

# LW900

## Light Weight Portable Pump

The Angus LW900 pump is a light weight (89kg) portable fire or industrial pump that combines the benefits of high pressure fire fighting performance with an extremely compact design that will fit most fire tender lockers and leave room for a second pump or a Positive Pressure Fan.

The unit is designed to be easily carried by two men and operated by one. Electric start and exhaust ejector priming mean the pump can be put into service quickly and easily in an emergency situation.

Typical flows range from 675\* l/min at 8 bar delivery to over 1,990\* l/min at 1 bar.

The LW900 uses the internationally renowned Briggs & Stratton Vanguard 16.7 kW (22hp) air cooled petrol engine for lightness and reliability. The V twin, overhead valve configuration, reduces vibration and provides excellent economy. All Briggs & Stratton engines meet all major emission standards world wide.

Angus fire pumps use robust, pressure tested pump casings which allow substantial input pressures (10 bar on the LW900) from hydrants or relay pumping. This can be boosted to high output pressures (LW900 is tested to 21 bar) without damaging the pump or exceeding its pressure rating, a feature generally not available with lower specification pumps.

Angus Fire has over 25 years experience of manufacturing portable pumps for use world wide in fire and industrial applications.

### Applications

#### Municipal Fire Brigades

900 l/min at 7 bar provides a fire service with two 450 l/min\* hand lines with pressure to spare.

#### Rural Fire Fighters

The 16.7 kW (22 hp) engine will pump over 1/2 km\*\* and still provide over 4 bar pressure at the branchpipe.

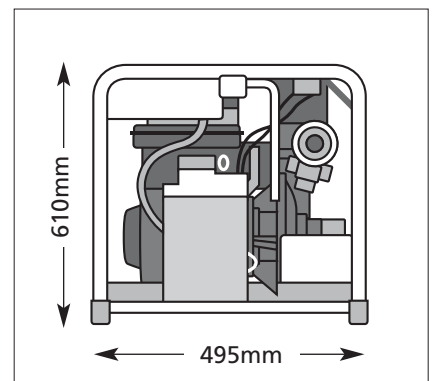
#### Flood Relief

In situations where flow rather than pressure is critical the LW900 will provide up to 2,000 l/min\*

#### Standard features

- Light weight "V" twin, low vibration, air cooled 22 hp Briggs & Stratton petrol engine
- Sound treatment package
- 12V electric start
- Emergency hand start
- 9.6 litre fuel tank capacity (1 1/2 hours at maximum speed)
- Fast and simple exhaust eject priming – 3m in under 30 seconds
- Grade 304 stainless steel frame and fabricated components
- Light alloy, marine grade, corrosion-resistant pump body and impeller
- Glycerine filled compound and output pressure gauge
- 12V electrical power output point

### Technical Specification



### Dimensions

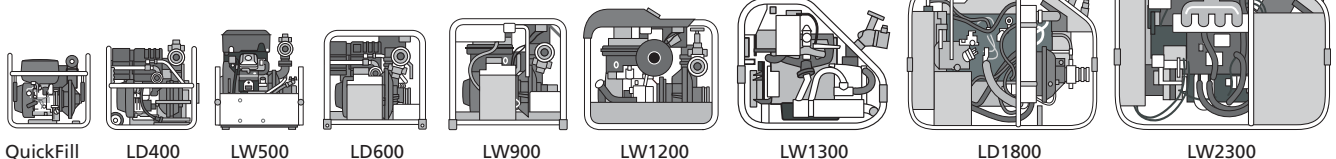
Length	590 mm (21 1/2")
Width	495 mm (19 1/2")
Height	610 mm (23 1/2")
Weight	89 kg (with oil and battery)

### Engine

Briggs & Stratton "VANGUARD" 90° (low vibration) "V" twin industrial quality, overhead valve petrol engine, industrial ball race bearing on power side of crankshaft, 627 cc with 8.5:1 compression ratio.

16.7 kW (22 hp) at 3,600 rpm (max speed), 45.8 Nm torque (32.7 ft lbs) at 2,600 rpm.

Overhead valve, sintered iron cylinder liners, pressure lubricated.



\* Based on 3m suction lift.

\*\* Based on 64mm Ø x 23m Angus Duraline fire hose, outlet at same height as pump outlet and 3m suction lift.

