Fuel system maintenance

Fuel Valve Test Rig

OBEL-P®
VPU 500 LGIP

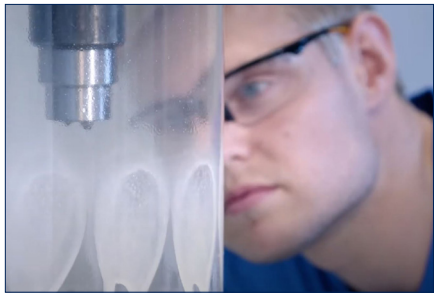
VPU 500 LGIP is a fuel injector testing unit designed for effective testing of fuel valves in marine 2-stroke gas engines running on liquid gas.

Well-functioning and non-leaking fuel valves are essential for gas engines and provide an efficient combustion and safe operation.

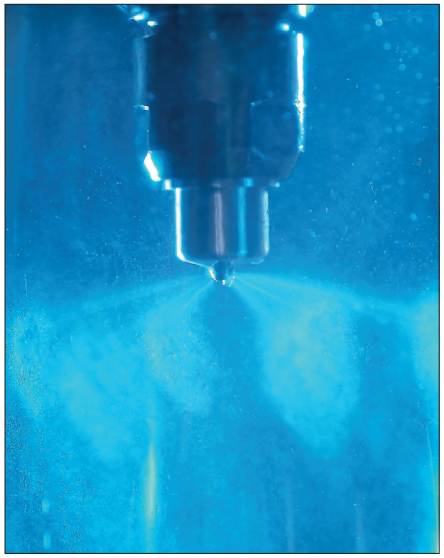
VPU 500 LGIP has been developed in cooperation with MAN Energy Solutions, enabling the optimum testing of MAN liquid gas injector valves and blow off valves.

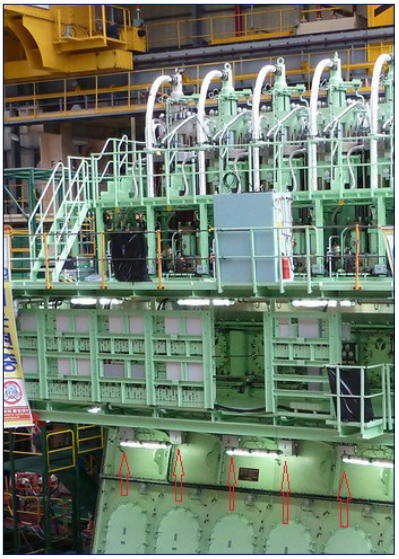


Fuel valve test rig



Application areas
- For MAN liquid gas fuel injector valves and blow off valves.
- 2-stroke engines
- Onboard





Key benefits
- Easy to operate
- Cost-efficient
- Robust
- Time-saving
- Helps to avoid unnecessary fuel consumption and particle emissions

Sustainable engine operation

Regular testing of of gas fuel injectors is extremely important. Testing helps to reduce emissions, fuel consumption and engine fouling. It saves time and money and means reducing downtime while saving resources. Proper engine care prolongs engine lifetime and is a much more environmentally friendly alternative than replacing liners. It is also more cost-efficient as it means reducing downtime while saving resources

VPU 500 LGIP Features

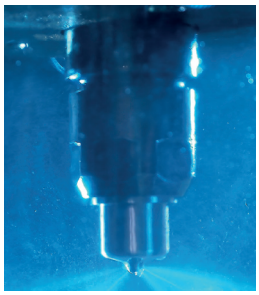
VPUD 500 LGIP is a pneumatic/hydraulic test rig intended for testing MAN liquid gas fuel injector valves and MAN blow off valves. VPU 500 LGIP is delivered with an engine-specific valve holder for the different fuel injector valves. With the VPU 500 LGIP test rig, it is possible to execute the following tests:

- Non return valve seal test
- Nozzle leakage test
- Function test
- Blow-off valve test



Optional: Oil mist separator

Oil mist separator, for environmental purposes.
And better visual inspection of nozzle spray.



Optional: Test fluid

Test fluid based on a mineral oil designed to meet the requirements of high tolerance fuel injectors. Preserves the fuel injectors, so no cleaning is needed after test procedure. Approved for testing of both 2-stroke and 4-stroke fuel injectors. Protects core parts of pump unit and extends the lifetime of the test rig.

Technical specifications	
• Weight	230 kg
• Dimension (LxWxH mm)	694 x 1431 x 1475 mm
• Max. air inlet pressure	10 bar
• Air quality according to ISO 8573-1	6.4.1
• Air consumption	B1100-2 2160 – 3000 NL/min A250 300 - 1050 NL/min per pump (two A250 pumps present) The pumps run intermittently and not simultaneously.
• Nitrogen input	- 210*) – 300 bar *) Minimum nitrogen input pressure is determined by test specification requirements from the engine designer. - 30bar for the version with optional Gas Booster
• Nitrogen consumption	Approx. 50 l per tested injector valve.
• Hydraulic/Gas output pressure	Control oil: up to 300 bar Seal oil: 80 bar Fuel oil: 50 bar Nitrogen: up to 300 bar
• Max. flow at no pressure	Control oil: 1.2 l/min @ 7 bar, air pump B1100-2 Seal oil: 1.4 l/min @ 7 bar, air pump A250 Fuel oil: 1.4 l/min @ 7 bar, air pump A250
• Cycle frequency	Control oil: 60 cycles/min @ > 7 bar air, no output pressure Seal oil: 450 cycles/min @ > 7 bar air, no output pressure Fuel oil: 450 cycles/min @ > 7 bar air, no output pressure
• Discharge per cycle	Control oil: 20 cm3 Seal oil: 4 cm3 Fuel oil: 4 cm3
• Tank capacity	20 l
• Gas leak monitor capacity	1 l
• Gaughes	Class 1.0
• Power supply	1x115VAC (110VAC) + PE or 1x230VAC (220VAC + PE; 50/60 Hz; 100 VA
• Noise	Max. 90 dB(A)



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