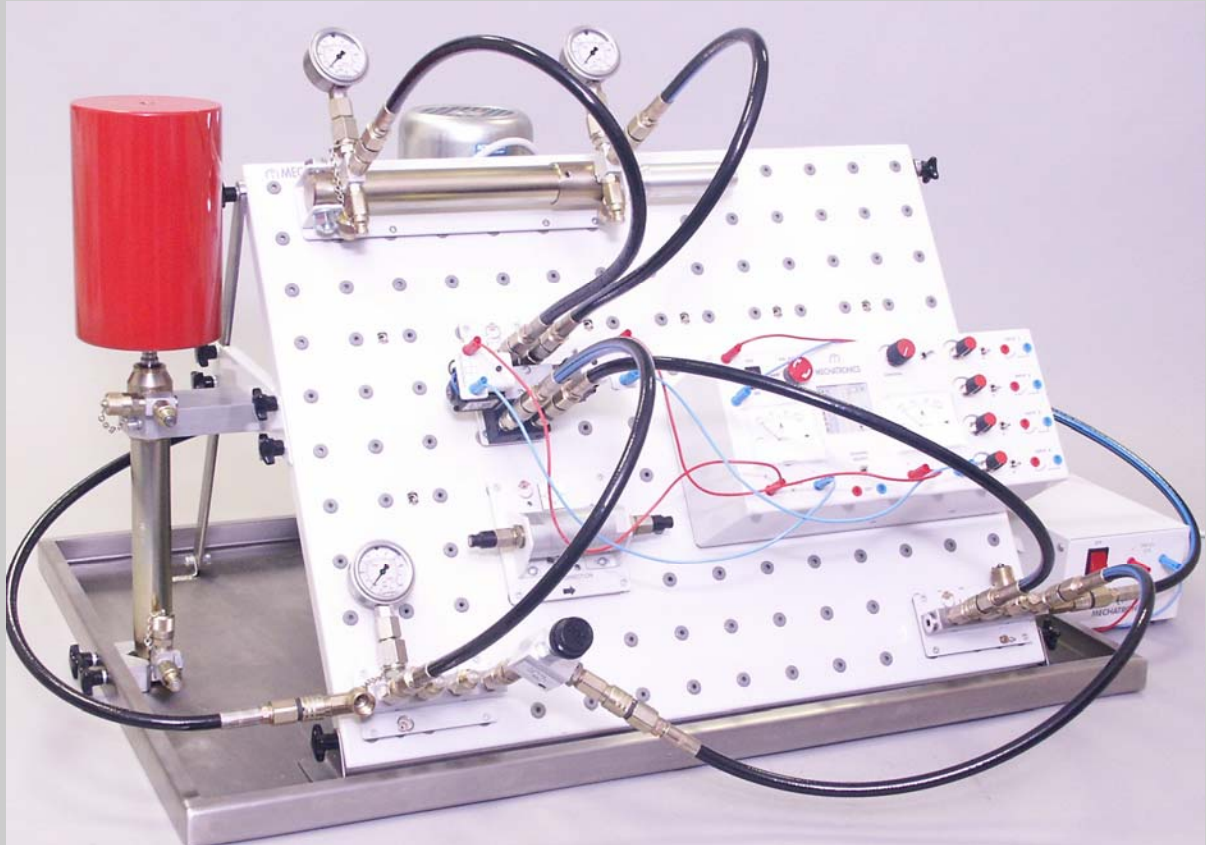


# PORTABLE HYDRAULICS TRAINING SYSTEM

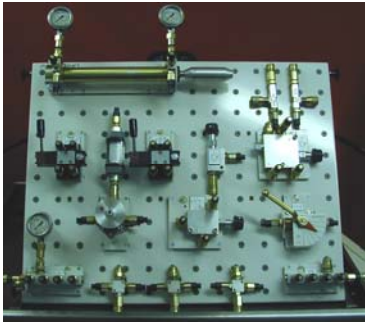


Practical 'Hands ON' training systems for those taking part in  
Multi-skilling, Cross-skilling, NVQ or Modern Apprenticeship  
Training programmes



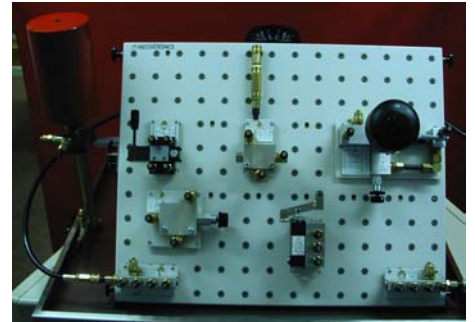
## MECHATRONICS

The totally unique Portable Hydraulics Training System from **MECHATRONICS** has been specifically developed for those who are providing 'mobile' training and/or those who require to maximise the availability of valuable laboratory or classroom space.

