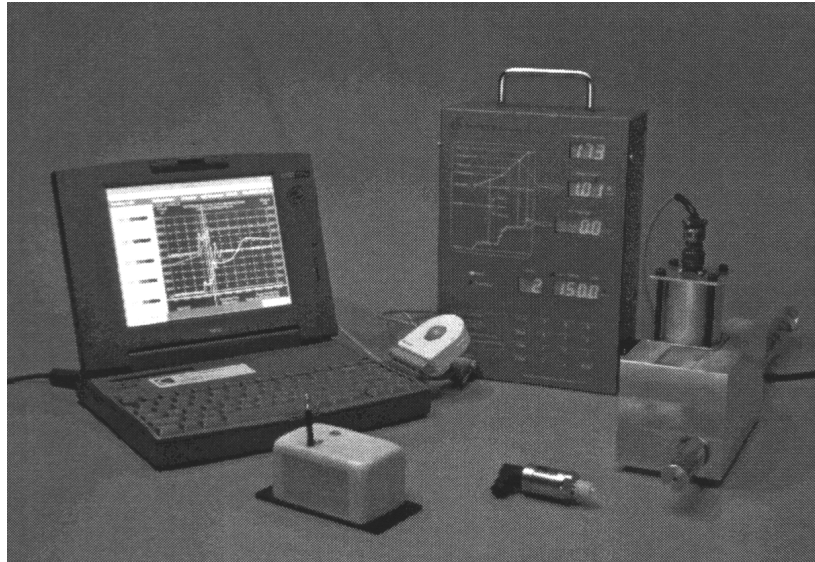




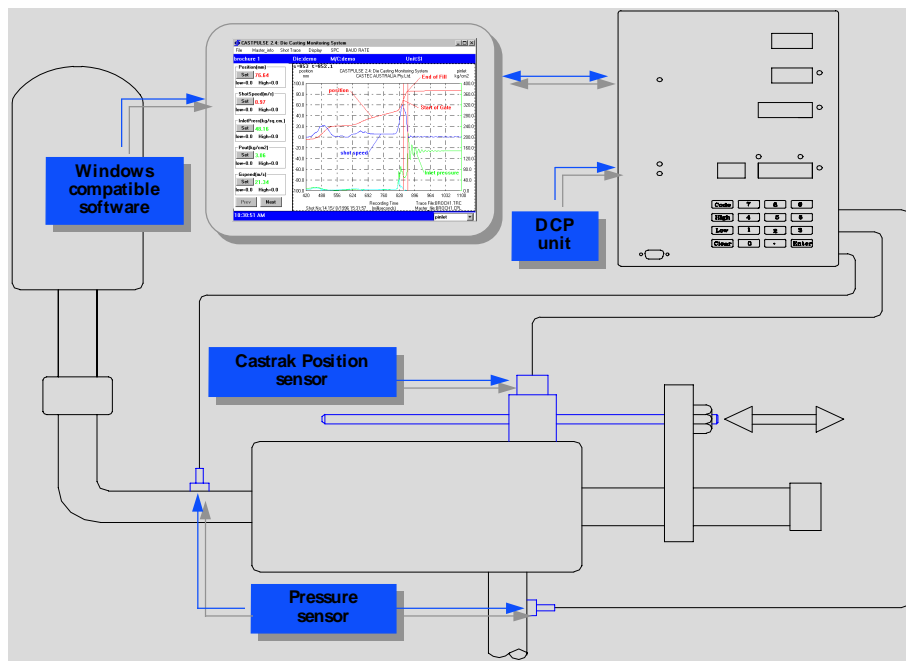
# CASTPULSE

Microsoft Windows compatible die casting process monitoring and control system



## Why monitor and control?

Metal pressure, temperature and gate speed affect casting quality. Therefore to achieve consistently high casting quality, it is essential to monitor and control die casting machine piston speed and hydraulic pressure. The Castpulse system has been developed by Castec Australia to measure these variables continuously during every casting injection cycle.



## The Castpulse system consists of:

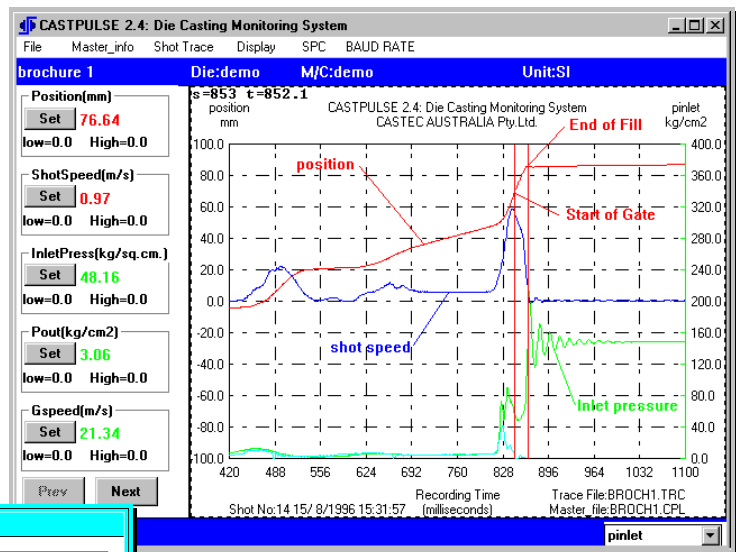
- ⇒ a CASTRAK position sensor designed to operate in a harsh die casting environment;
- ⇒ pressure sensors;
- ⇒ a Castpulse Data Capture and Processing (DCP) unit which collects signals; from the sensors, and
- ⇒ Windows compatible Castpulse Graphics Utilities software which displays the signals from the sensors onto PC screen.

The Castpulse

## system serves the different needs of a die casting plant:

**For die designers:** the two vertical lines identifying the cavity *end of fill* and *start of gate* positions ensure that the machine plunger speed is set correctly. The calculated metal pressure and gate speed during the cavity fill period are displayed to show the flow performance of the runner and gating system.

**For operators and die setters:** the keypad and LED displays on the DCP unit are designed for ease of operation.



**For quality controllers:** the operating limits of casting process variables can be set to trigger “out of limits” conditions and the variables monitored can be transferred to a spreadsheet program for statistical process control analysis. Two or more DCP units, each installed to monitor a different die casting machine continuously, can be networked.

**For machine control:** the four relays incorporated in the DCP unit can initiate the second stage speed, set alarms and other control requirements. The DCP unit has a serial communication port which can be linked

to the machine's PLC.

**For maintenance crews:** process variables, such as hydraulic pressure and piston speed, can be recorded and displayed for multiple casting injection cycles, making it easy to identify problems in the machine's hydraulic logic.

### Why Castpulse?

- ⇒ Castpulse is portable and can be fitted easily to existing die casting machines.
- ⇒ Castpulse has many easy-to-use features.
- ⇒ Castpulse is competitively priced.

**For further information contact:**



Castec Australia Pty. Ltd.  
8 Daryl Avenue, Glen Waverley, Victoria, AUSTRALIA 3150  
Tel. 61-3-98031196; Fax. 61-3-98030358

