



thermo scientific

Thermo Scientific

# HAAKE Viscotester iQ

## Instruction Manual

Addendum for Lab Stand

006-4522    Version 3.0    July 2022

**ThermoFisher**  
SCIENTIFIC

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**Konformitätserklärung**  
**Declaration of Conformity**  
**Déclaration de conformité**

075-5041

**Produktbezeichnung**  
**Product name**  
**Nom du produit**

**Identifikation**  
**Identification**  
**Identification**

HAAKE Viscotester IQ / Viscotester IQ Air  
in combination with:  
TM-LI-C32, TM-LI-C48, TM-PE-C, TM-PE-P,  
TM-LI-P  
HAAKE Viscotester IQ / Air Laboratory Stand

262-0001 / 262-0100  
222-2256, 222-2255, 222-2431, 222-2430,  
222-1909  
262-0050 / 262-0053

**Hersteller**  
**Manufacturer**  
**Fabricant**

Thermo Electron (Karlsruhe) GmbH  
Dieselstraße 4  
D – 76227 Karlsruhe  
Germany



**Dokumentationsbevollmächtigte Person**  
**Authorised person for technical file**  
**Personne autorisée à constituer le dossier technique**

Henry Eisenlohr  
Thermo Electron (Karlsruhe) GmbH

**Richtlinie**  
**Directive**  
**Directive**

2006/42/EG

Maschinenrichtlinie  
Machinery directive  
Directive des machines

**Konform zu weiteren Richtlinien**  
**Conform to other directives**  
**Conforme aux autres directives**

2014/30/EU

Richtlinie für elektromagnetische Verträglichkeit  
Electromagnetic Compatibility Directive  
Directive relative à la compatibilité électromagnétique

2011/65/EU

RoHS

**Folgende harmonisierte Normen wurden angewandt:**

**Following harmonized standards are used:**

**On a appliqué les normes harmonisées suivantes:**

EN ISO 12100:2010	Sicherheit von Maschinen - Grundbegriffe, allgemeine Gestaltungsleitsätze  Safety of machinery – basic concepts, general principles for design  Sécurité des machines – Termes de base, principes généraux de conception
EN 61010-1: 2010	Sicherheitsbestimmungen für elektrische Mess-, Steuer-, Regel-, und Laborgeräte - allgemeine Anforderungen  Safety requirements for electrical equipment for measurement, control and laboratory use - general requirements  Règles de sécurité pour appareils électriques de mesurage, de régulation et de laboratoire – Partie 1: Prescriptions generals
EN 61010-2-010: 2014	Besondere Anforderungen an Laborgeräte für das Erhitzen von Stoffen  Particular requirements for laboratory equipment for the heating of materials  Exigences particulières pour appareils de laboratoire utilisés pour l'échauffement des matières
EN 61326-1: 2013	Elektrische Mess-, Steuer-, Regel- und Laborgeräte – EMV Anforderungen  Electrical equipment for measurement, control and laboratory use – EMC requirements  Matériel électrique de mesure, de commande et de laboratoire – Exigences CEM

Wir erklären in unserer ausschließlichen Verantwortung, dass das Produkt, auf das sich diese Erklärung bezieht, mit den oben genannten Normen, normativen Dokumenten und den Bestimmungen der genannten Richtlinien übereinstimmt. Die Prüfprotokolle werden bei Thermo Electron (Karlsruhe) 10 Jahre aufbewahrt.

We declare under our sole responsibility, that this product to which this declaration relates is in conformity with the a.m. standards or other normative documents and is following the provisions of the a.m. directives. All test certificates will be kept by Thermo Electron (Karlsruhe) for 10 years.

Nous déclarons, sous notre seule responsabilité, que le produit auquel cette déclaration fait référence est conforme aux normes susmentionnées, aux autres documents normatifs et aux dispositions des directives citées. Les procès-verbaux de vérification sont conservés pendant 10 ans chez Thermo Electron (Karlsruhe).

Name Thobias Geissler	26.07.2022	Thermo Electron (Karlsruhe) GmbH Dieselstr. 4 * 76227 Karlsruhe Tel. + 49-721-4094-444, Fax + 49-721-4094-418
		
Unterschrift Signature Signature Geschäftsleitung/ Business Management Direction commerciale	Datum Date Date	Hersteller Manufacturer Fabricant

# UK Declaration of conformity



We, Thermo Electron (Karlsruhe) GmbH, part of Thermo Fisher Scientific  
Dieselstraße 4  
76227 Karlsruhe  
Germany

an ISO9001 certified company

declare under our sole responsibility that the

Product Name: HAAKE Viscotester iQ / Viscotester iQ Air  
in combination with:  
TM-LI-C32, TM-LI-C48, TM-PE-C, TM-PE-P, TM-LI-P  
Model: HAAKE Viscotester iQ / Air Laboratory Stand  
262-0001 / 262-0100  
  
222-2256, 222-2255, 222-2431, 222-2430,  
222-1909  
262-0050 / 262-0053

Declaration ID: **075-5041**

Meets the provisions of the regulations:

