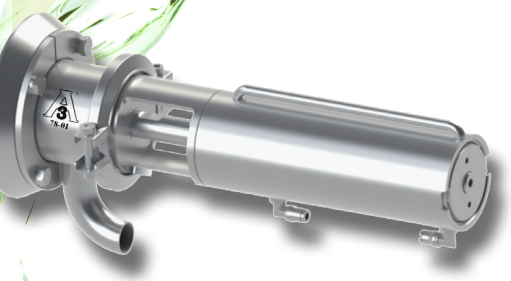
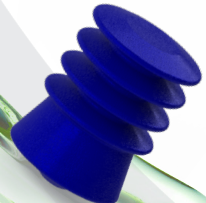
SERVINOX



Efficiency & Environment



OUR COMMITMENT,
YOUR SUCCES

Eco-design serving efficiency...

An **effective pigging system** means :

more product recovered
security and **traceability** for your **products**
CIP cycles **that are shorter** or even **eliminated**
saving in **water** and **energy** during the CIP cycles
fewer cleaning agents consumed
and **less effluent** discharge.

An **increase** in **productivity**,
An **eco-responsible approach.**

Servinox makes every effort to update its documents in line with improvements to its products.

...and **efficiency**
serving **ecology.**

A **well design multi-function tank dome adapter,** is :

the concentration of **several functions in one point**
less bulk and **more space** in the thank dome
security and **hygiene guaranteed** for your **products**
a set and components that are **lighter**
equipment that is **easier** to **maintain**
and **more time** spent on **production.**

An **increase** of **productivity,**
An **eco-responsible approach.**

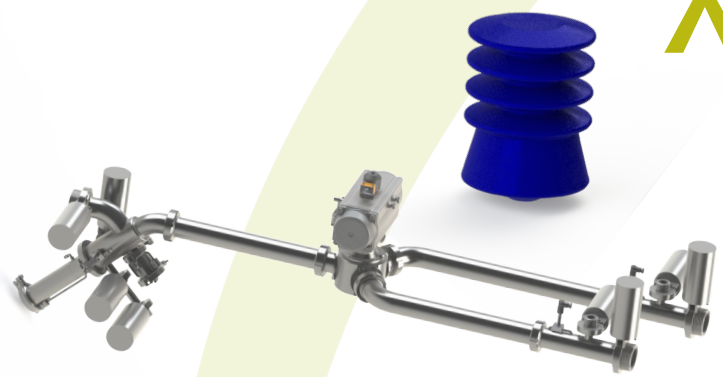
A **well-thought washing valve** means :

CIP cycle **times cut by 30%**
elimination of all **human intervention** in the tank
up to **40 %** of **water save** during the washing cycles
less effluent discharge
and **more time** spent on **production.**

An **increase** in **productivity,**
An **eco-responsible approach.**

Pigging system
for process or transfer lines and all types of fluids

XSR©



Optional :

Gaskets :

OVERVIEW :

Designed to integrate transfer lines perfectly, the Servinox pigging system is intended to recover the residual mass in the piping using a pig. The pig is posi-tioned upstream of the zone to be evacuated, then sent in the piping by a thrus-ting fluid (gas or liquid). The standard equipment comprises a launching station, a receiving station and a pig. It can be completed by full flow multi-way valves (MV), which can be used to adapt the lines in order to optimise the pigging phases. Pigging control can be manual or automa-tic with a pig speed control unit (RVO).

KEY BENEFITS :

- Reduction in product losses (recovery above 99.5%)
- Pigging of all products transported in piping (viscous, solid bearing, soli-difying, etc.)
- Enhanced line use flexibility by limiting the risks of cross-contamination
- Elimination of the dilution phenomenon induced by water thrust without a pig
- Reduction in the volumes of effluent to be treated
- Reduction in the consumption of cleaning agents and washing cycles
- Reduction in the operating costs and return on investment as of the first year of use
- Customised system that adapts to all types of requirements and constraints

APPLICATIONS :

- Transfer line pigging for all types of liquids
- Equipment especially adapted to the lines distributing viscous, solid bearing and/or solidifying liquids (creams, chocolate, caramel, etc.)

TECHNICAL SPECIFICATIONS: PIGGING SYSTEM

Backbone of the pigging system, the launching and receiving stations exist in different versions to adapt to the configuration adopted (see next page).

Sizes :

- **SMS/OD**: 25 mm (1''), 38 mm (1,1/2''), 51 mm (2''), 63,5 mm (2,1/2''), 76,1 mm (3''), 104 mm (4'')
- **DIN 11850**: DN 40, DN 50, DN 65, DN 80, DN 100, DN 125, DN 150

Connection: Male
Maximum permitted pressure : 10 bar up to DN 100, 8 bar in DN 125 and 6 bar in DN 150 (group 2 fluids: art. 9, 97/23/CE)
Service temperature : From 1 °C to 120 °C
Thrusting fluid : Gas or liquid
Materials :

- Parts in contact with the product: 1.4404 (316L) stainless steel Other parts:
- 1.4301 (304L) stainless steel
- Sealing: EPDM (Ethylene Propylene Diene Monomer)

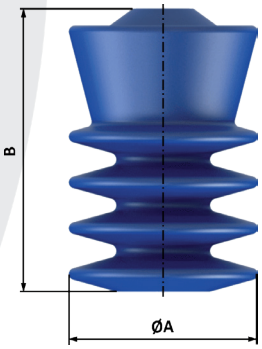
TECHNICAL SPECIFICATIONS: PIG

The Servinox patented pig is two-way. Its asymmetrical shape is designed to optimise its operation when it is subjected to counter pressure from the product to thrust.

