Technical Publication

Frequently Asked Questions

EasySampler

A list of frequently asked questions is answered in this document. For up-to-date support information, please visit our online support page www.mt.com/EasySampler-support

Quicklinks

Documentation

- [EasySampler Operating Instructions](#)
- [EasySampler User manual (Quick Start Guide)](#)
- [Connectivity Kit User Manual (Quick Start Guide)](#)
- [Product Catalog](#) – ordering information for all EasySampler items and accessories
- [Data Sheet](#) – technical specifications of EasySampler 1210 and EasySampler Probes

Available Support Videos

1. [Change a Sleeve on the EasySampler Original Probe (4m00s)](#)
2. [Change a Sleeve on EasySampler Probe *New (7m50s)](#)
3. [Change Tubing in the Original EasySampler Probe Conduit](#)
4. [Replacing the EasySampler Probe Head Tubing](#)
5. [Change the Solvent Tubing](#)
6. [Replace the Needle](#)
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Available Application Notes and White Papers

Whitepaper: [Pfizer Evaluates Automated Sampling For Improved Impurity Profiling](#)
Application Note: [**Buchwald-Hartwig Reaction** Profiling – Reproducibly Sample a High Temperature Slurry](#)
Application Note: [End Point Detection of an **Ester Reduction** – Sampling Air-Sensitive Reactions](#)

METTLER TOLEDO

Contents

FAQs

Chapter 1: Probes

1.1 What EasySampler probe lengths are available?

EasySampler Probes are available as models 210, 330, and 450. The probe lengths are 213, 333, and 453 mm, respectively. For all probe models, the outer diameter of the EasySampler probe is 9.5 mm, and the sample pocket size is 20 μL.

1.2 Are probes available with different sample pocket sizes?

All models of EasySampler probes are available with a 20 μL sample pocket size.

1.3 What is the temperature range of the EasySampler probe?

At **atmospheric pressure**, EasySampler probes are rated for temperatures in the range of **-20 to 140 °C**. It is recommended to change sleeves after 100 samples within this temperature range, at atmospheric pressure.

For reactions at **elevated pressures**, between 1.013 bar and 10 bar, the temperature range is **20 to 100 °C**. See question 1.7 for complete details of specifications and requirements for reactions at elevated pressure.

For more information on EasySampler materials and technical specifications, see the EasySampler Datasheet, Product Catalog, or visit mt.com/EasySampler.

1.4 How can I measure the 'actual' or 'real' sample pocket size?

The pocket size of the EasySampler probe is 20 μL, with a manufacturing tolerance of up to 10 %. Thus, the sampling pockets of 2 adjacent units can be 18 μL and 22 μL. For quantitative analysis, the pocket size is important. To determine the 'real pocket size', follow the procedure below:
  i.   Make up a solution with a known accurate concentration of a marker
  ii.   Take a sample and analyze by HPLC
  iii. Back-calculate the pocket size based on the Area Counts data

The 'Real pocket size' can be defined on EasySampler, and the information will be stored on the probe (on an embedded chip). This information will appear in report files, but will not affect the volume of dilution solvent used (i.e. the Dilution Factor assumes a pocket size of 20 μL).

To define the 'Real pocket size' on EasySampler:

Settings > System Information > Sampling probe > Real pocket size

1.5 What material is the probe made of, and is the probe purged?

All the wetted parts of the EasySampler probe are alloy-C22 or PTFE. Please check the compatibility of reactions with these materials to avoid damaging the probe and contaminating the reaction.

The EasySampler probe is not purged.

For more information on EasySampler materials and technical specifications see the EasySampler Datasheet, Product Catalog, or visit mt.com/EasySampler.

1.6 What is the pH range of the EasySampler probe?

The wetted parts of EasySampler probes are composed of alloy-C22 and PTFE so the probe is able to withstand reactions in the pH range of 1 to 14.

For more information on EasySampler materials and technical specifications see the EasySampler Datasheet, Product Catalog, or visit mt.com/EasySampler.

1.7 How often should the sleeve be changed?

The lifetime of EasySampler sleeves varies depending on the reaction conditions they are subjected to.