Supply of Machinery (Safety) Regulations 2008

Electromagnetic Compatibility Regulations 2016

The Restriction of the Use of Certain Hazardous Substances in Electrical and  
Electronic Equipment Regulations 2012

using to the following standards and normative documents:

EN ISO 12100:2010	Safety of machinery – basic concepts, general principles for design
EN 61010-1:2010	Safety requirements for electrical equipment for measurement, control and laboratory use – general requirements
EN 61010-2-010:2014	Particular requirements for laboratory equipment for the heating of materials
EN 61326-1:2013	Electrical equipment for measurement, control and laboratory use EMC-requirements, Part 1 general requirements

Place and Date of issue: Karlsruhe, 26-07-2022

Name: Thobias Geissler

Function:  
Product Line Manager

  
Signature

## China RoHS Declaration

Identification 标识	Product name 产品名称	Declaration ID
262-0001 / 262-0100  222-2256, 222-2255, 222-2431, 222-2430, 222-1909 262-0050 / 262-0053	HAAKE Viscotester iQ / Viscotester iQ Air in combination with: TM-LI-C32, TM-LI-C48, TM-PE-C, TM-PE-P, TM- LI-P HAAKE Viscotester iQ / Air Laboratory Stand	<b>075-5041</b>

Part name 零件号	Toxic or Hazardous substances and elements 有毒或危险物质或元素					
	Lead 铅 (Pb)	Mercury 汞 (Hg)	Cadmium 镉 (Cd)	Hexavalent Chromium 六价铬 (Cr <sup>6+</sup> )	Polybrominated biphenyls 多溴联苯 (PBB)	Polybrominated diphenyl ethers 多溴联苯醚 (PBDE)
Mechanics 机械类	x	o	o	o	o	o
Electronics 电子类	o	o	o	o	o	o

- o: Indicates that this toxic or hazardous substance contained in all of the homogenous materials for this part is below the limit requirement in SJ/T 11363-2006
- o: 表明该产品中，无任何一种有毒或危险物含量高于限量标准 SJ/T 11363-2006
- x: Indicates that this toxic or hazardous substance contained in at least one of the homogenous materials for this part is above the limit requirement in SJ/T 11363-2006
- x: 表明该产品中，至少有一种有毒或危险物含量高于限量标准 SJ/T 11363-2006





## Preface

This manual is an addendum to HAAKE Viscotester iQ Instruction Manual and *only* describes the specific properties of the HAAKE Viscotester iQ lab stand version. For all other properties of the HAAKE Viscotester iQ refer to the HAAKE Viscotester iQ Instruction Manual.

For a detailed description of how to operate the touch screen user interface, the optional RheoApp software and the specific parts of the RheoWin software, see the HAAKE Viscotester iQ Reference Manual.

**Note** In this manual the name HAAKE Viscotester iQ is used to describe both the HAAKE Viscotester iQ (with ball-bearing drive motor) and the HAAKE Viscotester iQ Air (with air-bearing drive motor) unless stated differently.

## Related documentation

In addition to this manual, Thermo Fisher Scientific provides the following documents for use with the HAAKE Viscotester iQ:

- HAAKE Viscotester iQ Instruction Manual.
- HAAKE Viscotester iQ Reference Manual.
- HAAKE RheoWin Installation and 21 CFR Part 11 Configuration User Guide.
- HAAKE RheoWin Instruction Manual.

All manuals are available (in PDF format) on the HAAKE Viscotester iQ RheoApp USB flash drive, which is part of the delivery of any HAAKE Viscotester iQ and Viscotester iQ Air rheometer.

## Safety and special notices

Make sure that you follow the cautions and special notices presented in this manual. Cautions and special notices appear in boxes; those concerning safety or possible damage also have corresponding caution symbols.

This manual uses the following types of cautions and special notices.



**CAUTION** Highlights hazards to humans, property, or the environment. Each CAUTION notice is accompanied by an appropriate CAUTION symbol.

**IMPORTANT** Highlights information necessary to prevent damage to software, loss of data, or invalid test results; or may contain information that is critical for optimal performance of the system.

**Note** Highlights information of general interest.

The HAAKE Viscotester iQ instruction manual contains the following caution-specific symbols (Table 1).

**Table 1.** Caution-specific symbols and their meanings

Symbol	Meaning
	<b>Hot surface:</b> Allow heated components to cool down before touching them.
	<b>Pinch point:</b> Keep hands away from the specified areas.
	<b>Risk of eye injury:</b> Eye injury could occur from splattered chemicals or airborne particles. Wear safety glasses when handling chemicals or servicing the instrument.
	<b>Risk of hand injury:</b> Wear protecting gloves when handling chemicals, when handling hot substances and when handling hot instrument parts.

## Safety Notes and Warnings

The HAAKE Viscotester iQ corresponds to the relevant safety regulations. However you are solely responsible for the correct handling and proper usage of the instrument.



