FAMAT

sampling systems

security | efficiency | simplicity

PRODUCT TECHNICAL OVERVIEW

Sampling Valves

Tank Bottom Valves

Charging Valves

JAYGO INCORPORATED

MADE SWISS

TABLE OF CONTENTS

FAMAT sampling is a Swiss engineering company specializes in designing and manufacturing valves and systems for powder and solids sampling in Chemical, Pharmaceutical, Petrochemical and Food Industries. :

For the Pharmaceutical, Bio-technological and Chemical industry, FAMAT SAMPLING supplies a complete range of products and services allowing the sampling of products in the best conditions of efficiency in terms of representativity of the samples, security, cleanliness and availibility.

With its impressive references in the Pharmaceutical and Chemical production business (Roche, Novartis, Merck, bioMérieux, Pfizer, BASF, GSK, Bayer, Monsanto).

FAMAT sampling is able to provide you the sampling solution you need.

FAMAT sampling has today offices, distributors or agents in most major countries in Europe, Middle-East, Asia and America. This global network allows us a close cooperation with our customers and end-users, to guarantee a full satisfaction at all levels of the supply chain.

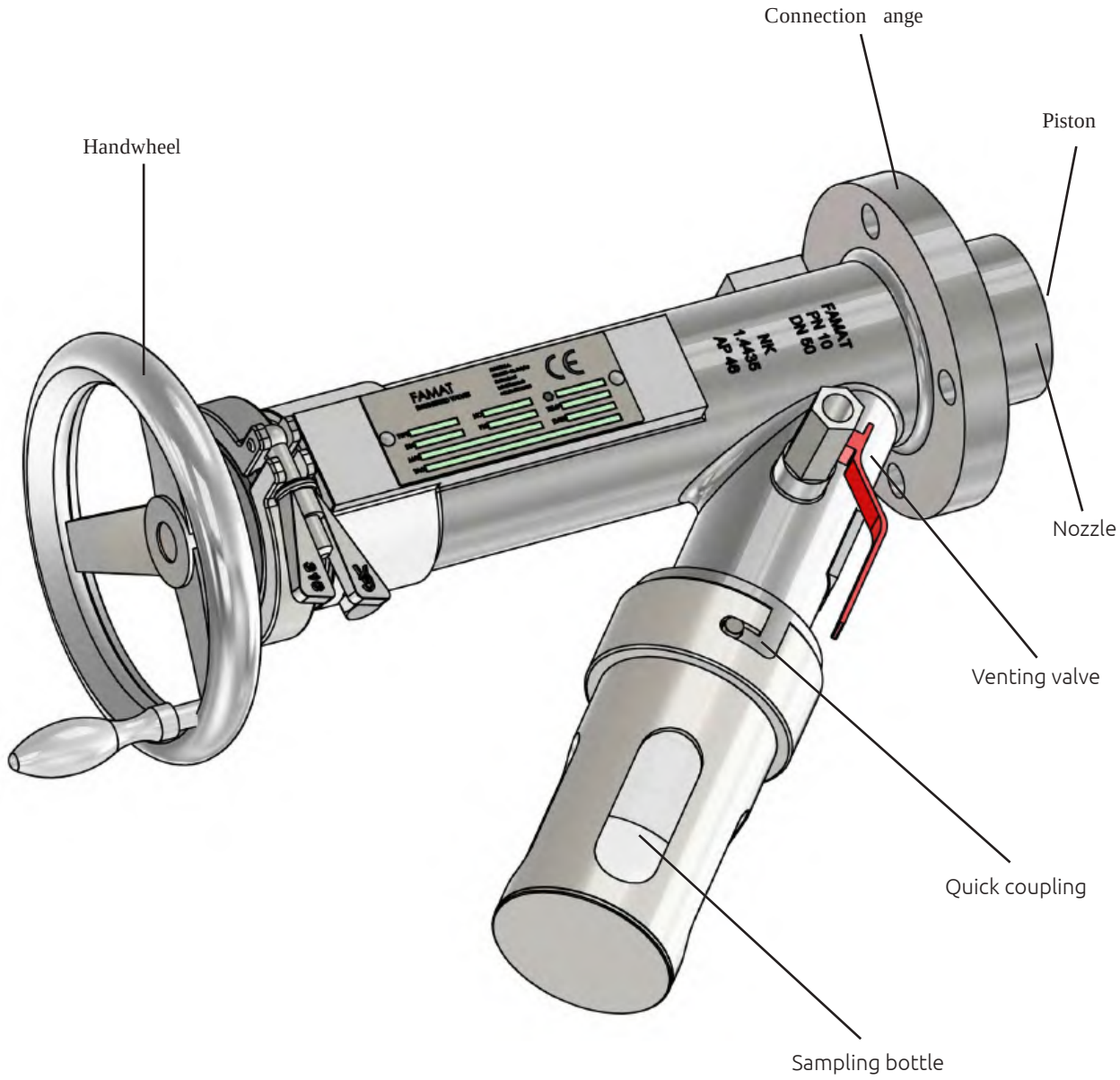
Founded in 1974, FAMAT sampling is certified ISO 9001-2008. Its procedures guarantee the best services in compliance and on-time deliveries with most industries standard.

FAMAT sampling Quality System is also approved in accordance with requirements of European Pressure Equipment directive 2014/68/EU (PED).

Most of our products have been approved according the applicable standards for use in Explosive Atmosphere (2014/34/EU), low fugitive emission (ISO 15848-1), and fire safe design (ISO 10497 – API 607).

FAMAT SAMPLING VALVE

MAIN COMPONENTS



SIMPLE DESIGN FOR MAXIMUM RELIABILITY & PERFORMANCE

FAMAT PATENTED EPT®

EXPANDING PISTON TECHNOLOGY

Almost all FAMAT sampling valves are based on our patented Expanding Piston Technology EPT®.

The patented system inside this piston allows the PTFE external coat to expand and insure a perfect tightness from vacuum up to full rating pressure 10 bar (145 psi).

The advantage of having an expandable piston inside the valve is to eliminate the need for O-rings that can be damaged during valve operation, and consequently generate contamination (dust) for production.

Another big advantage of our design is that in closed position, the piston is flush with the connection point, leaving no dead space.

- Sealing without gasket and seat
- Guaranteed bubble tight
- Dead zone free

1. Valve opened

2. Valve closing

3. Valve closed

4. Expansion of the piston (detail)

When the valve is in fully closed position (3), an additional 30° - 40° rotation applied to the handwheel activates the expansion of the piston (4), guaranteeing a perfect sealing of the piston inside the body.

DESCRIPTION OF OPERATIONS

Fig.1

CLOSED POSITION

The piston is flush with the reactor or dryer, leaving no dead space (Fig.1).

A perfect seal is formed directly by the piston (9) against the body of the valve.

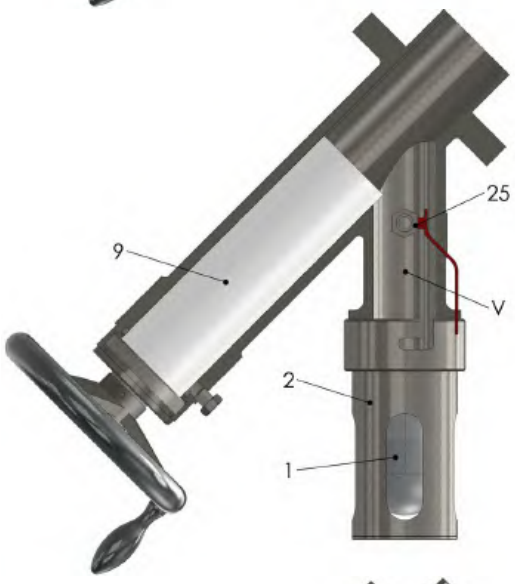


Fig.2

SAMPLING PROCEDURE

Turn the handwheel counter clockwise to lower the piston (9) to its open position.

While the product flows down into the sampling bottle (2), the operator can check the desired quantity of the product through the sight glass (1) (Fig.2).

Fig.3

Turn the handwheel clockwise to bring back the piston (9) in its closed position.

A firm final turn of the handwheel will give reliable sealing and no dead space. Equalise the pressure (or vacuum) in the chamber (V) by opening the valve (25).

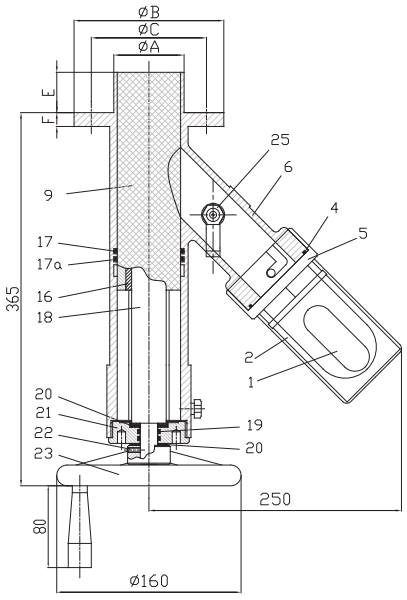
Remove the sampling bottle (2) on its quick coupling connection (Fig.3).

125A

STANDARD VALVE

Type 125A is the standard DN50 sampling valve by FAMAT sampling. Used for sampling applications of powders, granules, pastes and liquids under process conditions in the pharmaceutical, chemical and food industries.

