



For Flow Controlled Sampling (Proportional to Flow) Up to 24" Pipe Size

FEATURES

- Installed as an integral part of the pipeline
- No outside power or control is required
- Features an impeller-driven sampling probe and sample circulation return probe assembled to a blind flange and mounted on a tee-flanged outlet positioned inside pipeline Incorporates a rotary sampling valve, McFarland sample volume regulator, inlet probe, return probe piping with shut-off valves and fluid pressure regulator
- Rotary sampling valve and fluid-powered impeller control sampling frequency
- Adjustable sample volume regulator, from 0 - 2.5 c³ controls sample size
- Rotary sampling valve alternately connects the volume regulator to the probe for filling or to the sample container for emptying
- Rotary sample valve, sample volume regulator and probe arrangement designed to permit passage of sand and BS&W through the sampler without clogging or damage
- No check valves are required – eliminating the potential for cutting or plugging
- Will mount on blind flange without tee or on existing pipelines by addition of a saddle, flanged outlet and hot tap
- A 24-inch sampler is provided for lines above 24 inches-customer should advise dimension from center of pipeline to face of the sampler mounting flange
- Can be supplied mounted on flanged side outlet of a plain end tee, beveled for welding into the pipeline
- Flange size and pressure rating are matched to line requirements
- Sample volume regulator capacity: 0 to 10 cubic centimeters
- Special volume regulators available for large sample sizes
- Accessories include sample container, sheet-metal house, companion flanges, and studs and gaskets
- Fluid flow provides the power and controls the sampling rate
- Changes in the sampling rate are directly proportional to changes in the flow rate in the pipeline
- Installed in horizontal or vertical lines in accordance with API sampling standards



SPECIFICATIONS

| Nominal Pipe Size (in.) | Approximate Barrels Transmitted/Sample | 150 lb. Mounting Flanges | | | 300 lb. Mounting Flanges | | |
|-------------------------|--|-------------------------------|-------------|-------------------------|-------------------------------|-------------|-------------------------|
| | | Length Flange to Flange (in.) | Width (in.) | Height C/L to Top (in.) | Length Flange to Flange (in.) | Width (in.) | Height C/L to Top (in.) |
| 2 1/2" * | 1.0 | 22 1/4" | 11" | 18 7/8" | 22 1/4" | 12 1/2" | 19 3/8" |
| 3* | 0.8 | 22 1/4" | 11" | 18 7/8" | 22 1/4" | 12 1/2" | 19 3/8" |
| 4* | 0.6 | 22 1/4" | 11" | 18 7/8" | 22 1/4" | 12 1/2" | 19 3/8" |
| 6 | 0.5 | 11 1/4" | 11" | 18 7/8" | 11 1/4" | 12 1/2" | 19 3/8" |
| 8 | 1.5 | 14" | 13 1/2" | 20" | 14" | 15" | 20 1/2" |
| 10 | 3.0 | 17" | 16" | 21 1/8" | 17" | 17 1/2" | 21 3/4" |
| 12 | 7.0 | 20" | 19" | 24 1/8" | 20" | 20 1/2" | 24 7/8" |
| 14 | 10.0 | 22" | 21" | 25 3/8" | 22" | 23" | 26 1/8" |
| 16 | 14.0 | 24" | 23 1/2" | 26 5/8" | 24" | 25 1/2" | 27 3/8" |
| 18 | 17.0 | 27" | 25" | 27 3/8" | 27" | 28" | 29 1/8" |
| 20 | 24.0 | 30" | 27 1/2" | 30 1/8" | 30" | 30 1/2" | 30 7/8" |
| 24 | 33.0 | 34" | 32" | 32 1/2" | 34" | 36" | 33 3/8" |

Note: Maximum unit sample volume: 10cc

*Standard 6" sampler with end reducers used under 6"

IMPELLER – TYPE SAMPLER

OPERATION

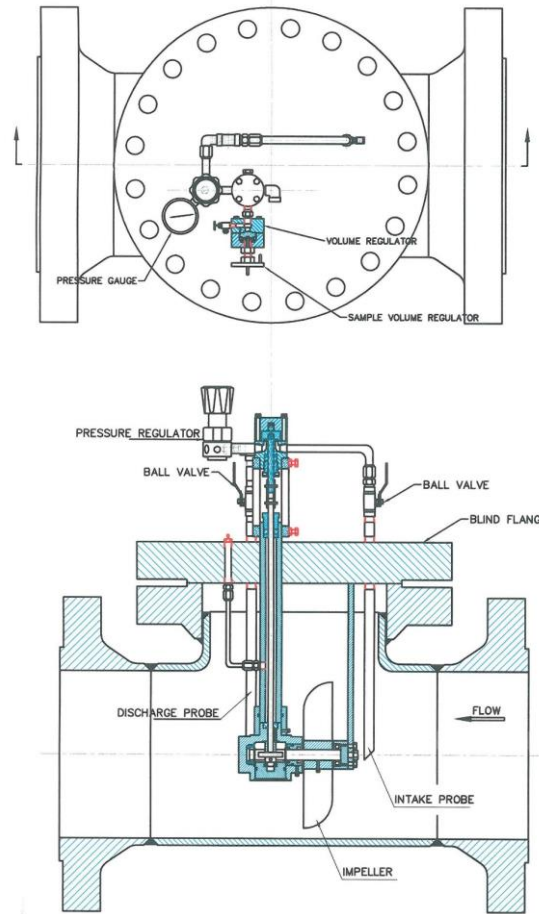
Once installed in the system in the location required, the operation is very simple. The sampler will work once flow has started through the pipe line. Check the output pressure on the pressure regulator and be sure that the setting is no more than 50 PSI max. for protection of the sampler. To adjust the volume regulator, turn the regulator to the closed position. Then turn the adjusting handle counter-clockwise to increase the sample. (One complete revolution on the adjusting screw is equal to 1 cc

STANDARD SAMPLER COMPONENTS

- Three port rotary sampling valve
- Impeller
- Volume regulator with gauge 2.5 cc to 10 cc
- Pressure regulating valves
- ¼" Turn shut-off valves
- All mounted on a blind flange

OPTIONAL

Sampler supplied mounted on flanged side outlet of a plain end Tee, beveled for welding into the pipeline; flange size and pressure rating to meet line requirements.



- *Fluid Flow Provides the Power and Controls the Sampling Rate of the Automatic Continuous Proportional McFarland Impeller Sampler.*
- *Changes in the Sampling Rate are Directly Proportional to Changes in the Flow Rate in the Pipeline.*
- *Sampler Installed in Horizontal or Vertical Lines to Sample in Accord with API Sampling Standard.*

LET McFARLAND HELP YOU SELECT YOUR SAMPLER TO MEET YOUR SPECIFICATIONS

Answer the following questions and send the information to McFarland Pump Group, You will receive a prompt recommendation for your specific need.

- Fluid to be sampled and quantity of sample required?
- Application Type, Pipeline, LACT unit, loading, unloading...etc
- What is line size, flange rating capacity, pressure, min.&max. bbls/hr?
- Is a proportional –to- flow sampler required?
- Is sample probe or sample container required?



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