

# Contiflow

## Sampling System for liquids or solids

DIN-EN: DN 15 - 100 / PN 10 - 40

ASME: NPS ½" - 4" / class 150 - 300

PT range:  $-40 < T < 230^{\circ}\text{C}$ , vacuum  $10^{-8}$  mbar



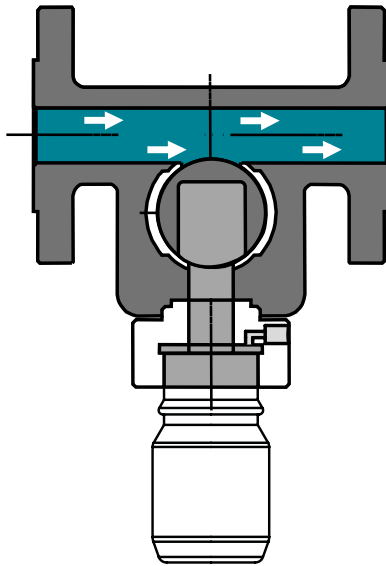
## Reliably Working for our Customers

### Media tries

Sampling media: Acetic acid • Polytetrafluoroethylene (PTFE) • Sulphuric acid • Sulphate • Urea • NH<sub>3</sub> • CO<sub>2</sub> • H<sub>2</sub>O solution • Resins • Hot oil • Propionic acid • Tower acid • Hydrochloric acid (HCL) • Pyrolysis Oil • Methanol • Sulphuric acid • Methyl tert-butyl ether • Caustic • Propionic acid • Tower acid

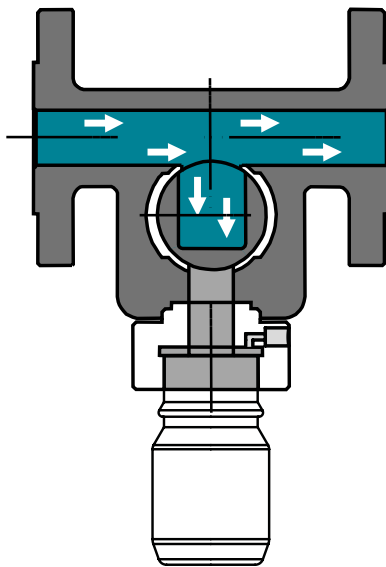
## Functional Principle

Media flow,  
standard position



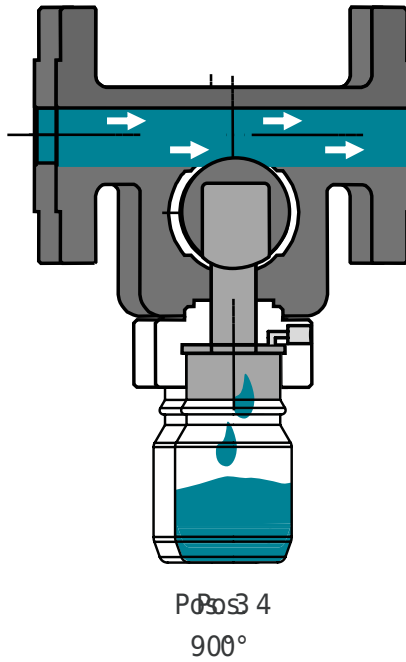
Pos. 1  
0°

Filling the plug,  
defined volume



Pos. 2  
180°

Isolation sample  
- pressure-less ! -



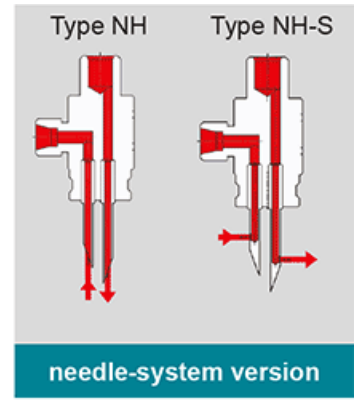
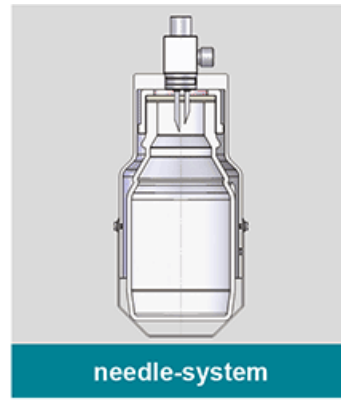
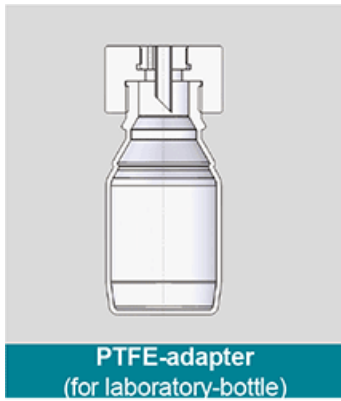
## Design Features