	TECHNICAL DATA
MODEL	125A
NOMINAL SIZE	DN 50 (2'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤3.2 µm
APPL. STANDARD:	PED, ATEX, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate with stainless steel protection
WEIGHT	10kg / 22 lbs



SUB ASS.	PART	NAME
B101*	1*	Glass Bottle*
	2	Protection
	5	Coupling
Set JB*	4	Coupling Gasket
	17	O-ring (2pcs)
	19	O-Ring (2pcs)
	6	Body
P925*	9	Piston
	16	Nut
	18	Screw
Set JA*	20	Washer 2 Pcs
C601*	21	Cover
	22	Pin
V2301*	23	Handwheel
A2501*	25	Venting Valve

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

125TC

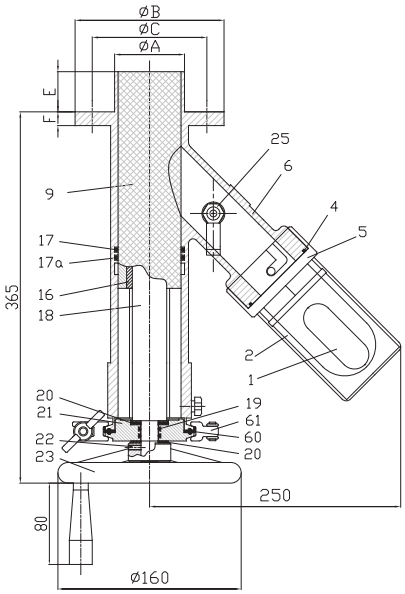
TRI-CLAMP EASY-CLEAN VALVE

This sampling valve has one 2.5'' Tri-Clamp (TC) near the handwheel (Fig. 1). It is called easy-clean because the piston can be removed from the valve housing with minimal effort (Fig. 2), allowing full cleaning of inner surfaces of the valve's body between batches.

Fig.1

Fig.2

	TECHNICAL DATA
MODEL	125TC
NOMINAL SIZE	DN 50 (2'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤3.2 µm
APPL. STANDARD:	PED, ATEX, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate with stainless steel protection
WEIGHT	11kg / 24 lbs



SUB ASS.	PART	NAME
B101*	1*	Glass Bottle*
	2	Protection
	5	Coupling
Set JB*	4	Coupling Gasket
	17	O-ring (2pcs)
	19	O-Ring (2pcs)
	6	Body
P925*	9	Piston
	16	Nut
	18	Screw
Set JA*	20	Washer 2 Pcs
	22	Pin
V2301*	23	Handwheel
A2501*	25	Venting Valve
*	60	Tri-clamp gasket
*	61	Tri-clamp connection
*	65	Cover

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

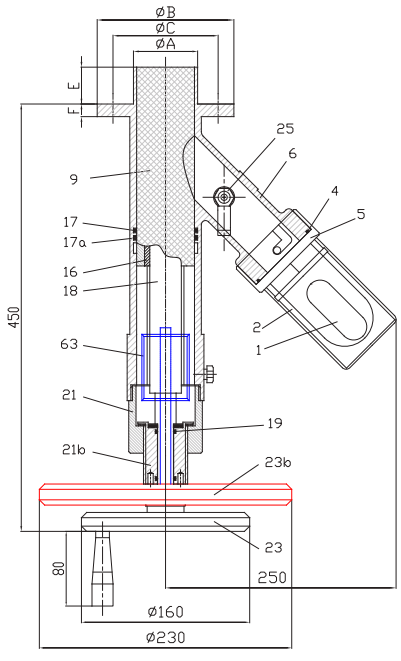
125CC

CRUST BREAKING VALVE

This valve is used for products that could clog inside the dryer or vessel and block the piston. To eliminate the risk of this impeding product flow into the sampling valve, FAMAT sampling has developed the 125CC. With this type of valve, the piston will break the crust before the sample is taken.

1. Remove the security device
2. Turn the red handwheel clockwise to move the piston into the dryer to break the crust
3. Once the crust has been broken, proceed with the standard sampling by means of the black handwheel, to get the sample inside the bottle

	TECHNICAL DATA
MODEL	125CC
NOMINAL SIZE	DN 50 (2")
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS.:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤3.2 µm
APPL. STANDARD:	PED, ATEX, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate with stainless steel protection
WEIGHT	14kg / 31 lbs



SUB ASS.	PART	NAME
	1*	Glass Bottle*
B101*	2	Protection
	5	Coupling
	4	Coupling Gasket
Set JB*	17	O-ring (2pcs)
	19	O-Ring (2pcs)
	6	Body
	9	Piston
*	16	Nut
	18	Screw
Set JA*	20	Washer 2 Pcs
*	21	Cover
	22	Pin
V2301*	23	Handwheel
A2501*	25	Venting Valve

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

125OEL

HIGH CONTAINMENT VALVE

This new compact OEL High-Containment sampling device (Fig.1) enables the removal of the sample under contained conditions. The OEL (Occupational Exposure Limits) describes the maximum concentration of a hazardous substance which can be tolerated in the air of the production room without any negative effect to the health of the operator (Fig.2).

OEB (Occupational Exposure Band) : OEB4 1-10 µg/m³

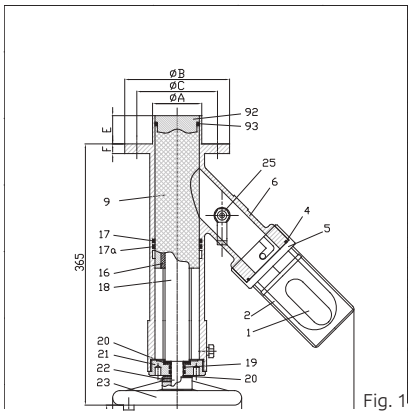


Fig. 1

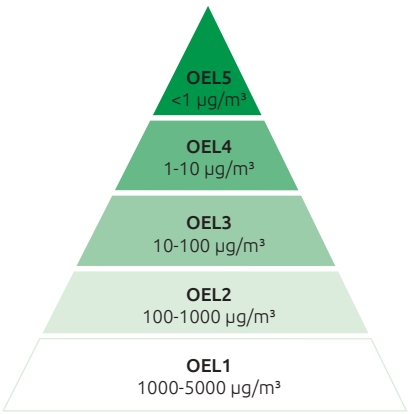
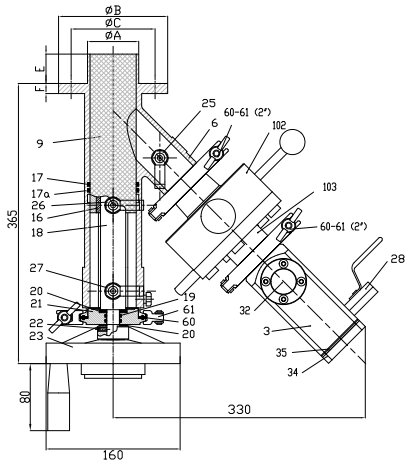


Fig. 2



	TECHNICAL DATA
MODEL	125
NOMINAL SIZE	DN 50 (2'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS.:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤3.2 µm
APPL. STANDARD:	PED, ATEX, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 250 ml, glass Borosilicate with stainless steel protection
HIGH CONTAINMENT VALVE	Split butterfly valve, consisting of 2 separable half-valves, with locking system: • 1 active module isolating the outlet of sampling valve • 1 passive module, removable in closed position, isolating the sampling bottle
H.C. VALVE MATERIALS:	316L, Hastelloy®
WEIGHT	18kg / 40 LBS

SUB ASS.	PART	NAME
B102-OEL*	3	Bottle
	28	Venting valve
	32	Sight Glass
	34	Bottle Head
	35	Bottle Gasket
Set JB*	4	Coupling Gasket
	17, 17a	O-ring
	19	O-Ring (2pcs)
P925*	6	Body
	9	Piston
	16	Nut
	18	Screw
Set JA*	20	Washer 2 Pcs
*	21	Cover
*	23	Handwheel
A2501*	25, 26, 27	Venting Valve
OEL*	102	Active H.C. valve
	103	Passive H.C. valve
*	60	Tri-clamp gasket
	61	Tri-clamp connection

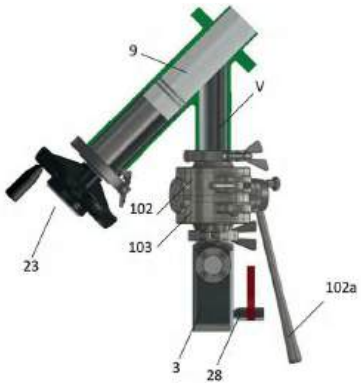
* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

125OEL

HIGH CONTAINMENT VALVE

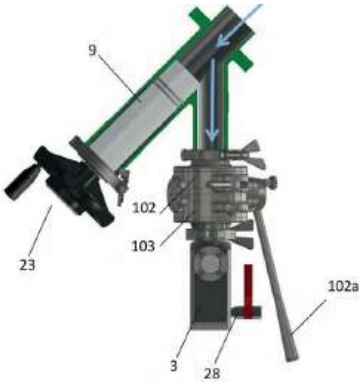
1. CLOSE POSITION

- The sampling valve remains closed and the piston (9) tightens without dead volume.
- Active (102) and passive (103) modules are joined and in closed position (lever 102a in closed position).
- The purging valve (28) is closed.



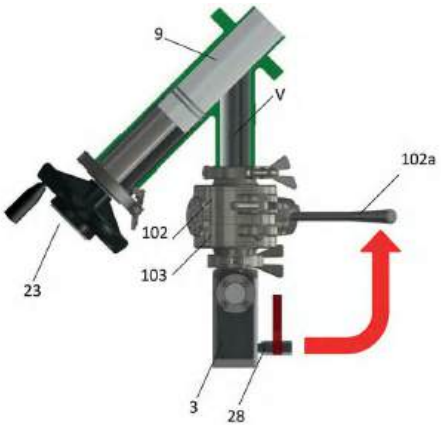
2. PRE-SAMPLING

- The handwheel (23) with an indicator position allows to adjust the sample flow inside the volume V. This space must be only half-filled (do not overfill).



