

# Hydraulic Systems Principles Trainer (HSPT)



# Introduction

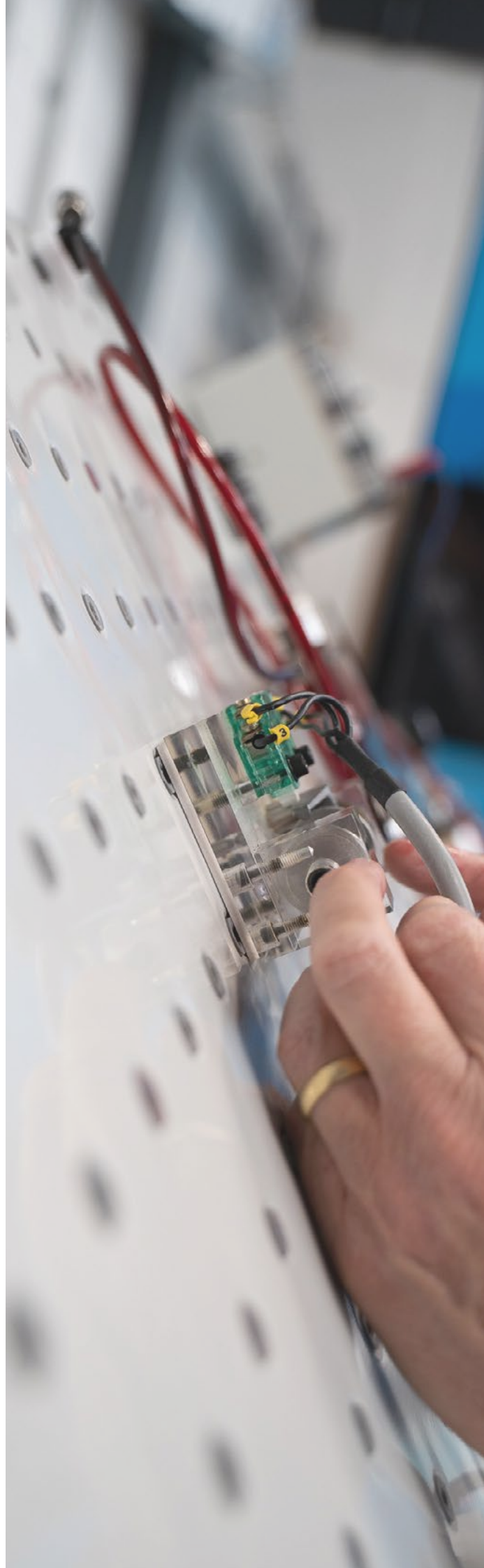
The Hydraulic Systems Principles Trainer (HSPT) enables practical hydraulic principles to be taught by either instructor demonstration or independent practical exercises for the student. Students can perform a range of practical training exercises, enabling progressive understanding of the fundamental principles of hydraulics.

The HSPT has the flexibility to allow construction of systems from basics to the more advanced systems of modern aircraft.



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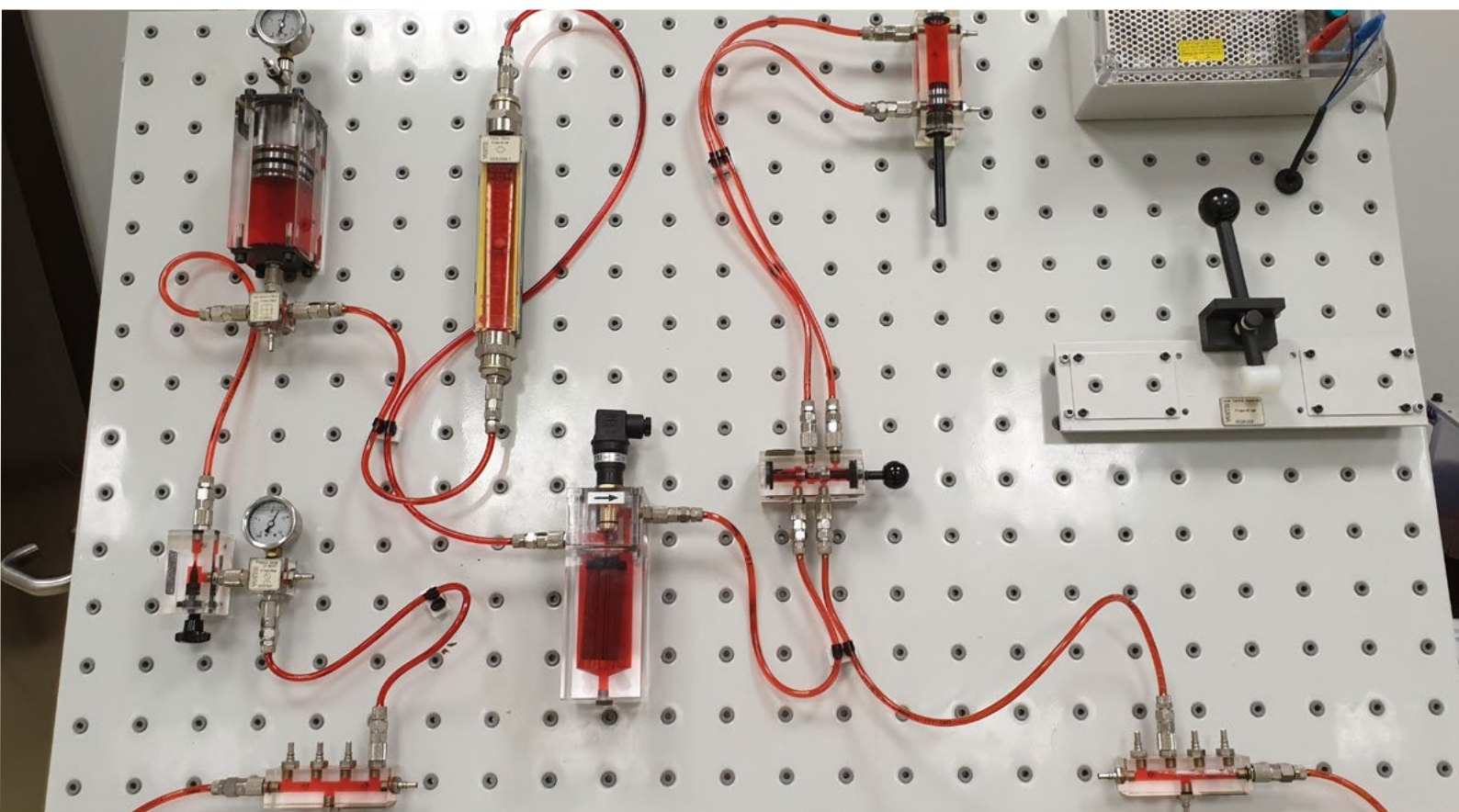
**Contact: [sales-ttd@pennantplc.co.uk](mailto:sales-ttd@pennantplc.co.uk)**