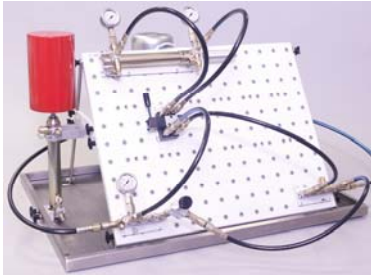


Set of Components – Hydraulics, level 1

This system can be easily transported from location to location and packed away, when not in use, thereby freeing up valuable space for the teaching of other subjects.



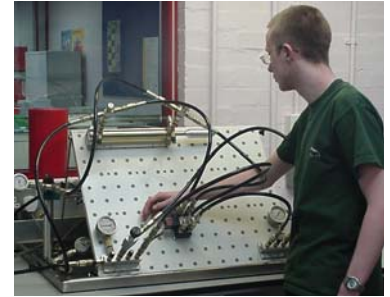
Set of Components – Hydraulics, level 2



Sample Hydraulic Circuit constructed on the circuit building panel

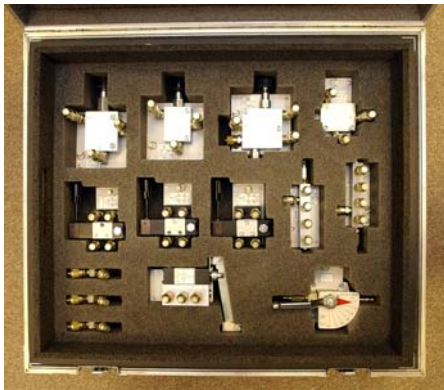
The system is extremely clean in use, due to the **true 'FLAT-FACE'**, quick-connect, self-seal, couplings used throughout, a 1<sup>st</sup> for hydraulic training equipment.

All electrical connections are made via shrouded safety sockets and safety plugs.



Student testing an hydraulic circuit

All the components used in the system are genuine industrial items that are widely used in various industries worldwide. The components are quickly and easily mounted on the circuit building panel and secured by means of ¼ turn fasteners, eliminating the requirement for any tools. The complete assembly, test and disassembly of circuits is therefore rapid, easy and efficient, thus maximising the time available when 'putting the theory into practice'.



Hydraulics set in heavy-duty, lockable storage / transit case (case 1 of 2)

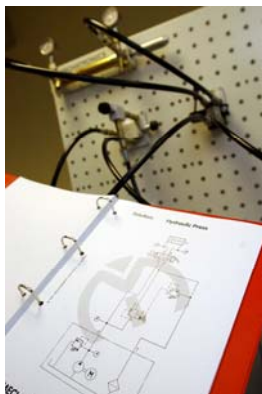
The components available cover a wide range of actuators, directional, pressure and flow control in hydraulics, electro-hydraulics and proportional hydraulics, more extensive circuits and controls can be built by connecting to the P.L.C. training systems from **MECHATRONICS**.

All components can be stored / transported within the lockable, heavy-duty, aluminium framed storage / transit cases.



Hydraulics set in heavy-duty, lockable storage / transit case (case 2 of 2)

The **MECHATRONICS** Portable Hydraulics Training System is ideally suited to achieve the practical requirements of courses such as City & Guilds, BTEC, SEMTA, amongst others, at minimal capital outlay.

