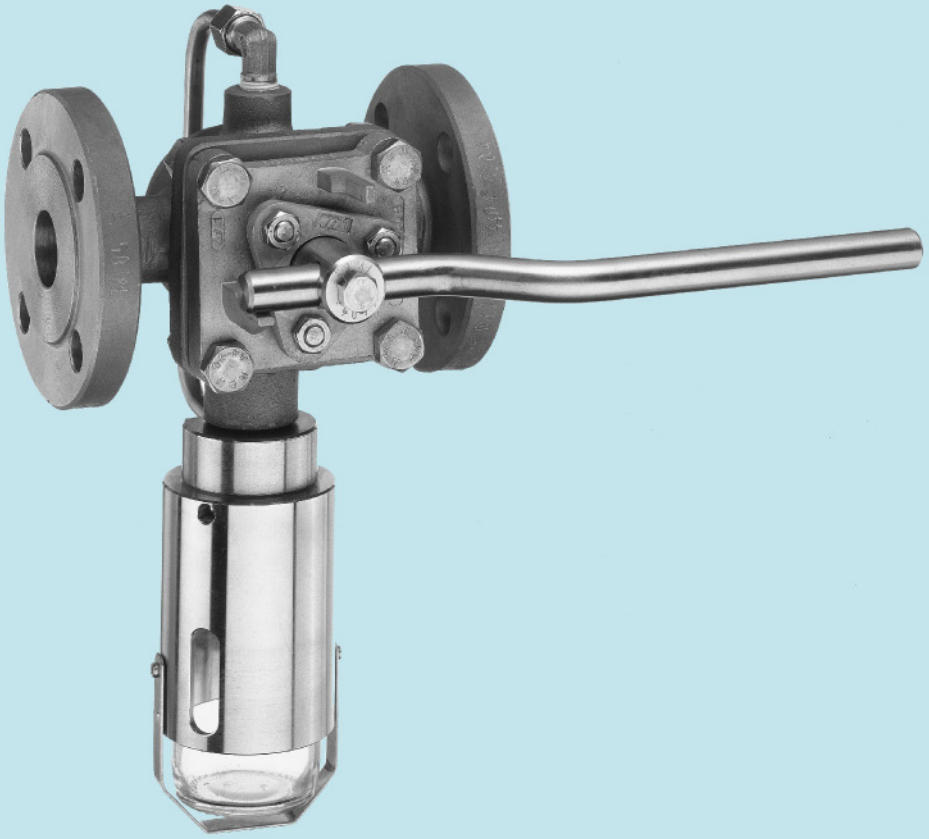
ARMATUREN
totraumfrei und wartungslos

TYPE “SAMPLING”
Sampling - System



5.3.1

- closed system
- cavity free
- spilling eliminated and contamination free
- specific defined sample quantity
- pressure free sampling (positive overlap)
- simple and safe operation
- absolutely tight
- patented

Type “SAMPLING”

Closed Sampling - System DN15 - 100 PN10/40

The development of the AZ-Sampling system is based on decades of experience in the production of AZ Plug Valves in **cavity free design** with self lubricating, maintenance free PTFE sleeve, consequently the logical result of the practice-based application of these valves.