Materials :

- Elastomer matter and colour: VMQ (Silicone) [blue]
- Elastomer hardness: 50 shore
- Magnetic insert: Neodynium

Pig dimensions (mm) :



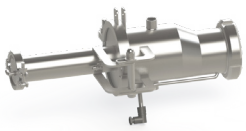
Sizes	25 mm	38 mm	51 mm	63,5 mm	76,1 mm	104 mm
Tubes	25x1,25	38x1,2	51x1,2	63,5x1,6	76,1x1,6	104x2
Ø A *Tolérance*	23 *±0,35*	36,7 *±0,4*	49,6 *±0,4*	61,7 *±0,5*	74,3 *±0,5*	102 *±0,7*
B	40	63	75	91	108	145

Tailles	DN 25	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150
Tubes	Ø29x1,5	40x1,5	52x1	70x2	85x2	104x2	129x2	154x2
Ø A *Tolérance*	Ø26,5 *±0,35*	37,7 *±0,4*	51 *±0,4*	67,3 *±0,5*	82,6 *±0,5*	102 *±0,5*	127,5 *±0,7*	153 *±0,7*
B	42	62	75	96	117	145	179	225

POSSIBLE CONFIGURATIONS :

Automatic back and forth pigging :

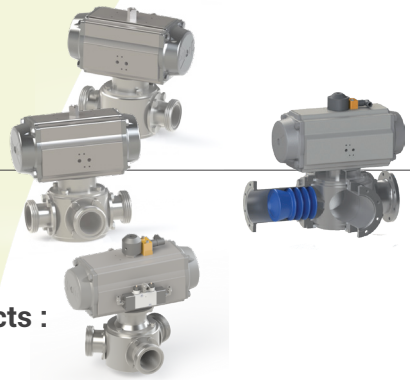
and/or



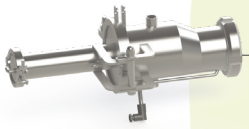
Multi-way isolation valves

Intermediate receiving station

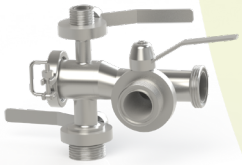
Pigging with integrated CIP :



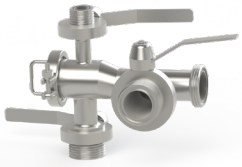
Pigging of solid bearing products :



Manual one-way pigging :



Manual back and forth pigging :



OPTIONS :

- Pigging use security in automatic condition
- Launching station heating element (jacketed piping): Heating fluid flow to avoid the process fluid solidifying in the stations
- Station orientation: horizontal or vertical
- CIP connection/power tap on station
- Process fluid launching station isolation: see sheet ref. MV
- Pig speed control unit: see sheet RVO
- Intermediary station or distribution valve
- Surface state less than 0.8 µm
- Compliant with «ATEX 2014/34/UE zones 1 & 2, gas and dust» on request
- Other gaskets: VMQ (Silicone), FKM (Fluorocarbon rubber, eq. Viton®) or NBR (Nitrile rubber)
- Other pig qualities: EPDM (Ethylene Propylene Diene Monomer), NBR, FKM, PTFE filled VMQ, special mixes on request
- Other connections: Female, clamp, flange
- Customised equipment: please contact us

GUARANTEE :

12 months from the date of shipment (except in the case of special conditions)

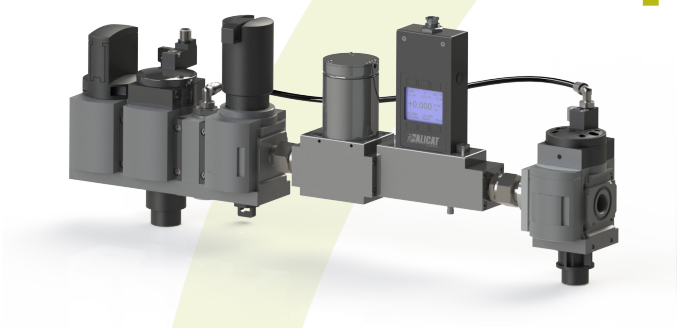
COMPLI ANCE :

- Elastomer gaskets compliant with **FDA CFR 21.177.2600** and **1935/2004/EC** ruling
- Optional: Compliant with «**ATEX 2014/34/EC** zones 1 & 2, gas and dust»

SERVINOX follows the recommendations of international guidelines and standards relative to hygienic design and construction, in particular those of the EHEDG and 3-A.

Speed Control Unit
for process transfer lines and all types of fluids

RVO©



Optional :

Gaskets :

OVERVIEW :

The RVO Speed Control Unit continuously and autonomously adjusts the pig's most suitable push pressure. It allows the RVO to be continuously controlled during the pigging process. This system can be used irrespective of the particularities of the line to pig or the product to recover. The controller is autonomous with instant data access.

KEY BENEFITS :

«Knowing how to anticipate the essential flows and pressures to control the pigging»

Compared to a standard system with a manual controller (fixed pressure), the RVO controller:

- Protects the lines from pressure surges
- Prevents the pig from blocking
- Eliminates the product's «Karcher®» effect on arrival
- Ensures user safety and the security of the installations
- Adapts to different kinds of products that can be transferred on the same line
- Increases the pig's life

It also has the particularity of:

- Detecting the pig's end of life
- Detecting a leak on the line

APPLICATIONS :

- Pigging all types of liquids on the transfer line
- Equipment specially adapted to lines conveying viscous liquids, liquids with solids or liquids that congeal (creams, chocolate, caramel, etc.)

TECHNICAL SPECIFICATIONS:

Since the push air is a compressible gas, it inevitably generates a «buffer» effect:
In some cases, the pig consumes more air than the system allows, creating a pressure difference. The push pressure then drops until it is lower than the minimum take-off pressure of the pig's blades, which causes the pig to stop on its way until the air returns to its initial pressure. Then, the pig suddenly starts again at high speed, creating instantaneous air consumption, and thus an immediate pressure drop, which in turn causes the pig to stop, and so on... This «buffer» phenomenon multiplies the number of untimely stops of the pig on a line, which results in premature wear, as the pig's blades «gum up» with each violent restart.

