

IS6.1

Viscometer baths



Heating

Two heaters are fitted: a 1500 W boost-heater and a 1200 W maintenance heater of which a separate 200 W winding operates as a fine tuner. The set point is maintained by the combination of the 1000W and the 200 W windings of the maintenance heater.

Cooling

A 2 m long stainless steel cooling coil for operating down to ambient dew point* is fitted as standard. Without cooling the minimum bath temperature will be approx. 10°C above ambient because of the heat input from the stirrer. A small flow of cooling water through the coil will make it possible to operate at lower temperatures, with the ambient dew point as a lower limit.

* at this temperature water vapour in the air space between the double windows will condense.

Control

Solid state microprocessor control.

The baths are equipped with a microprocessor controller which automatically maintains optimal energy input. A Pt-100 class A sensor is placed close to the heater thus ensuring immediate response to any change in conditions. The heaters, switched by triacs are controlled by the microprocessor in zero cross-over mode to avoid interference with other equipment. A RS232C bi-directional communication port (75 to 9600 Baud). fitted as standard enables the bath to be controlled by a computer or a terminal.

Construction

Rigid double wall construction of stainless steel.

The sturdy stainless steel construction with 25mm thick glass wool insulation ensures exceptionally stable temperature conditions within the bath. All wetted parts are made of stainless steel and P.T.F.E., providing resistance against all usual bath fluids. The bath is fitted with adjustable feet for leveling.

Distortion-free visibility

All models have glass windows in both front and rear walls. The windows are formed with two panes of tempered safety glass separated by 20mm air space. Visibility throughout the bath is excellent.

Agitation

A vane type stirrer with P.T.F.E. bearings moves the bath fluid past the heaters and then out from under the main baffle, thus directing the freshly heated fluid to flow past the side wall as well as the windows areas and creating optimal temperature uniformity.

Viscometer arrangement

In the stainless steel bath cover number* of 50mm dia. holes with lids, for accommodating glass capillary viscometers in holders (see backpage of this brochure) is provided.

* TV 2000 : 3, TV 4000 and TV 7000 : 4+3, in two rows.

Power socket

An earth and fused power socket for connecting an illuminator has been provided in the rear panel of the bath.



		Units	TV 2000	TV 4000	TV 7000
Temperature range		°C	amb d.p * +230	amb d.p * +230	amb d.p * +230
- setting accuracy		K	± 0.01	± 0.01	± 0.01
- stability**		K	< 0.001	± 0.01	± 0.01
- uniformity**		K	< 0.005	< 0.005	< 0.005
Bath volume		l	20	40	70
- opening		mm	130 x 165	260 x 240	260 x 240
- depth		mm	300	300	600
Dimensions	width	mm	465	630	630
	height	mm	585	585	885
	length	mm	285	350	350
Windows	width	mm	140	270	270
	height	mm	285	285	585
Heating rate	(water)	°C/min	2	1	0.5
Heater capacity	1	W	200	200	200
	2	W	1000	1000	1000
	3	W	1500	1500	1500
Power consumption		W	2800	2800	2800
Power supply***			110/127V or 220/240V, 50/60 Hz		

* with external cooling (d.p. = dew point) ** deviations based on water at 60°C and 20°C ambient *** to be stated when ordering.