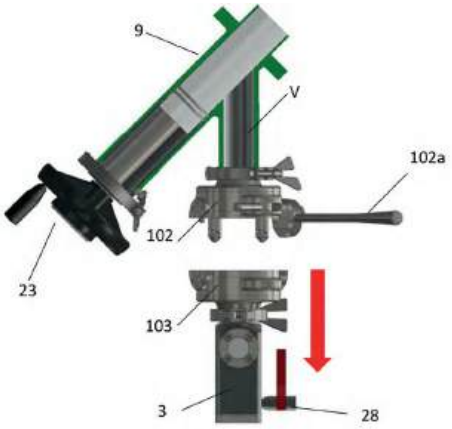
3. SAMPLING TRANSFER TO THE BOTTLE

- Open the purging valve (25) to equilibrate to atmospheric pressure in the outlet volume V. Make sure the sampling bottle is at atmospheric pressure before opening the joined active + passive modules.
- The joined active + passive modules (102+103) are opened with lever (102a), the product flows by gravity in the sampling bottle (3).
- The active module shall only be opened when locked together with the passive module.



4. REMOVAL OF THE SAMPLING

- Active + passive modules (102+103) are closed with lever (102a).
- The lever (103a) allows to separate the active and passive modules as follows:
  - outlet of sampling valve closed by the active module (102);
  - the sampling bottle closed by the passive module (103) can be removed;
  - the sample can be extracted from the sampling bottle in laboratory under secure conditions.



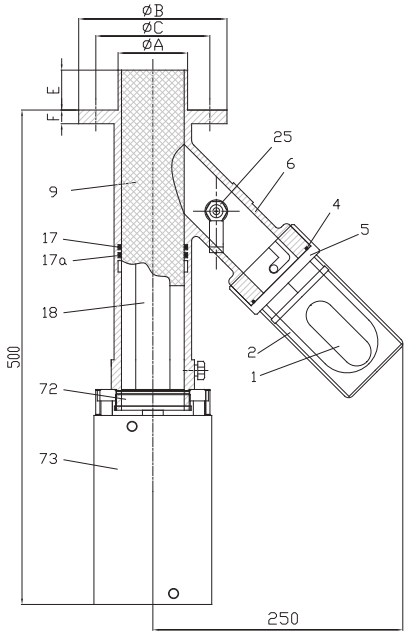
125AUT

AUTOMATIC VALVE

Standard sampling valve with a double acting pneumatic actuator.

Proximity switch detects the open / closed position of the valve.

	TECHNICAL DATA
MODEL	125AUT
NOMINAL SIZE	DN 50 (2'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤3.2 µm
APPL. STANDARD:	PED, ATEX, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate with stainless steel protection
ACTUATOR DESCRIPTION	Double Acting Pneuamtic Actuator – Aluminium Body Operating pressure: 6 to 10 bar G 1/8'' air supply connections
POSITION INDICATOR	Inductive
WEIGHT	13kg / 29 LBS



SUB ASS.	PART	NAME
B101*	1*	Glass Bottle*
	2	Protection
	5	Coupling
Set*	4	Coupling Gasket
	17	O-ring (2pcs)
	6	Body
*	9	Piston
A2501*	25	Venting valve
*	29	Pin
	72	Mounting flange
	73	Double acting actuator

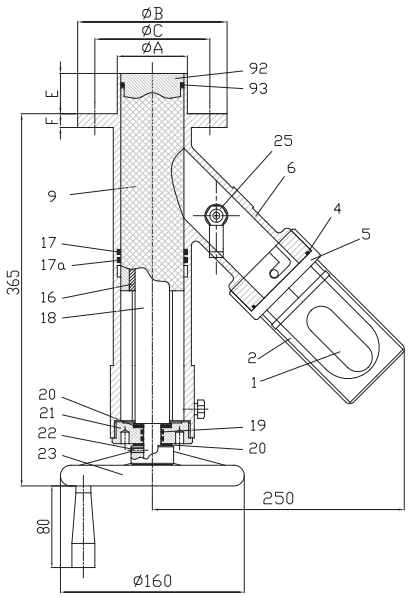
* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

125M

HIGH TEMPERATURE VALVE

The 125M sampling valve is equipped with a metal piston (Stainless Steel, Hastelloy®) for sampling process up to 300°C (572° F). Unlike the PTFE or PEEK piston, the metal piston has a high temperature gasket around it. In order to keep the tightness, the gasket is retracting in a groove during the opening and closing operations of the valve. Only when the valve is completely closed by means of the final turn of the handwheel, the gasket will ensures sealing against the wall of the valve. Tightness from vacuum up to 10 bar (145 psi).

	TECHNICAL DATA
MODEL	125M
NOMINAL SIZE	DN 50 (2'')
MAX. TEMPERATURE:	+260°C / +500°F (FDA) +300°C / ++572°F (not FDA)
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤3.2 µm
APPL. STANDARD:	PED, ATEX, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Perfluorelastomer FFKM
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate with stainless steel protection
WEIGHT	13kg / 29 lbs



SUB ASS.	PART	NAME
	3	Bottle
	5	Coupling
B102*	32	Sight Glass
	34	Bottle Head
	35	Bottle Gasket
	4	Coupling Gasket
	17	O-ring (2pcs)
Set JH*	19	O-Ring (2pcs)
	93	Gasket
	6	Body
	9	Piston
*	16	Nut
	18	Screw
Set JA*	20	Washer 2 Pcs
C601*	21	Cover
	22	Pin
V2301*	23	Handwheel
A2501*	25	Venting Valve
	91	Seat
	92	Nozzle

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

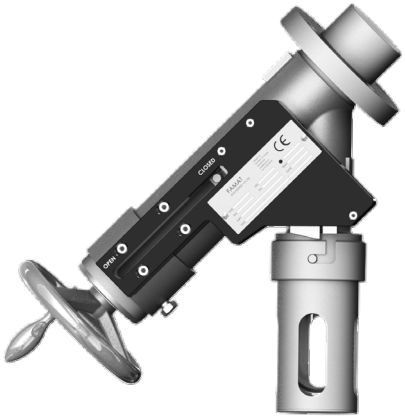
125S-2

SECURITY VALVE

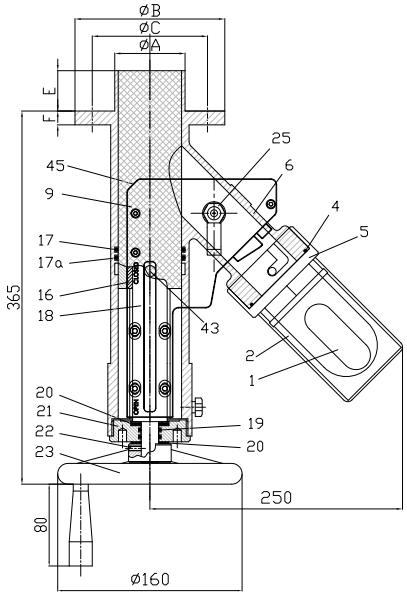
The mechanical locking device secures the sampling procedure.

1. The sampling bottle can only be removed if the piston is completely closed.
2. The piston can only be opened if the sampling bottle is coupled to the outlet.

The sample is taken in the same way as the standard FAMAT sampling valve. The indicator shows the position of the piston. This indicator must read “closed” to allow the security lock to be moved to the open position. Only then the sampling bottle can be removed from its bayonet coupling. The piston is locked inside the valve until the sample bottle is refitted and the security lock is moved to “closed”.



	TECHNICAL DATA
MODEL	125S-2
NOMINAL SIZE	DN 50 (2’’)
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C /+14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS :	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤3.2 µm
APPL. STANDARD:	PED ; ATEX ; FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium, etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate with stainless steel protection
WEIGHT	16kg / 36 lbs



SUB ASS.	PART	NAME
B101*	1*	Glass Bottle*
	2	Protection
	5	Coupling
Set JB*	4	Coupling Gasket
	17	O-ring
	17a	O-Ring
	19	O-Ring (2pcs)
*	6	Body
	9	Piston
	16	Nut
	18	Screw
Set JA*	20	Washer 2 Pcs
*	21	Cover
V2301*	23	Handwheel
A2501*	25	Venting Valve
	91	Locking Key
	45	Security box

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

125NIR

VALVE WITH INFRA-RED PROBE

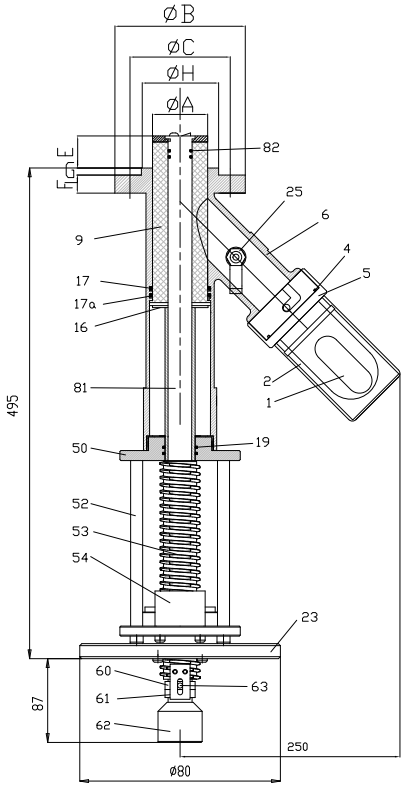
At the top of the piston, the 125NIR valve has a scraper which allows the installation of an optic fiber probe.

Once properly located, the probe enables to monitor several parameters such as temperature, humidity and/or composition of the product, before physically taking the sample. The signal is transmitted from the probe to an analyzer (spectrophotometer) by means of the optic fiber.

A second hole, for the cleaning system, is made on the scraper near the optic fiber probe.

Thanks to our partners specialized in laboratory instrumentation, we are able to provide any specific solution for the customer processes.