Reactions at **atmospheric pressure**, within the specified temperature range of **-20 to 140 °C**: It is recommended to change sleeves every 100 samples

Reactions at **elevated pressures**, 1.013 bar to 10 bar, within the specified temperature range of **20 to 100 °C**: It is recommended to change sleeves after every reaction (up to 24 samples per reaction)

The usage of the currently sleeve can be confirmed on the EasySampler touchscreen:

Settings > System Information > Sampling probe > Sleeve Change

1.8 What is the procedure to change a sleeve?

The process of changing a sleeve takes less than 7 minutes. Detailed step-by-step instructions can be found in the EasySampler Operating Instructions, and support videos are available too:
Video: Change a sleeve – original probe (4m00s)
Video: Change a Sleeve – new style probe (7m50s)

1.9 Why are there 3 pocket counter numbers?

The pocket counter is used to monitor the number of pocket moves. Each sample takes 2 pocket moves (1 move 'out' and 1 move 'in').
1. Device Data – Absolute pocket moves: total number of pocket moves of that particular probe
2. Service – Pocket moves: number of pocket moves since the last service by a qualified Mettler-Toledo Service Engineer
3. Sleeve Change – Pocket moves: number of pocket moves since the sleeve was changed (the user is required to 'Process sleeve change', after changing a sleeve for this counter to be reset to 0)

Settings > System Information > Sampling probe > Sleeve Change > Process Sleeve Change

1.10 Why is there a hole at the top of the probe shaft?

Should there be an excessive leak at the sleeve (e.g. due to physical damage or pressure outside of the specifications), reaction mixture and solvents used with EasySampler may fill the space between the inner and outer shafts of the probe. To avoid contacting the probe's electrical motor, the excess liquids will flow from this hole.

1.11 Could vapors, which may be present above the reactor, destroy the motor inside the sampling probe?

The electrical motor is in a sealed compartment of the sampling probe so vapors entering the probe will not come in contact with the motor or the electrical cable.

1.12 I have a reactor from another vendor; can I use EasySampler with this reactor?

Yes, EasySampler can function as a stand-alone device and can be used in any reactor, including tube reactors, round-bottomed flasks, jacked lab reactors (JLR), and automated lab reactors (ALR). Points to consider:
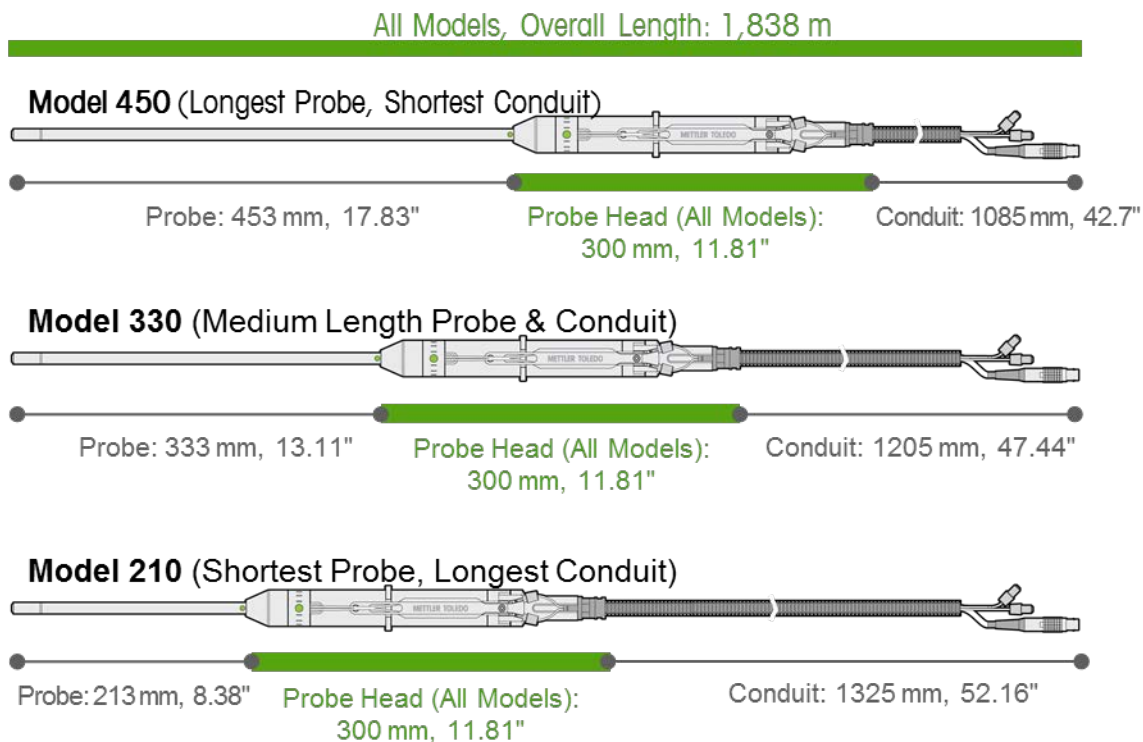
- All models of EasySampler probes are 9.5 mm in diameter
- An appropriate adapter should be used to fit the EasySampler probe securely into the reactor port. For available adapters for ambient and high pressure reactions, see the EasySampler Product Catalog.