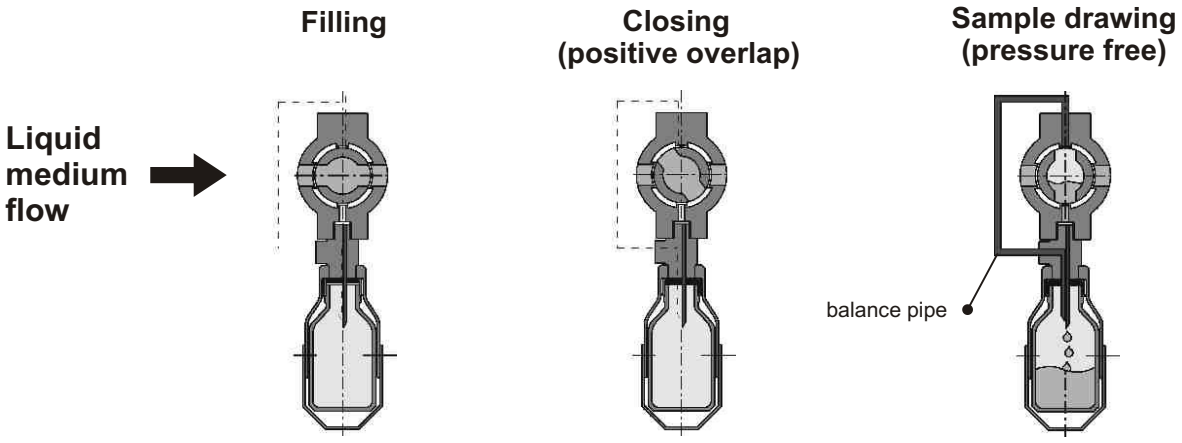
The advantages of the AZ-Sampling system for drawing samples of liquid media are:

- **pressure free sampling**
- **cavity free, closed system**
- **ecologically sound and contamination free (TA-Luft)**
- **simple and safe operation - spilling eliminated**
- **specific defined sample quantity**
- **representative sample by extraction from the process of Bypass pipe**
- **economic because of standard dimensions acc. to DIN or ANSI**
- **adjustable plug**
- **vertical and horizontal installation possible**
- **pneumatic or electric actuation possible**

Operating procedure

The AZ-Sampling system can be installed directly into the process pipe or in a bypass.
During the production process, the plug of the sampling system is in open position, which means that the balance pipe and the sampling port are closed.
For drawing a sample the plug must be turned 90° by means of the lever. Because of the **positive overlap,** the intersection of the process pipe is guaranteed. During the switchover a specific defined sample quantity (30-50 ml or more) is contained in the plug.
After reaching the 90° lever position, which is exactly restricted by limit stops on the cover, the sample quantity is transferred through the process needle into the sample container.
The air in the bottle, which can be mixed with gas or steam, can escape through the balance pipe into the closed system.

Working procedure



Sampling - System DN15-100 Type "SAMPLING"										
	Face to f. dimensions L [mm] *			Sample quantity V_P [ml]				Outflow-/Ventilation Ø [mm]		
DN	DIN PN10/40	ANSI B16.10 150lbs	ANSI B16.10 300lbs	TYPE "A"	TYPE "B"	TYPE "C" PFA	TYPE "C" Metall	TYPE "A"	TYPE "B"	TYPE "C"
15	160	108	140	20/30/50	20/30/50	12	7-30	2/1,3	6/6	6/6
25	160	127	165	30/50	30/50	12	7-30	2/1,3	6/6	6/6
40	200	165	190	30/50	30/50	67	78-93	2/1,3	6/6	6/6
50	230	178	216	30/50	30/50	67	78-93	2/1,3	6/6	6/6
80	310	203	283	145	145	174	145-200	2/1,3	6/6	6/6
100	350	229	305	405	405	360	405-530	2/1,3	6/6	6/6

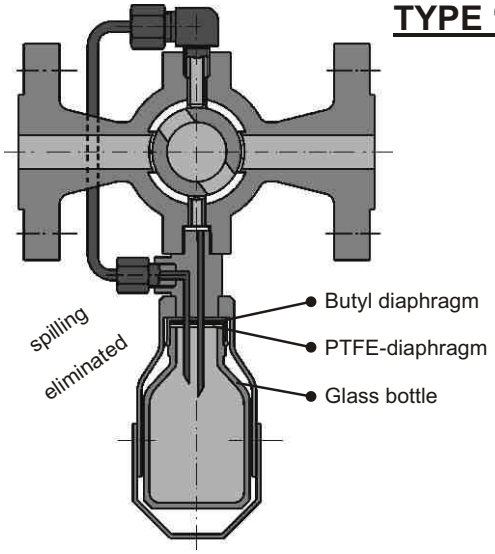
* For Type Sampling “C” face to face dimensions acc. to ANSI are not available in Ductile Iron (GGG40.3).