	TECHNICAL DATA
MODEL	125NIR
NOMINAL SIZE	DN 50 (2")
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤3.2 µm
APPL. STANDARD:	97/23/EC (PED); 94/9/EC ; FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate with stainless steel protection
WEIGHT	15kg / 33 lbs



SUB ASS.	PART	NAME
B101*	1*	Glass Bottle*
	2	Protection
	5	Coupling
Set JH*	4	Coupling Gasket
	17	O-ring
	17a	O-Ring
	19	O-Ring (2pcs)
*	6	Body
	9	Piston
	16	Nut
Set JA*	20	Washer 2 Pcs
*	23	Handwheel
A2501*	25	Venting Valve
	50	Cover
	52	Reinforcement
	53	Screw M40
	54	Anti-rotation
	60	Angle adjustment
	61	Nut
	62	Probe Fixing
	63	Blocking Screw
	81	Probe
	82	O-Ring (2pcs)

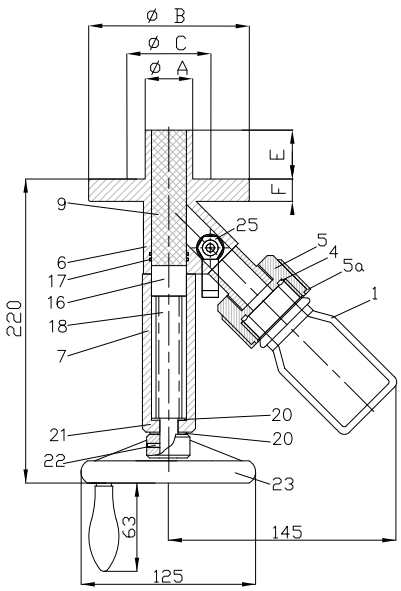
* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

130C

STANDARD VALVE

Type 130C is the standard DN25 sampling valve by FAMAT sampling. The same concept of the 125A valve has been applied in a smaller version, to best suit smaller reactors, and machines.

	TECHNICAL DATA
MODEL	130C
NOMINAL SIZE	DN 25 (½'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤1.6 µm
APPL. STANDARD:	PED, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate
WEIGHT	4kg / 9 lbs



SUB ASS.	PART	NAME
B107*	1	Glass Bottle
*	4	Coupling Gasket
	5	Coupling
	6	Body
P932*	9	Piston
	16	Nut
	18	Screw
	6	Body
	7	Tube
*	17	O-rings (2pcs)
*	20	Washer (2pcs)
V2301*	23	Handwheel
A2501*	25	Venting valve

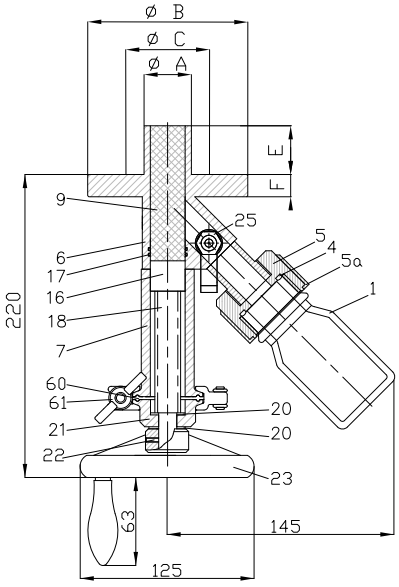
* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

130TC

TRI-CLAMP EASY-CLEAN VALVE

The same easy-clean technology present in 125TC is adapted to our DN25 valve.
The easy disassembly of the piston is a great advantage in rapid batch changes, typical of small size production plants.

	TECHNICAL DATA
MODEL	130TC
NOMINAL SIZE	DN 25 (½'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤1.6 µm
APPL. STANDARD:	PED, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluo-relastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate
WEIGHT	4kg / 9 lbs



SUB ASS.	PART	NAME
B107*	1	Glass Bottle
*	4	Coupling Gasket
	5	Coupling
P932*	9	Piston
	16	Nut
	18	Screw
	6	Body
	7	Tube
*	17	O-rings (2pcs)
*	20	Washer (2pcs)
V2301*	23	Handwheel
A2501*	25	Venting valve
	60	Tri-Clamp Gasket
	61	Tri-Clamp connection

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

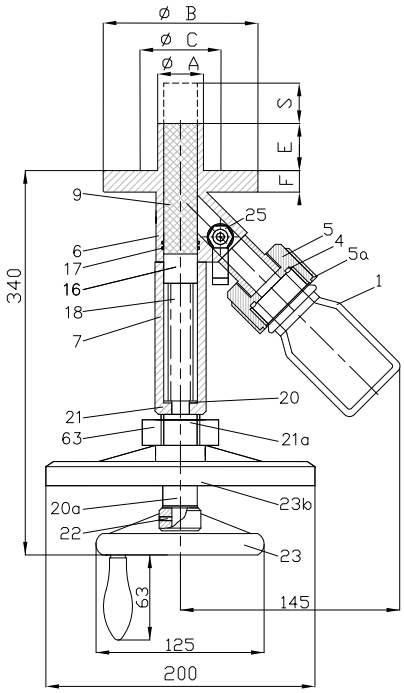
130CC

CRUST BREAKING VALVE

The 130CC valve has been developed by FAMAT sampling for situations in which the product is not flowing smoothly and could clog the sampling valve bore.

By moving the bigger handwheel, the piston enters into the vessel to break any possible deposit of material thus allowing the ease of flow of the product.

	TECHNICAL DATA
MODEL	130CC
NOMINAL SIZE	DN 25 (½'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤1.6 µm
APPL. STANDARD:	PED, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate
PISTON C. B. LENGTH.	25mm
WEIGHT	5kg / 11 lbs



SUB ASS.	PART	NAME
B107*	1	Glass Bottle
*	4	Coupling Gasket
	5	Coupling
	6	Body
	9	Piston
P932*	16	Nut
	18	Screw
	6	Body
	7	Tube
*	17	O-rings (2pcs)
*	20	Washer (2pcs)
V2301*	23	Handwheel
*	2b	Handwheel CC
A2501*	25	Venting valve

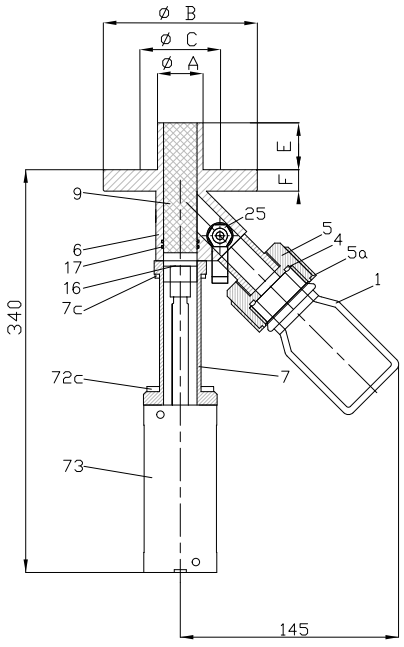
* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

130AUT

AUTOMATIC VALVE

Standard DN25 sampling valve with a double acting pnaumatic actuator (Fig. 1).
Proximity switch can be installed on the valve body.
Valve can also be provided with easy-clean TC connection.

	TECHNICAL DATA
MODEL	125AUT
NOMINAL SIZE	DN 25 (½'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤1.6 µm
APPL. STANDARD:	PED, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate
ACTUATOR DESCRIPTION	Double Acting Pneuamtic Actuator - Aluminium Body Operating pressure: 6 to 10 bar Design Operating pressure: 6 bar G 1/8" air supply connections
POSITION INDICATOR	Inductive
WEIGHT	6kg / 13 lbs



SUB ASS.	PART	NAME
B107*	1	Glass Bottle
	5	Coupling
*	4	Coupling Gasket
*	17	O-rings (2pcs)
	6	Body
	7	Tube
	7c	Screw
*	9	Piston
	16	Nut
A2501*	25	Venting valve
	72c	Screws
	73	Double acting actuator

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

130OEL

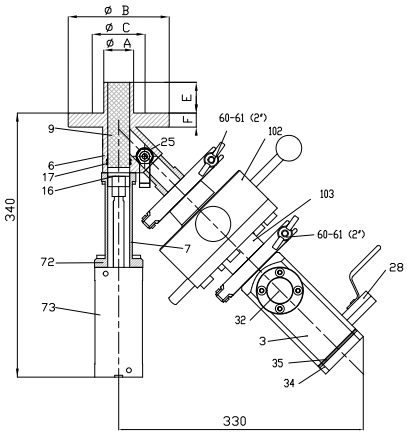
HIGH CONTAINMENT VALVE

This new compact OEL High-Containment sampling device enables the removal of the sample under contained conditions. The OEL (Occupational Exposure Limits) describeS the maximum concentration of a hazardous substance which can be tolerated in the air of the production room without any negative effect to the health of the operator.

Available in automatic or manual operation.

OEB (Occupational Exposure Band) : OEB4 1-10 µg /m³.