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### Speed Control

Factory set internal mechanical governor

### Cooling

Forced ventilation, ducted path crankshaft driven fan with phased fins

### Ignition

Contact free high voltage ignition  
Splash protected

### Electromagnetic Compatibility

Resistor installed spark plugs fitted as standard – complies with EEC directive 89/336/EEC

### Electrical

12V negative earth system with 16 amp engine driven alternator

Power outlet socket for auxiliaries (max current ~ 16 amps continuous)

### Battery

30 A/hr light weight lead acid sealed unit

### Starting

12V electrical permanently engaged starter

Hand pull emergency start facility

### Angle of Operation

15° from horizontal in any plane

### Exhaust

Stainless steel silencer arranged to direct exhaust gas away from the operator's position

DIN exhaust extension connection available on request

### Ambient Temperature Range

Full power continuous operation

-30°C (-22°F) to +38°C (100°F)

### Security

Ignition cut off switch

### Emissions

Complies fully with:

- CARB standard (California Air Resources Board)
- EPA standard (Environmental Protection Agency - USA)
- EC VCA (UK Vehicle Certification Agency) Certificate of Conformity to European Directive 97/68/EC, amended by 2002/88/EC

### Sound Levels

87 dB at 6 bar outlet pressure

### Sound Treatment Package

Laminated poly-core blower housing, phase modulated flywheel fin spacing, acoustically contoured crankcase

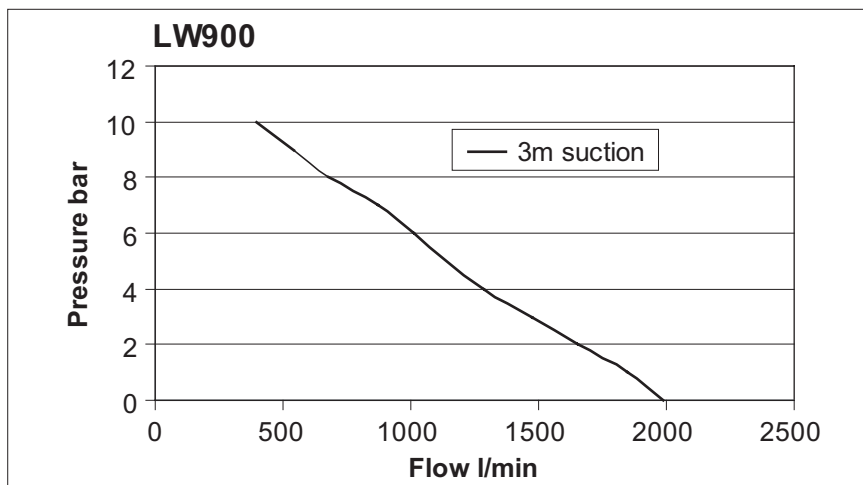
### Standards and Approvals

The LW900 portable pump is manufactured to comply with

† Special oil may be required.

\* Based on 3m suction lift.

### Performance



Outlet pressure*	Flow
2.5 bar	1,875 l/min
4 bar	1,285 l/min
6 bar	1,010 l/min
7 bar	900 l/min
8 bar	675 l/min
10 bar	370 l/min

EN 14466 and the performance criteria of EN1028 performance category FPN 6 - 500

### CE Marking

The LW900 portable pump is CE marked for sale and use within the EEC

### Frame

Corrosion-resistant 304 grade stainless steel outer frame and fabricated components

4 x Stainless steel fold away carrying handles

### Pump

Corrosion-resistant light alloy body and impeller, marine grade TT601, heat treated to T6

Maintenance-free, spring-loaded, carbon-faced/ceramic shaft seal

Drain point

### Pump Clearances

Centrifugal pumps will allow small solids to pass through the impeller and pump without causing damage. All Angus pumps are fitted with an inlet mesh filter which is smaller than the minimum clearance size of the impeller

Inlet filter screen size 9 mm  
Impeller clearance 10 mm

### Pump Pressure Rating

Pump housing tested to 21 bar  
LW900 pump can accept input pressures up to 10 bar

All pump housings are pressure tested to 1½ x the nominal rated maximum output pressure to allow for high input pressures when operating in relay

### Priming

Manually actuated exhaust ejector system

Minimum 3m lift (9" Hg) in under 30 seconds

### Fuel Tank

9.6 litre (2.15 imperial gallon)

Stainless steel tank with top filling cap, contents gauge and inspection point

### Inlet

100mm (4") British Standard Round Thread - male connection

### Outlet

Twin outlets with manual ball valves  
Standard - 2½" instantaneous female couplings

### Instrumentation

Inlet - glycerine filled compound gauge, 50mm Ø, scale -1 to +9 bar

Outlet - glycerine filled pressure gauge, 50mm Ø, scale 0 to 25 bar

Engine hours run meter

### Quality Control

Manufactured in compliance with BS EN ISO 9001:2000 quality management systems

100% quality check on all pumps for build and performance

### Options

Marine grade Gunmetal impeller  
Alternative inlet/outlet, Storz, US fire thread, BSP

Foam proportioner - 0.1% to 6% variable

DIN exhaust extension connection

Positive displacement priming