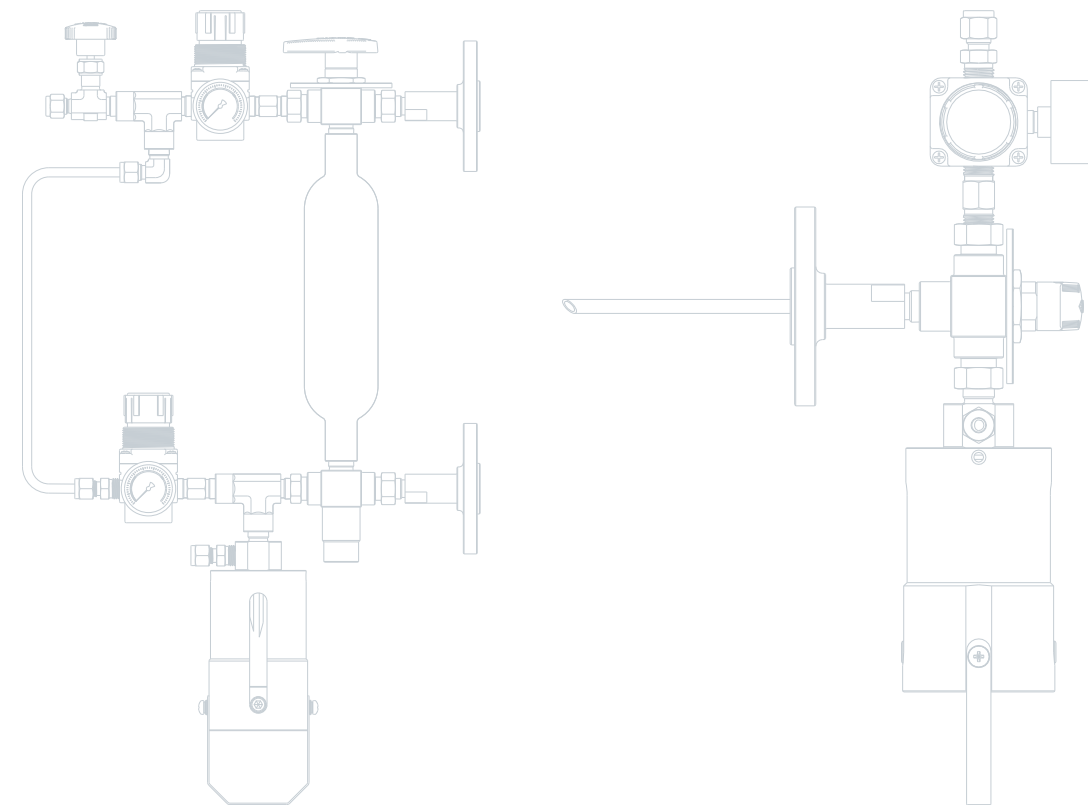
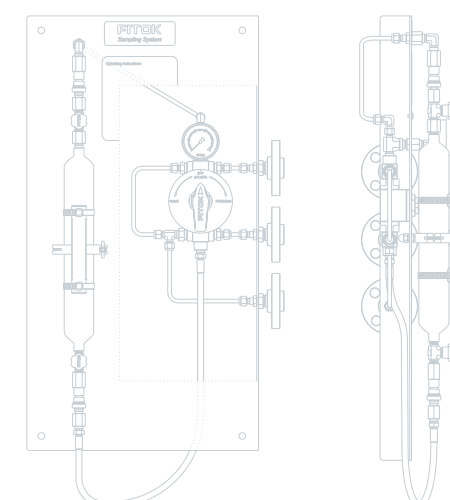
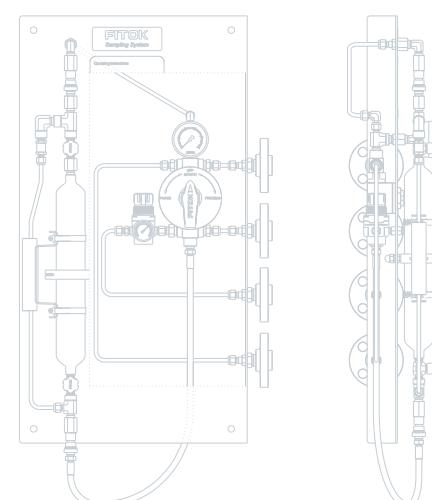
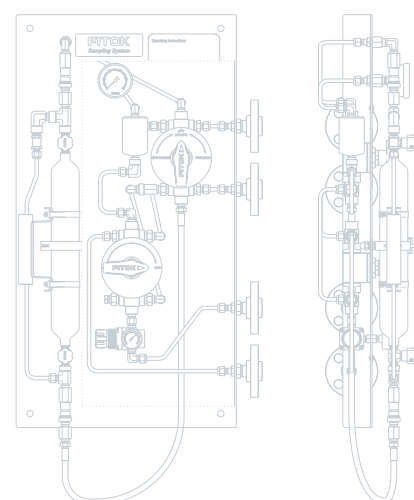


**FITOK** Full Technical Catalog for Sampling Systems



# FITOK

Full Technical Catalog  
for Sampling Systems



info@fitok.com  
www.fitok.com



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FITOK Full Technical Catalog  
for Sampling Systems

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# Overview

Sampling system, also known as sampler, is a kind of equipment used for representative sample collection from industrial processes. Due to the growing complexity of the industrial processes, the requirements for product analysis increase continuously, and the safety for sampling process is given more and more consideration. The simple and primitive sampling system has evolved into a safe and reliable closed-loop sampling system. FITOK offers two kinds of sampling systems, namely bottle configuration sampling systems and cylinder configuration sampling systems according to the difference of container. For bottle configuration sampling systems, the sample is drawn into the sample bottle at atmospheric pressure. For cylinder configuration sampling systems, however, the sample is drawn into the sample cylinder at process pressure.

## Advantages of FITOK Sampling Systems

- Safer for the operator
- Safer for the sample
- Safer for the environment
- Ease of operation
- Ease of maintenance
- Economical
- Customization

## Bottle Configuration Sampling Systems

- Configuration: The container consists of bottle, septum and cap. The sampler consists of tubing, valves and fittings.
- Operating principle: During sampling, the sample can flow into the sample bottle through the process needle, while air and vapor in the bottle are vented through the vent needle. When the required amount has been taken, close the sampling system and take out the sample bottle from the sleeve to complete the sampling process.
- Applicable process conditions: High-temperature, high-pressure, high-viscosity, corrosive, high-toxicity or environmentally hazardous liquids.
- Mounting types: In-line mounted, wall-mounted and bracket-mounted.



## Cylinder Configuration Sampling Systems

- Configuration: The container consists of a cylinder at both ends equipped with a needle valve and a quick-connect. The sampler consists of tubing, valves and fittings.
- Operating principle: During sampling, the sample can flow into the sample cylinder via the sampling loop. When sampling liquefied gases, a fixed amount of sample is transferred to the expansion chamber to make sure that the cylinder is not fully filled. Close the needle valves at both ends of the cylinder to depressurize the quick-connect through the vent. Remove the cylinder from the sampling system to complete the sampling process.
- Applicable process conditions: High-temperature, high-pressure, corrosive, high-toxicity, high-volatility or environmentally hazardous liquefied gases, liquids and gases.
- Mounting types: Wall-mounted and bracket-mounted.



## Options

- Panel
- Enclosure
- Pipe stand
- Carbon canister
- Spring return handle
- Lockable handle
- Connection type
- Size and material



# BL – Bottle Configuration Sampling Systems for Liquids

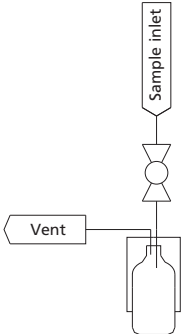
## A Series

### BLA1 - On-off Type

#### Features

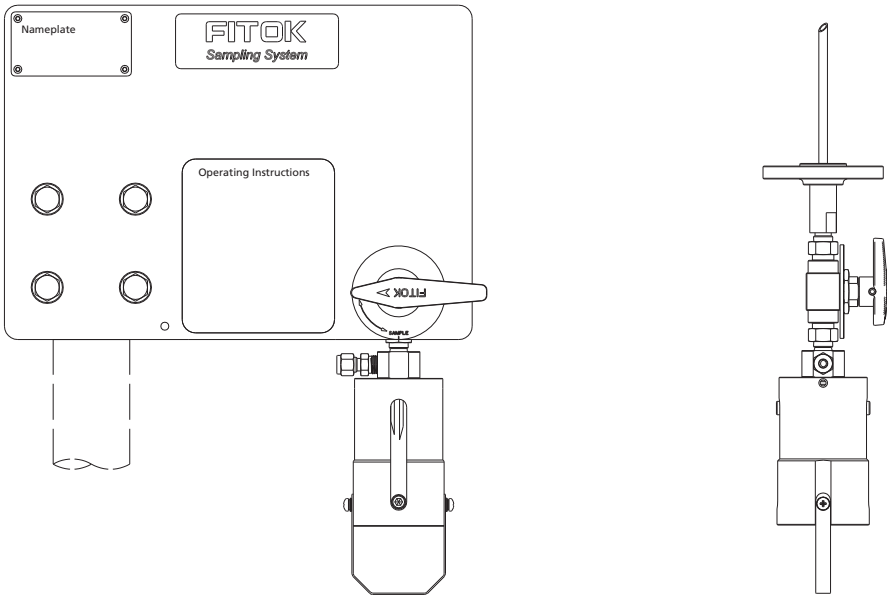
- Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)

#### Basic Configuration

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 2-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C )	
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

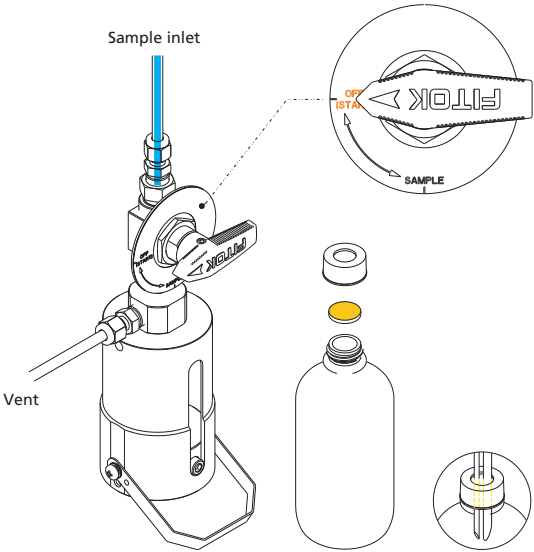
#### Typical Installation Mode



#### Operation

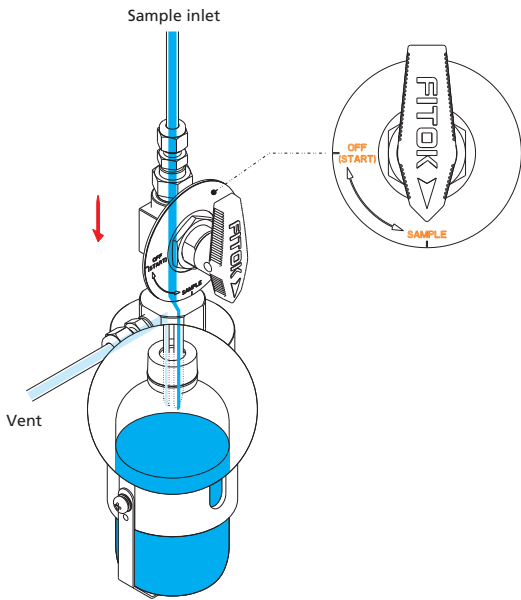
##### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



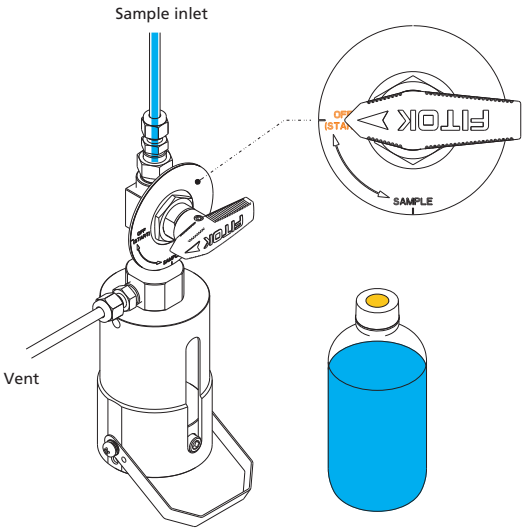
##### 2 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



##### 3 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.

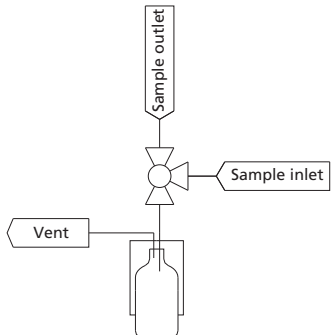


BLA2 - System Purge Type

Features

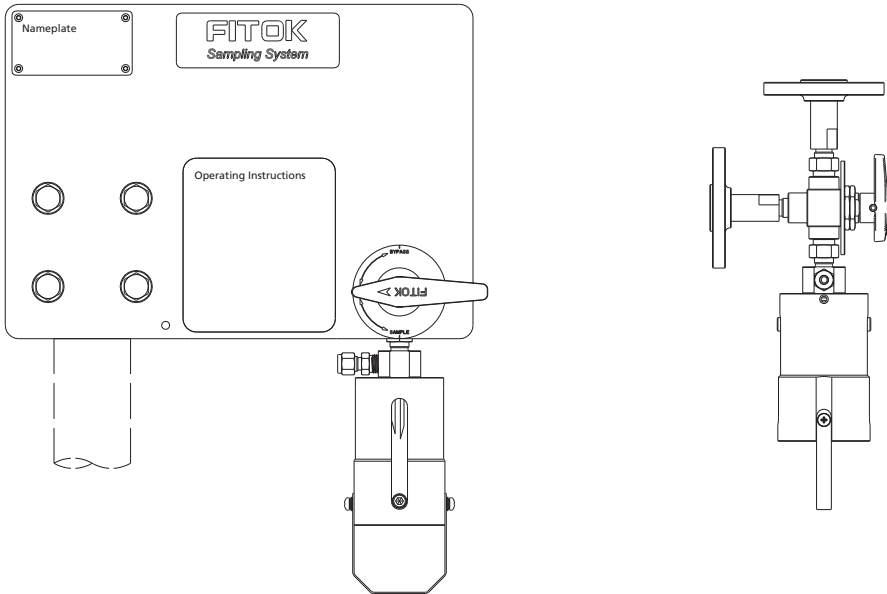
- Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- System purge

Basic Configuration

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

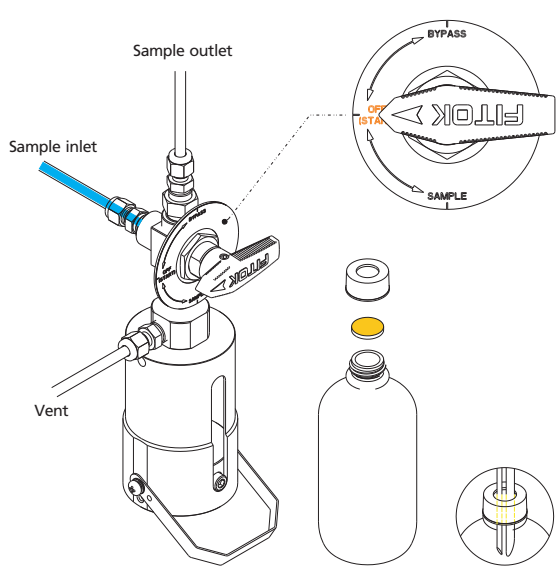
Typical Installation Mode



Operation

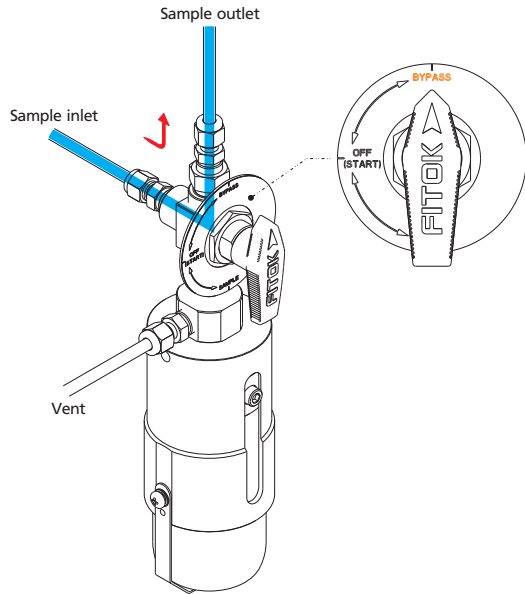
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



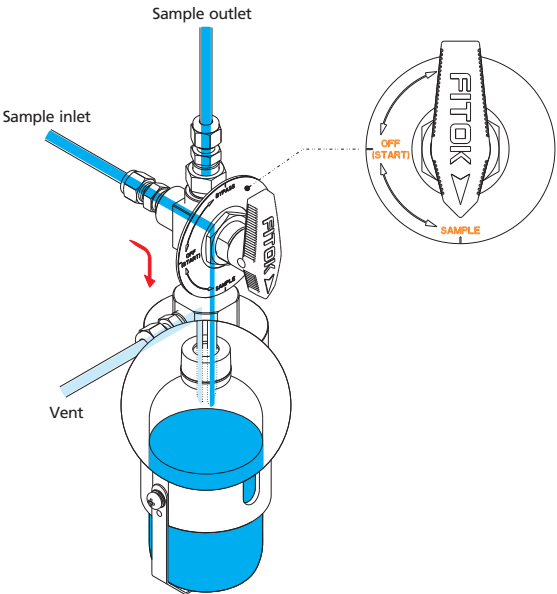
2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the system and purge system to ensure representative sampling.



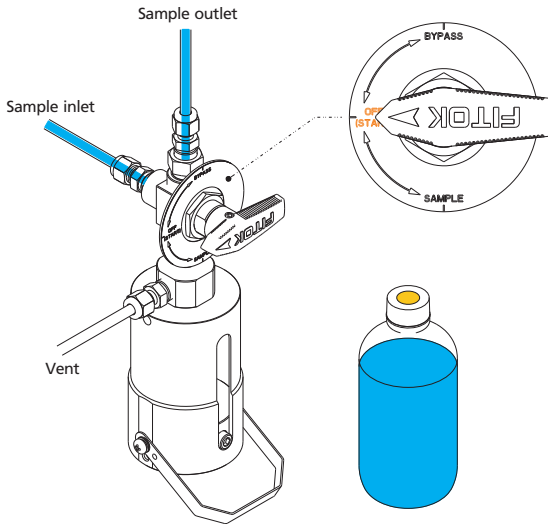
3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



4 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



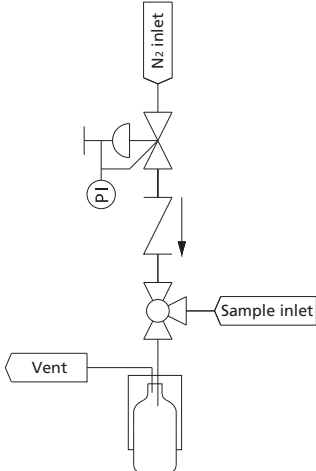
BLA3 - Back Purge Type

Features

- Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- Back purge

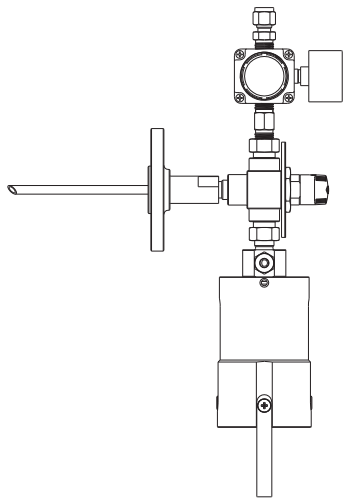
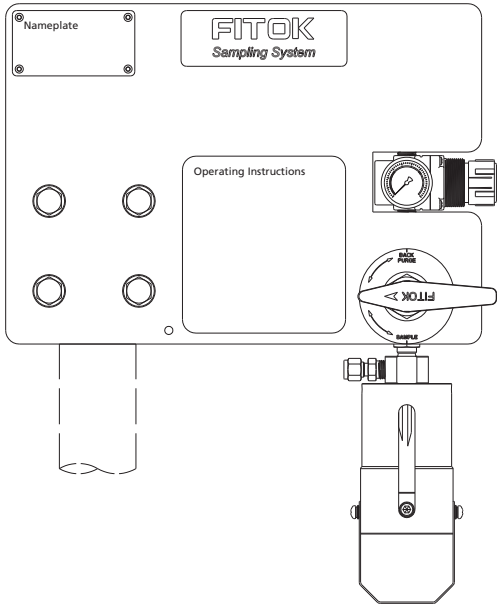
Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Connections	1/4" tube fitting



Note: Products of other specifications are available upon request.

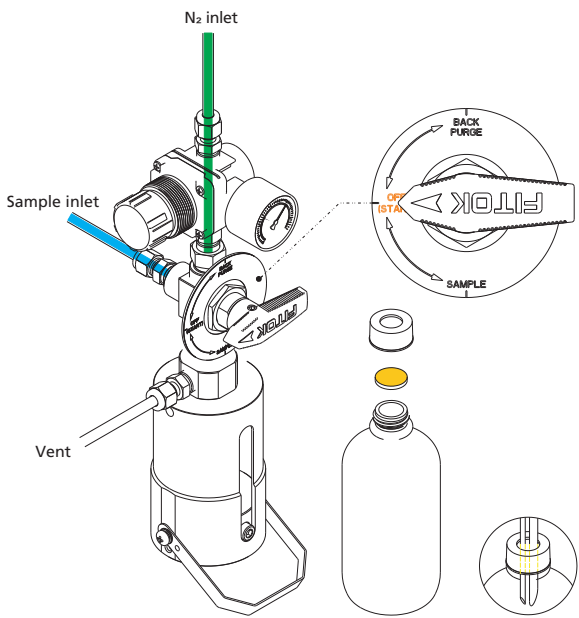
Typical Installation Mode



Operation

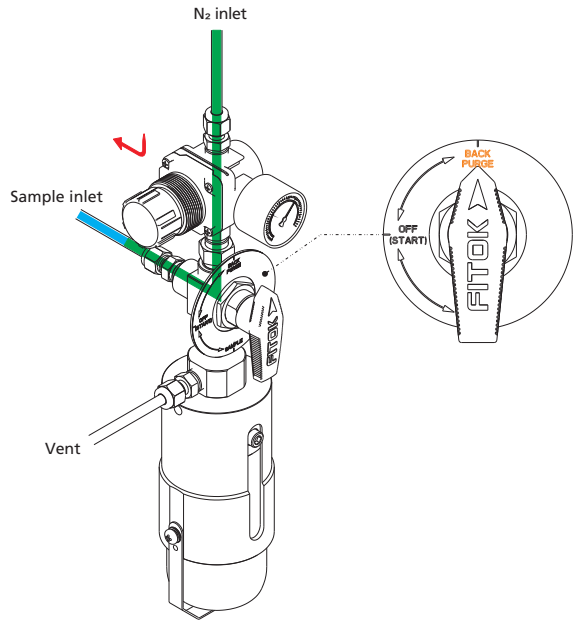
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



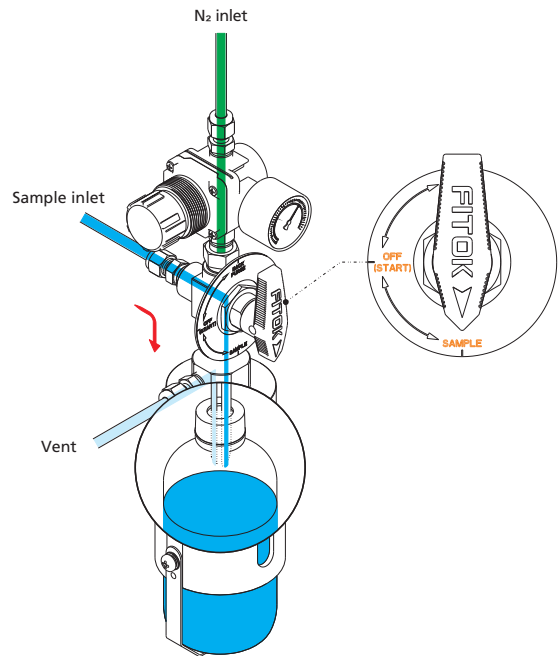
2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



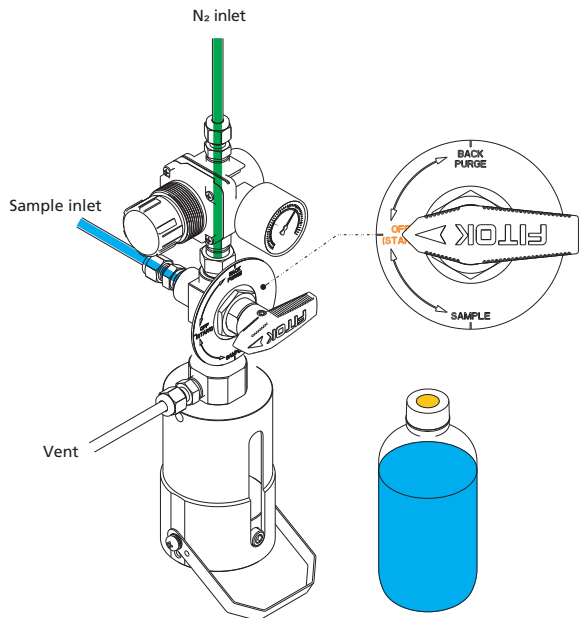
3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



4 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



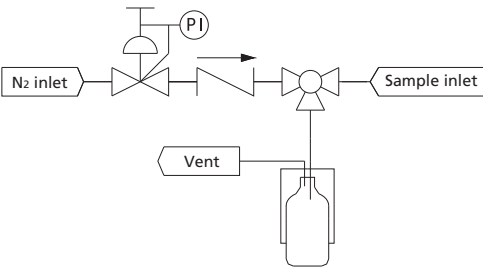
BLA4 - Needle Purge Type

Features

- Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- Needle purge

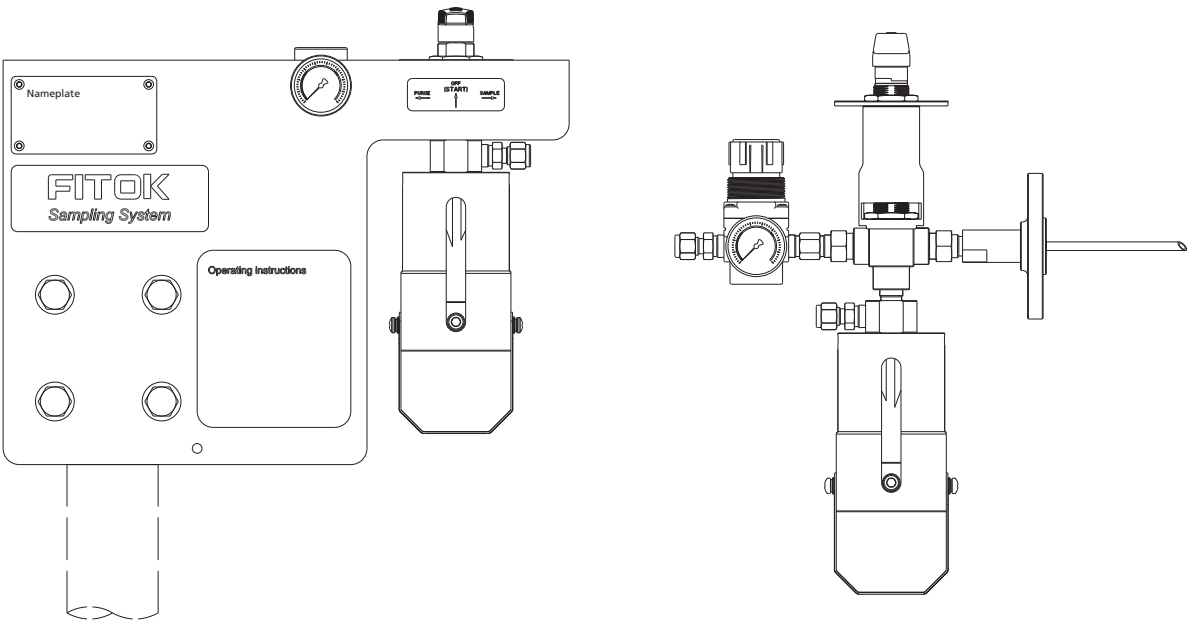
Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Connections	1/4" tube fitting



Note: Products of other specifications are available upon request.

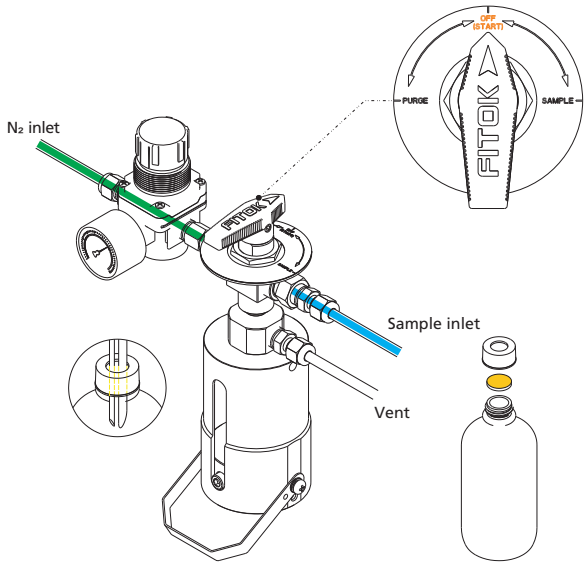
Typical Installation Mode



Operation

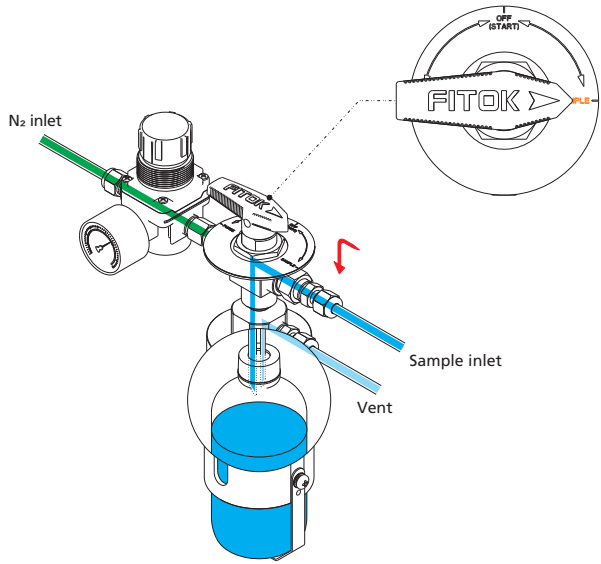
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



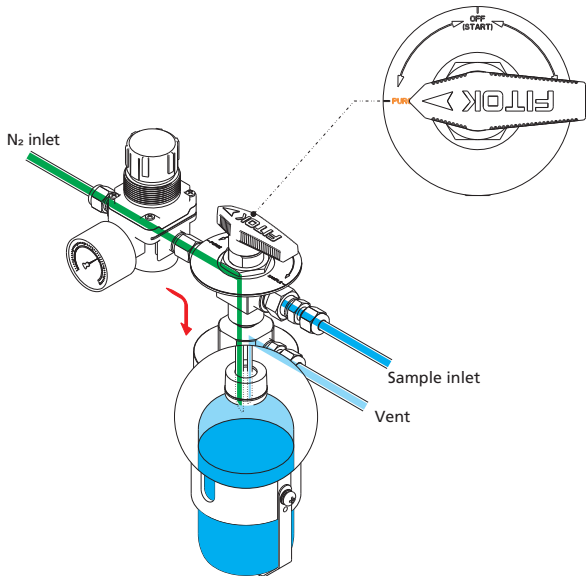
2 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



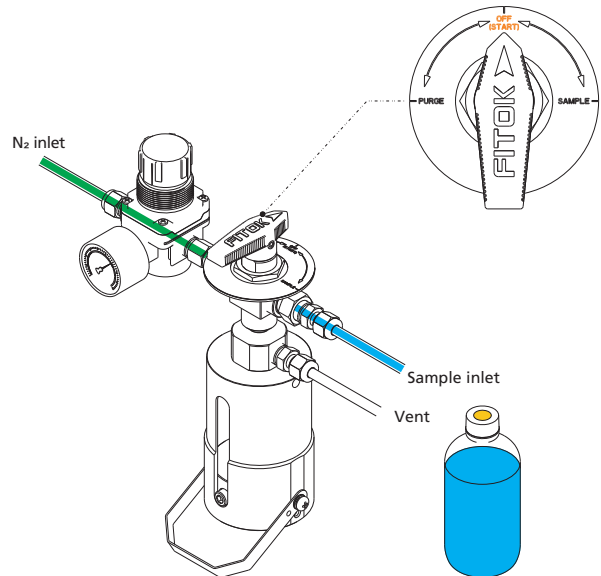
3 - Needle Purge

Turn the handle to the "PURGE" position, allowing Nitrogen to force the residual sample from the needle assembly into the bottle.



