

TECHNICAL SPECIFICATIONS

- **Mini Orange** Power supply: 230V-16W
- **Maxi Orange** Power supply: 230V-21W
- 1PH 50 Hz
- 3A volt-free alarm wires, N.O, N.C. contacts rated @ 5A inductive at 230V
- Hall effect semi conductor level sensors, with high level safety
- Fully potted
- Thermally protected
- CE marked

Mini Orange

- Water flow rate: 10ltrs/hour at zero head
- Maximum recommended head: 10 metres
- 23dB(A) @ 1 metre head

Maxi Orange

- Water flow rate: 26ltrs/hour at zero head
- Maximum recommended head: 20 metres
- 35dB(A) @ 1 metre head



MINI ORANGE FP 2212

Mini Orange & Maxi Orange

The Aspen Mini Orange and Maxi Orange pumps are designed to be installed:

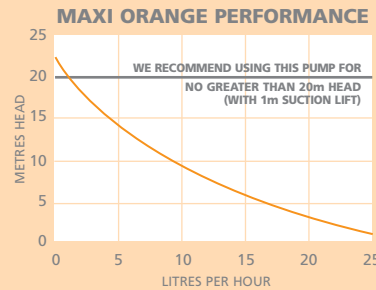
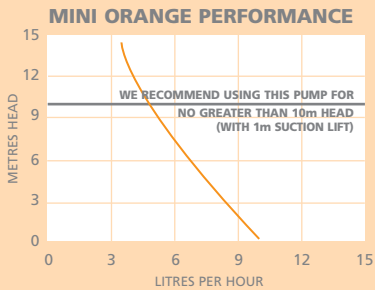
- above the false ceiling where possible
- behind wall mounted evaporators
- in plastic conduit

Within the Orange kit there are two reservoirs to choose from, which must sit flat and horizontal. One allows you to connect directly to the drain hose of the evaporator and the second reservoir can be placed directly into a condensate tray.

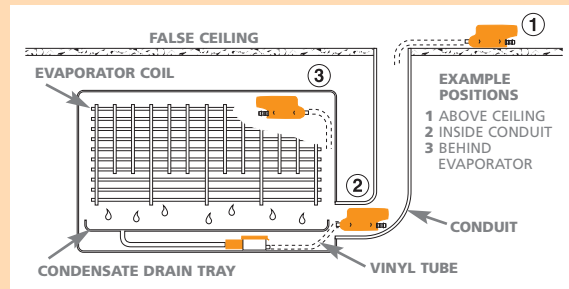
By connecting the drain hose to the reservoir and placing the pump drive unit within the evaporator, condensate water can be pumped away to a suitable drain.



MAXI ORANGE FP 2210



SYSTEM LOCATION



PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
MINI ORANGE	51mm	107mm	39mm	0.25kg
MAXI ORANGE	66mm	122mm	44mm	0.45kg

TECHNICAL SPECIFICATIONS

- **Mini Lime** Power supply: 230V - 16W
- **Maxi Lime** Power supply: 230V - 16W
- 1PH 50 Hz
- 3A volt-free alarm wires, N.O, N.C. contacts rated @ 5A inductive at 230V
- Hall effect semi conductor level sensors, with high level safety
- Fully potted
- Thermally protected
- CE marked

Mini Lime

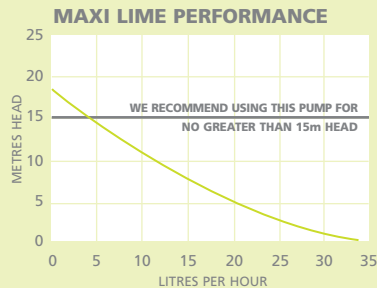
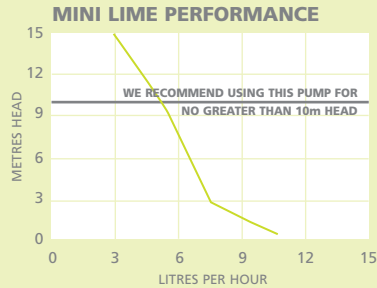
- Water flow rate: 11ltrs/hour at zero head
- Maximum recommended head: 10 metres
- 23dB(A) @ 1 metre head

Maxi Lime

- Water flow rate: 34ltrs/hour at zero head
- Maximum recommended head: 15 metres
- 35dB(A) @ 1 metre head



MAXI LIME



PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
MINI LIME	79mm	99mm	44mm	0.31kg
MAXI LIME	115mm	99mm	44mm	0.47kg



Mini Lime & Maxi Lime

The Aspen Mini & Maxi Lime pumps are completely unique, in both their design and installation advantages. The pumps are clipped directly onto the reservoir so there is minimal suction lift. By connecting the drain hose to the reservoir of the pump unit, condensate water can be pumped away to a suitable drain.