Type “SAMPLING”

Closed Sampling - System DN15 - 100 PN10/40

TYPE “A”

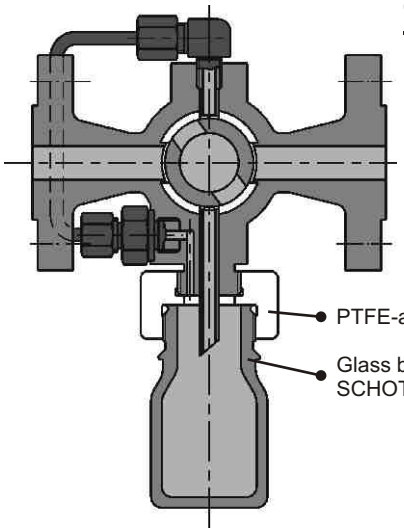
for high-toxic liquid media



- Valve and pipe:	1.4408 / 1.4571
- needle system and bottle protection:	1.4401
- outflow needle:	2 mm **Variation on request**
- ventilation needle:	1,3 mm **Variation on request**
- special materials:	Hastelloy, Monel, Titanium, Nickel, Zirconium, Tantal etc.
- sample quantity:	V_P = see table
- sample bottles:	clear glass or SCHOTT-DURAN laboratory bottle with ISO thread
- bottle volume:	V_F = 60ml, 100ml, 250ml, 500ml
- standard diaphragm:	Butyl / PTFE (septum)
- temperature (max):	230°
- connection/ process pipe:	e.g. flanges
- nominal sizes:	DN15-100 PN10-40

TYPE “B”

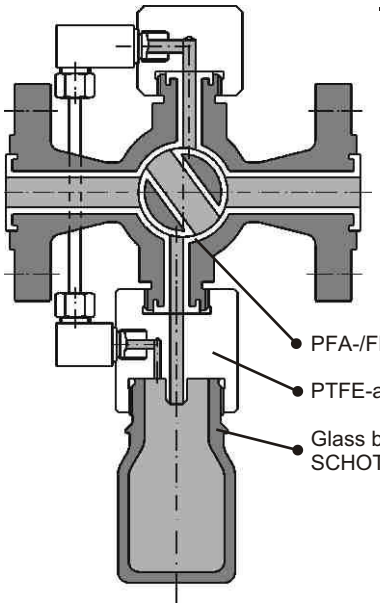
for less toxic resp. polluted media



- Valve and pipe:	1.4408 / 1.4571
- bottle holder:	PTFE-adapter
- outflow:	6 mm **Variation on request**
- ventilation:	6 mm **Variation on request**
- special materials:	Hastelloy, Monel, Titanium, Nickel, Zirconium etc.
- sample quantity:	V_P = see table
- sample bottles:	glass SCHOTT-DURAN laboratory bottle with ISO thread
- bottle volume:	V_F = 50ml, 100ml, 250ml, 500ml
- temperature (max):	230°
- connection/ process pipe:	e.g. flanges
- nominal sizes:	DN15-100 PN10-40

TYPE “C”

