The VANASYL Sampling Valve

The Sampling Valve for the Bio/Pharmaceutical Industry

THE SAMPLING SOLUTION

The VANASYL Sampling Valve

A true 'fit and forget' device.

The Vanasyl Sampling Valve was developed to satisfy the uncompromising, and exacting need for samples to be taken in a contained and free from contamination fashion as demanded by the Bio/Pharmaceutical industry.

The use of patented seals, in a tandem configuration, combined with a streamlined internal flow path offers exceptional performance, great reliability and long service with minimal product losses.

The Vanasyl Sampling Valve has been validated to meet GMP requirements.

- **Seal life is guaranteed for 2 years. Ensures maintenance free operation**
  Doing away with frequent and costly maintenance schedules, makes the use of the Vanasyl Sampling Valve extremely cost effective.

  Even the frequent maintenance of conventional sampling valves, does not ensure that they would not fail.

- **Process sample is obtained in complete isolation and safety**
  All the Vanasyl Sampling Valves are Helium tested to better than 10^{-7} mbar l/s (Std cc/s) at differential pressures of 1 Bar (14.5 psi) and 8 Bar (116 psi), and maintain their performance even after thousands of operations.

  Assuming a single leak path, a Helium leak rate of 10^{-7} mbar l/s represents a leak from a single hole with a diameter smaller than 0.3µm. The differential pressure leak test guarantees that if a leak is detected, then it must come from multiple holes each substantially smaller than 0.3µm.

- **The valve may be steam-sterilised, continuously, at a temperature of up to 170°C (338°F)**
  The ability to continuously steam-sterilise without the fear of seal degradation ensures the sterility of the valve. This eliminates the need of record keeping for sterility validation.

- **Cleanability is assured**
  The process fluid does not come in contact with the valve's operating components.

  The flow path is similar to the internal diameter of an ISO 6mm (¼") tube.

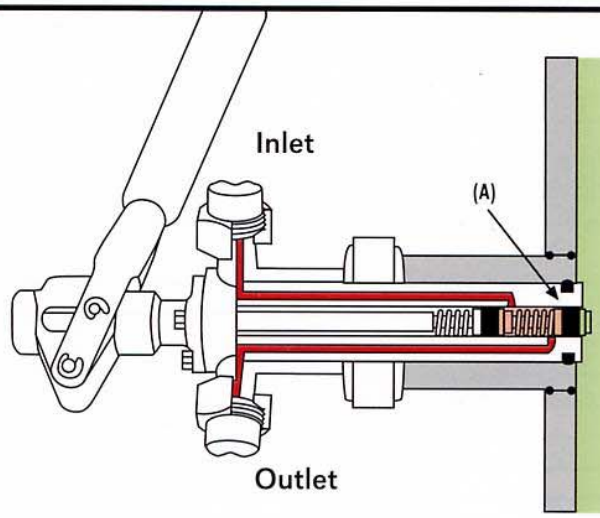
  The condensate accumulated between the seals during the sampling procedure, flushes the valve clean after sampling.

- **No dead volume**
  Since the front seal is flush with the valve's face, there is no need to discard the initial portion of the sample taken, ensuring that the sample is a true representation of the process.

- **Minimal internal volume of less than 2ml**
  Minimal product waste due to the small internal volume.

- **A simple 3 position action**
  Ease of operation and valve position identification. No separate steam shut-off valve required.

The operation of the Vanasyl Sampling Valve is described below:



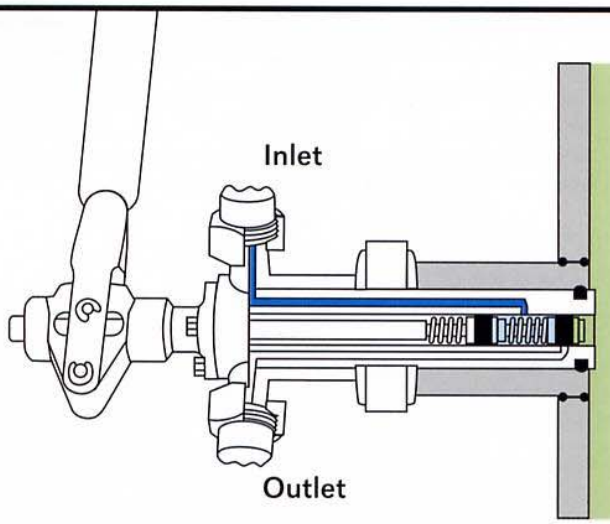
Sterilisation Stage (Forward Position):

With the handle fully forward (toward the vessel) the front seal (A), which seals the vessel, is flush with the front of the sampling valve eliminating dead space.