### Design Characteristics

- free of cavity
- closed system
- maintenance free – self lubricating
- pressureless sampling
- defined representative sample quantity (25ml)
- piggable
- no flow interruption
- simple and foolsafe handling
- sampling in vacuum possible
- fugitive emission resp. clean air act certified (TA - Luft 2002 approval)
- Directive 2014/68/EU

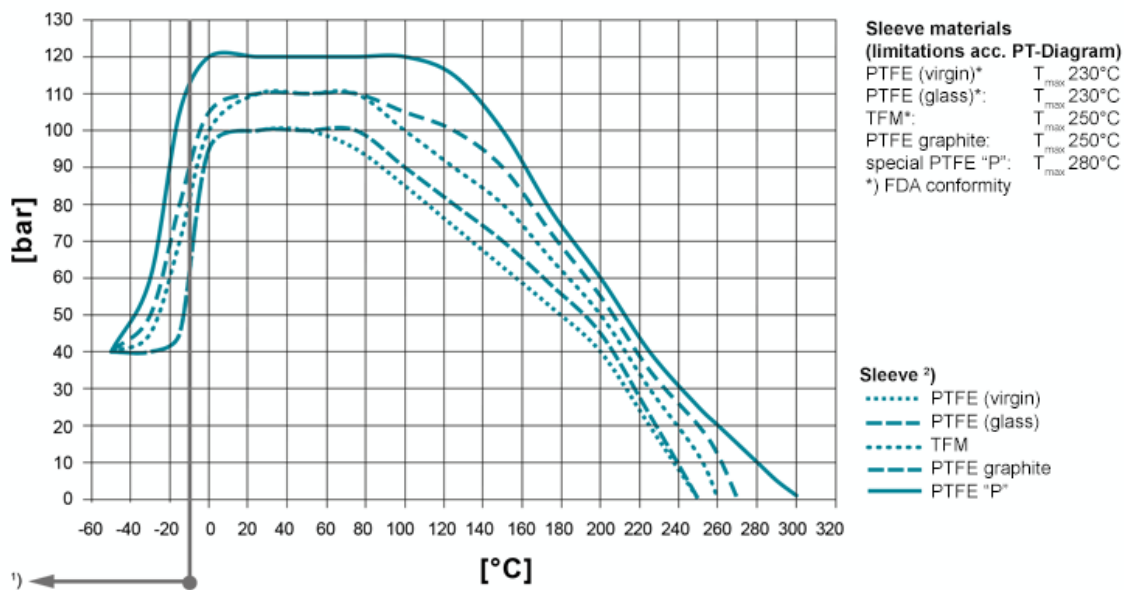
### Bottle connection

- PTFE-Adapter: for laboratory bottle with ISO-thread GL 32/45. Application: For less toxic resp. polluted media.
- Clamping Retainer: For fast and easy exchange of laboratory bottle, even for heated version.
- Needle system: closed needle system for laboratory bottle with septum (Butyl and PTFE). Needle System NH and NH-S with diverse internal diameter(2-6 mm). Application for high toxic resp. polluted media for spillnig eliminated an contamination free sampling.



## PT-Diagram

General Pressure-Temperature-Diagram



**Operating temperatures  $< -30^{\circ}\text{C}$  and  $> 220^{\circ}\text{C}$  have to be checked and approved by AZ according to the operating conditions.**

Besides the P/T value of the sleeve the limitations of the valve bodies also have to be considered. Please refer to the EN 12516-1 resp. ASME B16.34 in order to choose a proper pressure rating (PN/class). The shown values refer to austenitic stainless steel 1.4408 (A351 Gr. CF8M).

- 1) For operating temperatures below  $-10^{\circ}\text{C}$  low temperature / austenitic steels are required.
- 2) Sleeve: There are different sleeve materials / compounds available.

## Materials

### Standard body materials

- Carbon Steel 1.0619, ASTM A216 WCB
- Stainless Steel 1.4408, ASTM A351 CF8M
- Stainless Steel 1.4308, ASTM A351 CF8
- Unalloyed stainless steel casting (low Temp.) 1.1138, LCC/LCB/A352

### Standard plug materials

- Stainless Steel 1.4408, ASTM A351 CF8M
- Stainless Steel 1.4308, ASTM A351 CF8

### Special materials

- Alloy
- Monel
- Nickel
- Zirconium
- Titan
- Tantal
- other materials on request

### Lining materials (Type TRF / TRF-A)

- PFA, PFA-conductive, FEP

## Sealing Systems

Standard sealing for all major applications;  
Tmax 230°C

### Type STD

[read more \[...\]](#)