1.13 Is the EasySampler probe autoclaveable?

Though the EasySampler probe would withstand autoclave conditions, the design of sampling head and sleeve do not lend them to be easily or adequately sterilized, and may lead to contamination of the cell culture or fermentation process. For further discussion please contact Vaso Vlachos (Market Development Manager for EasySampler; vaso.vlachos@mt.com, 410.910.8141).

1.14 Can I simply swap probe shafts between different probe models?

This is an important question. Probe shafts must NOT be swapped between different probes models. The reason for this is that the overall tubing length of the system will be incorrect and result in samples being deposited in the waste rather than the vial. The schematic below provides further information.

All Models, Overall Length: 1,838 m

Model 450 (Longest Probe, Shortest Conduit)
Probe: 453 mm, 17.83"   Probe Head (All Models): 300 mm, 11.81"   Conduit: 1085 mm, 42.7"

Model 330 (Medium Length Probe & Conduit)
Probe: 333 mm, 13.11"   Probe Head (All Models): 300 mm, 11.81"   Conduit: 1205 mm, 47.44"

Model 210 (Shortest Probe, Longest Conduit)
Probe: 213 mm, 8.38"   Probe Head (All Models): 300 mm, 11.81"   Conduit: 1325 mm, 52.16"

Chapter 2: Sampling from Reactions at Elevated Pressure

2.1 Can EasySampler be used to sample reactions at elevated pressure?

Yes, EasySampler can sample reactions under pressure if ALL the following reaction conditions are met:
1. Pressure Range: 1.013 bar – 10 bar (14.7 – 145 psi)
2. Temperature range: 20 to 100 °C
3. Reactor volume: up to 2500 mL
4. Number of samples per sleeve: 1 reaction (with up to 24 samples)
5. High pressure adapter: An appropriate high pressure adapter (P/N14474404) must be used to securely position the EasySampler probe in the reactor.

Note: Use of the EasySampler probe at elevated pressure (between 1.013 bar to 10 bar) will reduce the temperature range to 20 °C to 100 °C, the maximum reactor volume to 2500 mL, and the maximum number of samples per sleeve to 1 reaction (with up to 24 samples).

For more information on EasySampler materials and technical specifications, see the EasySampler Datasheet, Product Catalog, or visit mt.com/EasySampler.

2.2 What are the important considerations when using EasySampler to sample a reaction at elevated pressure?

There are three (3) important considerations when using EasySampler to sample reactions under pressure.

1. ALL the following reaction temperature and pressure conditions must be met:
   - Pressure Range: 1.013 bar – 10 bar (14.7 – 145 psi)
   - Temperature range: 20 to 100 °C
   - Reactor volume: up to 2500 mL
   - Number of samples per sleeve: 1 reaction (with up to 24 samples)

2. Adapter: the high pressure adapter (P/N14474404) must be used to securely position the EasySampler probe in the reactor and avoid damage to the probe.

3. Placing the probe in the reactor
   There is a correct way to place a probe in a reactor in preparation for a reaction at elevated pressure:

   CORRECT:
   1. Fill the reactor with enough solvent
   2. Fit the EasySampler probe into the pressure vessel at an appropriate height (ensuring the sample head will not interfere with the agitator in any way when the pocket moves out)
   3. Pressurize the reactor and charge the reactor with remaining solvents and reagents

1. Add solvent to the reactor

2. Insert EasySampler probe

3. Pressurize the reactor
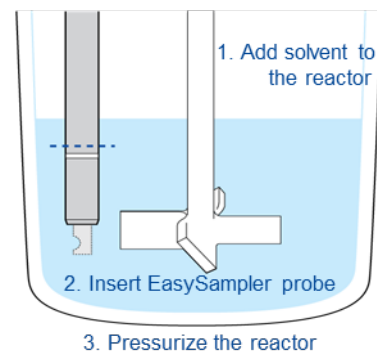
   INCORRECT: Typically, all probes are placed into a reactor; the reactor is pressurized and THEN charged with the necessary solvents and reagents. For EasySampler this may lead to sleeve failure.

