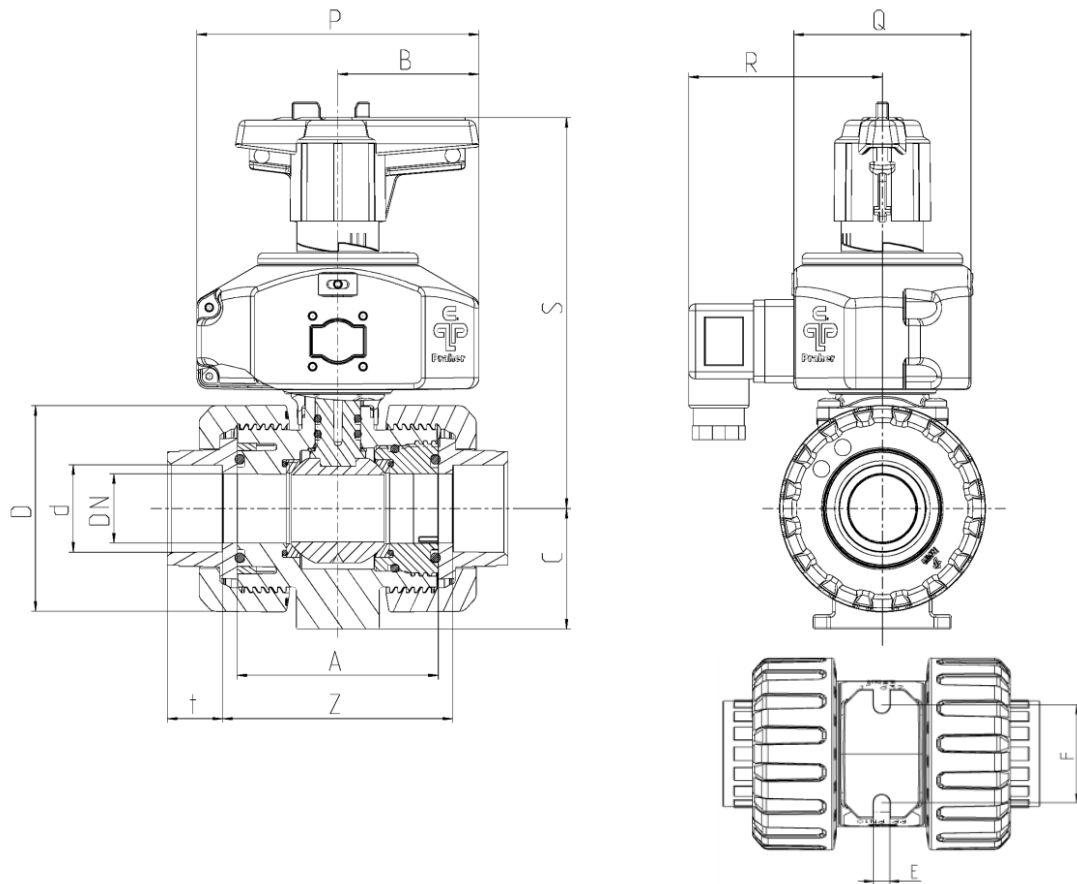
### PP-H

Connector type  
PP-H fusion socket

DN	10	15	20	25	32	40	50	65	80	80
d	16	20	25	32	40	50	63	75	90	110
ISO flange	F04	F04	F04	F04	F05	F05	F05	F07	F07	F07
A	61,5	61,5	69	73	83	94	109	131,5	156,5	156,5
B	40	40	51,5	51,5	64	73	85	110	132	132
C	33	33	40	43,5	51	56,5	64,5	85	100	100
D	58	58	68,5	75,5	92	108	127,5	160	196,5	196,5
E	5,4	5,4	5,4	6,4	6,4	6,4	6,4	8,3	10,3	10,3
F	34	34	36	38	40	45	50	65	80	80
P	98	98	102	102	105	105	105	116	116	116
Q	64	64	64	64	74	74	74	99	99	99
R	70	70	70	70	75	75	75	88	88	88
S	127	127	138	141	159,5	168,5	177,5	215	246,5	246,5
t	14,5	16	17,5	19,5	22	25,5	29	34,5	38,5	42
Z	69,5	66,5	78	84	97	114	136,5	162	206,5	207,5
PN	10	10	10	10	10	10	10	10	10	10

