

First Glass

Conformity certified volumetric measuring instruments



The conformity certification is, by itself, insufficient for a quality laboratory in accordance with ISO 9000.



The conformity certification is stipulated for many purposes.

In many areas of analysis the use of conformity certified measuring instruments class A or AS is already the legally prescribed standard. However, it is a fallacy to believe that the use of conformity certified instruments by themselves fulfill the strict requirements for a quality laboratory in accordance with ISO 9000.

ISO 9000 require specifications about the life span of the measuring and test equipment.

Every analytical laboratory which strives for certification in accordance with the quality standard ISO 9000 and GLP quickly comes up against the problem of the "Control of measuring and test equipment".

If not before then at the latest when applying the stipulated "documentation about control of measuring and test equipment", it appears that exact measuring or calibration intervals have to be laid down for every individual measuring equipment. For some test equipment it is either technically or economically impossible. Here instead a maximum permitted user-time has to be stipulated.

Glass measuring instruments are also subject of alteration with non-use.

As glass is a supercooled molten material its structure changes in the course of time, and thereby also the volumes of glass measuring instruments. Even if a conformity certified volumetric glass instrument stands in the cupboard, after five years its conformity certification perhaps meets no longer the requirements of ISO 9000.

ISO 9000 requires a definition of use and its duration.

Furthermore, aggressive substances can also change the volumes of volumetric glass instruments in the course of time. Therefore, to meet the measuring equipment requirements of ISO 9000, it is essential to document the type of use and



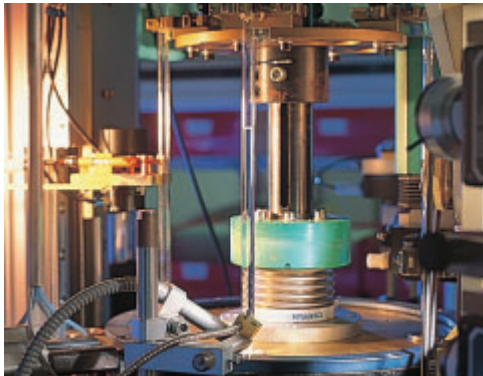
Fully automatic calibration the maximum period of use for each measuring instrument. For this purpose the dated batch identification on all Hirschmann Laborgeräte conformity certified measuring instruments is an indispensable help.

Inspection, measuring and test equipment record					
department: <i>OP</i>			responsible Ms/Mr: <i>Miller</i>		
			alteration date: <i>11-05-99</i>		
no.	type of test equipment	frequency of check (years)	recognised standard auditor	valid until	remarks
08001	balance Sartorius...	2	weights and measure office	5/00	
08002	balance Sartorius...	1	standard weights box	5/00	
08003	balance Sartorius...	1	09003 standard weights box	5/00	?
09001	volumetric flask 100 ml				?
09002	volumetric flask 250 ml				?
	volumetric flask 1000 ml				?

Please Specify!

What have you entered here until now?

Our dated batch identification is ideal for the documentation of measuring equipment and for total traceability.



Calibration robot

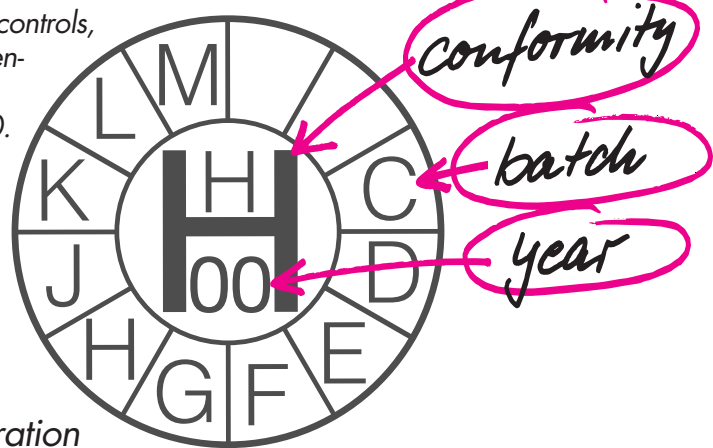
Until now the conformity certification has complied with the rules of the weights and measures regulations.

From 1988 onwards the official rules of the weights and measures regulations allowed to replace the official examination procedure by the conformity certification from the side of the manufacturer. I. e. random samples from each production batch are examined, while using the prescribed measuring and test equipment. Only when the values of these samples were better than the official tolerances, it was possible to sell all the instruments from this batch commercially with conformity certification. Nonconformity arising from human error in the production process cannot be completely ruled out with the traditional process of certifying conformity.

Now additional quality assurance in accordance with ISO 9000 ...

Therefore Hirschmann Laborgeräte lays down in detail a modern production planning and control systems for all working procedures before beginning production.

This includes all the controls, records and documentation which are required by ISO 9000. I. e. all production conditions for each individual batch are kept, from the very beginning, within the allowed tolerances.



Automatic calibration

At Hirschmann Laborgeräte the actual calibration is not carried out "by hand" but exclusively by a robot. One-off nonconformity is excluded.

An integrated and not belated quality assurance.

The basic safety with Hirschmann Laborgeräte products lies in the manufacturing process which is automatically controlled step by step. The final conformity examination which is carried out in strict accordance with the standards for weights and measures is, so to say, only the icing on the cake.

Date and batch on each conformity certified measuring instrument.

Additionally to the perfect quality assurance Hirschmann Laborgeräte now offers an identification label similar to that of the TÜV for all conformity signed glass measuring instruments. That means in addition to the usual "H" marking, the production year and a letter to identify the production batch will be indicated on every package and on every individual measuring instrument.

Everything which the ISO 9000 laboratory needs ...

