

Operation and Maintenance Manual
for
Manual FreeGlide® Sampler
Model: M



Clean Before Use

Thoroughly clean all product contact parts of the sampler before it is used for the first time. We recommend that you use the same cleaning methods that are used for other items of stainless steel and Silicone.

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Section One

1.0 Contract Details

Customer:

Order No.

Supplier:

SAMPLE



Section Two

2.0 Machine Description

The FreeGlide® Sampler is a sampling device designed for the collection of powder samples from a vertical downpipe.

The sampler extends a small cup into the flow of the falling product, then retracts and inverts the cup, thus depositing the sample into whatever sample collection system the operator is using. The sampler is designed so that it can be easily stripped down for cleaning and maintenance.

2.1 Capacity / Specification:

Nominal Cup capacity:	50 ml
Actuation:	Manually operated sampler
Polymers:	Diaphragm Silicone Closing Plug Silicone 5" Front Seal Silicone
Downpipe Diameter:	
Sample collection system:	Optional Extra – not required
Cleaning Nozzles:	Optional Extra – not required



Section Three

3.0 Safety Notes

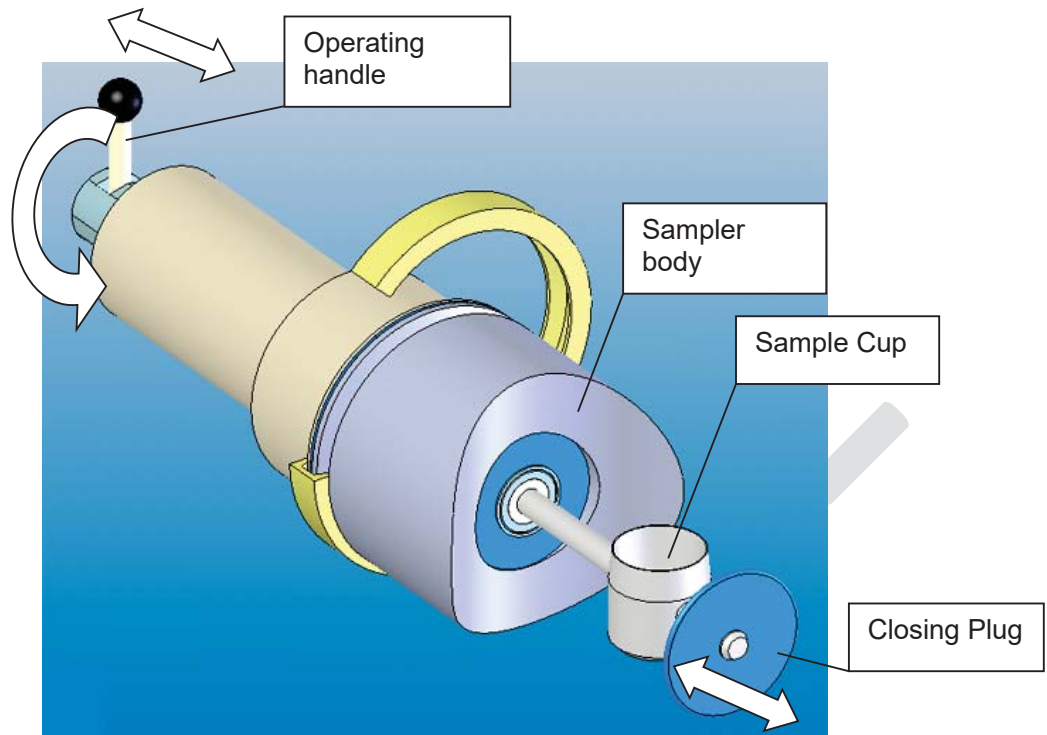
If a hazardous environment exists within the product chute, it is important that any potential explosion risk is removed prior to the strip down of the sampler. Sampling Systems Ltd. recommend that this is covered in customer SOP's and operator training.

