

PEX  
PEAX

ALL SOLUTIONS FOR  
SAMPLE COLLECTION

SAMPLING



# SIMPLE AND SECURE SAMPLING

All manufacturers wish to guarantee the quality of the products consumed or used by consumers, who are increasingly demanding. The level of attention covers both the homogeneity of the productions and the texture or taste of the product produced.



\*en cours de renouvellement

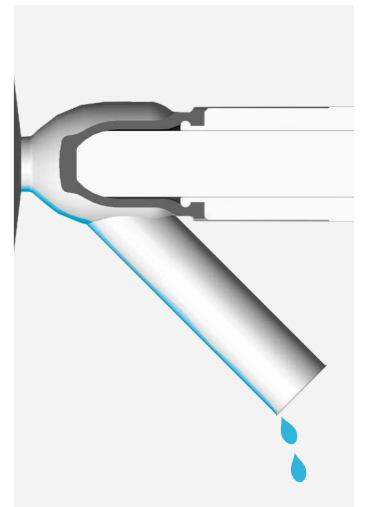
## PEX - PEAX

### AN ANSWER WITH DEFINOX SAMPLING VALVES, COMBINING COMPACTNESS AND RELIABILITY

Most often installed on tanks or pipes, **PEX - PEAX sampling valves** are easily integrated thanks to their multiple connection. Available in different diameters, fluids from the most liquid to the most viscous can be collected with the **PEX - PEAX** sampling valves.

The possibility of adapting the Sorio® control top to the automatic version makes it possible to control and view the status of the sampling valve remotely.

-  **HYGIENIC DESIGN, WITHOUT RISK OF CONTAMINATION**
-  **OPTIMAL CLEANABILITY, CERTIFIED**
-  **COMPACT AND MODULAR DESIGN, THANKS TO THE MULTIPLE CONNECTIONS**
-  **MAXIMUM ADAPTABILITY ACCORDING TO THE ENVIRONMENT AND THE CONTEXT OF USE**
-  **THE ENVIRONMENT AND THE CONTEXT OF USE GOOD PERFORMANCE IN DIFFICULT SERVICE CONDITIONS**
-  **TAILOR-MADE ECONOMICAL SOLUTION**



Sampling consists of taking a quantity of liquid to check its appearance, composition, or quality. Before taking the sample, the sampling device needs to be sterilized.

**OUR SAMPLING VALVES ALLOW THIS USING TWO TECHNIQUES**

1

#### 1-OUTLET VALVE

Flame sterilization of the valve outlet



Manual PEX1

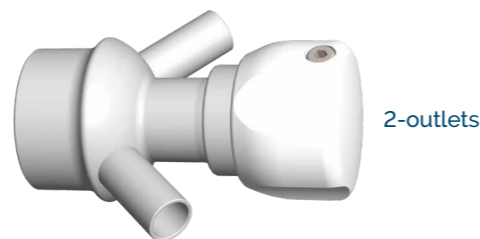


For flame sterilization, bring the flame close to the valve and hold it sufficiently long to transmit the temperature to the whole body by thermal conductivity.

2

#### 2-OUTLET VALVES

Sterilization by circulation of a sterilizing cleaning product or steam injection



Manual PEX2



For sterilization with a cleaning product, with the valve closed, put the lower cap in place to completely fill the valve with steriliant and carry out sampling.  
For steam sterilization, remove the two caps (valves closed) and sterilize with steam through the upper outlet.

#### FIELDS OF APPLICATION

DEFINOX valves can be used on liquids or semi-liquids, more or less viscous, without risk of denaturing the manufactured product.

- **Food:** dairy products, jam, chocolate...
- **Cosmetics / Perfume**
- **Hygiene products:** toothpaste, shampoo, shower gel...
- **Household products:** laundry, detergent...
- **Pet food**



# WHAT MAKES THE DIFFERENCE

## PEX

### MANUAL VERSION

Ergonomic plastic handle (optional, red or another colour, on request), with opening and closing guard, preventing crushing and damaging the diaphragm.