Firesafe sealing (API 607) with graphite  
packing for additional  
stem sealing; Tmax 230°C

### Type FS

[read more \[...\]](#)

Firesafe safety sealing (API 607) for fluctuating  
temperatures  
with 3x graphite packing (adjustable) for additional  
stem sealing; Tmax 280°C

### Type FSN

[read more \[...\]](#)

Firesafe safety sealing (API 607) for fluctuating  
temperatures  
with 3x graphite packing (live loaded disc springs) for  
additional  
stem sealing; Tmax 280°C

### Type FSN-SL

[read more \[...\]](#)

Chemical sealing to prevent fugitive emission of aggressive and toxic media with PTFE packing for additional stem sealing;  $T_{\max} 230^{\circ}\text{C}$

### Type CA

[read more \[...\]](#)

Chemical safety sealing for fluctuating temperatures with 3x PTFE packing (adjustment) for additional stem sealing;  $T_{\max} 230^{\circ}\text{C}$

### Type CASN

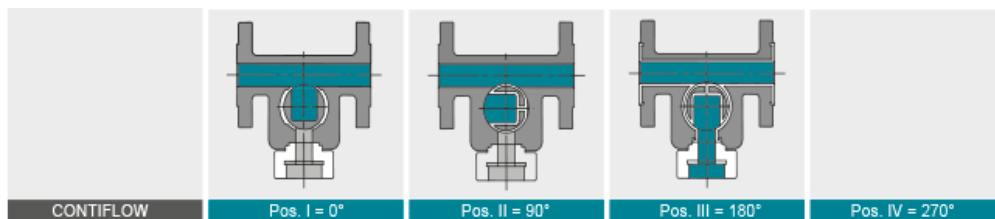
[read more \[...\]](#)

Chemical safety sealing for fluctuation temperatures with 3x PTFE packing (live loaded disc springs) for additional stem sealing;  $T_{\max} 230^{\circ}\text{C}$

### Type CASN-SL

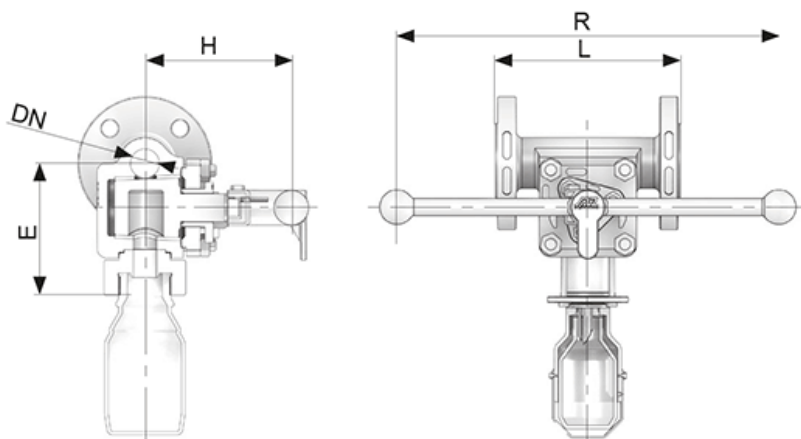
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## Port Forms

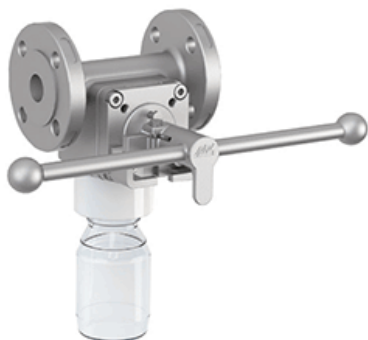


## Dimensions

| DIN EN<br>1092/1 588-1 | DN  | PN    | L   | H     | R   | E    |
|------------------------|-----|-------|-----|-------|-----|------|
|                        | 15  | 10-40 | 130 | 128   | 380 | 73,5 |
|                        | 25  | 10-40 | 160 | 128   | 380 | 111  |
|                        | 40  | 10-40 | 200 | 128   | 380 | 120  |
|                        | 50  | 10-40 | 230 | 141,5 | 465 | 133  |
|                        | 80  | 10-40 | 310 | 141,5 | 465 | 152  |
|                        | 100 | 10-40 | 350 | 141,5 | 465 | 165  |
| ASME B<br>16.5 / 16.10 | ½"  | 150   | 127 | 128   | 380 | 73,5 |
|                        | 1"  | 150   | 127 | 128   | 380 | 111  |
|                        | 1½" | 150   | 165 | 128   | 380 | 120  |
|                        | 2"  | 150   | 178 | 141,5 | 465 | 133  |
|                        | 3"  | 150   | 203 | 141,5 | 465 | 152  |
|                        | 4"  | 150   | 229 | 141,5 | 465 | 165  |