Dimensions in mm

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**PVDF**  
Connector type  
PVDF fusion socket

DN	10	15	20	25	32	40	50	65	80	80
d	16	20	25	32	40	50	63	75	90	110
ISO flange	F04	F04	F04	F04	F05	F05	F05	F07	F07	F07
A	61,5	61,5	69	73	83	94	108,5	131,5	156,5	156,5
B	40	40	51,5	51,5	64	73	85	110	132	132
C	33	33	40	43,5	51	56,5	64,5	85	100	100
D	56,5	56,5	67	73,5	90	105,5	124,5	157,5	192,5	192,5
E	5,4	5,4	5,4	6,4	6,4	6,4	6,4	8,3	10,3	10,3
F	34	34	36	38	40	45	50	65	80	80
P	98	98	102	102	105	105	105	116	116	116
Q	64	64	64	64	74	74	74	99	99	99
R	70	70	70	70	75	75	75	88	88	88
S	127	127	138	141	159,5	168,5	177,5	215	246,5	246,5
t	14,5	16	17	19,5	22	25	29	35	38,5	44
Z	69,5	67	78	84	97	113	136	158,5	205	163
PN	16	16	16	16	16	16	16	16	16	16

Dimensions in mm



+612 9615 9774

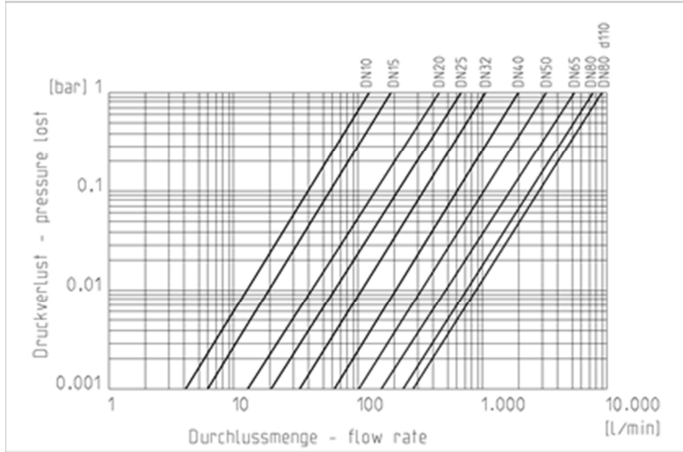
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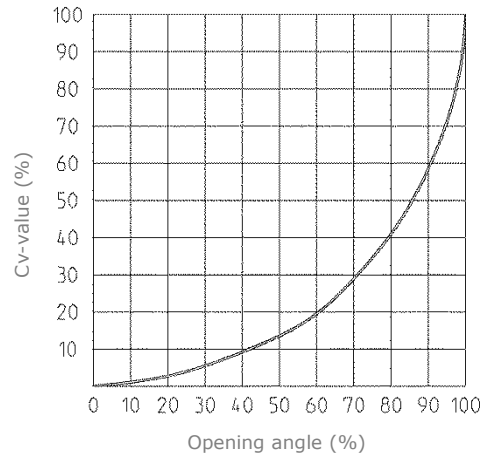
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### Diagrams:

#### Pressure loss



#### Flow characteristics

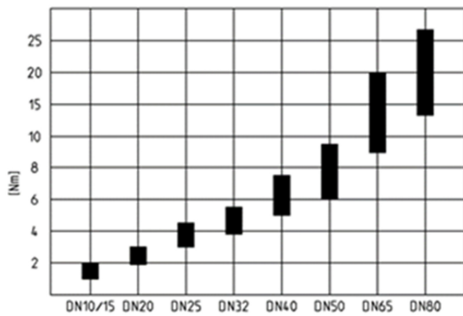


#### Cv value table

pressure loss	DN10 d16	DN15 d20	DN20 d25	DN25 d32	DN32 d40	DN40 d50	DN50 d63	DN65 d75	DN80 d90	DN80 d110
0,001 bar	4,1	6,0	13,9	20,6	34,2	62,6	102,5	164,4	237,1	279,8
1 bar	130	190	440	650	1080	1980	3240	5200	7500	8850

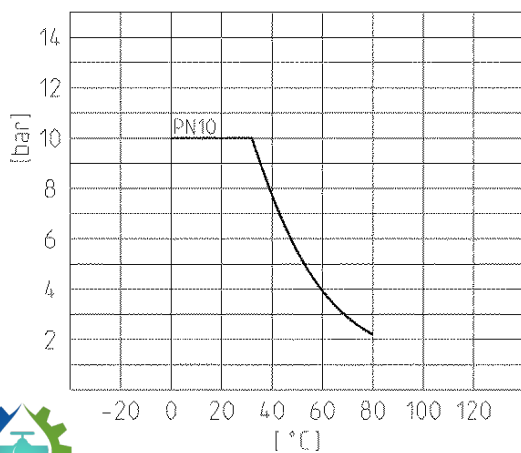
Specification in l/min

#### Torque

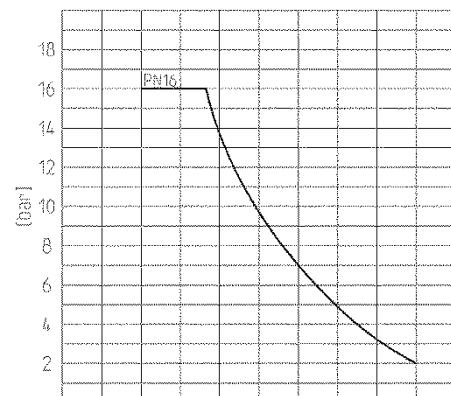


#### Pressure - Temperature

##### PP



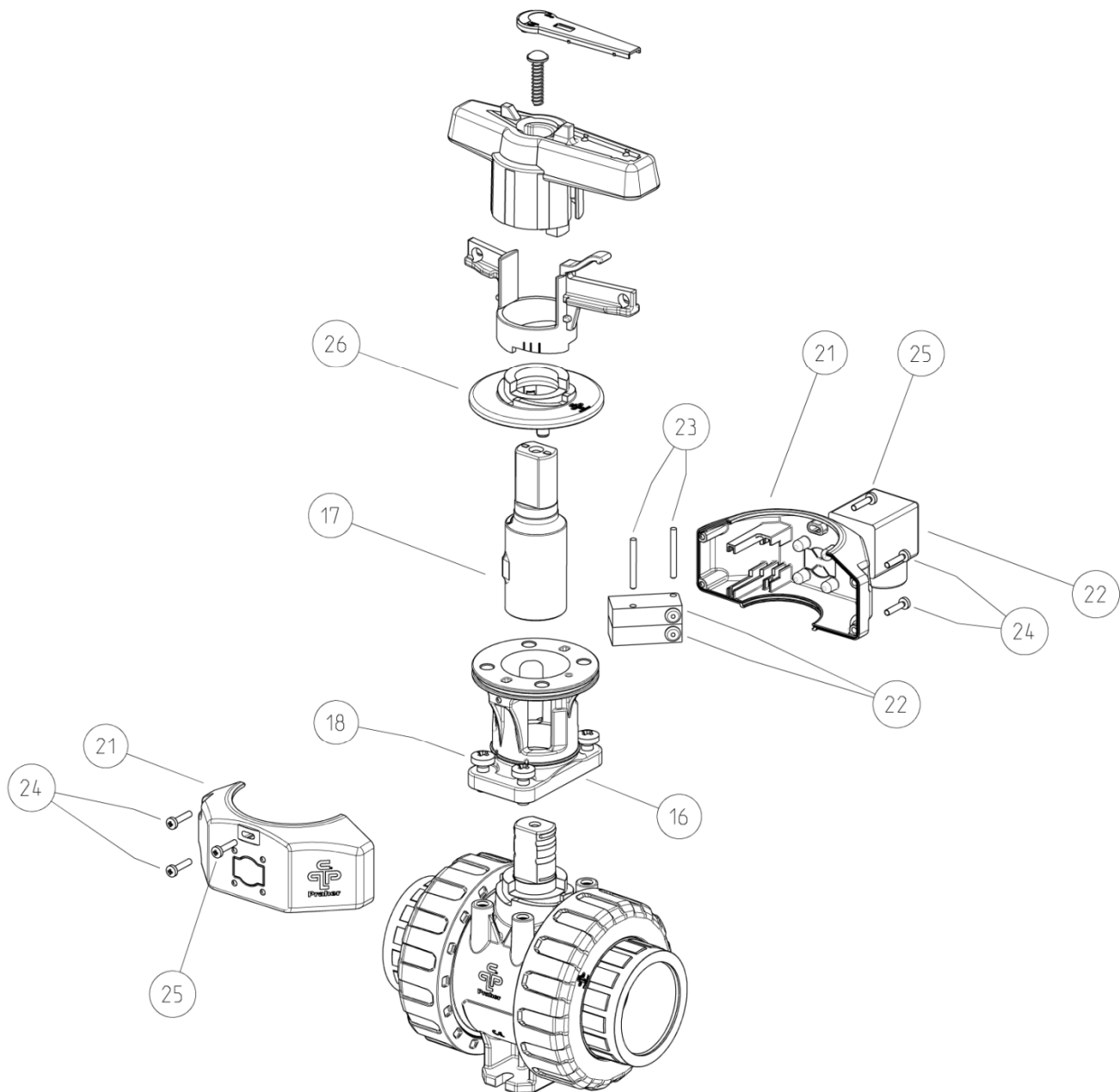
##### PVDF



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**Exploded drawing:**

- |  |   |
|--|---|
| <b>16.</b> Bracket ( <i>material: PA-GF</i> )        | <b>23.</b> Pin  |
| <b>17.</b> Coupling shaft ( <i>material: PA-GF</i> ) | <b>24.</b> Screw  |
| <b>18.</b> Screw                                     | <b>25.</b> Locking screw for adjusting position of feedback |
| <b>21.</b> Half-shells ( <i>material: ABS</i> )      | <b>26.</b> Cover  |
| <b>22.</b> Limit switch                              |   |