**Optional**  
Stainless steel handle.

## PEAX

### AUTOMATIC VERSION

Pneumatic actuator NC (Normally Closed), compact, in stainless-steel, removable.

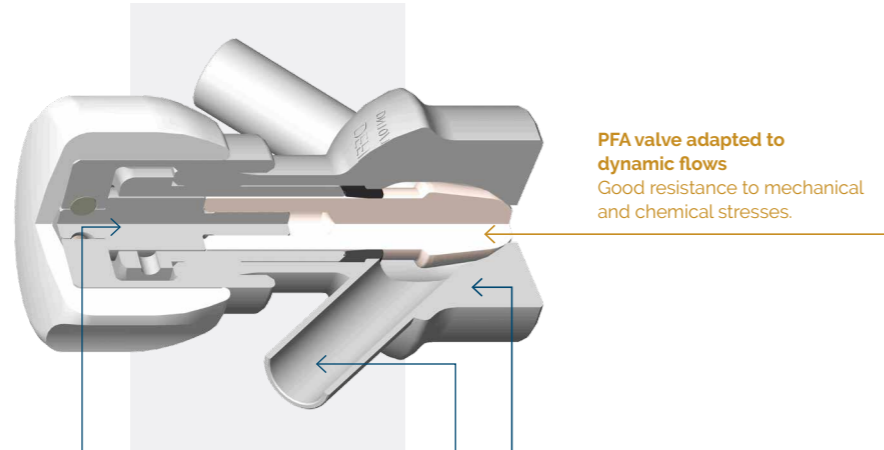
**Optional**  
**Operating lever**, for manual control in an automatic cycle (extended version, for DN 16/18 to facilitate forcing).



Maintenance instructions  
sampling valve NM-161



Installation  
Instructions NI-162



**PFA valve adapted to dynamic flows**  
Good resistance to mechanical and chemical stresses.

### NEW DESIGN

**One-piece body machined**  
in stainless-steel 1.4404 / AISI 316L  
removes roughness or defect, related to the welding of the outlets. It guarantees a homogeneous and optimal interior surface condition  
Design optimizing flow, cleanability and sterilization.

**Various connections**,  
to be welded on wall, clamp, gas thread, to be butt weld.

**FDA approved neutral elastomer profiled diaphragm**  
Better resistance and longevity.  
Available grades depending on the process fluid and the cleaning and CIP conditions:  
EPDM,  
EPDM white,  
FKM,  
FKM acid-proof,  
VMQ.

**Quick and easy interchangeability**  
of the operating device.

Easily interchangeable sealing

**Stainless-steel stem**  
1.4301 / AISI304

**Surface finish**  
• outside RA: 0.8µm (180 grit)  
• interior RA: 0.8 µm (180 grit)  
0.4 µm (240 grit), on request.

Possibility of connecting the outlets.

**Control and feedback from the Sorio® control top, digital version, AS-1 or IO-Link.**  
Plastic or stainless-steel cover.  
Remote visualization of the valve status.

Automatic sampling valve PEAX2 equipped with an operating lever and Sorio® control top.

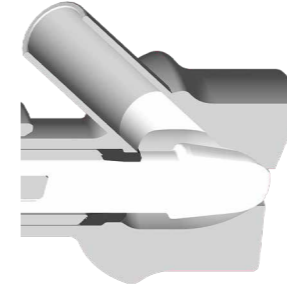


# SUITABLE FOR ALL TYPES OF PROCESS

## 2 PFA SEALS

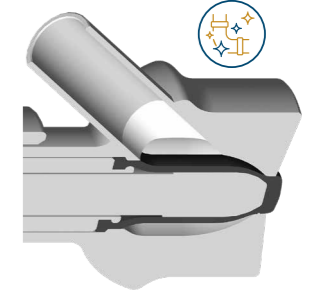
Suitable for samples under pressure

- Valve PFA / EPDM
- Valve PFA / FKM



## 5 DIAPHRAGM SEALS

- VMQ diaphragm, as standard
- EPDM diaphragm
- White EPDM diaphragm
- FKM diaphragm
- Acid-proof FKM diaphragm