### CAUTION

- The instrument must be operated in such a way that it will not endanger anyone.
- The instrument may not be operated if there are any doubts regarding safe operation because of its outer appearance (e.g. damages).
- In case of unforeseen occurrence or an accident the instrument must be put out of service immediately by switching it off using the operation switch *and* pulling the mains plug of the power supply.
- A safe operation of the instrument cannot be guaranteed if the user does not comply with this instruction manual.
- Ensure that this instruction manual is made readily available to every operator.
- This instrument is registered for one-man operation.
- The operator must have an uninterrupted view of the instrument and its surroundings.
- The rheometer must be fully visible from the PC control stand.
- This unit and all of its accessories must only be used for the applications it was designed for.



**CAUTION** The HAAKE Viscotester iQ is designed for use with a rotor. All existing safety devices are based on the correct installation of the rotor. In case the lift is used without a rotor installed, injuries may occur when reaching in the lift area.

### CAUTION

- Make sure that the instrument has been switched off before you connect or disconnect the cables. This is to avoid electrostatic charging resulting in a defect of the electronic circuit boards.
- To disconnect the instrument from the mains, first switch the instrument off, then unplug the power supplies mains cable from the wall socket.
- Do not operate the instrument with wet or oily hands.
- Do not immerse the instrument in water or expose it to spray water.
- Do not bend connection and/or mains cable, do not subject cables to stress or high temperatures (higher than 70 °C).
- Check all cables visually at regular intervals.
- Do not operate the instrument with damaged cables.
- Only operate the instrument using the power supply which was part of the original delivery (power supply type GS220A24-R7B or GST220A24-R7B).



### CAUTION



- Repairs, alterations or any work involving opening up the instrument should only be carried out by specialized personnel. Considerable damage can be caused by incorrect repair work. The Thermo Fisher Scientific-service department is at your disposal for any repairs you may require.
- After a repair the instruments safety must be inspected thoroughly by qualified personnel.
- Have the instrument serviced by specialists at regular intervals.
- The pressure of the air supply for the HAAKE Viscotester iQ Air must not exceed 3 bar. A higher pressure will damage the air bearing permanently.



### CAUTION



- Thermo Fisher Scientific recommends shielding the HAAKE Viscotester iQ when operating at very low or high temperatures and handling it only with high or low temperature proof gloves and safety glasses.



### CAUTION

- Do not clean the instrument using solvents (fire danger!), a damp cloth applied with a household cleaning substance is often sufficient.
- Consult Thermo Fisher Scientific or your local if there is any doubt about the compatibility of decontamination or cleaning agents.



### CAUTION



- The HAAKE Viscotester iQ is designed for the determination of the rheological behavior of fluid and semi-solid materials. These materials must *not* be measured with the HAAKE Viscotester iQ in case the operator (or other people) can be injured or the device can be damaged. Especially explosive, combustible and toxic materials must *not* be measured with the HAAKE Viscotester iQ.
- Suitable personal protective gear, consisting of lab coat, protective eye wear and safety gloves, must be worn at all times when working with the instrument.
- At higher angular velocities of the rotor sample material may be thrown out of the gap due to centrifugal forces. Wearing personal protective gear, see above, is recommended.

## Contacting us

Please always first address any questions to the local Thermo Fisher Scientific office or the general agent or partner company who delivered your instrument.

## International Helpdesk

You can also contact our international helpdesk directly. In that case we kindly ask you to use the contact form to which a link is provided below.

### ❖ To contact the international helpdesk

Contact form <https://tfs-3.secure.force.com/materialcharacterization/>

## Technical and Sales Support

### ❖ To contact Technical Support or Sales, Germany and International

Company	Thermo Electron (Karlsruhe) GmbH Part of Thermo Fisher Scientific
Address	Dieselstrasse 4 76227 Karlsruhe, Germany
Phone	+49(0)721 4094 444
Fax	+49(0)721 4094 300
E-mail	<a href="mailto:support.mc.de@thermofisher.com">support.mc.de@thermofisher.com</a>
Internet	<a href="https://www.thermofisher.com/materialcharacterization">https://www.thermofisher.com/materialcharacterization</a>

### ❖ To contact Technical Support or Sales, USA/Canada

Company	Thermo Fisher Scientific
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Fax	+1 603 436 8411
E-mail	<a href="mailto:info.mc.us@thermofisher.com">info.mc.us@thermofisher.com</a>

### ❖ To contact Technical Support or Sales, UK

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Phone +44 (0) 1442 233555  
Fax +44 (0) 1442 233667  
E-mail [info.mc.uk@thermofisher.com](mailto:info.mc.uk@thermofisher.com)

❖ **To contact Technical Support or Sales, China**

Company Thermo Fisher Scientific  
Address Building 6, No. 27  
XinJinqiao Rd., Shanghai 201206  
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Fax +86(21) 64457830  
E-mail [info.mc.china@thermofisher.com](mailto:info.mc.china@thermofisher.com)

❖ **To contact Technical Support or Sales, Japan**

Company Thermo Fisher Scientific  
Address C-2F, 3-9, Moriya-cho, Kanagwa-KU  
Yokohama, 221-022  
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❖ **To contact Technical Support or Sales, India**

Company Thermo Fisher Scientific  
Address 403-404, Delphi-B Wing, Hiranandani Business Park  
Powai, Andheri (E), Mumbai - 400076  
Phone +91 22 6680 3000  
Fax +91 22 6680 3001  
E-mail [info.mc.in@thermofisher.com](mailto:info.mc.in@thermofisher.com)

## Application Support

For questions regarding your rheological application please use the following e-mail address to contact our application specialists. Do not use this e-mail address for any other questions.