4 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



BLA5 - Back and Needle Purge Type

Features

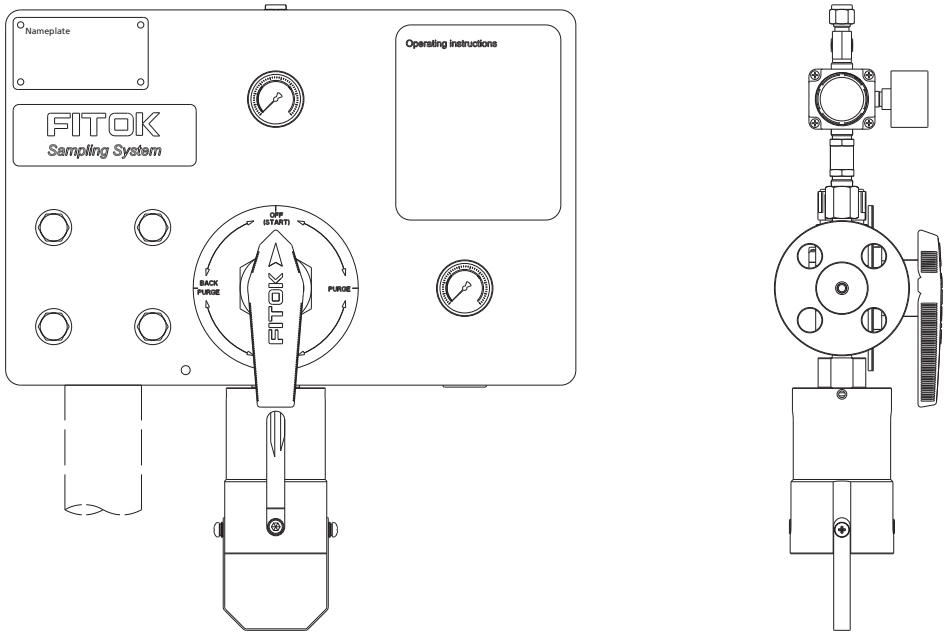
- Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- Back purge and needle purge

Basic Configuration

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BO Series 4-way ball valves: PTFE seat Max. working pressure: 2500 psig @ 70°F (172 bar @ 20°C) Temperature range: 50°F to 140°F (10°C to 65°C)	
Nitrogen Branch	Nitrogen regulator CV Series check valves Pressure gauge	
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

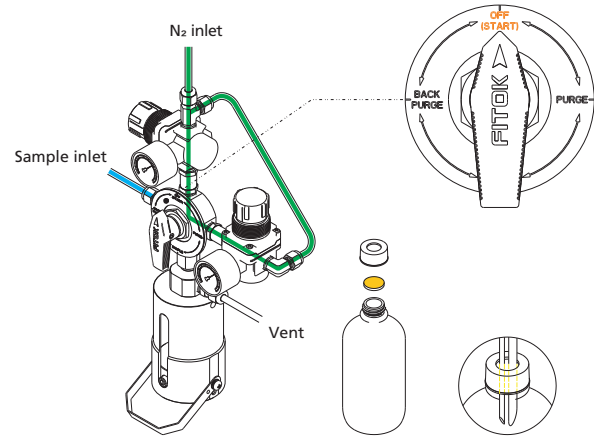
Typical Installation Mode



Operation

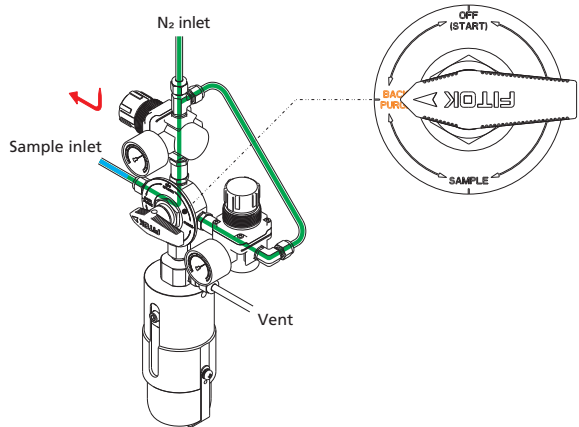
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



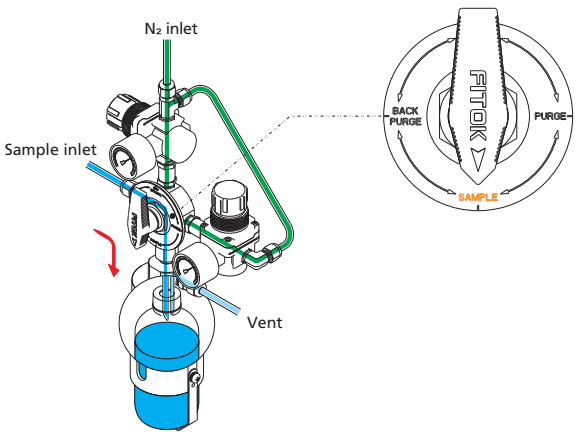
2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



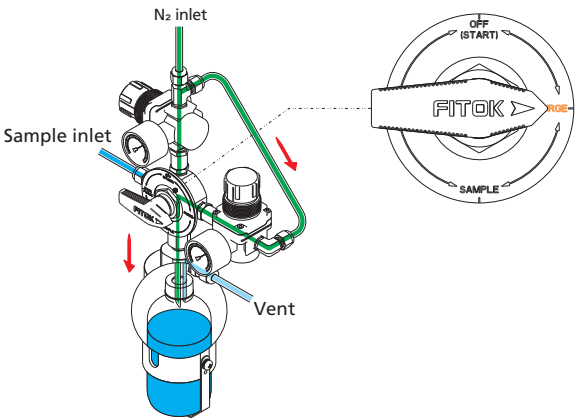
3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle.



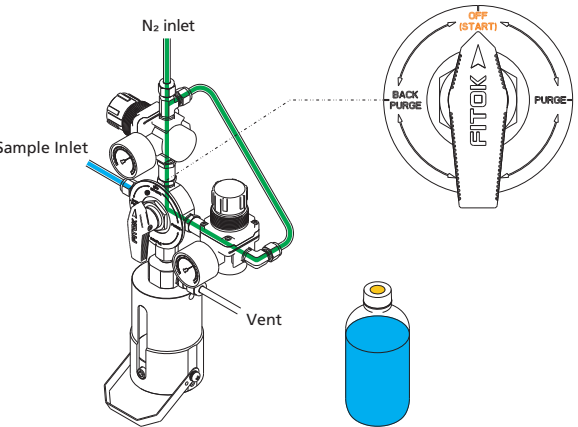
4 - Needle Purge

When the required amount has been taken, turn the handle to the "PURGE" position, allowing Nitrogen to force the residual sample from the needle assembly into the bottle.



5 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



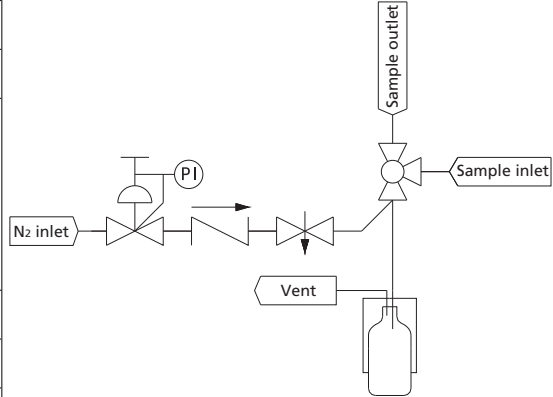


BLA6 - System Purge and Continuous Needle Purge Type

Features

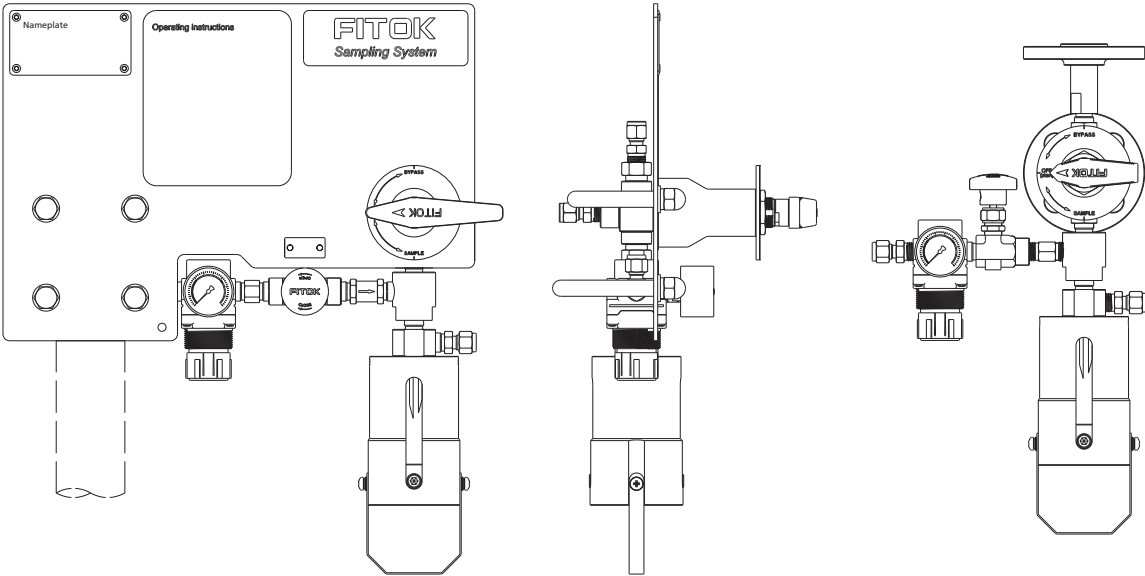
- Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- System purge and continuous needle purge

Basic Configuration

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Nitrogen Branch	Nitrogen regulator CV Series check valves, NB Series needle valves Pressure gauge	
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

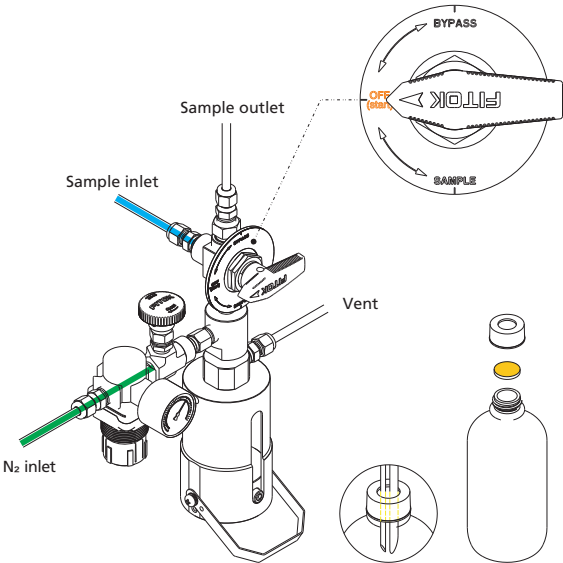
Typical Installation Mode



Operation

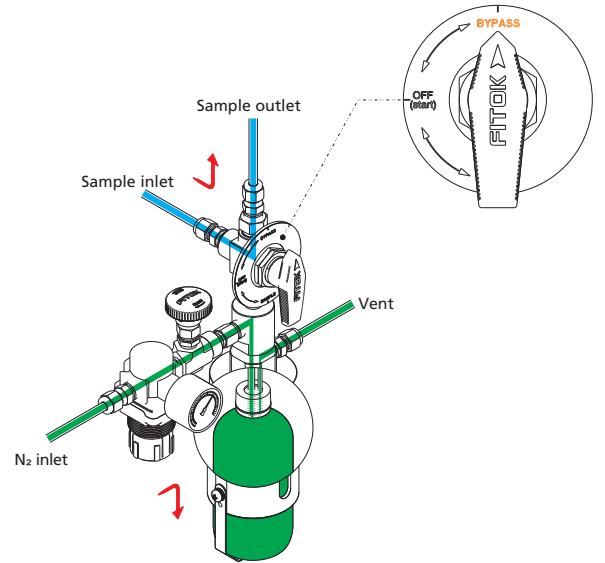
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



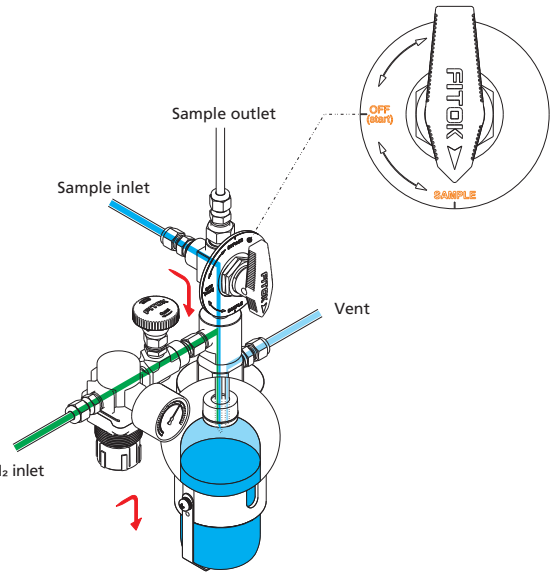
2 - Continuous Needle Purge and System Purge

Open the needle valve to purge the needle assembly and the bottle continuously with Nitrogen. Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the system and purge the system to ensure representative sampling.



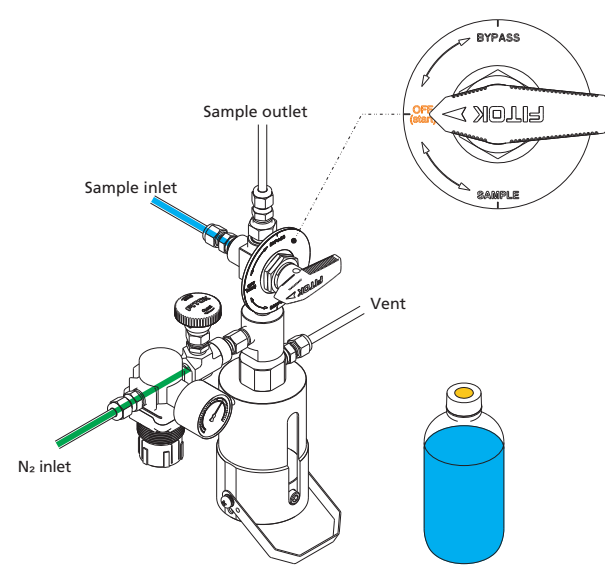
3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



4 - Off

Close the needle valve. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



BLA7 - In-line and Needle Purge Type

Features

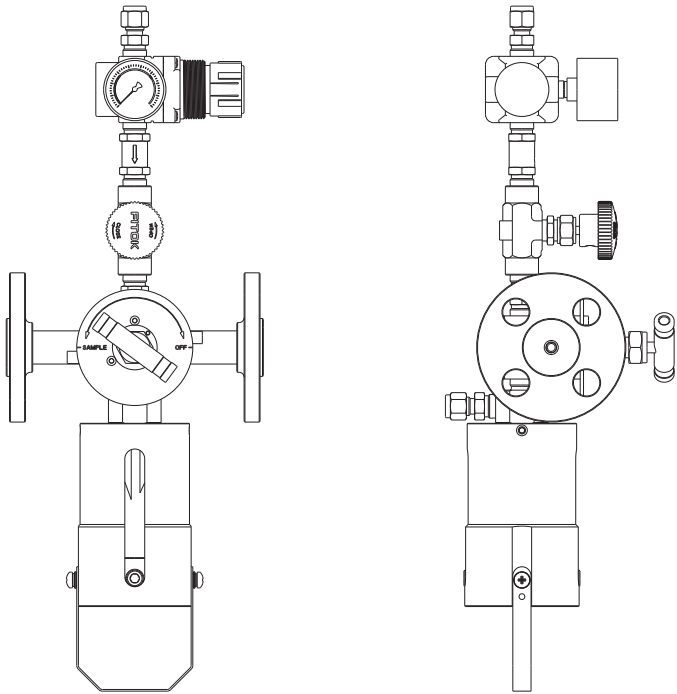
- Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- In-line sampling valve to save sampling time
- Needle purge

Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	In-line valve: PTFE packing Max. working pressure: 3000 psig @ 70°F (206 bar @ 20°C) Temperature range: -4°F to 446°F (-20°C to 230°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves, NB Series needle valves
	Pressure gauge
Connections	Process: 1/4" FNPT
	Purge/vent: 1/4" tube fitting

Note: Products of other specifications are available upon request.

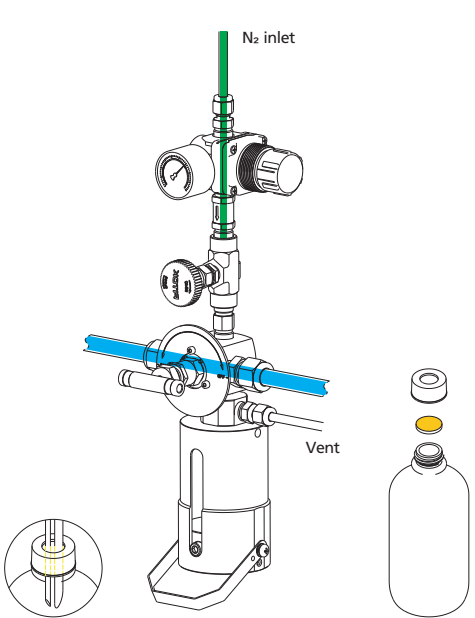
Typical Installation Mode



Operation

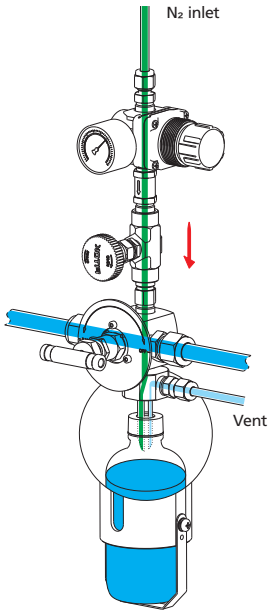
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



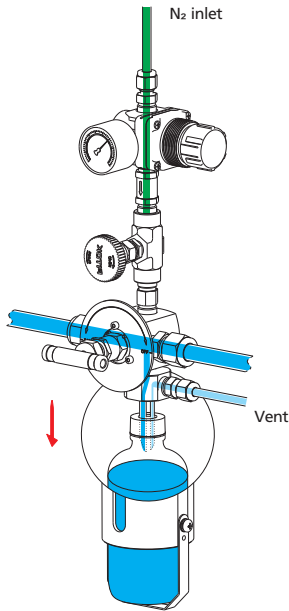
3 - Needle Purge

Open the valve on the Nitrogen branch, allowing Nitrogen to force the residual sample from the needle assembly and the valve into the bottle. Hold this position for a sufficient time.



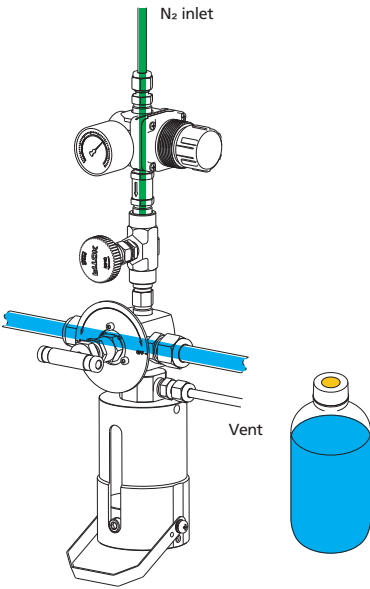
2 - Sampling

Turn the handle counterclockwise to open the sampling valve, allowing the sample to flow into the bottle. When the required amount has been taken, turn the handle clockwise to close the sampling valve.



4 - Off

Close the valve on the Nitrogen branch. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





B Series

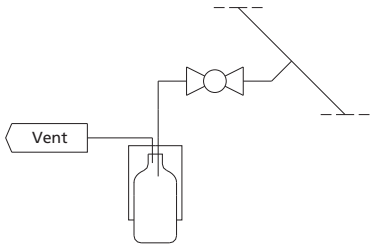
BLB1 - On-off Type with In-line Ball Valve

Features

- Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- In-line sampling
- Fire safe and antistatic ball valve

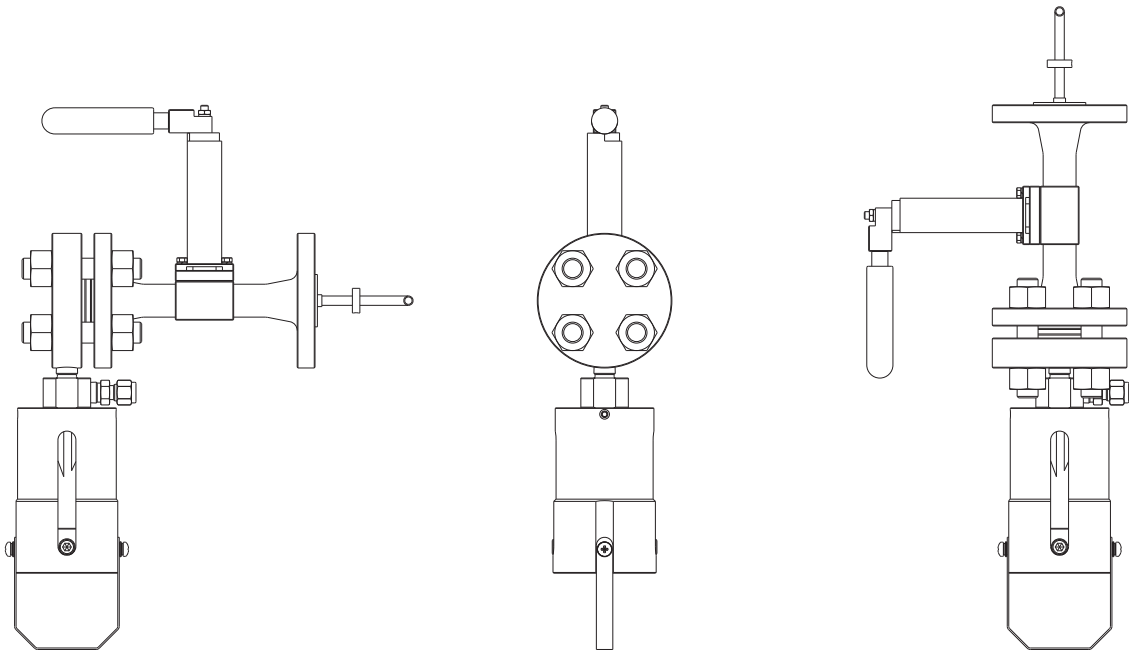
Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	In-line ball valve: PTFE seat, fire safe and antistatic Max. working pressure: 276 psig @ 70°F (19 bar @ 20°C) Temperature range: -18°F to 298°F (-28°C to 148°C)
Connections	Process: NPS 1/2, ANSI B16.5 Class 150 RF flange Vent: 1/4" tube fitting
Others	Spring return handle



Note: Products of other specifications are available upon request.

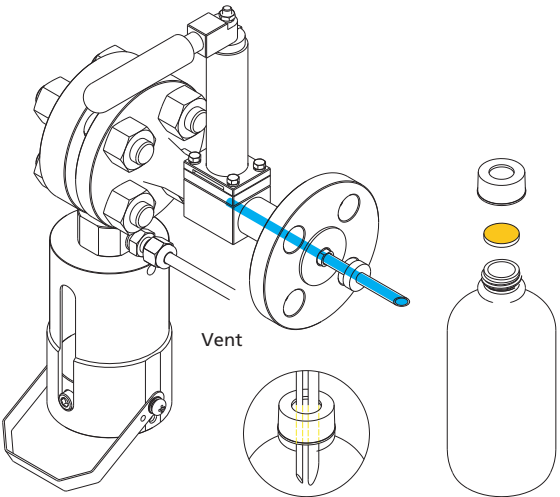
Typical Installation Mode



Operation

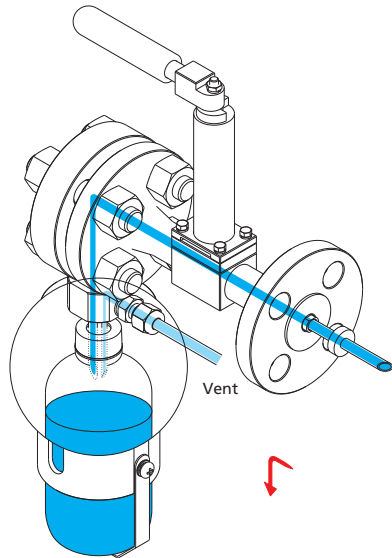
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



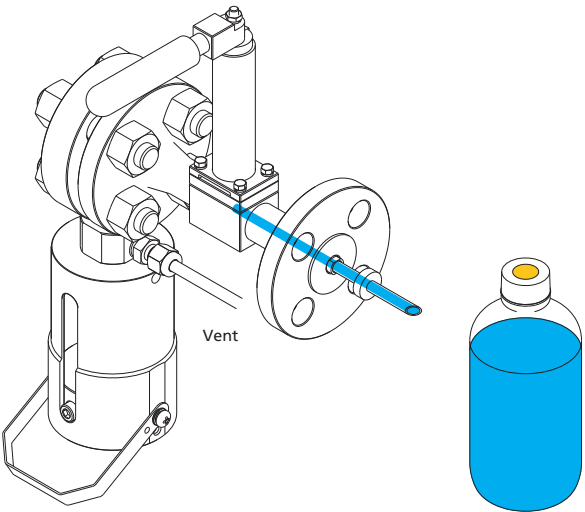
2 - Sampling

Open the in-line ball valve, allowing the sample to flow into the bottle. When the required amount has been taken, release the handle to close the valve automatically.



3 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



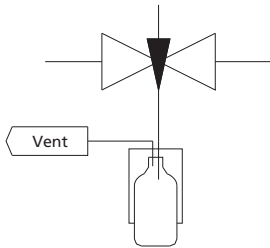
BLB2 - On-off Type with In-line Needle Valve

Features

- Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- In-line sampling

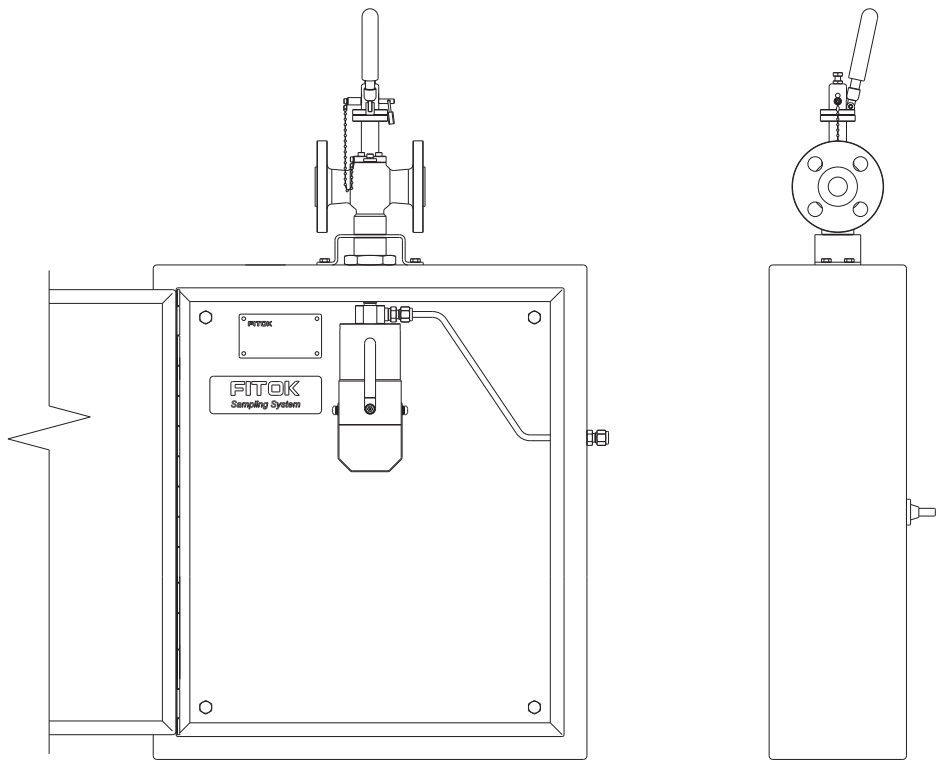
Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	In-line needle valve: PTFE packing and PCTFE seat Max. working pressure: 276 psig @ 70°F (19 bar @ 20°C) Temperature range: -18°F to 298°F (-28°C to 148°C)
Connections	Process: NPS 3/4, ANSI B16.5 Class 150 RF flange
	Vent: 1/4" tube fitting
Others	Spring return handle



Note: Products of other specifications are available upon request.

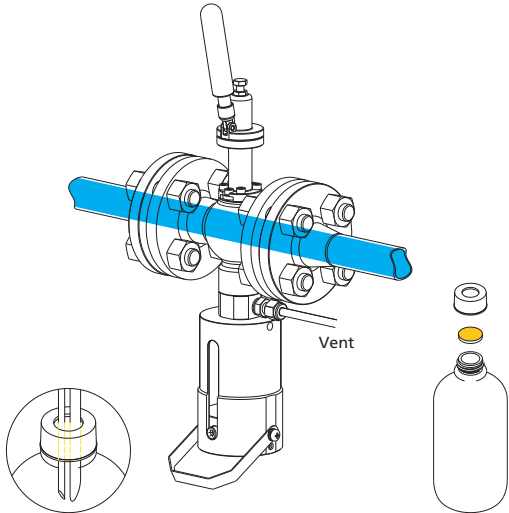
Typical Installation Mode



Operation

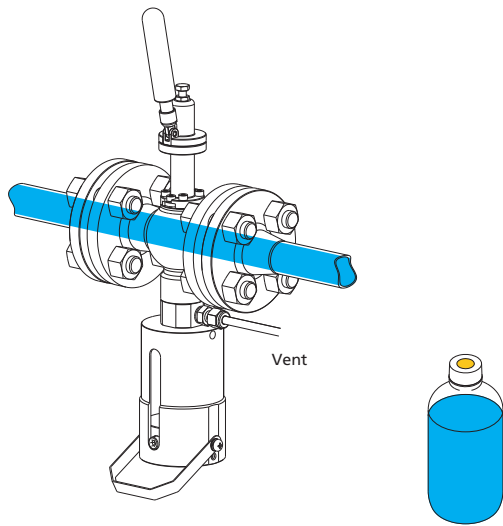
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



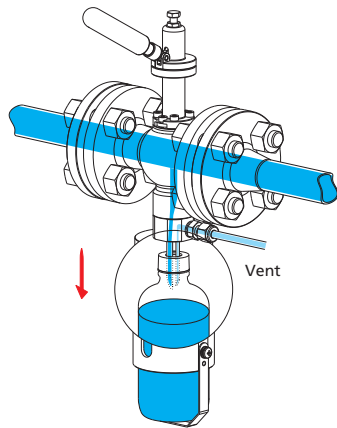
3 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



2 - Sampling

Open the in-line needle valve, allowing the sample to flow into the bottle. When the required amount has been taken, release the handle to close the valve automatically.

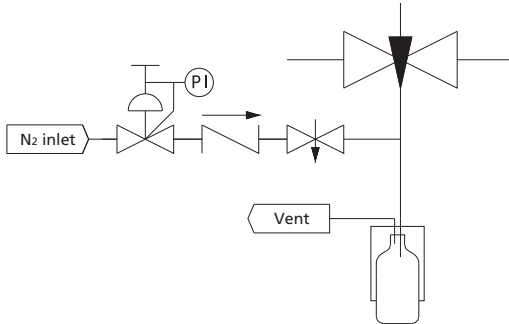


BLB3 - In-line and Continuous Needle Purge Type

Features

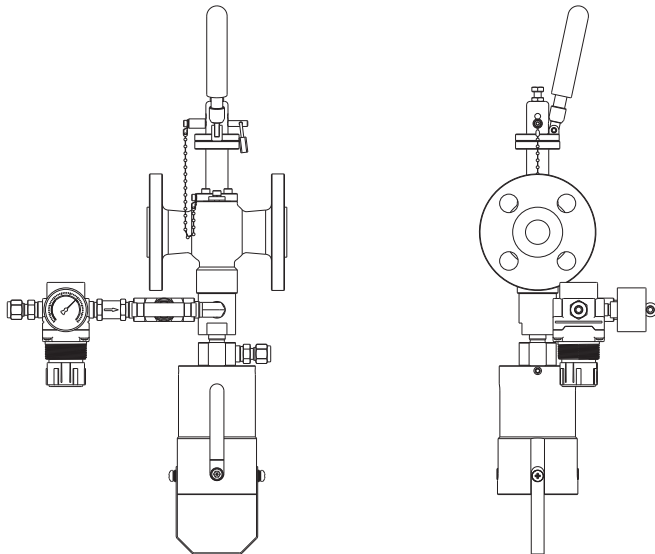
- Sampling from low pressure devices or process lines: 0-145 psig (0-10 bar)
- In-line sampling
- Sampling for viscous liquids
- Needle purge

Basic Configuration

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	In-line needle valve: PTFE packing and PCTFE seat Max. working pressure: 276 psig @ 70°F (19 bar @ 20°C) Temperature range: -18°F to 298°F (-28°C to 148°C)	
Nitrogen Branch	Nitrogen regulator	
	CV Series check valves, NB Series needle valves Pressure gauge	
Connections	Process: NPS 3/4, ANSI B16.5 Class 150 RF flange	
	Vent/purge: 1/4" tube fitting	
Others	Spring return handle, purge connection	

Note: Products of other specifications are available upon request.

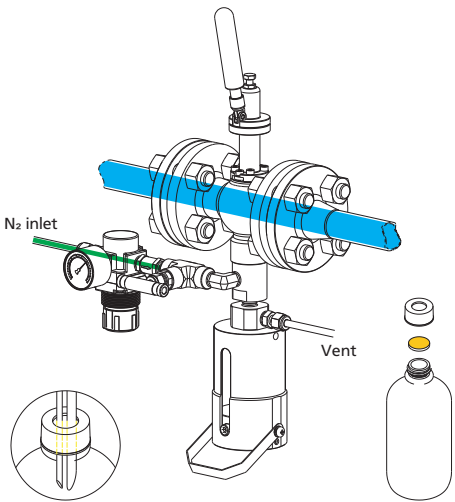
Typical Installation Mode



Operation

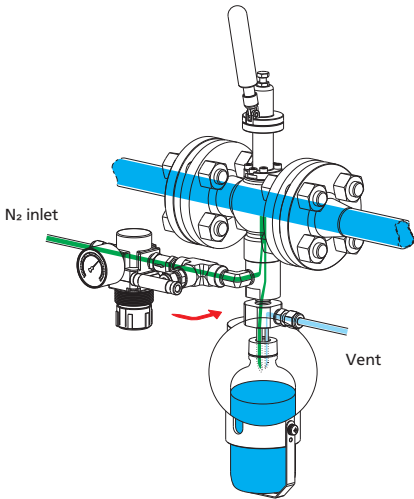
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



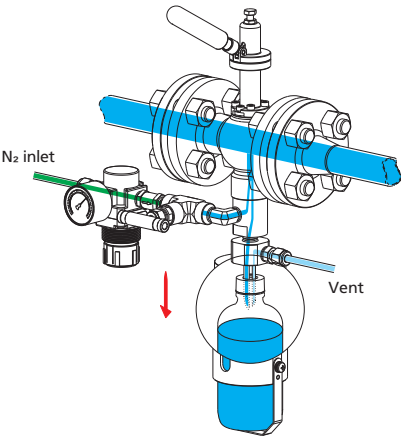
3 - Needle Purge

Open the valve on the Nitrogen branch, allowing Nitrogen to force the residual sample from the system into the bottle.



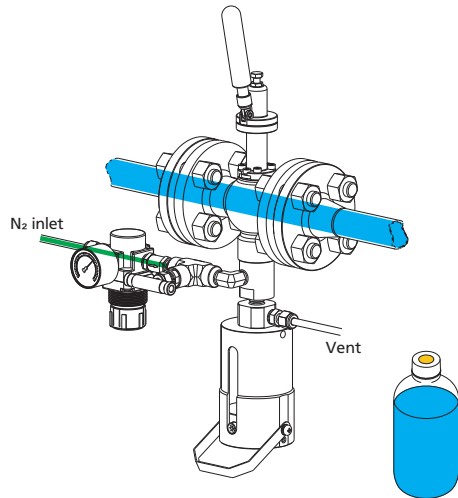
2 - Sampling

Open the in-line needle valve, allowing the sample to flow into the bottle. When the required amount has been taken, release the handle to close the valve automatically.



4 - Off

Close the valve on the Nitrogen branch. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



# C Series

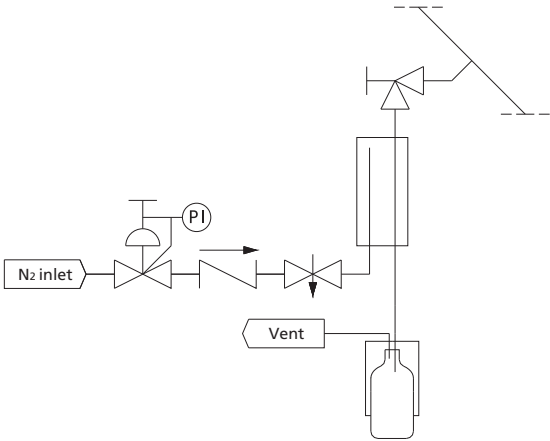
## BLC1 - Purge Type

### Features

- Sampling from vacuum, low or high pressure devices or process lines
- Sampling with a piston valve to ensure zero dead volume
- Sampling for highly viscous liquids
- Needle purge

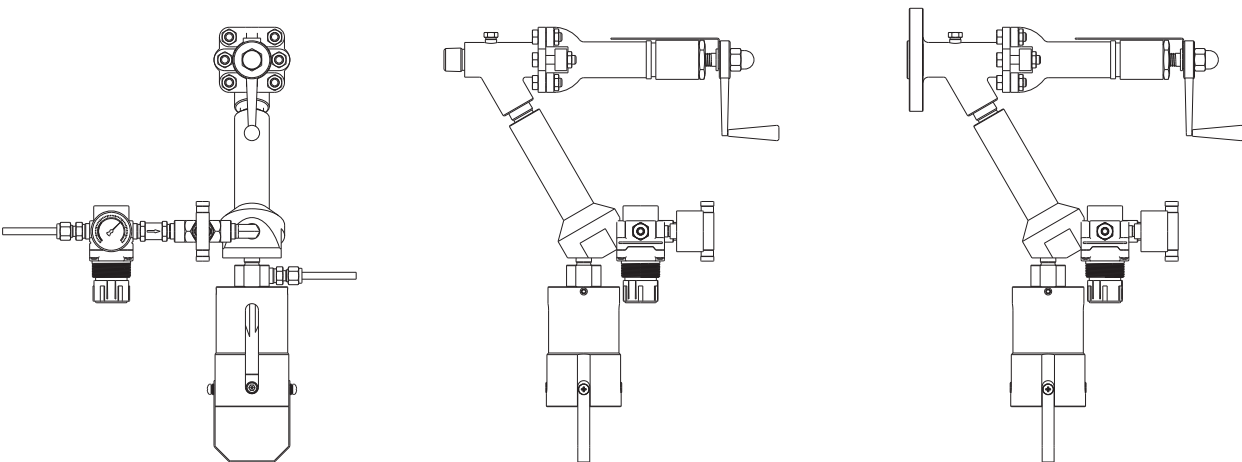
### Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	Piston valve: PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves, NB Series needle valves
	Pressure gauge
Connections	Process: 1/2" MNPT
	Vent/purge: 1/4" tube fitting



Note: Products of other specifications are available upon request.