The pumps fit securely into a specifically designed elbow that holds them horizontally to ensure reliable operation. The pump and elbow are reversible therefore they can be installed easily on either side of an evaporator unit.

The Lime system makes installation easy by providing a pump complete with the conduit trunking, in which the pump and all pipework are hidden. This system allows easy access for maintenance and ensures that the reservoir is level at all times.

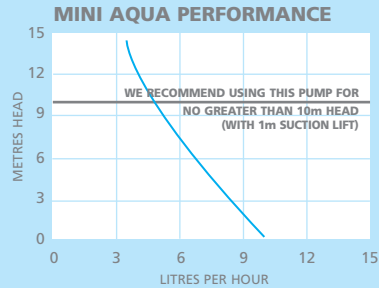
- **Completely reversible**
- **Quick and easy to install**

Simple...

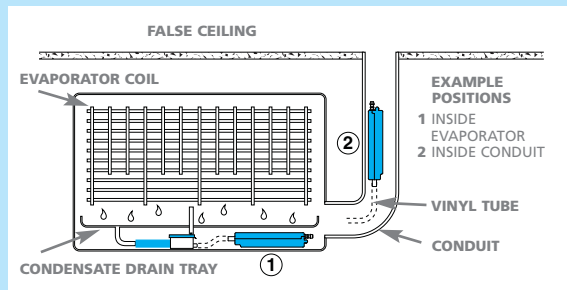
1. **Select Mini or Maxi Lime**
2. **Choose from the 5 trunking ranges available** (see next page)

TECHNICAL SPECIFICATIONS

- Power supply: 230V AC < 16W
- 1PH 50/60 Hz
- 3A volt-free alarm wires, N.O, N.C. contacts rated @ 5A inductive at 230V
- Hall effect semi conductor level sensors, with high level safety
- Water flow rate: 10 litres/hour at zero head
- Maximum recommended head: 10 metres
- 21dB(A) @ 1 metre head
- Fully potted
- Thermally protected
- CE marked



SYSTEM LOCATION



PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
MINI AQUA	28mm	165mm	28mm	0.18kg



FP 2406

Mini Aqua

The Mini Aqua is the latest addition to the Aspen family of mini pumps, and has been designed to give the installation flexibility, where the latest generation of A/C units are becoming even smaller.

The Mini Aqua is designed to be installed:

- within wall mounted evaporators
- in plastic conduit

By connecting the drain hose to the reservoir and placing the pump drive unit within the evaporator or conduit, condensate water can be pumped to a height of 8 metres.

Using the proven functionality of our other mini pumps, the Mini Aqua is also incredibly slim in size.

Measuring only 28mm in height and 28mm in depth, it is probably the smallest condensate pump in the world!



ACTUAL SIZE

TECHNICAL SPECIFICATIONS

- Operates on hard-wired 150-230V cooling signal
- Self-priming lifts 3 metres
- 12 metres discharge head
- Water flow rate: 6.25 ltrs per hr @ 12 metres head
- 3 minute timer overrun
- No siphoning back
- No loud sound from dry running
- Manual test switch
- Pumps water, fibrously contaminated water and air
- Pump rating: 0.2A, 230V AC
Alternative voltages available
- Fire retardant plastics
- Inlet/outlet size: 6mm
- Push-in plug
- Wall-mounted bracket

INSTALLATION NOTES

Connect the pump to the appropriate drip tray (using the vinyl tube supplied), then connect to the mains power supply, and control link to the air-conditioning units cooling signal.

PLEASE NOTE: The signal wire must be connected to the cooling signal only. This ensures that when the system is on heating, the pump does not run.

The pump is designed to sit level on its base and **MUST** at all times have adequate space around it for good ventilation.

Ensure that there are no kinks or trapped parts in the piping, which must have a 6mm I/D and 9mm O/D. Fix the pipes with cable ties to the pump inlet and outlet.

A variable connector is provided to make easy installation between the condensate tray outlet and vinyl tube.

All the peristaltics now come with a wall-mounted bracket which is designed to hold a replacement head tube for your servicing convenience.



SERVICE GUIDE

We recommend that you inspect the pump head regularly, and change the pump head tube every 12 months or more frequently if required.

ELECTRICAL CONNECTIONS

Brown	Live
Blue	Neutral
Green/ Yellow	Earth
Black	Switched live from signal

PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
STANDARD	115mm	135mm	77mm	1.35kg

NEW
IMPROVED
SMALLER
DESIGN



Standard

The Standard peristaltic pump is triggered by the hard-wired cooling signal from the air conditioning unit.

The Standard is designed to fit in ceiling voids and lift the condensate water from wall mounted machines where a gravity drain is too obtrusive. It can also be used on cassettes fitted with an internal lift pump.