❖ **To contact Application Support, Germany and International**

E-mail [support.rheology@thermofisher.com](mailto:support.rheology@thermofisher.com)

## Software and Firmware downloads

The latest HAAKE RheoWin software version and firmware versions for all HAAKE rheometers and viscometers are available as downloads from our dedicated web-site.

### ❖ To download software and firmware

Internet [www.rheowin.com](http://www.rheowin.com)

## Quality assurance

Dear customer, Thermo Fisher Scientific Karlsruhe has implemented a Quality Management System certified according to ISO 9001 ff. This guarantees the presence of organizational structures which are necessary to ensure that our products are developed, manufactured and managed according to our customers expectations. Internal and external audits are carried out on a regular basis to ensure that our QMS is fully functional. We also check our products during the manufacturing process to certify that they are produced according to the specifications as well as to monitor correct functioning and to confirm that they are safe. The results are recorded for future reference.

The “Final Test” label on the product is a sign that this instrument has fulfilled all requirements at the time of final manufacturing.

Please inform us if, despite our precautionary measures, you should find any product defects. You can thus help us to avoid such faults in future.

## Warranty and service

For the warranty and any potential additional warranty, the user must ensure that the device is serviced by a Thermo Fisher Scientific approved service engineer at the following intervals:

The maintenance is required after approx. 2000 operating hours, at the latest, however, twelve months after the initial operation or the last maintenance, respectively.

Two thousand operating hours are achieved:

- At an operating period of eight hours daily (five days a week) about once a year.
- At an operating period of more than eight to sixteen hours daily about every six months.
- At an operating period of more than sixteen hours daily about every three months.

We recommend to have the maintenance carried out by Thermo Fisher Scientific or by staff authorised by Thermo Fisher Scientific as special knowledge and tools are required.

The maintenance and calibration work carried out has to be recorded by certificates in conformity with ISO 9001 ff.



## Functional Elements

The HAAKE Viscotester iQ lab stand version consists of the instrument head and an especially designed lab stand. The instrument head contains the touchscreen panel, the rheometer drive motor and the control electronics. In this version the Viscotester iQ instrument head comes with a robust holder (see [Figure 1](#)) mounted to the rear of the instrument head. The lab stand consists of a base plate and a rod on which the instrument head is mounted.

### Lab stand

The special lab stand for the Viscotester iQ consists of a rugged base plate, a rod and the height adjustable end stop for the vertical movement of the instrument head holder along the rod. The end stop as well as the instrument head holder can slide along the rod and can be fixed in any position using a knurled knob fixing screw.

**Figure 1.** Viscotester iQ instrument head with lab stand



The base plate is equipped with three removable clamp blocks, for clamping a sample container holder and four height adjustable support feet, for leveling the instrument.

## Instrument head

Apart from the instrument head holder, this special version of the Viscotester iQ instrument head is identical to the standard instrument head (with the attached instrument head column) that is mounted on the instrument base (see [Figure 1](#)).

For a description of the functional elements of the instrument head see the Viscotester iQ instruction manual.

**Note** The instrument head holder can *not* be removed from the instrument head. This means that the lab stand version of the Viscotester iQ instrument head can *not* be used on the instrument base and vice versa.

# Installation

This chapter describes how to unpack the instrument and setup the instrument for the first time. Detailed information and how to set up a network connection for the communication between the HAAKE Viscotester iQ and a computer can be found in the HAAKE Viscotester iQ, Instruction Manual, Addendum for Lab Stand Reference Manual.

**IMPORTANT** Read this chapter completely before starting the installation.

## Installation Requirements / Ambient Conditions

For the installation requirements and the ambient conditions see the corresponding chapter in the HAAKE Viscotester iQ Instruction Manual.

## Unpacking

Before unpacking the instrument always carefully check the outside of the packaging for damage. In case of any visible damage make a photo of the damaged area and take a note. Damage to the packaging may, but must not, indicate damage to the instrument.

## Transportation damage

When the instrument is damaged as described below:

- Compile a damage report.
- Notify the carrier (i.e. forwarding merchant, railroad company, post office, etc.).

Before returning the delivery in case of problems:

- Always first inform the dealer or the manufacturer (Small problems can often be dealt with locally.)

