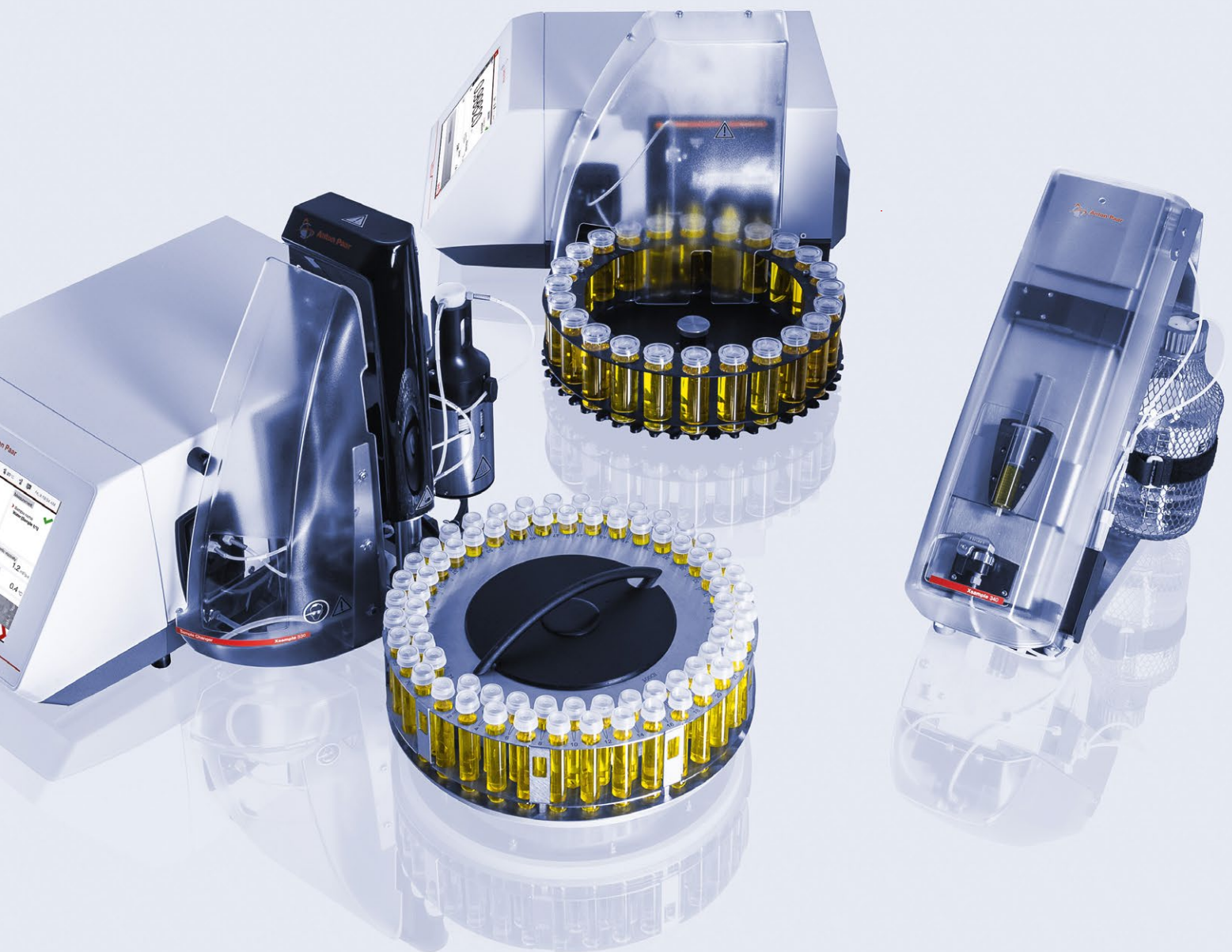


Automated sample changers

Xsample
Series



Ask yourself...

**DO YOU WANT TO
AUTOMATE JUST ONE INSTRUMENT?**

YES... TO AUTOMATING ONE ANALYTICAL INSTRUMENT!

Sometimes, a measurement parameter is worth a thousand words. With a benchtop sample changer in combination with one measuring instrument, you receive fast and reliable results.

**DO YOU MEASURE
YOUR SAMPLE WITHOUT PREPARATION?**

YES... TO STARTING MEASUREMENTS RIGHT AWAY!

Your samples are ready to measure without preparation. The measurement can start right away.

**DO YOU WANT TO
USE YOUR OWN VIALS?**

YES... TO USING MY OWN SAMPLE VIALS!

Adaptive magazine configurations allow the use of almost any vial - no need to transfer your sample. Plus, you can use your vials directly in a customized magazine.