The pump can be mounted remotely as it is self-priming to a height of 3 metres and will pump 6.25 litres of water per hour against a maximum head of 12 metres.

The pump runs constantly while the air conditioning system is cooling – when the cooling switches off a 3 minute timer ensures that the condensate tray is emptied before the pump switches off. Rollers in the pump act as check valves to stop the condensate draining back into the condensate tray.

The Standard pump is a peristaltic rotary type - which means that it is quiet in operation, very reliable and will run dry without fear of damage or embarrassing noise. Unlike other pumps using either mechanical or electrical conductivity sensors, the Standard does not suffer from corrosion or contamination problems.

TECHNICAL SPECIFICATIONS

- Senses 5°C differential across the evaporating coil
- Only requires live/neutral supply and 2 sensors either side of the evaporating coil – one 'air on' and one 'air off'
- Operates only on cooling
- Self-priming lifts 3 metres
- 12 metres discharge head
- Water flow rate: 6.25 ltrs per hr @ 12 metres head
- 3 minute timer overrun
- No siphoning back
- No loud sound from dry running
- Manual test switch
- Pumps water, fibrously contaminated water and air
- Pump rating: 0.2A, 230V AC
Alternative voltages available
- Connecting cable: 3 metres
- Fire retardant plastics
- Inlet/outlet size: 6mm
- Push-in plug
- Wall-mounted bracket

INSTALLATION NOTES

Connect the pump to the appropriate drip tray (using the vinyl tube supplied), then connect to the mains power supply. Situate the **red sensor** in the ambient 'air on' side of the evaporating coil (NOT TOUCHING COIL). Position the **blue sensor** to the 'air off' side of the evaporating coil. **This will sense 5°C differential and operate the pump.**

The pump is designed to sit level on its base and **MUST** at all times have adequate space around it for good ventilation.

Ensure that there are no kinks or trapped parts in the piping, which must have a 6mm I/D and a 9mm O/D. Fix the pipes with cable ties to the pump inlet and outlet.

PLEASE NOTE: where space is limited lay and fix suction vinyl tube along bottom of condense tray, as pump is self-priming.

A variable connector is provided to make easy installation between the condensate tray outlet and vinyl tube.



PUSH-IN PLUG

SERVICE GUIDE

We recommend that you inspect the pump head regularly, and change the pump head tube every 12 months or more frequently if required.

ELECTRICAL CONNECTIONS

Brown	Live
Blue	Neutral
Green/ Yellow	Earth

PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
UNIVERSAL	115mm	135mm	77mm	1.35kg



Universal

The Universal peristaltic pump operates with two temperature sensors. These allow the pump to detect and be triggered by a change in air temperature, making this pump suitable for many applications.

The Universal is designed to fit in ceiling voids and lift the condensate water from wall mounted machines where a gravity drain is too obtrusive. It can also be used on cassettes fitted with an internal lift pump.

The pump can be mounted remotely as it is self-priming to a height of

3 metres and will pump 6.25 litres of water per hour against a maximum head of 12 metres. The pump runs constantly while the air conditioning system is cooling – when the cooling switches off a 3 minute timer ensures that the condensate tray is emptied before the pump switches off.

The Universal pump is a peristaltic rotary type - which means that it is quiet in operation, very reliable and will run dry without fear of damage or embarrassing noise. Unlike other pumps using either mechanical or electrical conductivity sensors, the Universal does not suffer from corrosion or contamination problems.

TECHNICAL SPECIFICATIONS

MK4

- Operates on bead contact with water
- 3 minute timer overrun

Mechanical

- Operates on a float switch
- 2 reservoir options available
- Available with an alarm option
- Self-priming lifts 3 metres
- 12 metres discharge head
- Water flow rate: 6.25 ltrs per hr @ 12 metres head
- No siphoning back
- No loud sound from dry running
- Manual test switch
- Pumps water, contaminated water & air
- Pump rating: 0.2A, 230V AC
Alternative voltages available
- Fire retardant plastics
- Inlet/outlet size: 6mm
- Push-in plug
- Wall-mounted bracket

MK4 INSTALLATION NOTES

Connect the pump to the appropriate drip tray (using the vinyl tube supplied), then connect to the mains power supply.

WATER LEVEL DETECTOR:

When the unit is first switched on you need to allow 5 mins for the electronics to stabilise.

To ensure that the detector will operate satisfactorily, please abide by the following:

1. The detector will trigger when the water level has reached the first 2 or 3mm of the sensor, this should be taken into account when positioning the height of the sensor. As the device works on heat conductivity it can take up to 30 secs for the pump to switch on.
2. Position the sensor away from direct draught and make sure the tip is a minimum of 5mm from the base of the tray. Ensure the tip is in free air and unable to touch the sides. The ambient sensor within the cable 5cm from the tip can be seen as a small disc beneath the sleeve, this should also be positioned in free air to avoid any heat conduction.