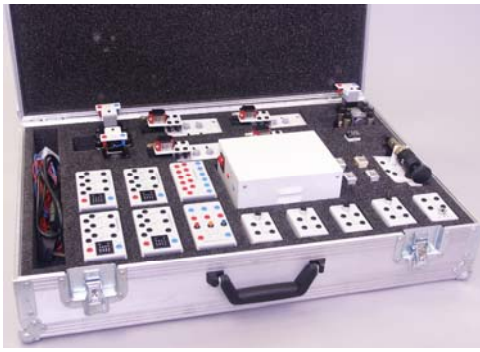


Hardware supported by ready to use courseware

Complete packages of Courseware and Teachware, including purpose designed practical exercises are also included to fully support the training hardware. A 'total system' can therefore be supplied that is 'ready to use' without the need for precious development time.



Pressure manifold showing genuine 'Flat-face' quick-release couplings



Set of Components – Electro-hydraulics  
in heavy-duty, storage / transit case

### Support Materials available:-

- Exercises/Solutions with Question/Answer Papers:
  - Hydraulics
  - Electro-hydraulics
  - Proportional hydraulics
  - P.L.C.
- OHP Transparencies
- Magnetic Symbols
- Manuals & Textbooks



Set of Components – Proportional hydraulics  
in heavy-duty, storage / transit case

### Features:

- Fully portable systems, that can be easily transported for on-site training
- Allows classrooms to be 'multi-tasked', due to being compact and easy to store when not in use
- Easy, quick and clean in use
- Quick, clean and safe plug-in hydraulic couplings and electrical connections
- Choice of hydraulics, electro-hydraulics, proportional hydraulics and/or P.L.C.
- Extremely wide range of components available
- Full range of support materials

### Advantages:

- Low capital cost
- Genuine industrial components
- Eliminates need for tools
- Very clean in use, due to genuine 'Flat-Face', quick-connect couplings
- Simple expansion into electro-hydraulic, proportional hydraulic and P.L.C. systems
- Very compact and portable
- Minimum space required
- Operates off a standard single phase electrical supply
- Supplied complete with 'Collection of Exercises/Solutions with Question/Answer papers'

### Benefits:

- Improved quality of training
- Improved appearance
- Create professional image
- Can cater for a wider client base, due to portability of the training system/s
- No tools required
- Cost effective system
- Extensive number of exercises possible
- Supplied ready for use (no precious development time required)

### Safety:

- Electric motor overload protected
- All hydraulic connections made via **true** 'Flat-Face', self-seal, quick-connect couplings
- All electrical connections made via shrouded safety sockets and plugs
- 24V d.c. control voltage used for electro-hydraulics, proportional hydraulics and P.L.C. systems

## TECHNICAL SPECIFICATION

### Electrical Supply: Hydraulics:

230V a.c. 50Hz or 115V a.c. 60Hz, single phase, overload protected with Start/Stop  
 Maximum system pressure – 65 bar  
 Hydraulic fluid – HLP/HM 32  
 Reservoir capacity – 10 litres useable  
 Flow rate – 4 l/min @ 65 bar  
 Valve size – nominal size 3mm (NG3), rated @ 210-315 bar according to component

## OTHER PRODUCTS

**MECHATRONICS International Ltd** are specialist manufacturers of an extensive range of training equipment which includes the following:-

### Training Hardware:-

In addition to the Portable Hydraulics Training System we are also manufacturers of training systems in all of the following subject areas:-

***Pneumatics***  
***Electro-pneumatics***  
***Hydraulics (laboratory trolley based systems)***  
***Electro-hydraulics (laboratory trolley based systems)***  
***Proportional hydraulics (laboratory trolley based systems)***  
***Programmable Logic Control (P.L.C.'s)***  
***Mechanical Transmissions***  
***Industrial Handling***  
***CIM / FMS***

These systems are modular and available in a wide variety of formats, they are compatible with each other and therefore may be combined together or used individually. All the required hardware from a single component through to complete, very extensive 'Turnkey Systems' can be supplied.

### Teachware & Courseware:-

To support the training systems hardware we have developed a full range of Teachware suitable for use by Instructors, Lecturers, Tutors and Teachers.

Courseware suitable for use by students is available in the form of 'Industry Related' practical exercises, supported by question and answer papers, relevant to the exercises, thereby offering a complete structured assessment system. This material is covered by copyright but is supplied with a licence, which allows copying, by the purchaser for training and educational purposes.



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email: [admin@mech.co.uk](mailto:admin@mech.co.uk)

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