CONTIFLOW  
for standard installation



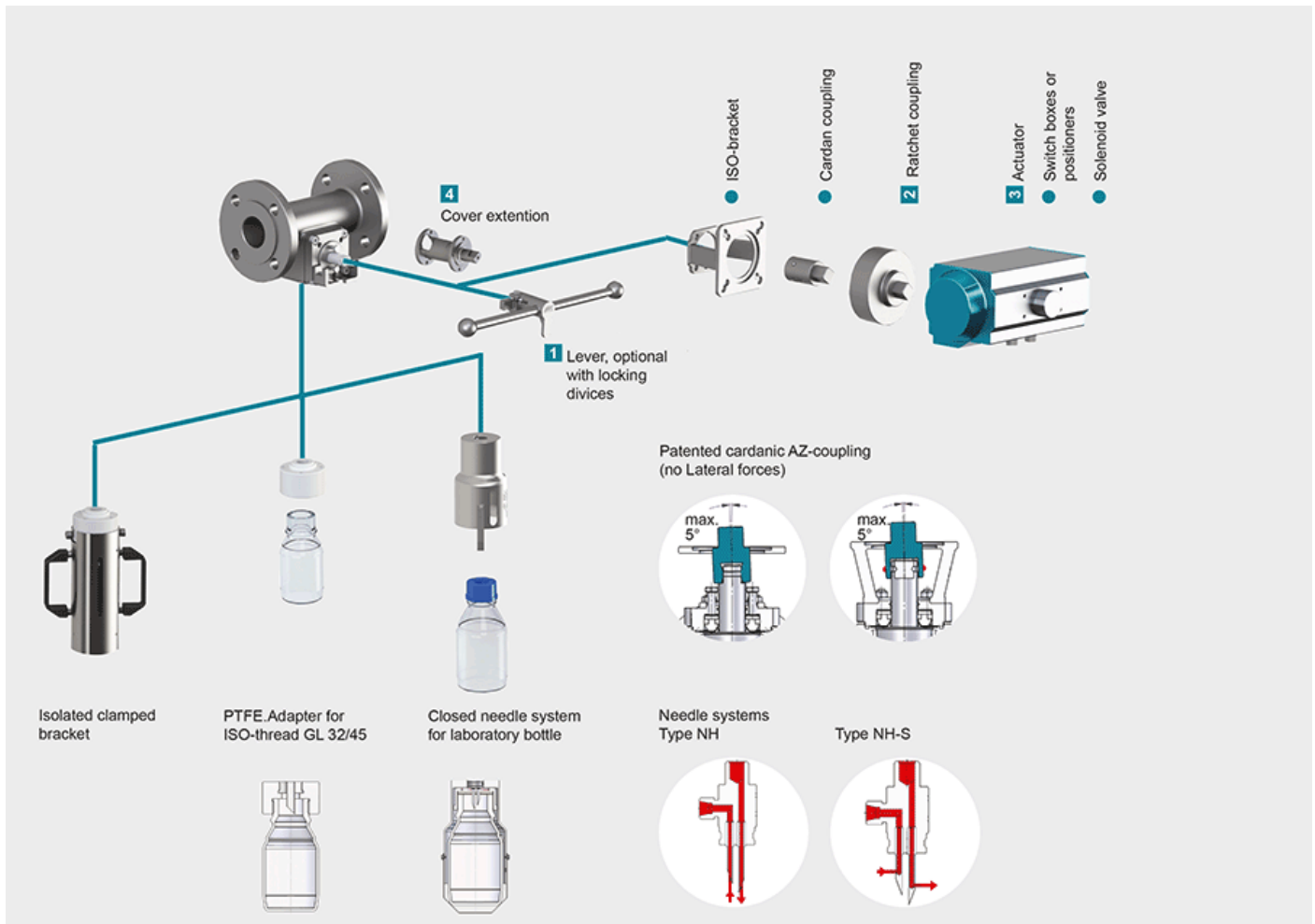
CONTIFLOW-V  
for horizontal installation



CONTIFLOW-W  
for vertical installation



## Actuation



## 1 Locking Devices

Pilot valve combinations, pad lock eyelets, linear key conception, indexing plunger arrestor.  
[read more \[...\]](#)

## 2 Plug stem extension

Solid construction in stainless steel with T-wrench, Standard extension 100 mm or 150 mm, non standard lengths are available on request  
[read more \[...\]](#)

## 3 Actuators

Actuators for mounting-flange acc. to DIN ISO 5211  
[read more \[...\]](#)