### Resistance levels of elastomer and plastomer

	EPDM	FKM	PFA
Oil	★	★★★	★★★
Greasy substances	★	★★★	★★★
CIP	★★	★★★	★★★
Aggressive chemicals	★	★★★	★★★
Concentrated essential oils and perfumes	★	★★★	★★★
Abrasion resistance	★	★	★
Low temperature	★★	★	★

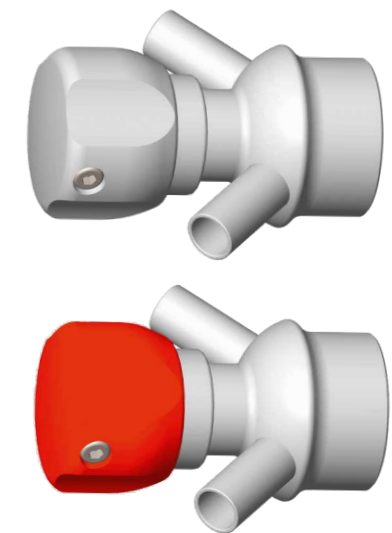
★★★ Highly suitable   ★ Suitable   ★ Not recommended

### Certification of elastomer and plastomer

	EPDM	FKM	PFA
FDA 21 CFR 177.2660	✓	✓	✓
CE 1935 / 2004	✓	✓	✓
ADI Free	✓	✓	✓
3-A Sanitary Standards	✓ (Class II)	✓ (Class I)	✓
USP Ch.87 and Ch88 Class V	✓		
NSF 51	✓		
ACS	✓		✓

## MATERIALS

- Body: stainless-steel 1.4404 / AISI 316L  
Other materials, on request (see page 7)
- Handle: white plastic material or stainless-steel 1.4301 / AISI 304  
Optional, red or another colour, on request
- Actuator: stainless-steel 1.4301 / AISI 304



## TERMS OF SERVICE

- Maximum operating pressure: manual-automatic: **10 bar** (more, contact us)
- Minimum temperature: 0°C
- Maximum temperature: 120°C (more, contact us)
- Air supply of the actuator: 4 to 6 bar
- Air connection: Ø 4/6

MAXIMUM PRESSURE	STATIC (all versions)	DYNAMIC DIAPHRAGM version	DYNAMIC PFA version
DN6/8	10 bar	5 bar	5 bar
DN10/12	10 bar	2 bar	5 bar
DN16/18	10 bar	2 bar	5 bar

# WIDE RANGE

## 3 WAYS TO CHOOSE

In three steps, choose the configuration best suited to your sampling environment and the nature of the product collected.

### 1 DEPENDING ON THE STERILIZATION METHOD



Flame sterilization

PEX1 - PEAX1



Sterilization by injection of steam or a cleaning solution with sterilant

PEX2 - PEAX2

### 2 DEPENDING ON THE PASSAGE Ø OF THE PARTICLES

	Particle passage Ø (maximum in mm)	Viscosity
DIN 6/8	1.5	0-100 cp
DIN 10/12	3	0-1,000 cp
DIN 16/18	3.5	0-20,000 cp