How the RVO controller works:
During the entire duration of a pigging operation, the RVO takes 100 measurements per second of the instantaneous air flow consumed by the pig, in order to obtain a value representative of its speed. The controller then calculates the difference between this speed and the set speed and corrects the push pressure 10 times per second until the set speed is reached. Thus, when the pig exceeds its target speed, the controller detects this and decreases the push pressure until the pig returns to its target speed; when the pig stops in the line, the controller detects a drop in its air consumption, and then increases the pressure until the pig releases and its speed returns to the target level.

The RVO controller is especially recommended in case of:

- Pump outlet pressure greater than 2 bar
- Long line and/or DN greater than 2½» (DN 65)
- Big riser pipes of liquid to be pushed
- Significant density and/or viscosity of the product to be pigged
- Several liquids of different natures to be pigged on the same line
- The manual control's efficiency is insufficient, resulting in a risk to users and surrounding equipment
- Desire to increase the life of the pig and surrounding equipment
- Packaging lines with open hoppers at the end of the line: the RVO considerably reduces the risk of splashing (stable liquid flow)

Installation & use:
The RVO controller is installed as close as possible to the station, upstream of the push liquid delivery valve(s). The controller can be used to feed several lines, provided that one pigging is completed before another is started, as the controller is designed to control the speed of one pig at a time. If the isometric allows it, it can push the same pig for the OUTFLOW & for the RETURN FLOW.

COMPONENTS:

The RVO controller consists of the following components in the following order:

- a 3/2-way manual shut-off valve with lockout,
- a 3/2-way NF 24Vdc solenoid valve for pneumatic assistance,
- a manual pressure regulator with built-in pressure gauge,
- a 24Vdc self-contained mass control core,
- a 3/2-way NF emergency decompression valve (from 0 bar) with built-in pressure gauge,

• Cut-off valve:

Manually operated 3/2-way valve, lockable in both positions (lock not supplied as standard). Manually isolates upstream and decompresses downstream, so the equipment can be locked away in the locker.

• 3/2-way NF solenoid valve for pneumatic assistance:

With its 24Vdc power supply, it provides pneumatic assistance to the 3/2-way emergency relief valve, allowing it to switch between 0 & 4 bar.

• Pressure reducing valve:

Relieves the upstream air pressure; this allows the user to set a limit to the maximum pressure available to the control core to push the pig.

• Control core:

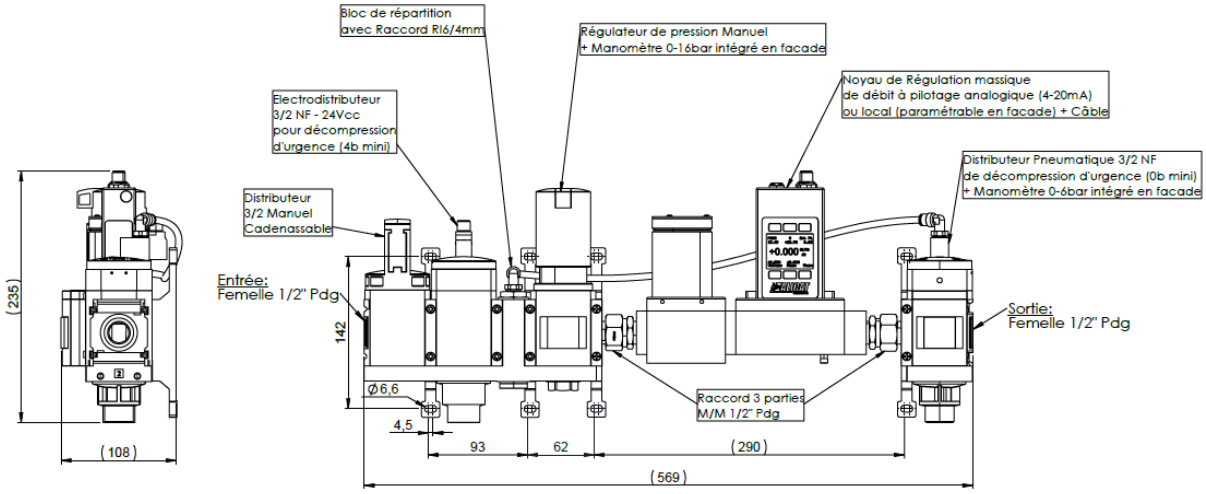
A machined stainless steel block incorporating a push flow control loop, which is composed of :

- a mass flowmeter (measures every 10 ms the instantaneous air flow consumed by the pig, in Nl/min),
- a proportional valve that varies the flow area according to the instructions received from the interface until the desired flow rate is obtained.
- a 24Vdc HMI interface used to backlight and thus electronically display the instantaneous air flow «Q» consumed by the pig in real time (in Nl/min).

A keypad on the front of the unit lets the user quickly select the local setpoint flow rate between 0 and 1300 Nl/min. Other instantaneous measurements can be displayed and many other types of push gas can be selected. An analogue 4-20 mA remote setpoint signal can be received from the controller and in return it can be provided with feedback. The response time of the control loop is < 100 ms, which means that the pig speed is automatically corrected more than 10 times per second.

