



malvern
support

Enriching the Malvern user experience

The quality of Malvern's aftersales support is one of the key reasons for Malvern's continuing success in today's demanding laboratory and process markets. By choosing Malvern products, users not only choose technical excellence but gain access to a worldwide network of highly trained and experienced teams of technical support professionals dedicated to ensuring that their instruments continue to deliver returns at the highest level.

Malvern quality does not end at the despatch department...

Our Quality Systems including our design documentation and change control procedures not only help to optimise the build quality, functionality and reliability of delivered systems but also help to ensure that continuing support of systems meets the highest standards.

Malvern Instruments is audited on a regular basis by most of the world's largest pharmaceutical companies and Malvern continues to gain and retain preferred supplier status in every case.

Service Contracts – protect your investment and control your cost

A Malvern Instruments' Service Contract provides a predictable fixed cost for service delivered by experienced and certified professionals. Your business can be protected from the potentially high cost of downtime with the priority call out provided by a Malvern Contract.

Platinum Service Contract (available for all currently supported products)

- Highest priority response
- Unlimited call outs with all parts, labour and travel costs included
- One scheduled Bronze service agreement visit included
- 2 e-learning places included where available
- Unlimited telephone and email technical support
- Pharma option available to include full OQ (Operational Qualification)

Gold Service Contract (available for all currently supported products)

- Priority response
- Unlimited call outs with all labour and travel costs included
- Any necessary spare parts charged for separately
- One scheduled Bronze service agreement visit included
- 1 e-learning place included where available
- Unlimited telephone and email technical support
- Pharma option available to include full OQ (Operational Qualification)

Service Agreements – Protect the validity of your data

Even if you feel you do not need the reassurance of a Malvern service contract, your system should be checked and tested by a Malvern service professional on an annual basis at least.

For more details www.malvern.com/LabEng/support/maintenance/maintenance.htm

Bronze Service Agreements:

Bronze Verification Visit for particle characterization systems

- A single scheduled visit for a complete hardware and software check
- Performance verification of the system using traceable standards
- Includes provision of a Performance Verification Certificate

Bronze Operational Qualification (OQ) Visit

- A single scheduled visit for a complete hardware and software check
- Operational Qualification of the system using traceable standards
- Includes provision of a Performance Certificate together with full OQ documentation

Bronze Calibration Visit for Rheometers

- A single scheduled visit for a system calibration
- Preventative Maintenance checks
- Includes a calibration certificate
UKAS/ International Certificates for the calibration equipment used.

Bronze Preventative Maintenance Visit for SEC/GPC and DSV systems

- A single scheduled visit for preventative maintenance
- Includes replacement of certain consumable items
- A thorough instrument overhaul and diagnosis
- Helps reduce the chances of breakdown

Non-Contract Service Charges

For customers not requiring the security and priority call out of a Malvern service contract, our customer support engineers are still available albeit with a call out time on a best endeavour basis. There is a call out charge per visit plus an hourly rate whilst the engineer is on site.

For current rates contact the UK Helpdesk on [01684 891800](tel:01684891800) or by e-mail: helpdesk@malvern.com

Reference Standards

Malvern Quality Audit Standards (QAS) for the Mastersizer sample dispersion units and the Morphologi automated particle characterization systems

Boxes of ten single-shot bottles of 13 to 130µm particle size standard for the Performance Verification of Malvern sample dispersion units. Complete with measurement instructions and pass/fail criteria. Meets the requirements of ISO13320.