No? Find your solution in laboratory automation and robotics!

www.anton-paar.com/a-r



Choose your **Xsample**

LOW-VISCOSITY SAMPLES
Jet fuel, beverages, oil ...

HIGH-VISCOSITY SAMPLES
Syrup, crude oil, waxes ...

CLEANING BETWEEN MEASUREMENTS?

SAMPLE HEATING REQUIRED?

NO

YES

YES

NO

AUTOMATED SAMPLE CHANGING?

AUTOMATED SAMPLE CHANGING?

AUTOMATED SAMPLE CHANGING?

YES

NO

YES

NO

YES

NO

Xsample 520*
page 09

Xsample 320
page 12

Xsample 330
page 13

Xsample 630
page 11

Xsample 610
page 15

Xsample 530
page 10

Xsample 340*
page 14

Beverages

Chemicals

Pharmaceuticals

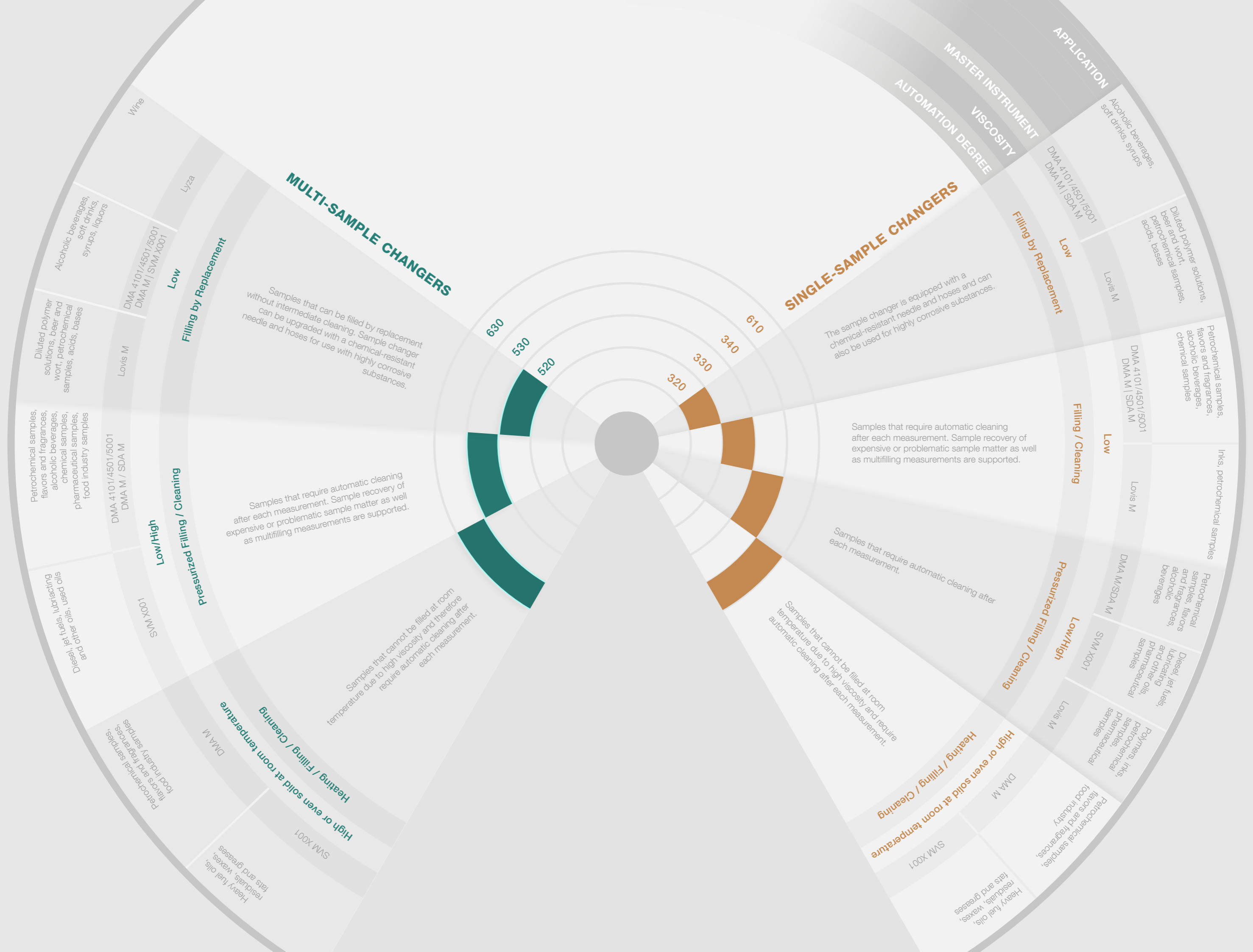
Petroleum

Flavors & Fragrances

Health Care

● Multi ● Single

* Chemical-resistance upgrade kit available



MULTI-SAMPLE CHANGERS

SINGLE-SAMPLE CHANGERS

Filling by Replacement
Low

Filling by Replacement
Low

Pressurized Filling / Cleaning
Low/High

Filling / Cleaning
Low

Pressurized Filling / Cleaning
Low/High

Heating / Filling / Cleaning
High or even solid at room temperature

Heating / Filling / Cleaning
High or even solid at room temperature

Heating / Filling / Cleaning
High or even solid at room temperature

Heating / Filling / Cleaning
High or even solid at room temperature

Samples that can be filled by replacement without intermediate cleaning. Sample changer can be upgraded with a chemical-resistant needle and hoses for use with highly corrosive substances.

The sample changer is equipped with a chemical-resistant needle and hoses and can also be used for highly corrosive substances.