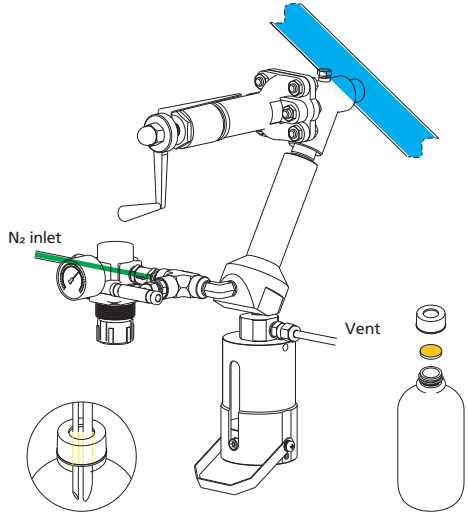
### Typical Installation Mode



### Operation

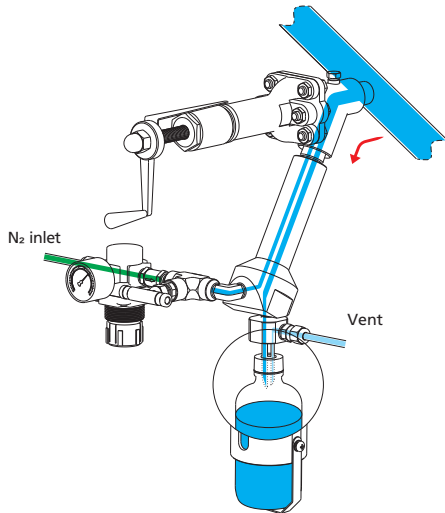
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



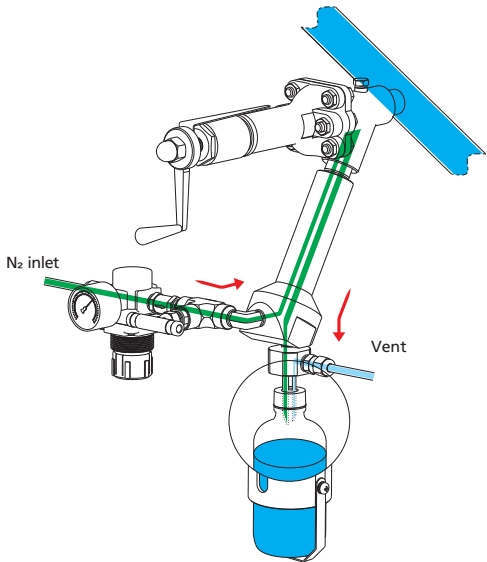
#### 2 - Sampling

Open the piston valve, allowing the sample to flow into the bottle. When the required amount has been taken, close the piston valve.



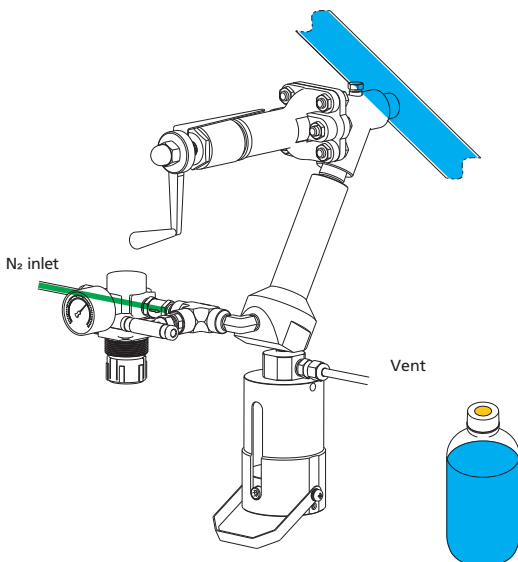
#### 3 - Needle Purge

Open the valve on the Nitrogen branch, allowing Nitrogen to force the residual sample from the system into the bottle.



#### 4 - Off

Close the valve on the Nitrogen branch. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



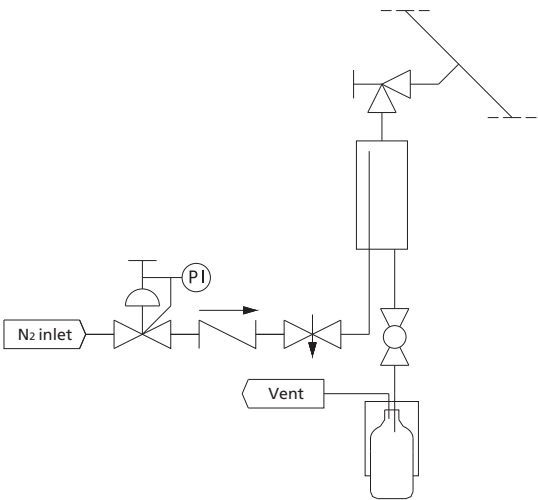
BLC2 - Fixed Volume and Purge Type

Features

- Sampling from vacuum, low or high pressure devices or process lines
- Fixed volume sampling
- Sampling with a piston valve to ensure zero dead volume
- Sampling for highly viscous liquids
- Needle purge

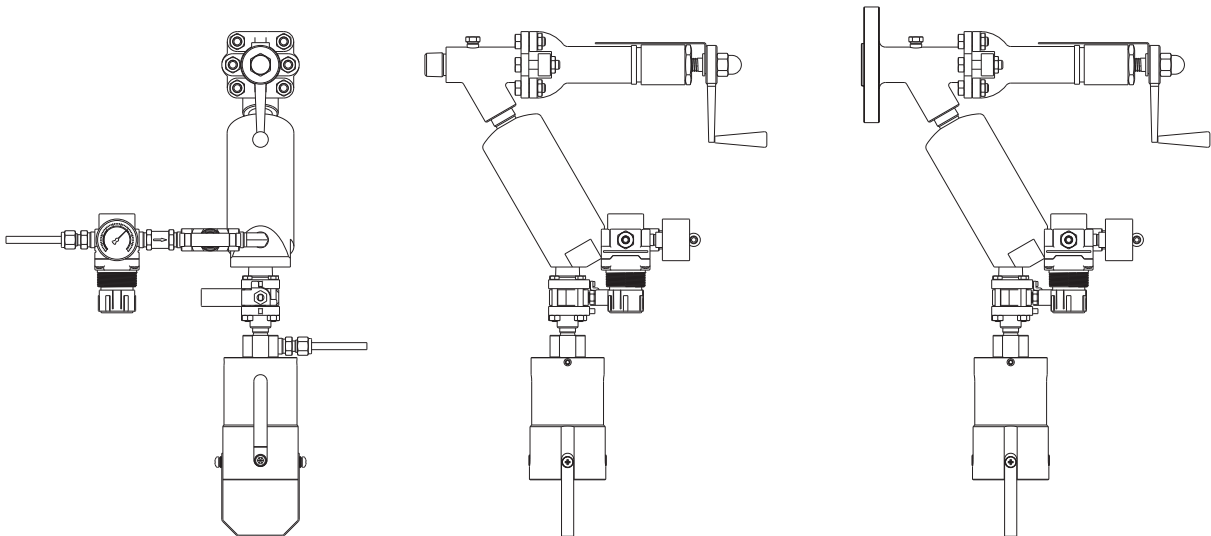
Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	Piston valve: PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves, NB Series needle valves
	Pressure gauge
Connections	Process: 1/2" MNPT
	Vent/purge: 1/4" tube fitting



Note: Products of other specifications are available upon request.

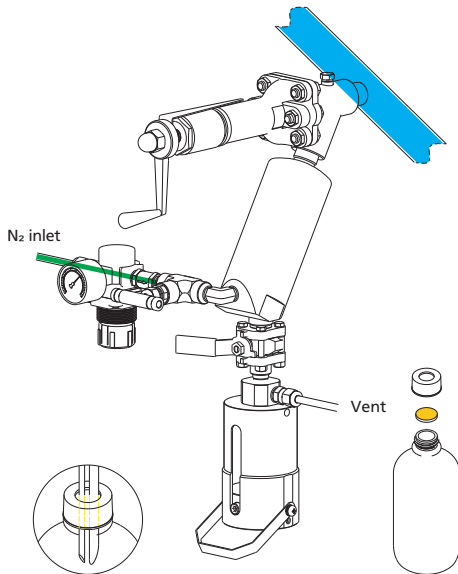
Typical Installation Mode



Operation

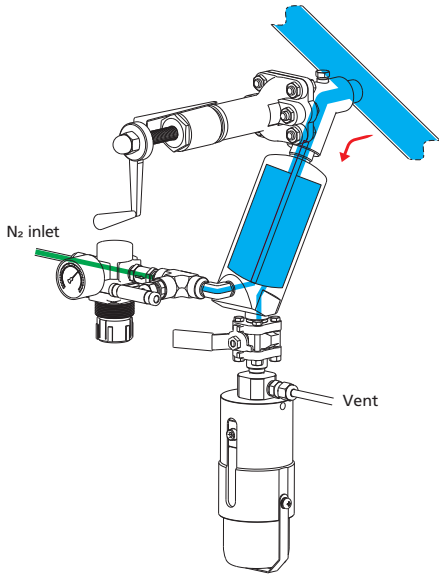
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



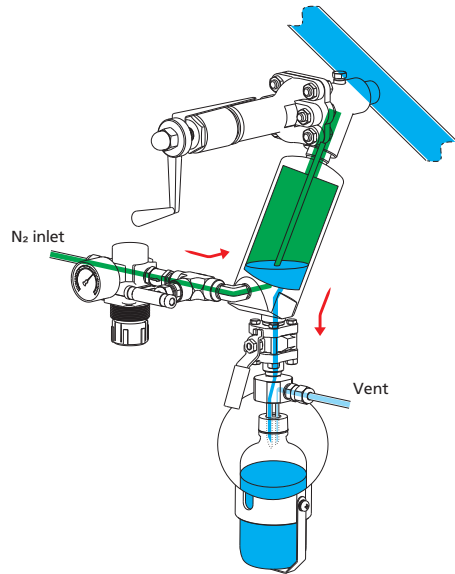
2 - Pre-sampling

Open the piston valve, allowing the sample to flow into the sample chamber. The amount of sample depends on the sample chamber volume and process pressure. Close the piston valve.



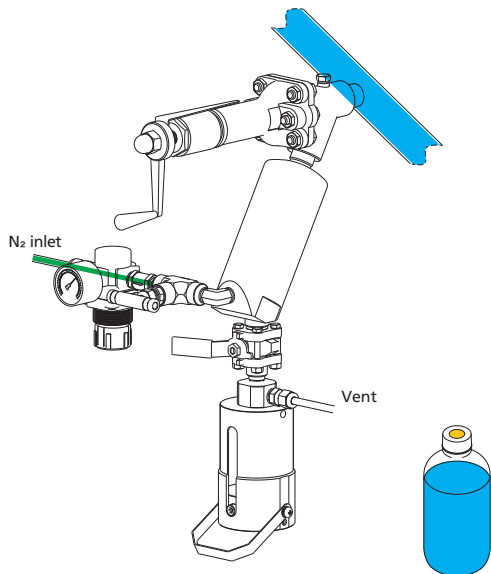
3 - Sampling

Open the valve on the Nitrogen branch and the valve above the needle assembly, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the system.



4 - Off

Close the valve on the Nitrogen branch and the valve above the needle assembly. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





# BLC3 - Fixed Volume Type with Heating/Cooling Jacket

## Features

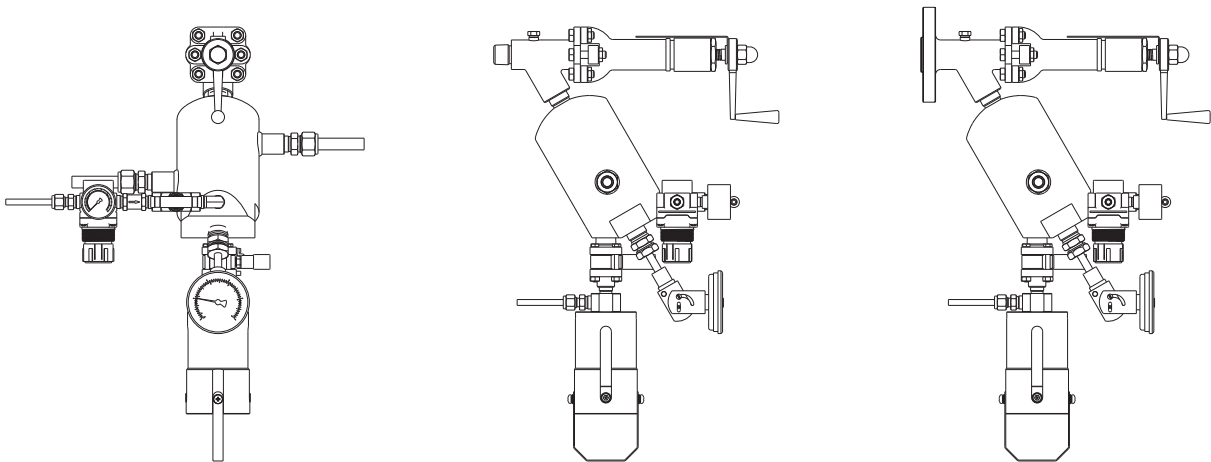
- Sampling from vacuum, low or high pressure devices or process lines
- Fixed volume sampling
- Sampling with a piston valve to ensure zero dead volume
- Sampling for highly viscous liquids
- Heating/cooling jacket to ensure sampling within a certain range of temperature
- Needle purge

## Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	Piston valve: PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves, NB Series needle valves
	Pressure gauge
Connections	Process: 1/2" MNPT
	Vent/purge: 1/4" tube fitting
	Heating/cooling: 3/8" FNPT
Others	Heating/cooling jacket, sample chamber (200 ml), thermometer, BH Series ball valves

Note: Products of other specifications are available upon request.

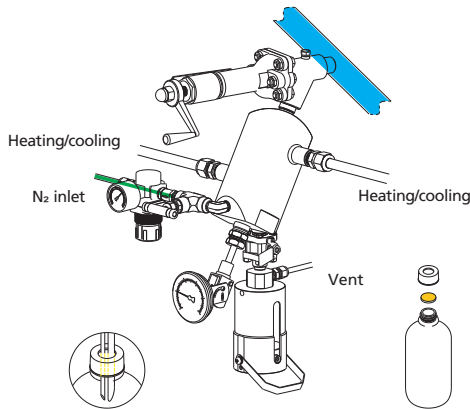
## Typical Installation Mode



## Operation

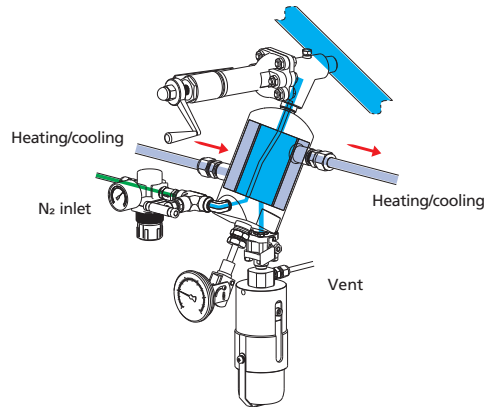
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



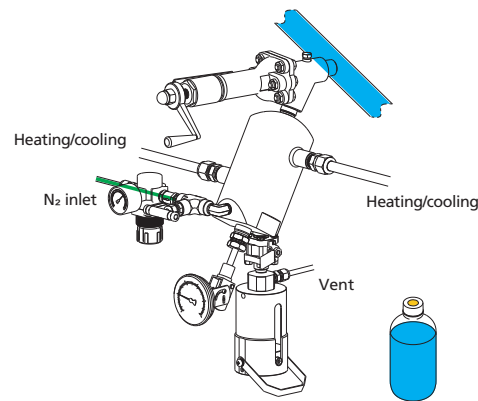
### 3 - Heating/cooling

Allow the heating/cooling fluid to flow through the heating/cooling jacket. Hold for a sufficient time until the sample reaches the required temperature.



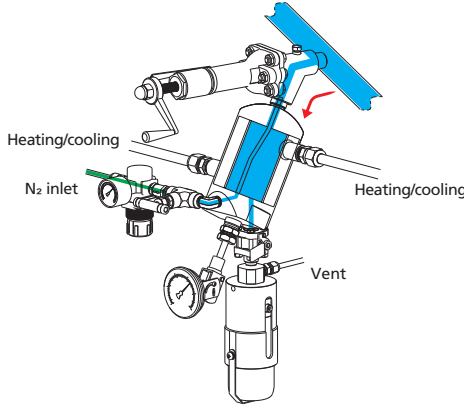
### 5 - Off

Close the valve on the Nitrogen branch and the valve above the needle assembly. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



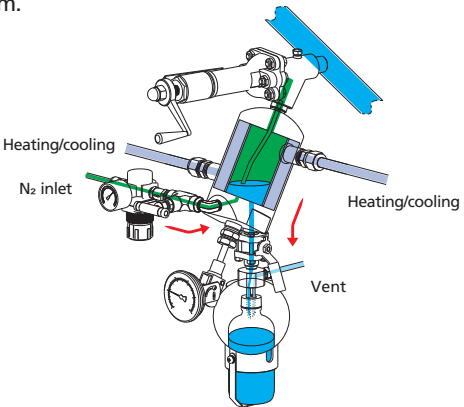
### 2 - Pre-sampling

Open the piston valve, allowing the sample to flow into the sample chamber. The amount of sample depends on the sample chamber volume and process pressure. Close the piston valve.



### 4 - Sampling

Open the valve on the Nitrogen branch and the valve above the needle assembly, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the system.

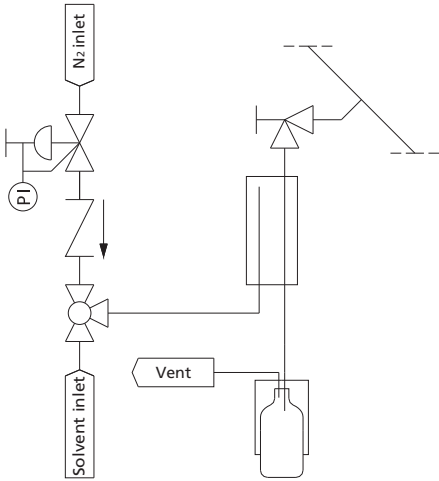


# BLC4 - Solvent Purge Type

## Features

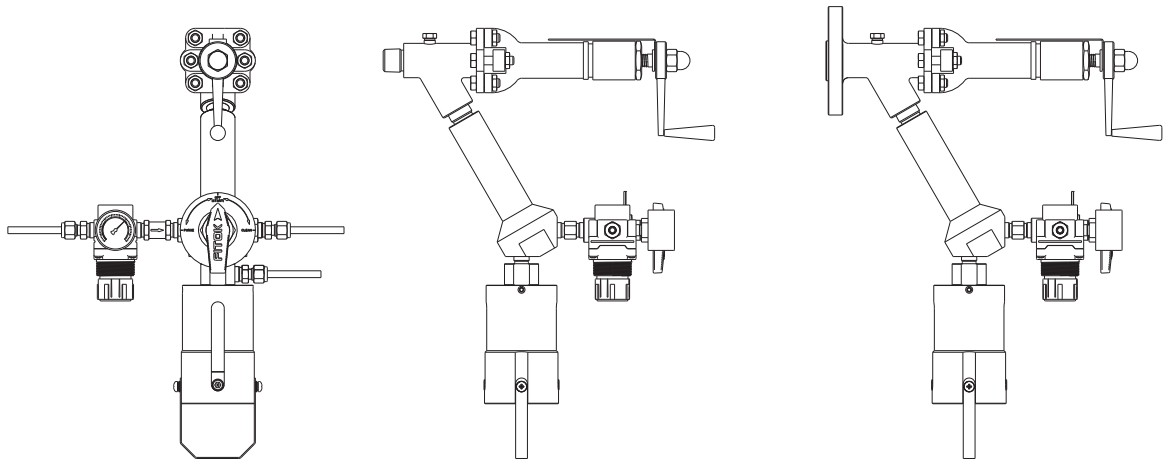
- Sampling from vacuum, low or high pressure devices or process lines
- Sampling with a piston valve to ensure zero dead volume
- Sampling for highly viscous liquids
- Needle purge and solvent purge

## Basic Configuration

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	Piston valve: PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Purge Branch	Nitrogen regulator	
	CV Series check valves, BF Series 3-way ball valves	
	Pressure gauge	
Connections	Process: 1/2" MNPT	
	Vent/purge/solvent: 1/4" tube fitting	

Note: Products of other specifications are available upon request.

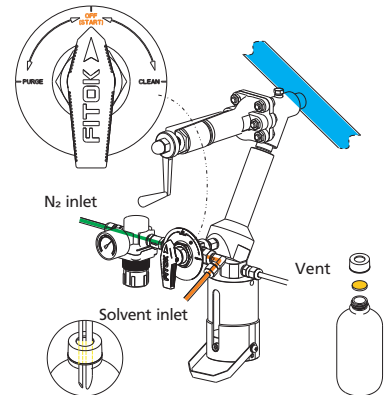
## Typical Installation Mode



## Operation

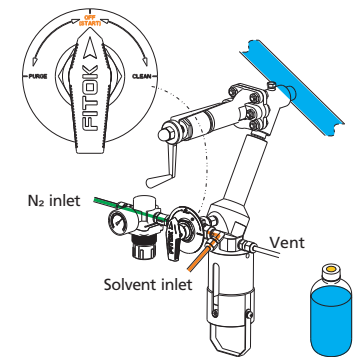
### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



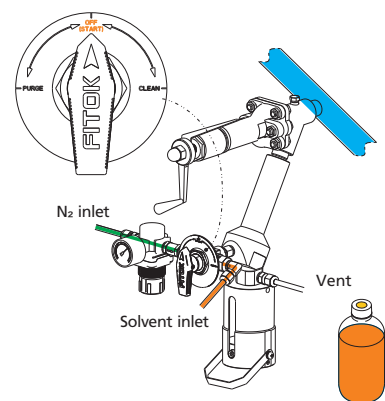
### 4 - Off

Turn the handle to the "OFF" position. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically.



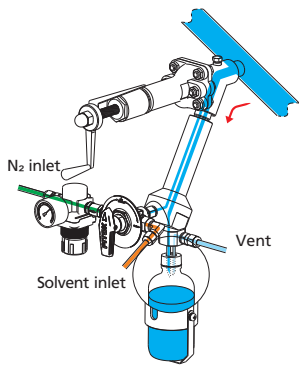
### 7 - Off

Turn the handle to the "OFF" position. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete solvent purging process.



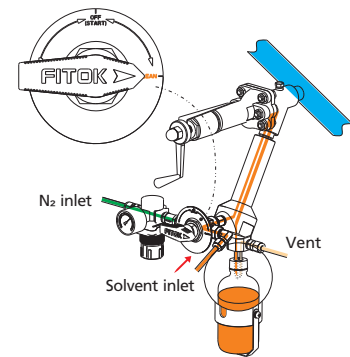
### 2 - Sampling

Open the piston valve, allowing the sample to flow into the bottle. When the required amount has been taken, close the piston valve.



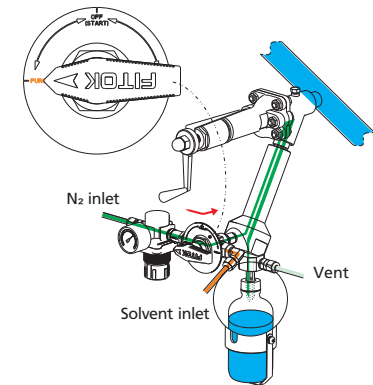
### 5 - Solvent Purge

Replace the bottle with a new one. Turn the handle to the "CLEAN" position, allowing the solvent to flow through the system into the bottle.



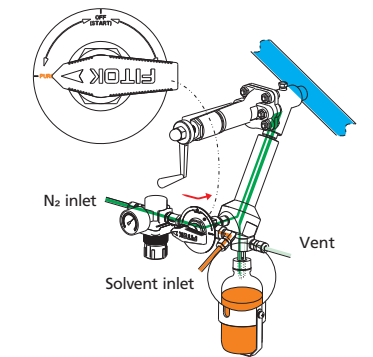
### 3 - Nitrogen Purge

Turn the handle to the "PURGE" position, allowing Nitrogen to force the residual sample from the system into the bottle.



### 6 - Nitrogen Purge

Turn the handle to the "PURGE" position, allowing Nitrogen to force the residual solvent from the system into the sample bottle.





D Series

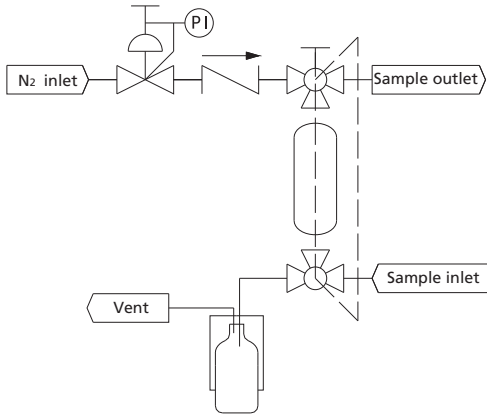
BLD1 - Threaded Connection Type

Features

- Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- System purge and needle purge
- Easy operation with a single handle by linkage valve

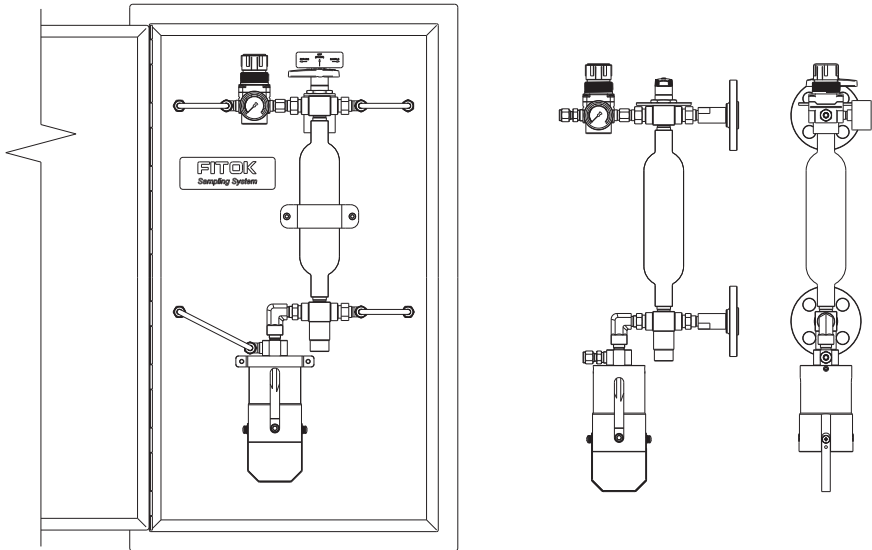
Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves (rod linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Connections	1/4" FNPT
Others	Sample chamber (200 ml)



Note: Products of other specifications are available upon request.

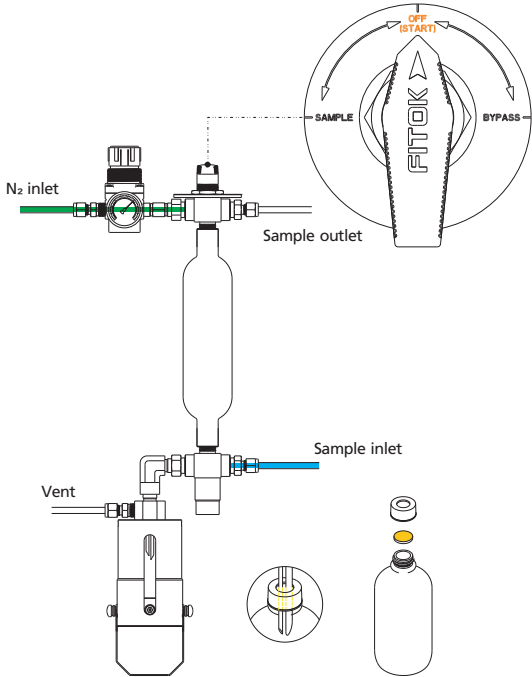
Typical Installation Mode



Operation

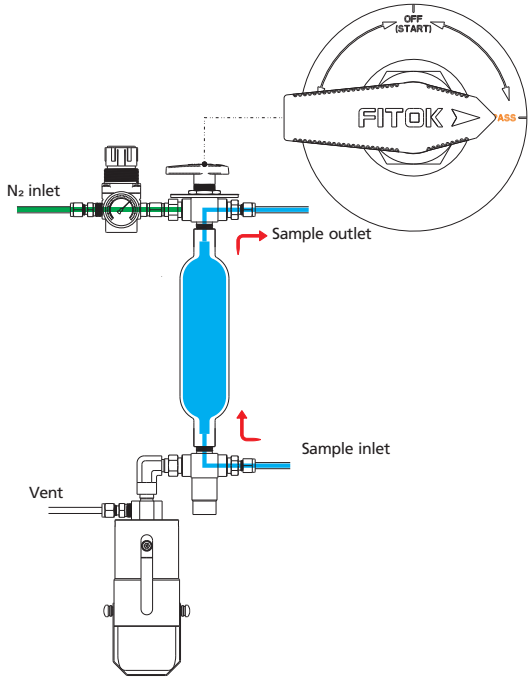
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



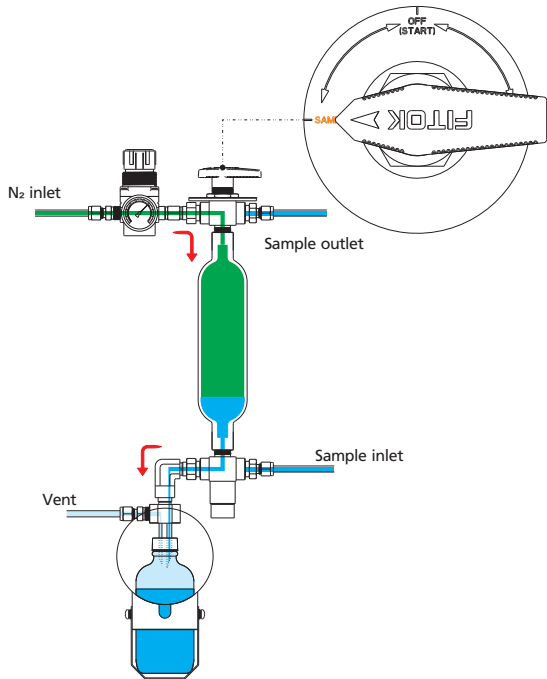
2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the sample chamber. Hold for a period of time to ensure representative sampling.



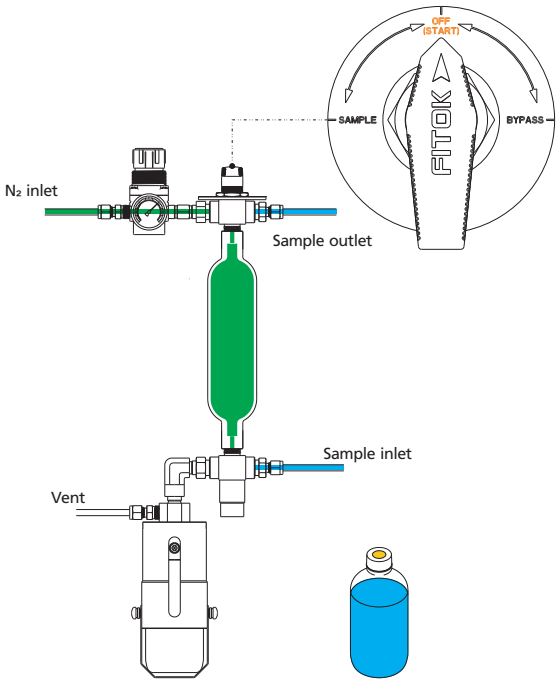
3 - Sampling

Turn the handle to the "SAMPLE" position, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the sample chamber and needle assembly. The amount of sample depends on the sample chamber volume.



4 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



BLD2 - Continuous Needle Purge Type

Features

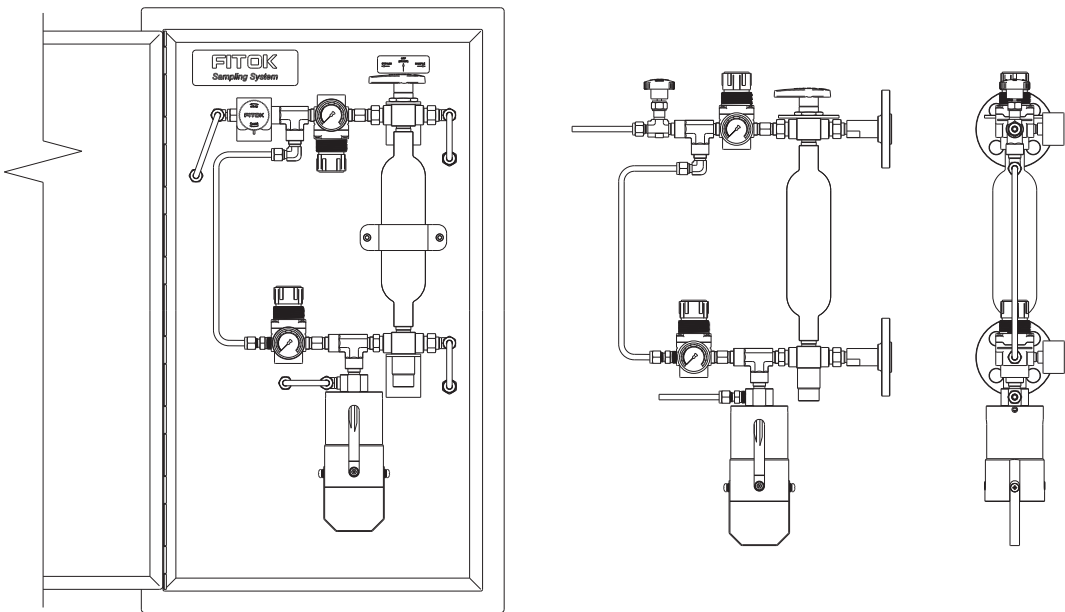
- Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- Continuous needle purge and system purge
- Easy operation with a single handle by linkage valve

Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves (rod linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves, NB series needle valves
	Pressure gauge
Connections	1/4" tube fitting
Others	Sample chamber (200 ml)

Note: Products of other specifications are available upon request.