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**Technical data position feedback:**

Limit switch mechanical		
Type	(Ag-Ni) NO/NC*	(Au) NO*/NC*
Voltage max.	15-250V AC (15-30V DC)	5-250V AC (5-30V DC)
Current max.	100mA-5A	1mA-3A
Protection limit switch	IP67	
Protection DIN-plug	IP65	
Ambient temperature	Operating: -10°C bis +50°C	
Electrical wiring	<b>NO</b>	<b>NC</b>

\* on request

Limit switch inductive		
Type	NPN*/PNP*	NAMUR* EMV acc. IEC / EN 60947-5-2:2004; NE 21 DIN EN 60947-5-6
Voltage max.	10-30V DC	8V DC
Current max.	0-100mA	NAMUR intrinsically safe
Protection limit switch	IP67	
Protection DIN-plug	IP65	
Ambient temperature	Operating: -10°C bis +50°C	
Electrical wiring		

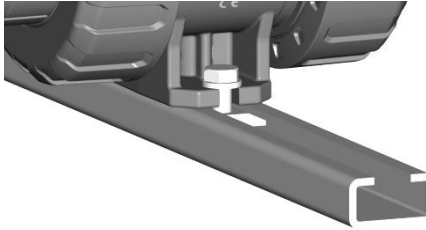
\* on request

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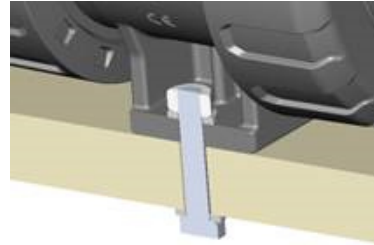
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### **Bottom mounting stand – mounting possibilities:**

- Assembly rail



- Plate



- Masonry / Concrete
  - Hanger screw and dowel required



Further mounting possibilities with clamping/spacing element – see page 7.