### 3 6 CONNECTIONS, DEPENDING ON CONSTRAINTS OR CONNECTION LOCATION

#### FLAME STERILIZATION (1 OUTLET)

Manual PEX1



Automatic PEAX1



To be welded on the wall  
reference 1



To be butt welded, on tube  
reference 3



Gas thread  
reference 7



Clamp Ø 50.4 mm  
reference 5



Mini clamp Ø 34 mm  
reference B



Micro-clamp Ø 25.4 mm  
reference A

#### STEAM OR SOLUTION INJECTION STERILIZATION (2 OUTLETS)

Manual PEX2



Automatic PEAX2



To be welded on the wall  
reference 2



To be butt welded, on tube  
reference 4



Gas thread  
reference 8



Clamp Ø 50.4 mm  
reference 6



Mini clamp Ø 34 mm  
reference D



Micro-clamp Ø 25.4 mm  
reference C

# VARIANTS AND OPTIONS

## VARIANTS AND OPTIONS FOR GREATER USE



### THE OUTLETS CONNECTIONS



Clamp 3/4



Black plastic cap



Ferrule Clamp 3/4



3/8" gas outlet



RBE03 quick coupling



Offset spout



Connection adaptor

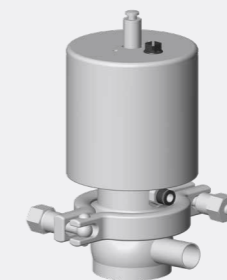
#### SPECIAL STEELS ON DEMAND

- AL6XN – Hastelloy C22: Aggressive product
- 254 SMO: Aggressive food product
- Uranus B6: Saline solution

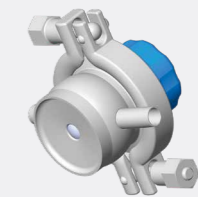
## FOR WIDER USE

### OTHER ASEPTIC SAMPLE COLLECTION

Diaphragm sampling valves allow sampling in strict sanitary environments. The design of DMX-DMAX valves incorporates a physical barrier between the interior of the valve and the outside environment, without risk of contamination. The profile of the valve body, without jumping, eliminates the risk of bacteriological development.



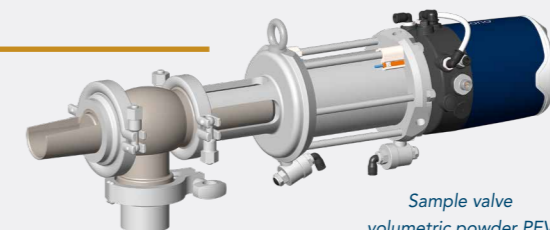
Automatic sampling diaphragm valve - DMAX



Manual sampling diaphragm valve - DMX

### POWDER SAMPLING

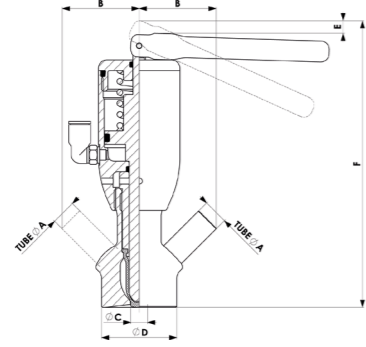
For powder applications, DEFINOX offers a volumetric sampler suitable for powder sampling.



Sample valve volumetric powder PEV

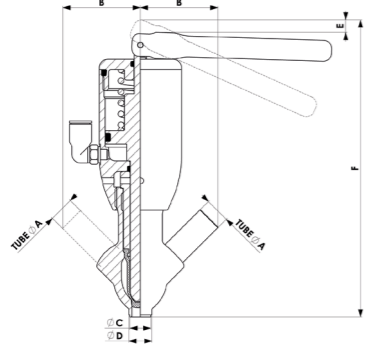
# DIMENSIONS

TO BE WELDED ON A WALL MANUAL AND AUTOMATIC



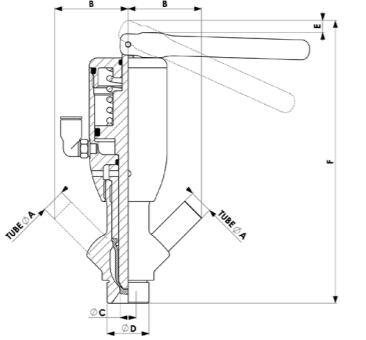
TubeØA	B	ØC	ØD	Stroke E	F	WEIGHT (kg)
DIN 6/8	33	4.5	28	5	115	0.60
DIN 10/12	37	8	36	7	140	0.70
DIN 16/18	50	15	52	7	160	1.55