   For more information on EasySampler materials and technical specifications, see the EasySampler Datasheet, or Product Catalog, visit mt.com/EasySampler.
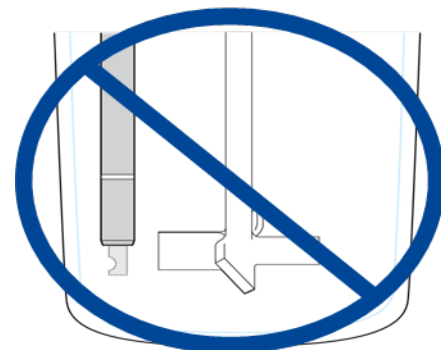
Chapter 3: Sequences and Methods (Firmware)

3.1 What is the time stamp in the report file referring to?

The time stamp in the EasySampler report file refers to the time the sampling pocket moves back 'IN', providing an accurate representation of the time the sample was captured from the reaction. Once the sample pocket moves back 'in', the sample is quenched immediately, at reaction conditions.

3.2 How frequently can EasySampler take samples? (What is the minimum sampling interval?)

In the latest firmware, version 5.5.0.0, the minimum sampling interval will be 2m52s for a Dilution Factor of 80, and up to 4m30s for a Dilution Factor of 450.

3.3 What if I have a sequence running, but notice a change in my reaction and want to take an unscheduled sample immediately?

While a sequence is active an additional (unscheduled) sample can be taken between 2 scheduled samples by selecting the 'Take 1 Sample' button; the sample pocket will move out immediately to take the sample. NOTE: the 'Take 1 Sample' button will be active only if there is sufficient time to complete the sampling process before the next scheduled sample in the sequence is due to be taken. The additional sample is not logged in the Sequence Report, but in the Single Samples Report.

3.4 Why does EasySampler allow me to program a sequence of 24 samples if the rack takes only 12 vials?

Sequences up to 24 samples are allowed, to provide flexibility for the user. In a sequence of more than 12 samples, a rack change is required whenever vial position 12 is reached. When such a sequence is started, the time that the rack will need to be changed will be indicated on the touchscreen.
NOTE: If you use 'Take 1 Sample' during this sequence, the time of the rack change will change accordingly, but the updated time to change the rack will not be indicated.

3.5 If I have already taken a sample and start another sample or sequence without changing the rack, will the sample go into the next vial in the sequence?

EasySampler keeps track of the last vial used, and the following sample will always be transferred into the next vial. Whenever vial 12 is used, EasySampler will pause and the needle will move to the 'change rack position'. Once the user has changed the rack, the user selects 'Needle down' and the rack will initialize (rotate to position 1) and continue with the running sequence.
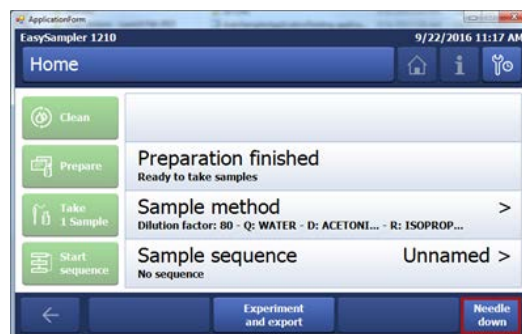
3.6 How many Methods and Sequences does EasySampler store?

EasySampler stores the last 12 methods used for Prepare processes, and 32 programmed Sequences. Note: EasySampler does not provide a warning to the user that the methods and sequences will be deleted.

3.7 How long will my sampling data be stored?

The last 100 samples are stored, and continuously overwritten as new sample data is acquired. If the first sample of a sequence is overwritten, the whole sequence will be deleted. Note: EasySampler does NOT provide a warning to the user that data is about to be overwritten.

3.8 Will I lose Data, Methods, and Sequences when updating the EasySampler firmware?

Yes, all Data, Methods, and Sequences will be deleted when updating the EasySampler firmware. Be sure to download all sampling data onto a USB stick before commencing a firmware update. Sleeve change information, which is stored on the probe, is not affected by firmware updates.

3.9 Which languages does the EasySampler touchscreen support?

EasySampler supports 6 languages: Chinese, English, French, German, Japanese, and Spanish
To change the language, select:

Settings > Language Settings > Language

Chapter 4: Vials, Vial Rack, and Needle

4.1 What happens if a vial is missing from the rack?

EasySampler detects that there is a missing vial, and will then abort the sampling process (and sequence) immediately. EasySampler will show a red LED, indicating to the user that there is an error that needs to be corrected. The sample currently in EasySampler will be lost to waste, and the following corrective steps need to be taken.

