



The **PTWS 100** is a 6 position Compact Dissolution Tester for Solid Dosage Forms as described in chapter <711/724> USP and Section<2.9.3/4> EP as well as the DAB and Jap. Pharmacopeia. It is supplied with a staggered start feature for each of the 6 positions. The upper drive is electronically controlled so as to offer two positions: an upper cleaning and a lower working position. The electrically driven lift mechanism is centrally located above the water bath thus assuring that the whole lift drive mechanism is positioned so that the tool shafts are always kept parallel and at 90° to the vessel walls when in the working position.

The dissolution vessels are automatically centred and held in position once inserted into the bath cover. The access points which are necessary for sampling as well as the openings for the tools are contained in an auxiliary, low evaporation loss, vessel cover.

The blow moulded water bath can easily be removed from its support frame for cleaning purposes. The bath cover can also be easily unscrewed for cleaning. The water bath also contains a water diffuser so that heated water is evenly distributed throughout the bath.

The heating system is contained in a separate stainless steel housing. The connections between the heater and the bath are on „quick connect“ fittings for easy connection and disconnection. Water is pumped through the system using a powerful, yet quiet, circulation pump. The pump itself is spring mounted (to limit vibration transmission) and the flow through heater is protected from overloading (overheating in case of control electronic's failure) via a thermal fuse as well as a thermo switch for added security; with service and maintenance in mind, access to the compact pump and heater section is easily achieved without having to move the main frame instrument.

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## Tablet Dissolution Test Instrument - Type PTWS 100

The tool design is Monoshaft™ throughout. Tools are made up of the main drive shaft plus interchangeable tool heads. The main tool shaft remains in place regardless of the tool type. The clearance of each tool from the vessel base will automatically be correct once the main tool shaft has been installed and qualified with any one of the tool sets. Each stirrer can be raised by hand into a convenient position for easy vessel removal or insertion.

A key point in today's crowded labs is the footprint of the PTWS 100. The space saving construction of the PTWS 100 is so designed as to be able to offer a 2 x 3 or a 3 x 2 configuration with a minimal space requirement of 56cm x 78cm (w x d).



In keeping with our cutting edge design, a „Touch Screen“ allows control of the various mechanical features of the instrument such as the tool speed, lift drive and heater. The instrument set up is menu driven. Visual signals on the display inform the user of the status of critical instrument parameters, e.g., bath target temperature not reached. Access to the instrument can be password controlled if required upon boot up. If certain operational parameters form a regular feature of the daily

routine, then these can be incorporated into a user method for faster set up. These parameters can be tool speed, target bath temperature, sampling time points and so on. The user method memory capacity is almost limitless. For help with the most critical Menu points you can access an on line help assistant directly on the display. As soon as the test is started, a screen saver can be activated with the most important information displayed in large script.

### **Options:**

Interface for remote control applications via RS232, USP, or TCP/IP.

I/O Interface for direct control of peripheral instruments such as a PTFC-2 Fraction Collector.

RS232 Connection port for an external data logger to record instrument parameters.

The 2 litre vessel version can also be used with 1 litre vessels.

Individual spindle drive and electronically controlled staggered stirrer start

Coloured vessels available for UV sensitive test materials.

### **Features of the standard instrument:**

- Staggered start for all tool positions.
- Monoshaft™ tool design for each tool position.
- Blow moulded water bath design.
- Warm water diffuser element for even heat distribution throughout the bath.
- Cover with automatic vessel centring feature.
- A centrally located electronically controlled lift drive to raise and lower the head.
- Visual bath status information with variable display colours.
- User password access if required.
- Testing method filing (up to about 200 different descriptions)
- PQ interval warning.
- Screen saver function with critical information display.

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**Automation:**



**PTFC2** Fraction Collector for automated Sampling with automated media refilling option.

For automated fraction collection the PTFC2 Collector as well as a Peristaltic or Piston Pump can be added to the PTWS 100. Sampling sequence timing, sampling volume and the optional media refilling process are programmed using the user menu of the PTWS 100 instrument. In-situ sampling ferrules are placed into the PTWS 100 through the top cover holes. Each ferrule holds a 5

or 10  $\mu$  PP Sinter Filter. When the tablets have been dropped into the dissolution vessels the automated sampling start. If the refilling option is used automatically media refilling will start after a sample has been withdrawn.

**Use the PT-DL1 to print the Runtime Log of the PTWS 100**

The PT-DL1 is connected to the RS232 interface of the PTWS 100 (option). It includes the printout of the following information's:



- Programmed logging sequence
- total number of logs
- selected printing language
- Instrument serial number
- Firmware Release number
- Instrument status of heater (on/off), stirrer (on/off)
- Target bath temperature and stirrer speed setting
- actual bath temperature and stirrer speed at each logging sequence

**PTWS 100 Technical Data:**

Tool Speed Range: 20 – 220 RPM

Accuracy: < 1%

Heater Range: 25 - 45°C

Accuracy:  $\pm$  0.2°C

Tool positions: 6

Bench Space: 45 x 65 cm (2 by 3) or 65 x 45 cm (3 by 2)

We reserve the right to make technical changes without any prior notice

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