• 3/2-way NF Pigging Emergency Stop (P.E.S.) valve:

Emergency stop for a pigging in progress. A pressure gauge built into the front panel displays instantaneously the pressure controlled by the core. This valve's pneumatic assistance lets it work downstream of the core on the controlled pressures, which are very low (usually ~1 bar). In the event of a lack of 24Vdc control voltage on the 3/2-way solenoid valve, the valve instantly loses its status and rapidly decompresses the downstream push gases, thanks to an identical flow section in both directions (inlet and outlet), thus allowing the pig to be stopped quickly. This safety feature, which does not exist with conventional manual controls, can pose a risk to users and surrounding equipment.



OPTIONS :

- Other push gases
- IP69K protection
- Complies with «ATEX 2014/34/UE zones 2 & 22, gas and dust»
- Adaptations to reduced space
- Reserve air supply upstream of the controller to remedy insufficient or fluctuating air flow in the main system

GUARANTEE :

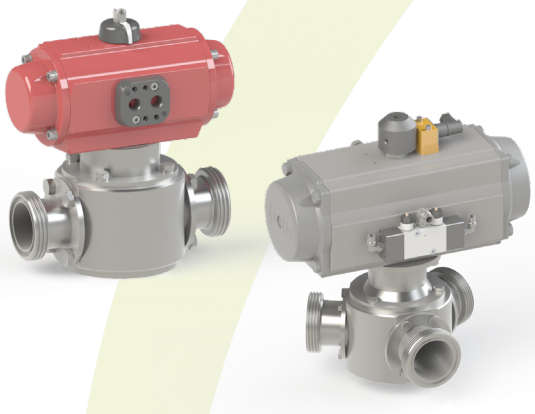
12 months from the date of shipment (except in the case of special conditions)

COMPLI ANCE :

- Optional: Compliant with «**ATEX 2014/34/EC** zones 2 & 22, gas and dust»

Multi-way ball valve
for process or transfer line and all types of fluids

MV©



Optional :

Gaskets :

OVERVIEW :

The multi-way ball valve is designed to close one or more circuits or distribute the pressurised fluids to one or more ways. The MV valve comprises a body with 2 or 4 ways and a key (cylindrical ball) which directs the fluid circulation. Its hygienic design ensures there is no retention zone while providing maximum cleanability by hammering during the CIP cycles. This valve is intended for circuits carrying group 2 clear or viscous liquids (Article 13 of the European directive 2014/34/CE) and solid bearing liquids.

KEY BENEFITS :

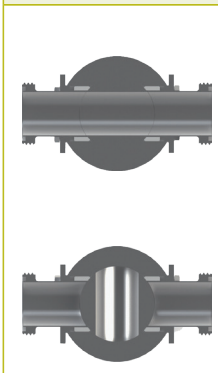
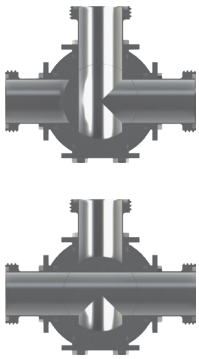
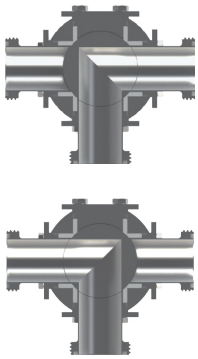
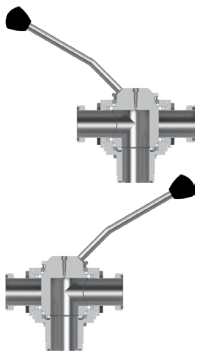
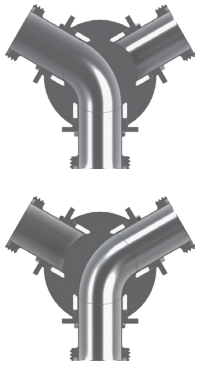
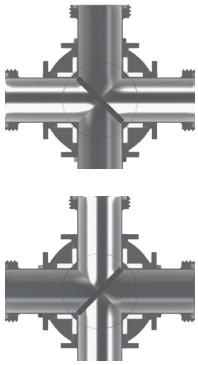
- Full flow (pigging version)
- Minimisation of pressure losses
- 2 to 5 ways enabling line pooling for several products
- Hygienic design
- Numerous options to meet all types of requirements

APPLICATIONS :

- Equipment adapted to the lines distributing all types of fluids, including viscous, solid bearing and/or solidifying fluids (creams, chocolate, caramel, etc.)
- Equipment especially adapted to lines with pigging systems: may be used as a distribution or isolation valve or as intermediary station (pigging re-ceiving version)

AVAILABLE VERSIONS :

The valve body can have 2 to 4 ways, as well as a key (cylindrical ball) which directs the fluid flow :

MVA	MVB	MVC	MVD	MVH	MVI
					
On-off valve	90° T-key	90° L-key	Distribution L-key Product entry rear channel	120° L-key	90° L/L-key 2 I/O

TECHNICAL SPECIFICATIONS :

Sizes :

- **SMS:** 25 mm (1"), 38 mm (1,1/2"), 51 mm (2"), 63,5 mm (2,1/2"), 76,1 mm (3"), 104 mm (4")
- **DIN 11850:** DN10, DN15, DN20, DN25, DN32, DN40, DN50, DN65, DN80, DN100, DN125, DN150

Connection: Male
Product pressure: Empty 10 bar
Service temperature: From 1 °C to 120 °C
Materials:

- Parts in contact with the product: 1.4404 (316L) stainless steel
- Other parts: 1.4301 (304L) stainless steel
- Sealing: Rings PTFE (Polytetrafluoroethylene, eq. Teflon®) and EPDM (Ethylene Propylene Diene Monomer) gaskets

Standard Ra of the valves is 0.8 µm interior.
The DN10 to DN65 standard valves have an operating lever. Models DN80 and DN100 have a double operating lever. As of DN80, we recommend a pneumatic or electric ac-tuator.
All the valves are marked on the lower part of the key; this indicates the exact position of the ways.