## Contents of the delivery

This section describes the contents of delivery of the HAAKE Viscotester iQ labs stand version.

Check the contents of the delivery carefully. The standard content of the delivery of the HAAKE Viscotester iQ with lab stand (without any accessories) is shown in [Table 2](#).

**Table 2.** HAAKE Viscotester iQ with lab stand (262-0050, 262-0053<sup>a</sup>) contents of delivery

Item	Part number
HAAKE Viscotester iQ (instrument head + instrument head holder) or HAAKE Viscotester iQ Air (instrument head + instrument head holder)	006-4002 <sup>b</sup> 006-4003 <sup>b</sup>
Labstand including end stop	006-2471
Power supply, 220 W, 24 V	006-1545
Mains cable, 230 V (EU) or Mains cable, 115 V (US) or Mains cable, 230 V (UK) or Mains cable, 250 V (CN)	000-0724 000-0725 082-2548 082-2546
Ethernet TCP/IP network cable	082-2526
HAAKE Viscotester iQ, Instruction Manual (English) and HAAKE Viscotester iQ, Reference Manual (English)	006-2021 006-2452
Spirit level	002-4696
Screen protector film (1 piece + 1 piece applied to the screen)	006-2373
Compressed air hose (only with HAAKE Viscotester iQ Air)	082-2451
HAAKE Viscotester iQ RheoApp flash drive	098-5065

<sup>a</sup> 262-0050 is HAAKE Viscotester iQ, 262-0053 is HAAKE Viscotester iQ Air

<sup>b</sup> This part number can be found on the type plate on the back of the instrument head.

## Setting up the lab stand

When the HAAKE Viscotester iQ with lab stand (order no. 603-1063) is unpacked from its special transport case (order no. 603-1062), the three pieces of the lab stand must be put together before the lab stand can be used.

### ❖ To setup the lab stand

1. Screw the two parts of the lab stand rod firmly together.
2. Mount the lab stand rod in the hole in the lab stand base plate and tighten the screw at the back of the lab stand base plate.
3. Slide the end stop on the lab stand rod.

## Setting up the rheometer

❖ **To setup the HAAKE Viscotester iQ rheometer with lab stand**

1. Place the lab stand on a suitable (laboratory) bench, see the Chapter “Installation Requirements / Ambient Conditions” in the HAAKE Viscotester iQ Instruction Manual.

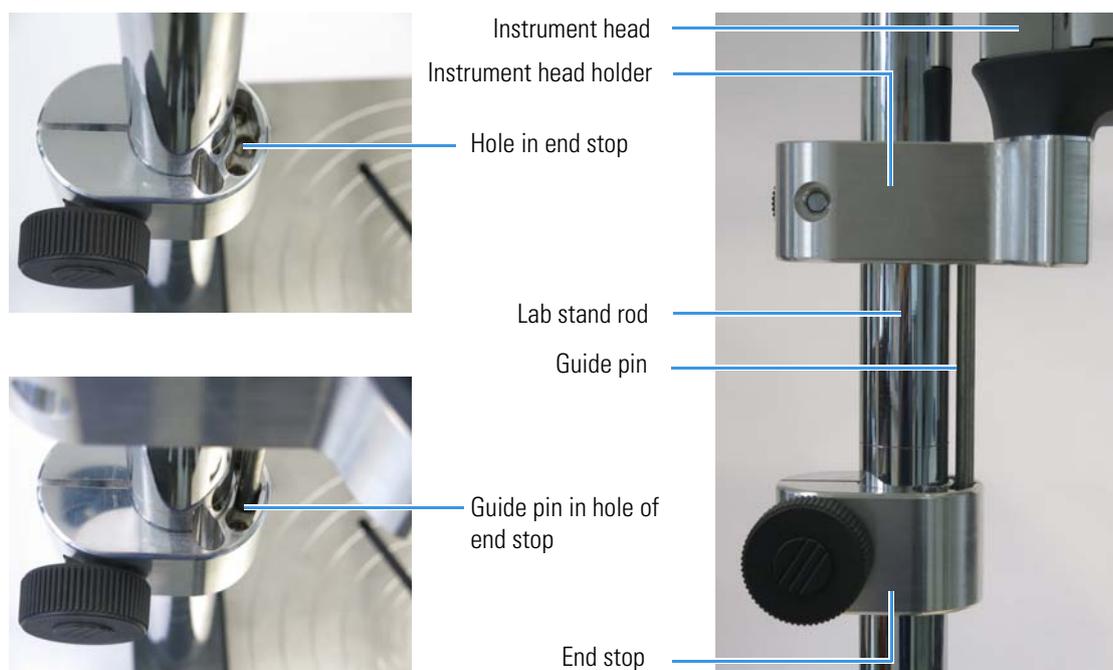
**IMPORTANT** The instrument must be positioned such that the operating switch on the right side of the instrument head can be reached for at any moment.

2. Place the spirit level on the lab stand base plate and level the lab stand by adjusting the four height adjustable feet (see [Figure 1](#) on [page 1](#)).
3. Place the end stop at about half the height of the rod and tighten the knurled knob fixing screw.