Samples that require automatic cleaning after each measurement. Sample recovery of expensive or problematic sample matter as well as multifilling measurements are supported.

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Samples that cannot be filled at room temperature due to high viscosity and therefore require automatic cleaning after each measurement.

Samples that require automatic cleaning after each measurement.

Samples that cannot be filled at room temperature due to high viscosity and require automatic cleaning after each measurement.

Petrochemical samples, flavors and fragrances, food industry samples

Petrochemical samples, flavors and fragrances, alcoholic beverages, chemical samples, pharmaceutical samples, food industry samples

Diesel, jet fuels, lubricating and other oils, used oils

Petrochemical samples, flavors and fragrances, food industry samples

DMA 4101/4501/5001
DMA M / SDA M

Lovis M

DMA 4101/4501/5001
DMA M | SVM X001

Lyza

Wine

Alcoholic beverages, soft drinks, syrups, liquors

Diluted polymer solutions, beer and wort, petrochemical samples, acids, bases

Petrochemical samples, flavors and fragrances, food industry

Polymers, inks, petrochemical samples, pharmaceutical

Diesel, jet fuels, lubricating and other oils, pharmaceutical

Petrochemical samples, flavors and fragrances, alcoholic beverages

Inks, petrochemical samples

Petrochemical samples, flavors and fragrances, alcoholic beverages, chemical samples

