

# MACKLOW SMITH

## Conversion from Analogue to Digital

The majority of Macklow Smith test machines and test rigs were designed and manufactured using the Macklow Smith patented Hydraulic Load Capsules, it is a testament to the Macklow Smith design philosophy and build quality that many of these test apparatus are still functioning some 50+ years from the time they were supplied.

While a few test apparatus were built during the 1970's and onwards with output options using strain gauge pressure sensors fitted to the hydraulic load capsules the majority were still supplied with analogue dial gauges for the test readings, this of course in most cases, requires the technician to observe the results during the test and interpret the readings into notes for comparison, while some test apparatus were fitted with chart recorders where this was feasible.

We can convert ANY Macklow Smith test apparatus still using our hydraulic load capsules to a digital output, either with just a digital display from a pressure sensor fitted to the hydraulic system, or replacement of the hydraulic load capsule with a strain gauge load cell and digital display.

### **DIGITAL DISPLAY**

The basic operation of our digital displays will produce very accurate real time readings with no individual interpretation of a pointer on a dial gauge face. With simple one touch operation ZERO adjustment you are assured that each set of results can be relied on having used the same scale span. Peak\* and Valley\* readings of the test are also available using a one touch operation on the key pad.

### **RS232 Connectivity**

The greatest benefit of the digital display is the downloading of all the data recorded during each test, this is achieved via a RS232 connection to your PC/computer, with a software application all this can be recorded and shown in a graphical presentation during the test (real time) and recorded for future comparison in the majority of spreadsheets.

### **DATA LOGGING**

A simple data logging device connected to the digital display via an analogue or digital output together with software will further enhance the data collected from the digital display, this will enable the user to format the data into engineering units using a formula prepared and set up by Macklow Smith during the installation and calibration. Have all the test data saved to the majority of spreadsheets for checking of the results with the ability to see time duration/test result, the ability to compare previous results with the latest test data recorded.