	TECHNICAL DATA
MODEL	130OEL
NOMINAL SIZE	DN 25 (½'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤1.6 µm
APPL. STANDARD:	PED, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluo-relastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 200 ml, glass Borosilicate with stainless steel protection
HIGH CONTAINMENT VALVE	Split butterfly valve, consisting of 2 separable half-valves, with locking system: • 1 active module isolating the outlet of sampling valve • 1 passive module, removable in closed position, isolating the sampling bottle
HIGH CONTAINMENT VALVE MATERIALS:	Wetted parts 316L (or Hastelloy®) Gaskets: EPDM white (or Viton, Kalrez)
WEIGHT	11kg / 24 lbs



SUB ASS.	PART	NAME
B102-OEL*	3	Bottle
	28	Venting valve
	32	Sight Glass
	34	Bottle Head
	35	Bottle Gasket
*	17	O-ring
	6	Body
*	9	Piston
	16	Nut
*	20	Washer 2 Pcs
A2501*	25	Venting Valve
A2501*	28	Venting Valve
OEL*	102	Active H.C. valve
	103	Passive H.C. valve
*	60	Tri-clamp gasket
	61	Tri-clamp connection
	72	Rear Tube
	73	Double A. actuator

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

SIMPLE DESIGN AND FAST DISASSEMBLY FOR CLEANING

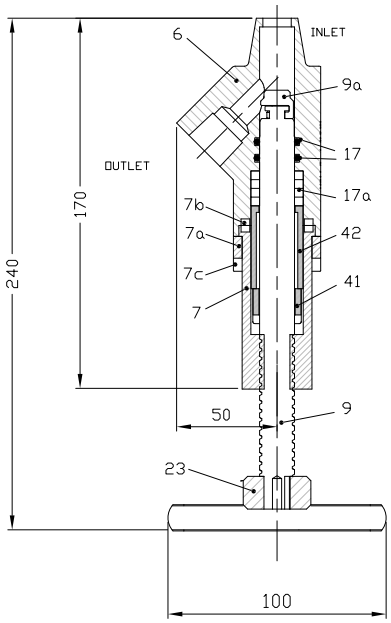
115G

GAZ SAMPLING VALVE

- Metal piston type
- High temperature (up to 300°C) and high pressure service
- TA LUFT certified TUV SUD up to 300°C
- Fugitive emission ISO 15848
- Fire safe certified TUV SUD
- API 607
- Stem triple tighness (double FFKM and adjustable graphite packing)
- Threaded or flanged connection

	TECHNICAL DATA	
MODEL	115G	
NOMINAL SIZE	DN 15 (¼")	
MAX. TEMPERATURE:	+300°C / +572°F	
MIN. TEMPERATURE:	-10°C / +14°F	
PRESSURE CLASS:	std: PN10 Up to class #1500	
DESIGN PRESSURE:	10 bar / 145 psi / 250 bar	
OPERATING PRESSURE:	From full vacuum up to 10 bar / 145 psi	
INT. ROUGHNESS.:	Ra ≤0.8 µm	
EXT. ROUGHNESS:	Ra ≤1.6 µm	
APPL. STANDARD:	ISO 10497; ISO 15848; PED; FDA	
BODY MATERIAL	Stainless steel (316L), Hastelloy®, Titanium etc.	
SEALS MATERIALS	FFKM	
SAMPLE CONNECTION	½ NPT, other on request	
WEIGHT	0.5kg / 1.1 lbs	
SUB ASS.	**PART**	**NAME**
	6	Body
	7	Tube
	7a	Flange
	7b	Pin
	7c	Screw
	9	Piston
*	9a	Piston Head
*	17	O-ring (2pcs)
*	17a	Packing
	23	Handwheel
	41	Packing Plate
	42	Pressure washer
	23	Handwheel

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.



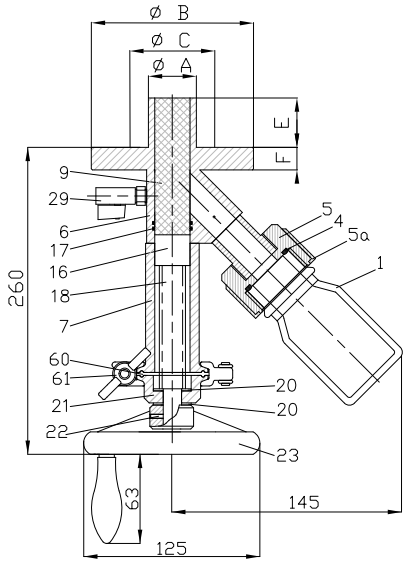
115TC

TRI-CLAMP EASY-CLEAN VALVE

The same easy-clean technology present in 125TC is adapted to our DN15 valve.

The easy disassembly of the piston is a great advantage in rapid batch changes, typical of small size production plants.

	TECHNICAL DATA
MODEL	115TC
NOMINAL SIZE	DN 15 (¼")
MAX. TEMPERATURE:	+300°C / +572°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	10 bar / 145 psi / 250 bar
OPERATING PRESSURE:	From full vacuum up to 10 bar / 145 psi
INT. ROUGHNESS.:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤1.6 µm
APPL. STANDARD:	PED ; FDA
BODY MATERIAL	Stainless steel (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluo-relastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150ml, glass Borosilicate
WEIGHT	4kg / 9 lbs



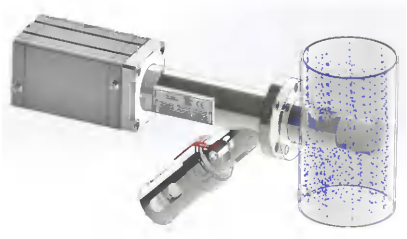
SUB ASS.	PART	NAME
B107*	1	Glass Bottle
*	4	Coupling Gasket
	5	Coupling
	6	Body
*	9	Piston
	16	Nut
	18	Screw
	6	Body
	7	Tube
*	17	O-rings (2pcs)
*	20	Washer (2pcs)
V2301*	23	Handwheel
A2501*	29	Venting valve

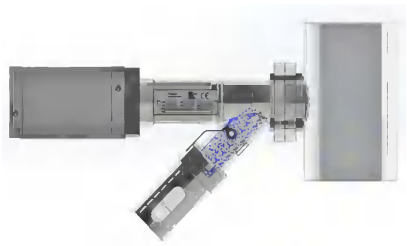
* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

125HS

HORIZONTAL SAMPLING VALVE DN50

- Intrusive sampler without dead space
- Applicable for vertical pipe
- Adjustable piston length, according to customer request
- 75 ml sampling with each single operation
- Automatic version available on demand



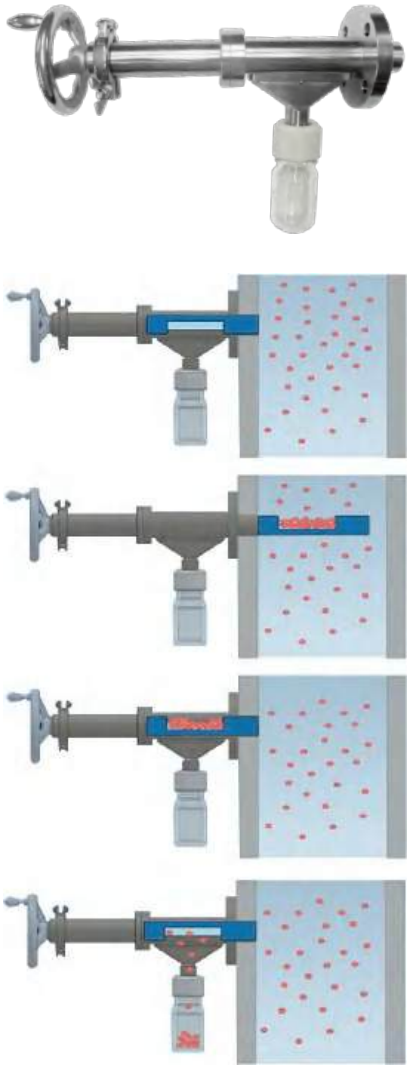


	TECHNICAL DATA
MODEL	125HS
NOMINAL SIZE	DN 50 (2")
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	10 bar / 145 psi
OPERATING PRESSURE:	From full vacuum up to 2 bar / 29 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤3.2 µm
APPL. STANDARD:	PED, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 150 ml, glass Borosilicate with stainless steel protection
WEIGHT	9 kg / 20 lbs

130HS

HORIZONTAL SAMPLING VALVE DN25

- Intrusive sampler without dead space
- Applicable for vertical pipe
- Adjustable piston length, according to customer request
- Piston tightness without gasket, thanks to FAMAT SAMPLING patented EPT® (on demand)
- 25 ml sampling with each single operation
- Automatic version available on demand



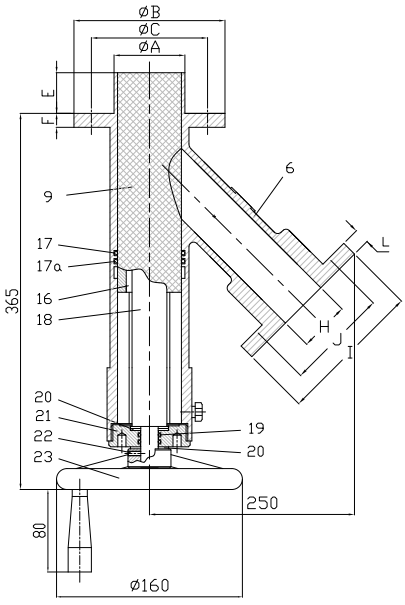
	TECHNICAL DATA
MODEL	130H
NOMINAL SIZE	DN 25 (1")
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
OPERATING PRESSURE:	From full vacuum up to 2 bar / 29 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤1.6 µm
APPL. STANDARD:	94/9/EC ; FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
SAMPLE UNIT	Bottle 100 ml, glass Borosilicate
WEIGHT	7 kg / 16 lbs

250A

TANK BOTTOM VALVE

The same EPT ® technology of FAMAT sampling valves is adopted for the tank bottom valves.
Their versatility and proven reliability make them the perfect solution for many applications in the pharmaceutical field.
The automatic version (250AUT) is also available on request.