with PFA- / FEP-lining for high-aggressive media



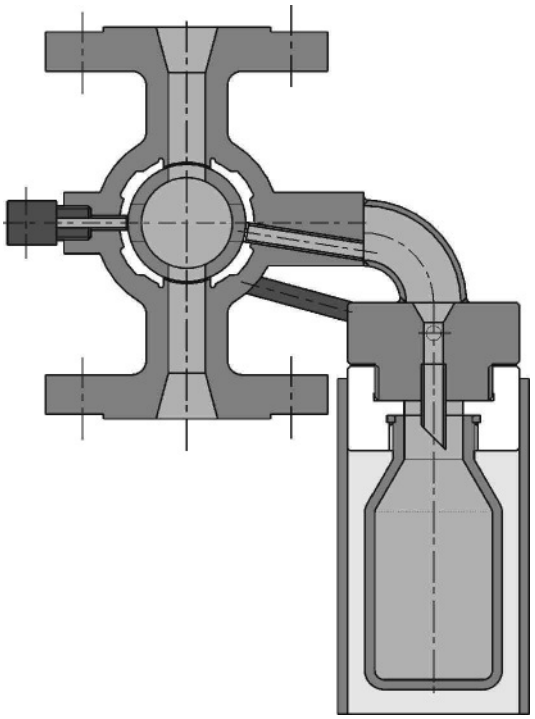
- valve:	Ductile Iron (GGG40.3) with PFA-lining min. wall thickness 3mm
- pipe:	PTFE / PFA special materials on request
- bottle holder:	PTFE-adapter
- outflow:	6mm **Variation on request**
- ventilation:	6mm **Variation on request**
- sample quantity:	V_P = see table
- sample bottles:	glass-SCHOTT-DURAN laboratory bottle with ISO thread
- bottle volume:	V_F = 50ml, 100ml, 250ml, 500ml
- temperature (max):	140°C
- connection/ process pipe:	e.g. flanges
- nominal sizes:	DN15-100 PN10-40

Order example:
Type Sampling “A” DN25 PN40 1.4408 V_P=30ml V_F=60ml clear glass
Type Sampling “A” = Type of sampling system, DN25 = size, PN40 = rating, 1.4408 = body material, V_P=30ml = sample quantity, V_F=60ml = bottle volume, clear glass = bottle type

Heating jacket for all designs available

Type “SAMPLING”

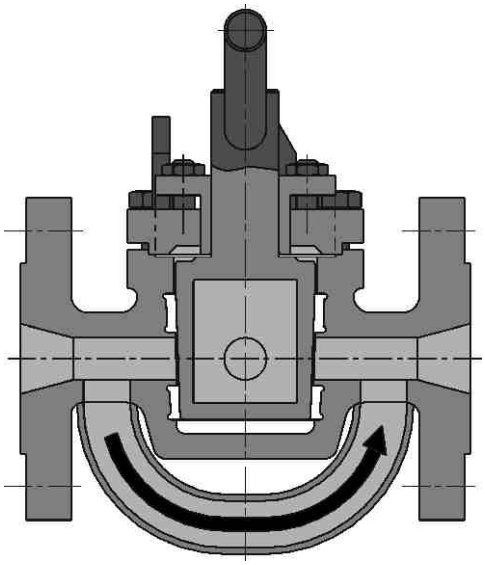
Sampling Special Designs



TYPE SAMPLING “VERTICAL”

Sampling system Type Sampling “B”
for vertical installation, with protection cap (Plexiglass).
Outflow- and ventilation diameter = 6 mm.

Example for ordering:
Type Sampling “B VERTIKAL” DN50 PN40 1.4408 V_P=50ml V_F=50ml
Type Sampling “B VERTIKAL” = Sampling Type “B” vertical design,
DN50 = size, PN40 = rating, 1.4408 = body material,
V_P 50ml = sample quantity, V_F 50ml = bottle volume



TYPE SAMPLING B “BYPASS”

Sampling system Type SAMPLING “B”,
No interruption of medium flow due to the
by-pass tube being integrated in the body.

Example for ordering:
Type Sampling “B BYPASS” DN25 PN40 1.4408 V_P=30ml V_F=50ml
Type Sampling “B BYPASS” = Sampling Type “B” with by-pass tube,
DN25 = Size, PN40 = rating, 1.4408 = body material
V_P 30ml = sample quantity, V_F 50ml =bottle volume

- Face to face dimensions and technical details: see afore-mentioned table
- Further DN/PN, sample volumes, outflow- and ventilation-diam. and bottle types on request

- All sampling systems also available with
  - heating jacket
  - pneum., electr. or hydraul. actuators
  - male and/or female thread
  - Ermeto couplings
  - dairy couplings acc. to DIN 11851
  - butt weld or socket weld ends

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