Diluted polymer solutions, beer and wort, petrochemical samples, acids, bases

Alcoholic beverages, soft drinks, syrups

DMA M

Lovis M

SVM X001

DMA M/SDA M

Lovis M

DMA 4101/4501/5001
DMA M | SDA M

Lovis M

DMA 4101/4501/5001
DMA M

630

530

520

320

330

340

610

Heavy fuel oils, residues, waxes, fats and greases

Heavy fuel oils, residues, waxes, fats and greases

SVM X001

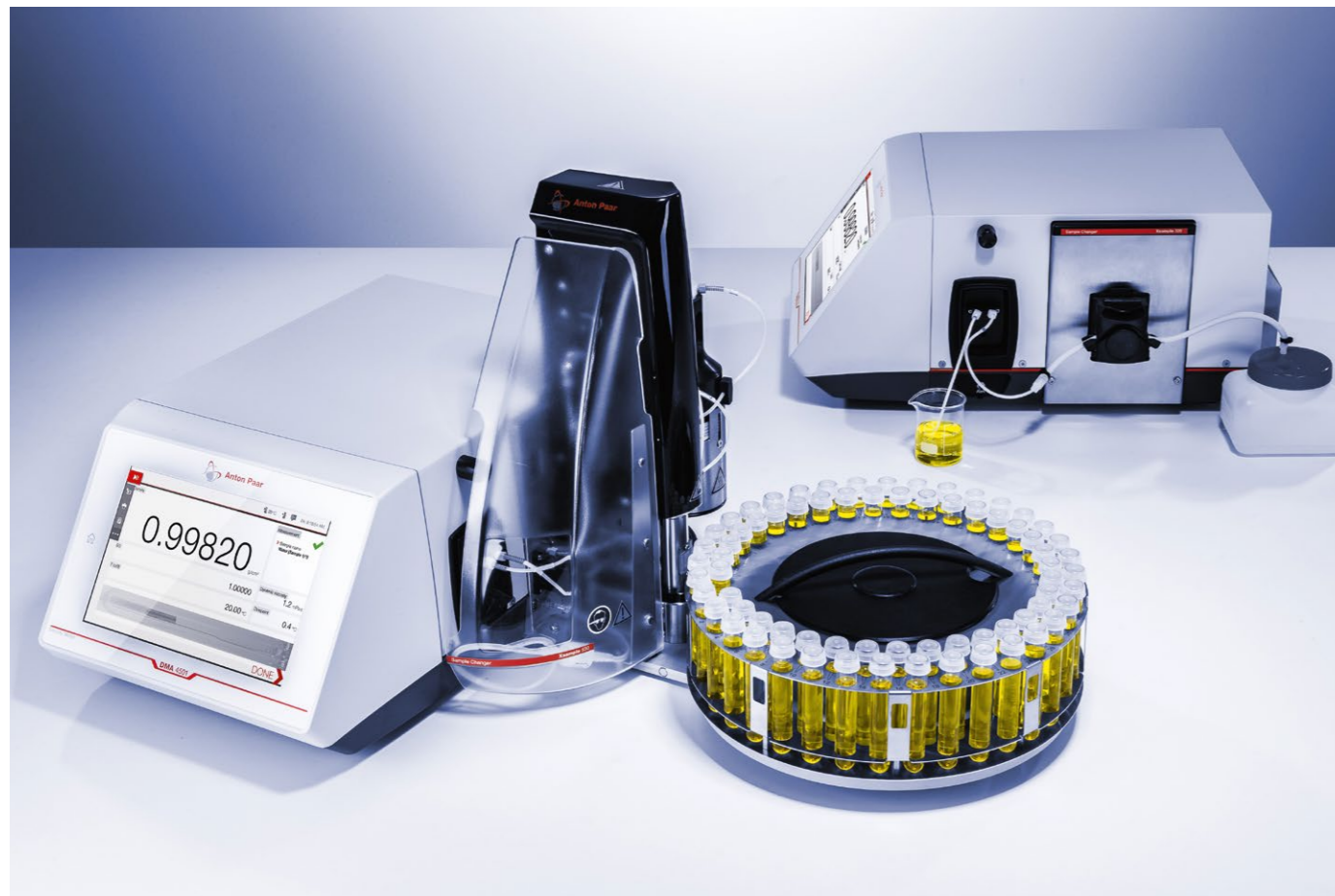
SVM X001

Your sample, our solution

Anton Paar's Xsample series offers you more automation options than you will find anywhere else. The many different Xsample filling and rinsing units are combined with a wide variety of Anton Paar master instruments to provide the exact automation workflow you need.

From low to high viscosities, from corrosive samples to dissolved gases, from single measurements to high-throughput solutions, Anton Paar has the experience to say: We've been there. We've done that. We know how to automate it for you.

The Xsample sample changers take care of your sample and deliver reliable results at maximum speed.



- 1 **Up to three cleaning solvents** to handle a wide variety of samples
- 2 **Safety shield** to protect the workplace
- 3 **Variety of Anton Paar measuring instruments**
- 4 **Inside and outside needle washing** to prevent contamination
- 5 **71-position variable magazine** for easy one-hand exchange
- 6 **Optional bar code reader inside** for flawless workflows