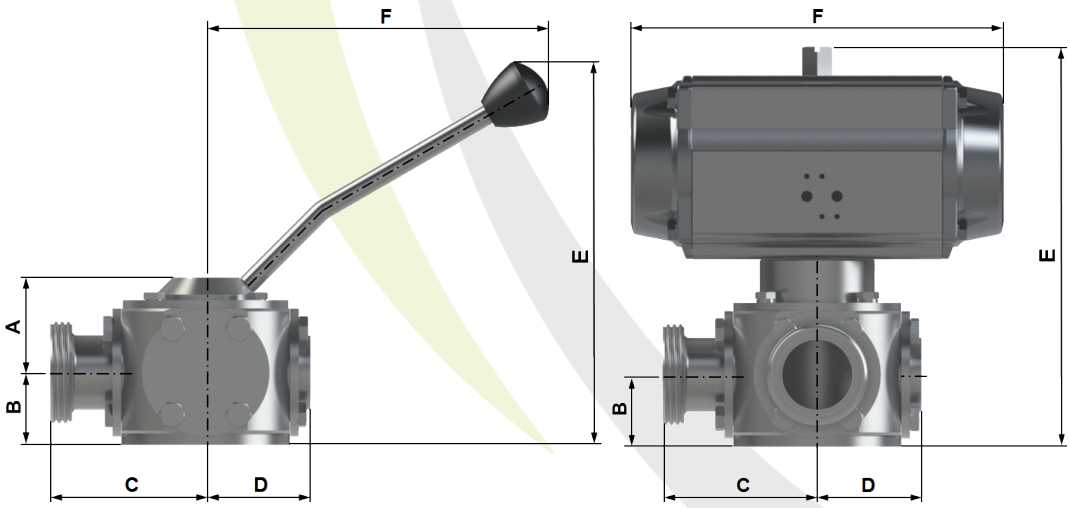
STANDARD DIMENSIONS IN MM :

Sizes	DN10	DN15	DN20	DN25 SMS25	DN32
A	25	28.5	31.5	34	40.5
B	20	24.5	26	29.5	35.5
C	55	63.6	78.1	78	78
E	64	55	98	115	101
F	71	71	110	135	146

Sizes	DN40 SMS38	DN50 SMS51	SMS63.5	DN65	DN80 SMS76.1
A	49	57.5	65.5	65.5	78.5
B	43	50	58	58	67.5
C	96.2	107	123	117	139
E	155	155	198	198	250
F	160	205	265	265	295

Sizes	DN100 SMS104	DN125	DN150
A	89	-	-
B	81.5	110	134
C	160	292	390
E	265	-	-
F	295	-	-

Note : The MVH model is only available from DN25



Servinox makes every effort to update its documents in line with improvements to its products.

OPTIONS :

- Compliant with « **ATEX 2014/34/UE** zones 1 & 2, gas and dust»
- Handle operating stop: avoid any risk of fluid mix and uncontrolled operations Position detection for controller (inductive sensors)
- Automatic version
- Accessories (EV, ED, detection, etc.)
- Pigging distribution or receiving versions
- Heating element
- Intensive cleaning version
- Other connections: To weld, clamp, female, flange
- Sealing - other materials available for rings: Polyethylene, PTFE glass-filled, PTFE filled
- Stainless steel
- Sealing - other materials available for gaskets: NBR (Nitrile rubber), FKM (Fluorocarbon rubber, eq. Viton®), VMQ (Silicone), VMQ PTFE encapsulated (Polytetrafluoroethylene, eq. Teflon®), FFKM (Perfluoroelastomer, eq. Kalrez®)
- Sealing USP Class VI compliant
- Specific surface state
- Other construction materials nuances
- Customised equipment: please contact us

GUARANTEE :

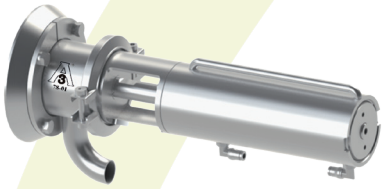
12 months from the date of shipment *(except in the case of special conditions)*

COMPLI ANCE :

- Elastomer gaskets compliant with **FDA CFR 21.177.2600** and **1935/2004/EC** ruling
- Optional: Gaskets **USP Class VI** compliant
- Optional: Compliant with « **ATEX 2014/34/UE**, zones 1 & 2, gas and dust»

SERVINOX follows the recommendations of international guidelines and standards relative to hygienic design and construction, in particular those of the EHEDG and 3-A.

Flush washing valve 3-A
for stirred tank
LPA-A©



LAURÉAT CONCOURS IPA DE L'INNOVATION ECO-CONCEPTION 2012

Optional :

Gaskets :

OVERVIEW :

The LPA-A washing valve is designed to carry out intensive cleaning of the tank during CIP cycles: it can reach the «shadow zones» generated by the compo-nents including agitators and their shafts, anchors and pigs. Each LPA-A valve is unique: SERVINOX studies the impact zones according to tank and component characteristics, for optimal washing efficacy and reduced cycle time. Attached to the shell of the tank, its flush design does not interfere with wall scrapers and does not damage them.

