

Aquila Engine Choice

Aquila preferred manufacturer choice for engines is Kubota as we believe they offer unrivalled reliability, performance and ease of maintenance. However we will also look at alternative manufacturers on bespoke and special build equipment.

When choosing an engine to produce the power you can use the simple formulas below: -

$$\frac{\text{pressure x litres per minute}}{385} = \text{BHP required}$$

To calculate it in KW

$$\frac{\text{pressure x litres per minute}}{523} = \text{KW required}$$

These formulas provide you with the minimum power required for driving the pump, other components on the machine will reduce your usable BHP e.g alternator, hydraulic/electric hose reels.

To obtain accurate figures on required engine BHP (KW) it is vital to check the performance statistics supplied by the manufacturer.

Example

Kubota D905 – 25 Hp

Gross BHP -	Approximately 25 hp
Overload -	Approximately 23 hp, after short periods of continuous use the machine will reduce in power or overheat
Continuous -	Approximately 20 hp at continuous use

Example

TD352 – 350 bar @ 20 litres per minute, Engine Kubota D905 25Hp.

$$\frac{350 \times 20}{385} = 18.18 \text{ hp required}$$

Engine produces 20 hp – 18.18hp is required to drive the high pressure system

1.82 hp can be utilised for burner and ancillary systems