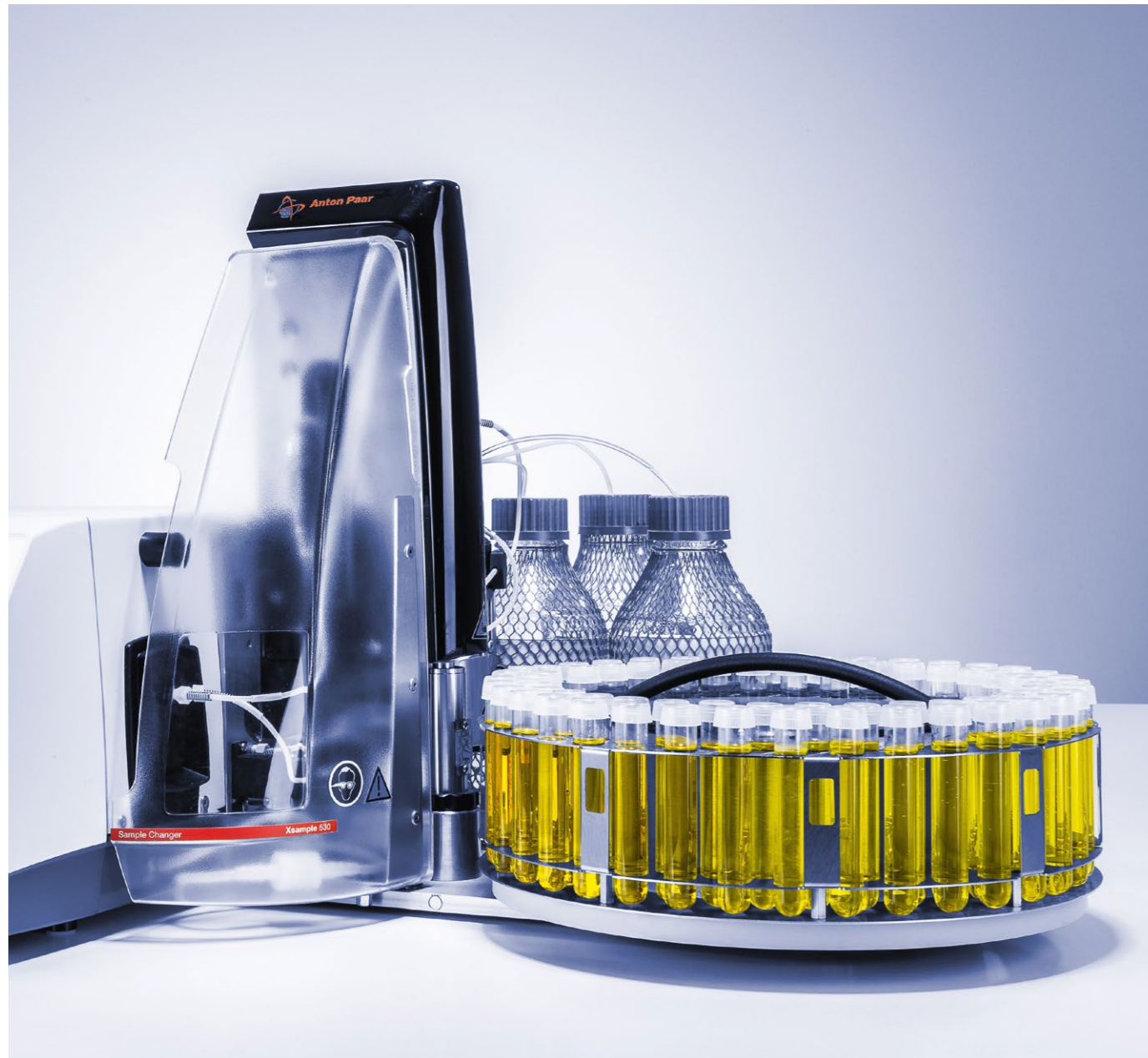
Multi-sample changers



The multi-sample changer that provides first-class filling in a snap: Xsample 520

The user-independent filling of numerous Anton Paar master instruments is facilitated by stepless adjustability in combination with a smart pump lock. With a simple twist, the pump is adjusted and ready for operation. Xsample 520 automatically handles up to 96 samples, so unattended filling and measurements are possible, even during the night and on weekends. Releasing operators for more highly skilled tasks increases productivity in the lab. No sample cleaning is needed in between measurements, which increases sample throughput to a maximum; each sample is replaced by the next one. Adjustable filling speed enables optimized sample treatment for perfect measuring results.

Multi-sample changers



The multi-sample changer with the highest cleaning performance: Xsample 530

Thanks to controlled filling power, samples from plain water to highly viscous oils – up to 36,000 mPa.s – are filled super-fast. The 71-position magazine which allows unattended operation can be exchanged with just one hand to ensure easy handling and filling. The use of customer vials ensures seamless workflows in the lab. With up to three cleaning agents as well as inside and outside needle cleaning, Xsample 530 is ready to measure a great variety of samples in one run. High-quality mechanical components and a superior resistance to chemicals ensure increased uptime of the system and low maintenance costs.



The multi-sample changer with no limits for high viscosities: Xsample 630

Xsample 630 sample changer handles up to 36 heated sample positions for unattended and automated measurements. Improved heating leads to short heating periods and increased performance. Thanks to electrical heating, only low-maintenance costs arise, as there is no need for periodical inspections of a water bath. Temperatures up to 95 °C are achieved in the system, and even challenging samples can be measured according to strict ASTM standards. The robust design ensures reliable and maintenance-free operation. A removable magazine with dedicated non-heated positions saves time by facilitating sample handling, and even makes a second measuring system obsolete.