KEY BENEFITS :

- Washing valve certified 3-A 58-01
- Efficacy: Intensive cleaning of the tank using the customised design of the spraying grid on which the number, size and orientation of the holes is cal-cu-lated according to valve positioning and the zones impacted inside the tank
- Return: Reduction in CIP cycle costs
- Productivity: Better availability of the installations through the reduction in CIP times
- Environment: Savings in water and washing products
- Dual control of the valve with spring loading and closure maintained in the event of air motor cut-off

APPLICATIONS :

- For reinforced sanitising of process tanks stirred with scraper blades or proxi-mity scrapers
- All types of products

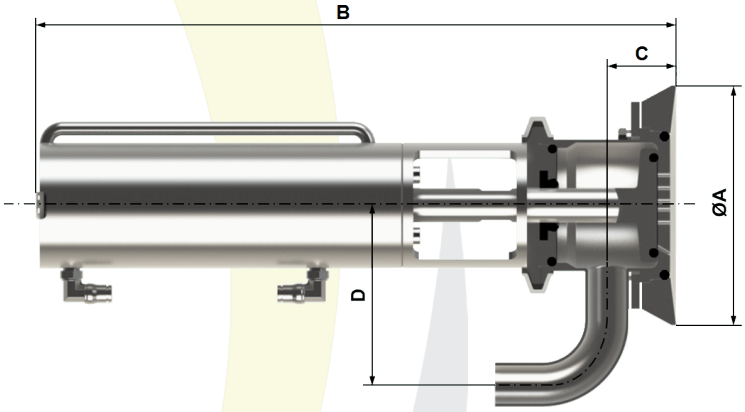
TECHNICAL SPECIFICATIONS :

Sizes: DN 25
Intake connection: To weld, clamp
Connection on tanks: Flush flange to weld
Service pressure: Up to 6 bar
Sealing: Up to 3 bar in the tank with no air in the cylinder
Service temperature: From 0 °C to 140 °C
Washing rate: 6 m3/h at 2 bar
CIP liquid pressure on closed valve: 3 bar (air control cylinder 6 bar)
Materials:

- Parts in contact with the product: 1.4404 (316L) stainless steel
- Other metal parts: 1.4307 (304L) stainless steel
- Cylinder body: Ground-glass cylinder tube Stainless steel 1.4307 (304L) Gas-
- kets in contact with the product: EPDM (Ethylene Propylene Diene Mo-nomer) or FKM (Fluorocarbon rubber, eq. Viton®)

DIMENSIONS IN MM (standard version) :

SIZES	DN 25 (1")
ØA	139
B	370
C	40
D	96



OPTIONS :

- ATEX 2014/34/UE zones 1 & 2, gas and dust» certified version possible
- Control unit
- Position detector
- Other gaskets

GUARANTEE :

12 months from the date of shipment (except in the case of special conditions)

COMPLIANCE :

- Valve certified 3-A 53-06
- Elastomer gaskets compliant with FDA CFR 21.177.2600, 3-A Class I and ruling 1935/2004/EC
- Optional: compliant with ATEX 2014/34/UE, zones 1 & 2, gas and dust» directive

SERVINOX follows the recommendations of international guidelines and standards relative to hygienic design and construction, in particular those of the EHEDG and 3-A.

Tank Dome Adapter :
Multifunction Support
XCHE©

Gaskets :

OVERVIEW :

The XCHE is a device placed on the dome of a tank. At a single point, it can be fitted with equipment for pressure (SHP safety valve) and vacuum protection (BOG or HSV-A vacuum break valves depending on diameters), for washing the tank, the XCHE and all its components, and for pressurising and recovering fermentation gases (CHE washing check valve). The XCHE is also equipped with additional taps, for stainless steel rupture disc and/or for pressure sensor.

KEY BENEFITS :

- Smaller size of the all-in-one device to facilitate installation on new or re-condi-tioned tanks
- Reduced installation costs, in particular because of the small number and diame-ters of connections, and by using the same tubing for all the features described above
- Total protection of the tank, in particular against thermal and chemical shocks
- Continued operation assured during process phases (recovery of fermentation gases, pressurizing, rendering the interior inert, etc.), including when the washing ball is immersed
- Product quality preserved as a result of a design complying with the most stringent international hygiene standards and of reinforced sanitising (CIP/SIP)

APPLICATIONS :

- Manufacture and storage of **alcoholic carbonated beverages** *(beer, sparkling wine, cider, etc.)* and **non-alcoholic drinks** *(water and other sodas)*
- This equipment is designed for fermentation tanks, filtered beer tanks, yeast propagating apparatus, yeast storage tanks, conditioning tanks, manufac-tu-ring tanks, storage tanks and other buffer tanks

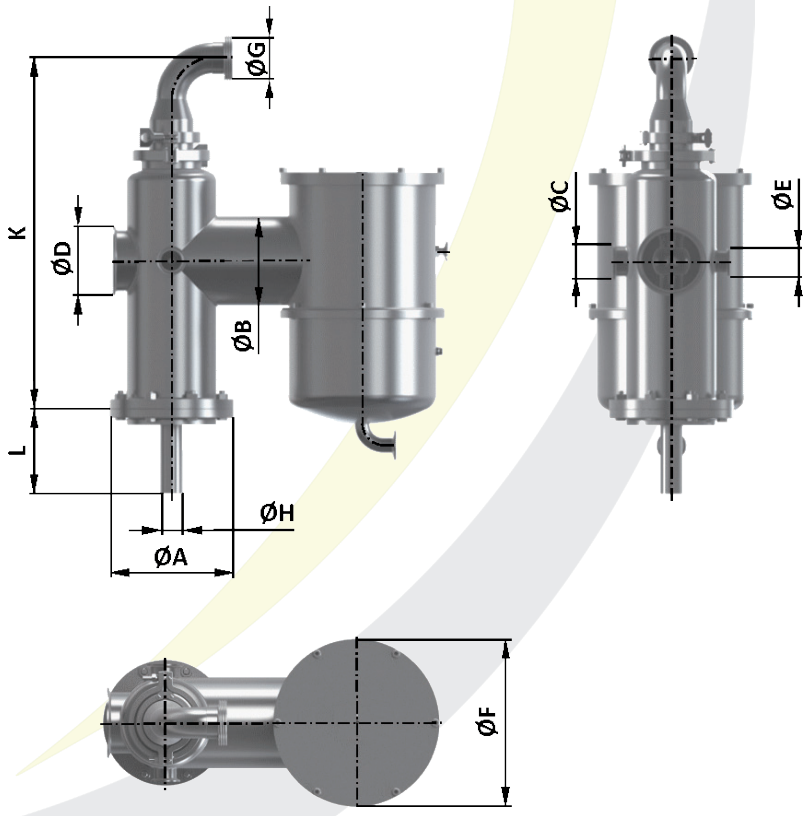
TECHNICAL SPECIFICATIONS :