1. Press the 'Acknowledge messages' button
2. The tower moves to the change rack position
3. Fill the rack with vials
4. Press the 'Needle down' button, and the rack will rotate to Position 1
5. Run a Prepare process to prepare the probe for taking a sample from the reaction.

NOTE: There may be Quench solvent in the sample pocket. If the reaction is sensitive to the Quench solvent, REMOVE the probe from the reactor BEFORE running the Prepare process.

4.2 How do I get the EasySampler rack to position1?

Select the "Needle up" button. The needle will move to its highest position, the 'Change Rack Position'. Select 'Needle down'. EasySampler 'assumes' a rack has been replaced so the rack will automatically rotate to align the needle with Position 1.

4.3 Is there a rack for 2 mL HPLC vials?

The reason EasySampler vials are 10 mL is to accommodate the Dilution Factor of 450 (a total of 9 mL in the vial). An SBS-format plate that accommodates 12 EasySampler vials, and be used directly on an Agilent or Waters HPLC autosampler is available. This will eliminate the manual liquid transfer step to HPLC vials, while enabling the user to use the high Dilution Factors (>300) necessary for sampling slurries.

NOTE: An HPLC autosampler with a septum piercing needle is required. For vial caps with pre-scored septa contact Mettler-Toledo.

P/N 30312353   EasySampler 12x10 mL Vial Plate
View the EasySampler Product Catalog for all available EasySampler accessories and consumables

4.4 How does the needle move up to allow me to change the rack comfortably?

Select the "Needle up" button. The needle will move to its highest position, the Change Rack Position. Once the rack has been replaced, select "Needle down" (below). The needle will move to the Idle Position and the rack will automatically rotate to align the needle with position 'Waste 1'.
Watch the video to learn how to 'Change an EasySampler Vial Rack' (42 seconds)
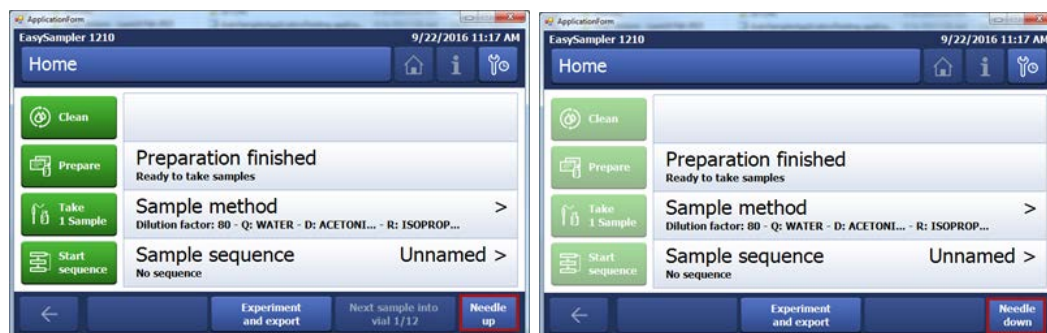
4.5 Will the needle withstand my corrosive chemistry?

The needle is made of Stainless Steel. There is little to no risk of the reaction sample affecting the needle because:

1. The needle is in contact with only 20 µL of the reaction components (as the sample). When the sample reaches the needle it is already diluted with Quench solvent.
2. The reaction sample flows through the needle, it never resides in the needle itself.

The only solvent that may reside in the needle for a significant period of time is the Reaction solvent. Once EasySampler has prepared the probe for the next sample, the needle will contain reaction solvent.

4.6 What is the material of the septa?

Vial caps:
- butyl/PTFE (red/grey)

Waste bottle:
- butyl (red)
- silicone/PTFE (white/blue)

4.7 Is a Touchscreen protection cover available (similar to EasyMax/OptiMax)?

The touchscreen cover is built into EasySampler and no additional parts are necessary. If users notice any issues please contact the local Mettler-Toledo Field Service Engineer to report this unexpected issue.