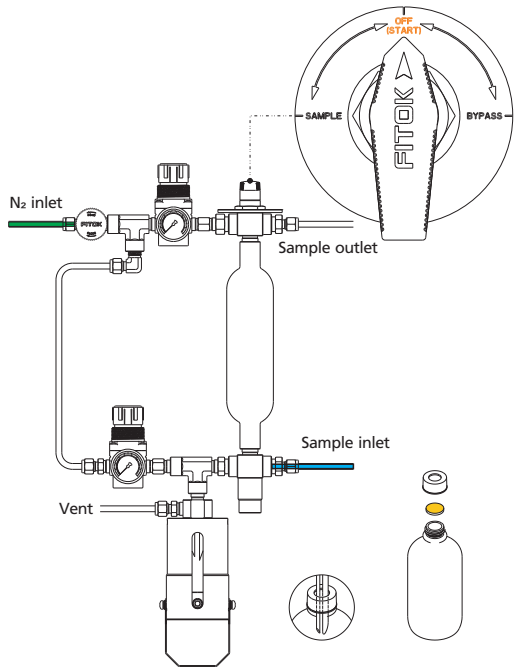
Typical Installation Mode



Operation

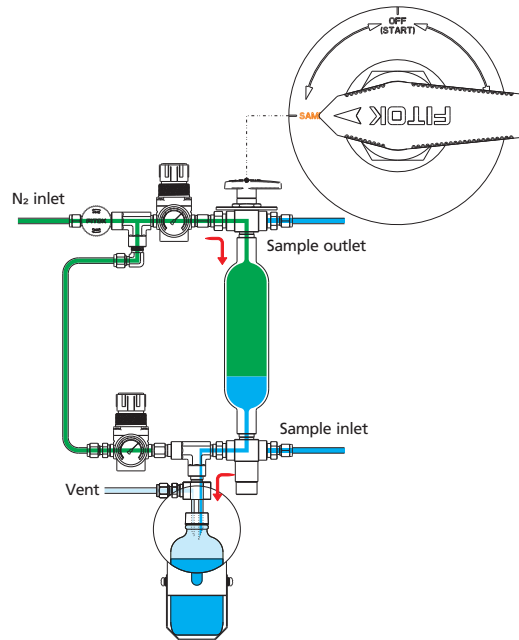
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



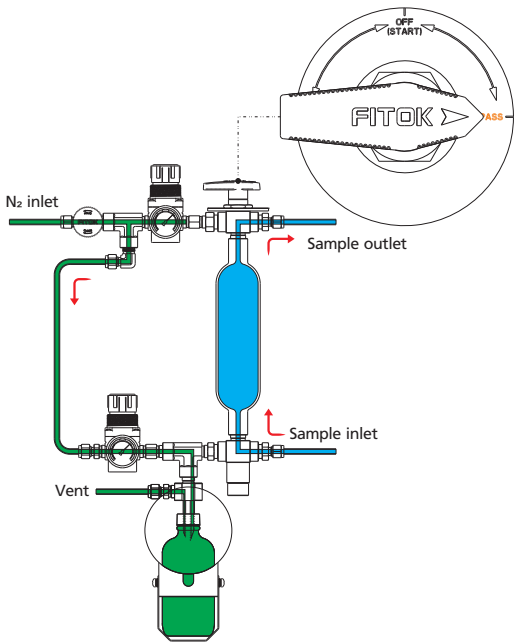
3 - Sampling

Turn the handle to the "SAMPLE" position, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the sample chamber and needle assembly. The amount of sample depends on the sample chamber volume.



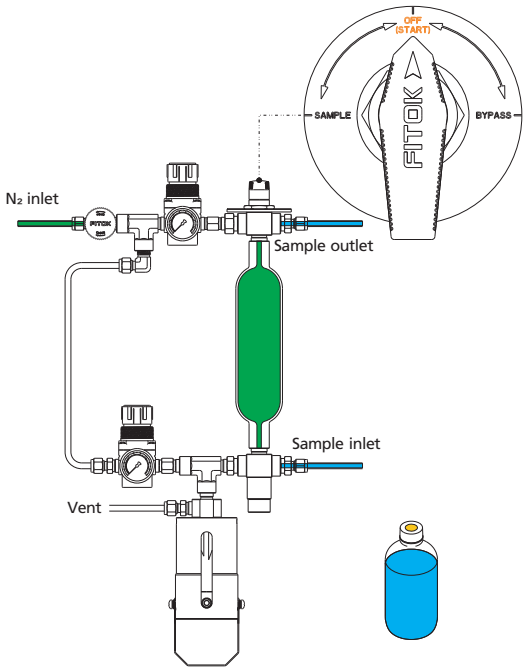
2 - Needle Purge and System Purge

Open the needle valve, allowing Nitrogen to purge the needle assembly and bottle continuously. Turn the handle to the "BYPASS" position to allow a continuous flow of sample through the sample chamber. Hold for a period of time to ensure representative sampling.



4 - Off

Close the needle valve. Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



BLD3 - Heating/Cooling Type

Features

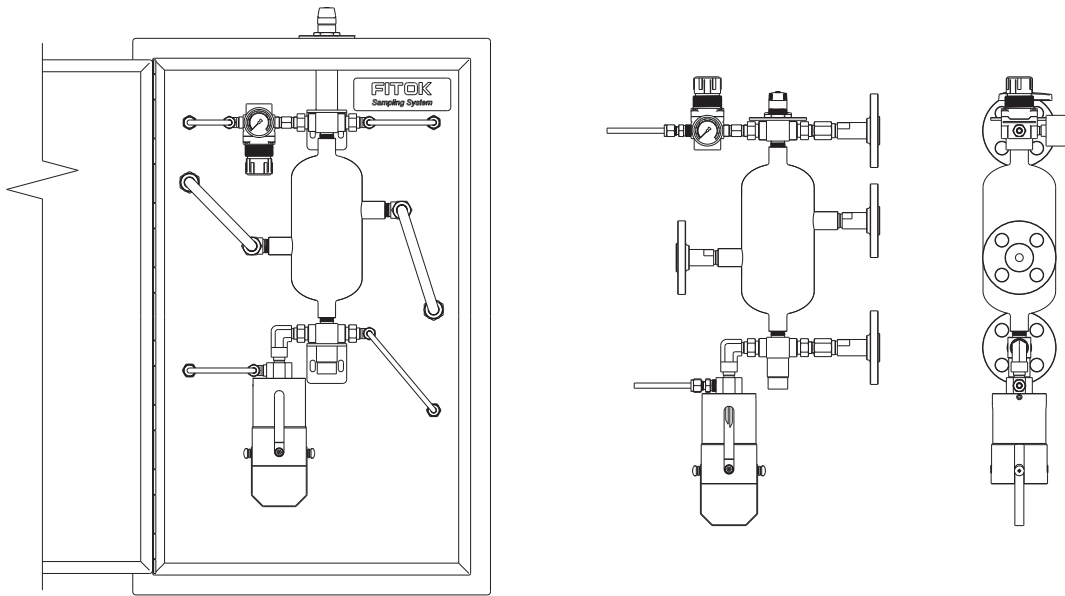
- Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- System purge and needle purge
- Heating/cooling jacket to ensure sampling within a certain range of temperature
- Easy operation with a single handle by linkage valve

Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves (rod linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Connections	Process/vent/purge: 1/4" tube fitting
	Heating/cooling: 3/8" FNPT
Others	Heating/cooling jacket, sample chamber (200 ml)

Note: Products of other specifications are available upon request.

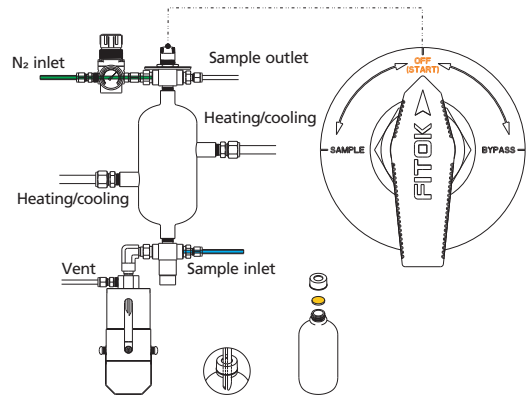
Typical Installation Mode



Operation

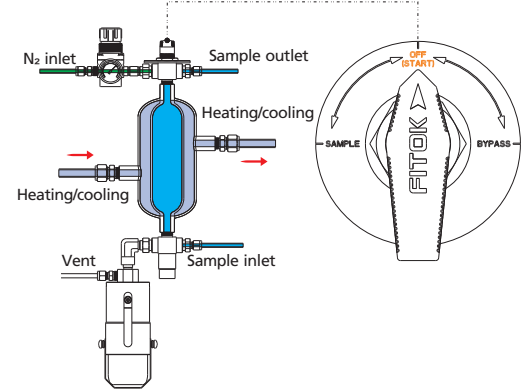
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



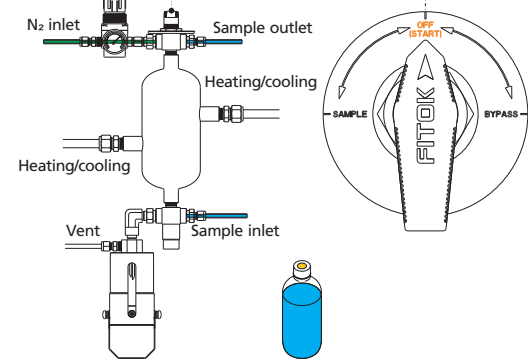
3 - Heating/cooling

Turn the handle to the "OFF" position, allowing the heating/cooling fluid to flow through the heating/cooling jacket. Hold for a sufficient time until the sample reaches the required temperature.



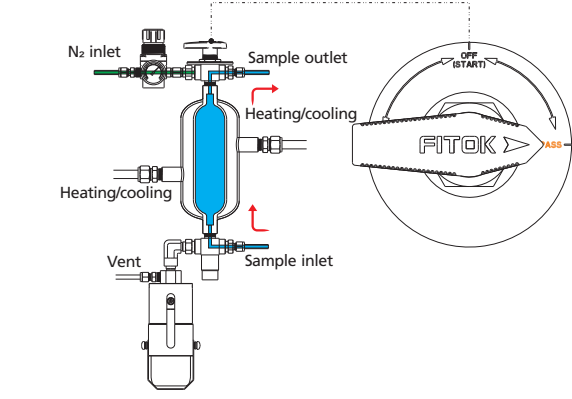
5 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the sample bottle from the sleeve. The septum reseals automatically to complete the sampling process.



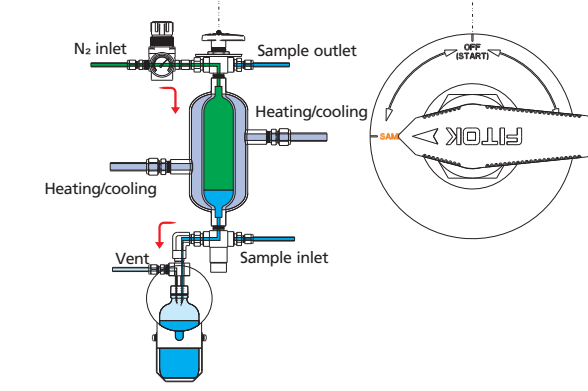
2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the sample chamber. Hold for a period of time to ensure representative sampling.



4 - Sampling

Turn the handle to the "SAMPLE" position, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the sample chamber and needle assembly. The amount of sample depends on the sample chamber volume.

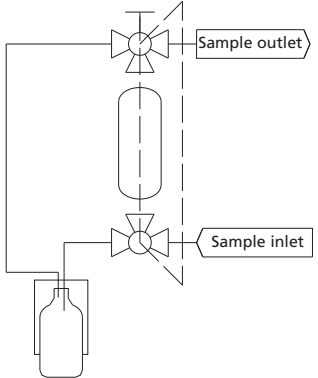


## BLD4 - Sampling by Gravity Type

### Features

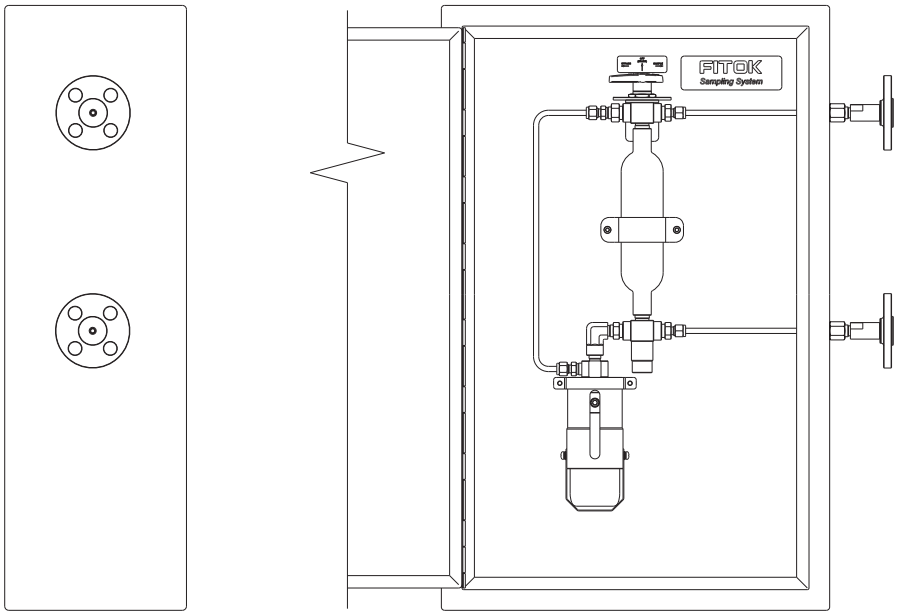
- Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- System purge
- Sampling by gravity without Nitrogen purge
- Easy operation with a single handle by linkage valve

### Basic Configuration

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves (rod linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Connections	1/4" tube fitting	
Others	Sample chamber (200 ml)	

Note: Products of other specifications are available upon request.

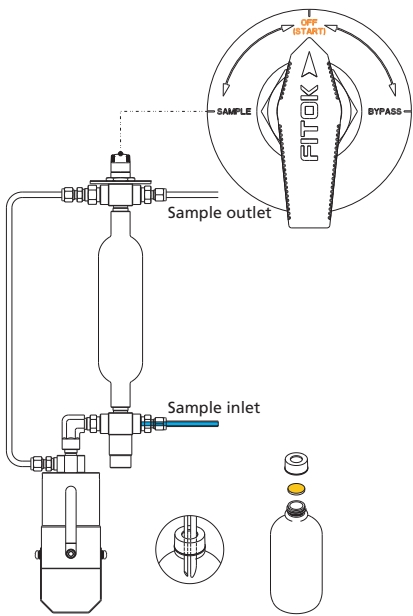
### Typical Installation Mode



### Operation

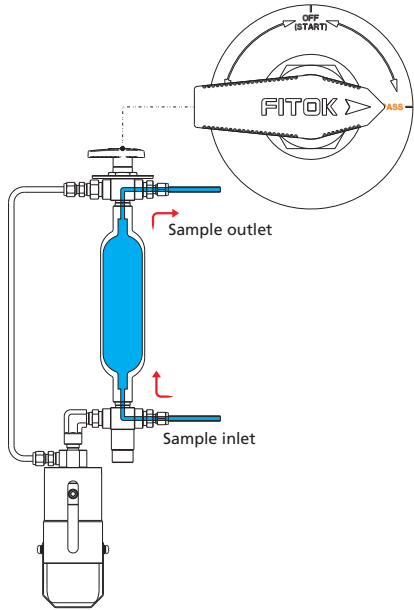
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



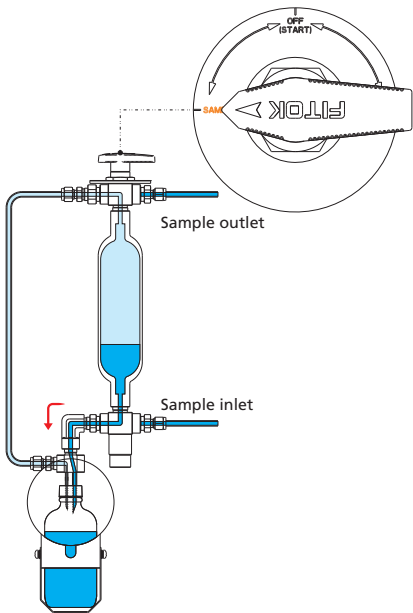
#### 2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the sample chamber. Hold for a period of time to ensure representative sampling.



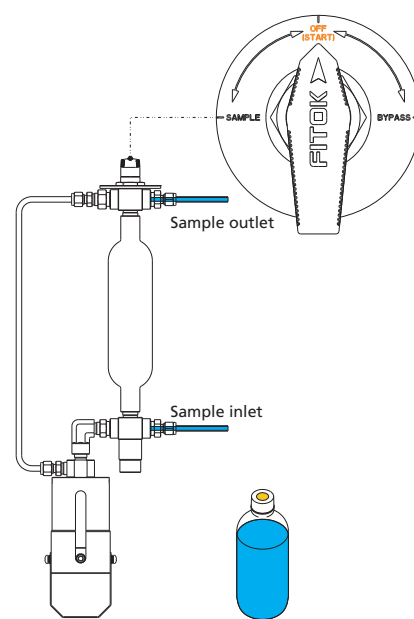
#### 3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle by gravity. Hold this position for a sufficient time. The amount of sample depends on the sample chamber volume.



#### 4 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



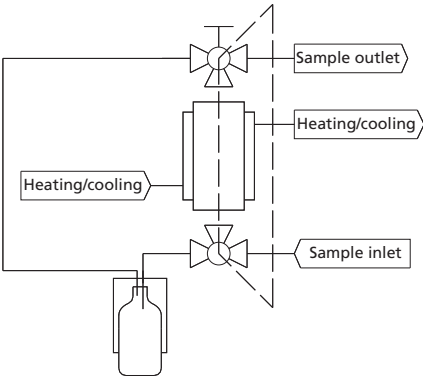
BLD5- Sampling by Gravity Type with Heating/Cooling Jacket

Features

- Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- System purge
- Sampling by gravity without Nitrogen purge
- Heating/cooling jacket to ensure sampling within a certain range of temperature
- Easy operation with a single handle by linkage valve

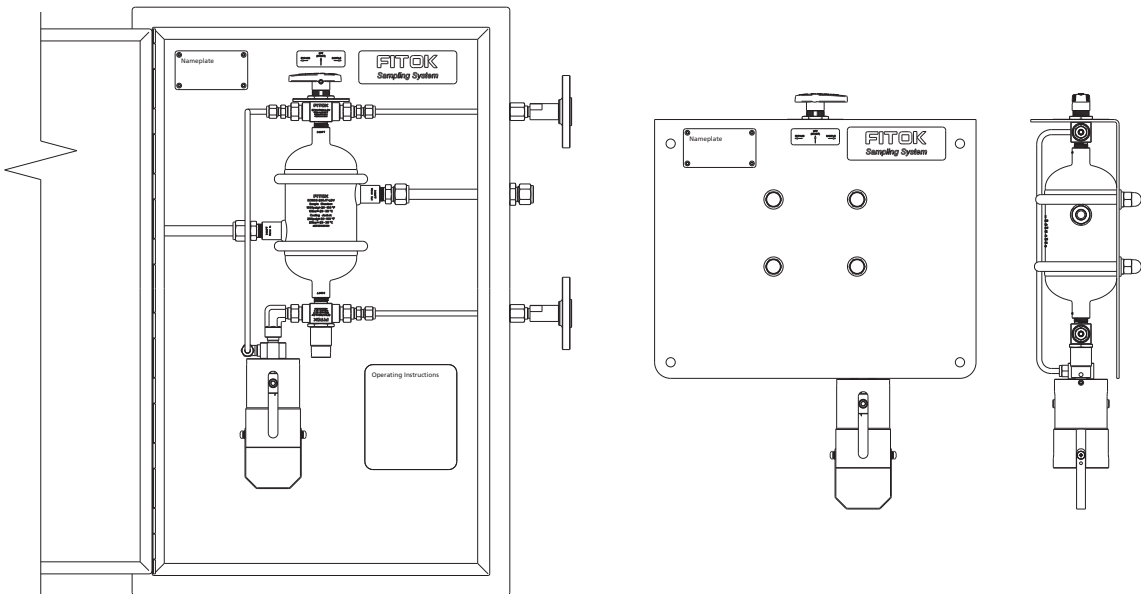
Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves (rod linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Connections	Process: 1/4" tube fitting Heating/cooling: 3/8" FNPT
Others	Heating/cooling jacket, sample chamber (200 ml)



Note: Products of other specifications are available upon request.

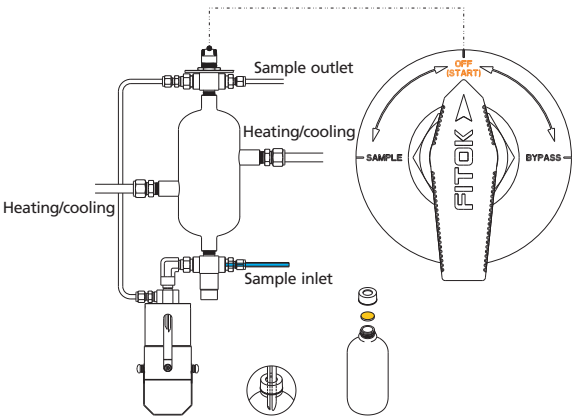
Typical Installation Mode



Operation

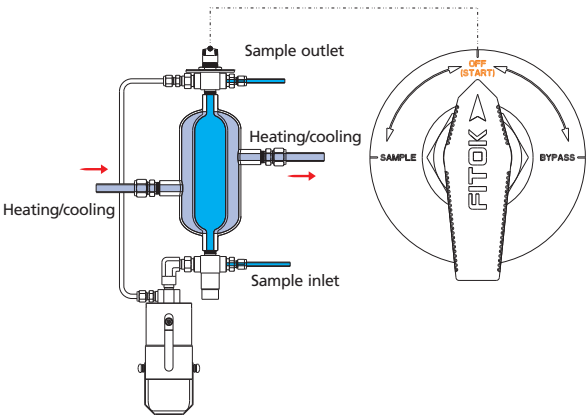
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



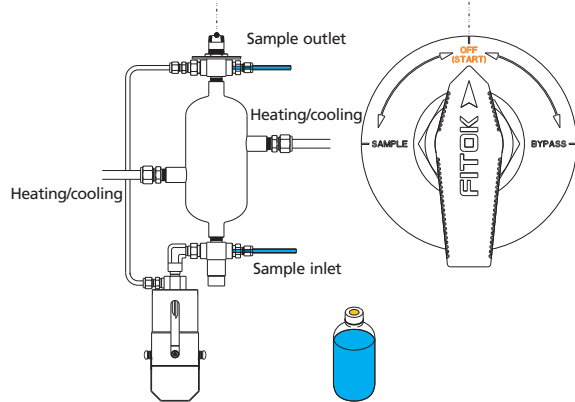
3 - Heating/cooling

Turn the handle to the "OFF" position, allowing the heating/cooling fluid to flow through the heating/cooling jacket. Hold for a sufficient time until the sample reaches the required temperature.



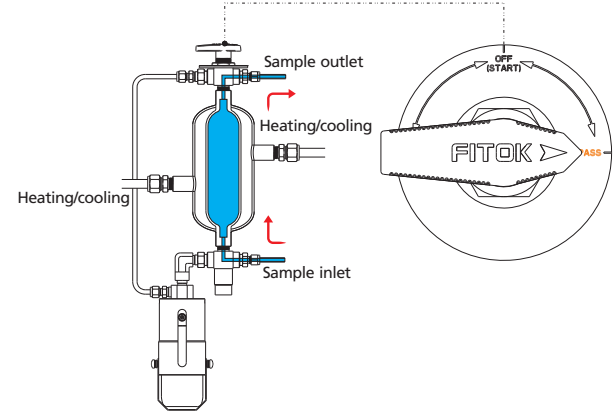
5 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



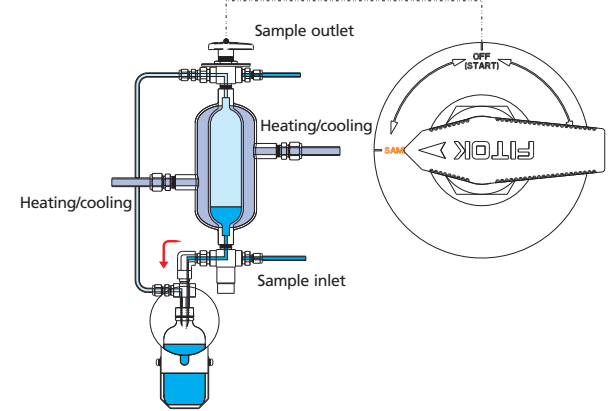
2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the sample chamber. Hold for a period of time to ensure representative sampling.



4 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle by gravity. Hold this position for a sufficient time. The amount of sample depends on the sample chamber volume.





E Series

BLE1 - Back Purge Type with Vacuum Connection

Features

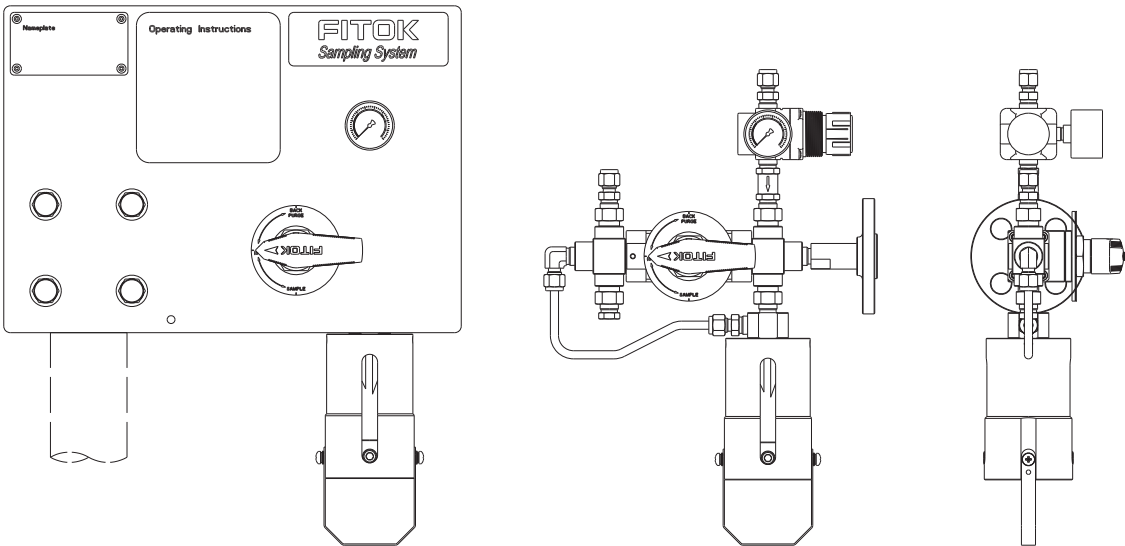
- Sampling from process lines at atmospheric pressure or vacuum condition
- Back purge
- Easy operation with a single handle by linkage valve

Basic Configuration

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Nitrogen Branch	Nitrogen regulator CV Series check valves Pressure gauge	
Connections	1/4" tube fitting	

Note: Products of other specifications are available upon request.

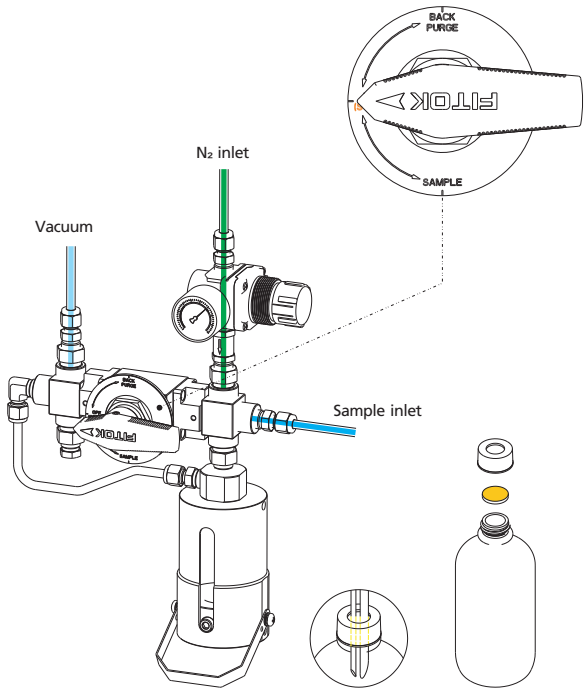
Typical Installation Mode



Operation

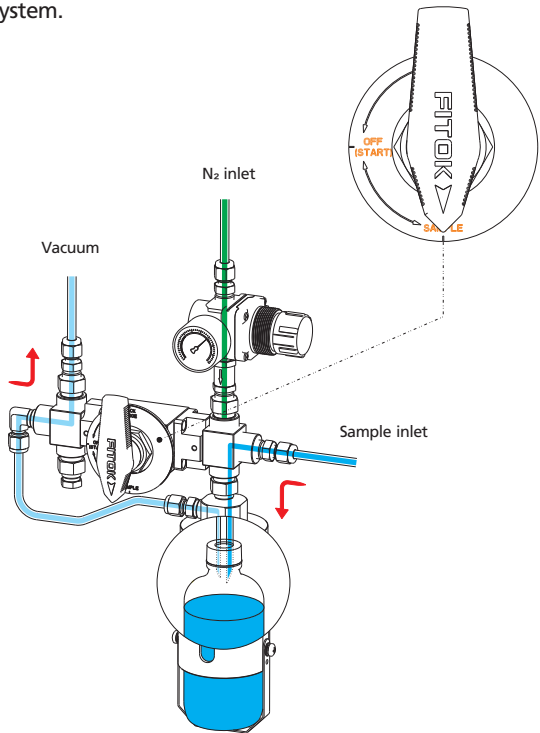
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



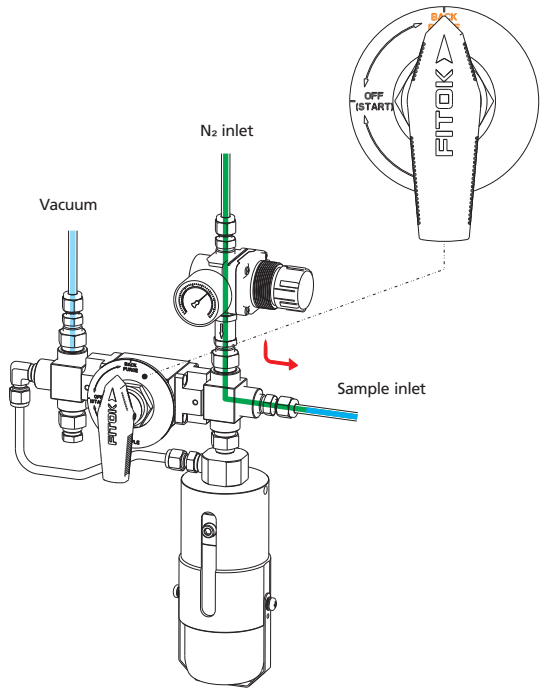
3 - Sampling

Turn the handle to the "SAMPLE" position, connecting the bottle with the vacuum connection to create a vacuum in the sample bottle. The sample flows into the bottle. When the required amount has been taken, turn the handle to the "OFF" position to close the sampling system.



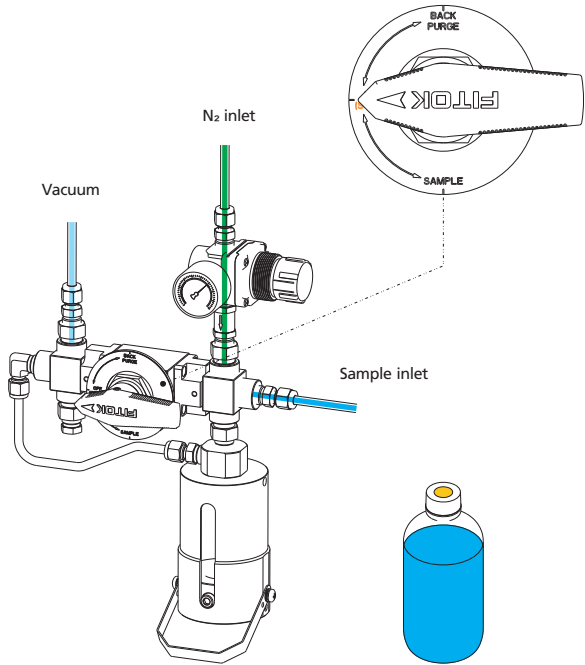
2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



4 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



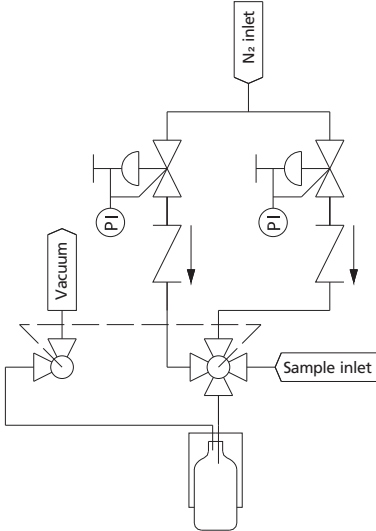
BLE2 - Back and Needle Purge Type with Vacuum Connection

Features

- Sampling from process lines at atmospheric pressure or vacuum condition
- Back purge and needle purge
- Easy operation with a single handle by linkage valve

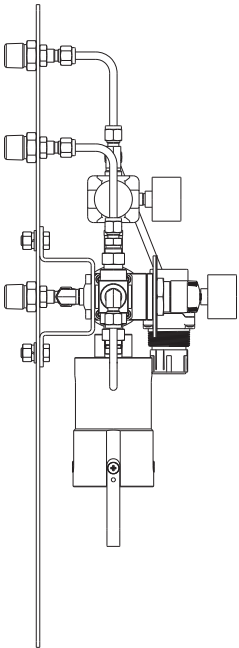
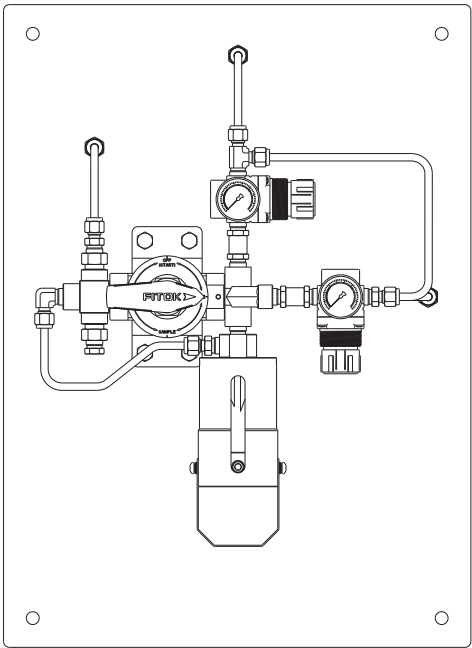
Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves and BO Series 4-way ball valves (gearbox linkage): PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 300°F (-18°C to 148°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Connections	1/4" tube fitting



Note: Products of other specifications are available upon request.