Single-sample changers



The single-sample changer for easy operation: Xsample 320

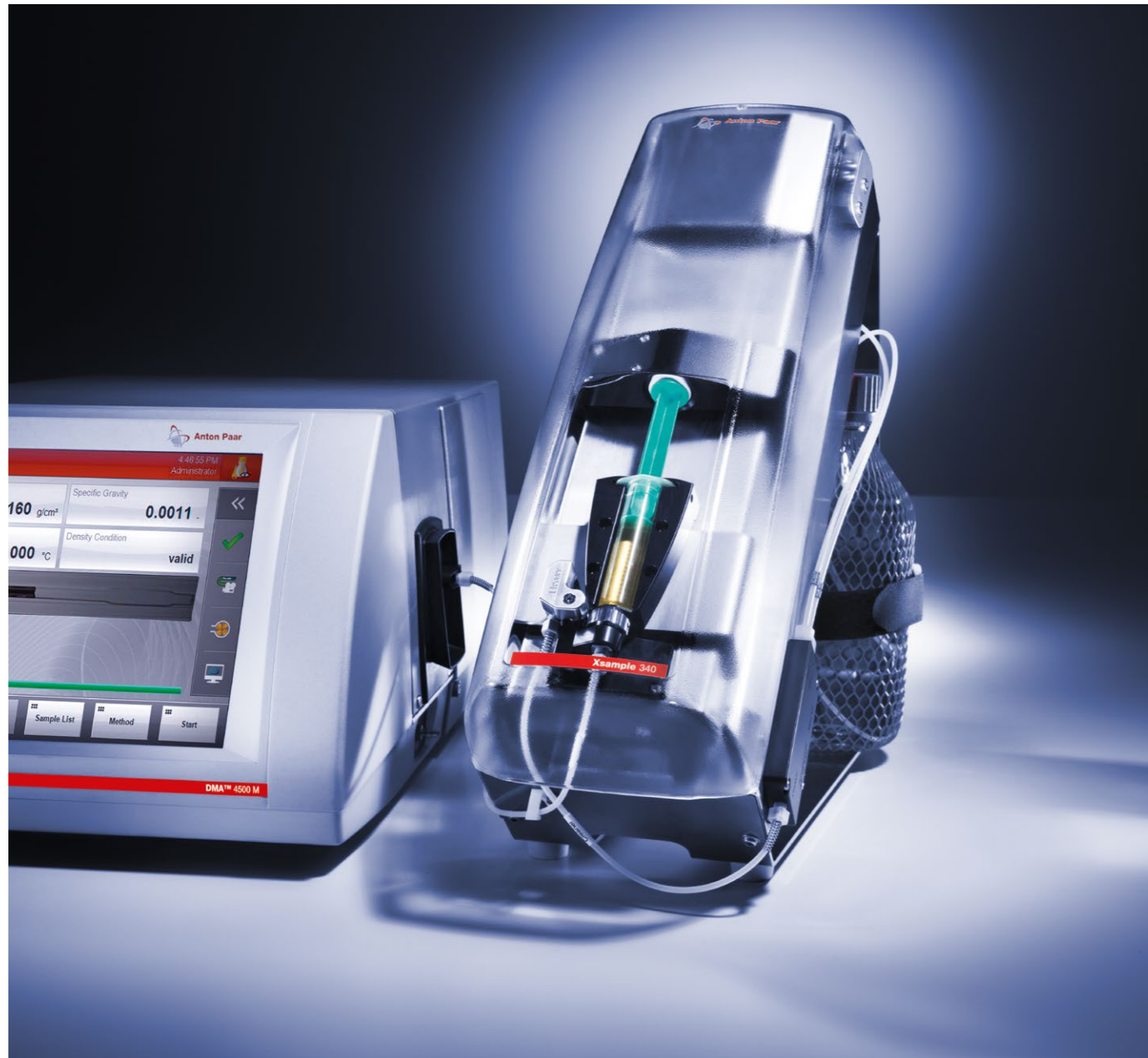
The new industrial-grade peristaltic pump of Xsample 320 enables measurements at the push of a button. Once the parameters are set, user-independent filling is possible, and, therefore, fewer handling errors occur with this sample changer designed for single samples. Operators are able to focus on more important tasks while filling and measurement are performed automatically. For the use of aggressive samples, all wetted parts of Xsample 320 are made of durable materials. The flexible filling speed of Xsample 320 guarantees optimized sample treatment, which leads to perfect measuring results.