Part Number	Description
QAS3001-b	Box of ten 0.4g samples for MS1, DIF2021, Hydro S and Hydro SM sample dispersion units (supersedes QAS3001, the 0.25g sample version)
QAS3002	Box of ten 2.5g samples for DIF2012, QSM/MU, Hydro G and Hydro M/MU wet sample dispersion units MAM2460, MAM2461, Scirocco 2000 and Scirocco 2000M dry sample dispersion units
QAS3004	Box of ten 100mg samples for the Hydro Micro µP small volume sample dispersion unit
QAS3005	Box of ten 80mg samples for Morphologi G2 sample dispersion unit
QAS3006	Box of ten 25mg samples for Morphologi G3S sample dispersion unit

One-shot 300nm NIST-traceable latex standards for the Mastersizer 2000 optical bench

In the past, 300nm latex standards have been supplied in 15ml bottles. However, with such a small particle size, only tiny amounts are needed for each Performance Verification (PV). Although a 15ml bottle can be used for many PVs, the bottle can easily have passed its ideal use-by date before the contents have been exhausted. With the one-shot format, users have a more reliable standard as well as much tighter control of usage rates and re-ordering requirements.

Part Number	Description
QSL2000	Box of 10 single shot 300nm latex samples for Performance Verification of the Mastersizer 2000. Dose size optimized for Hydro S and Hydro SM sample dispersion units

Zeta Potential Measurement Standard

This is a transfer standard produced by Malvern to allow users to verify the correct operation of all Malvern systems that measure zeta potential. The standard is a buffered material prepacked in syringes ready to be injected into the cell of a Zetasizer – thus removing concerns about variations in sample preparation. Supplied in boxes of 10 and 200 syringes.

Traceability

Each batch of prepared sample used for the single shot standard is tested on a 'Reference Zetasizer system' kept at Malvern specifically for this purpose. This system is regularly checked against the only NIST* standard available, NIST1980, which is a positively charged goethite material.

Part Number	Description
DTS1232	Box of 10 syringes
DTS1233	Box of 200 syringes

Certified Particle Size Standards

Nanosphere Size Standards - Sizes between 20nm and 900nm. Highly uniform polystyrene spheres traceable to NIST* and packaged as 15ml aqueous suspensions in dropper-tipped bottles.

Monosized Polymer Microspheres - Sizes between 1 and 1000 microns. These are the most uniform spheres available and the mean sizes have been calibrated by microscopy methods traceable to NIST*. Sizes 1 to 160 microns are packaged as 15ml aqueous suspensions in dropper-tipped bottles, diameters of 200 microns and above are packaged as 1 gram of dry spheres composed of polystyrene or other polymers.

Borosilicate Glass Microspheres - Sizes between 2 and 20 microns (1 gram). This series is widely used as NIST* traceable calibrants for instruments requiring a higher density and more contrast to radiation than is provided by polymer microspheres.

Uniform Soda-Lime Glass Microspheres - Sizes between 30 and 2000 microns (1 gram)

*NIST-National Institute of Standards and Technology.

For details of exact sizes available and costs contact UK Helpdesk on 01684 891800 or by e-mail: helpdesk@malvern.com

Rheology Standards

KNX2009 Verification and Calibration Kit

Allows verification of the rotational and dynamic operation of a rheometer using standard parameters.

Kit comprises:

- Certified 1Pa.S Newtonian Oil traceable to National Standards (125ml)
- Standard viscoelastic PDMS sample (100ml)
- Certificates and test data

Individual Standard Newtonian Oils with Certificates Traceable to National Standards (125ml) :

Part Numbers	Values
KNX0048	23.5 mPa.S
KNX0005	0.1 Pa.S
KNX0002	1 Pa.S
KNX0003	10 Pa.S

Other Rheology Reference Materials

Part Number	Description
KNX0008	100ml Viscoelastic PDMS reference sample to verify dynamic operation. Supplied with Test Data
KNX0004	High temperature calibration oil for DSR/ADS & ETC (9727-E42)
590202	Calibrated Temperature probe for DSR

PolyCAL™ Standards for GPC/SEC (Gel Permeation Chromatography/Size Exclusion Chromatography)

These convenient polymer standards free GPC/SEC users from tedious preparation tasks by providing pre-weighed portions that are both accurate and easy to use. They provide an excellent tool for lab to lab standardization and cross checking.

PolyCAL™ Universal Calibration Standards (UCS)

PolyCAL™ UCS standards consist of 6 sets of 12 individual narrow standards each. They are designed to be used for column calibrations, either conventional MW calibration with a concentration detector or Universal Calibration with a viscometer detector.

