

## Product Description

The surface mount sampler is a new type of sampling valve which can be bolted on to the side or bottom of a vessel or large pipeline. In the case of a vessel mount, the valve is bolted to a pad flange on the side of a vessel.

## Applications

Surface mount samplers are commonly used for taking samples from large pipelines or from the sidewall of vessels. When large piping systems exist, it can be costly and difficult to install adequate sampling systems. The surface mount sampler can easily be added to a pipeline as a cost effective way to obtain a representative sample.

In addition, the surface mount sampler can be installed onto the side of a vessel when the process fluid is difficult to sample. Samples can be taken when the vessel is under complete vacuum or when the product is too viscous to use normal dip tube sampling operations.

## Features

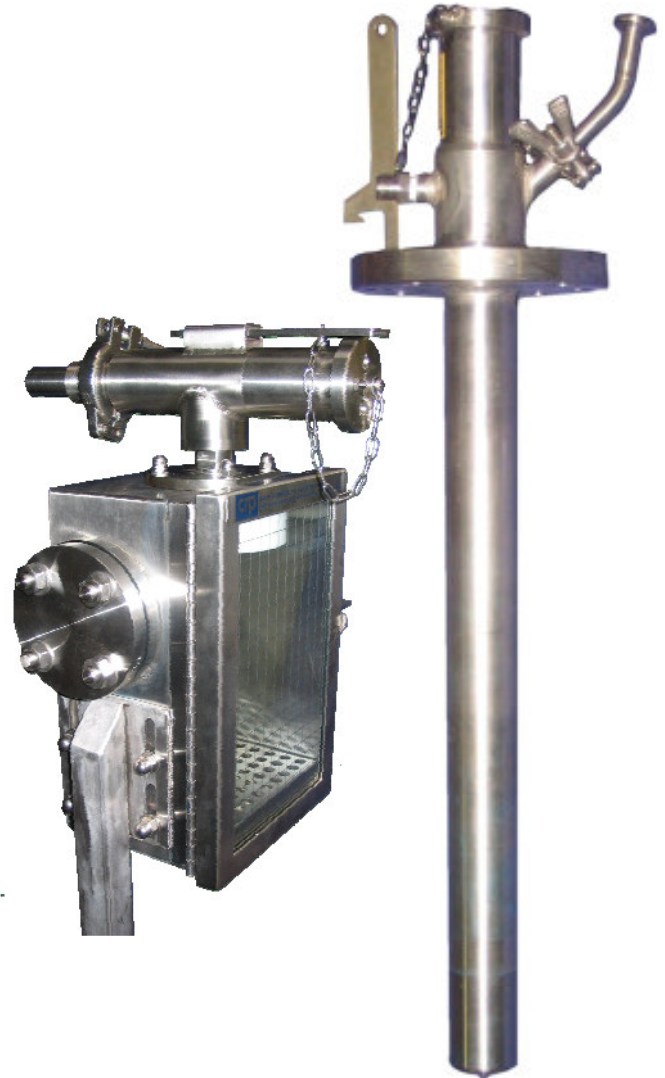
The valve is most commonly supplied with a spring return safety handle. The standard valve has a 316L stainless steel body & spindle. The spindle is sealed from the atmosphere using a PTFE or Chemraz fluoropolymer tip seal. The tip seal is designed to eliminate dead legs on the process side of the valve. When the valve is operated the spindle is inserted into the process stream allowing process media to flow. The stroke limit of the spindle is adjustable and should be set when the unit is commissioned to give the correct flow rate. The valve is most commonly supplied with a purge and flush connection to allow purging or cleaning between samples.

## Specifications

- Sizes 1" - 3" nominal bore
- Operating Pressure from full vacuum to 285 psig (19 bar)
- Standard Operating Temperature from -20°F (-29°C) to +390°F (+200°C)
- Standard material of construction is 316L stainless steel

## Options

- High temperature designs available
- Various connection types (ASME Class 150 and 300, DIN Flange, Sanitary Tri-clamp, etc...)
- Horizontal, vertical, or angled installation
- Alternate material of construction (Hastelloy, Monel, etc)
- Safety cabinet for containment of spills and fumes
- Variety of dispensing assemblies using our modular connection
- Sample treatment (heating or cooling)



*Unlined surface mount sample valve designed to attach to a pad flange on the side of a process line.*

## SURFACE MOUNTED SAMPLER ADVANTAGES

- Fail safe handle offers ease of operation while preventing accidental operation
- Tip seal location provides minimum product hold up giving representative sampling
- Can take samples from vessels or pipelines under vacuum or pressure

Typical dispensing options available from our standard product range include:

**Hand Held Bottle Sampling**

Offers a simple sample dispensing method being a straightforward PTFE or stainless steel dip tube. The operator simply offers up a hand-held sample bottle to the dip tube and operates the sample valve to acquire the sample. This option is intended for samples that are not toxic or dangerous to the operator. The bottle vents freely into the atmosphere around the dip tube.



**Threaded Bottle Connector**

The most common type of sample dispensing supplied is the PTFE threaded bottle connector. The operator screws the sample bottle up into the adaptor before taking the sample. The threads on the bottle adaptor are machined to suit the customer's own sample bottle. The bottle adaptor has an integral vent supplied with a PTFE compression fitting and a short length of PTFE tubing to carry fumes away from the operator. This can be piped into the site process vent system if required.



**Septum Capped Bottle Assemblies**

The sample bottle is fitted with an aperture cap and septum to seal the contents of the bottle from the atmosphere. The sample bottle is offered up to the sample valve and pushed on to the two non coring needles which puncture the septum - one for filling the other for venting. As the operator fills the sample bottle, the fumes from the sample media and bottle travel safely down the vent line away from the operator. When the bottle is pulled free from the needles, the septum seals the bottle preventing fumes or sample media from escaping from the sample bottle to the atmosphere or the atmosphere entering and contaminating the sample.



**Syringe Samplers**

Syringe samplers differ from the other types of sample dispensing methods as no sample bottle is used. Instead the sample is drawn directly from the process and contained within a borosilicate glass tube within the syringe assembly. The sample is automatically taken from the sample valve when the syringe is offered up to its mount using a pin and cam arrangement. When the syringe is released the sample valve and syringe automatically close preventing any release of fumes or product. The sample is contained within a borosilicate glass tube contained within a sturdy stainless steel carrier. The syringe can then be taken to the lab and safely dispensed using the syringe dispensing attachment.



For additional protection, sample bottles can be contained within a safety cabinet.

When samples are to be taken from hot process lines, we offer a range of heat exchangers to cool the sample to a safe temperature before being dispensed.

