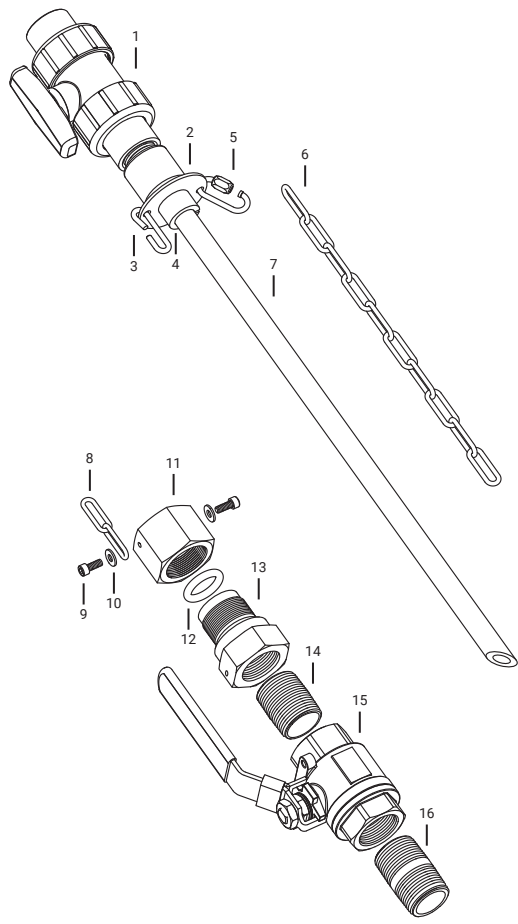


# COMPONENT LISTING

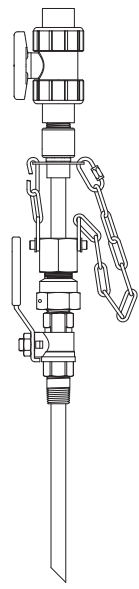


ID	Name	ID	Name
<b>Sample Tube Assembly</b>			
1	Sample Valve (Inlet)	12	Compression O-ring
2	Chain Plate	13	Solution Tube Adapter
3	Restraint Hook	14	Upper Nipple
4	Collar	15	Isolation Valve
5	Threaded Connector	16	Lower Nipple
6	Limit Chain		
7	Probe Tube		
<b>Main Connection Assembly</b>			
8	Restraint Chain		
9	Restraint Screw (x2)		
10	Washer (x2)		
11	Packing Nut		



# INSTALLATION AND OPERATION MANUAL

SP Series Retractable Sampling Probes  
SP-050, SP-075, SP-100



SAF-T-FLO Chemical Injection  
4091-U East La Palma Avenue  
Anaheim, CA 92807  
714-632-3013 | www.saftflo.com

# INSTALLATION

## BEFORE INSTALLING

- The sampling probe has been shipped in its operating configuration. Removal of the sample tube may be required prior to installing the probe.
- Hot tapping is not recommended. If planning on hot tapping, please refer to the technical references available at [www.saftflo.com](http://www.saftflo.com) or contact SAF-T-FLO technical assistance.
- It is recommended that you do not disassemble the packing gland for installation of the quill. The threads of the gland will not be protected and may become damaged. Such damage is not covered under warranty.

## INSTALLING WITH SAMPLE TUBE INSERTED

1. Apply suitable thread sealant to the process connection thread.
2. Install the probe onto the process line by threading the main connection valve to the tap on the process line.
3. Connect the sample line to the sample valve of the probe.

## INSTALLING WITH SAMPLE TUBE REMOVED

1. With the valve in the closed position. Apply suitable thread sealant to the process connection thread.
2. Install the main connection valve onto the tap of the process line.
3. Insert the sample tube following the sample tube insertion instructions in this manual.
4. Connect the sample line to the inlet of the probe's sample valve.

## AFTER INSTALLING / PRIOR TO OPERATING

1. Inspect the restraint system to ensure that it is properly in place and ready for operation. Check to verify that:
  - a. Restraint and limit chains are connected to the packing nut using the supplied screws and washers.
  - b. Restraint chain is hooked off onto the restraint hook and both chain and hook are fully extended.
  - c. Limit chain is connected the threaded connector and the jaw of the connector is closed.
2. Ensure all connections have been made prior to pressurizing.

# OPERATION

## PRECAUTIONS

- Process pressure should be reduced as much as possible prior to inserting or retracting the sample tube.
- Inspect restraint hardware to ensure it is in proper condition.
- Do not stand directly in line with the sample probe when operating.
- Take all necessary precautions to protect against possible chemical exposure when working with the quill.

## INSERTING THE SAMPLE TUBE

1. Inspect restraint hardware to ensure it is suitable for use.
2. Insert the sample tube into the valve assembly until the tip seats against the ball of the closed isolation valve.
3. Lock off the limit chain to the threaded connector and close the jaw. Chain should be extended with no kinks and minimal slack.
4. Hand tighten packing nut until resistance is felt.
5. Before continuing, ensure that there is a point of isolation installed at the inlet of the quill (ex. check valve, ball valve, feed piping).
6. Slowly open the isolation valve. Allow the limit chain to take up the pressure. Tighten packing nut to seal against any leaks.
7. Once the valve is fully open, slide the sample tube through the valve assembly until the restraint chain can be secured to the restraint hook. The hook and chain should be taut- restraining the sample tube.
8. Connect the chemical feed to the inlet of the quill.

## RETRACTING THE SAMPLE TUBE

1. Shutdown and isolate the chemical feed from the quill. Detach feed piping as needed to ensure the quill can retract unobstructed.
2. Maintain a firm grasp on the sample tube and push down into the valve assembly to remove tension from the restraint hook/chain.
3. Disconnect restraint chain from hook and slowly back out the tube until the limit chain is fully extended.
4. With the limit chain fully extended. Close the valve, isolating from the process pressure.
5. Slowly back off the packing nut to bleed off any residual pressure.
6. With the quill isolated from the process pressure and residual pressure bled off, detach the limit chain from the threaded connector.
7. Remove the tube from the valve assembly.

# MAINTENANCE

## VISUAL INSPECTION

Periodic visual inspections should be done to examine the overall integrity of the probe and to verify that no leaks have developed.

## REPLACEMENT PARTS

The following sub-assemblies are available as replacement parts:

- Main Connection Valve Assembly
- Sample Tube Assembly

# WARRANTY

All merchandise is warranted to be free from defects in material and factory workmanship. We will provide free of charge new products in equal quantities for any that prove defective within one year from date of shipment from our factory. Manufacturer shall not be liable for any loss, damage, or injury, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for its intended use and user assumes all risk and liability whatever in connection therewith. No claims for labor or consequential damage will be allowed. The foregoing may not be changed except by agreement signed by an officer of the manufacturer.

## NEED ASSISTANCE?

### CUSTOMER SERVICE

800-957-2383

M-F (7am - 4pm Pacific)

### INSTRUCTIONAL VIDEOS

<https://saftflo.com/videos>