	TECHNICAL DATA
MODEL	250A
NOMINAL SIZE	DN 50 (2'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤3.2 µm
APPL. STANDARD:	PED, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
WEIGHT	14 kg / 31 lbs



SUB ASS.	PART	NAME
Set JB*	4	Coupling Gasket
	17	O-ring
	17a	O-ring
	19	O-Ring (2pcs)
P925*	6	Body
	9	Piston
	16	Nut
	18	Screw
Set JA*	20	Washer 2 Pcs
*	21	Cover
V2301*	23	Handweel

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

280AUT

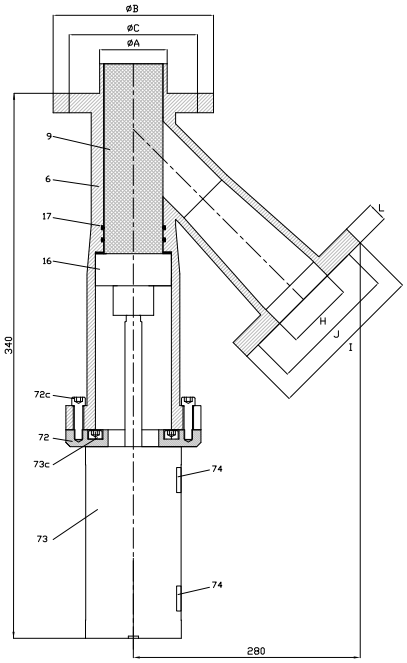
TANK BOTTOM VALVE

The 3'' DN80 tank bottom valve has been developed specifically for the pharmaceutical and chemical industries.

The new design has been created and successfully tested for a service up to 50 bar (class #300). The product is in compliance with PED requirement (Cat. II Equipment).

- Maintenance free.
- Piston at flush with the vessel wall.

	TECHNICAL DATA
MODEL	280AUT
NOMINAL SIZE	DN 80 (3'')
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10 PN50 (ASME #300)
DESIGN PRESSURE:	50 bar / 725 psi
OPERATING PRESSURE:	From full vacuum up to 50 bar / 725 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤1.6 µm
APPL. STANDARD:	PED, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	FFKM (FDA)
WEIGHT	29 kg / 64 lbs



SUB ASS.	PART	NAME
	6	Body
*	9	Piston
	16	Nut
*	17	O-rings (2pcs)
A2501*	25	Venting valve
	72c	Screws
	73	Double acting actuator
	73c	Screw
	74	Limit switch

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

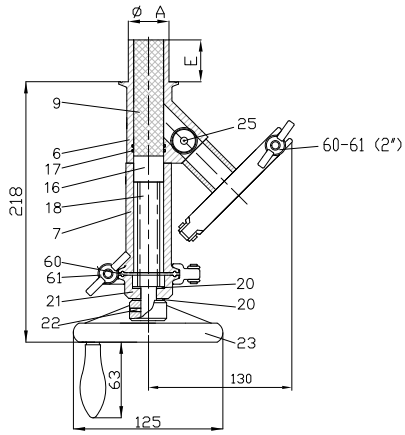
325A
CHARGING VALVE

FAMAT sampling charging valve has been developed to load vessels and reactors.

The ETP® applied to this charging valve brings two advantages: the expanding piston itself, which ensures the tightness and the pushing action operated by the piston, which move the load inside the vessel avoiding any loss of product.

As per picture beside, the valve can be equipped with a hygienic butterfly valve, to completetly isolate the supply line.

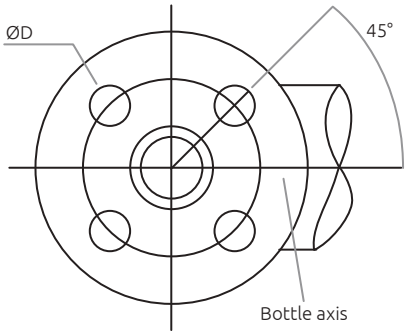
	TECHNICAL DATA
MODEL	325A
NOMINAL SIZE	DN 25 (1")
MAX. TEMPERATURE:	+180°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	0-10 bar / 0-145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤1.6 µm
APPL. STANDARD:	PED, FDA
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
SEALS MATERIALS	Viton, Viton/FEP/PFA, Perfluorelastomer FFKM; EPDM (All FDA)
WEIGHT	5 kg / 11 lbs

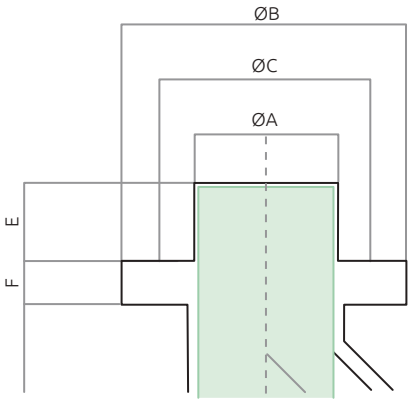


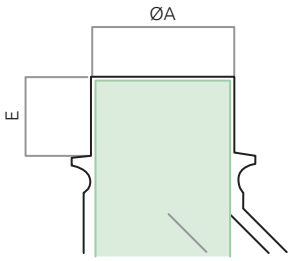
SUB ASS.	PART	NAME
*	17	O-ring (2pcs)
	6	Body
	7	Tube
	9	Piston
P932*	16	Nut
	18	Screw
*	20	Washer 2 Pcs
	21	Cover
*	22	Pin
V2330*	23	Handwheel
	25	TC Connection
	26	Tri-clamp connection

* Recommended spare parts
Note: the size of the connection flanges is detailed at page 28.

STANDARD CONNECTION FLANGES







VALVE SIZE	CODE	FLANGE TYPE	A	B	C	NB	D	E	F
DN25 (1'')	FD	DIN/EN 1092 DN25 PN 10	34	115	85	4	14	35	16
	FA	ASME/ANSI B16.5 1'' #150	34	107.9	79.4	4	15.9	35	16
	TC	Tri-Clamp ISO 2852 1.½''	34					35	
DN50 (2'')	FD	FAMAT STANDARD (DIN)	61	125	100	4	13	35	18
	ND	DIN/EN 1092 DN50 PN 10	61	165	125	4	18	35	21
	FA	FAMAT STANDARD (ASME)	61	127	98.4	4	15.9	35	18
	NA	ASME/ANSI B16.5 2'' #150	61	152.4	120.6	4	19	35	18
	TC	Tri-Clamp ISO 2852 2.½''	60					35	
DN80 (3'')	ND	DIN/EN 1092 DN80 PN 10	80	200	160	8	18	35	30
	NA	ASME/ANSI B16.5 3'' #150	80	190	152.4	4	19	35	23
	TC	Tri-Clamp ISO 2852 3''	80					35	

- Valve can be adapted with special flange following customer requirements.
- Nozzle lenght and diameter can be also adapted on demand.

NO NOZZLE

O-RING NOZZLE

SPECIAL NOZZLE

PLEASE CONTACT US SHOULD YOU NEED ANY OTHER SPECIAL CUSTOMIZATION

METAL MATERIAL OPTIONS

MATERIAL GRADE	AISI GRADE	EN GRADE	TYPE	CORROSION RESISTANCE
1.4404	316 L	X2 Cr Ni Mo 17 12 2	Cr-Ni-Mo austenitic St. St.	Excellent resistance to atmosphere and to wide variety of salts, organic acids and foodstuff. Resistant to intergranular corrosion (thanks to low carbon content).
1.4435	316 L	X2 Cr Ni Mo 18 14 3	Cr-Ni-Mo austenitic St. St.	The higher molybdenum addition makes the material 1.4435 more resistant to corrosion from acids and chloride.
1.4539	904 L	X1 Ni Cr Mo Cu 25205	Ni-Cr-Mo-Cu austenitic Super St. St.	Its resistance to all types of corrosion (pitting, crevice, intergranular and stress corrosion) is superior to that of the 316L series.
1.4571	316 Ti	X6 CrNiMoTi 17-12-2	Ti-stabilized Cr-Ni-Mo austenitic St. St.	Same as 316L. Titanium makes this steel more resistant to intergranular corrosion and improves machinability.
2.4602	-	$NiCr_{21}Mo_{14}W$	Cr/Ni/Mo/W Super alloy	Good resistance to pitting, stress and crevice corrosion, also under reducing and oxidising conditions. Suitable for high temperature.

SEALS MATERIALS OPTIONS

	ACRONYM	NAME	TEMP. RANGE	FDA	COLOR	APPLICATION
STANDARD	FFKM	Perfluoro Elastomer	-10°C +200°C	YES	White	Standard seal for parts in contact with process product.
			-10°C +300°C	NO	Black	Seal for extreme high temperature service. Option not available for pharma application.
	PTFE		-100°C +180°C	YES	White	Standard material for piston (with or without glass fiber reinforcement).
OPTIONAL	EPDM	Ethylene propylene diene monomer rubber	-40°C +120°C	YES	Black	Butterfly Valve Seal.
	FKM	Fluoroelastomers (Viton®)	-10°C +120°C	NO	Black	Seal for parts not in contact with process product. Option not available for pharmaceutical application.
	VMQ	Silicon	-40°C +180°C	YES	White / Translucent	Bottle GL45 Connection gasket. Optional.
	PEEK	Polyether ether ketone	-60°C +240°C	YES	Gray / Brown	Option material for Piston, when higher resistance is required.

PLEASE CONTACT US SHOULD YOU NEED ANY OTHER SPECIAL CUSTOMIZATION

PISTON OPTIONS

MATERIAL CODE	DESCRIPTION
PTFE + Glass Fiber STANDARD	• The standard FAMAT sampling Piston Material. • FDA approved material. The good chemical resistance, together with the excellent mechanical properties, make this the preferable solution for most application. • FDA approvals is available.
PTFE (Virgin)	• Pure PTFE is a suitable alternative when the process condition does not allow the use of glass fiber reinforced PTFE. • Mechanical resistance is lower than the reinforced version. Not recommended for abrasive or sticky product. May require a most frequent replacement of piston. • FDA and USP Class VI approvals are available.
PEEK	• PEEK provides higher mechanical properties. • Solution for sticky or abrasive product, when the standard piston is not resistant enough. • Good corrosion resistance and compatibility with most process substances are also other advantages of this solution. • FDA approval is available.

