Sampling in a Dairy Processing Plant
Standard Operating Procedures

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Purpose:
This procedure describes the proper installation and use of the QMI Aseptic Sampling System by approved sample collection personnel.

Scope:
This procedure applies to the general use of the QMI Aseptic Sampling System for line and process vessel sampling.

Responsibility:
Anyone who is approved and trained on use of the QMI Aseptic Sampling System to collect a milk sample is responsible for understanding the content of this SOP. Training in the proper installation of the stainless QMI fittings and Septum and general knowledge of aseptic technique is required before a person is qualified to perform this procedure.

Installation of the QMI Aseptic Sampling stainless fitting:
The QMI stainless fitting must be installed according to the recommendations of QMI engineers and in a manner that is compatible with its intended use.

We recommend sampling from an elbow which provides good turbulent flow and allows for the collection of a representative sample. The QMI elbow can easily be retrofitted at your existing tri-clamp elbow location and is CIP cleanable.
Installation of the QMI Aseptic Septum:

The QMI Aseptic Septum must be installed according to the instructions from QMI accompanying the package. **Do NOT remove plastic lid covering the 7 channels. This lid allows you to see what channel has been penetrated so the channel is not re-used.**

*For example: A 7-Port Aseptic Septum would be removed from its sterile pouch and placed in the stainless Septum housing. The stainless nut is then hand tightened onto the fitting. Finally, the nut is tightened one eighth turn using a wrench which can be purchased through QMI. Do NOT over-tighten.*

Penetration of the QMI Aseptic Septum:

Penetration of the QMI Aseptic Septum for sampling is achieved by using a hypodermic needle to pierce the Septum, **using each hole only once.** Material used in the QMI Aseptic Septum is non-corning when penetrated by any commercially available hypodermic needle. The practical limitation of needle size with the 7-Port Aseptic Septum is 14 gauge though QMI recommends using an 18 gauge. Hypodermic needles used must be sterile and appropriately packaged to maintain sterility until the moment of use.
An appropriate device must be attached to the hypodermic needle to effect the transfer of material.

For example: The needle may be attached to an appropriately sized sterile syringe or QMI Sampling Bag that can be used to withdraw material.

**Procedures for penetration of the QMI Aseptic Septum:**

1. Assemble necessary items: needle, sterile swabs, sanitizing agent,
2. Swab the smooth plastic surface of the QMI Aseptic Septum with sanitizing agent for an appropriate time period (typically 15-20 seconds),
3. Use proper sterile technique to remove the needle from its sterile packaging,
4. Line the needle up with one of the penetration channels and push the needle gently through the smooth plastic surface and all the way through the rubbery Septum material below it into the interior of the vessel or line. Penetrate the Septum with a slight angle when sampling from the outer channels,
5. Carry out the transfer of material (sampling or filling syringe),
6. After the material transfer is completed, withdraw the needle and cover it to prevent accidental needle sticks. Discard the needle properly in a container for sharps.
Please Note:

The Aseptic Septum can be left in place during the CIP cycle and has been validated at a combined 250°F, 150psi for 100 hours.

For an application outside of these guidelines, please contact QMI.