SAMPLE

Section Four - Operating Instructions

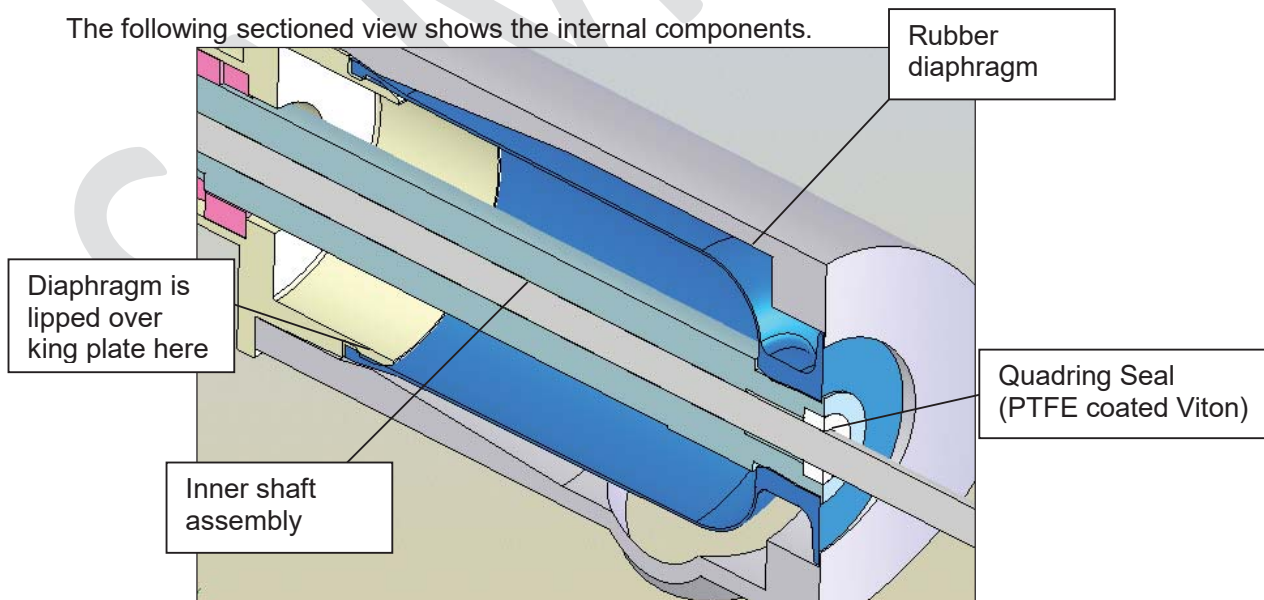
4.1 Overview of sampler

The various components of the FreeGlide® sampler are shown below:



(Note – Tee Piece removed for clarity).

The following sectioned view shows the internal components.



4.2 Installation

a. Weld Front Boss to Downpipe

Cut a 1/2" diameter hole in the pipe where the sampler is to be installed weld the Front Boss in place

The curved face of the Front Boss should be level with interior wall of the pipe.

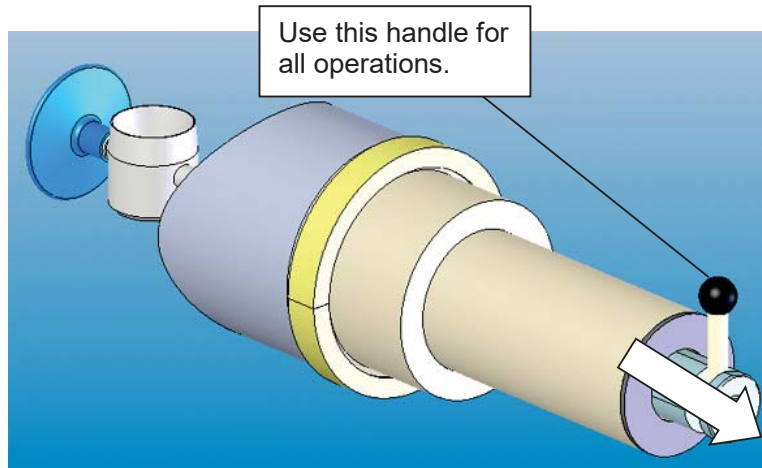
b. The FreeGlide sampler clamps to the Front Boss by means of the 5" hand operated clamp. Ensure that the 5" gasket is located between the Front Boss and FreeGlide sampler.