4.8 Why does the pocket move out during the Clean process?

It is important that the pocket moves out during the clean process to ensure that the 'bypass' channel (right) used to prepare the probe with Quench solvent is cleaned. The bypass channel is only accessible when the pocket is in the out position.
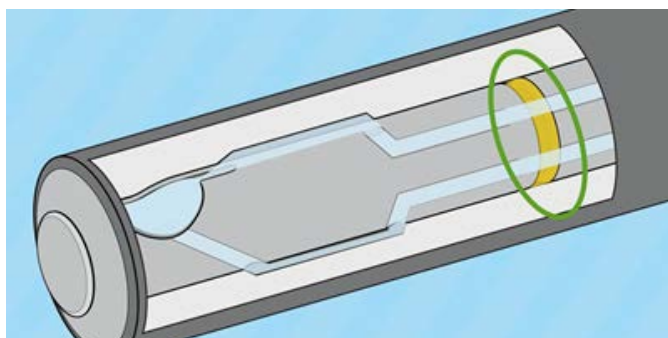
Chapter 5: EasySampler Method of Sampling

### 5.1 I understand the Dilution and Quench solvents; what is the Reaction solvent for?

After the sample is transferred into the vial, the sample pocket is filled with reaction solvent and the probe is ready to take a sample. As the pocket moves out to take a sample, only reaction solvent is released into the reaction, and the reaction is not contaminated with quench or dilution solvent.
Watch the video to learn how the EasySampler probe takes and prepares a sample (46 seconds)

5.2 How is the sample Quenched? What happens when the sample pocket moves back in?

While the pocket is in the 'out' position, bypass lines in the probe are being filled with Quench solvent. As the pocket (filled with a reaction sample) is retracted back into the probe, the sample is 'sandwiched' between 2 lines of Quench solvent. Back and forth pumping (3 times) mixes the sample with Quench solvent. The quenched sample is then transferred to the vial and further diluted to the user-specified concentration.

Watch the video to learn how the EasySampler probe takes and prepares a sample (46 seconds)

Sample

Quench Solvent
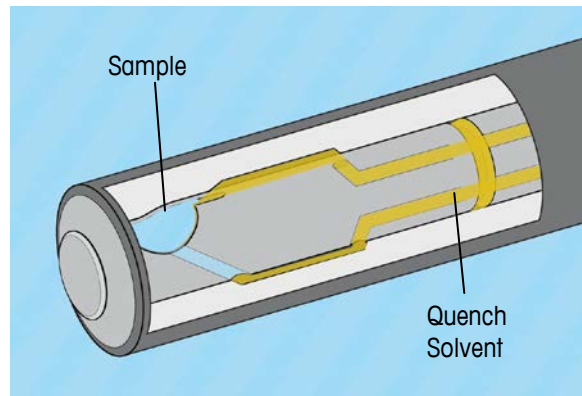
5.3 Why do I get variability in my analytical data when sampling slurries?

When sampling reactions containing solids, there are 5 factors that may affect sampling precision and accuracy:

1. **Dilution Factor**
A Dilution Factor higher than 300 is recommended when sampling slurries. This will ensure there is enough solvent to completely dissolve the solids in the reaction sample, as well as move the entire sample through the fluid line to the vial.

2. **Choice of solvents**
Quench and Dilution solvents must dissolve the solids in slurries. This will ensure all the solids are transferred to the vial for accurate analytical results.

3. **Position of the sample pocket in the reactor**
The angle of the sample pocket relative to the flow of reaction can have an effect. Studies have shown that the optimal position of the sampling pocket in the reactor is 180° from the agitator, as shown in the image to the right.

4. **Height of probe tip in the reactor**
Ensure the sample pocket is fully submerged in the reaction so that it is filled with every sampling process. The sample pocket must not be in the vortex.

5. **Mixing/Agitation**
Good mixing is essential – the reaction must 'move' in order to fill the sample pocket
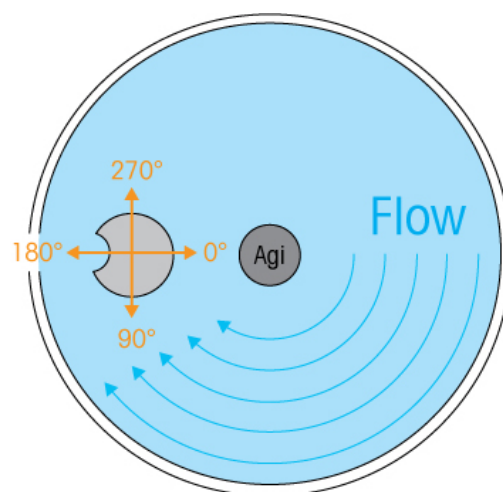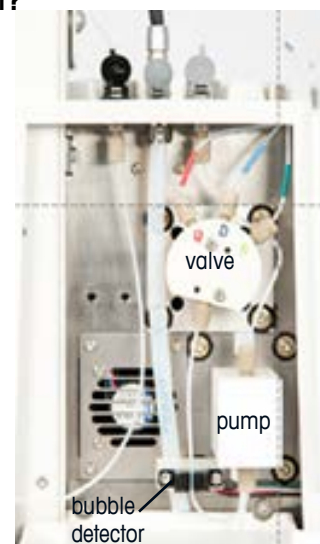
5.4 Why is the Bubble Detector constantly giving an 'Air in feeding lines' error?