The single-sample changer for a wide range of samples: Xsample 330

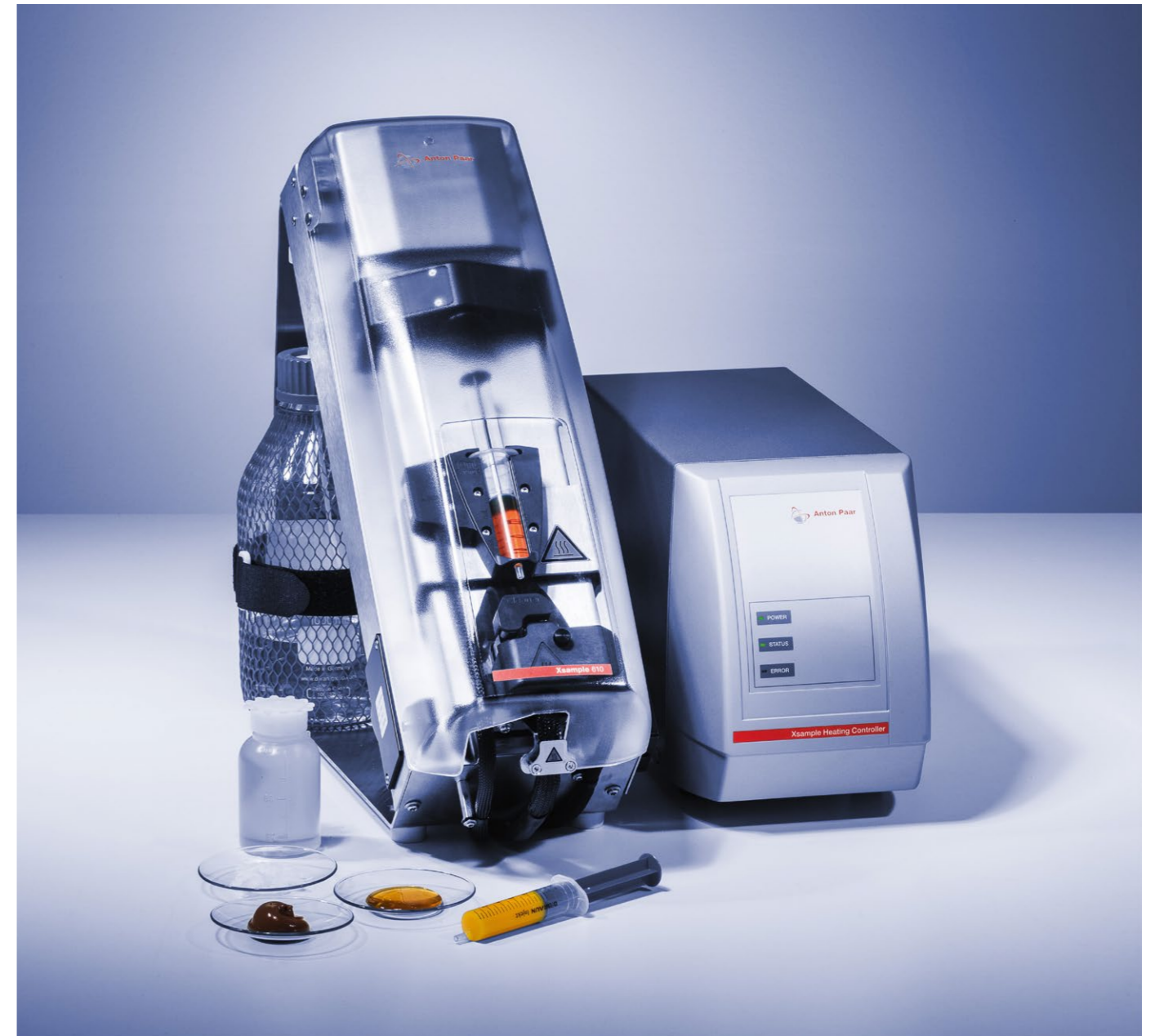
The new industrial-grade peristaltic pump in combination with automatic cleaning makes Xsample 330 perfectly suitable for measuring single low-viscosity samples with widely different properties consecutively. Once measured, the sample is drained or recovered, and the system is automatically cleaned with up to two cleaning agents. A drying step is performed by the operator to perfectly prepare the measurement cell(s) for the next sample. Its flexible filling speed and adjustable cleaning procedures make Xsample 330 a highly efficient sample changer for single samples.

Single-sample changers



The single-sample changer for different syringe sizes: Xsample 340

Xsample 340 is a single-sample changer for different types of syringes. Perfect filling and excellent precision are achieved by the system's adjustable filling speed. Many years of flawless operation are guaranteed due to the straightforward, space-saving, and rugged design. Xsample 340 is automatically equipped with up to two cleaning agents, ensuring perfect measuring conditions regardless of the operator and sample. Xsample 340 is able to deal with aggressive and highly viscous samples while a force sensor ensures safe operation under all conditions.



The single-sample changer for heavy-duty applications: Xsample 610

Xsample 610 is a heated single-sample changer supporting automated filling of highly viscous or even solid samples at room temperature. With its outstanding temperature range of up to 95 °C, the fastest measurement of crude oil, gels, and waxes is ensured in combination with density meters and viscometers from Anton Paar. Operators are relieved from handling hot syringes when filling the sample into the measuring instrument. Automated cleaning and drying guarantee an excellent user experience.



Solutions for repetitive processes

Automation helps you handle and transport samples as easily as possible. With an automated solution, you save time and money, and increase your productivity. Measure up to 96 samples with a viscosity ranging from high to low.

Automate your dataflow with AP Connect – a lab execution software solution for your paperless lab – connecting your instruments, communicating measurement information, and ensuring compliance. AP Connect stores data from all connected instruments in a central database and offers features to handle the data automatically or on demand.

FIND THE RIGHT SOLUTION FOR YOU AT ANTON PAAR.



“

We are confident in the high quality of our instruments. That's why we provide **full warranty for three years.**

”

All new instruments* include repair for 3 years.