SCRAPER

A Scraper in Stainless Steel or Hastelloy® protects the head of the piston from damages is the solution for abrasive or sticky products.

METAL PISTON

Metal piston is the solution for high temperature service (up to 300°C), where the normal coat cannot resist.

PLEASE CONTACT US SHOULD YOU NEED ANY OTHER SPECIAL CUSTOMIZATION

OUTLET OPTIONS

COUPLINGS

BAYONET COUPLING

Standard connection for DN50 Valve.

Suitable for all standard type of bottles.

GL 45 CONNECTION COUPLING

The GL45 connection is standard for DN25 valve. The PTFE body with internal VMQ (silicone rubber) gasket guarantees maximum sealing.

TRI-CLAMP COUPLING

Tri-clamp connection. Available for all valves.

FOOD COUPLING

FLANGED CONNECTION COUPLING

COVERS

BAYONET BOTTLE & BODY COVER

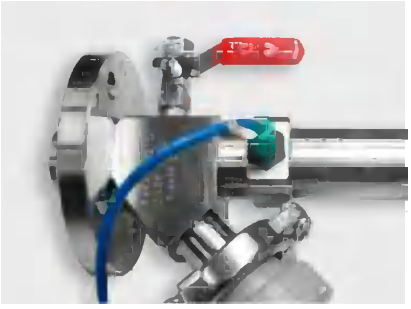
PLEASE CONTACT US SHOULD YOU NEED ANY OTHER SPECIAL CUSTOMIZATION

OTHER OPTIONS

HYGENIC BUTTERFLY VALVE

Once installed on the valve it allows to isolate the bottle and/or the valve outlet from external contamination.

	TECHNICAL DATA
SIZE	1.½ " – 2"
MAX. TEMPERATURE:	+120°C / +356°F
MIN. TEMPERATURE:	-10°C / +14°F
PRESSURE CLASS:	PN10
BODY MATERIAL	Stainless steel 1.4404 (316L)
GASKET	EPDM / Viton (FKM)
WEIGHT	0.6 kg / 1.3 lbs



PROXIMITY SWITCH

To indicate the open / closed position of the valve.

STAINLESS STEEL HANDWHEEL

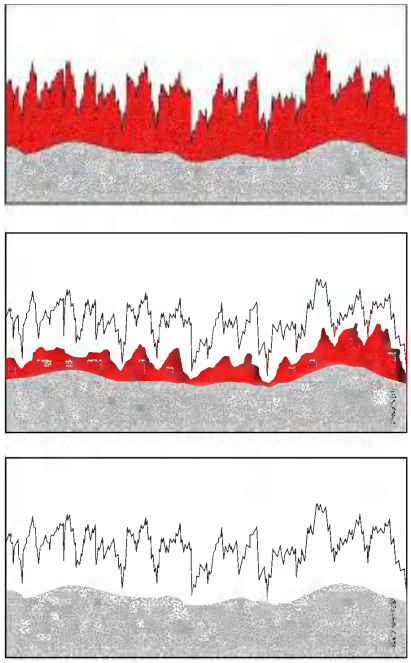
Option for corrosive environnent installation.

HANDWHEEL WITH TURN INDICATOR

Thermoplastic handwheel with indicator of number of turns. It allows to control the opening of the valve.

PLEASE CONTACT US SHOULD YOU NEED ANY OTHER SPECIAL CUSTOMIZATION

SURFACE FINISH



Standard surface finish for valve internal surface is Ra = 0.8 µm.

All surface in contact with the product are completely machined.

No rough surface in contact with the product.

On request, with high precision machining and lapping operation, the internal surface of the valve may reach the very low roughness value of Ra = 0.4 µm.

Electropolishing can also be applied, to improve the surface profile and guarantee the maximum hygienic results.

External roughness

On request value between Ra= 0.8 µm and Ra= 0.4 µm can be reached with mechanical polishing.

PLEASE CONTACT US SHOULD YOU NEED ANY OTHER SPECIAL CUSTOMIZATION

CLEANING IN PLACE (CIP)

FAMAT sampling Valve can be equiped with cleaning in place feature, to guarantee the perfect cleaning of internal parts of the valve in all condition.

Thanks to a cleaning connection, the cleaning media can be put inside the valve, and remove all residual.

All internal part of the valve can be accessed by cleaning media.

In addition to these features, the TC connection (easy-clean) permit a rapid disassembly of the valve for complete cleaning.

The cleaning connection may be through valves in polished stainless steel with G ¼'' connection, or TC ½'' connection.

PLEASE CONTACT US SHOULD YOU NEED ANY OTHER SPECIAL CUSTOMIZATION

BOTTLE B101

This is the standard solution for valve DN50. Available as option also on DN25 valve.
The bottle is in borosilicate glass with a metal protection that prevents from damage.
The windows in the metal protection allow to see the product.
The material of the bottle body in contact with the product can be selected following the application.
ATEX approval for most application.

	TECHNICAL DATA
MODEL	B101
SIZE	150 ml
APPLICABLE TO:	- Sampling DN50 - Sampling DN25 - Horizontal sampling
MAX. TEMPERATURE:	+150°C / +302°F
MIN. TEMPERATURE:	-40°C / -40°F
PRESSURE CLASS:	PN10
DESIGN PRESSURE:	10 bar / 145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
EXT. ROUGHNESS:	Ra ≤1.6 µm
APPL. STANDARD:	ATEX
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
PROTECTION MATERIALS	Stainless Steel 304
WEIGHT	0.5 kg / 1.1 lbs

BOTTLE B101 OPTIONS

B101TC
Tri-clamp connection.

TCS
Security lock for tri-clamp.

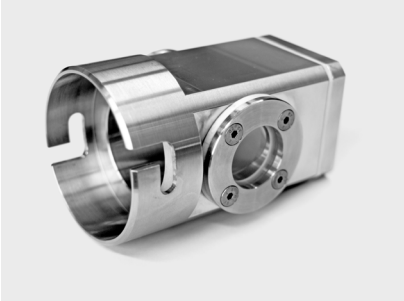
B101S
Security Locking, to avoid accidental disassembly of the bottle.

PLEASE CONTACT US SHOULD YOU NEED ANY OTHER SPECIAL CUSTOMIZATION

BOTTLE B102

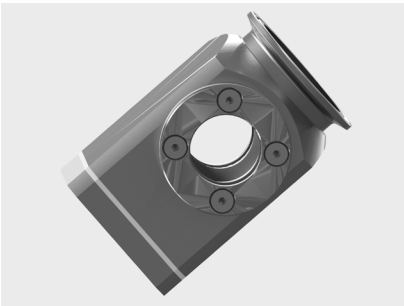
When maximum shock resistance is required, the bottle B102 is the best option for the valve DN50. The bottle has a solid metallic body, with glass windows. The material of the bottle body in contact with the product can be selected following the application.

ATEX & FDA approval for most application.



	TECHNICAL DATA
MODEL	B102
SIZE	150ml (Optional 250ml / 500ml)
APPLICABLE TO:	- Sampling DN50 - Sampling DN25 - Horizontal sampling
MAX. TEMP (Continuous):	+260°C / +300°F
MIN. TEMPERATURE:	-40°C / -40°F
DESIGN PRESSURE:	10 bar / 145 psi
INT. ROUGHNESS:	Ra ≤0.8 µm
BODY MATERIAL	Stainless steel 1.4435 (316L), Hastelloy®, Titanium etc.
GASKET	PTFE
WEIGHT	1 kg / 2.2 lbs

BOTTLE B102: 4 OPTIONS



B102TC

Tri-clamp connection.

TCS

Security lock for tri-clamp.

B102S

Security ocking, to avoid accidental disassembly of the bottle.

B102PU

Bottle with purge connection (PU), for cleaning or vacuum connection.

Also available with ¼'' TC purge.

PLEASE CONTACT US SHOULD YOU NEED ANY OTHER SPECIAL CUSTOMIZATION

BOTTLE B105

Standard glass bottle for laboratory use.

The modified design of the connection surface improves the sealing performance.

The standard series is composed by glass botlle + connection.

The S series is composed by glass bottle + connection + protective metal cage.

Special size available on demand.

	TECHNICAL DATA
MODEL	B105
SIZE	100 ml, 250 ml, 500 ml, 1000 ml (other sizes on request)
THREAD SIZE	GL 45
MAX. TEMP (Continuous):	+180°C / +356°F
MIN. TEMPERARTURE	-40° / -40°F
MAX. PRESSURE:	6 bar
GASKET	PTFE
WEIGHT	1 kg / 2.2 lbs

OPTION B105TC: 2 OPTIONS

B105TC
Tri-clamp connection.

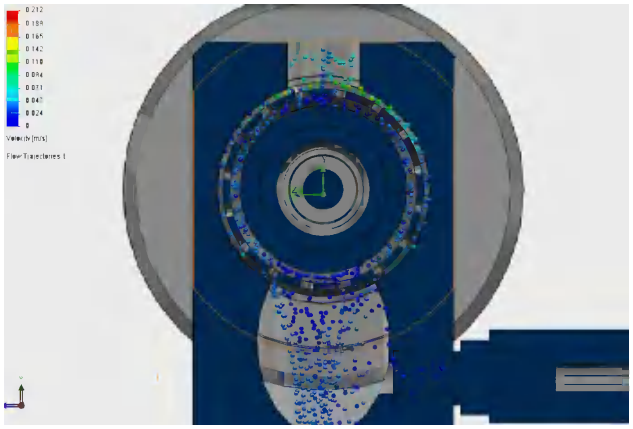
TCS
Security lock for tri-clamp.