## 4 Ratched coupling

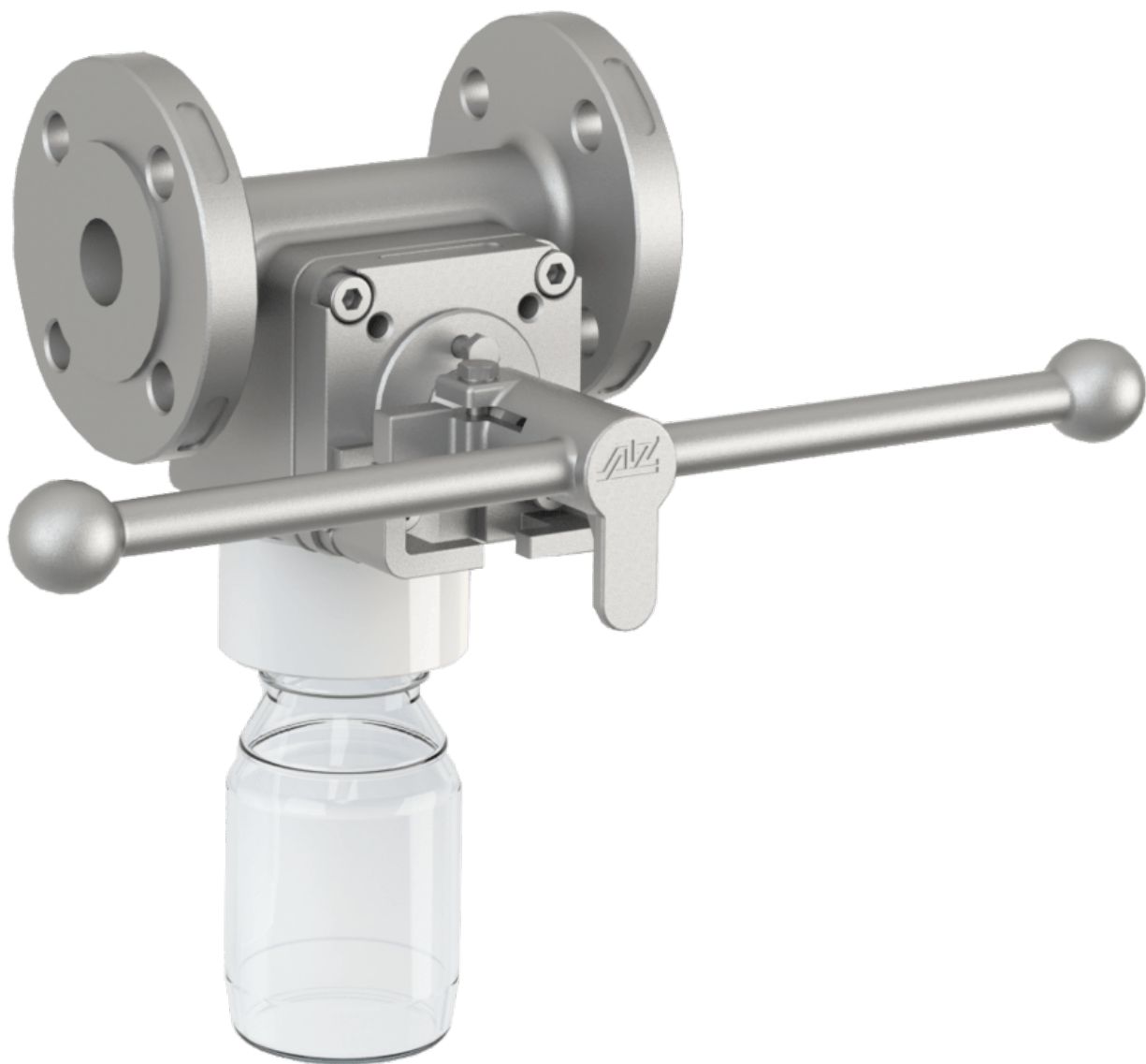
To usw on multiport valves with standard 90° actuator for bigger switchpositions than 90°  
[read more \[...\]](#)

## 5 Cover extension

Solid construction in stainless steel, Standard extension 100 mm or 150 mm high, non standard lengths are available on request . Hexagonal bolts on adjustment ring freely accessible. Note: Don't use with sealing FSN/FSN-SL and CASN/CASN-SL  
[read more \[...\]](#)