### **PLS – Praher Labeling System**



#### **Technical features:**

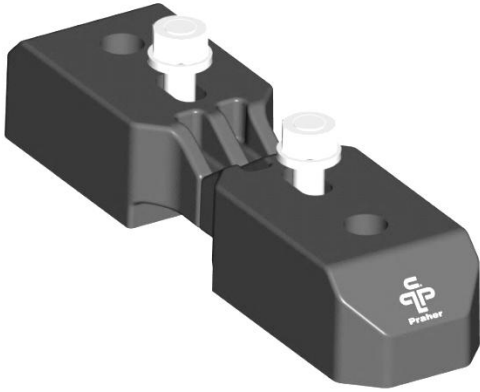
- Clear and durable label
- Convenient marking by touch-up pen or laser engraving
- Standard version available with yellow plate; other colors available in red, blue and green
- Simple and easy to change
- Corrosion-resistant
- No effect on the function of the handle

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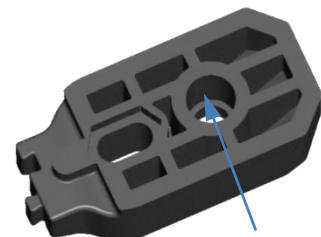
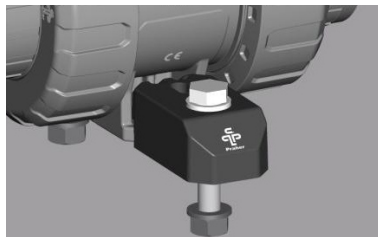
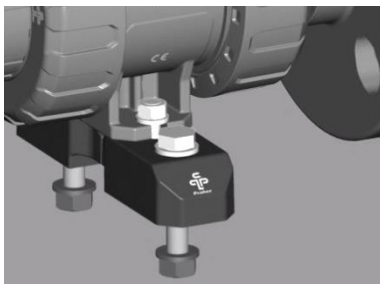
### Accessories

#### Clamping / spacing element:



#### Technical features:

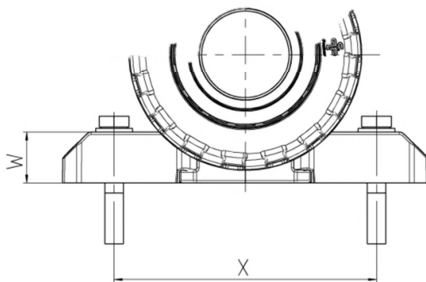
- Using for fixing as:
  - Clamping element
    - floors, walls, ceilings
    - plate
  - Spacing element  
(screws additionally necessary)
    - for flange connection
- Bore for threaded bush



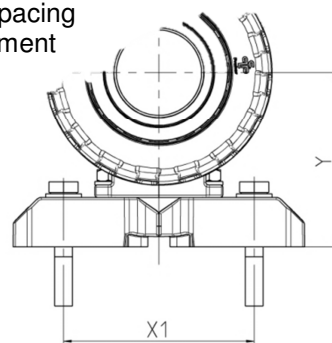
Bore for threaded bush

### Dimensions:

Use as clamping element



Use as spacing element



DN	10	15	20	25	32	40	50
d	16	20	25	32	40	50	63
T	54	54	54	65	65	65	65
U	25	25	25	32	32	32	32
V	6,5	6,5	6,5	8,5	8,5	8,5	8,5
W	16	16	16	22	22	22	22
X	90	90	94	107	109	114	119
X1	70	70	70	85	85	85	85
Y	49	49	56	65	73	78	86