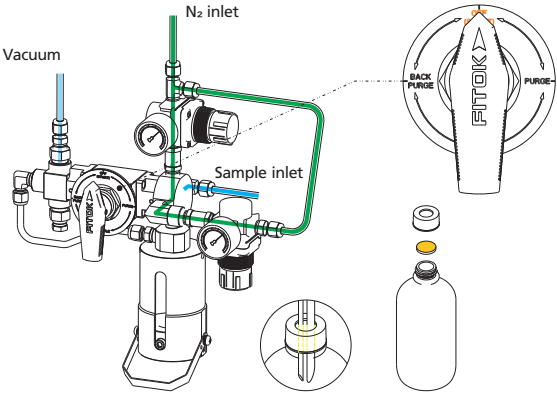
Typical Installation Mode



Operation

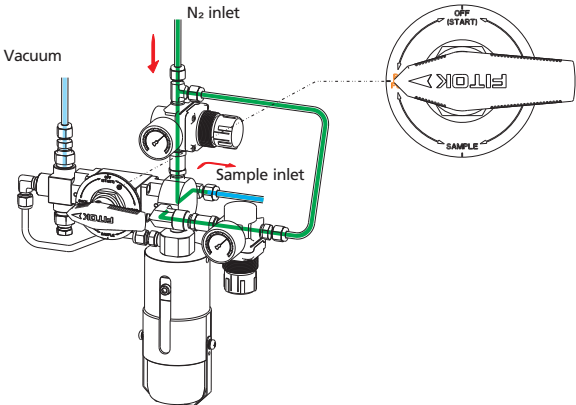
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



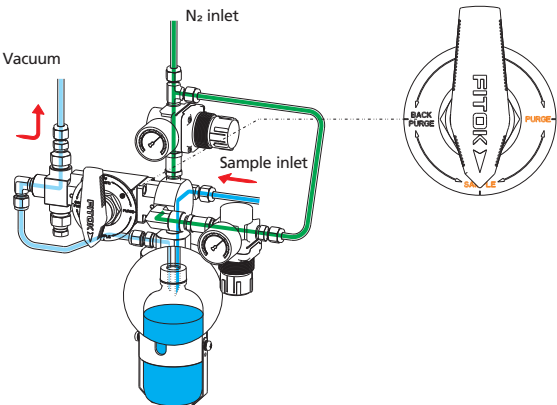
2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



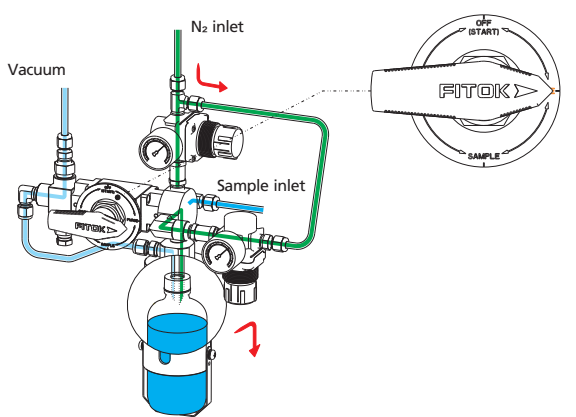
3 - Sampling

Turn the handle to the "SAMPLE" position, connecting the bottle with the vacuum connection to create a vacuum in the sample bottle. The sample flows into the bottle. When the required amount has been taken, turn the handle to the "PURGE" position.



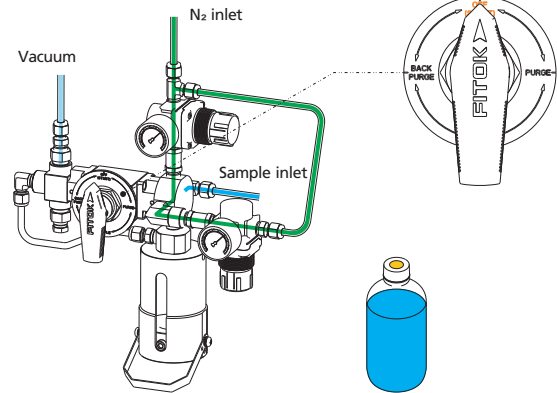
4 - Needle Purge

Allow Nitrogen to force the residual sample from the needle assembly into the bottle. Hold this position for a sufficient time.



5 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





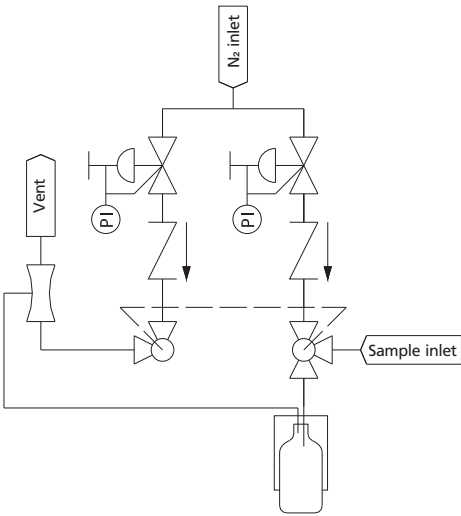
BLE3 - Back Purge Type with Venturi Unit

Features

- Sampling from process lines at atmospheric pressure or vacuum condition
- Back purge
- Easy operation with a single handle by linkage valve

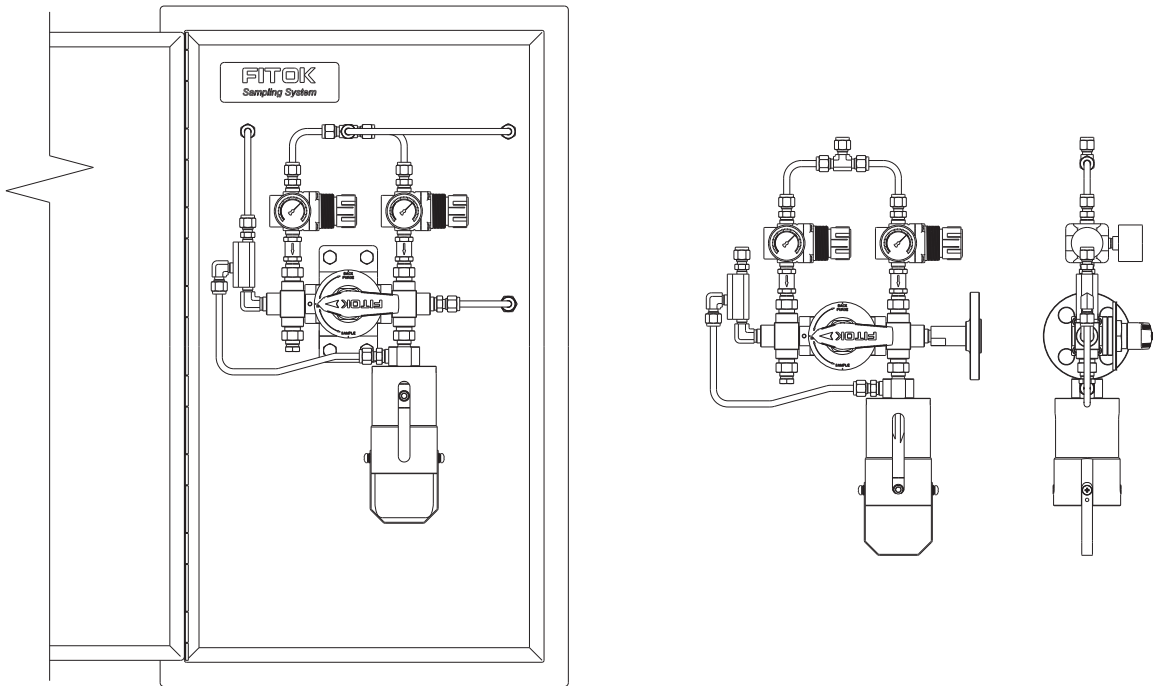
Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Venturi Unit	Creating a vacuum in the sample bottle; sampling at atmospheric pressure or vacuum condition
Connections	1/4" tube fitting



Note: Products of other specifications are available upon request.

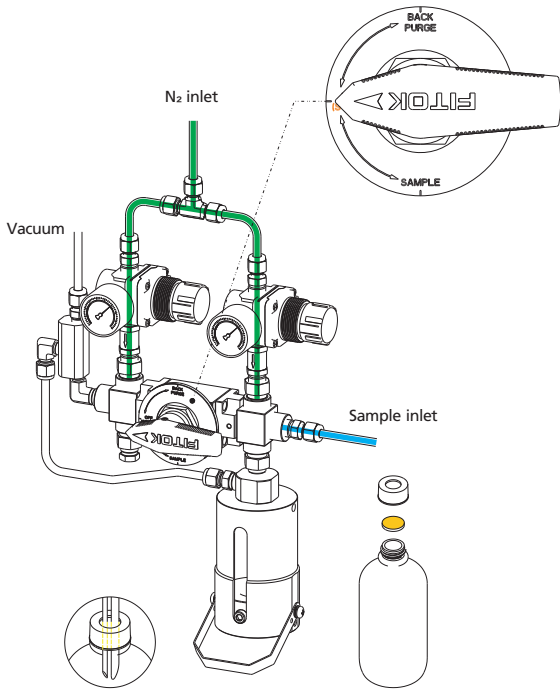
Typical Installation Mode



Operation

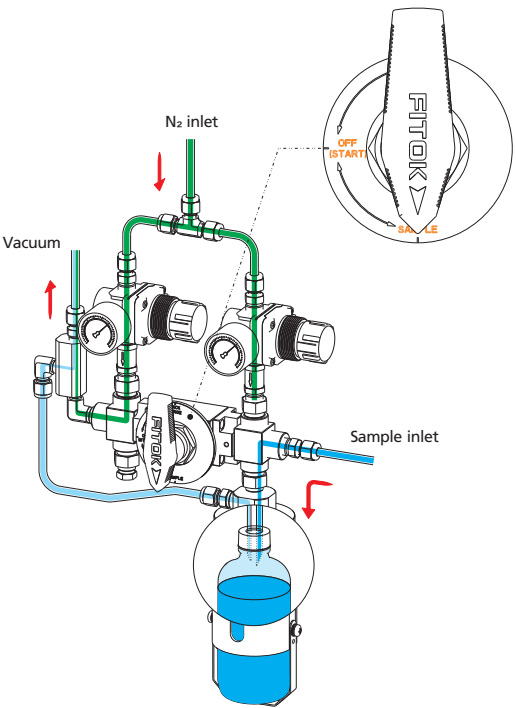
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



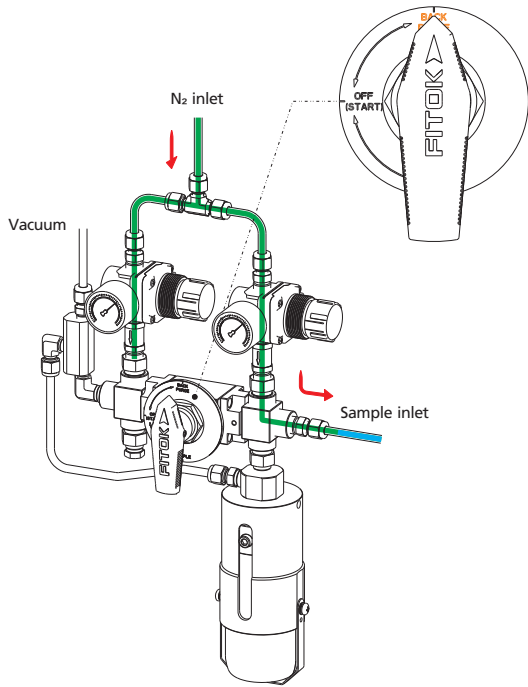
3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle vacuumized by the venturi unit. When the required amount has been taken, turn the handle to the "OFF" position.



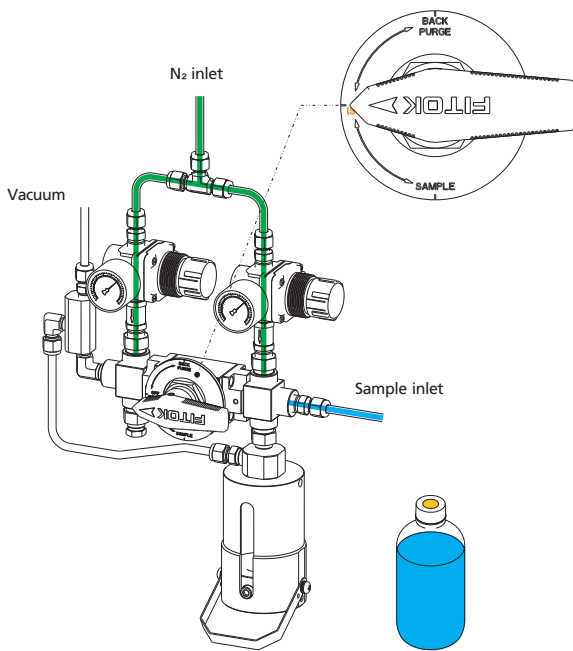
2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



4 - Off

Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



BLE4 - Back and Needle Purge Type with Venturi Unit

Features

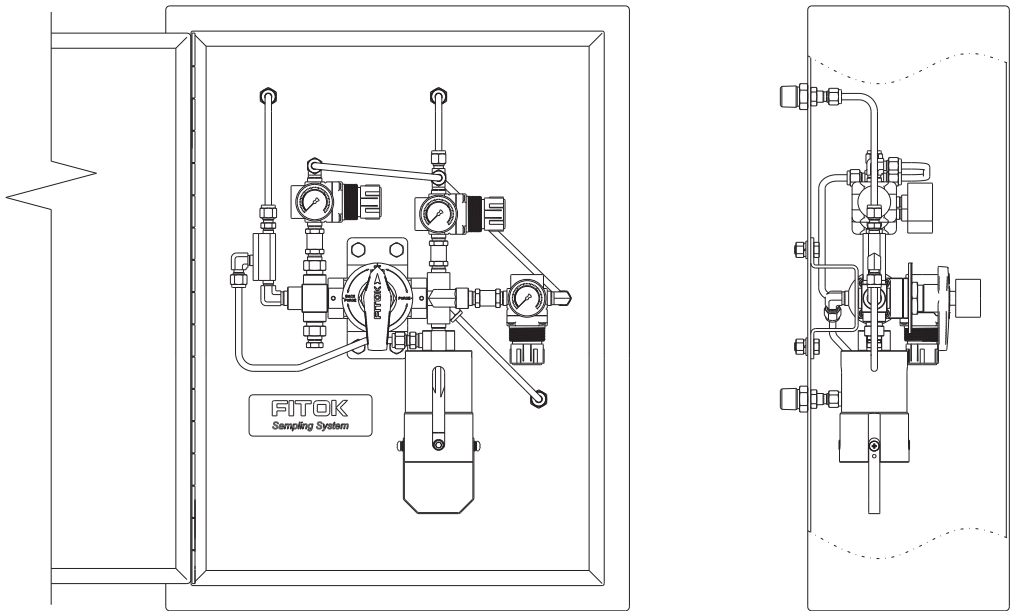
- Sampling from process lines at atmospheric pressure or vacuum condition
- Back purge and needle purge
- Easy operation with a single handle by linkage valve

Basic Configuration

Wetted Material	316 SS
Sleeve Assembly	250 ml sleeve with bottle retaining clip
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")
Sampling Valve	BF Series 3-way ball valves and BO Series 4-way ball valves (gearbox linkage): PTFE seat Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 300°F (-18°C to 148°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Venturi Unit	Creating a vacuum in the sample bottle, sampling at atmospheric pressure or vacuum condition
Connections	1/4" tube fitting

Note: Products of other specifications are available upon request.

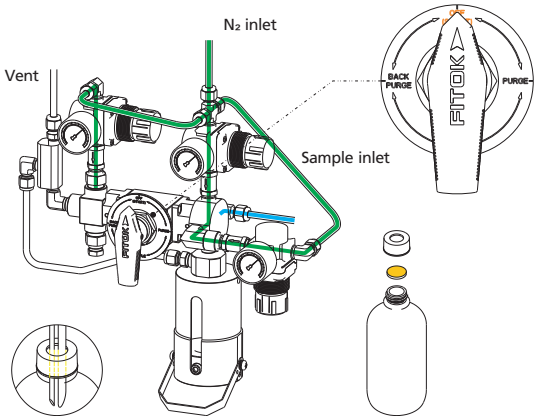
Typical Installation Mode



Operation

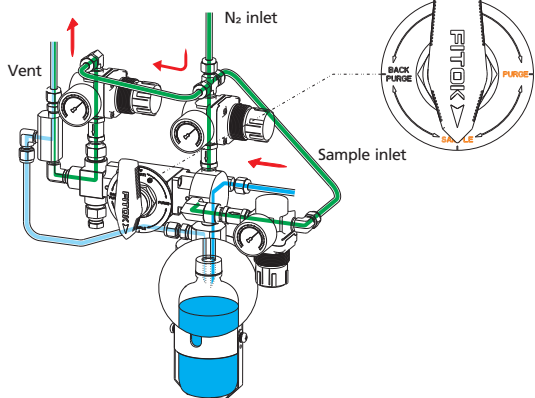
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



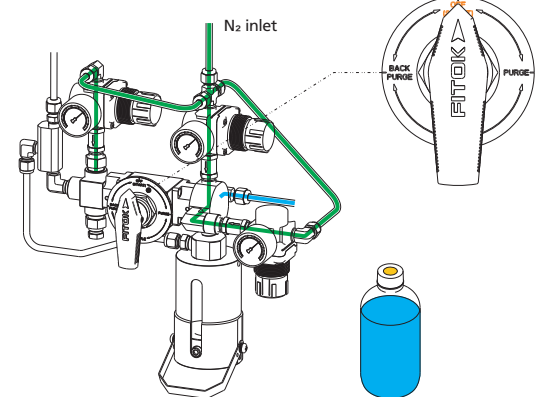
3 - Sampling

Turn the handle to the "SAMPLE" position, allowing the sample to flow into the bottle vacuumized by the venturi unit. When the required amount has been taken, turn the handle to the "PURGE" position.



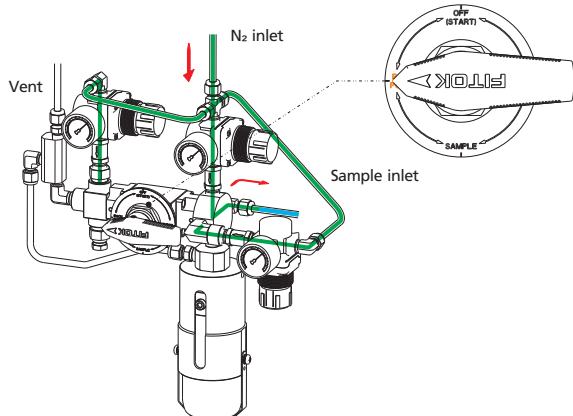
5 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.



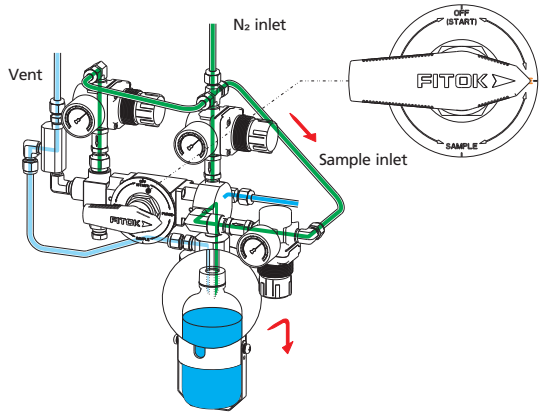
2 - Back Purge

Turn the handle to the "BACK PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line to ensure representative sampling.



4 - Needle Purge

Allow Nitrogen to force the residual sample from the needle assembly into the bottle. Hold this position for a sufficient time.

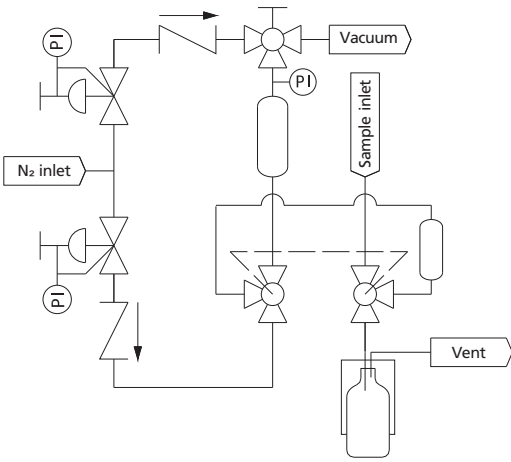


BLE5 - Overflow Type with Vacuum Connection

Features

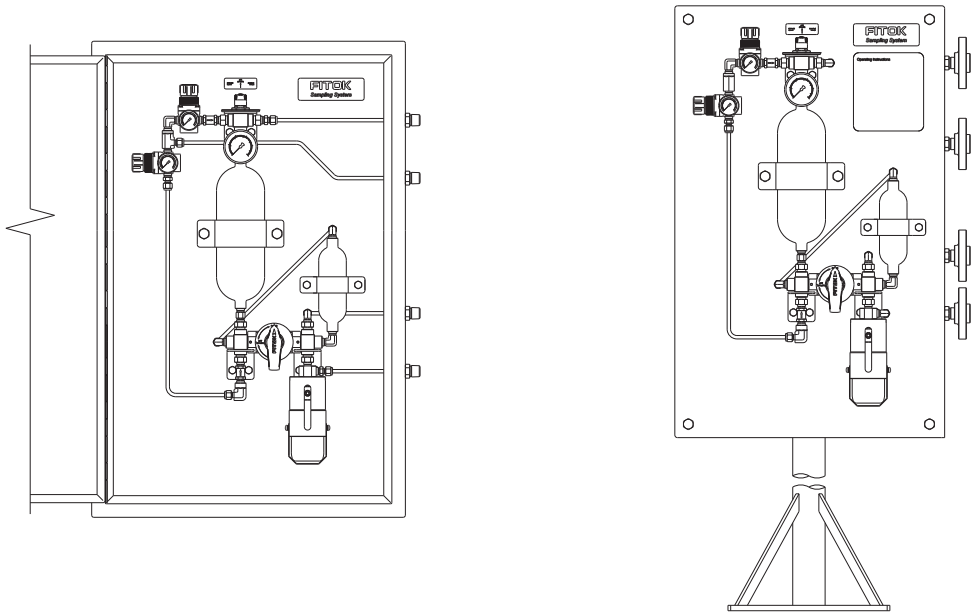
- Sampling from process lines at atmospheric pressure or vacuum condition
- Fixed volume sampling
- Overflow sampling and back purge
- Easy operation with a single handle by linkage valve

Basic Configuration

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Nitrogen Branch	Nitrogen regulator	
	CV Series check valves	
	Pressure gauge	
Connections	1/4" tube fitting	
Others	Overflow cylinder, sample chamber (200 ml), ball valve	

Note: Products of other specifications are available upon request.

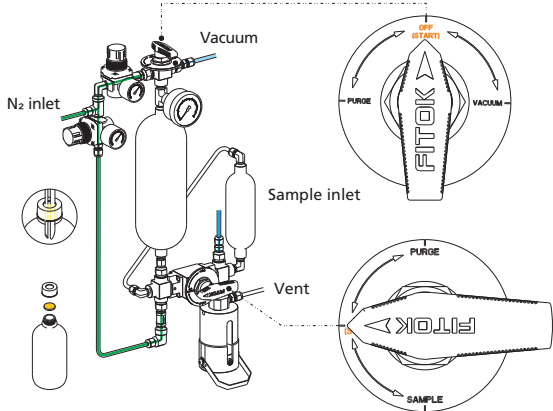
Typical Installation Mode



Operation

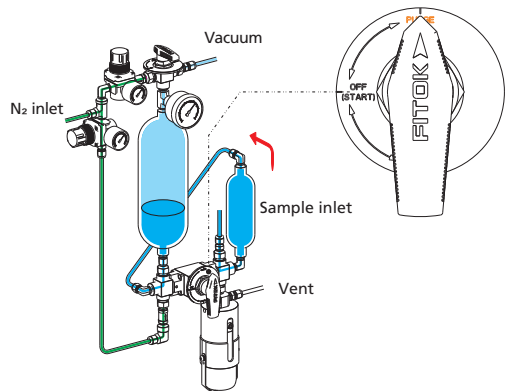
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



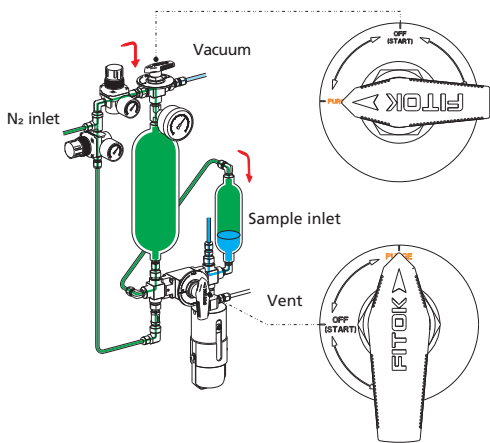
3 - System Purge

Turn the main handle to the "PURGE" position, allowing the sample to flow from the process line into the vacuumized overflow cylinder through the sample chamber to ensure representative sampling.



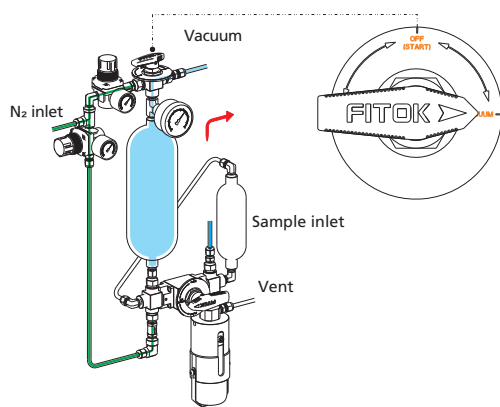
5 - Back Purge

Turn the main handle and the handle on the top of the overflow cylinder to the "PURGE" position, allowing Nitrogen to force the residual sample from the system into the process line.



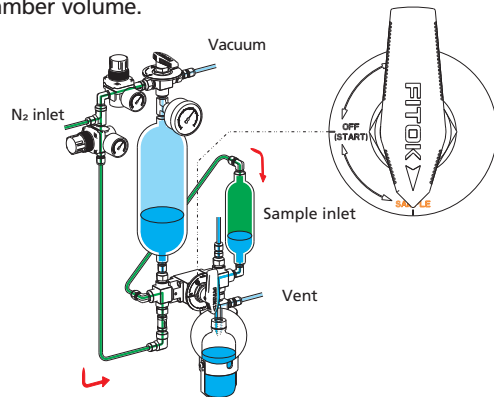
2 - Vacuum

Turn the handle on the top of the overflow cylinder to the "VACUUM" position to vacuumize the overflow cylinder. Turn the handle to the "OFF" position.



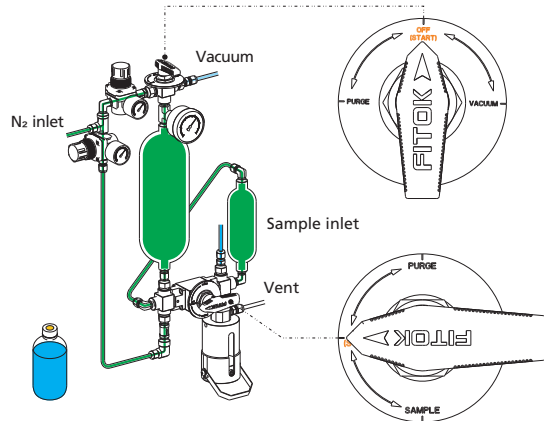
4 - Sampling

Turn the main handle to the "SAMPLE" position, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the sample chamber and needle assembly. The amount of sample depends on the sample chamber volume.



6 - OFF

Turn the two handles to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.

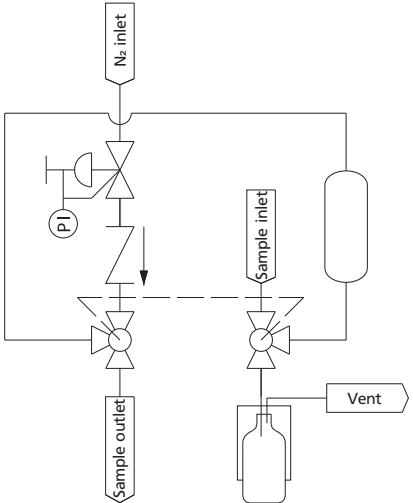


BLE6 - Fixed Volume Type

Features

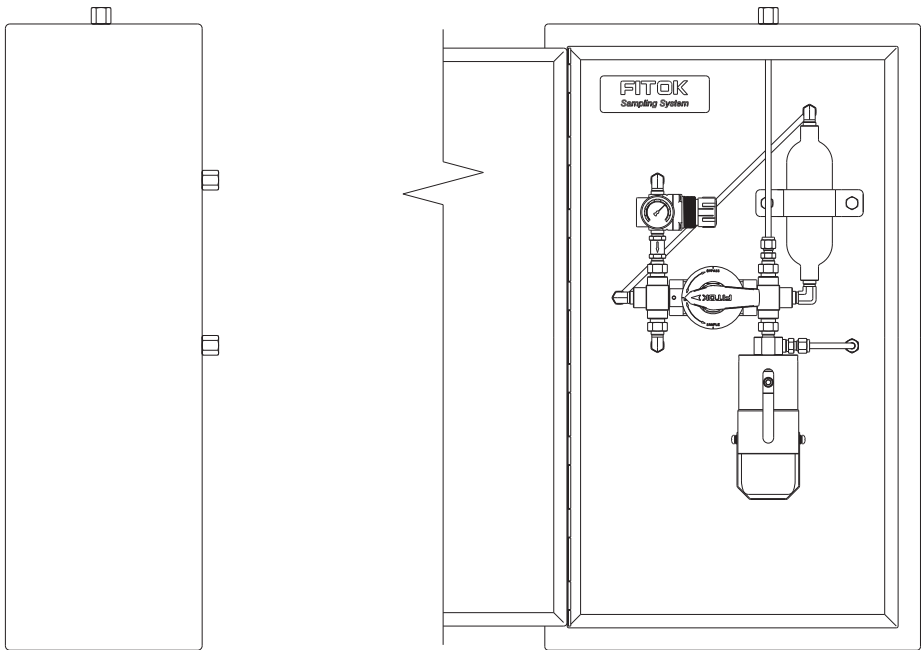
- Sampling from medium or high pressure devices or process lines
- Fixed volume sampling
- System purge and needle purge
- Easy operation with a single handle by linkage valve

Basic Configuration

Wetted Material	316 SS	
Sleeve Assembly	250 ml sleeve with bottle retaining clip	
Needle Assembly	Process/vent needle ID: 1.4 mm (0.06")	
Sampling Valve	BF Series 3-way ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Nitrogen Branch	Nitrogen regulator	
	CV Series check valves	
	Pressure gauge	
Connections	1/4" tube fitting	
Others	Sample chamber (200 ml)	

Note: Products of other specifications are available upon request.

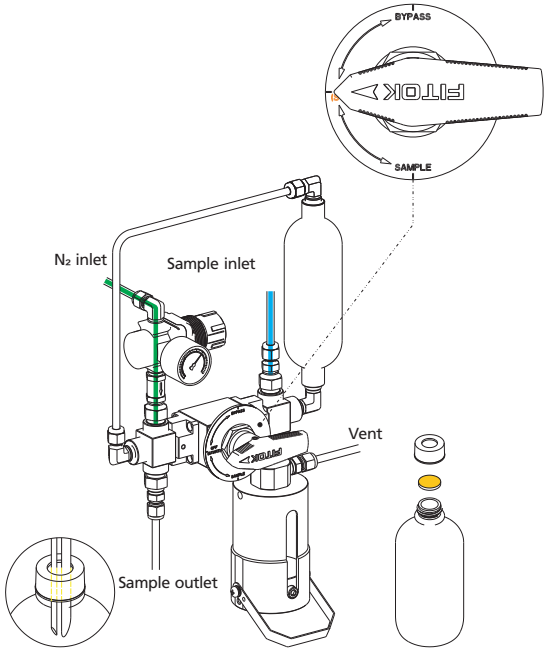
Typical Installation Mode



Operation

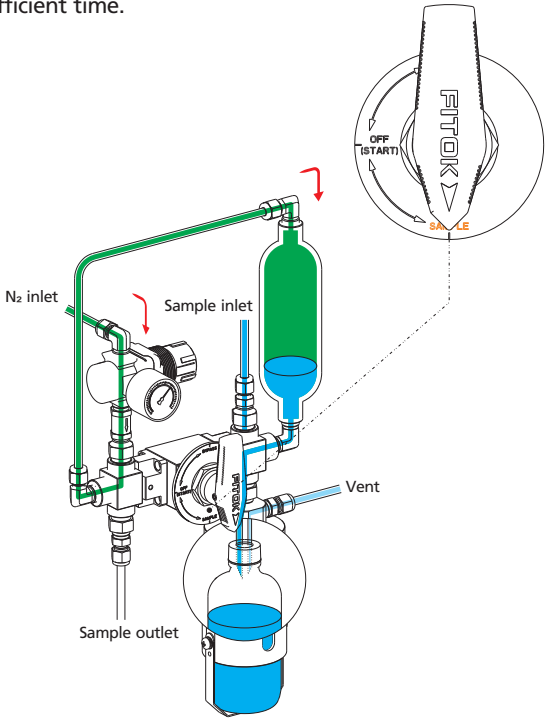
1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Swing down the bottle retaining clip.



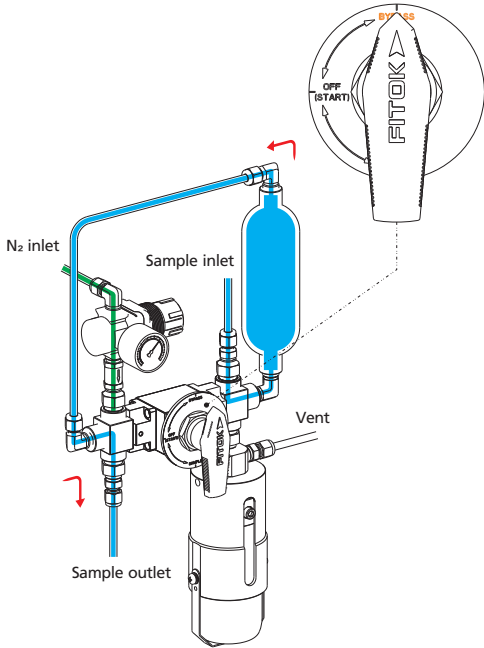
3 - Sampling

Turn the handle to the "SAMPLE" position, allowing Nitrogen to force the sample from the sample chamber into the bottle and purge the sample chamber and needle assembly. This position can be held for a sufficient time.



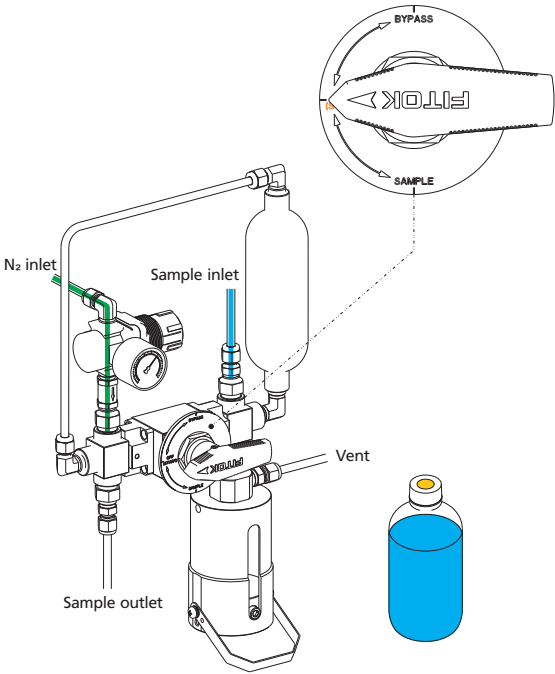
2 - System Purge

Turn the handle to the "BYPASS" position, allowing the sample to flow continuously through the sample chamber. Hold for a period of time to ensure representative sampling.



4 - Off

Turn the handle to the "OFF" position to close the sampling system. Remove the bottle retaining clip and take out the bottle from the sleeve. The septum reseals automatically to complete the sampling process.





