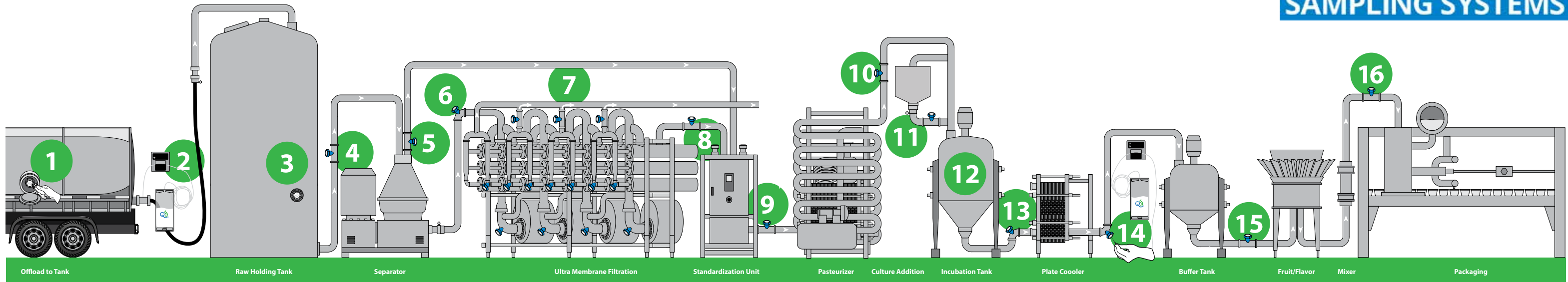


# ULTRA-FILTRATION

## Application Sites



### 1 Milk Tanker Truck Sampling

Install a QualiTru Sanitary Recessed Port with Security Lid to obtain official Pasteurized Milk Ordinance (PMO) Appendix N (antibiotic) samples at the processing plant. Eliminating the need to climb onto the truck helps ensure samplers' safety.

### 2 Receiving Bag Sampling

Install at the outlet valve on a tanker truck via a beveled seat QualiTru TruStream Sanitary Port. Collect a representative sample from the milk tanker truck via a peristaltic pump and sterile collection bag as the truck is being unloaded prior to entering the receiving bay to improve efficiency.

### 3 Raw Product Sampling

Install a QualiTru TruStream Sanitary Port for compositional testing for standardizing calculations (mass balance) around the separator. Samples can also be used to compare thermophilic bacterial growth inside the separator (cream discharge from separator) against what was fed into it.

### 4 Inline Feed to Separator

Install a QualiTru TruStream Sanitary Port to check the compositional and microbial basis of the raw milk stream going into the separator for comparison of the discharge streams. Samples can also be used to monitor thermophilic bacteria growth inside the separator during production runs.

### 5 Cream Discharge from Separator

Install a QualiTru TruStream Sanitary Port to verify compositional targets coming out of the separator. Samples can also be used to monitor thermophilic bacteria growth inside the separator during production runs.

### 6 Skim Discharge from Separator or Skim Feed to Ultra-Filtration (UF) Unit

Install a TruStream Sanitary Port to sample for compositional balance around the separator and UF, as well as a microbiology reference point going into the UF.

### 7 UF Permeate Discharge

Install a QualiTru TruStream Sanitary Port for compositional testing for mass balance around the UF. Samples can also be used for troubleshooting quality and cleaning issues, when installed in a series.

### 8 UF Concentrate Discharge

Install a QualiTru TruStream Sanitary Port for compositional testing for mass balance around the UF. Samples can also be used for microbial testing of this standardized, concentrated milk stream.

### 9 System Diagnostic

Install a QualiTru TruStream Sanitary Port at any location throughout your fluid path as part of the diagnostic function, system quality check, Clean in Place (CIP) cleanliness check and overall milk quality samples.

### 10 Pasteurized Discharge

Install a QualiTru TruStream Sanitary Port on the backside of the pasteurizer for validation of microbial kill from pasteurization and to verify pasteurization effectiveness and efficiency. Samples can also be part of the diagnostic function, system quality check, CIP cleanliness check and overall milk quality.

### 11 Culture Addition

Install a QualiTru TruStream Sanitary Port for validation of inoculum load. Samples can also be used to validate for lack of undesired microbial load.

### 12 Incubation Tank

Install a QualiTru TruStream Sanitary Port on the side of the incubation tank to obtain quality or process samples.

### 13 Incubation Tank Discharge

Install a QualiTru TruStream Sanitary Port for validation of inoculum load. Samples can also be used for microbial and bacteriophage testing.

### 14 After The Plate Cooler or Chiller

Install a QualiTru TruStream Sanitary Port (either elbow or straight) as close to the chiller outlet as possible. Locate a peristaltic pump as close to the QualiTru TruStream Sanitary Port as possible. Samples can be used to monitor regulatory requirements and quality. Samples can also be used for troubleshooting quality and cleaning issues, when installed in a series.

### 15 System Diagnostic

Install a QualiTru TruStream Sanitary Port at any location throughout your fluid path as part of the diagnostic function, system quality check, CIP cleanliness check and overall milk quality samples.

### 16 Filler

Install a QualiTru sanitary port just prior to the filler for regulatory or quality system sampling. Samples can also be used to verify sterility of product just prior to packaging and to verify the lack of contaminants system-wide.



# TIGHTER CONTROL

of Your Quality System



**OUR SYSTEM IS AS EASY AS 1-2-3-4**



### TruStream Stainless Steel Sanitary Ports

Our ports are manufactured under rigorous quality control standards and are available in both 7- and 12-channel configurations. We can also create custom ports for seamless integration with virtually any processing line.



### TruStream Sterile Septa

QualiTru sterile septa are available in both 7- and 12-needle guide channels. Our sterile septa allow for aseptic samples to be drawn a single time from each channel. This single-use method helps remove the risk of cross-contamination. When all channels have been used, simply replace with a new septum.



### TruStream Sterile Collection Units

We provide a complete line of single-use, sterile, disposable collection units ranging from our 2oz TruDraw Single Sampler to our 7-Liter collection bags. Each TruStream collection bag includes tubing and needle as one unit.



### TruDraw Single Sampler

The innovative TruDraw Single Sampler, with a tamper-evident feature, is a sterilized, sealed container with an attached sterile needle for drawing in the sample. This self-contained option virtually eliminates the risk of external contamination. The TruDraw is also ideal for simple, secure sample tracking of each container. Our TruDraw Single Sampler is designed to work with the TruStream sanitary ports and sterile septa.



### Peristaltic Pumps

The TruMotion sampling system utilizes a peristaltic pump to draw liquid samples into a sterile TruStream collection unit. This system is a continuous flow sampling system that collects a universal sample over the entire process run. TruMotion collection bags for peristaltic pump use:

- 2 Liter/3.2 millimeter silicone tubing