The Bubble Detector is in place (between the valve and the pump) to sense whether the feed bottles are empty by detecting air in the tubing. If any of the feed bottles are empty (or the tubing end is not below the solvent level) there is risk that:

1. The sample will not be transferred to the vial, and lost to the waste bottle instead
2. The reaction may be contaminated with Quench or Dilution solvent

The Clean process allows for bubbles (as the lines may be empty). For Prepare and Sampling processes the Bubble Detector will give an error as soon as an air bubble is detected.

The causes for the Bubble Detector to give an "Air in feeding lines" error include the following (in order of most common occurrence):

valve

pump

bubble detector

Cause	Resolution
At least 1 solvent feed bottle is empty, or the tubing is above the solvent line	Check the feed bottles and fill with solvent. Ensure the end tip of the PTFE tubing is below the solvent level
Air is getting in the lines because: a. Fitting is loose, or b. The tubing is punctured (has a hole)	a. Remove the back cover of EasySampler and check that all the fittings are connected properly and tightly (an audible click must be heard to confirm a fitting is tight) b. Inspect the tubing for any holes
The bubble detector is wet (if there is a leak from a port of the valve the bubble detector may be wet)	Gently pull the PTFE tubing out of the bubble detector and dry the bubble detector with a piece of paper towel. Be sure the paper towel reaches the back of the sensor, where the tubing seats.
Solvent degassing	Some solvents, or combination of solvents, degas in the tubing. It is recommended to degas (sparge, sonication, filtration) the solvents prior to use with EasySampler.
Bubble detector is dirty	Gently pull the PTFE tubing out of the bubble detector and clean the bubble detector with a dry piece of paper towel.

Once the cause is the issue has been rectified run a Clean process, and then a Prepare process.

5.5 Can EasySampler reliably sample from a reaction mixture that contains insoluble catalyst?

Ideally all solids should dissolve so that the materials of interest can move efficiently through the 1/32" (ID) tubing without causing a blockage in the system. When sampling reactions with insoluble catalyst, the catalysts will clearly not dissolve, but the catalyst particle size is typically small enough to pass through the solvent lines without causing problems. To ensure successful sampling of the reaction, it is best to run a test sampling the reaction (or model system), containing the desired catalyst at the load to be used in the reaction.

After sampling a reaction with solid catalyst, check the PTFE tubing for remains of catalyst – run a few Clean processes if necessary, or change the tubing in the probe.

Keep in mind that once in the vial, the catalyst will sink to the bottom.

Watch a video on how to change the tubing in the probe conduit (*original style probe) (3m25s)

Chapter 6: Solvents and Dilution Factor

6.1 My solvent is degassing in the lines, how can I prevent this?

For solvents and solvent combinations which usually degas (e.g. MeOH/H_2O), it is recommended to degas (sparge, sonication, filtration) the solvents prior to use on EasySampler. See question 5.4 for additional information on reasons the Bubble Detector will show an error.

6.2 What volume of quench is in the vial?

If EasySampler were a non-laminar flow based system (e.g. if there were air-gaps between the solvents) then we would expect a Quench volume of 1.076 mL in the vial. However, EasySampler is a laminar flow based system and the Quench volume can vary depending on:
-   The solvent combinations used, and
-   Dilution Factor (up to 250).

The volume of Quench solvent that will be in the vial will be in the range 0.8 mL to 1.5 mL. It is important to note:
-   The entire reaction sample is transferred to the vial
-   For all samples with the same solvents and Dilution Factor, the quantity of Quench in the vial will always be the same

6.3 My solvents are immiscible. What do I need to know to ensure sample accuracy/precision? What else should I understand about using immiscible solvents?

If solvents are immiscible, 2 phases may be in the sample vial. It is possible that each phase favors dissolving different compounds leading to difficult analysis.