TO BE BUTT WELDED MANUAL AND AUTOMATIC



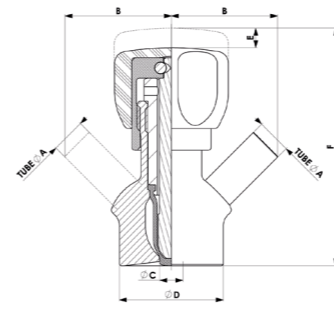
TubeØA	B	ØC	ØD	Stroke E	F	WEIGHT (kg)
DIN 6/8	33	4.5	7	5	115	0.60
DIN 10/12	37	8	11	7	140	0.65
DIN 16/18	50	15	18	7	160	1.40

GAS THREAD MANUAL AND AUTOMATIC

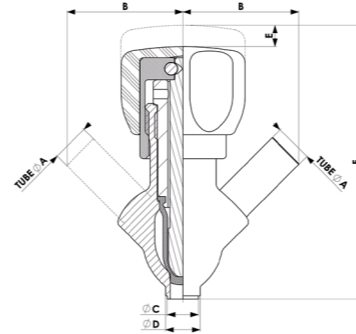


TubeØA	B	ØC	ØD	Stroke E	F	WEIGHT (kg)
DIN 6/8	33	4.5	1/2" gaz	5	115	0.60
DIN 10/12	37	8	1/2" gaz	7	140	0.65
DIN 16/18	50	15	1/2" gaz	7	160	1.40

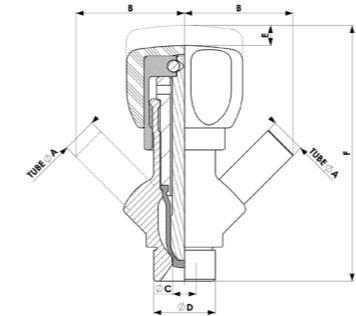
# DIMENSIONS



TubeØA	B	ØC	ØD	Stroke E	F	WEIGHT (kg)
DIN 6/8	33	4.5	28	5	68	0.30
DIN 10/12	37	8	36	7	83	0.40
DIN 16/18	50	15	52	7	96	0.80



TubeØA	B	ØC	ØD	Stroke E	F	WEIGHT (kg)
DIN 6/8	33	4.5	7	5	73	0.30
DIN 10/12	37	8	11	7	88	0.35
DIN 16/18	50	15	18	7	106	0.70



TubeØA	B	ØC	ØD	Stroke E	F	WEIGHT (kg)
DIN 6/8	33	4.5	1/2" gaz	5	69	0.30
DIN 10/12	37	8	1/2" gaz	7	88	0.35
DIN 16/18	50	15	1/2" gaz	7	106	0.70

CLAMP AUTOMATIC

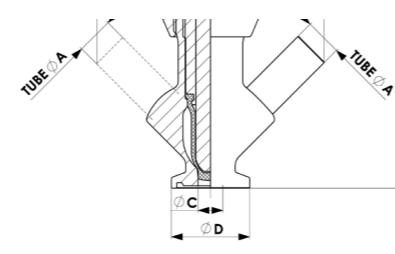
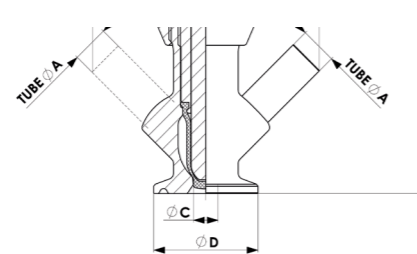
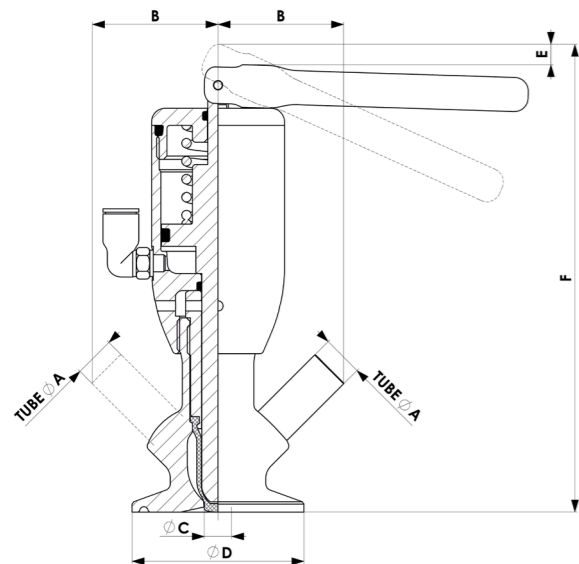
MINI CLAMP

