

# MIXER TORQUE RHEOMETER MTR-3



PRODUCT OPTIONS

PRODUCT OPTIONS TO HELP YOU ACHIEVE MORE .....

## ✔ Support and advice options.....

Is Caleva able to offer advice about the products that I should obtain to achieve my established objectives?

Development and production equipment is normally a significant purchase that should be suitable for what you want to do for several years into the future. It is important that the right decisions are taken before the equipment purchases are decided.

For many purchasers, the technology that they are investing into is relatively new and may not well known. In these cases the time to obtain advice is before the purchase decisions are made.

We at caleva have been making pellets and extrudates for about 50 years. If you will share with us what you are trying to achieve then we would be in a good position to share with you our experience. This should enable you to be confident that the equipment that you buy is appropriate for your project.

This support and advice should be used before purchase decisions are made and we will give this help free of charge.

## ✔ Reduce your batch size.....

Can I work with smaller samples sizes in the Mixer Torque Rheometer if my product is very expensive or scarce?

This is possible if you use a smaller bowl and blade set. This is available either as an additional option at the time of the original purchase (as an alternative to the standard full size bowl), or may be purchased in the future if need arises.

With the smaller, reduced size, bowl a sample size of about 20 g of formulated material can be used. This may be useful when your products under test are rare

or expensive. If the consistency of the product is rather high then smaller samples can also facilitate your work.

With the standard bowl the batch size will depend on the properties of the formulation but is generally around 40 grams.

Ask us about the reduced size mixing bowl and blade set.

## ✔ Cool or heat the material in the bowl.....

My product is very sensitive to excessive heat or may not mix properly when cold. Can I cool or heat the material in the MTR3 mixing bowl during my trials?

Some experimental work might benefit from product that is either heated or cooled in the MTR mixing bowl during the experimental process.

A water jacketed bowl suitable for heating or cooling can be offered with both the full size and the reduced

size bowls. A separate water bath and circulation pump will be necessary.

Caleva can also provide a heating and cooling water circulatory system if required, but most customers generally source this from their local supplier.

## ✔ MTR-3 load cell calibration.....

Does the MTR require any calibration during its life time, either on a regular basis or on any other occasion?

The MTR manual recommends the MTR load cell is re-calibrated at regular 6 month intervals and/or after the instrument is moved from one location to another.

To carry out a load cell calibration the operator will require a set of stackable weights. The weights should total 2kg and must be divisible as follows: 0.2kg, 0.6kg, 1.1kg, 1.6kg, 2.0kg. Suitable weight sets are often difficult to find.

If a suitable set of weights is not easily available in your location then Caleva is able to offer a set of stackable weights designed specifically for MTR calibration. These are recommended.

These are available in stainless steel or brass. Please contact Caleva Process Solutions Ltd for more information

## ✔ 21 CFR Part 11.....

Can the Caleva Mixer Torque Rheometer be offered as 21CFR compliant if this is a requirement?

The ability to operate the MTR-3 in a CFR21 compliant mode is built in to the software of all machines, If this is required then an electronic key can be purchased to

unlock this part of the software. Please contact us if 21 CFR compliant operation is required.





✓ **Validation and training options.....**

Will caleva be able to offer a full validation package for my equipment if this is necessary?

Caleva can offer a range of training and validation options. These can be customized so that they are appropriate for your specific requirements. A

summary is given below. You should discuss your actual needs with us so that an appropriate package can be offered.

✓ **Factory acceptance test (FAT) at the Caleva site**

A ISO 9002:2015 compliant and certified quality check is completed before equipment is shipped (a copy is supplied to the customer if requested). A separate FAT is not normally necessary but can be performed if required.

You can attend if you wish to do so. We can provide local assistance but you will be responsible for your own expenses incurred or your transportation, subsistence, and accommodation.

✓ **Customer training at the Caleva site**

Training is optional but recommended if extrusion and spheronization is new to you or your staff would benefit. Training is generally recommended for most customers purchasing the MCD-2 and the MTR-3.

We offer training at our site before the equipment is shipped, or at your site after the equipment has arrived.

If either of these options are not suitable then we can offer training and installation support by Skype (or similar)

✓ **Installation, training and validation at your site**

A full set of options for training, installation and validation of all Caleva equipment can be offered at your site. The details will depend on your location

and your specific equipment. Contact us to discuss your preferences and we will put together a proposal for you.

✓ **Full validation and/or provision of IQ/OQ documentation and/or material certificates**

Recommended if required for regulatory purposes:-

**With Caleva assistance at Caleva site:**

The IQ/OQ package can be completed (as far as possible) at the Caleva site by us. You may attend if you wish to do so. An additional set of blank documents is provided to allow you to re-do the IQ/OQ in your own facility after installation.

**Provision of blank IQ/OQ documents only:**

If you do not require assistance to complete the IQ/OQ then a set of blank documents can be purchased from caleva so that you can complete this at your site without a Caleva presence.

**With Caleva assistance at customer site:**

IQ/OQ and installation completed at the customer site at the same time as installation and training.

**Provision of material certificates only:**

Consistent with most companies today Caleva does not automatically offer material certificates for product contact parts. Caleva will provide free of charge a letter confirming that material certificates will be available for purchase by the original purchaser for a period of 12 months from the date of purchase.

TALK TO US AND DISCOVER MORE ABOUT THESE OPTIONS

Please call us without obligation

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Certificate Number: 1503