# CS - Cylinder Configuration Sampling Systems for Liquefied Gases

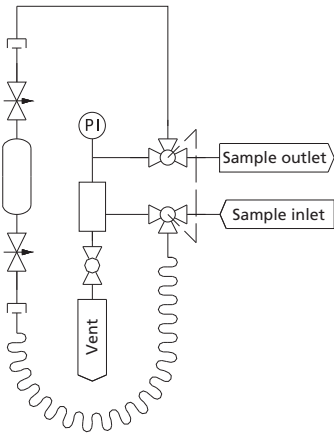
## CSF1 - System Purge Type with Expansion Chamber

### Features

- Sampling from devices or process lines
- System purge
- Predefined sampling volume controlled by an expansion chamber to ensure safe sampling
- Easy operation with a single handle by linkage valve

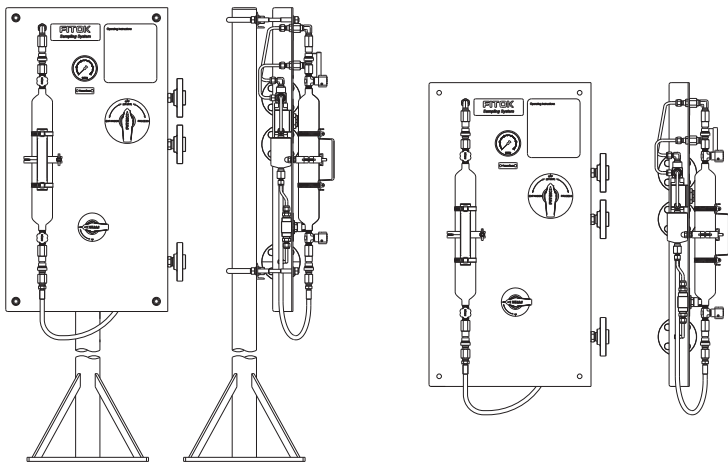
### Basic Configuration

Wetted Material	316 SS
Cylinder Assembly	500 ml cylinder
	ND Series needle valves
Sampling Valve	QC4 Series quick-connects
	BF Series ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Expansion Chamber	100ml, to control the predefined sampling volume to 80% of the cylinder volume
Other Accessories	PS Series metal hoses
Connections	NPS 1/2 flange



Note: Products of other specifications are available upon request.

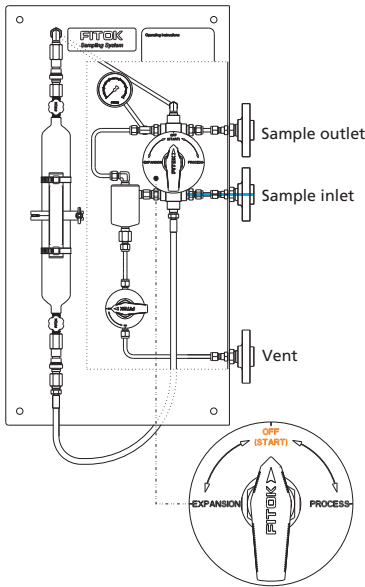
### Typical Installation Mode



### Operation

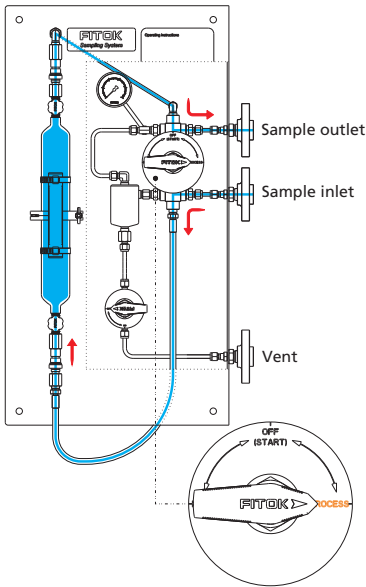
#### 1 - Preparation

Install the sample cylinder and connect the hose to the bottom side of the cylinder. Open the needle valves at both ends of the cylinder.



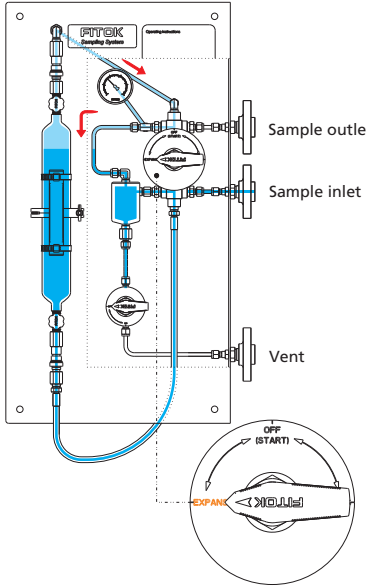
#### 2 - Sampling

Turn the handle to the "PROCESS" position, allowing the sample to flow continuously into and fill the cylinder. Hold for a period of time to ensure representative sampling.



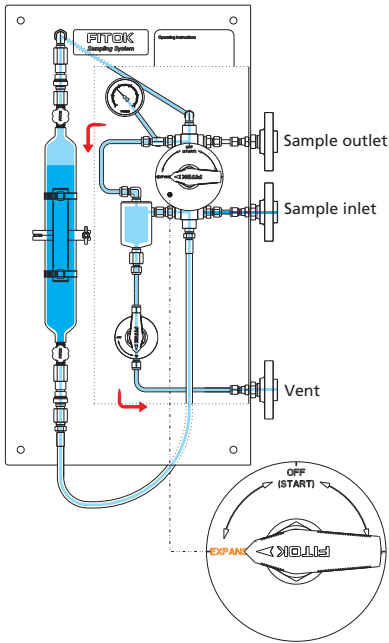
#### 3 - Expansion

Turn the handle to the "EXPANSION" position, connecting the cylinder with the expansion chamber. Hold for a period of time to transfer a portion of sample to the expansion chamber. Close the needle valves at both ends of the cylinder.



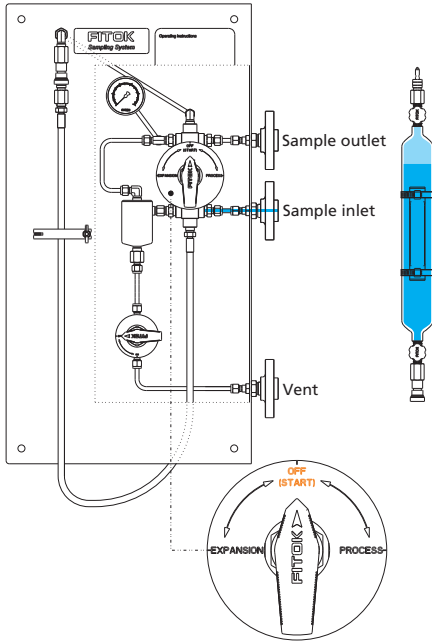
#### 4 - Depressurization/vent

Open the ball valve on the expansion chamber to depressurize and discharge the residual sample out of the sampling line and the expansion chamber. Subsequently, close the ball valve.



#### 5 - Off

Turn the handle to the "OFF" position and disconnect the hose. Remove the cylinder and connect the hose to the top quick-connect to complete the sampling process.



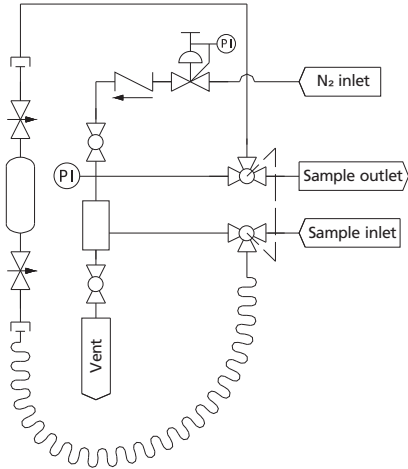
CSF2 - Expansion Chamber Purge Type

Features

- Sampling from devices or process lines
- System purge and expansion chamber purge
- Predefined sampling volume controlled by an expansion chamber to ensure safe sampling
- Easy operation with a single handle

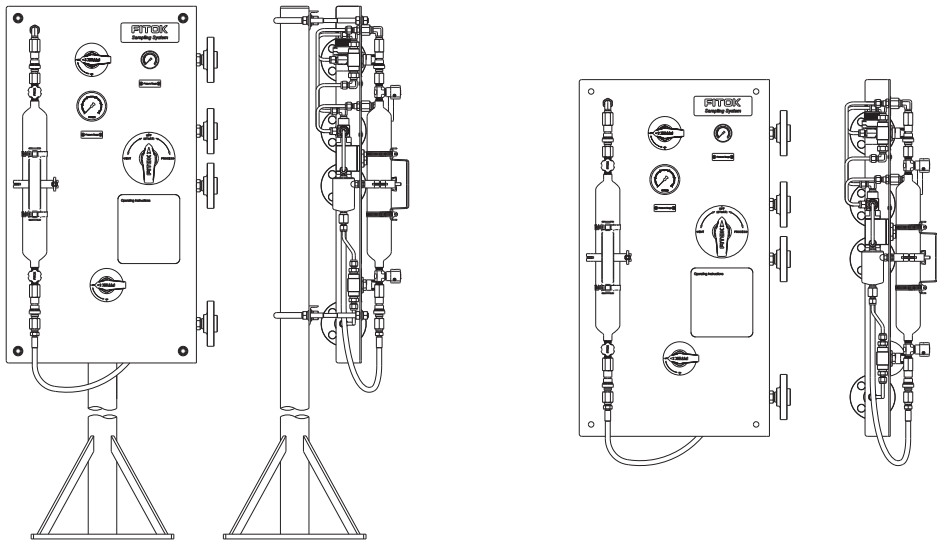
Basic Configuration

Wetted Material	316 SS
Cylinder Assembly	500 ml cylinder
	ND Series needle valves
Sampling Valve	QC4 Series quick-connects
	BF Series ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C )
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Expansion Chamber	100ml, to control the predefined sampling volume to 80% of the cylinder volume
Other Accessories	PS Series metal hoses
Connections	NPS 1/2 flange



Note: Products of other specifications are available upon request.

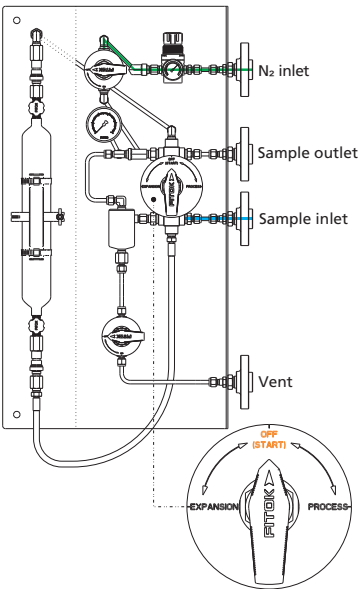
Typical Installation Mode



Operation

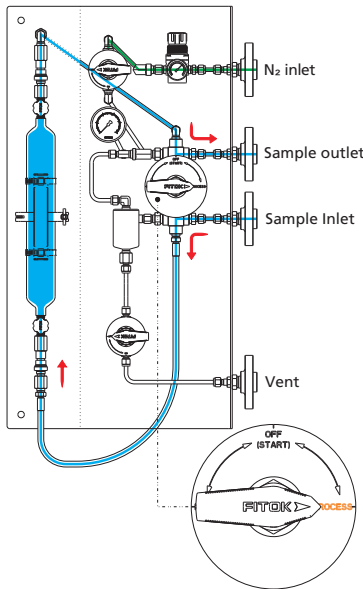
1 - Preparation

Install the sample cylinder and connect the hose to the bottom side of the cylinder. Open the needle valves at both ends of the cylinder.



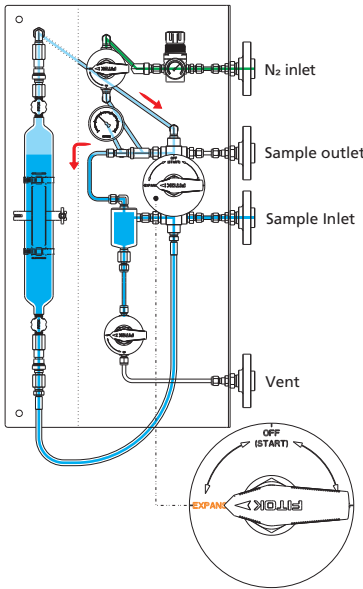
2 - Sampling

Turn the handle to the "PROCESS" position, allowing the sample to flow continuously into and fill the cylinder. Hold for a period of time to ensure representative sampling.



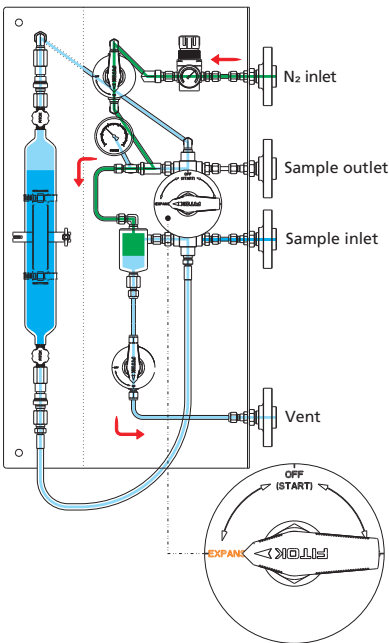
3 - Expansion

Turn the handle to the "EXPANSION" position, connecting the cylinder with the expansion chamber. Hold for a period of time to transfer a portion of sample to the expansion chamber. Close the needle valves at both ends of the cylinder.



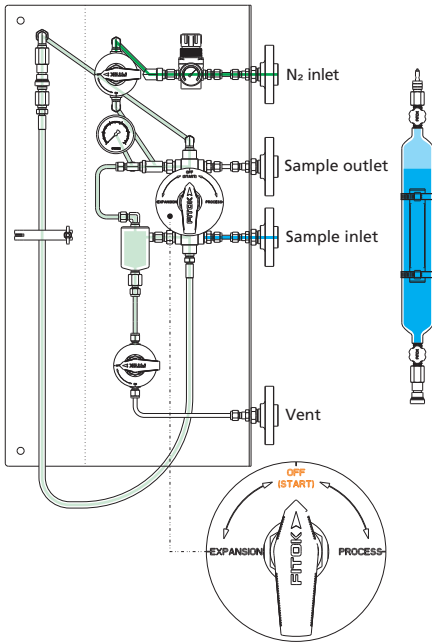
4 - Purge

Open the ball valve on the expansion chamber and the ball valve on the vent branch, allowing Nitrogen to purge the expansion chamber. Subsequently, close all the ball valves.



5 - Off

Turn the handle to the "OFF" position and disconnect the hose. Remove the cylinder and connect the hose to the top quick-connect to complete the sampling process.

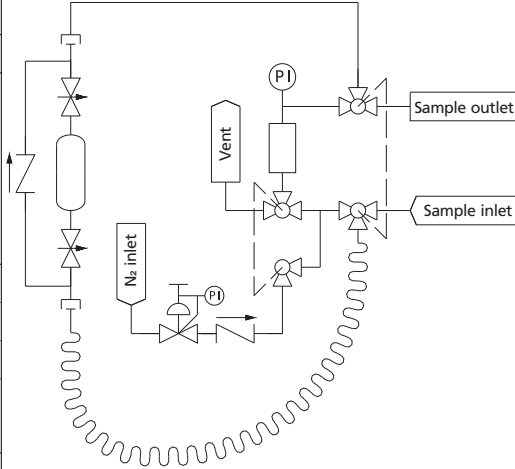


CSF3 - Bypass Purge Type with Expansion Chamber

Features

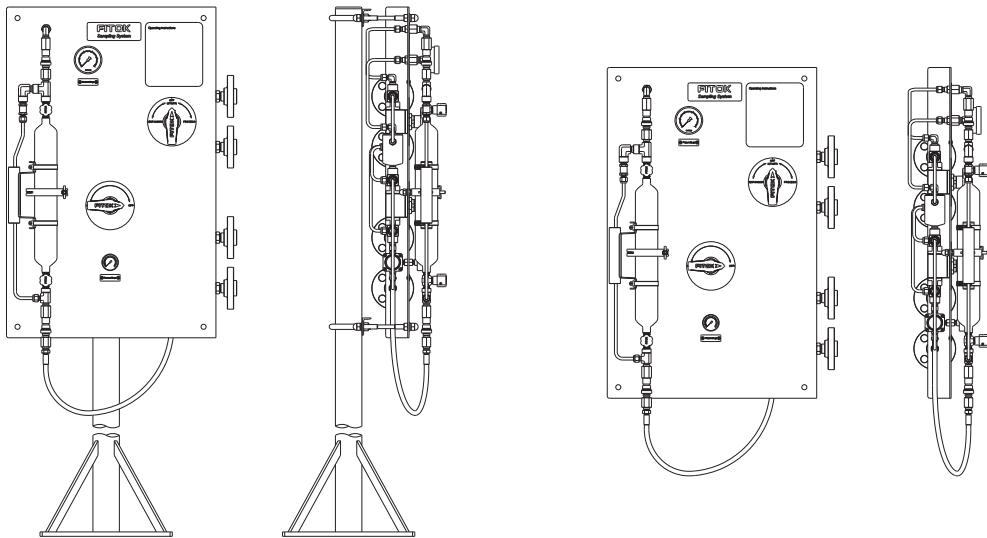
- Sampling from devices or process lines
- System purge and bypass purge
- Predefined sampling volume controlled by an expansion chamber to ensure safe sampling
- Easy operation with a single handle by linkage valve

Basic Configuration

Wetted Material	316 SS	
Cylinder Assembly	500 ml cylinder	
	ND Series needle valves	
	QC4 Series quick-connects	
	CV Series check valves	
Sampling Valve	BF Series ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
	Nitrogen regulator	
	CV Series check valves Pressure gauge	
Expansion Chamber	100ml, to control the predefined sampling volume to 80% of the cylinder volume	
	PS Series metal hoses	
Other Accessories	Pressure gauge	
Connections	NPS 1/2 flange	

Note: Products of other specifications are available upon request.

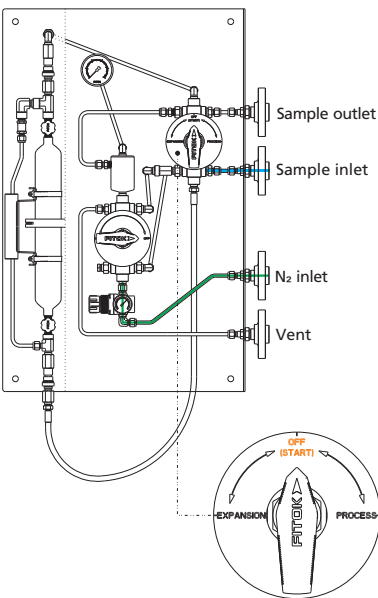
Typical Installation Mode



Operation

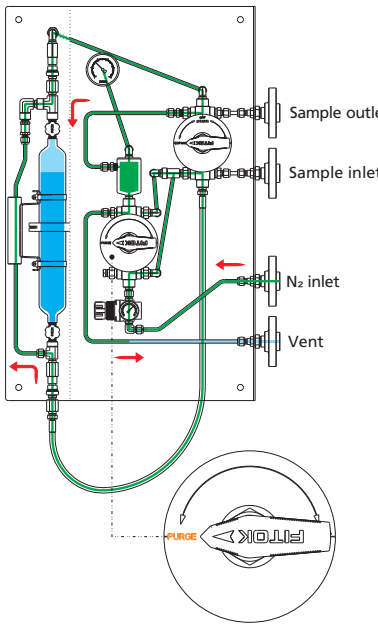
1 - Preparation

Install the sample cylinder and connect the hose to the bottom side of the cylinder. Open the needle valves at both ends of the cylinder.



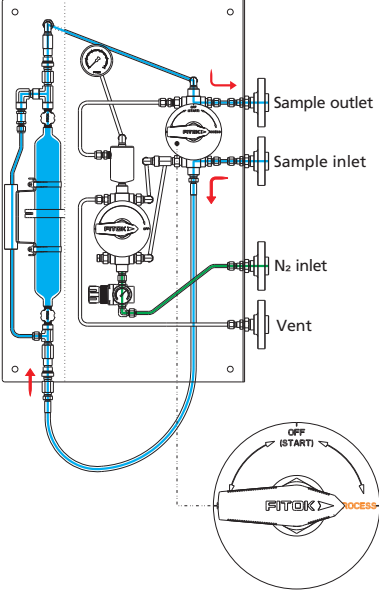
4 - Purge

Turn the handle of the valve on the purge line to the "PURGE" position, allowing Nitrogen to flow through the quick-connects and bypass to force the residual sample out of the system.



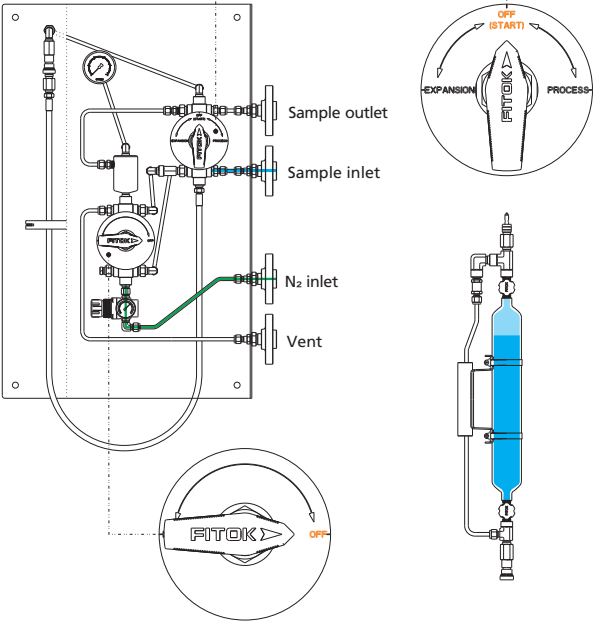
2 - Pre-sampling

Turn the handle to the "PROCESS" position, allowing the sample to flow continuously into and fill the cylinder. Hold for a period of time to ensure representative sampling.



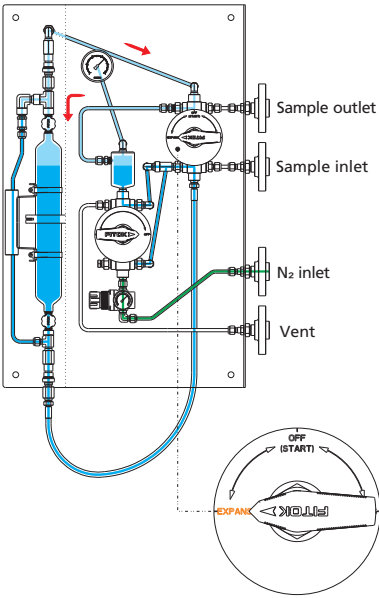
5 - Off

Turn the two handles to the "OFF" position and disconnect the hose. Remove the cylinder and connect the hose to the top quick-connect to complete the sampling process.



3 - Expansion

Turn the handle to the "EXPANSION" position, connecting the cylinder with the expansion chamber. Hold for a period of time to transfer a portion of sample to the expansion chamber. Close the needle valves at both ends of the cylinder.



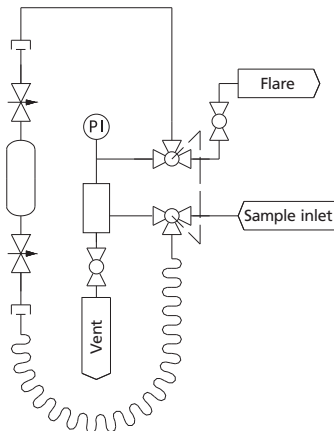


CSF4 - Vent to Flare Type with Expansion Chamber

Features

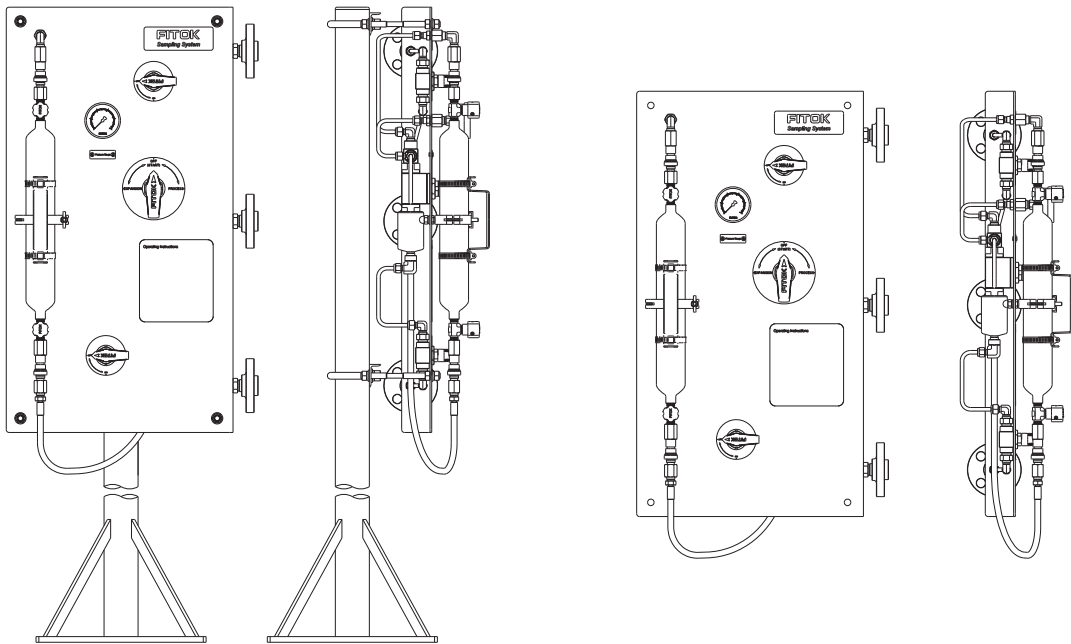
- Sampling from devices or process lines
- System purge to flare (no circulation loop)
- Predefined sampling volume controlled by an expansion chamber to ensure safe sampling
- Easy operation with a single handle by linkage valve

Basic Configuration

Wetted Material	316 SS	
Cylinder Assembly	500 ml cylinder	
	ND Series needle valves	
	QC4 Series quick-connects	
Sampling Valve	BF Series ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Expansion Chamber	100 ml, to control the predefined sampling volume to 80% of the cylinder volume	
Other Accessories	PS Series metal hoses	
	Pressure gauge	
Connections	NPS 1/2 flange	

Note: Products of other specifications are available upon request.

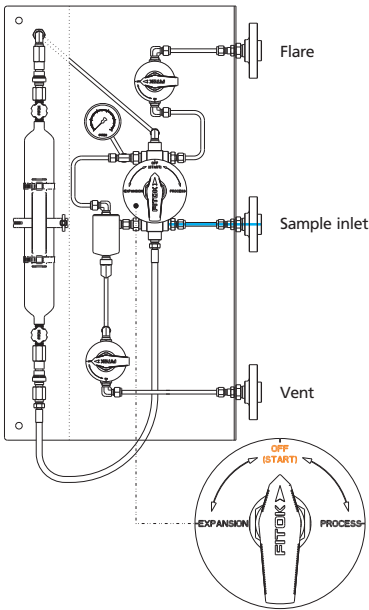
Typical Installation Mode



Operation

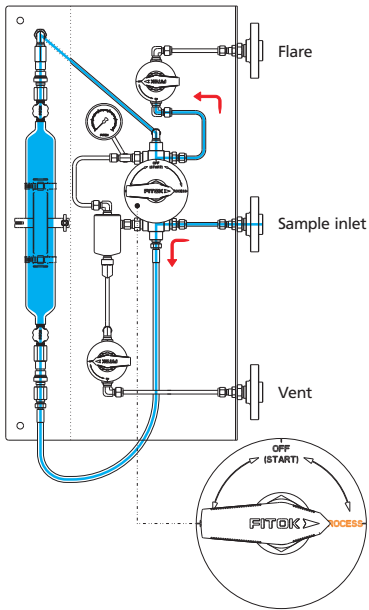
1 - Preparation

Install the sample cylinder and connect the hose to the bottom side of the cylinder. Open the needle valves at both ends of the cylinder.



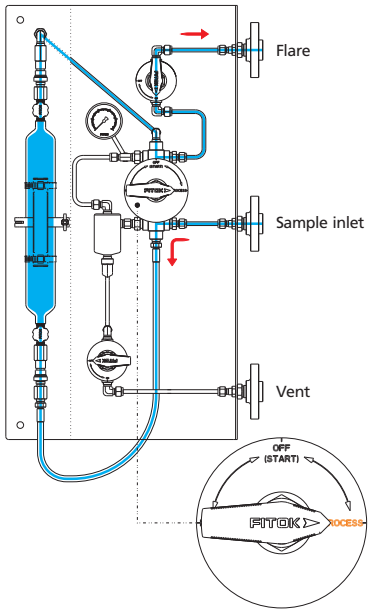
2 - Pre-sampling

Turn the handle to the “PROCESS” position, allowing the sample to flow into and fill the cylinder.



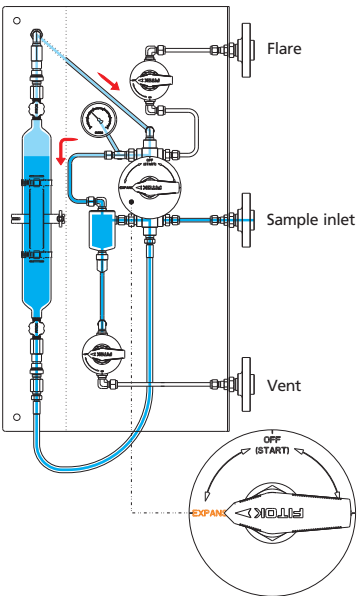
3 - Sampling

Open the ball valve on the flare line, connecting the sampling line to the flare to allow the sample to flow continuously into the cylinder. Hold for a period of time to ensure representative sampling. Subsequently, close the ball valve.



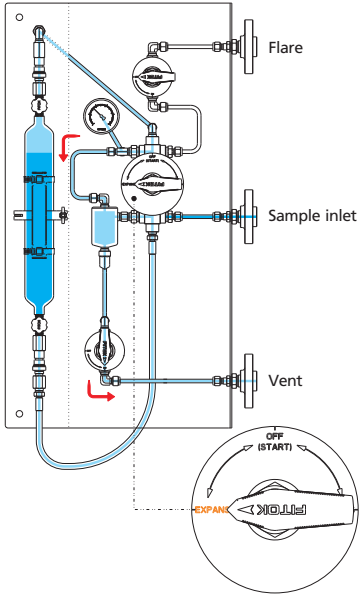
4 - Expansion

Turn the handle to the “EXPANSION” position, connecting the cylinder with the expansion chamber. Hold for a period of time to transfer a portion of sample to the expansion chamber. Close the needle valves at both ends of the cylinder.



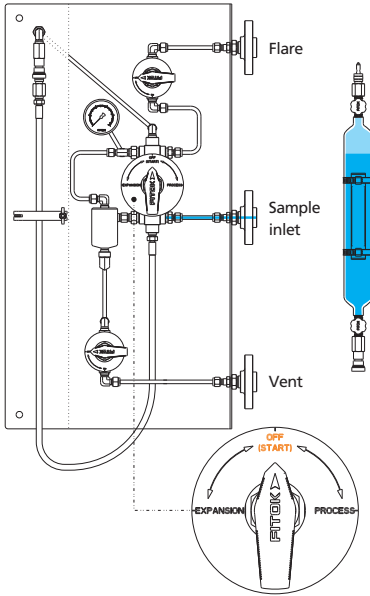
5 - Depressurization/vent

Open the ball valve on the expansion chamber, connecting with the vent line to depressurize and discharge the residual sample out of the system. Subsequently, close the ball valve.



6 - Off

Turn the handle to the “OFF” position and disconnect the hose. Remove the cylinder and connect the hose to the top quick-connect to complete the sampling process.



CSF5 - Outage Tube Type

Features

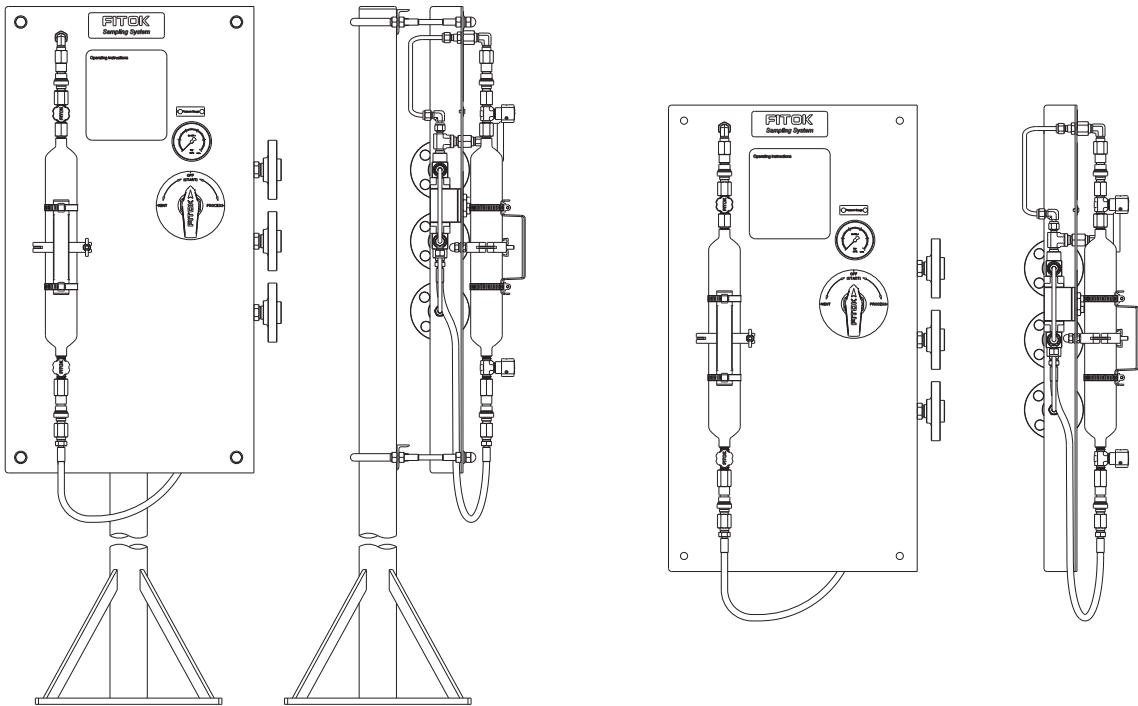
- Sampling from devices or process lines
- System purge
- Predefined sampling volume controlled by an outage tube to ensure safe sampling
- Easy operation with a single handle by linkage valve

Basic Configuration

Wetted Material	316 SS
Cylinder Assembly	500 ml cylinder
	ND Series needle valves
	QC4 Series quick-connects
Sampling Valve	BF Series ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Outage Tube	To control the predefined sampling volume to 80% of the cylinder volume
Other Accessories	PS Series metal hoses
	Pressure gauge
Connections	NPS 1/2 flange

Note: Products of other specifications are available upon request.