PLEASE CONTACT US SHOULD YOU NEED ANY OTHER SPECIAL CUSTOMIZATION

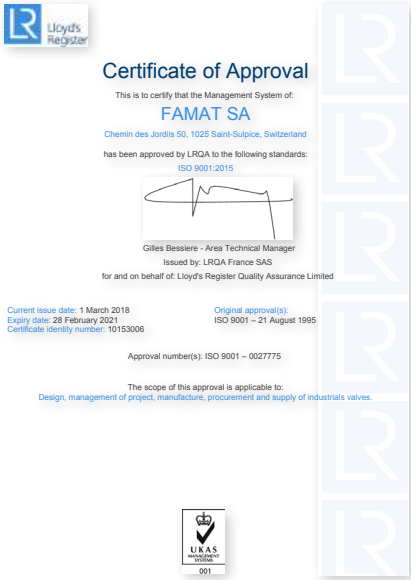
CUSTOM SAMPLING SOLUTIONS

FAMAT sampling not only supplies valves, but can provide a custom designed product that fully integrates in the production process.

- Process Analysis
- Identification of sampling solution
- Study of feasibility
- Design of sampling valve and accessories
- Integration of solution in process / machines
- Realization of valves
- Supervision of commissioning / start-up



QUALITY CERTIFICATIONS & APPROVALS



Certificate of Approval

This is to certify that the Management System of:

FAMAT SA

Chemin des Jordils 50, 1025 Saint-Sulpice, Switzerland

has been approved by LRQA to the following standards:

ISO 9001:2015

Gilles Bessiere - Area Technical Manager

Issued by: LRQA France SAS

for and on behalf of: Lloyd's Register Quality Assurance Limited

Current issue date: 1 March 2018
Expiry date: 28 February 2021
Certificate identity number: 10153006

Original approval(s):
ISO 9001 – 21 August 1995

Approval number(s): ISO 9001 – 0027775

The scope of this approval is applicable to:
Design, management of project, manufacture, procurement and supply of industrials valves.

UKAS MANAGEMENT SYSTEMS 001

EC CERTIFICATE OF CONFORMITY

In accordance with the requirements of the Pressure Equipment Directive 97/23/EC and the Pressure Equipment Regulations 1999, UK Statutory Instrument 1999 no. 2001 and 2002 no. 1267.

This is to certify that the Quality Management System of the company:

FAMAT SA
Chemin des Jordils, 40
1025 SAINT SULPICE
Switzerland

has been assessed against the requirements of Annex II, Module D1 of the Pressure Equipment Directive 97/23/EC, and Schedule 4, Module D1 of the Pressure Equipment Regulations 1999 and conforms to the requirements for the products shown below:

Manufacture of industrial valves

Approval is subject to the continued maintenance of the quality system in accordance with the requirements of the above Directive and Regulations.

Authorisation is hereby given to use the LRV Notified Body Identification Number in accordance with the requirements of the specified Directive and Regulations in relation to the products as identified above.

Certification No: 0038/PED/QA0543180/W
Original Approval: 27 July 2012
Current Certificate: 01 March 2015
Certificate Expiry: 28 February 2018
LRV Notified Body Number 0038

JP Debarnot on behalf of Lloyd's Register Verification

Lloyd's Register Verification Limited, 71 Fenchurch Street London EC3M 4BS UK

EC TECHNICAL FILE RECEIPT

This is to certify that Lloyd's Register, a Notified Body under the terms of the 'Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Directive', 94/9/EC, and 'Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations', SI 1996 No. 192, as amended by SI 2001 No. 3768 has, in conformity with the requirements of the Conformity Assessment Procedure as described within Article 8 (and 12bis) of the Directive (and Regulation 10 (3)(b)(i) of the UK Regulations), received for retention a Technical File as detailed below.

This receipt is issued to:

APPLICANT: FAMAT VALVE
Ch. Des Jordils 40
1025 51 - SUISSE
Switzerland

TECHNICAL FILE DESCRIPTION: Sampling Valve Type 115, 125, 130 & 135

TECHNICAL FILE REFERENCE: File dated 13.12.2004
Amended 05.09.2005 & 22.01.2009 & 17.10.11

The file will be stored for an initial period of ten years from date of receipt. The applicant will be contacted after ten years and the file will be either returned or destroyed, or a new retention agreement established, as applicable.

This receipt must be produced by the manufacturer to reclaim the stored technical file.

Storage Number: LYD 0400028
Control Number: 9999/4/TEX/2005/0002/A
Date of Receipt: 14 November 2011
LRV Notified Body Number 0038

JP Debarnot on behalf of Lloyd's Register Verification

ITIS B.V.

Report 20160348-R001 rev.1

Foreword

Test valve details

Requirements and limits

ITIS B.V.

Industrie Service

API607 FIRE TEST QUALIFICATION CERTIFICATE

Test valve details

Scope of other sizes, pressures and materials qualified by this test.

For material qualification see paragraph 7.2

C. Zegers

ITIS B.V.

Industrie Service

ISO 15848-1 QUALIFICATION CERTIFICATE

Test valve details

C. Zegers

CODING SYSTEM

BODY			BOTTLE	ACCESSORIES
125A	FD	I	01	PO
Valve Type	Inlet Connection	Material	Bottle Type	Additional Option

BODY CODIFICATION							
VALVE TYPE				FLANGE		MATERIAL (3)	
SERIES		MODEL (1)					
Code	Desription	Code	Desription	Code	Desription	Code	Desription
115	Sampling Valve DN15	A	Standard (125)	FD	FAMAT DIN	I	1.4435
130	Sampling Valve DN25	C	Standard (130)	FA	FAMAT ASME	C22	Hastelloy C22
124	Sampling Valve DN40	TC	Easy Clean	ND	Standard DIN	TI	Titan
125	Sampling Valve DN50	CC	Crust Breaking	NA	Standard ASME	316L	AISI 316L
325	Charging Valve DN25	M	Metal High Temp.	TC	Tri-Clamp	1.4539	1.4539
135	Metal Sampling Valve DN50	AUT	Automatic	NPT	NPT Thread		
225	Tank Bottom Valve DN25	OEL	High-Containment	SP	Special Flange		
250	Tank Bottom Valve DN50	G	Gas (115)				
280	Tank Bottom Valve DN80	H	Horizontal				
350	Charging Valve DN50	HS	Horizontal Simplified				
		S2	Security 2				
		SP	Special Design				

CODING SYSTEM

BOTTLE CODIFICATION			
MODEL		OPTIONS (1)	
Code	**Description**	**Code**	**Description**
00	No Bottle, GL45 outlet (130)	PU	Purge (only B102)
	No Bottle, Bayonet outlet (125)	PTC	Purge Tri-Clamp 0.5" (only B102)
00TC	No Bottle, Tri-Clamp 1.5" outlet (130)	S	Security (only with Bayonet)
	No Bottle, Tri-Clamp 2" outlet (125)	SP	Special
00TCS	No Bottle, Tri-Clamp 1.5" security outlet (130)	250	Capacity 250ml
	No Bottle, Tri-Clamp 2" security outlet (125)	500	Capacity 500ml
00FD	No Bottle, Flange Famat DIN	1000	Capacity 1000ml
00FA	No Bottle, Flange Famat ANSI		
00ND	No Bottle, Flange Standard DIN		
00NA	No Bottle, Flange Standard ANSI		
01	Bottle Type B101, Bayonet connection		
01TC	Bottle Type B101, Tri-Clamp 2" connection		
01TCS	Bottle Type B101, Tri-Clamp 2" security connection		
02O	Bottle Type B102OEL, Tri-Clamp 2" connection		
02	Bottle Type B102, Bayonet connection		
02L	Bottle Type B102L (Large), Bayonet connection		
02TC	Bottle Type B102, Tri-Clamp 2" connection		
02TCS	Bottle Type B102, Tri-Clamp 2" security connection		
05M	Glass Bottle B100, GL45 connection (only 130)		
05	Type B105: Glass Bottle B100 + GL45 Bayonet connection		
05S	Type B105S: Glass Bottle B100 + GL45 + Protection Bayonet connection		
05TC	Type B105: Glass Bottle B100 + GL45 Tri-Clamp 2" connection		
05STC	Type B105S: Glass Bottle B100 + GL45 + Protection Tri-Clamp 2" connection		

(1) If options have to be added, a separator "-" must be used. The options must be listed in alphabetical order. *Example: 01TC-250 or 02-S*

ACCESSOIRES CODIFICATION (1)					
Code	**Description**	**Code**	**Description**	**Code**	**Description**
00	Standard	N2	Nose Length : 15 ≤ E < 35mm	PUR	Pure PTFE Piston
BV	Butterfly Valve	N3	Nose Length : 35 < E < 50mm	RAC	Scraper
BV2	2 x Butterfly Valve	N4	Nose Length : 50 ≤ E ≤ 70mm	RB	Ball Bearings
CIP	Cleaning in Place	N5	Nose Length : 70 ≤ E ≤ 80mm	SFL	PTFE Bellow (Special Design)
FC	Limit switch	N6	Nose Length : 80 ≤ E < 100mm	SIP	Sterilization in Place
FC2	2 x Limit Switch	ND	Special Nose Diameter	SPM	Special Materials
FSC	Special Limit Switch	NSP	Special Nose (not listed above)	VA	Hand wheel with Indicator
HJ	Heating Jacket	OR	O-ring on nose	VI	Inox Hand wheel
HT	High Temperature	PK	PEEK Piston	VS	Special Hand wheel
LT	Low Temperature	PO	Special Polishing (Internal or external)	PNxx	Special Design Pressure (Pressure rating)
N0	No Nose : E = 0mm	PSP	Purge Special Design		
N1	Nose Length : 0 < E < 15mm	PTC	Purge Tri-Clamp		

(1) If several accessories have to be combined, a separator "-" must be used. The options must be listed in alphabetical order. *Example: N2-PO-PSP*

FAMAT sampling systems

EXPERTS IN VALVE TECHNOLOGY SINCE 1974

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