

SELECTING THE CORRECT UNIT

Pipe Diameter

Having decided where to locate the Water-King, select the appropriate sized unit according to the pipe diameter. If hot water is provided by a Direct Fired water Heater then select the larger size according to maximum output rating.

Direct Fired Water Heaters

We recommend maximum heat ratings for different sized units and this also varies according to whether they are gas fired, oil fired or heated electrically.

Flow Rate

Flow rate is immaterial as far as Water-King is concerned. The greater the flow, the more effective the units tend to be.

Selection Criteria	WK1	WK2	WK3	WK4	WK5
Max. pipe diameter	28 mm	42 mm	67 mm	105 mm	159 mm
Direct fired gas/oil boiler	35 kW	50 kW	350 kW	750 kW	1250 kW
Electrical Boiler	15 kW	30 kW	50 kW	100 kW	150 kW
Product Data					
Aerial Number/length	2/1.8 m	4/2.0 m	4/5.0 m	4/7 m	6/9.0 m
Minimum aerial turns	12 turns	12 turns	15 turns	15 turns	15 turns
Frequency range	1.10 kHz.	1.10 kHz.	1.10 kHz.	1.10 kHz.	1.10 kHz.
Peak output voltage	82v	82v	82v	82v	82v
Power supply required	230v or 110v	230v or 110v	230v or 110v	230v or 110v	230v or 110v
Input current	0.02 A.	0.03 A.	0.04 A.	0.08 A.	0.1 A.
Power consumption	1 w	1 w	1 w	2 w	3 w
Transformer output	9v AC	9v AC	9v AC	Integral	Integral
Lead length	1.5 m	1.5 m	1.5 m	1.5 m	1.5 m
Dimensions (mm.)	140 x 85 x 50	220 x 155 x 67	155 x 220 x 67	280 x 210 x 140	280 x 210 x 140
Weight	0.75 Kg.	0.75 Kg.	0.75 Kg.	0.75 Kg.	0.75 Kg.
Ambient temperature	0 - 70°C	0 - 70°C	0 - 70°C	0 - 70°C	0 - 70°C
Humidity non-condensing	80%	80%	80%	80%	80%
Self-diagnostic Guard Chip	Yes	Yes	Yes	Yes	Yes
BMS Output	No	No	Yes	Yes	Yes

Self Diagnostic “Guard Chip”

Every computer system is prone to malfunction, especially if there is a sudden variation in the power supply which can jam the program. Normally the system has to be reset by manually re-booting. Water-King units overcome this problem with an additional “Guard Chip” program which monitors the performance of the main program and resets the system automatically if it detects a variation or system failure. There is no need for manual resetting after power outage.

WK1

A simple to fit DIY unit with external transformer. It has “Guard Chip” protection.

WK2

An intermediate sized unit with “Guard Chip” and external transformer. The extra pair of aerials can be used for treating a second pipe as well as reinforcing the signal applied to a single pipe

WK3

A powerful unit that will handle the majority of commercial applications. It has the “Guard Chip” protection and the output for a Building Management System to detect power failure.

WK4

This unit is designed to treat larger pipe sizes up to 105 mm. It has mains input with integral transformer, normally rated at 230 volts, but UL-approved 110 volts transformers can be supplied as an option. The enclosure is rated IP65.

WK5

This is the largest standard Water-King unit with the same dimensions, transformer options and features as the WK4. It has six aerial outputs arranged as three pairs and is capable of treating pipe sizes up to 159mm.