



## OYSTER™ SAMPLEMASTER VALVE



The Oyster™ Samplemaster valve is a complete range of valves for taking powder samples from dryers and other pharmaceutical, or similar, machines without breaking the vacuum/pressure conditions inside the host vessel.

The valves offer an excellent Price/Performance/Quality ratio.

### APPLICATION

The valve is designed for use in the **pharmaceutical, chemical, food and dairy** industries.

The valve is offered in two versions:

- **NON-INTRUSIVE VALVE** (recommended for vacuum driers)
- **INTRUSIVE VALVE** (suitable for chutes, pipes, fluid bed driers and similar)

### OPERATION

Both versions can be supplied either:

- Manual operation by handwheel
- Automatic operation by pneumatic piston



**Field of application**  
Powder sampling

# OYSTER™ SAMPLEMASTER VALVE

## NON-INTRUSIVE TYPE

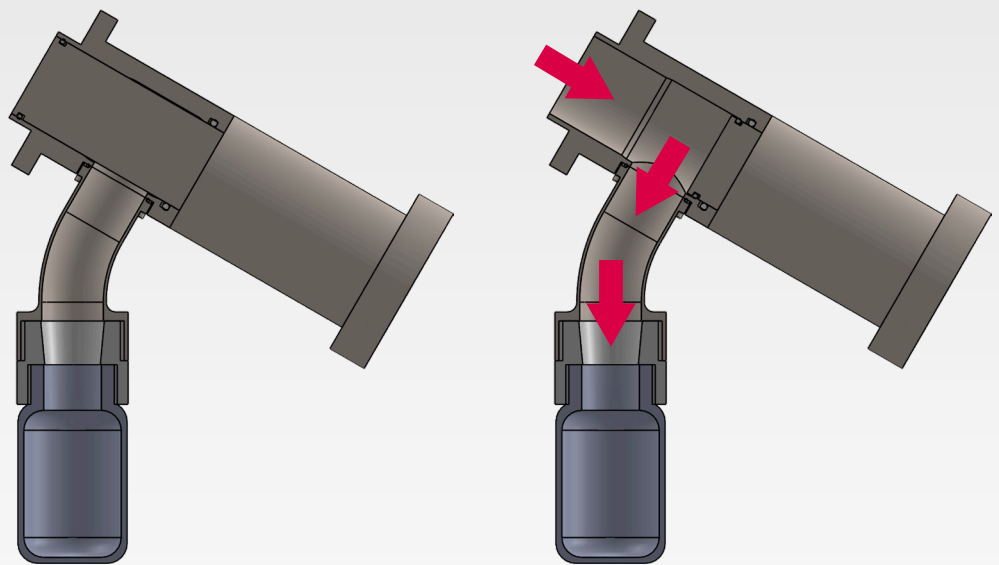
The **Non-Intrusive** version of the Oyster™ Samplemaster valve is designed for use with vacuum driers and similar applications where the piston must not enter the host vessel.

## OPERATING CYCLE

- When closed the end of the piston is flush with the side of the host vessel
- Valve is opened by operating handwheel or pneumatic piston
- As the valve is opened the piston moves backwards to enable the product in the vessel to fall under gravity through the valve and into the Sample collector
- Close valve
- Equalise the pressure (or vacuum) in sample collector using the purging valve
- It is now possible safely to remove the sample.

## OPTIONAL VARIATIONS

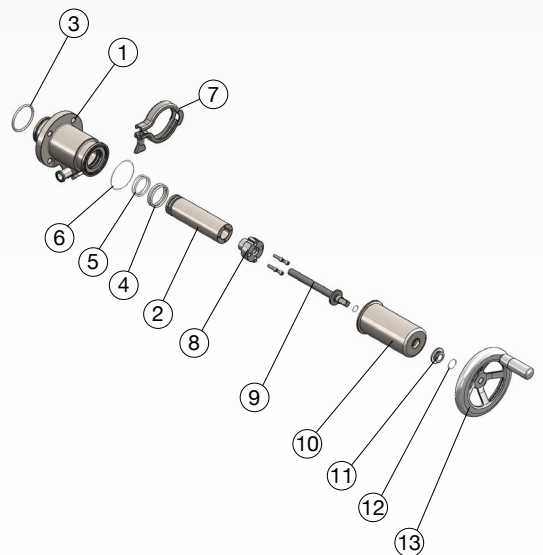
- C-22 product contact parts
- Automatic operation (Electric or Pneumatic)
- CIP compatible
- Crustbreaker
- High containment sample collector



The ultra-compact and extremely lightweight design of the Oyster Samplemaster (total length < 230mm, without drive) make it particularly well adapted for the requirements of the pharmaceutical, chemical and food industries.

## PARTS LIST AND MATERIALS

1. Main body	AISI 316L	Mirror Polish Internal, Satin Ext.
2. Piston	AISI 316L	Mirror Polish Ra<0.4 µm
3. Nose O-Ring	FFKM	N/A
4. Body O-Ring	FEP/ SILICONE	N/A
5. Piston O-Ring	FEP/ SILICONE	N/A
6. Body Gasket	PTFE	N/A
7. Clamp	AISI 304	Satin finish
8. Drive Bush	BRONZE	N/A
9. Drive Screw	AISI 304	N/A
10. Lower Body	AISI 304	Satin finish
11. Handwheel Spacing Washer	PTFE	N/A
12. Spacing Washer o-Rings	NBR	N/A
13. Handwheel	AISI 304	Satin finish



