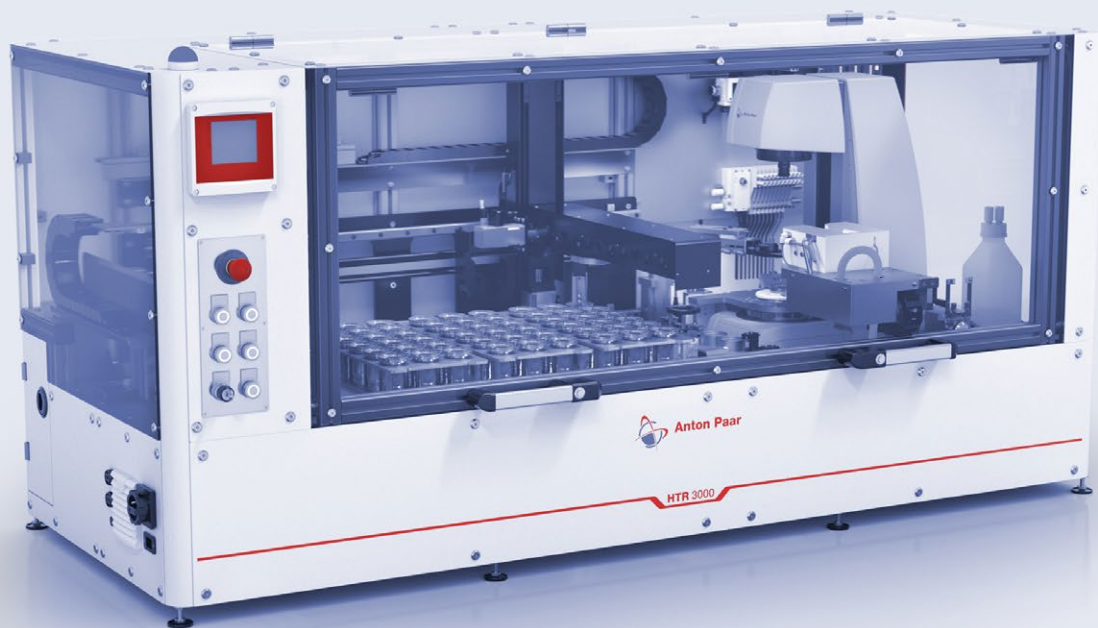


The Automated  
**Benchtop  
Rheometer**

HTR 3000



# The Automated Benchtop Rheometer

for High Sample Throughput

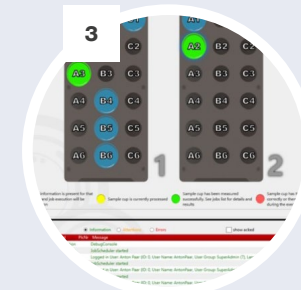
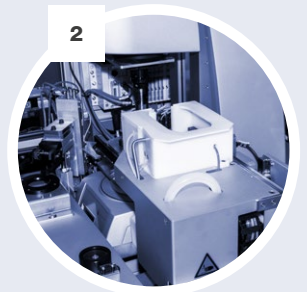
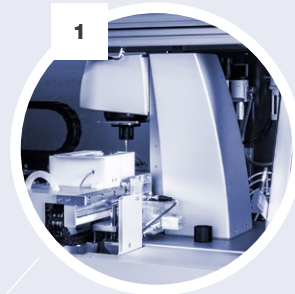
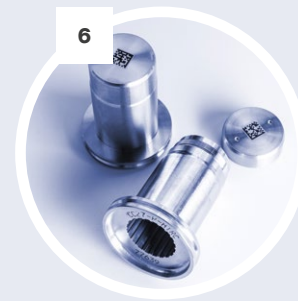
Use HTR 3000 to conduct fully automated rheological measurements of up to 250 samples a day with Anton Paar's MCR 102e or MCR 302e rheometers. Fully automated, 24/7 operation means no downtime and maximum productivity.

It's ideal for concentric cylinder and other relative measuring geometries. Automated measurements guarantee highly accurate, reproducible results, and the small benchtop size saves you much-needed lab space.

We combine decades of market leadership in rheology with years of experience in automated rheology configurations. Working with us means working with just one company for your whole measuring system, so you know your instruments and systems are seamlessly compatible.

Although our standard model covers most needs, we offer a range of feature upgrades to meet your requirements and produce individual configurations (e.g., for the automotive, paint, food, and personal care industries). Customized adaptations are available upon request.

- 1 **MCR 102e** WITH TEMPERATURE CONTROL UNIT
- 2 **CLEANING UNIT** FOR UPPER MEASUREMENT GEOMETRY
- 3 **HTR 3000** CONTROL SOFTWARE
- 4 **3-AXIS** HANDLING SYSTEM WITH CUP GRIPPER
- 5 **2x** SAMPLE RACK
- 6 **36x** CC27 CUPS



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[www.anton-paar.com/  
apb-htr-3000](http://www.anton-paar.com/apb-htr-3000)

# Automotive Configuration

## Full Automation, Full Flexibility



Automated measurements reduce your lab staff's workload, letting them focus on more pressing tasks. Use it in your production facility or in your lab, the choice is yours. With HTR 3000, your investment pays off, giving you a quick ROI, too.