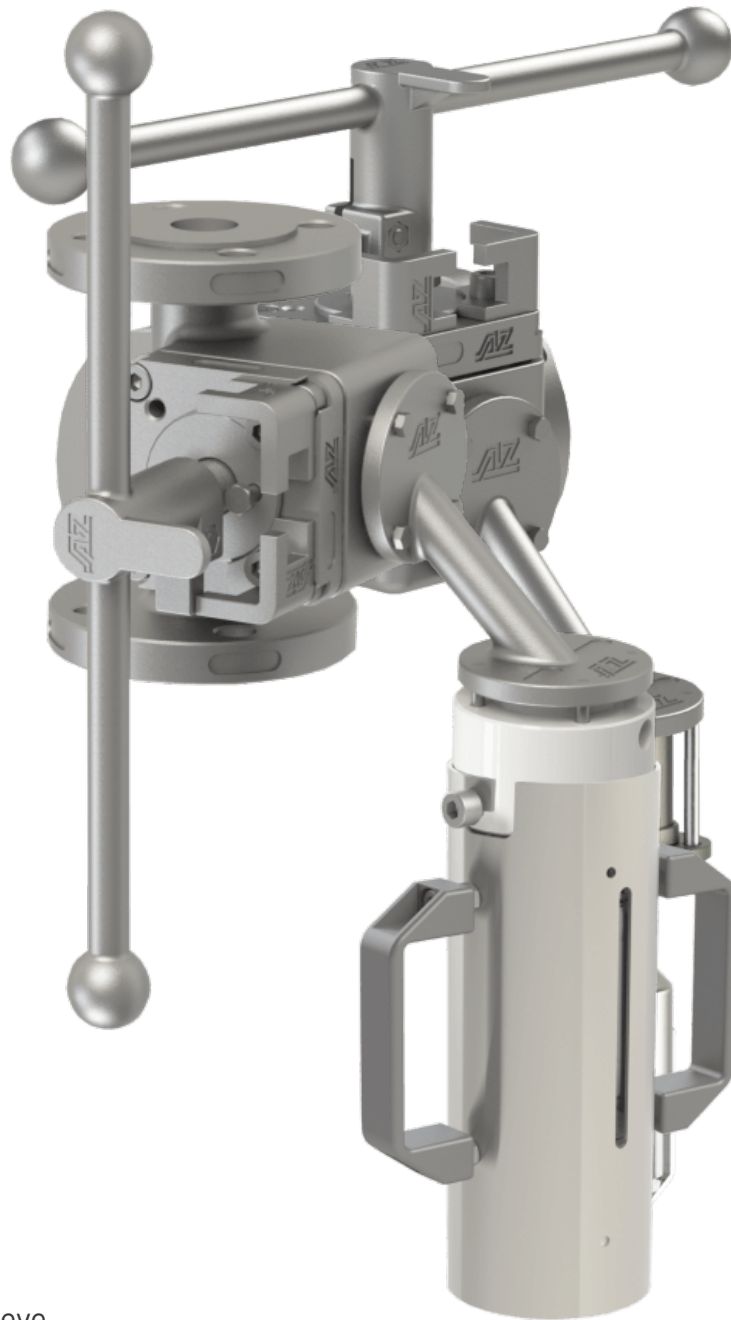
Product range

## Type CONTIFLOW



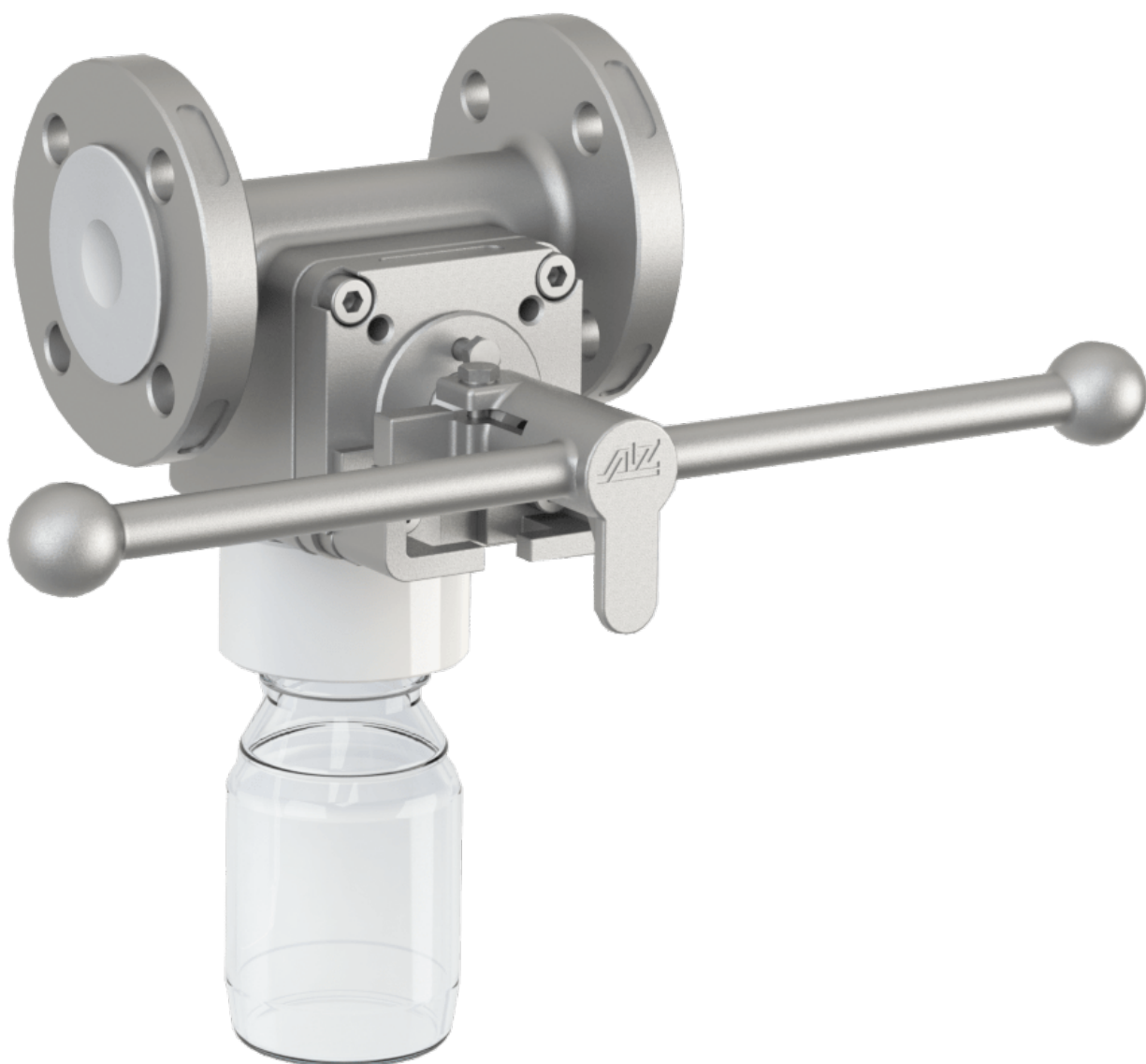
- with PTFE sleeve
- Installation: standard
- Actuation: hand lever, front
- Bottle holder: PTFE adapter