Pressure: Up to 6 bars depending on diameter
Working temperature: Up to 120 °C depending on tightness
Sizes: ND 100, ND 125, ND 150, ND 250 and ND 320
Connection to tank: Flange up to DN150, to weld above that
CIP/Gas connection: Male, clamp, DIN/SMS/ND 40 to 76
Washing ball connection: Smooth, 25 or 38 mm
Materials:

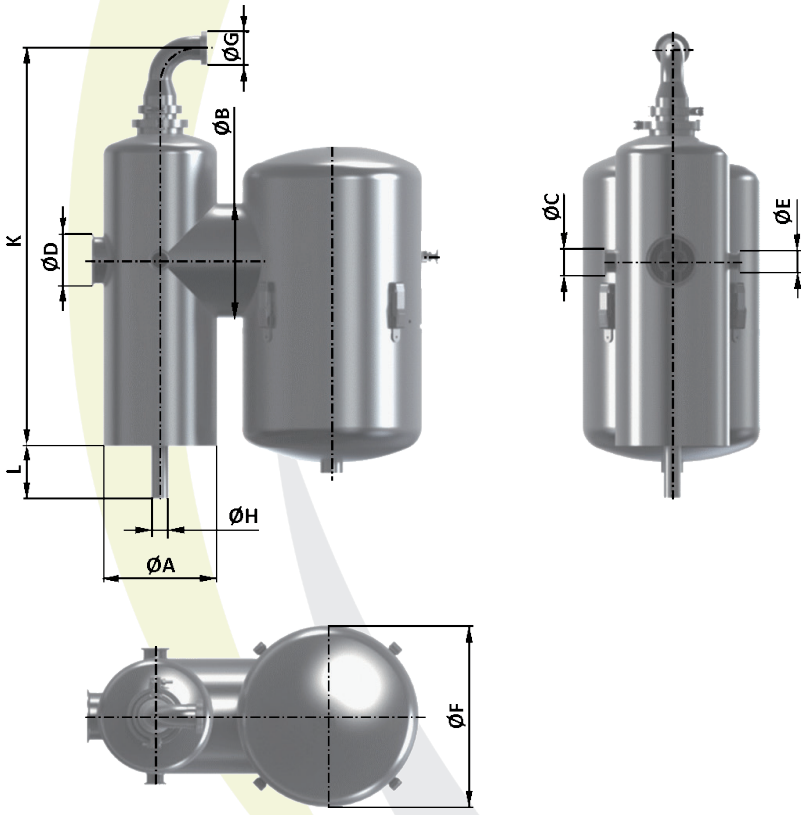
- Parts in contact with the product: 1.4307 (304L) or 1.4404 (316L) according to size & PTFE (Polytetrafluoroethylene, eq. Teflon®)
- Other parts: 1.4307 (314L)
- Tightness: EPDM (Ethylene Propylene Diene Monomer) gaskets

DIMENSIONS IN MM (standard version):

SIZES	1	2	3
ØA: Connection to tank	104*2	154*2	154*2
ØB: Connection to vacuum valve	65	100	154
ØC: Connection to pressure valve	50,5	50,5	64
ØD: Connection for rupture disc (option)	50,5	77,5	119
ØE: Connection for pressure measurement (option)	50,5	50,5	50,5
ØF: Dimension plan of vacuum valve	109	183	284
ØG: Washing input/CO^2 input or output	Between 40 and 76		
ØH: Washing tubing	38		
K: Height above the tank	630		
L: Length of washing tubing inside tank	Available upon request		



SIZES	4	5
ØA: Connection to tank	254*2	324*2
ØB: Connection to vacuum valve	250	320
ØC: Connection to pressure valve	77,5	77,5
ØD: Connection for rupture disc (option)	119	119
ØE: Connection for pressure measurement (option)	50,5	50,5
ØF: Dimension plan of vacuum valve	400	500
ØG: Washing input/CO^2 input or output	Between 40 and 76	
ØH: Washing tubing	38	
K: Height above the tank	960	
L: Length of washing tubing inside tank	vailable upon request	



OPTIONS :

- Tap with ferrule clamp for installing the stainless steel rupture disc
- Tap for installing the pressure sensor
- Other materials and designs available upon request
- Other connections on tank (up to DN150): Male, female, clamp
- Sealing: FKM (Fluorocarbon Rubber, eq. Viton®), VMQ (Silicon), NBR (Nitrile ru-bber), FFKM (Perfluoroelastomer, eq. Kalrez®)
- Forced opening of vent valves
- Version for installing on buffer tank for additional accessories
- Customised equipment: please contact us

GUARANTEE:

12 months after shipment *(except for special conditions)*

COMPLIANCE :

- Gaskets compliant with **FDA CFR 21.177.2600** and European regulation **1935/2004/EC**
- Ducting and tank accessories compliant with **PED, European Pressure Equipment DESP 2014/68/UE, §4.3**
- **ATEX Directive « ATEX 2014/34/UE,** zones 1 & 2, gas and dust **»**
- Internal washing: equipment tested by the **IFBM** (French Institute of Brewery and Mal-thouse Beverages)
- Compliance of SHP, BOG, HSV-A equipment: see individual data sheets

SERVINOX follows the recommendations of international guidelines and standards relative to hygienic design and construction, in particular those of the EHEDG and 3-A.