Steam enters the valve via the inlet, flows between the two seals and exits via the condensate/sample outlet.

The Vanasyl Sampling Valve should always be left in this position when not in use.

1



Shut Off Stage (Mid-Position):

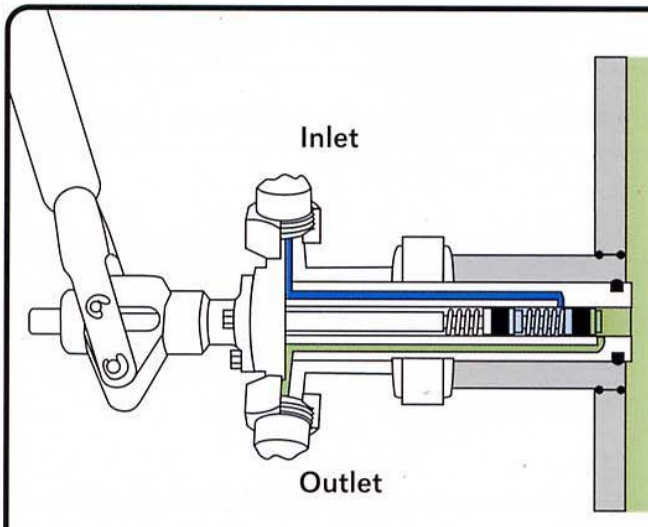
Before taking a sample the valve's handle is pulled back (toward the operator). It will automatically lock in the mid-position.

In the mid-position, the front seal closes the outlet line, stopping the steam flow while the vessel remains shut.

At this stage, while allowing the valve to cool down, the outlet line could be switched from condensate to sample.

Condensate will accumulate between the seals.

2



Sampling Stage (Rear Position):

After lifting the valve handle, which will unlock it from the mid-position, it should be pulled back to the rearmost position.

The front seal moves from the outlet line allowing the sample from process to flow through the outlet line into a suitable container (bottle, etc.).

Having taken the sample, the handle should be returned to the mid-position, and the condensate line reattached if required. The valve handle should then be brought to the steam sterilising position.

The accumulated condensate flushes the valve outlet line and the sterilisation stage begins (1 above).

3

The Vanasyl Sampling Valve's Technical Specifications

Material	
Valve Body	SS316L (For an alternative material, please contact the company or agent).
Seals	Carbon filled PTFE
O-ring for Ingold® Socket	EPDM (Alternatives available on request).

Guaranteed Seals Life	24 Months
Temperature Range	1°C - 170°C (34°F - 338°F) Continuous
Max. Operating Pressure	7 Bar (102 psi) (For higher pressures, contact the company or agent).
Connection to Vessel	The Vanasyl Sampling Valve is connected to vessel via a standard 25mm Ingold® socket, 60mm long. For shorter Ingold® sockets an adaptor should be used. State your Ingold® socket length when ordering the valve.

Valves Fittings	All the valves are supplied with hygienic fittings both for the steam inlet and condensate/sample outlet.
Steam Inlet	3 standard adaptors for the valve inlet fitting are available: sv-401 DN6 Tube - to - Hygienic sv-402 ¼" Tube - to - Hygienic sv-403 ½" Tri Clamp - to - Hygienic For non-standard, please contact the company or agent.
Condensate/Sample Outlet	3 types of sampling devices are available: ● Open sampling (with or without a steriliser). ● Aerosol Free Samplers (sampling via a septum). ● High Containment Samplers (suitable for sensitive or pathogenic products).

To order the Vanasyl Sampling Valve or for further information please contact:

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or

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