Apart from the documentation of test equipment which is required to date every glass measuring instrument exactly, Hirschmann Laborgeräte also offers the traceability demanded by ISO 9000. Should any inconsistencies occur when using this measuring instrument in a laboratory, Hirschmann Laborgeräte is able to check back each production batch document even after many years. By the way, in case you wish to document your quality control perfectly, we are able to offer you all conformity certified measuring instruments with Batch Certificate of Performance or Individual Certificate of Performance.



Conformity examination

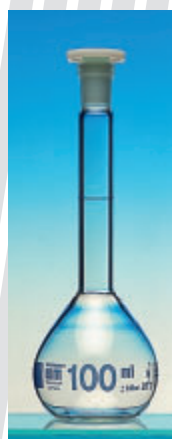
Available from stock. Conformity certified glass measuring instruments with dated batch identification.



110 11 ..



134 11 ..

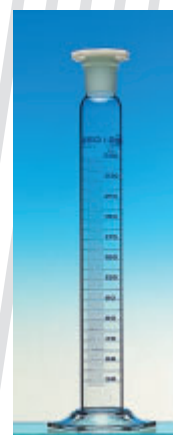


282 01 ..

product	class	description	volume ml	EM-Code
graduated pipettes	AS	graduation to tip, amber stain graduation	0,5-50 ml	110 01..
graduated pipettes	AS	graduation to tip, mouth piece for cotton plug, amber stain graduation	1 u. 2 ml	113 01..
graduated pipettes	AS	graduation to tip, blue graduation	0,5-50 ml	110 11..
graduated pipettes	AS	graduation not to tip, amber stain graduation	0,5-25 ml	110 02..
graduated pipettes	A	graduation to tip zero at the bottom IN, to contain	0,1 u. 0,2 ml	110 03..
graduated pipettes	AS	graduation to tip, Schellbach line, blue graduation	0,5-25 ml	111 01..
graduated pipettes	AS	graduation to tip, enzymatic type, blue graduation	0,1-10 ml	116 02..
volumetric pipettes	AS	with one mark, amber stain graduation	0,5-100 ml	134 01..
volumetric pipettes	AS	with one mark, blue graduation	0,5-100 ml	134 11..
volumetric pipettes	AS	with two marks, amber stain graduation	0,5-100 ml	134 02..
measuring cylinders	A	amber stain graduation	5-2000 ml	221 01..
measuring cylinders	A	blue graduation	5-2000 ml	224 01..
measuring cylinders	A	Schellbach line, blue graduation	5-2000 ml	222 01..
measuring cylinders	A	with plastic base, blue graduation	10-1000 ml	227 01..
measuring cylinders	A	blue graduation, NS ground, poly stopper	10-2000 ml	234 01..
measuring cylinders	A	blue graduation, hollow glass stopper	10-2000 ml	234 02..
volumetric flasks	A	brown glass, NS ground, poly stopper	5-2000 ml	264 01..
volumetric flasks	A	brown glass, NS ground, hollow glass stopper	5-2000 ml	264 02..
volumetric flasks	A	with rim, blue graduation	5-10000 ml	280 01..
volumetric flasks	A	blue graduation, NS ground, poly stopper	5-10000 ml	282 01..
volumetric flasks	A	blue graduation, NS ground, hollow glass stopper	5-10000 ml	282 02..
volumetric flasks	A	amber stain graduation, NS ground, poly stopper	5-2000 ml	282 21..
volumetric flasks	A	acc to the prepacking regulations, blue graduation, with rim	20-1000 ml	295 01..
volumetric flasks	A	trapezoidal form, blue graduation, NS ground, poly stopper	1-50 ml	296 01..
volumetric flasks	A	trapezoidal form, blue graduation, NS ground, hollow glass stopper	1-50 ml	296 02..
burettes	AS	straight stopcock with glass key, black graduation	10-50 ml	313 01..
burettes	AS	straight stopcock with glass key, Schellbach, blue graduation	10-50 ml	314 01..
burettes	AS	straight valve stopcock with PTFE spindle, Schellbach, blue graduation	10-50 ml	314 02..
burettes	AS	straight stopcock with PTFE key, Schellbach, blue graduation	10-50 ml	314 03..
burettes	AS	brown glass, straight stopcock with glass key	10-50 ml	315 01..
burettes	AS	brown glass, straight valve stopcock with PTFE spindle	10-50 ml	315 02..
burettes	AS	lateral stopcock with glass key, Schellbach, blue graduation	10-50 ml	324 01..
burettes	AS	lateral stopcock with PTFE spindle, Schellbach, blue graduation	10-50 ml	324 03..
micro burettes	AS	straight stopcock, Schellbach	2-10 ml	330 01..
micro burettes	AS	straight stopcock with PTFE key, Schellbach	2-10 ml	330 02..
micro burettes	AS	lateral stopcock with glass key, Schellbach	2-10 ml	331 01..
micro burettes	AS	lateral stopcock with PTFE spindle, Schellbach	2-10 ml	331 03..
titration apparatus	AS	lateral stopcock with PTFE spindle, without intermediate stopcock, Schell.	10-50 ml	344 03..
titration apparatus	AS	lateral glass stopcock, intermediate stopcock, Schellbach	10-50 ml	354 01..
titration apparatus	AS	lateral stopcock with PTFE spindle, intermediate stopcock, Schellbach	10-50 ml	354 03..
titration apparatus	AS	brown glass, lateral stopcock with PTFE spindle, intermediate stopcock	10-50 ml	355 03..



224 01 ..



234 01 ..



315 01 ..

Ask for our detailed price list or call us.
We are most happy to advise you.

For ordering and details please consult your supplier:

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