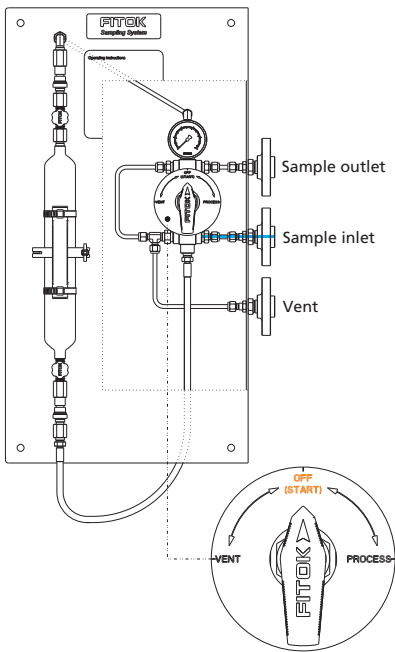
Typical Installation Mode



Operation

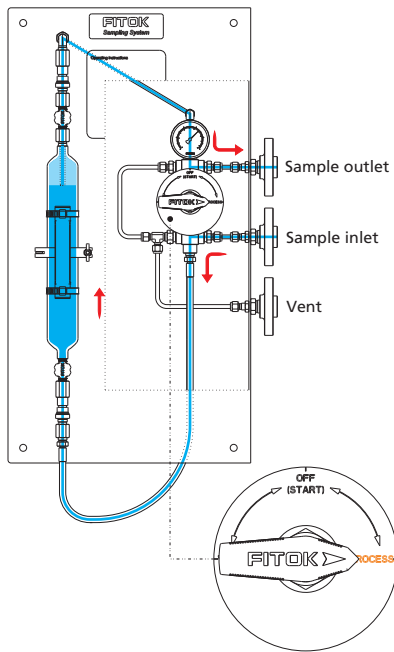
1 - Preparation

Install the sample cylinder and connect the hose to the bottom side of the cylinder. Open the needle valves at both ends of the cylinder.



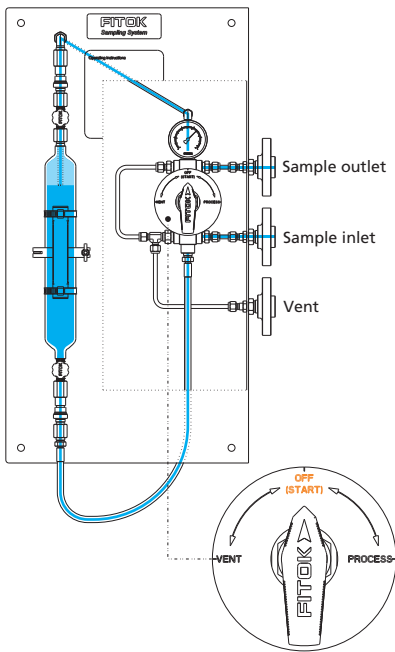
2 - Sampling

Turn the handle to the "PROCESS" position, allowing the sample to flow continuously into and fill the sample cylinder. Hold for a period of time to ensure representative sampling.



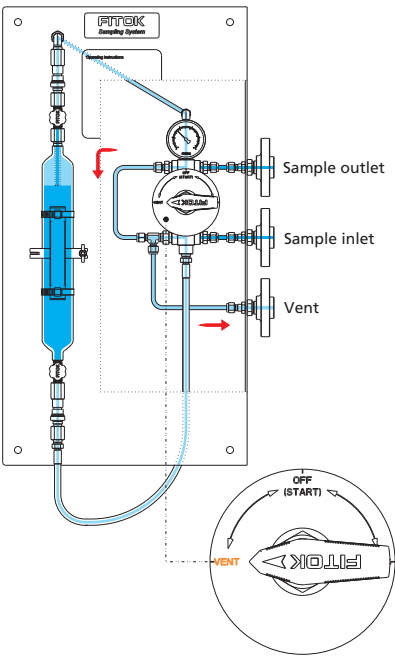
3 - Off

Turn the handle to the "OFF" position. Close the needle valves at both sides of the cylinder.



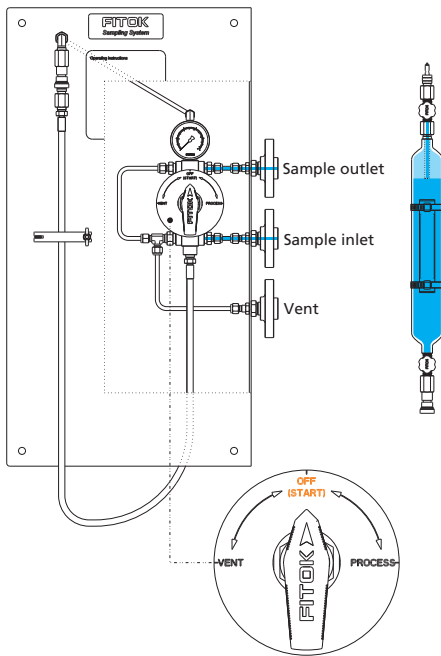
4 - Depressurization/vent

Turn the handle to the "VENT" position, connecting the sampling line with the vent line to depressurize and discharge the residual sample out of the system.



5 - Off

Turn the handle to the "OFF" position and disconnect the hose. Remove the cylinder and connect the hose to the top quick-connect to complete the sampling process.



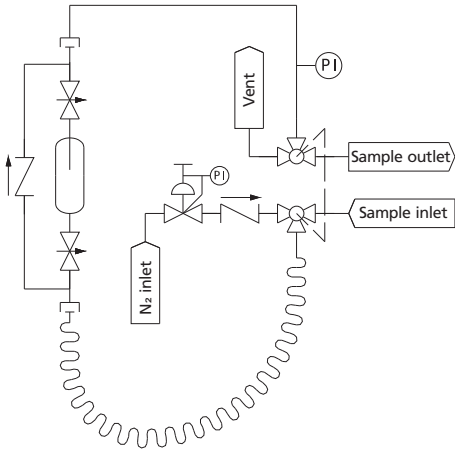
CSF6 - Bypass Purge Type with Outage Tube

Features

- Sampling from devices or process lines
- System purge and bypass purge
- Predefined sampling volume controlled by an outage tube to ensure safe sampling
- Easy operation with a single handle by linkage valve

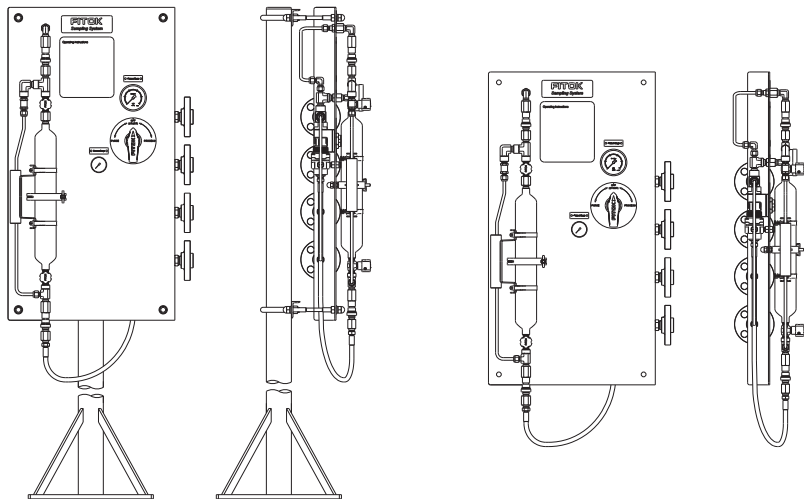
Basic Configuration

Wetted Material	316 SS
Cylinder Assembly	500 ml cylinder
	ND Series needle valves
	QC4 Series quick-connects
	CV Series check valves
Sampling Valve	BF Series ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Outage Tube	To control the predefined sampling volume to 80% of the cylinder volume
Other Accessories	PS Series metal hoses
	Pressure gauge
Connections	NPS 1/2 flange



Note: Products of other specifications are available upon request.

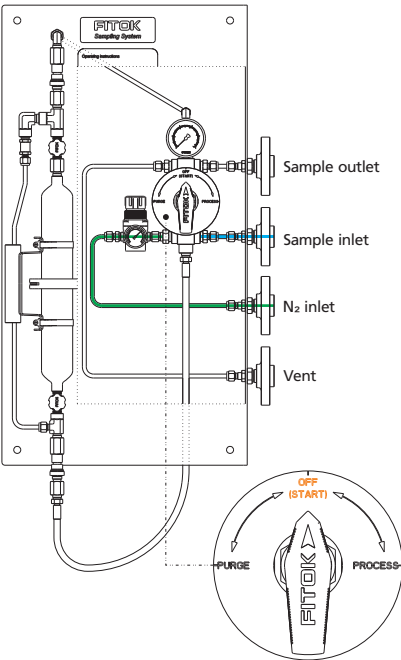
Typical Installation Mode



Operation

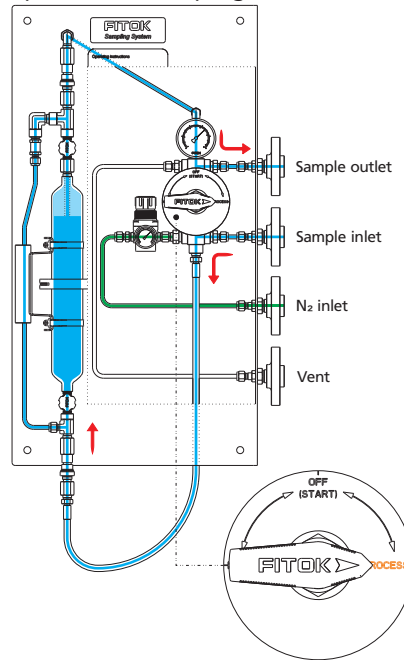
1 - Preparation

Install the sample cylinder and connect the hose to the bottom side of the cylinder. Open the needle valves at both ends of the cylinder.



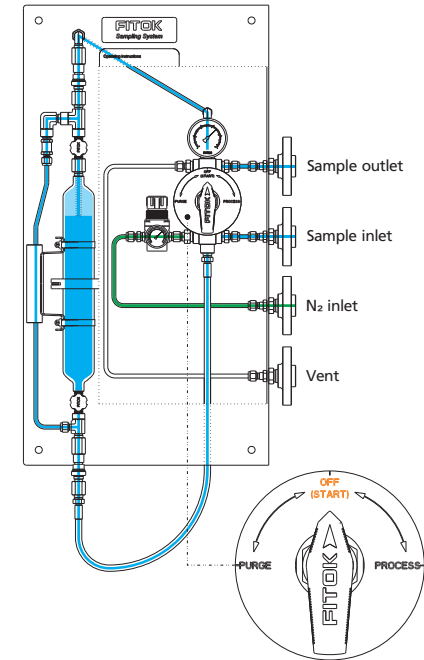
2 - Sampling

Turn the handle to the "PROCESS" position, allowing the sample to flow continuously into and fill the cylinder. Hold for a period of time to ensure representative sampling.



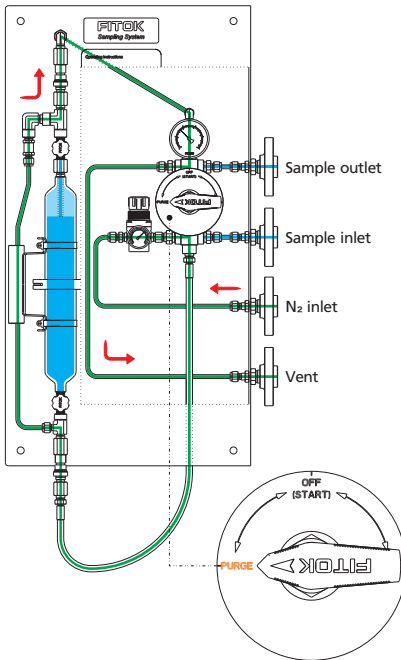
3 - Off

Turn the handle to the "OFF" position. Close the needle valves at both ends of the cylinder.



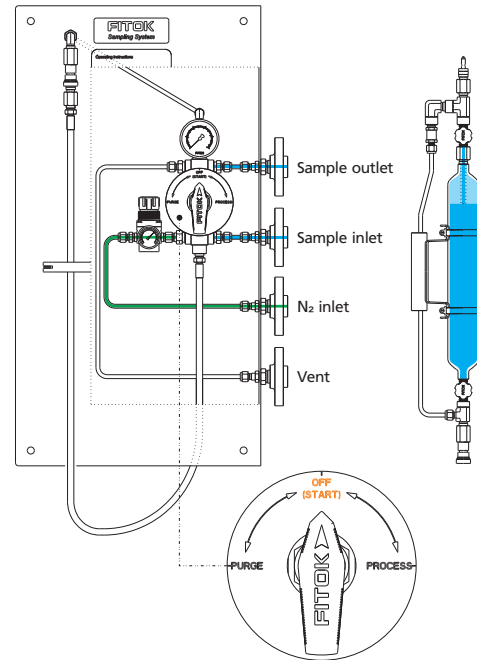
4 - Purge

Turn the handle to the "PURGE" position, allowing Nitrogen to force the residual sample out of the system.



5 - Off

Turn the handle to the "OFF" position and disconnect the hose. Remove the cylinder and connect the hose to the top quick-connect to complete the sampling process.



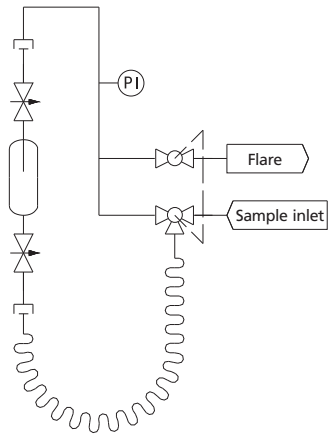
CSF7 - Vent to Flare Type with Outage Tube

Features

- Sampling from devices or process lines
- System purge to flare (no circulation loop)
- Predefined sampling volume controlled by an outage tube to ensure safe sampling
- Easy operation with a single handle by linkage valve

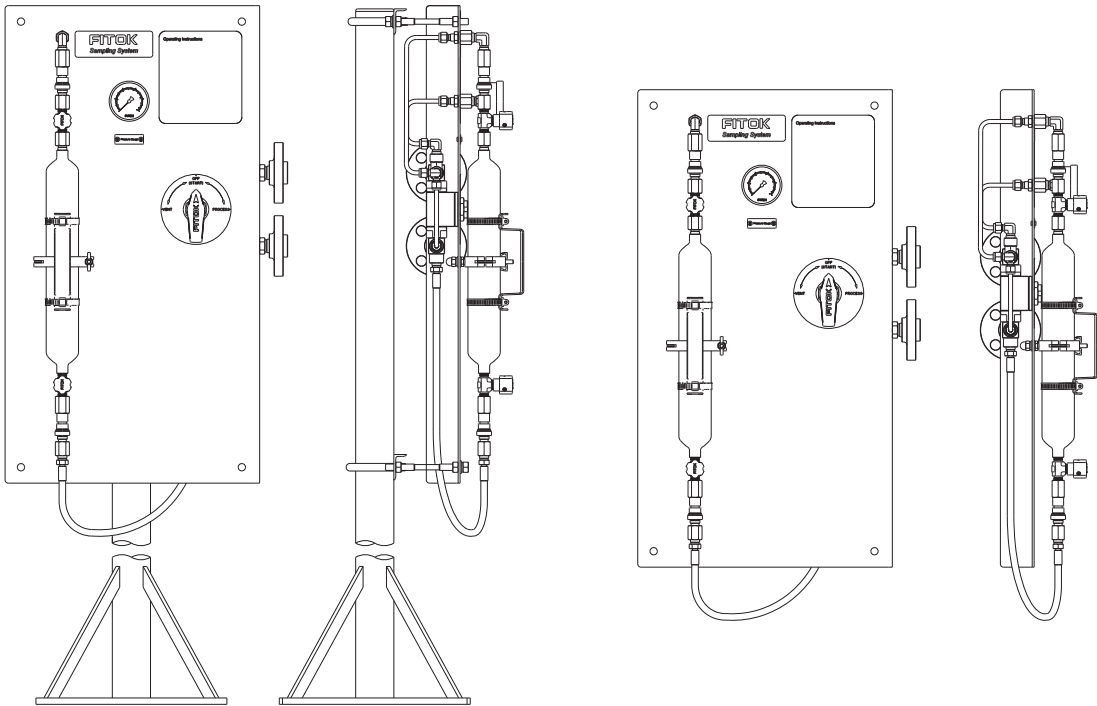
Basic Configuration

Wetted Material	316 SS
Cylinder Assembly	500 ml cylinder
	ND Series needle valves
	QC4 Series quick-connects
Sampling Valve	BF Series ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Expansion Chamber	To control the predefined sampling volume to 80% of the cylinder volume
Other Accessories	PS Series metal hoses
Connections	Pressure gauge NPS 1/2 flange



Note: Products of other specifications are available upon request.

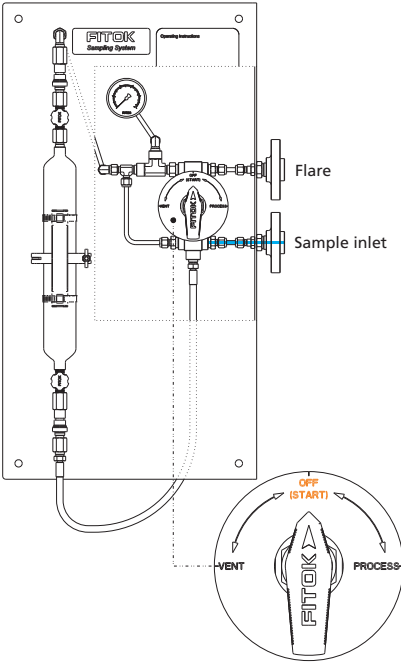
Typical Installation Mode



Operation

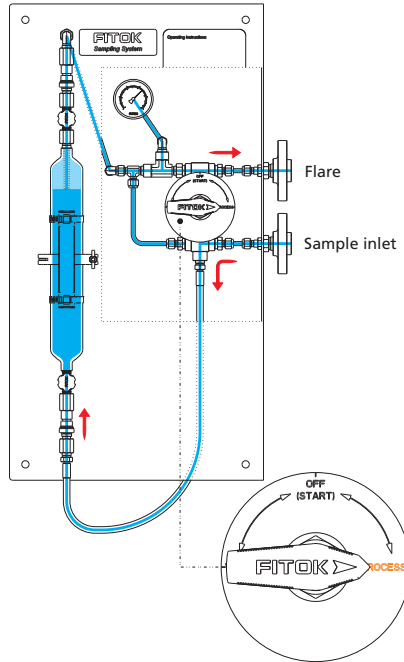
1 - Preparation

Install the sample cylinder and connect the hose to the bottom side of the cylinder. Open the needle valves at both ends of the cylinder.



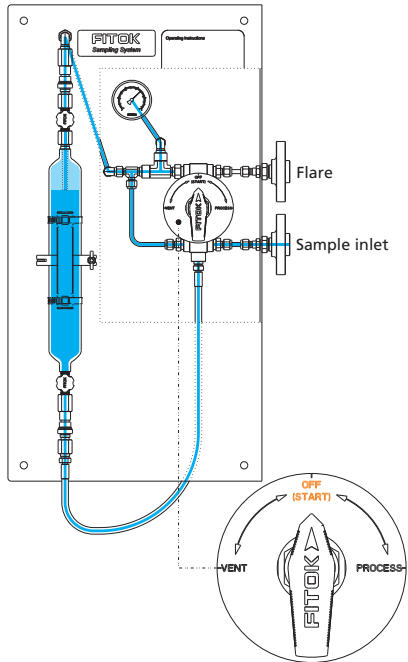
2 - Sampling

Turn the handle to the "PROCESS" position, allowing the sample to flow continuously into and fill the sample cylinder. Hold for a period of time to ensure representative sampling.



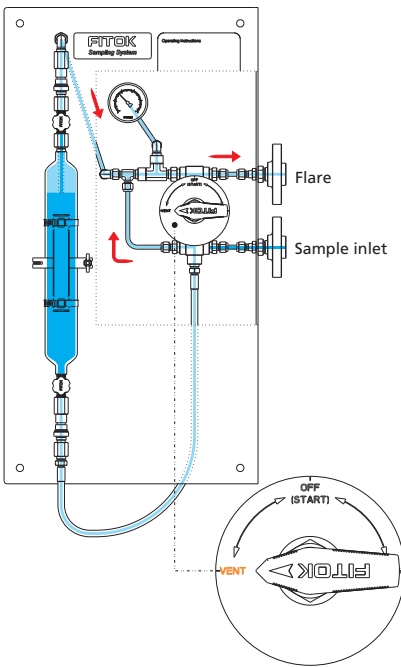
3 - Off

Turn the handle to the "OFF" position. Close the needle valves at both sides of the cylinder.



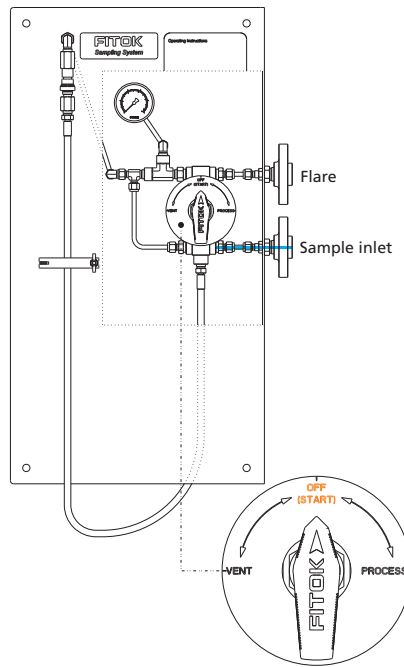
4 - Depressurization/vent

Turn the handle to the "VENT" position, connecting the sampling line to the flare to depressurize and discharge the residual sample out of the system.



5 - Off

Turn the handle to the "OFF" position and disconnect the hose. Remove the cylinder and connect the hose to the top quick-connect to complete the sampling process.





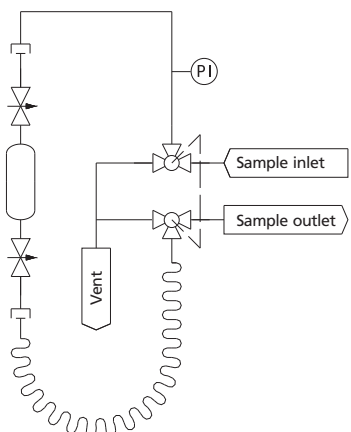
# CG - Cylinder Configuration Sampling Systems for Gases

## CGG1 - System Purge Type

### Features

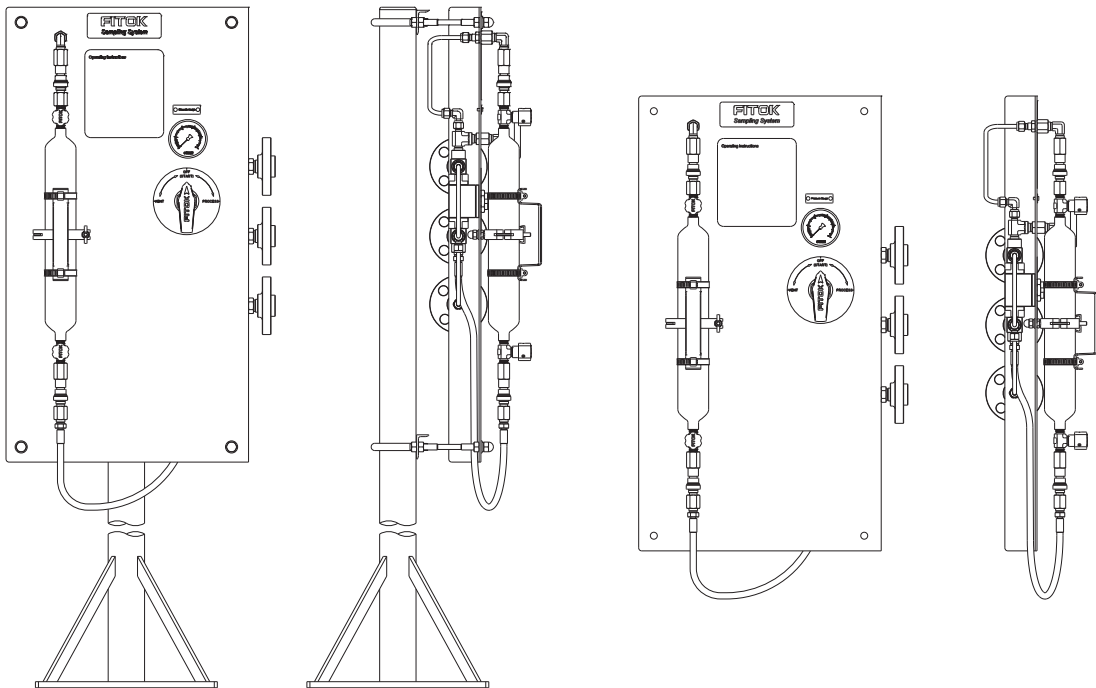
- Sampling from devices or process lines
- System purge
- Easy operation with a single handle by linkage valve

### Basic Configuration

Wetted Material	316 SS	
Cylinder Assembly	500 ml cylinder	
	ND Series needle valves	
	QC4 Series quick-connects	
	BF Series ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
Other Accessories	PS Series metal hoses	
	Pressure gauge	
Connections	NPS 1/2 flange	

Note: Products of other specifications are available upon request.

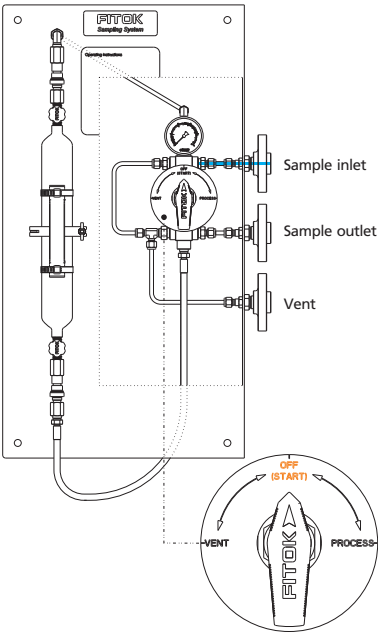
### Typical Installation Mode



### Operation

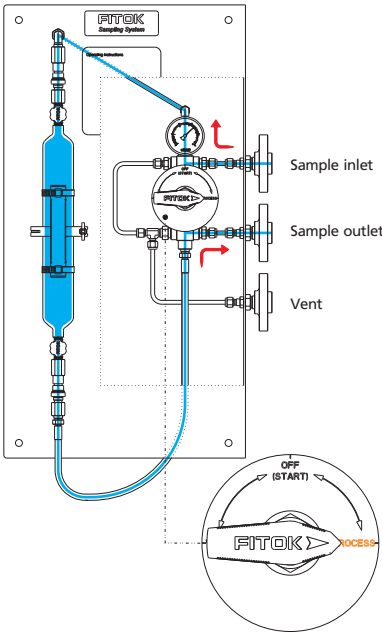
#### 1 - Preparation

Install the sample cylinder and connect the hose to the bottom side of the cylinder. Open the needle valves at both ends of the cylinder.



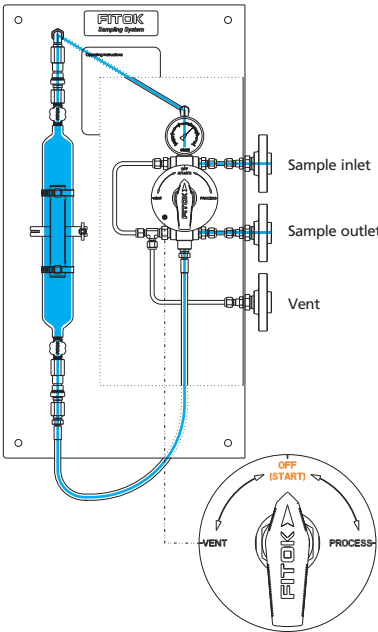
#### 2 - Sampling

Turn the handle to the "PROCESS" position, allowing the sample to flow continuously into and fill the cylinder. Hold for a period of time to ensure representative sampling.



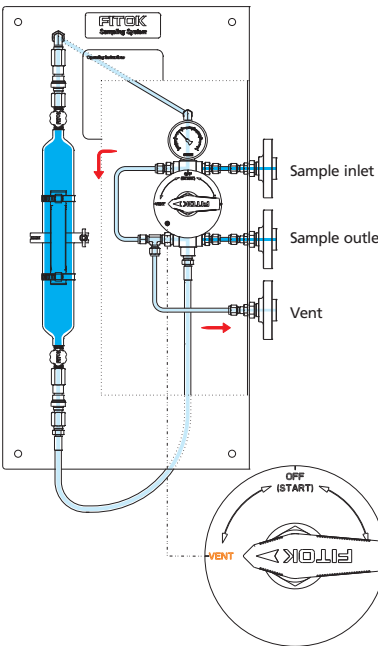
#### 3 - Off

Turn the handle to the "OFF" position. Close the needle valves at both ends of the cylinder.



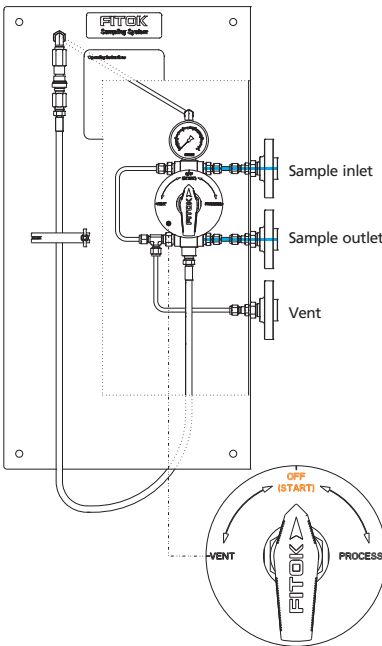
#### 4 - Depressurization/vent

Turn the handle to the "VENT" position, connecting the sampling line with the vent line to depressurize and discharge the residual sample.



#### 5 - Off

Turn the handle to the "OFF" position and disconnect the hose. Remove the cylinder and connect the hose to the top quick-connect to complete the sampling process.





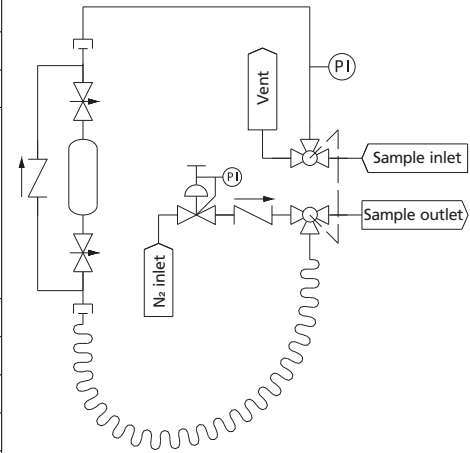
CGG2 - Bypass and System Purge Type

Features

- Sampling from devices or process lines
- System purge
- Easy operation with a single handle by linkage valve

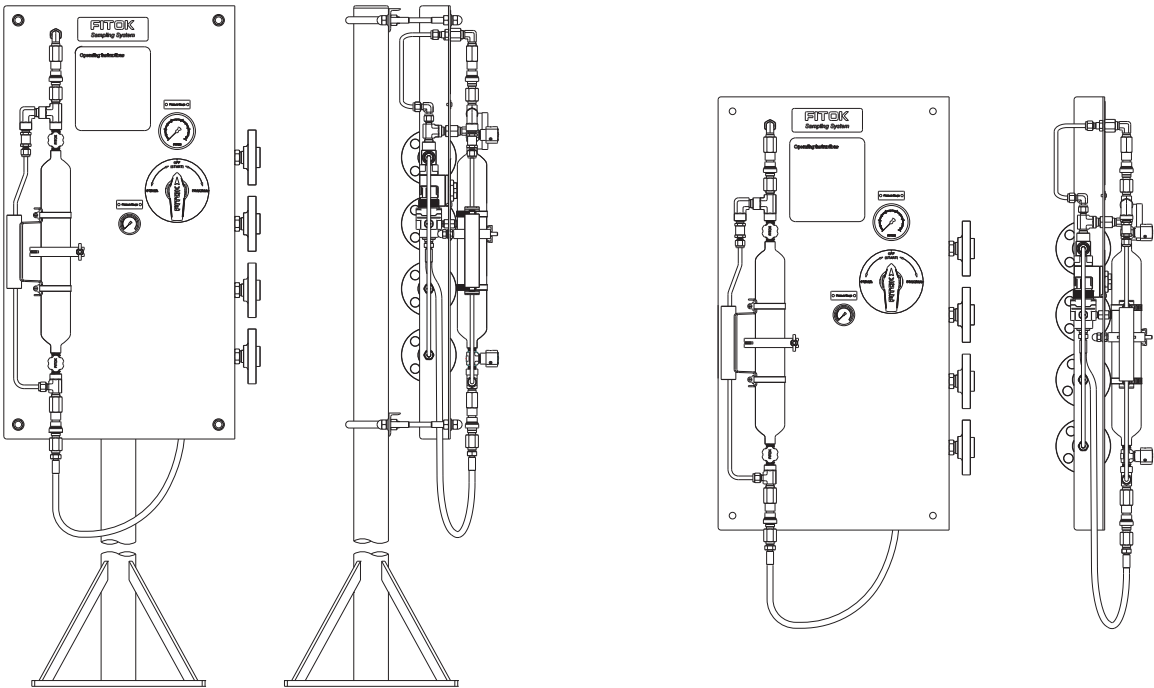
Basic Configuration

Wetted Material	316 SS
Cylinder Assembly	500 ml cylinder
	ND Series needle valves
	QC4 Series quick-connects
Sampling Valve	CV Series check valves
	BF Series ball valves (gearbox linkage): PTFE seat and FKM O-ring
	Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Other Accessories	PS Series metal hoses
	Pressure gauge
Connections	NPS 1/2 flange



Note: Products of other specifications are available upon request.

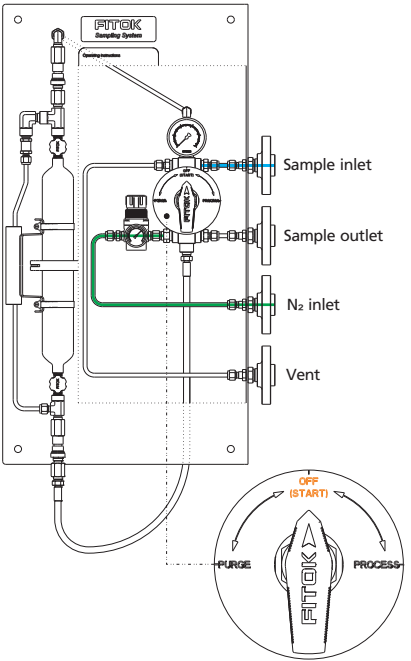
Typical Installation Mode



Operation

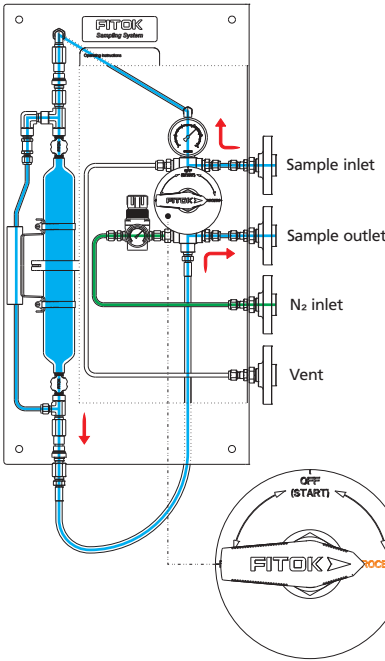
1 - Preparation

Install the sample cylinder and connect the hose to the bottom side of the cylinder. Open the needle valves at both ends of the cylinder.



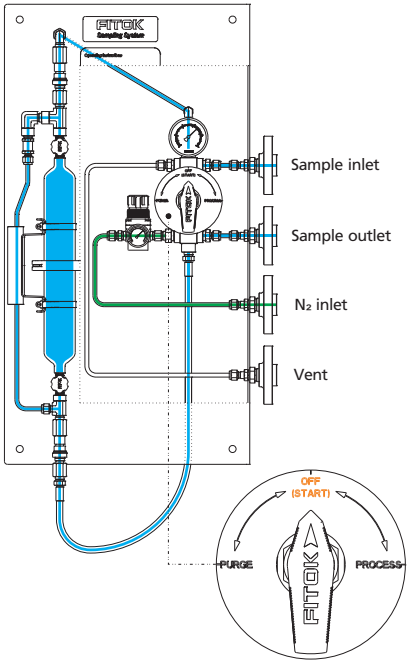
2 - Sampling

Turn the handle to the "PROCESS" position, allowing the sample to flow continuously into and fill the cylinder. Hold for a period of time to ensure representative sampling.