MICRO CLAMP

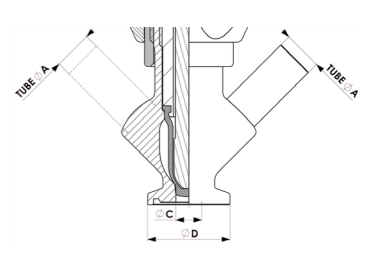
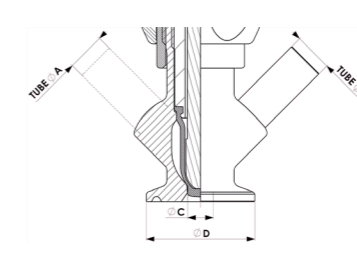
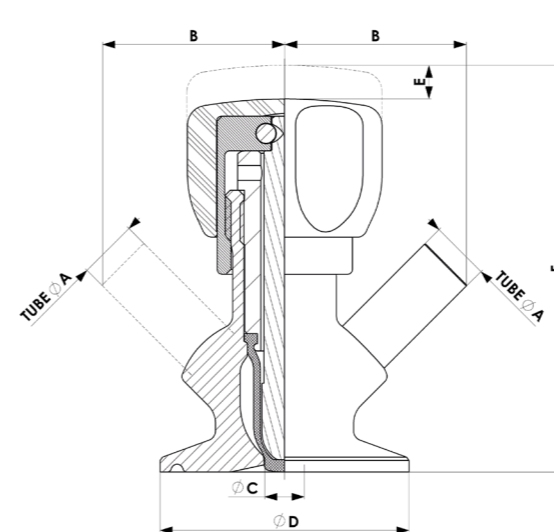
CLAMP MANUAL