- Broad MW range, 12 fractions provide excellent MW coverage.
- Available for organic solvent systems (polystyrene) and aqueous solvent systems (polyethylene glycol/oxide).

PolyCAL™ Triple Detector Standards (TDS)

PolyCAL™ TDS standards consist of 6 sets of two standards each, one narrow and one broad. They are designed to be used for verifying detector and system performance in triple detection.

- The narrow standard is particularly useful for determining detector volume offsets and peak broadening parameters.
- The broad standard is particularly useful for checking the system for correct MWD and Mark-Houwink parameters, etc.
- Available for organic solvent systems (polystyrene or polymethyl methacrylate) and aqueous solvent systems (polyethylene oxide or pullulan).



Viscotek Columns for GPC/SEC

Selection of the correct column is essential for successful GPC/SEC experiments as obtaining the best chromatographic separation requires a careful match of sample, solvent and column. In most cases, the solubility of the sample will clearly dictate when you need to use an aqueous or organic eluent.

There are four ranges of columns:

Viscotek A-Columns for aqueous GPC/SEC

- Viscotek A-Columns are designed for the separation of water-soluble polymers and oligomers by size exclusion chromatography (SEC).

Viscotek T-Columns for Organic GPC/SEC

- Viscotek T-Columns are designed for the separation of organic polymers and oligomers by gel permeation chromatography/size exclusion chromatography (GPC/SEC).

Viscotek P-Columns for protein SEC

- Viscotek P-Columns are designed for the separation of biopolymers such as proteins, enzymes and polysaccharides by Size Exclusion Chromatography (SEC).

Viscotek I-Columns for specialized GPC/SEC applications

- The Viscotek I-Series speciality columns are designed for the separation of difficult to elute polar organic polymers.



For more details visit http://www.malvern.com/LabEng/products/viscotek/viscotek_gpc_sec/components/columns.htm

Training

Anyone purchasing a Malvern system is supplied with training as an integral part of the purchase package. However, for most customers their training requirements do not end there but continue throughout the lifetime of the instrument, either as applications for their instrument expand or as new personnel require training. There is a wealth of material available from www.malvern.com but the following specific training options are also available:

In-House Training Courses

Classroom style training usually in groups of 12 or less. Opportunities may well exist for applications work and you will benefit from the experiences of other participants.

On-Site Training Courses

These courses are conducted at a customer's site by one of our Product Specialists. The course content may be varied to suit the specific requirements of the customer and as such should be considered as consultancy based training.

E-Learning

Self-paced, on-line training delivered via the internet. No travel or accommodation costs. Individual modules can be repeated as required and certification is provided on successful completion of the course.

For more information on the training options available for your instrument contact UK Helpdesk on 01684 891800 or by e-mail: helpdesk@malvern.com

Consumables

Regular replacement of tubing, windows, filters and other components, as recommended in the operator's manual, will help to ensure that optimum measurement results are always obtained and will help to minimize service costs. All the consumables supplied by Malvern have been tested and proven to be suitable for use with the instrument concerned. Consumables may be ordered by sending your order to Malvern Instruments or via the Malvern e-store.

Malvern E-Store

The Malvern e-store is available for purchases of the most popular consumables and e-learning. Prices on the e-store are generally lower and we aim to ship orders received by 12 noon by the end of the following working day. We operate a fixed delivery charge regardless of the number of items ordered so it is worth stocking up on all the consumables you will need! www.malvernstore.com.

Helpdesk Support

The Malvern Helpdesk is a major resource to help you to get the most out of your system. As well as being the first point of contact in the event of any failures or problems which may require service intervention, the Malvern Helpdesk provides advice on applications and software problems and helps users to minimise downtime. The Helpdesk is free to all users, see contact details below.

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Malvern Instruments Worldwide

Sales and service centres in over 50 countries. For details visit www.malvern.com/contact

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detailed specifications at www.malvern.com

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