HYDRAULIC SHOCK ABSORBER TEST RIG



- Hydraulic dynamometer for the testing of race car and motorcycle dampers and suspension units.
- Designed for frequencies up to 80hz depending on stroke and software.
- Columns collapse for easy transportation allowing the unit to be used trackside for result evaluation.
- Dyno supplied without software or computer. Assistance can be given to customer to source the correct equipment and advice given with the software either in LabVIEW or more dedicated software where required.
- Supplying the test rig in this format allows customers to develop their own dyno to do the tasks they require. As requirements change, the dyno can then be tailored to suit the application.
- Competitively priced.

SPECIFICATION

POWER REQUIREMENTS MAXIMUM PRESSURE MAXIMUM FLOW STROKE MAXIMUM FORCE 2.2kW 240/110vac 50/60hz 210 bar 5 lpm ± 50mm (others available) 1000 kg

SIZE

HEIGHT OPEN HEIGHT CLOSED TABLE HEIGHT WIDTH LENGTH

1400 mm 1050 mm 730 mm 420 mm 800 mm

OPTIONS

- Supplied with simulated carbon fibre panelling and worktop.
- Supplied without computer interface card.
- Supplied without software.
- Fully tested and certified, with handbook and service manual.

ELECTRICAL SPECIFICATIONS

5VDC TTL controls for the following functions:

- Start.
- Stop.
- Enable hydraulic valve.
- Unload hydraulic system and accumulator.

INPUT SIGNAL FROM DAQ CARD

Command signal required to drive the hydraulic servo valve 0-10V DC

OUTPUT SIGNAL FROM DAQ CARD

To plot the performance graphs via a laptop

- Load 0-1000 KG = 0 ± 10V DC
- Displacement = 0 -10V DC

Emergency stop and reset by non-software driven safety relay.

ACCUMULATOR DATA

Fawcett Christie Hydraulics 1.0 Litre accumulator. Stored volume at ratio 1.25:1 = 124cc

This is between 168bar and 210bar. This represents 196 mm of stroke @+/-12.5 mm = 7 cycles @+/-25.0 mm = 3 cycles @+/-50.0 mm = 1.5 cycles

DAMPER MAX LENGTH.

377mm between centres.

CONTINUOUS VELOCITY.

@+/- 12.5 mm = 2.5 Hz @+/- 25.0 mm = 1.25 Hz @+/- 50.0 mm = 0.62 Hz

PEAK VELOCITY

1000 mm/sec

COOLING

Inbuilt air blast cooling Capability to run continuous tests when ambient temperature below 25°C.

POWER REQUIREMENTS

240V AC 50/60Hz	15 Amps
110V AC 50/60Hz	30 Amps