

Calculating the required Generator kVA to operate 3-phase machines such as HTC grinders and vacuum units, Hydrostress wall and wire saws, etc.

1. Calculate your Wattage:

If you do not know the Wattage of your machine, then use this formula to work it out:

$$V \times A \times \sqrt{3} = \text{Wattage}$$

Example: $400V \times 32A \times 1.73 = 22,144W$ or $22.144kW$

Formula explained:

V	Volt
A	Ampere
$\sqrt{3}$	Cube Root 1.73
W	Wattage
kW	Kilo Wattage

2. Apply Power Factor:

Now multiply the result by the Power Factor 1.5

$$22.144 \text{ kW} \times 1.5 = 33.216 \text{ kVA}$$

3. Required Generator:

This means a generator with rated output of more than 33.216 kVA is required.

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