Valve for powder vacuum introduction tank bottom

RT©

Optional:

Gaskets :

OVERVIEW :

Resulting from the process expertise of our teams and their extensive experience in numerous sectors (agri-food, chemical industry, cosmetology, pharmaceuticals, etc.), the RT valve illustrates the capacity and willingness of Servinox to develop solutions to improve and secure the production processes. The RT valve is a check valve allowing vacuum powder introduction via the tank bottom. Its flush design guarantees there is no retention zone (an ideal place for bacteria and moist powder plugs to develop). The full clearance of the disc coupled with its massive design (the piston rod has the same diameter as the disc itself) guarantee the total absence of powder retention inside the valve. SERVINOX possesses simulation tools to dimension an RT valve with respect to the characteristics of the tank, product and quantities of powder to add.

KEY BENEFITS :

- Productivity: study and simulations prior to sizing for enhanced effectiveness
- Quality: the flush design preserves product hygiene and integrity
- Reliability of the production process: quality of the dispersals, control of the quantities of powder added and repeatability of the production recipes
- Protection of the operators in the production phase: prevention of the risks associated with exposure to stress and health risks at work (handling loads, exposure to emanations, etc.)
- Maintenance: the tank bottom position makes for easier accessibility

APPLICATIONS:

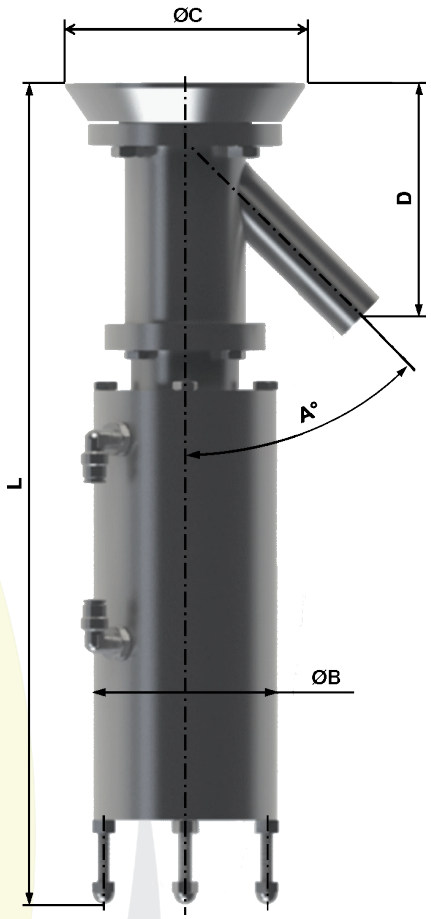
- Installation on process tank bottom and vacuum production reactor
- We recommend completing the installation with a rotor-stator type disperser to ensure powder propagation and homogeneous mix in all the liquid

TECHNICAL SPECIFICATIONS :

Sizes: DN 15, DN 25, DN 40, DN 50
Connection: To weld
Service pressure: From -1.0 to 6.0 bar
Service temperature: From 1 °C to 120 °C
Materials:

- Parts in contact with the product: 1.4404 (316L) stainless steel
- Other parts: 1.4301 (304L) stainless steel
- Tightness in contact with the product: FKM (Fluo-rocarbon ru-bber, eq. Viton®), PU (Polyurethane)
- Other gaskets: Perbunan®

The valve is equipped with position detection by magne-tic induc-tive sensors mounted on the control cylinder rail.



DIMENSIONS IN MM :

Sizes	DN 15 (17,2x1,6)	DN 25 (25x1,25)	DN 40 (38x1,25)	DN 50 (51x1,25)
A°	45°	45°	30°	30°
Ø B	60	83	100	138
Ø C	90	109	123	148
D	62	104	165	195
L	251	370	410	554

OPTIONS :

- Compliant with «ATEX 94/9/CE zones 1 & 2, gas and dust»
- Control unit (with solenoid valve, standard, ATEX zone 2 or ASi)
- Other connections: Clamp, Male, flange, etc.
- Tightness: other materials available
- Other construction material types and finishes on request
- Customized equipment: please contact us

GUARANTEE:

12 months from the date of shipment *(except in the case of special conditions)*

COMPLIANCE:

- Tank accessories compliant with European **PED 2014/68/UE, §4.3**
- Optional: Compliant with «**ATEX 2014/34/UE** zones 1 & 2, gas and dust»
- Elastomer gaskets compliant with **FDA CFR 21.177.2600** and **1935/2004/EC ruling**

SERVINOX follows the recommendations of international guidelines and standards relative to hygienic design and construction, in particular those of the EHEDG and 3-A.

SERVINOX

3 RANGES FOR 3 PRIORITIES...

Servinox, through its 3 main areas of expertise, invites the players in all sectors of industry to embark on a real momentum for progress:

Safety & Protection

Quality & Traceability

Efficiency & Environment

... AND SOLUTIONS FOR SPECIFIC PROBLEMS.

Because the demands of industry players have evolved and shall continue to do so, Servinox is pleased to make available its research for enhancing performance.

« Tailor-made solutions engineered for you »

The dynamism of our company is reflected by our teams and their ongoing research for solutions, each one of which can be adjusted to a specific activity (agrifood, cosmetology, pharmaceuticals, etc.) and using regularly updated modelling, design, manufacturing, control and testing tools.

This ensures we have the skills and capacity to work on your specific problems, regardless of the momentum or phase of your activity.

SERVINOX

34-36, avenue Roger Hennequin - CS 10536 - 78190 Trappes Cedex (France)
Tel. +33 (0)1.30.16.15.00 | **Fax.** +33 (0)1.30.16.15.01 | **Web.** www.servinox.com