

Hydraulic Component Test Bench

>PHKL2-405<



Universal test bench for hydraulic components of various aircraft types such as TORNADO and EUROFIGHTER.

It can also be adapted to other aircraft types

- > Three independent testing stations, each one with an individual computer control and one central hydraulic power unit.
- > Testing station 1 with horizontal loading mechanism for actuator testing and an external, vertical loading mechanism for chassis testing.
- > Testing station 2 with load unit for steering motor and UUT's with wide flow.
- > Testing station 3 with hydraulic quick fixing plate including seven internal, free connectable joints.
- > Quick disconnect couplings without oil leakage

UUT CATEGORY

Flight Control Units	gear components	actuators	filter assembly
manifolds	valves	brake components	lockings

GENERAL INFORMATION

- > Manual, semi- and fully automatic testing is possible
- > Data acquisition and storage of flow, pressure, leakage, force, temperature usw.
- > Prepared for integration of EC&MU into the test bench computer system for Eurofighter flight control testing
- > A proximity switch testing device is installed into the test bench
- > Each testing station consists of a moveable control panel, equipped with a monitor

TECHNICAL DATA

<p>> Hydraulic parameter testing station 1 to 3:</p> <p>2x HP circuit: max. 310bar (4.496psi) max. 160lpm (42.3USgpm)</p> <p>1x HP circuit: max. 560bar (8.122psi) max. 10lpm at 410bar (2,6USgpm at 5.947psi)</p>	<p>Nitrogen circuit: max. 250bar (3.626psi)</p>
<p>> Hydraulic parameter testing station 1:</p> <p>LP circuit: max. 10bar (145psi) max. 40lpm (10.6USgpm)</p> <p>Measuring: max. 310bar (4.496psi) circuit (2x) 0.2 - 40lpm (0.05 - 10.6USgpm) 10 - 160lpm (2.6 - 42.3USgpm)</p> <p>2 connecting blocks</p> <p>Leakage measuring circuit: 0.01 - 2lpm (0.003 - 0.53USgpm) 0 - 400ccm/min</p> <p>Horizontal load unit: max. 250kN (tension/pressure)</p> <p>Stroke measurement: 2.300mm (7.55ft)</p> <p>Stroke measurement free of load: 700mm (2.30ft)</p>	<p>> Hydraulic parameter testing station 2:</p> <p>LP circuit: max. 10bar (145psi) max. 220lpm (58.1USgpm)</p> <p>Measuring: max. 310bar (4.496psi) circuit (3x) 0.2 - 40lpm (0.05 - 10.6USgpm) 10 - 160lpm (2.6 - 42.3USgpm)</p> <p>Measuring: max. 550bar (7.977psi) circuit (1x) max. 5lpm (1.3USgpm)</p> <p>Connecting block</p> <p>Hand pump test circuit: max. 1.000bar (14.504psi)</p> <p>Leakage measuring circuit: 0.01 - 2lpm (0.003 - 0.53USgpm) 0 - 400ccm/min</p> <p>Load unit for steering motor: Angle meas.: 0 - 360° Torque: 0 - 2000Nm Rotary actuator: ± 1.500Nm ± 70°</p>

TECHNICAL DATA

<p>> Hydraulic parameter testing station 3:</p> <p>LP circuit: max. 10bar (145psi) max. 220lpm (58.1USgpm)</p> <p>Measuring: max. 310bar (4.496psi) circuit (2x) 0.2 - 40lpm (0.05 - 10.6USgpm) 10 - 160lpm (2.6 - 42.3USgpm)</p> <p>Measuring: 0 - 310bar (4.496psi) circuit (1x) 5 - 80lpm (1.3 - 21.1USgpm) 0.05 - 15lpm (0.01 - 3.9USgpm)</p> <p>Connecting block with 7 joints on the quick fixing plate</p> <p>Vacuum test circuit: max. 0.15bar abs. (2.18psi abs.)</p> <p>Leakage measuring circuit: 0.01 - 2lpm (0.003 - 0.53USgpm) 0 - 400ccm/min</p> <p>Nitrogen circuit: max. 250bar (3.626psi)</p>	<p>3-way proximity switch analysis</p> <p>4-way LVDT analysis</p>
<p>> Electrical parameter testing station 1 to 3:</p> <p>DC-supply: 0 - 65V / 0- 10A</p> <p>Servo valve triggering: 0 - 25mA</p> <p>Isolation testing: 0 - 500VDC</p> <p>High voltage testing: 0 - 1.500VAC</p> <p>Digital multimeter</p>	<p>> Electrical parameter testing station 2:</p> <p>2-way limit switch analysis</p> <p>2-way proximity switch analysis</p> <p>2-way LVDT analysis</p>
<p>> Electrical parameter testing station 1:</p> <p>8-way limit switch analysis</p>	<p>> Electrical parameter testing station 3:</p> <p>8-way limit switch analysis</p> <p>2-way LVDT analysis</p> <p>> Electrical parameters (requirements):</p> <p>3/N/PE AC 50Hz 400V Nominal current: 570A Power: 395kVA Back-up fuse: 630A</p> <p>> Dimensions and weight:</p> <p>Test bench: Length: 7.700mm (25.3ft) Width: 6.500mm (21.3ft) Height: 2.200mm (7.2ft) Weight: approx. 9.500kg (20.944lb)</p> <p>Hydraulic power unit: Length: 3.300mm (10.8ft) Width: 2.200mm (7.2ft) Height: 2.260mm (7.4ft) Weight: approx. 7.500kg (16.534lb)</p> <p>Vertical load unit: Length: 1.470mm (4.8ft) Width: 2.100mm (6.9ft) Height: 2.340mm (7.7ft) Weight: approx. 1.720kg (3.792lb)</p>



Vertical load unit



Hose trolley



Hydraulic power unit