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The **\$450-1** has been designed to enable the performance testing of larger high pressure diesel fuel injectors as found in rail, marine and power generation applications.

The **\$450-1** is air operated, eliminating operator fatigue and is designed to carry out all standard tests:

- **Nozzle opening pressure**
- Chatter test (atomization)
- **Spray pattern**
- Seat leakage
- Back-leak.



A variable pumping rate allows for critical analysis of nozzle spray form and line pressure can be held to enable stable pressure dry seat testing.

During atomization the large illuminated spray chamber with built in fume extraction system offers a clear view of the nozzle tip.

The S450-1 is supplied with a dual scale analogue pressure gauge and the Merlin S500-2 digital display injector opening pressure monitor and integral printer.

The S500-2 has been designed for accurate performance testing, production line testing and quality over checking of diesel fuel injectors and nozzles.

Individual test results can be recorded on the \$500-2's built-in printer.

The robust self-draining horizontal worktable will accommodate the largest of injectors. Quick release V-clamps secure the injector in the working position and if required, special mountings can be manufactured to customer requirements.

+44 (0) 1772 694185 TEST EQUIPMENT - Tel:

**UK SALES - Tel:** +44 (0) 1772 694130 **EXPORT SALES - Tel:** 

**EMAIL:** testequipment@merlindiesel.com



















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The Merlin S450 is capable of testing some of the largest injectors in the marine industry.

The sheer scale of ocean going vessels is enormous and the power needed to generate propulsion requires a super size engine and fuel injection system.

Some injectors can be several feet in length and the S450 is easily capable of accommodating these units.

Pictured to the right is a standard medium size L'Orange marine injector underneath a Bosch common rail offering.

Below it shows you the difference between one of the larger marine nozzles compared with an automotive example.







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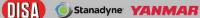


















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## S450-1 Specifications

Air operated hydraulic pump unit supplied **PUMPING UNIT:** 

by normal workshop air supply

0-10000 psi (0-700 bar) or 0-15000 psi PRESSURE RANGE:

(0-1000 bar) depending on model

S500-2 Monitor, dual scale analogue

pressure gauge

Provides full to minimum flow for critical

testing

M22 x 1.5 M14 x 1.5 other pipes available HIGH PRESSURE TEST PIPES:

M24 x 1.5, M27 x 1.5, M30 x 1.5

Illuminated chamber, safety switch door SPRAY CHAMBER:

operation

Variable rate air operated extraction **FUME EXTRACTION:** 

system

100 litres Capacity **FUEL TANK:** 

Replaceable cartridge spin-on element FILTRATION:

(5 micron rating)

6.2 - 6.9 bar required **AIR SUPPLY:** 

220/240v/1PH/50 Hz customer **ELECTRICAL SUPPLY:** 

specifications on request

**CALIBRATION FLUID:** Shell Calibration Fluid 4113, now \$9365.

The standard V-clamps will **WORK TABLE:** 

accommodate T, U and V size

**DIMENSIONS** 

**DISPLAY:** 

FLOW CONTROL VALVE:

1360mm **HEIGHT:** 

LENGTH: 1325mm

WIDTH: 850mm

WEIGHT: 250kg

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