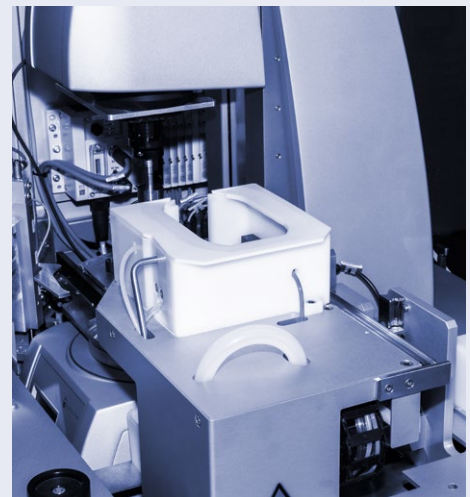
### **More sample storage, more walkaway time**

A third sample rack increases your storage capacity from 36 to 54 samples, giving you increased walkaway time and higher throughput. Cups can also be covered with caps to prevent samples from evaporating or being influenced by other outside factors.



### **Fully traceable and transparent: Barcode scanners prevent errors**

A unique data matrix code that's on the bottom of the cups, the scanner, and the integrated code reader prevents errors during cup placement.



### **Automation saves time**

Because it fully automates the measuring procedure and cleaning of the upper measurement geometry, lab staff can focus on other, more important tasks during the day.



# Food Configuration

## Upgraded Features for Food



Designed with the demands of the food industry in mind, this configuration guarantees consistent sample conditions before you conduct measurements and ensures reliable cleaning results of the upper measurement geometry – even for hard-to-clean samples.



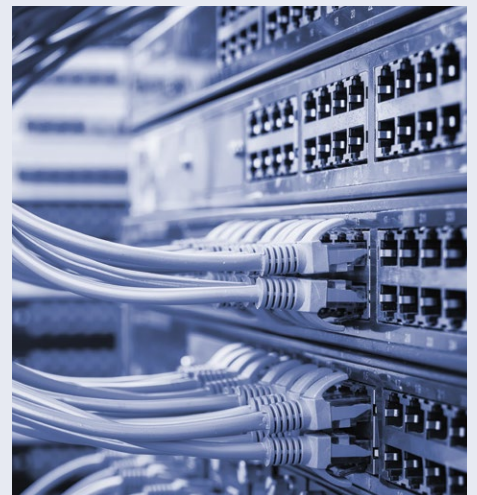
### **Cooled rack for consistent sample conditions**

A cooled storage rack for 36 cups keeps your samples at a temperature range of between 8 °C to 25 °C, so certain samples like dairy products don't go bad during storage.



### **A cleaning station for challenging samples**

When it comes to hard-to-clean samples, the integrated cleaning unit is upgradeable with a cleaning detergent pump, which ensures the upper measurement geometry is cleaned effectively.



### **Direct data transfer eliminates errors**

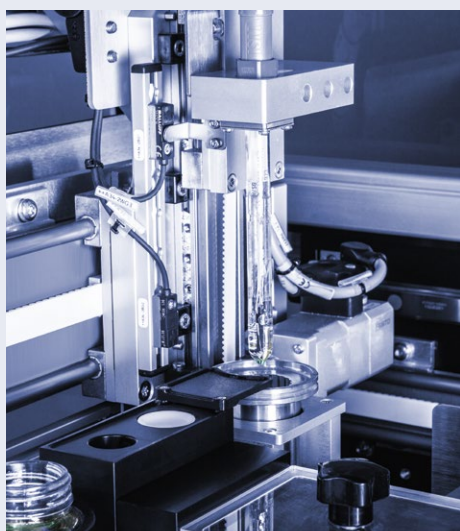
Since measurement results are directly transferred to your network storage or LIMS, you save time and eliminate manual input errors.

# Personal Care Configuration

## Ready for Diverse Samples



This configuration can handle the wide range of samples (e.g., toothpaste, shampoo, shower gel) you use in the personal care industry. With the intuitive and easy-to-handle operating procedure of HTR 3000, you can get your measurements started in just a few, easy-to-do steps.



### **pH station for additional sample analysis**

pH measurements, pH probe cleaning, and reference measurements performance checks – it's all automated.



### **Pre-tempering unit for increased throughput**

An automated Peltier unit pre-temperes the sample before it's placed into the rheometer, shortening the tempering time in the rheometer and increasing throughput.



### **Priority drawer for urgent measurements**

Have a sample that needs to be measured right away? With the priority drawer, load one sample into the HTR 3000 during an ongoing measurement. This sample is then prioritized and measured next.

## HTR 3000



Throughput	Up to 250 samples a day
Storage capacity	Up to 54 samples
Measurement geometry	Concentric cylinder CC10 – CC27; vane geometries and spindles
Dimensions (L x W x H)	Approx. 2000 mm x 800 mm x 940 mm (78.74 in x 31.50 in x 37.00 in)
Weight (net)	400 kg (882 lbs)
Main supply	100V - 240V, 16A, 50/60Hz
Communication interface	Export results via CSV files or bi-directional connection to a LIMS system

## MCR 102e



## MCR 302e



Max. torque	200 mNm	230 mNm
Min. torque (rotation)	5 nNm	1 nNm
Min. torque (oscillation)	5 nNm	0.5 nNm
Max. angular velocity	314 rad/s	314 rad/s
Max. angular frequency	628 rad/s	628 rad/s
Normal force range	-50 N to 50 N	-50 N to 50 N

Reliable.  
Compliant.  
**Qualified.**

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Our well-trained and certified technicians are ready to keep your instrument running smoothly.



Maximum uptime



Warranty program



Short response times



A global service network