**IMPORTANT** The hole in the end stop *must* face to the front of the lab stand, see [Figure 2](#).

**Figure 2.** Lab stand end stop and instrument head holder

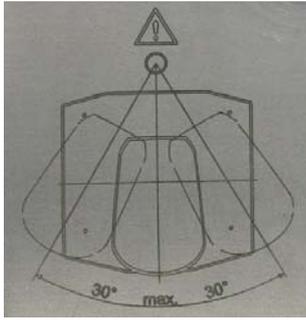


4. Mount the instrument head holder (with the instrument head) on the rod and slide it downwards along the rod, thereby guiding the guide pin in the hole of the end stop (see [Figure 2](#)), until it hits the end stop. Then tighten the knurled knob fixing screw.



**CAUTION** The instrument head *must* always face to the front of the lab stand. The maximal swivel angle is 30° to each side as indicated by the safety warning on the lab stand base plate, see [Figure 3](#). Failure to comply with this may result in the lab stand falling over.

**Figure 3.** Lab stand safety warning



5. Place the power supply on the bench.

**IMPORTANT** The power supply must be positioned such that it

- can be reached for at any moment, to be able to separate it from the mains wall socket (by pulling the mains plug from the mains socket).
- is protected for coming into contact with liquids, this includes the pouring of fluid onto it.

6. Make sure that the operating switch on the right side of the instrument head is in the *off* position.
7. Connect the power supply cable to the power supply socket on the back of the instrument head.
8. Connect one end of the power supply mains cable to the power supply.
9. Connect the other end of the power supply cable into a wall socket.

**IMPORTANT** Only use a mains cable that is suitable for the required voltage and the power consumption of the instrument. The mains cable supplied with the instrument fulfills these requirements.

10. Mount the three clamp blocks if desired, see [“To mount a clamp block on the base plate”](#) on [page 11](#).

**Note** The following two steps (11 and 12) are only needed when installing a HAAKE Viscotester iQ air.

11. Using the supplied compressed air hose (082-2451), connect the socket on the rear panel of the measuring device to the supply of compressed air, that is a shop-air wall outlet, or a compressor.

It is strongly recommended to use the optional filter unit (order no. 222-1211) between the compressed air supply and the instrument.

**IMPORTANT** The compressed air supply must fulfill the requirements listed in [Table 3 on page 10](#) in the HAAKE Viscotester iQ Instruction Manual.

**IMPORTANT** Make sure to flush the compressed air supply (shop-air or compressor) for at least half an hour before connecting it to the instrument.

12. Apply compressed air with a pressure of 2.0 bar to the instrument.

## Moving the rheometer

The HAAKE Viscotester iQ lab stand version is a compact and relatively light instrument and can easily be moved from one lab bench to another. For moving the instrument over longer distances a special, trolley like, transport case is available, see the HAAKE Viscotester iQ Reference Manual.

❖ **To move the rheometer from one lab bench to another**

1. Remove any sample container from the lab stand base plate.
2. Remove the rotor from the instrument head drive motor shaft.
3. Switch the instrument off.
4. Unplug the power supply from the mains socket.
5. Unplug the power supply from the instrument head.
6. Lift the instrument by holding the lab stand base plate only.

**IMPORTANT** Do not lift the instrument by holding the instrument head.

## HAAKE Viscotester iQ RheoApp and RheoWin software

For information on the installation of the HAAKE Viscotester iQ RheoApp and RheoWin software see the chapter Installation in the HAAKE Viscotester iQ Instruction Manual.

## 2 Installation

HAAKE Viscotester iQ RheoApp and RheoWin software

## Operation

This chapter describes how to operate the lab stand only.

Information on how to setup the instrument can be found in [Chapter 2, “Installation.”](#)

**IMPORTANT** Read this chapter and the corresponding chapter in HAAKE Viscotester iQ Instruction Manual the before operating the instrument for the first time.