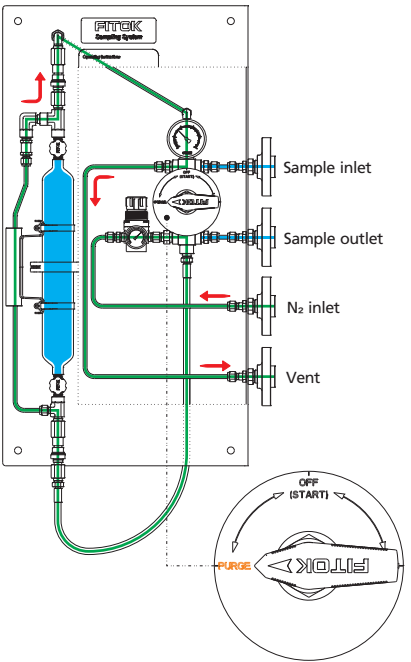
3 - Off

Turn the handle to the "OFF" position. Close the needle valves at both sides of the cylinder.



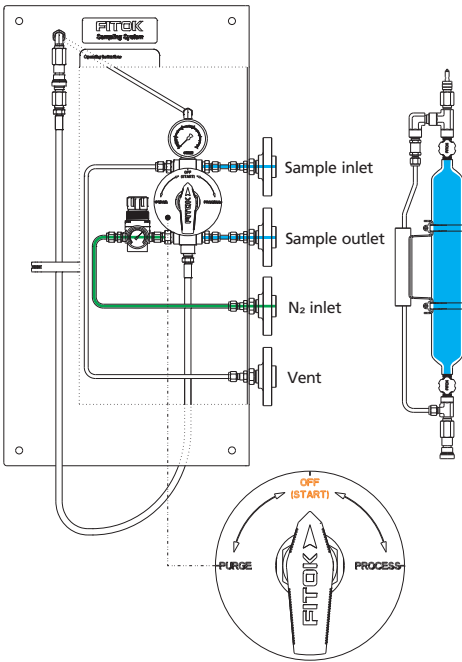
4 - Purge

Turn the handle to the "PURGE" position, allowing Nitrogen to flow through the quick-connects and bypass to force the residual sample out of the system.



5 - Off

Turn the handle to the "OFF" position and disconnect the hose. Remove the cylinder and connect the hose to the top quick-connect to complete the sampling process.

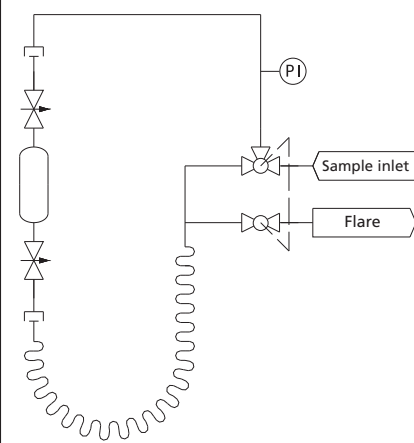


# CGG3 - Vent to Flare Type

## Features

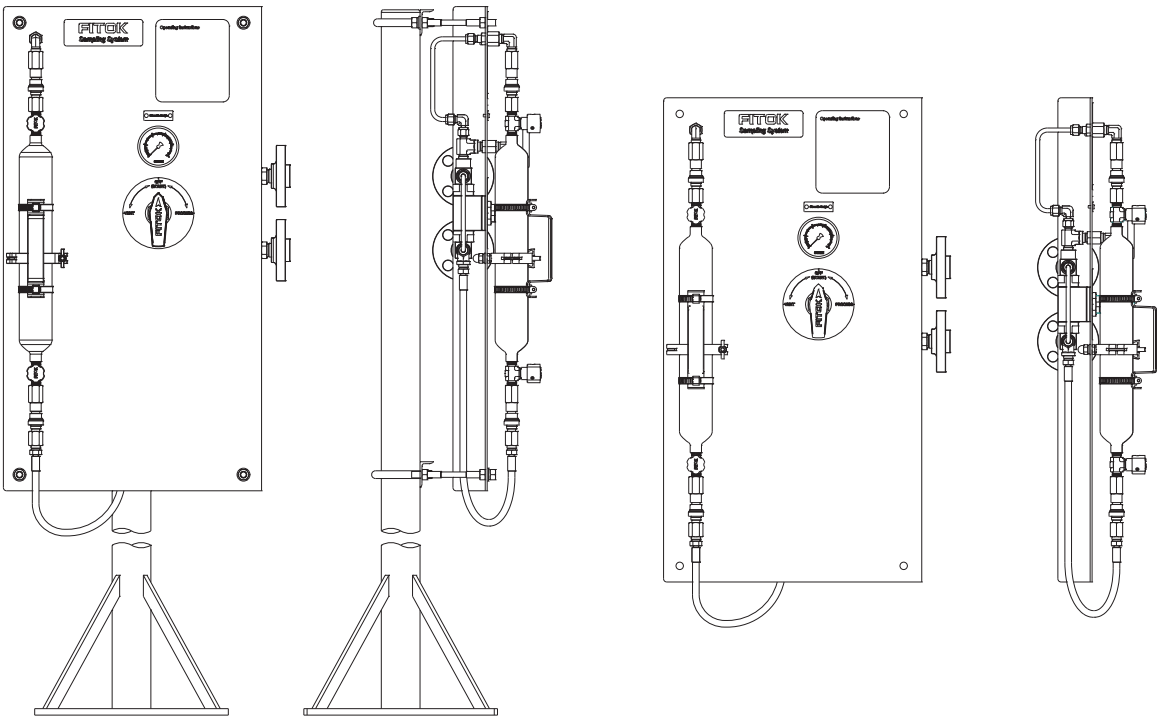
- Sampling from devices or process lines
- System purge to flare (no circulation loop)
- Easy operation with a single handle by linkage valve

## Basic Configuration

Wetted Material	316 SS	
Cylinder Assembly	500 ml cylinder	
	ND Series needle valves	
Sampling Valve	QC4 Series quick-connects	
	BF Series ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)	
	PS Series metal hoses	
Other Accessories	Pressure gauge	
Connections	NPS 1/2 flange	

Note: Products of other specifications are available upon request.

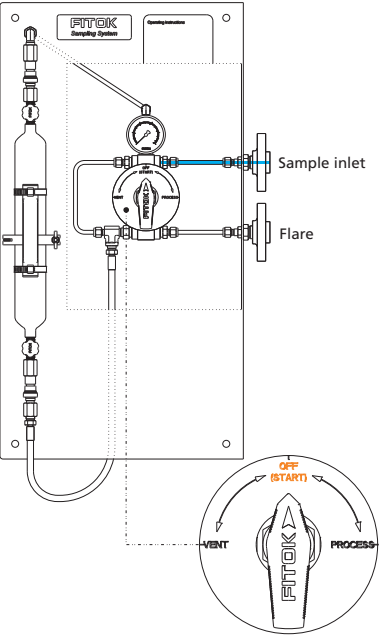
## Typical Installation Mode



## Operation

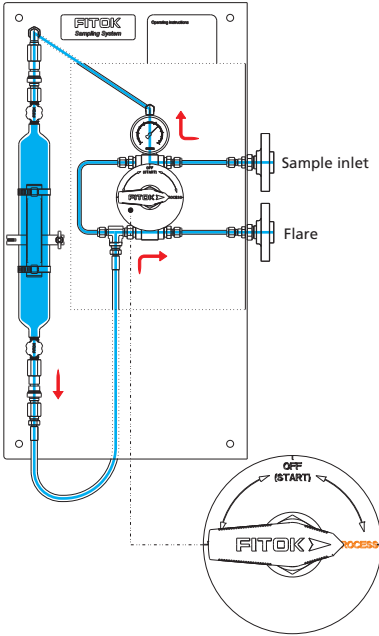
### 1 - Preparation

Install the sample cylinder and connect the hose to the bottom side of the cylinder. Open the needle valves at both ends of the cylinder.



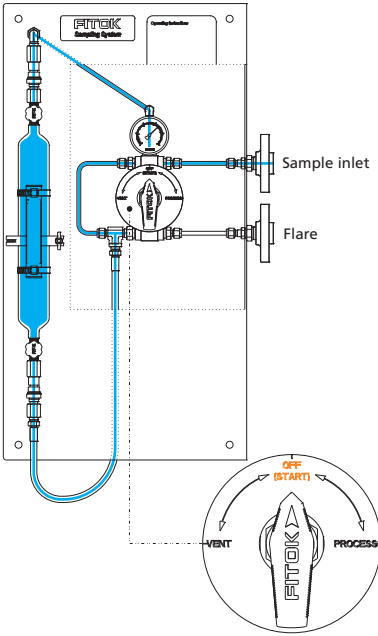
### 2 - Sampling

Turn the handle to the "PROCESS" position, allowing the sample to flow continuously into and fill the cylinder. Hold for a period of time to ensure representative sampling.



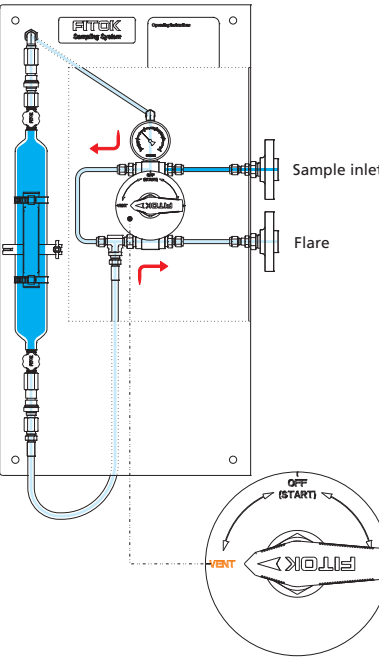
### 3 - Off

Turn the handle to the "OFF" position. Close the needle valves at both sides of the cylinder.



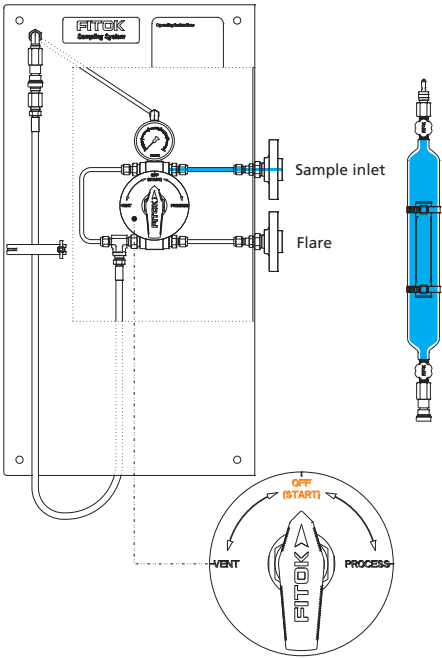
### 4 - Depressurization/vent

Turn the handle to the "VENT" position, connecting the sampling line to the flare to depressurize and discharge the residual sample out of the system.



### 5 - Off

Turn the handle to the "OFF" position and disconnect the hose. Remove the cylinder and connect the hose to the top quick-connect to complete the sampling process.



# SR - Sample Handling Systems

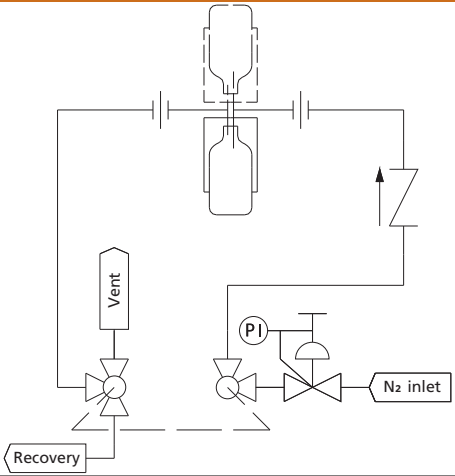
## SRB - Sample Recovery System for Bottle

### Features

- Recover the sample from the sample bottle and purge the bottle
- Closed recovery without spillage
- Easy operation with a single handle by linkage valve

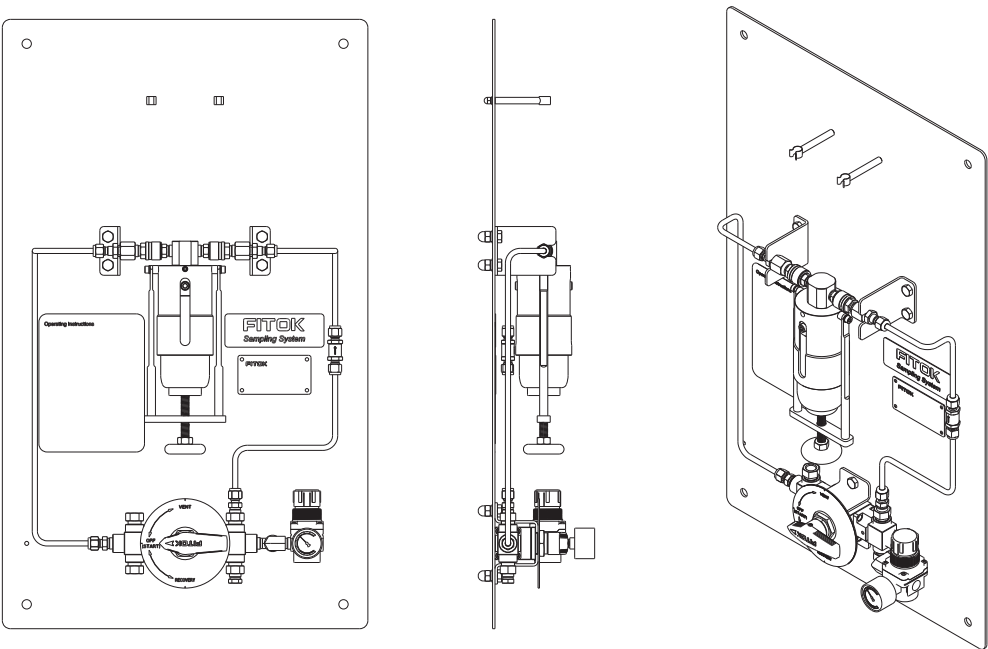
### Basic Configuration

Wetted Material	316 SS
Needle Assembly	Process/vent needle ID: 3.0 mm (0.12")
Analysis Valve	BF Series 3-way ball valves (gearbox linkage): PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Nitrogen Branch	Nitrogen regulator
	CV Series check valves
	Pressure gauge
Connections	1/4" FNPT



Note: Products of other specifications are available upon request.

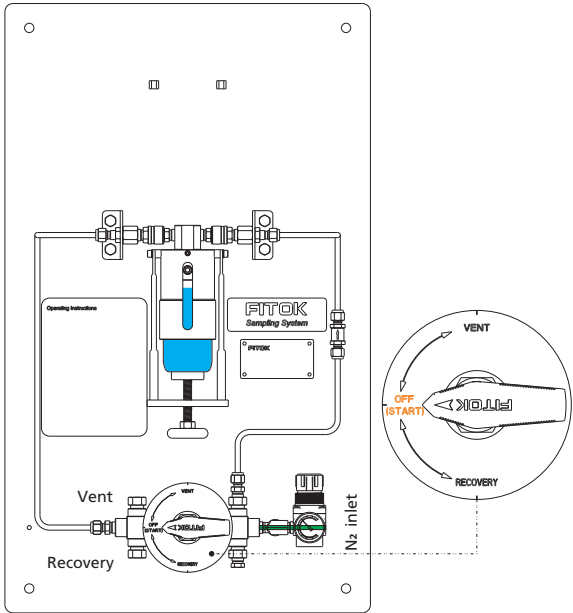
### Typical Installation Mode



### Operation

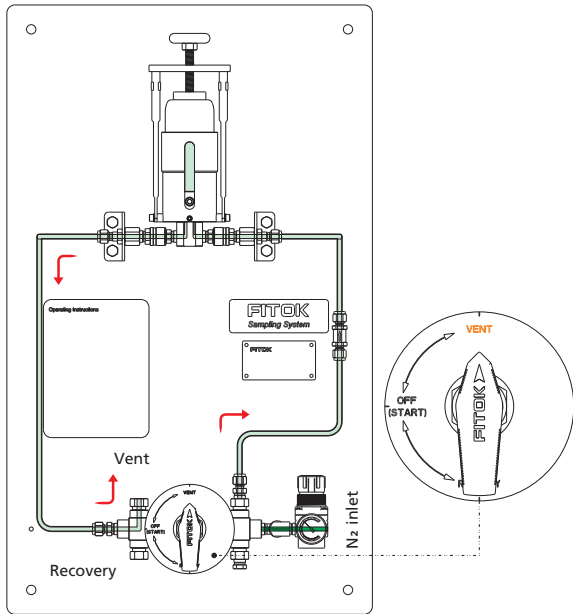
#### 1 - Preparation

Place a new septum on the sample bottle. Insert the bottle with cap and septum into the sleeve until the septum is pierced by the needles. Turn the screw till the bottle is fixed in the sleeve.



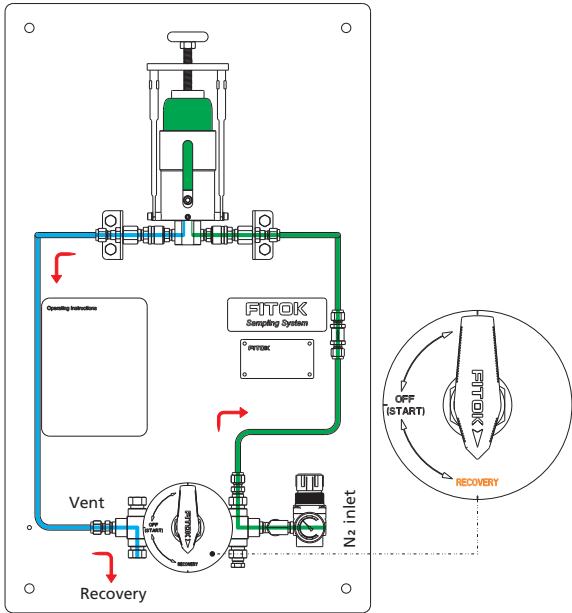
#### 3 - Depressurization

Turn the handle to the "VENT" position to allow the bottle to depressurize.



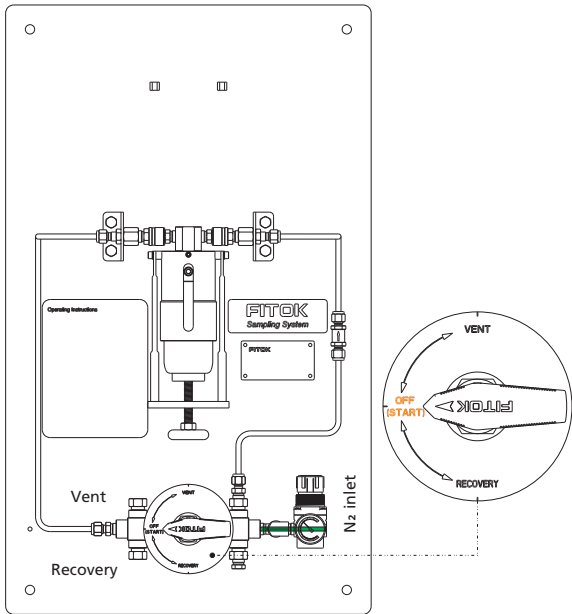
#### 2 - Recovery

Turn the sleeve upside down and fix it by the retaining clips. Turn the handle to the "RECOVERY" position, allowing Nitrogen to drive liquids out of the bottle to the recovery connection. This position can be held for any required time.



#### 4 - Off

Turn the handle to the "OFF" position and turn the sleeve back to the initial position. Unfix the screw and remove the bottle. The septum reseals automatically to complete sample recovery.



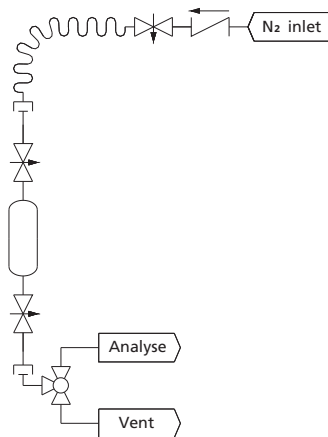
# SRC - Sample Emptying System for Cylinder

## Features

- Analyse the sample from the sample cylinder and empty the cylinder for application in the laboratory
- Closed emptying without spillage
- Depressurization of quick-connects

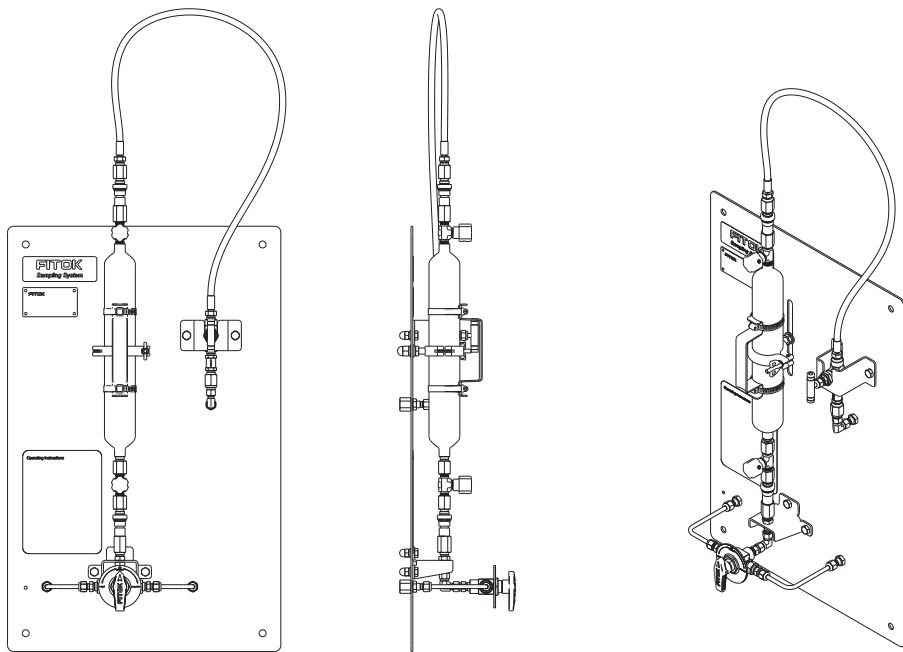
## Basic Configuration

Wetted Material	316 SS
Cylinder Assembly	500 ml cylinder
	ND Series needle valves
	QC4 Series quick-connects
Analysis/Vent Valve	BF Series 3-way ball valves: PTFE seat and FKM O-ring Max. working pressure: 1500 psig @ 70°F (103 bar @ 20°C) Temperature range: 0°F to 450°F (-18°C to 232°C)
Other Accessories	CV Series check valves
	NB Series needle valves
	PS Series metal hoses
Connections	Analyse/purge/vent: 1/4" FNPT
	Cylinder: quick-connects



Note: Products of other specifications are available upon request.

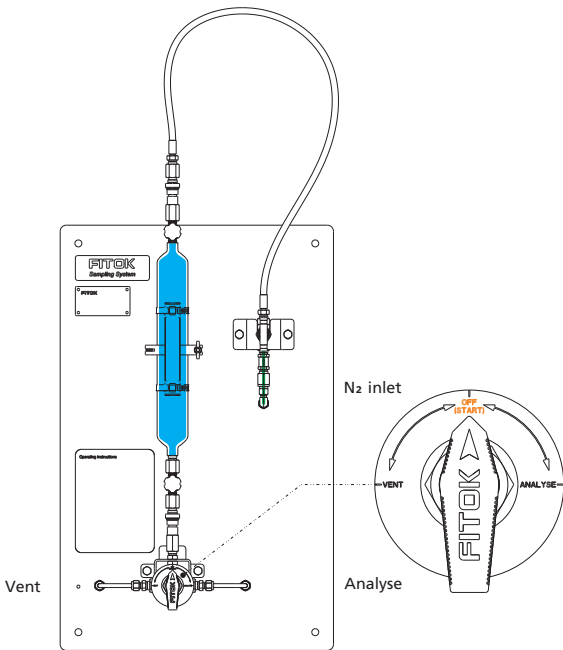
## Typical Installation Mode



## Operation

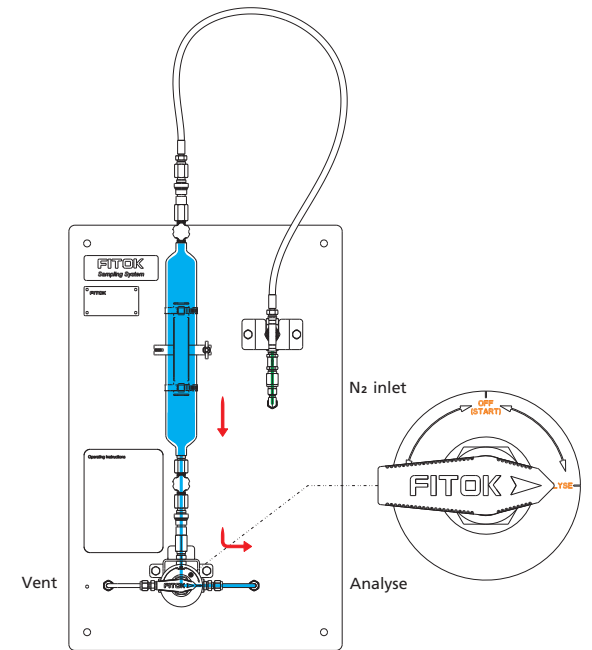
### 1 - Preparation

Install the sample cylinder. Connect the hose to the top quick-connect of the cylinder.



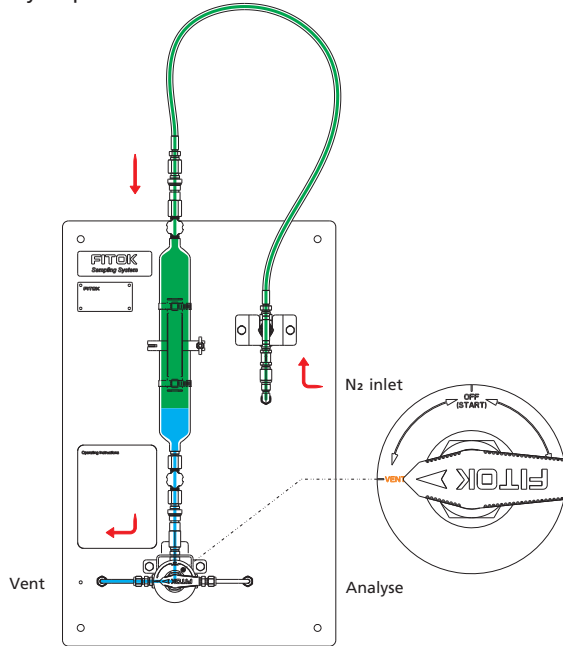
### 2 - Analyse

Open the needle valves of the cylinder. Turn the handle to the "ANALYSE" position, allowing the sample to flow into the analyser. When the required amount has been taken, turn the handle to the "OFF" position.



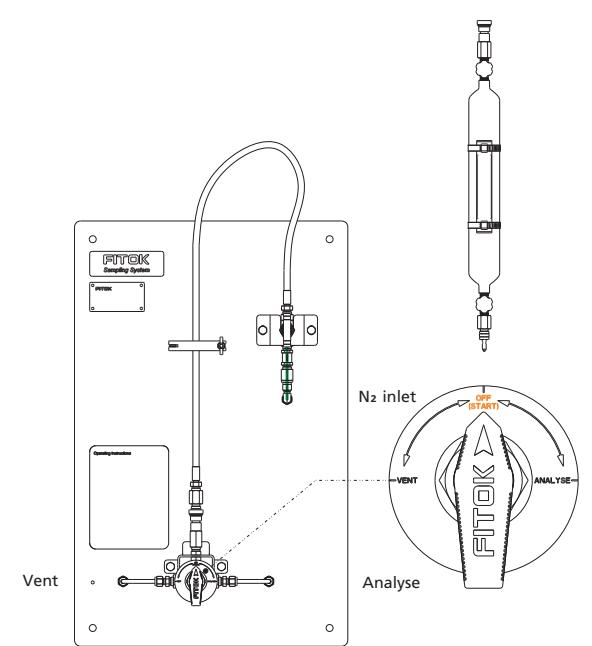
### 3 - Vent

Turn the handle to the "VENT" position. Open the needle valve on the Nitrogen branch, allowing Nitrogen to purge the cylinder to ensure that any residual fluid is removed from the cylinder. This position can be held for any required time.



### 4 - Off

Turn the handle to the "OFF" position and close all the needle valves. Disconnect the hose, remove the cylinder and connect the hose to the bottom quick-connect.



# Accessories

## Sample Bottles

- Material: Soda-lime glass, Amber soda-lime glass, Borosilicate glass, Polyethylene and Polypropylene
- Volume: 50 ml, 60 ml, 100 ml, 150 ml, 250 ml, 300 ml, 500 ml, 1000 ml, 2 oz, 4 oz, 8 oz, 16 oz and 32 oz



## Septa

- Material: Natural rubber, EPDM (Ethylene-Propylene-Diene Monomer), Silicone rubber, PTFE coated butyl, PTFE coated silicone and FKM (Viton)
- Size:  $\varnothing$ 19 mm,  $\varnothing$ 21 mm,  $\varnothing$ 22 mm,  $\varnothing$ 26 mm,  $\varnothing$ 30 mm,  $\varnothing$ 45 mm, etc.



## Caps

- Material: Aluminum, Polypropylene and PBT
- Specification: ML19, ML21, ML22, ML26, ML30, GL45, etc.



## Needle Assemblies

- Material: 316L, 304L, Hastelloy C-276, etc.
- Process needle ID (mm)  $\times$  Vent needle ID (mm): 1.4  $\times$  1.4, 2.0  $\times$  1.4, 2.0  $\times$  2.0, 3.0  $\times$  1.4, 3.0  $\times$  3.0, 4.0  $\times$  1.4 and 6.0  $\times$  1.4
- Model: PTN, PTO, etc.



## Sleeves

- Body material: 304 SS, 316 SS, etc.
- Matching bottle volume: 60 ml, 100 ml, 125 ml, 150 ml, 250 ml, 300 ml, 500 ml, 1000 ml, 2 oz, 4 oz, 8 oz, 16 oz and 32 oz



## Valves

- Type: Ball valves, needle valves and in-line valves
- Body material: 316 SS, 304 SS, Hastelloy C-276, Alloy 400, etc.
- Seat material: PTFE, PCTFE and PEEK
- O-ring material: FKM (Viton), FFKM (Kalrez) and EPDM
- Size: Available in a variety of sizes
- Connection: Available in a variety of connection types



## Cylinders and Cylinder Assemblies

- Configuration: Standard configuration, outage tube configuration and bypass purge configuration
- Volume: 75 ml, 150 ml, 300 ml, 500 ml, 1000 ml and 2250 ml
- Material: 304L, 316L and Alloy 400
- Connection: Available in a variety of connection types
- TPED Cylinders or DOT cylinders optional



## Metal Hoses

- Series: PS, MH series, etc.
- Core tube material: 316 SS and smooth PTFE
- Overbraid material: 304 SS
- Hose size: 1/4" to 1"
- Connection: Available in a variety of connection types



## Quick-connects

- Series: QC, QTM series, etc.
- Body material: 316 SS, Brass, etc.
- O-ring material: FKM (Viton), FFKM (Kalrez) and EPDM
- Size: Available in a variety of sizes
- Connection: Available in a variety of connection types







Application Questionnaire for Selection of  
FITOK Sampling Systems

Customer Name				End User			
Project Name				Site Location			
Technical Parameters							
No.	Section	Specification					
1	Process Data	Sample/fluid name and composition					
2		Tag number					
3		Fluid phase state		<input type="radio"/> Liquid		<input type="radio"/> Gas <input type="radio"/> Liquefied gas	
4		Design pressure		<input type="radio"/> psig <input type="radio"/> bar			
5		Operating pressure* <sup>1</sup>		<input type="radio"/> psig <input type="radio"/> bar			
6		Saturated vapor pressure* <sup>2</sup>		<input type="radio"/> psig <input type="radio"/> bar			
7		Design temp.		<input type="radio"/> °C <input type="radio"/> °F			
8		Operating temp.* <sup>3</sup>		<input type="radio"/> °C <input type="radio"/> °F			
9		Particles* <sup>4</sup>		Size and Content		_____ μm, _____ %	
10	Materials of Construction	Wetted material		<input type="radio"/> 316 SS (Std.) <input type="radio"/> Alloy 400 <input type="radio"/> Hastelloy C-276 <input type="radio"/> Others _____			
11	Connection Type	Inlet/outlet type and size		Inlet _____ Outlet _____			
12		Vent type and size		Vent _____			
13		Nitrogen port type and size		Nitrogen port _____			
14	Sample Container	Container type		<input type="radio"/> Bottle <input type="radio"/> Cylinder			
15	Bottle	Bottle volume		<input type="radio"/> 50 ml <input type="radio"/> 100 ml <input type="radio"/> 150 ml <input type="radio"/> 250 ml <input type="radio"/> 500 ml <input type="radio"/> 1000 ml <input type="radio"/> 2 oz <input type="radio"/> 4 oz <input type="radio"/> 8 oz <input type="radio"/> 16 oz <input type="radio"/> 32 oz <input type="radio"/> Others _____			
16		Bottle material		<input type="radio"/> Glass (Std.) <input type="radio"/> Polyethylene <input type="radio"/> Polypropylene <input type="radio"/> Others _____			
17		Septum material		<input type="radio"/> PTFE coated silicone (Std.) <input type="radio"/> EPDM <input type="radio"/> Others _____			
18	Cylinder	Cylinder volume		<input type="radio"/> 75 ml <input type="radio"/> 150 ml <input type="radio"/> 300 ml <input type="radio"/> 500 ml <input type="radio"/> 1000 ml <input type="radio"/> 2250 ml <input type="radio"/> Others _____			
19		Cylinder material		<input type="radio"/> 316L (Std.) <input type="radio"/> 304L <input type="radio"/> Alloy 400 <input type="checkbox"/> PTFE coated <input type="radio"/> Others _____			
20	Accessories	Enclosure material		<input type="radio"/> 304 SS (Std.) <input type="radio"/> 316 SS <input type="radio"/> Others _____			
21		Panel		Material <input type="radio"/> 316 SS <input type="radio"/> 304 SS <input type="radio"/> Others _____			
22		Pipe stand		Material <input type="radio"/> 304 SS <input type="radio"/> CS20 <input type="radio"/> Others _____			
23		Cooler		Cooling inlet/outlet type and size		Inlet _____ Outlet _____	
24		Steam tracing		Steam inlet/outlet type and size		Inlet _____ Outlet _____	
25		Others* <sup>5</sup>					



Application Questionnaire for Selection of  
FITOK Sampling Systems

26	P&ID	Please provide comments or sketch if necessary.
27	Documentation	<input type="checkbox"/> Material Certification EN10204:2004-3.1 <input type="checkbox"/> Inspection & testing report
28		<input type="checkbox"/> Others, please specify:

**Remarks:** \*1 Fixed volume sampling system is recommended when inlet pressure > 150 psig (10.3 bar).  
\*2 Cylinder configuration sampling system is recommended when vapor pressure > 10 psia (0.69 bar).  
\*3 Cooler is recommended when sample temperature > 140°F (60°C).  
\*4 Filter is recommended when particle size >100 μm.  
\*5 If other accessories (such as: check valve, carbon canister, spring return handle, etc.) are needed, please specify.  
☐ Single choice ☐ Optional

Warranty Information

FITOK products are backed by The FITOK Limited Lifetime Warranty. For a copy, contact FITOK Group or our authorized distributors.