4.3 Sampling Operation

The operator extends and retracts the sample cup into and out-of the product chute using the small handle to the rear of the sampler. The sampler cup should be slid all the way in or out to the limit of travel, thus ensuring that the cup is either in the ideal position in the product chute, or back in the correct position within the sampler housing for sample recovery.

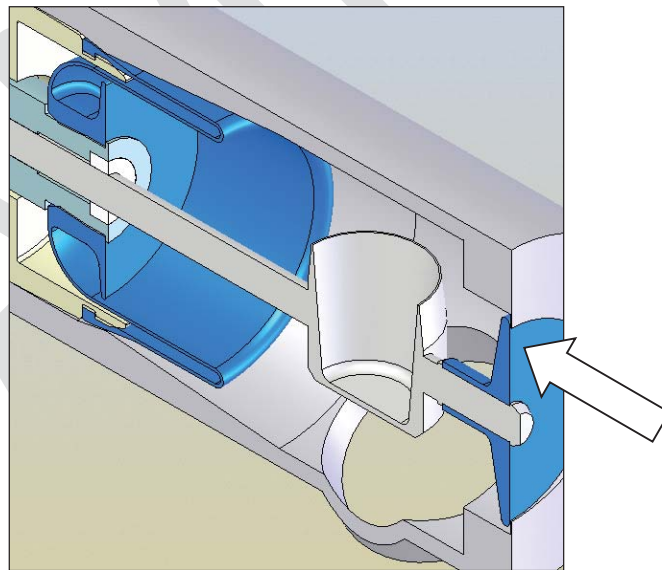
The sequence will be as follows:

1. Cup is extended into the product chute, and is left there momentarily to fill with powder.

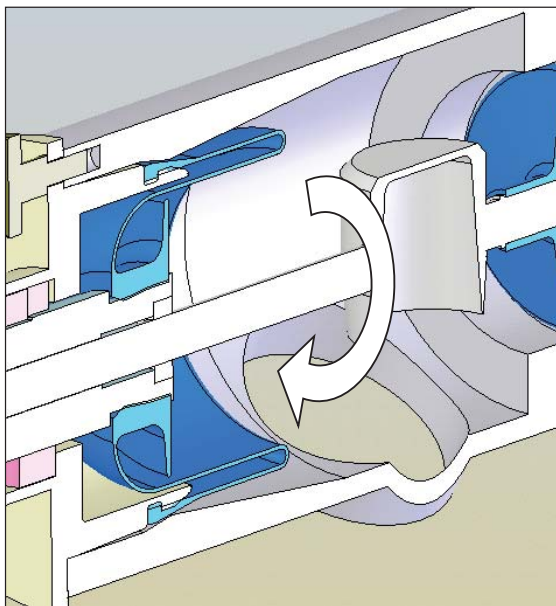


(Note – Chute removed for clarity).

2. Cup is retracted to position within sampler body.



3. Cup is inverted, emptying sample down collection chute.



SAMPLE

4.4 Complete strip down of sampler.

Warning – the FG-3000M weighs about 15kg (33lbs)

Tools Required:

- Hex (Allen) Key 6mm

1. Undo the 5" hand tightened clamp at the front of the sampler. A second person may be required to support the sampler as soon once the clamp has been removed.

Place the sampler on a suitable work bench.



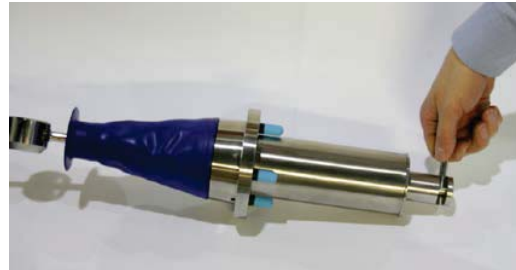
2. Use the 6mm Hex Key to remove the three M8 cap screws at the rear of the King Plate.



3. Carefully remove the Tee Piece.



4. Undo the Operating handle



5. Slide out the inner shaft assembly.
Take care not to damage the Quadring Seal in the Seal Housing.



6. Un-lip the large end of the rubber diaphragm from the king plate.



7. Unscrew the Diaphragm and Seal Housing from the Outer Shaft.
The Diaphragm and Seal Housing should now be free to remove from the body of the FreeGlide sampler.