# OYSTER™ SAMPLEMASTER VALVE

## INTRUSIVE TYPE

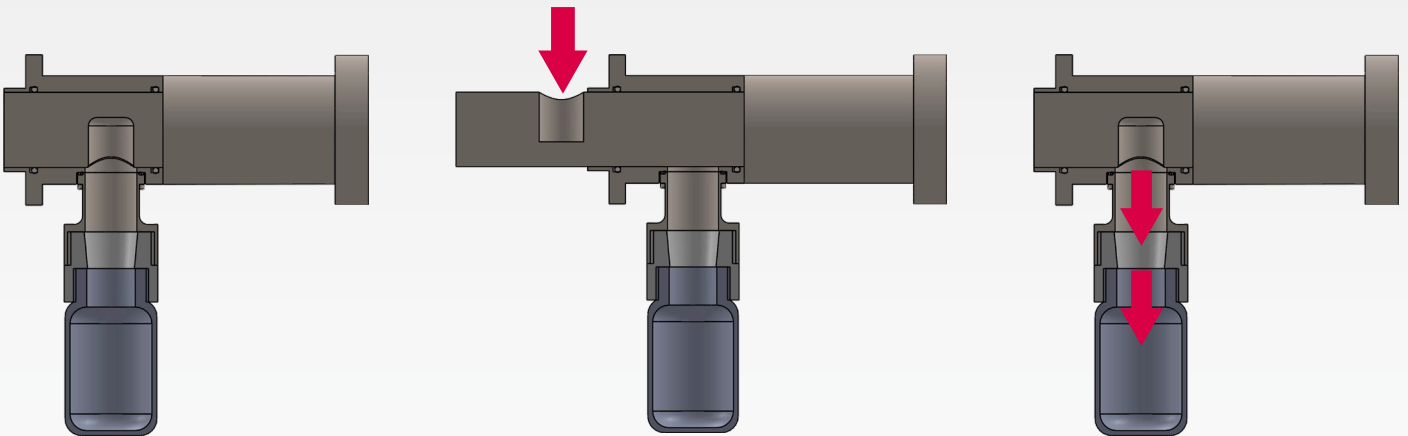
The **Intrusive** version of the Oyster™ Samplemaster valve is designed for applications where it is required that the piston move into the host vessel, and actively collect the sample which it then transports out of the vessel/pipe and deposits into the Sample collector.

## OPERATING CYCLE

- When closed the end of the piston is flush with the side of the host vessel
- The valve is opened by operating handwheel or pneumatic piston
- As the valve is opened the piston moves forwards into the product flow. A cavity in the piston fills with product
- Close valve
- As valve closes the piston moves backwards turning over as it does so. At the end of the stroke the valve returns to the closed position and the collected sample falls under gravity into the sample collector
- Open and close the purging valve to equalize the pressure (or vacuum) in sample collector
- It is now possible safely to remove the sample.

## OPTIONAL VARIATIONS

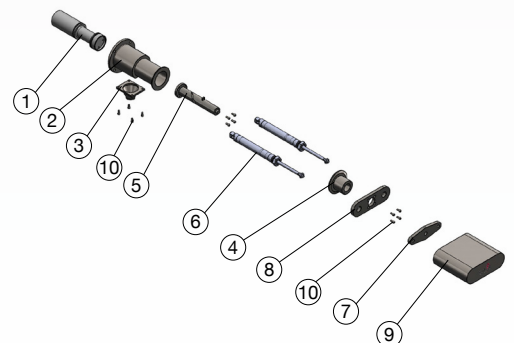
- C-22 product contact parts
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## PARTS LIST AND MATERIALS

1. Piston	AISI 316L	Mirror Polish Ra<0.4 µm
2. Main Body	AISI 316L	Mirror Polish Internal, Satin Ext.
3. Sample Port	AISI 316L	Mirror Polish Internal, Satin Ext.
4. Lower Body	AISI 316L	Mirror Polish Internal, Satin Ext.
5. Rear Piston	AISI 304	N/A
6. Pneumatic Cylinder		
7. Piston Drive Plate	AISI 304	Satin
8. Cylinder Mounting Bracket	AISI 304	Satin
9. Casing	AISI 304	Satin
10. Securing bolts	AISI 304	N/A



# OYSTER™ SAMPLEMASTER VALVE

## GENERAL FEATURES

- Robust design and construction ensures trouble-free operation and easy maintenance
- All-metal contact surfaces for long service lifetime
- No special tools required for strip-down and reassembly
- We offer a wide range of mounting options for valve and sample collector
- High quality Pharma finish including mirror polish, FFKM and FEP seals
- Choice of body and piston materials to resist even the most aggressive products, acids and solvents
- The sample port has a purge valve to permit the user to equalise the pressure in the sample port once the valve is closed which allows the sample collector to be removed safely
- O-ring seals on the piston and inside the housing ensure there is no contamination between the inside of the valve to the outside environment or vice versa.



## INSTALLATION

As standard configurations the valve is offered for installation to the host vessel either by a Tri-clamp or a flange connection.

Customised mountings can be supplied to order.



The valve is ideal for applications where the host vessel is pressurised or under vacuum as the sample can be removed without breaking these conditions.

Operating pressure: -1/+3.5 BARG

Operating temperature: 0°-150°C

Design pressure: 10 BARG



Hazardous zone: Manual valves are excluded from the scope of the 94/9/EC ATEX directive.  
Pneumatic versions of the valve are marked:   II 2GD c IIB T4/T135°C

### ValvEngineering Srl

Via di Coselli 23/25 – 55012 Capannori - LUCCA - Italy

• TEL +39 0583 378587 • FAX+39 0583 1553006

• P.IVA IT02090150463

WEB: [www.valvengineering.com](http://www.valvengineering.com) MAIL: [info@valvengineering.com](mailto:info@valvengineering.com)

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