



**WEBTEC**

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# Analogue Hydratest Hydraulic Tester

Flow, Pressure,  
Temperature and Speed

- 300 lpm
- Bi-Directional

Accurately measuring flow, pressure and temperature, testers in the HC Series are used to conveniently check hydraulic system performance or locate faults while operating directional control valves or adjusting valve settings.

The tester comprises a turbine flow block and large easy to read analogue meter which displays flow, speed or temperature.

Webster turbines are designed for continuous monitoring or intermittent use commissioning and servicing hydraulic systems up to 420 bar, 6000 psi pressure.

Optional accessories for the tester include a phototachometer kit for checking shaft or motor rpm and a pressure loading valve with internal by-pass safety discs. The loading valve allows progressive build up of pressure to check the flow throughout the range.



*Model HC 300*

## Features

- **ACCURATE** measurement of flow, pressure, temperature
- **FAST** checks on pumps, valves, motors, cylinders, hydrostatic transmissions
- **SAFE** to use in both directions of flow. Internal oil by-pass protects system, tester and operator against accidental over-pressure
- **BI-DIRECTIONAL** for unrestricted connection and simplified testing
- **ECONOMICAL** low power consumption from standard battery. Automatic switch off
- **WIDE RANGE** of operation  
8-300 lpm  
2- 60 gpm  
Maximum pressure 420 bar, 6000 psi
- **PORTABLE** and lightweight

***Another quality product from the Webster Range***

## Specifications

Model No.	Part No.	Flow Range	Scales		Pressure Range	Temp Range
			High	Low		
HC 300	FT5584-18	10-300 lpm	0-300 lpm	0-60 lpm	0-420 bar	120°C

### Connections

By flexible hoses (1 metre minimum length) Inlet and Outlet ports: HC 300 1" BSPF

### Adaptors

Adaptor Fitting Kit Part No. FT 5781 comprising 10 male-male adaptors and 2 bonded seals for HC 300 to provide: 1. BSPF, 3/4" BSPF, 1/2" BSPF, 1 5/16" JIC Male and 9/16" UNF Female connections.

## Measurement and Indication

### Flow

Measured by electronic count of the axial turbine, designed to minimise the effects of variation in temperature and viscosity. The large analogue readout meter has High / Low scales selected by a switch.

**Accuracy**  $\pm 2\%$  of full scale.

### Pressure

Glycerine filled dual scale pressure gauge 0 - 420 bar. 0 - 6000 psi.

**Accuracy** 1.6% of full scale.

### Temperature

Sensed by thermistor in the turbine block for fast response and selected by switch on the analogue meter whenever required.

**Accuracy**  $\pm 2^\circ\text{C}$

### Speed

Rotational speed of motors, shafts etc., can be measured by an optional plug-in phototachometer. All necessary circuitry is built into the tester. Range 600 - 8000 rpm.

**Accuracy**  $\pm 2\%$  of full scale.

## Construction

### Readout

HC Series Testers comprise a turbine flow block, pressure gauge and temperature sensor built into a steel case complete with read-out panel, selector switch and connections for optional equipment. For clear accurate readings the tester has both High and Low scales.

Low power micro-circuitry minimises battery consumption. An automatic switch turns the power off one hour after the last operation.

The standard 9 Volt battery is available worldwide and gives typically 12 months normal testing.

### Turbine Block

High tensile aluminium block houses a six blade turbine rotating on a stainless steel bearing and shaft. Straightener reduce flow turbulence and allow measurement in both directions. Optional loading valve available.

## General

### Loading Valve

Optional HV400 loading valve can be directly connected to the Turbine Block to give progressive pressure loading in either flow direction. Replaceable safety discs relieve at 440 bar to internally by-pass the oil if the maximum pressure is exceeded.

### Seals

Viton seals compatible with oil, water/oil emulsion are fitted as standard. EP seals for phosphate-ester are available to special order.

### Dimensions

191mm Wide, 225mm High, 84mm Deep, Mass 4kg.

### Operators Manual

Full operating instructions and test procedures are detailed in a manual supplied with the tester.

### Accessory Equipment

HC testers can be used with a wide range of accessories. eg. phototachometer, mechanical tachometer, loading valve, and low pressure gauge. A carrying case is also available. Please refer to the Optional Equipment Section.

### How to Order

Specify model from above table together with optional equipment and adaptor fitting kit as required eg. HC 300 with HV 400, TH 1A, BA 10, and FT 5781 is a 8 - 300 lpm tester with loading valve, tachometer, magnetic base and adaptor kit.



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