8. Separate the Seal Housing from the Diaphragm



Re-assembly

- 10 - Re-assembly is the reverse of removal. Note: great care should be taken when inserting the inner shaft into the Seal Housing so as not to damage the Quadring.

Section Five

5.0 Maintenance

5.1 Recommended maintenance

In order to keep the sampler in good working order, regular maintenance is required and this should be recorded and kept as a record.

All maintenance personnel who carry out the maintenance on the sampler should be fully qualified.

Recommended weekly maintenance

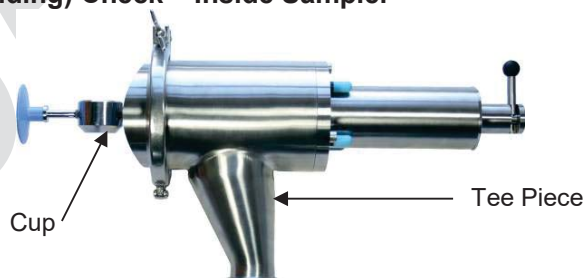
- Visually inspect the Diaphragm for wear*
- Visually inspect the Closing Plug for wear*
- Visually inspect the Quadring for wear*
- Inspect filters for damage
- Confirm that there is an earthing route from the cup to the Tee Piece (see section 5.3)
- Confirm that there is an earthing route from the Tee Piece to the downpipe (see section 5.4)
- Visually check that the sampler is making a good seal with the inside face of the product chute when in the extended and retracted positions.

* Polymer components must be viewed as consumable parts and replaced at the first signs of wear.

5.2 Lubrication schedule

There are no components on this sampler assembly which require lubrication.

5.3 Earthing (Grounding) Check – Inside Sampler

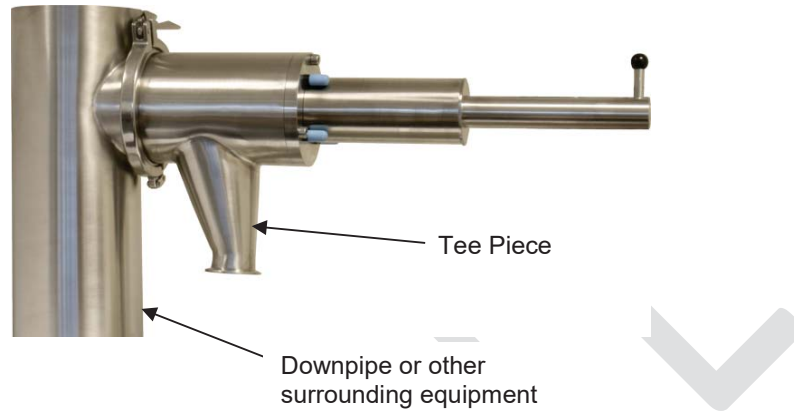


Ensure that the resistance between the cup and the Tee Piece is less than 1 Ohm.

If the resistance is greater than this then the inner workings of the sampler are electrically isolated. The device must not be reinstalled until it has been properly investigated – contact QAQC LAB for advice.

5.4 Earthing (Grounding) Check – to surrounding equipment

Ensure that the resistance between the Tee Piece and the Downpipe (i.e. Surrounding equipment) is less than 1 Ohm.



Section Six

6.0 Recommended Spares

QAQC LAB recommends that the following spares are kept on site in order to prevent any production stoppages.

Ref	Item	Part Number	No. on sampler	Recommended quantity for spares	
6.1	Diaphragm*:	Silicone	SS900-341	1	2
		Viton	SS900-344		
		EPDM	SS900-343		
6.2	Closing plug*:	Silicone	SS900-269	1	2
		Viton	SS900-267		
		EPDM	SS900-265		
6.3	5" Flange Seal*:	Silicone	SS900-206-50	1	2
		Viton	SS900-290		
		EPDM	SS900-291		
6.4	Filters 1/8"	SS900-222	4	8	
6.5	Quadring*	SS900-334	1	1	

* Polymer components must be viewed as consumable parts and replaced at the first signs of wear.

Please contact QAQC LAB for latest prices and availability.