## Type CONTIFLOW-W



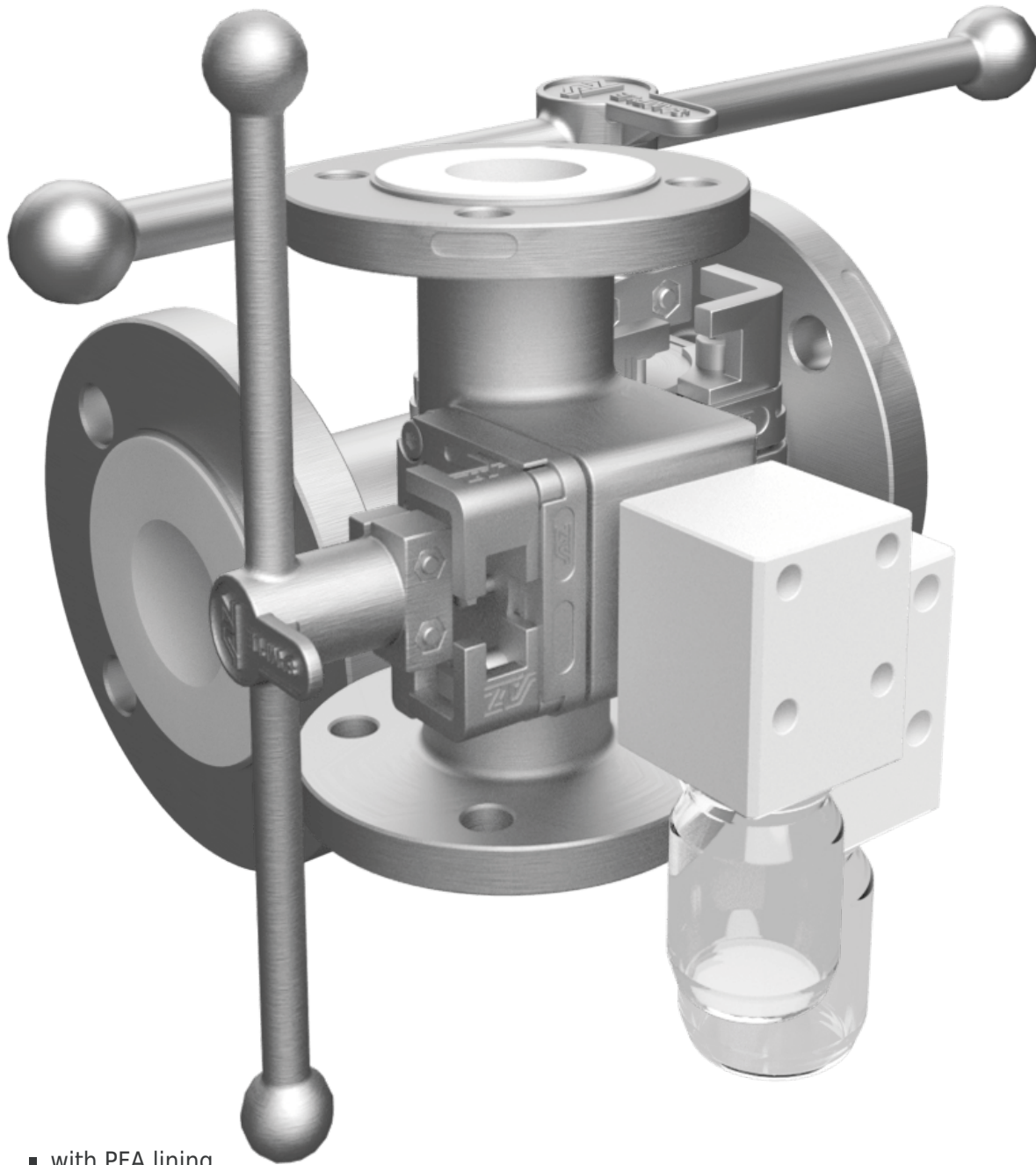
- with PTFE sleeve
- Installation: horizontal
- Actuation: hand lever, top
- with PTFE sleeve
- Bottle holder: needle system
- Installation: vertical
- Actuation: hand lever, front
- Bottle holder: Clamping bottle holder

