

ProSam™ 10 & 20 Process Sampler

ProSam™10 — A Safe & Easy Process Sampling

Conmark's ProSam™10 Manual Sampler is a proven solution for the extraction of a "Representative" sample from a pulp and paper process line. The sample may be used in laboratory analysis to determine the value of the process parameter being examined. This non biased sample provides for the quick calibration of a measuring transmitter. The Sampler is designed so that its operation will not interfere with the flow of a representative sample from the process stream. The operator can safely extract the sample without being subjected to harsh process conditions that may accompany the sample extraction.

The ProSam™10 is manufactured in **USA**.

ProSam™10 Description.

The ProSam™10 is designed to be used in screened pulp only, without shives or debris, in 0 to 7% consistency. Pulp sampler is activated by pulling the handle on sampling valve towards the user. Closing the valve occurs when the user lets go of the handle to release the tension on the SS spring. Stroke length can be adjusted by the handle movement. The ProSam™10 sampler head penetrates inside stock line bypassing the water layer and its shape eliminates dewatering of the sample during the sampling process. Inner parts of the valve can be flushed with water after sample has been taken. Flushing prevents build up or plugging in the sample valve and reduces errors in subsequent sample extractions. ProSam™ piston forms a metal to metal seal for long life durability.



Specifications:

Measurement Range: *Consistency 0...7%*

Minimum Pressure: *See the chart*

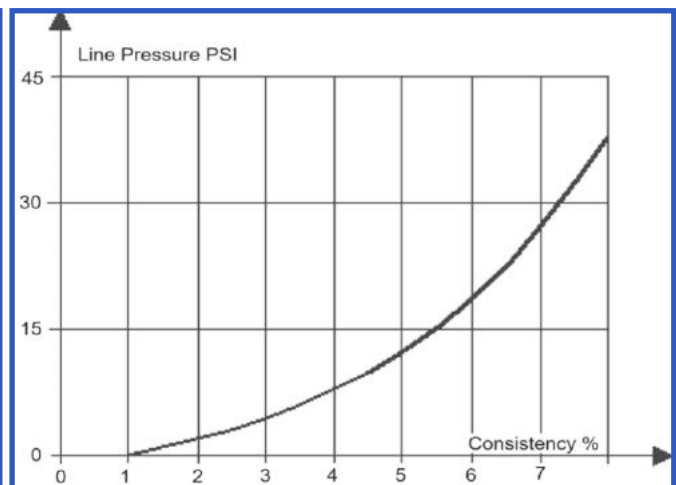
Maximum Pressure: *350 PSI*

Connectors: *Stainless Steel 316*

Valve threads: *1-1/2 " NPT Tapered*

Mounting nipple: *1-1/2 " NPS Straight*

Water flushing nipple: *1/4" NPT*



Installation:

The ProSam™10 manual sampler must be mounted in proper place in the process where a representative sample may be withdrawn. The chosen location must correlate to the process parameter being measured. It cannot be installed anywhere in the pipe. Pressures and process conditions must be proper for the measured parameter and the applied transmitter. The sampler must not interfere with measurement and have adequate pressure to extract a sample.

ProSam™10 is mounted through a 1 1/2" NPT coupling that is welded on the process pipe. It should be placed 24 inches downstream of the measuring transmitter. Rotating the ProSam 45 Degrees from the transmitter measurement location minimizes any interaction between the transmitter and the operation of the sampler.

Flushing sampler with water is recommended. A waterline and a shutoff valve is needed. A hose is attached to the outlet to reduce splashing.

Automated Sampling:

ProSam 20 is available with a operating cylinder and push button to simplify sample extraction. ProSam 20 can be connected to ProEye™CS or ProEye™100 for synchronized sampling. When a sample is required by ProEye™, sample time and measured values are stored in the memory of ProEye™ for future review and transmitter calibration.



Calculating the consistency

The calculation method depends on how the sample was diluted:

1. Consistency up to 1% Cs. There was no need to dilute the sample:

$$p = \frac{100(d - b)}{c}$$

2. Consistency 1 - 4% Cs. Dilution to about 5 litres:

$$p = \frac{A + a * 100(d - b)}{a * c}$$

3. Consistency above 4% Cs. Dilution to about 10 litres:

$$p = \frac{B + a * 100(d - b)}{a * c}$$

p = Consistency %Cs
a = Weight of pulp sample quantity to be diluted
b = Weight of dry filter paper
c = Weight of pulp quantity to be filtered
d = Weight dry filtered pulp cake
A = Mass of dilution water about 5l. 1l = 1000g
B = Mass of dilution water about 10l.
Note: Weights in grams