MINI CLAMP

MICRO CLAMP

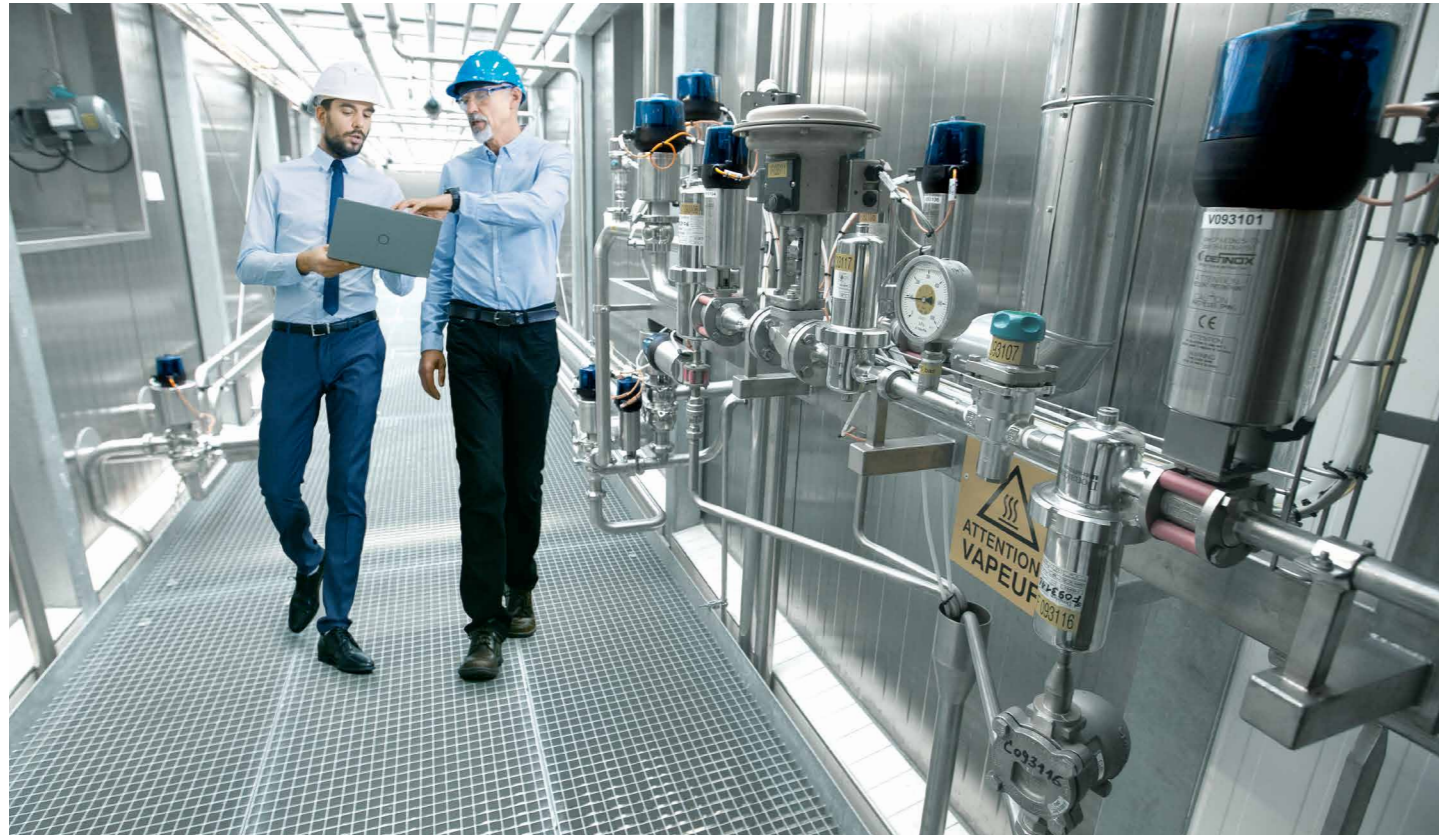


TubeØA	B	ØC	ØD	ØD	ØD	Stroke E	F	WEIGHT (kg)
DIN 6/8	33	4.5	50.4	34	25.4	5	115	0.65
DIN 10/12	37	8	50.4	34	25.4	7	140	0.70
DIN 16/18	50	15	50.4	34	25.4	7	160	1.35



TubeØA	B	ØC	ØD	ØD	ØD	Stroke E	F	WEIGHT (kg)
DIN 6/8	33	4.5	50.4	34	25.4	5	68	0.35
DIN 10/12	37	8	50.4	34	25.4	7	83	0.40
DIN 16/18	50	15	50.4	34	25.4	7	93	0.65

# OUR SUPPORT



## ENGINEERING DEPARTMENT

Our engineering department provides knowledge in IO-Link technology associated with process valves and liquid transfer.

We advise and support your approach to implement predictive valve maintenance.



## PACKSERVICES CUSTOMER SERVICE

PackServices customer service offers various services

- Training \*
- Preventive maintenance program
- Spare parts management
- Advice/expertise

Our teams of specialized multilingual technicians work in France and abroad for maintenance operations. They are also involved in product retrofit operations (change in generation of valves or housings).

\*certified training organization.



## TEST, DOWNLOAD, SCAN...

The augmented reality developed by DEFINOX for more services.

- Immediate identification of the valve and spare parts.
- Save time in managing the stock of equipment.
- Reduced risk of errors.
- Immediate access to documentation.
- Individualized monitoring of the valve with the service book function.

New



Specialist in the transfer of liquids for more than 50 years,  
DEFINOX designs and manufactures process valves and  
customized stainless-steel equipment for the food,  
cosmetics and fine chemicals industries.

The valves and equipment meet the standards of the  
regulations in force applicable to hygienic processes  
and the most severe constraints in terms of cleanability.

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70   
COUNTRIES

60 000   
EQUIPMENT AND VALVES  
SOLD PER YEAR

150   
EMPLOYEES

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**definox.com**

AND FOLLOW US ON:



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