### Instrument head

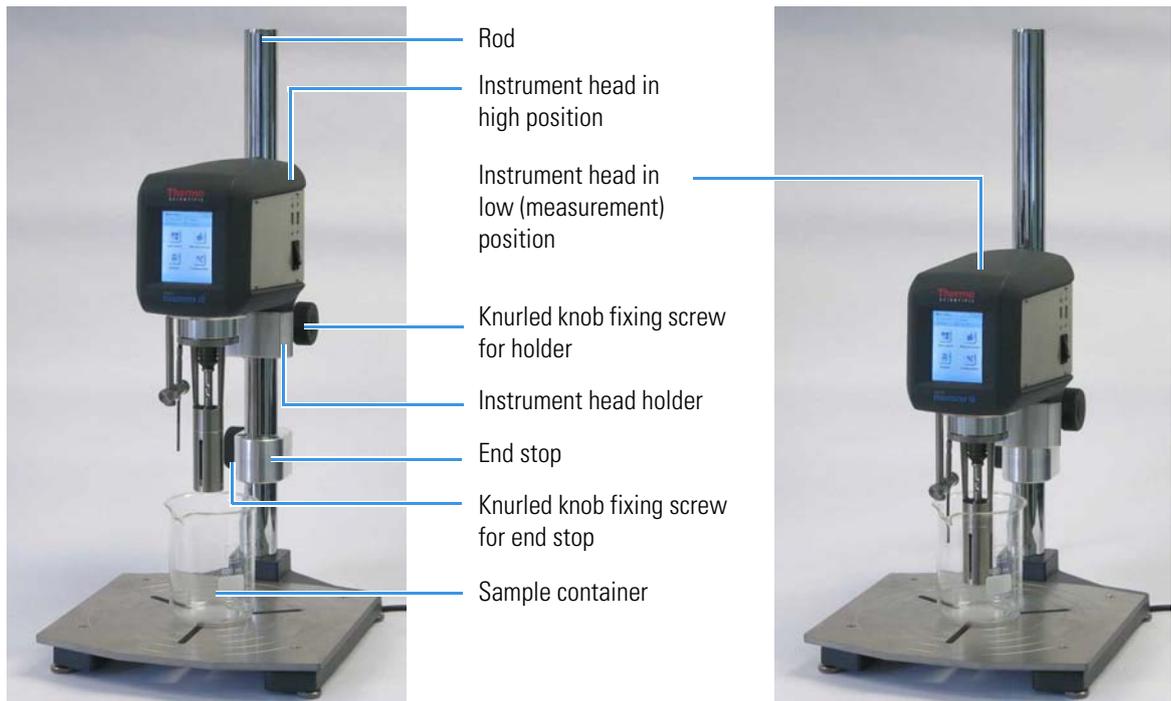
For information on how to switch the instrument on and how to operate the touchscreen user interface see the corresponding chapter in the HAAKE Viscotester iQ Instruction Manual.

The operation of the touchscreen control panel user interface is described in detail in the HAAKE Viscotester iQ Reference Manual. The operation of the and RheoWin PC software is also described in detail in the HAAKE Viscotester iQ Reference Manual.

### Lab stand

The lab stand is especially designed to use the HAAKE Viscotester iQ (instrument head) for measurements in original sample containers, as well as other containers, like buckets, that are too large to fit in the universal container holder. By adjusting the vertical position of the end stop, a reproducible positioning of the measurement geometry, for example a vane rotor or a coaxial cylinder geometry with an immersion tube, in the sample (container) is comfortably achieved.

Figure 4. HAAKE Viscotester iQ with immersion tube and lab stand



❖ **To set the end stop position**

1. Make sure the knurled knob screw of the instrument holder is tightened.
2. Loosen the knurled knob screw of the end stop and slide it in the desired position.



**CAUTION** Make sure that the position of the end stop is high enough for the immersion tube or the temperature sensor or the measuring geometry *not* to touch the base plate when the instrument head is in the lowest position (defined by the position of the end stop).



**IMPORTANT** The hole in the end stop *must* face to the front of the lab stand, see [Figure 2](#).

3. Tighten the knurled knob screw.

❖ **To lower the instrument head into measurement position**

1. Hold the instrument head with the left hand and loosen the knurled knob screw of the instrument holder with the right hand.
2. Let the instrument head slide downward along the rod into the desired position, for example when it hits the end stop, then tighten the knurled knob screw.



**CAUTION** The instrument head *must* always face to the front of the lab stand. The maximal swivel angle is 30° to each side as indicated by the safety warning on the lab stand base plate, see [Figure 3](#). Failure to comply with this may result in the lab stand falling over. The three holes in end stop are 30° apart, seen from the center of the rod.



**CAUTION** When lowering the instrument head make sure that the immersion tube and/or the temperature sensor with its holder (see [Figure 4](#)) and/or the measuring geometry does *not* hit the sample container and break it, or make it fall over.

#### ❖ To raise the instrument head

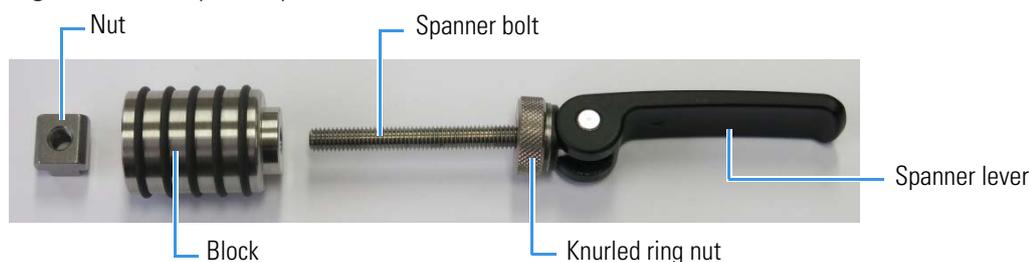
1. Hold the instrument head with the left hand and loosen the knurled knob screw of the instrument holder with the right hand.
2. Lift the instrument head upward along the rod into the desired position, then tighten the knurled knob screw.