# Key Features

- Transparent “Plexiglass” hydraulic modules;
- Self-sealing transparent interconnecting hydraulic hoses;
- Specially coloured hydraulic mineral oil to assist observations;
- Self-generating low-pressure hydraulics;
- Integral low voltage power supply;
- Integral storage;
- Instructor Hydraulics Demonstration Set.



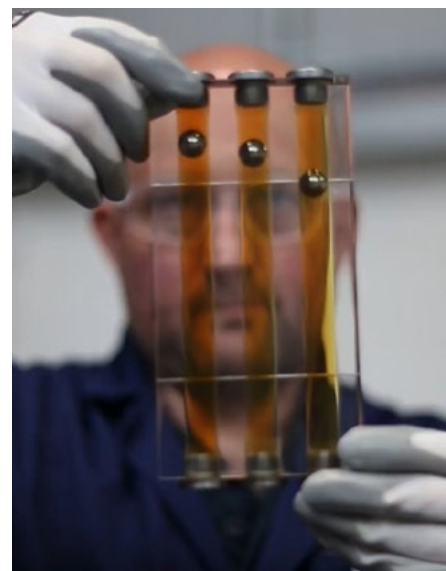
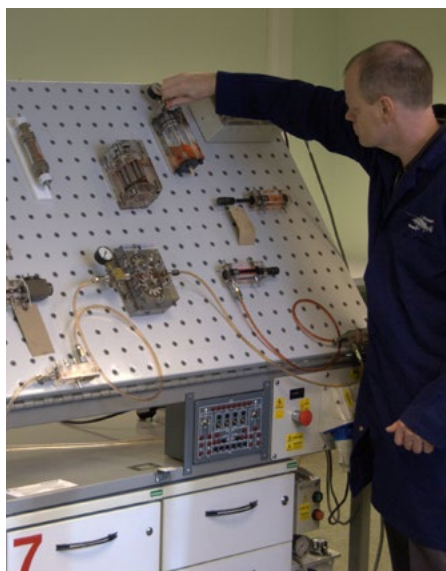


# Aviation Regulations Alignment

EASA/EMAR PT 66	FAA	CITY & GUILDS	CASA MEA UNITS
<b>2.2 Mechanics</b> <b>11.11 Hydraulic Power</b> <b>12.12 Hydraulic Power</b> <b>13.7 Flight controls</b> <b>13.14 Hydraulic power</b>	<b>ATA27 Flight controls</b> <b>ATA29 Hydraulic power</b> <b>14 CFR Parts 65 and 147 - Table 2 - Airframe Curriculum:</b> F. 1. Hydraulic system 6.9 Aircraft Systems PSO# (ASYS 1, 2, 3 and 8).  <b>FAA-H-8083-30A Chap 5 (Fluid Mechanics)</b>	<b>2675-01 Level 2:</b> Unit 109 Outcome 4  <b>2675-02 Level 2:</b> Unit 102 Outcome 02  <b>2675-03 Level 3:</b> Unit 206 Outcome 3 Unit 217 Outcome 3 Unit 218 Outcome 3  <b>4608-30 Level 3:</b> Unit 317	<b>MEA148:</b> Apply mathematics and physics in aviation maintenance.

## Physical Specifications

PARTICULAR	VALUE	UNIT
Length	1708	mm
Width	1010	mm
Height	1100 <small>Note 1</small>	mm
Weight	235	Kg
<b>Note<sup>1</sup>:</b> Stored height, maximum operational height 1625		





# Practical Tasks

1. Explore the concept of a hydraulic actuation;
2. Explore the layout of an aircraft hydraulic power system;
3. Explore the properties of hydraulic fluid;
4. Familiarize with hydraulic component and symbol;
5. Describe the operation of hydraulics systems and their controls;
6. Demonstrate fault finding of hydraulic systems and repair by component replacement;
7. Demonstrate the principles of hydraulic bleeding and priming;
8. Apply the physics laws and principles in aviation maintenance.

## Ordering Information

97410-0001A	Generic Fastener Installation Trainer (Imperial)
97420-0001A	Generic Fastener Installation Trainer (Metric)
97410-3020	Consumables Starter Pack
97410-3021	Spares Pack
97410-3022	Instructor Demonstration Set

