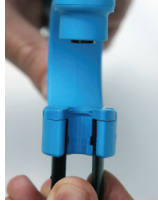


# Tissue Sampling Unit applicator instructions

## Loading the Allflex TSU applicator



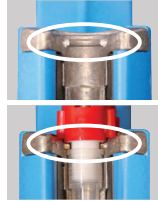
**1.** Take an assembled TSU (needle + connection piece + collection tube).



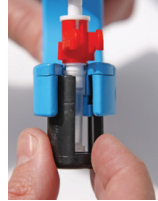
**2a.** Open the TSU retention ring on the pliers.



**2b.** Insert the TSU as shown in the pictures.



**Important:** ensure the TSU groove is located in the plier anvil.



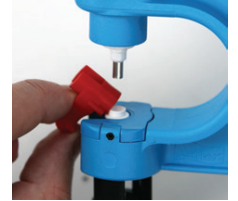
**2d.** After insertion of the TSU close the retention ring to lock the tube.



**3a.** Carefully squeeze the plier handles until the large piston comes to a stop against the red connection piece.



**3b.** You now have completely grabbed the needle. After the needle is inserted into the piston you can release the handles.



**4.** You can now easily remove the red connection piece by clicking it off using the two handles.

**Pliers are now charged, ready for use.**

**WARNING: The cutter is extremely sharp**

## Taking an ear notch sample



**1a.** Slide the charged pliers over the ear and position the cutter about 1cm to 2cm from the edge of the ear.



**1b.** Try to avoid large veins and ridges. The sample should be taken in a very swift, fluid motion.



**2a.** Remove the TSU tube from the pliers by opening the retention ring and sliding out the tube.



**2b.** A tissue sample should be clearly visible inside the tube.



**3.** Remove the used needle from the pliers by pulling the handles apart. This will loosen the needle and make it easy to remove. The needle is no longer of use as it no longer contains the red plunger.



The TSU is for SINGLE USE ONLY. Both the tubes and the needles can't be re-used! See the difference between an un-used and a used TSU.



In the used TSU a clear RED plunger will be visible indicating the tube already contains a sample and can't be used again.

**Discard the needle safely.**

**CAUTION: The needle is very sharp. Mind your fingers!**

## Maintaining your TSU applicator

### Cleaning

- The applicator should be cleaned with a cloth to remove any dirt.
- Do not wash with water or with left-over milking machine plant acid wash. This may cause the applicator to rust.



### Maintenance

- After cleaning, protect the metal moving part by coating with maintenance oil. This will help free up the parts and prevent rust.
- Do not use zinc-based spray paint on the moving parts. This may affect parts clearance.



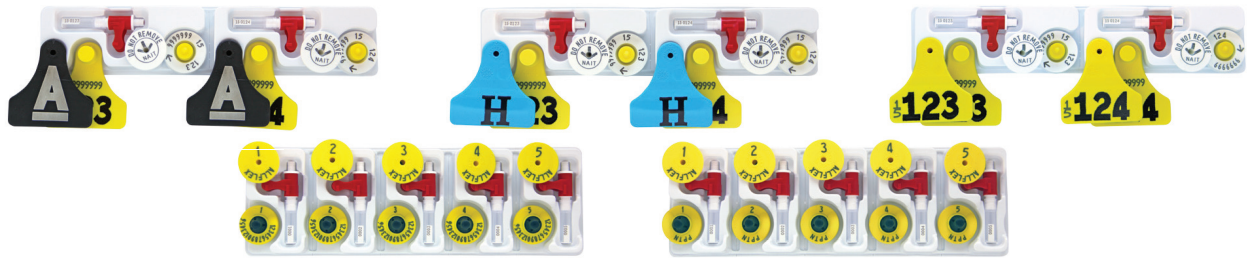
### Storage

- After cleaning and maintenance, store in an airtight bag to prevent rust.
- Do not store in damp conditions.



# A guide for using Allflex Tissue Sampling Unit (TSU)

Thank you for choosing the Allflex TSU. This guide has been designed to help ensure that you get the best possible result out of what has become the world's most accepted tissue sampling system.



## CHOOSING A LABORATORY TO PROVIDE ANALYSIS OF YOUR TSU SAMPLES

Allflex provides a link to laboratories processing TSUs, please visit [www.allflex.co.nz](http://www.allflex.co.nz) and download your chosen provider's submission forms there.

This document will outline the three main areas of the system – Sampling, Storage and Transport.

### THE TSU SAMPLER

**DRY TSU** – most commonly sold (but not exclusively) in New Zealand by Livestock Improvement Corp Ltd (LIC) and Performance Beef Breeders (PBBNZ). Dry TSUs have been chosen due to NZ's climate and efficient courier services, hence they do not require liquid preservative.

**WET TSU** – TSUs most commonly sold (but not exclusively) in NZ by Zoetis, these can be easily identified as they contain a clear preservative liquid.

### COLLECTION/SAMPLING

**Important:** Please take the time to follow this guide, this will ensure your samples reach the laboratory in viable condition.

Overleaf is an Allflex TSU guide. This will explain how to take the sample and look after your TSU pliers. The guide is applicable for cattle, deer, sheep, goats and pigs.

**Best Practice:** It is best to be prepared prior to sampling. Have a chilly bin with an ice pack with you when sampling. As soon as the tissue sample is removed from the pliers it should be placed in the ziplock bag provided and placed in the chilly bin.

**Important:** The TSU is a "stand alone" sampler. The TSU cutter must be changed for each sample taken.

### RECORDING YOUR SAMPLES

**Best option for calves:** If you purchase Allflex TSU Birth Packs they will arrive in special "pre-paired" trays that also contain the calf's Allflex tag set. The TSU sampler will already have your animal's number printed on the base and side of the sampler tube. No manual recording is required. Should you make a mistake and damage the Birth Pack TSU Sampler, simply use a blank TSU and write the calf's birth ID in the associated space on the box lid.

**Best option for dams and sires:** If your TSUs are supplied in a blank box of 10, you will need to write the animal's number on the corresponding space provided on the box lid matching the TSU used.

### STORAGE

**Dry TSU:** At the first possible chance your TSU samples should be frozen and kept that way until you are ready to send them all to the laboratory. On the day you are sending the TSUs take them out of the freezer and place them straight into a padded courier bag. Do not thaw out your samples before putting them into the courier bag.

**Wet TSU:** Wet TSUs have a preservative in the tube. The best practice is still to keep them cool and store them in the fridge. **Important:** You must not freeze Wet TSU samples.

### TRANSIT/TRANSPORT

For both Dry and Wet TSUs, ensure you use the best courier service available. One that will get them to the lab in the quickest time. TSUs are best kept cool wherever possible, for the entire duration of their time outside of a fridge. This is particularly important to remember during summer and when sampling in remote locations.