

Autoclave curing system: LBBC Thermoclave® TC1000LHTHP system

The Thermoclave TC1000LHTHP system, manufactured by LBBC, is a state-of-the-art autoclave for composites materials curing, with an internal working area of 1.0 m diameter and 3.0 m length and controlled closed-cycle water cooling. The maximum working temperature and pressure is 420°C and 20 bar respectively (i.e. suitable for thermoplastic materials). The vessel has 3 vacuum draw lines and 3 monitor lines. Electrical heater elements are rated at 60 kW. They are rated so as to achieve a maximum ramp rate on the atmospheric temperature in the working envelope, of 5°C/minute with 200 kg load of combined materials. The control system uses a controller for temperature, pressure and vacuum control. Operator interface is achieved through a standard PC on which the SCADA system is installed. Data logging is achieved through the use of this SCADA system. Process information relating to each cure cycle will be monitored throughout the entire cure and written to the PC, including up to 12 monitoring/control thermocouples.

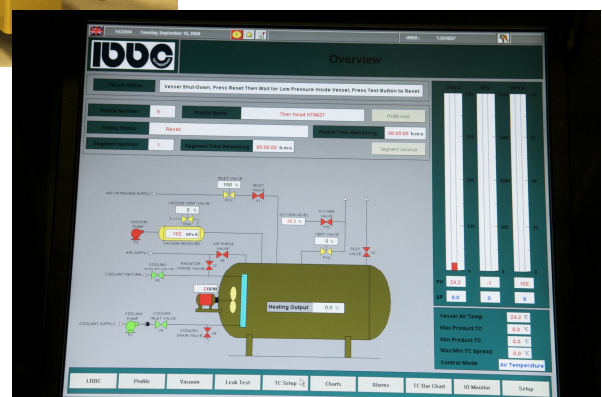


Figure 1. LBBC Thermoclave® TC1000LHTHP system, and SCADA controller