## CONTIFLOW-A



- with PFA lining
- Installation: standard
- Actuation: hand lever, front
- Bottle holder: PTFE adapter

**CONFIDOM-A-W**



- with PFA lining
- Installation: horizontal
- Actuation: hand lever, top
- with PFA lining
- Bottle holder: PTFE adapter
- Installation: vertical
- Actuation: hand lever, front
- Bottle holder: PTFE adapter

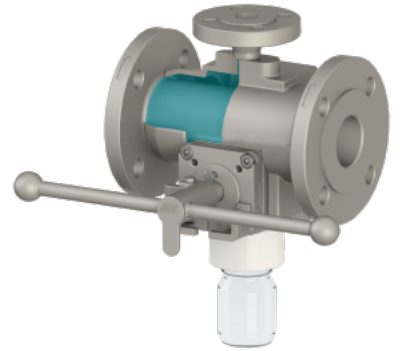
## Supplementary equipment

### Heating / cooling jacket

- Heating / cooling jacket
- heating from flange to flange
- cover seating included

Various connection for heating medium

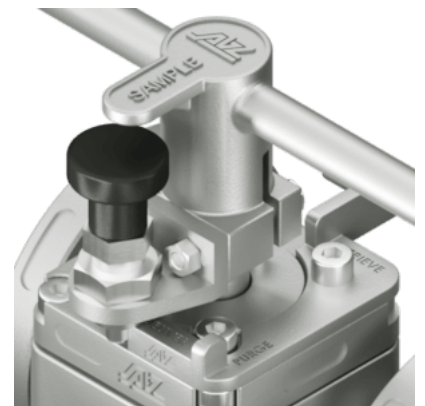
- flanged
- threaded
- weld ends



### Purging device

Purging of plug, needle system and lab bottle in 200° position with Nitrogen or steam

- index plunger for safe purging position
- purging of the plug is possible in-situ (no additional valve necessary)



## Cleaning in Place - CIP

- CIP-compliant
- with PTFE/PFA lined plug
- without sleeve
- gapless
- for pharmaceutical applications

## Protection box for lab bottle

### Types

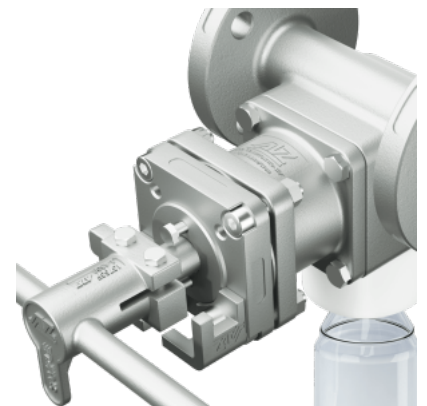
- for the whole sampling valve
- with ventilation, exhausting
- lockable
- heatable
- with lighting



## Modular Design

Increase of plug sample volume with additional flange plug volume

- 25 ml (Standard)
- 50 ml
- 75 ml
- 100 ml



## Customized solutions

on request

Example:

- 6" flanged valve (or bigger) for main stream
- hand lever, front
- Bottle holder: PTFE adapter