You avoid unforeseen costs and can always rely on your instrument.

Alongside the warranty we offer a wide range of additional services and maintenance options.

*Due to the technology they use, some instruments require maintenance according to a maintenance schedule. Complying with the maintenance schedule is a prerequisite for the 3-year warranty.

Service and support directly from the manufacturer

Our comprehensive service provides you with the best individual coverage for your investment so that maximum uptime is ensured.



SAFEGUARDING YOUR INVESTMENT

Regardless of how intensively you use your instrument, we help you keep your device in good shape and safeguard your investment – including a 3-year warranty.



THE SHORTEST RESPONSE TIMES

We know that sometimes it's urgent. That's why we provide a response to your inquiry within 24 hours. We give you straightforward help from real people, not from bots.



CERTIFIED SERVICE ENGINEERS

The seamless and thorough training of our technical experts is the foundation of our excellent service provision. Training and certification are carried out at our own facilities.



OUR SERVICE IS GLOBAL

Our large service network for customers spans 86 locations with a total of 350 certified service engineers. Wherever you are located, there is always an Anton Paar service engineer nearby.

MULTI SYSTEMS

	XSAMPLE 520	XSAMPLE 530	XSAMPLE 630
MAX. SAMPLE VISCOSITY*	3,000 mPa.s	36,000 mPa.s	36,000 mPa.s at 95 °C
MAX. TEMPERATURE	-	-	95 °C (203 °F)
FILLING MODE	Peristaltic pump	Piston pump	Piston pump
SAMPLES/HOUR*	30	12	8
SAMPLE VOLUME	approx. 20 mL	approx. 3 mL	approx. 3.5 mL
MAGAZINE	24/48/96 positions	71/35 positions	36/56 positions
SAMPLE VIALS/PACKAGES	50 mL (12 mL optional)	12, 20, 40 mL	12 mL
SAMPLE RECOVERY	No	Optional	No
DIMENSIONS LXWXH [MM (IN)]	532 x 347 x 360 (20.9 x 13.7 x 14.2) excl. master instrument	370 x 490 x 430 (14.6 x 19.3 x 16.9) excl. master instrument	635 x 365 x 425 (25.0 x 14.4 x 16.7) excl. master instrument
WEIGHT [KG (LBS)]	8.1 (17.9) excl. master instrument	17.0 (37.5) excl. master instrument	22.8 (50.3) excl. master instrument
MASTER INSTRUMENTS	DMA 4101/4501/5001 DMA M Soft Drink Analyzer M DSA 5000 M Beer Analyzing System Alcolyzer M Lovis 2000 M SVM 2001/3001	DMA 4101/4501/5001 DMA M Soft Drink Analyzer DSA 5000 M Lovis 2000 M SVM X001	DMA M SVM X001

SINGLE SYSTEMS

	XSAMPLE 320	XSAMPLE 330	XSAMPLE 340	XSAMPLE 610
MAX. SAMPLE VISCOSITY*	3,000 mPa.s	3,000 mPa.s	36,000 mPa.s	10,000 mPa.s at 95°C
MAX. TEMPERATURE	-	-	-	95°C (203 °F)
FILLING MODE	Peristaltic pump	Peristaltic pump	Syringe	Syringe
SAMPLES/HOUR*	30	15	12	8
SAMPLE VOLUME	approx. 20 mL	approx. 10 mL	approx. 3 mL	Approx. 3 mL
MAGAZINE	No	No	No	No
SAMPLE VIALS/PACKAGES	-	-	2, 5, 10 mL	5, 10 mL
SAMPLE RECOVERY	No	Yes	No	No
DIMENSIONS LXWXH [MM (IN)]	205 x 148 x 185 (8.1 x 5.8 x 7.3) excl. master instrument	205 x 148 x 205 (8.1 x 5.8 x 8.1) excl. master instrument	480 x 230 x 420 (18.9 x 9.1 x 16.5) excl. master instrument	480 x 230 x 420 (18.9 x 9.1 x 16.5) excl. master instrument
WEIGHT [KG (LBS)]	1.7 (3.7) excl. master instrument	1.9 (4.2) excl. master instrument	9.2 (20.3) excl. master instrument	9.8 (21.6) excl. master instrument
MASTER INSTRUMENTS	DMA 4101/4501/5001 DMA M Soft Drink Analyzer M DSA 5000 M Beer Analyzing System Alcolyzer M Lovis 2000 M	DMA 4101/4501/5001 DMA M Soft Drink Analyzer M DSA 5000 M Lovis 2000 M	DMA M Soft Drink Analyzer M DSA 5000 M Lovis 2000 M SVM X001	DMA M SVM X001

*typical values, depending on application, temperature, and master instrument