6.4 What is 'Dilution Factor'?

The Dilution Factor is the number of times that the sample is diluted, e.g. Dilution Factor of 300 means diluting the 20 µL[*] sample 300 times to provide a final volume of 6 mL in the vial (20 µL x 300 = 6 mL).
[*]the sample pocket size is 20 µL

6.5 How do I select the appropriate Dilution Factor?

Depending on the concentration of the reaction, users can define a Dilution Factor in the range of 80 to 450. For heterogeneous (slurries) and viscous reactions, it is recommended that a Dilution Factor higher than 300 is selected, particularly if the sample is required for quantitative analysis. The higher dilution factor will ensure that all solids in the sample are dissolved and transferred to the vial for accurate analytical data.

Chapter 7: Tubing

7.1 Can I change the lengths of the tubing or are they specific?

The length of the tubing is CRITICAL to the sampling program and ensures the entire sample is delivered to the vial, and that the reaction is not contaminated with Quench and/or Dilution solvents. For this reason it is important to use the tubing sets supplied by Mettler-Toledo.
View the EasySampler Product Catalog for all available EasySampler accessories and consumables

7.2 Which PTFE tubing sets can I replace without calling a Mettler-Toledo Service Engineer?

There are 3 sets of PTFE tubing for EasySampler and the probe. All tubing is accessible to the user and can be changed by the user. All EasySampler systems and EasySampler Probes are shipped with one additional (of each) tubing set.

	Description	Part Number
1	PTFE tube set to solvents	30246341
2	PTFE tube set for EasySampler 1210	30246340
3	Probe Tube sets (PEEK fittings)	
	- Probe 210 PTFE Tube set	30247094
	- Probe 330 PTFE Tube set	30246342
	- Probe 450 PTFE Tube set	30306036

The following support videos are available to provide instruction on how to change tubing:
- Video: Change the Solvent Tubing
- Video: Change Tubing in the Original EasySampler Probe Conduit
- Video: Replacing the EasySampler Probe Head Tubing

View the EasySampler Product Catalog for all available EasySampler accessories and consumables

7.3 What is the internal diameter (ID) of the tubing on EasySampler?

The PTFE tubing used is standard 1/16" (OD) tubing. The internal diameter (ID) of the tubing is 1/32" (nearly 0.8 mm). The ID of the channels in the alloy-C22 sample head is 0.8 mm.

Chapter 8: Connectivity Kit and iControl

8.1 What is a 'Connectivity Kit', and do I need it?

The Connectivity Kit is an optional accessory that integrates EasySampler processes and sampling information with EasyMax™ Advanced, OptiMax™, and RX-10™ via touchscreen or iControl™ software. With the Connectivity Kit, EasySampler methods and sampling data are automatically transferred to, and reported with, the referring EasyMax Advanced, OptiMax, or RX-10 experiment.

8.2 Can I connect an EasyMax, OptiMax, or RX-10 to an EasySampler and sample during temperature ramps and, for instance, directly after dosing?

Yes, with the Connectivity Kit (P/N 30110344), an EasyMax Advanced, OptiMax or RX-10 can be directly connected with an EasySampler.

- Connectivity between EasySampler and reactor touchscreens enables:
    - Take 1 Sample and Start Sequence from the EM / OM / RX10 touchscreen
    - Abort sampling process and sequences from the EM / OM / RX10 touchscreen
    - All EasySampler sample data is transferred to referring EasyMax, OptiMax, or RX-10 experiment
    - 1 experiment file with all reactor and sampling data available

- October 2016 ~ iControl version 5.5 connectivity to EasySampler through an EasyMax Advanced, OptiMax, or RX-10. Benefits of using iControl with EasySampler and a METTLER TOLEDO reactor system:
    - Sampling tasks (single/individual samples or starting sequences) are included in experiment recipe and as annotations on the trend graph
    - Sampling based on time or parameter (temperature, dosing, pH, etc.)
    - EasySampler sampling sequence can be started in iControl
    - Recipe, including sampling tasks, can be saved for later reuse
    - Sampling tasks are displayed (annotated) in the trend graph of the EasyMax, OptiMax, or RX-10
    - 'Offline Analytic Sample Data' table provides a list of sampling tasks
    - 1 experiment file with all reactor and sampling data is available
    - Sampling data is transferred to iC DataCenter with the experiment report file.

8.3 Where can I find instructions on how to set up and use the Connectivity Kit?

All technical documents, including the User Manual for the Connectivity Kit), are available at www.mt.com/EasySampler-support.

Chapter 9: Production Environments

9.1 Is EasySampler safe to use in production environments?

EasySampler is neither EX rated, nor 21 CFR part 11 compliant. If any of these requirements are mandatory for your production facilities, EasySampler cannot be used in these facilities.

www.mt.com/EasySampler

For more information