By adjusting the radial position of the three clamps blocks (see [Figure 1](#) on [page 1](#)) on the base plate, sample containers with a diameter varying from 55 to 190 mm can be securely clamped to prevent unwanted movement of the container.

#### ❖ To mount a clamp block on the base plate

1. Place the nut (with the flat side facing downwards) in one of the channels at the *bottom* side of one of the slits in the base plate.

**Figure 5.** Clamp block parts



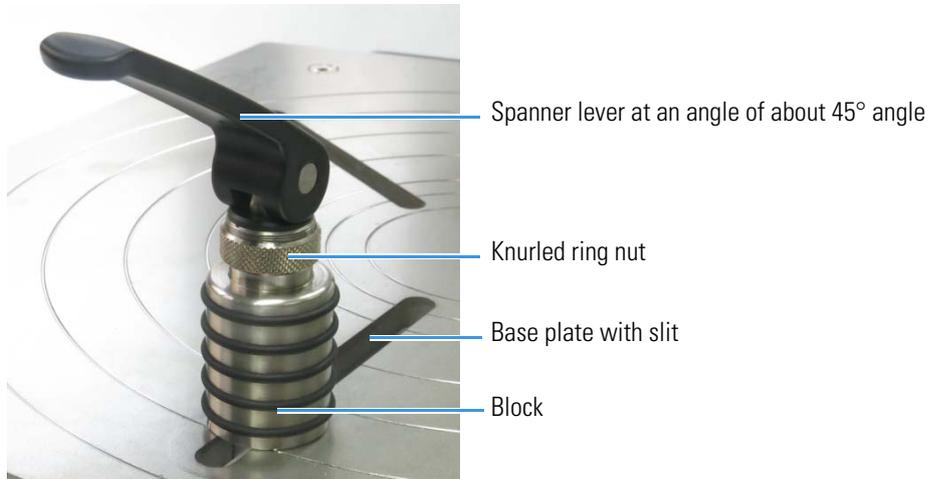
2. Place the block on the *upper* side of the slit in the base plate and insert the spanner bolt through the hole in the block and through the slit.
3. Screw the spanner bolt into the nut, but do *not* tighten it.

#### ❖ To adjust the clamping force of a clamp block

1. Make sure the spanner lever can be swiveled up/down and rotated freely. If necessary screw the spanner lever upwards (counterclockwise) to achieve that.
2. With the spanner lever kept upright with one hand, screw the knurled ring upward (counterclockwise) against the spanner lever until a stop with the other hand (without using much force).
3. With the spanner lever kept upright, screw the spanner lever downward (clockwise) until a stop (without using much force).
4. With the spanner lever kept upright, screw the spanner lever upward (counterclockwise) for about two revolutions in such a position that the lever faces to the rim of the base plate when it is swiveled into the horizontal position.
5. Screw the knurled ring downward (clockwise), for about two to three revolutions, until swiveling the spanner lever downward (at an angle of about 45°) results in clamping the block to the base plate.

6. Fine adjust the knurled ring nut, while swiveling the lever up and down for sensing the clamping force, until the block is clamped firm enough to the base plate with the spanner lever at an angle of about 45°.

**Figure 6.** Clamp block mounted on base plate



❖ **To adjust the radial position of a clamp block**

1. Make sure the clamping force is properly adjusted, see [“To adjust the clamping force of a clamp block,”](#) above.
2. Swivel the spanner lever upward to release the block.
3. Slide the spanner lever, along the slit in the base plate, in the desired position.
4. Swivel the spanner lever downward to clamp the block on the base plate.

## Technical Specifications

This appendix contains the technical specifications which are specific for the HAAKE Viscotester iQ, Instruction Manual, Addendum for Lab Stand lab stand version *only*. For all other technical specifications see the HAAKE Viscotester iQ Instruction Manual.

For more detailed information contact your local sales representative or Thermo Scientific directly.

**Table 3** lists the mechanical properties of the special lab stand for the HAAKE Viscotester iQ instrument head.

**Table 3.** HAAKE Viscotester iQ lab stand version mechanical properties

Property	Value	
Height	670 mm	26.4 inch
Width	300 mm	11.8 inch
Depth	350 mm	13.8 inch
Maximum space between connector coupling and base plate	560 mm	22 inch
Minimum space between connector coupling and base plate	160 mm	6.3 inch
Distance between center of drive motor shaft and center of lab stand column mounting	178 mm	7.01 inch
Diameter of lab stand column	38 mm	1.5 inch
Maximum container clamping diameter	190 mm	7.5 inch
Minimum container clamping diameter	55 mm	2.2 inch
Weight of lab stand (incl. end stop)	9.3 kg	20.5 lbs
Weight of instrument head (incl. instrument head holder)	4.4 kg	9.7 lbs
Weight of lab stand + instrument head	13.7 kg	30.2 lbs





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