MECHANICAL INSTALLATION NOTES

Connect to the mains power supply.

Decide which reservoir is correct for your installation and position the reservoir into the condensate tray or to the drainpipe connection (**depending on which reservoir you use**).

Ensure you have placed the float magnet facing upwards. Then Connect the pump to the reservoir (using the vinyl tube supplied).

ALWAYS ENSURE RESERVOIR IS MOUNTED HORIZONTALLY

The pump is designed to sit level on its base and must at all times have adequate space around it for good ventilation.

Ensure that there are no kinks or trapped parts in the piping, which must have a 6mm I/D and an 9mm O/D. Fix the pipes with cable ties to the pump inlet and outlet.

Both the MK4 and Mechanical share the same **SERVICE GUIDE & ELECTRICAL CONNECTIONS** as the Universal peristaltic pump (see page 6).

PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
MK4 & MECHANICAL	145mm	160mm	83mm	1.7kg



MK4 & Mechanical

The MK4 peristaltic pump operates using water level sensors. This allows the pump to detect and be triggered by the level of water in the condensate tray.

The detector has two sensors within the head which warm up to 15°C above ambient. When the lower sensor comes into contact with water, the heat conductivity from the sensor provides a temperature difference energising the pump. Once the level of the water has dropped below the tip of the sensor, the pump will continue until the the sensor has completely dried out.

The Mechanical peristaltic pump operates by using a remote reservoir with an internal float mechanism. It is available with or without a high level alarm output.

The pump is designed to be mounted remotely if required and has a 3 metre (9.8ft) lead to the float switch. Simply position the float switch in the condensate tray or fix to the drain-pipe connection (depending on chosen reservoir). Then connect the reservoir to the pump.

TECHNICAL SPECIFICATIONS

- Operates on 150-230V compressor signal
- Self-priming lifts 5 metres
- 12 metres discharge head
- Water flow rate: 6.25 ltrs per hr @ 12 metres head
- 3 minute timer overrun
- No siphoning back
- No loud sound from dry running
- Manual test switch
- Pumps water, fibrously contaminated water and air
- Pump rating: 0.2A, 230V AC Alternative voltages available
- Fire retardant plastics
- Inlet/outlet size: 6mm
- Push-in plug
- Wall-mounted bracket
- Mains cable: 3 metres
- Sensor cable: 10 metres

INSTALLATION NOTES

Decide where the pump will be located and connect it to the appropriate drip tray (using 6mm I/D vinyl tube), then connect to a 240V mains power supply.

Position the sensor vertically against the compressor, so it protrudes above the top of the compressor like an aerial. This is important as it is where the electromagnetic field is strongest. Use the cable tie supplied to fix the sensor securely to the compressor. A 10m sensor cable is supplied, which can be extended if required.

The pump is designed to fit level on its base and **MUST** have adequate ventilation space around it at all times.

Ensure that there are no kinks or trapped sections in the piping, which must have a 6mm I/D and 9mm O/D. Fix the pipes with cable ties to the pump inlet & outlet.

A variable connector is provided to allow easy fixing between the condensate outlet tray and the vinyl tube.

SERVICE GUIDE

We recommend that you inspect the pump head regularly, and change the pump head tube every 12 months or more frequently if required.

ELECTRICAL CONNECTIONS

Brown	Live
Blue	Neutral
Green/ Yellow	Earth

PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
PUMP	145mm	160mm	83mm	1.7kg
SENSOR	126mm	22mm	16mm	0.1kg



Compressor Sensor

Ideal for applications where complete silence is important.

The Compressor Sensor pump is triggered by a sensor, which is designed to be mounted onto the compressor in an external condenser unit. When the air conditioning system starts up, the compressor produces a localised electromagnetic field, triggering the sensor, which in turn activates the peristaltic pump. The pump runs constantly while the compressor is operational. When the compressor switches off, a 3 minute timer ensures that the condensate tray is emptied before the pump switches off.

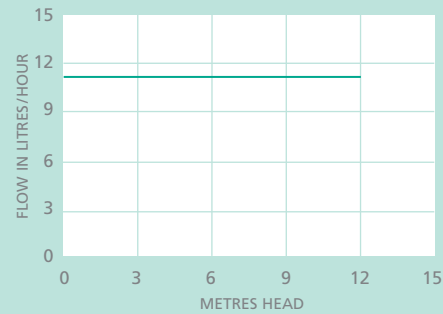
Rollers in the pump act as check valves to stop the condensate draining back into the condensate tray.

The pump can either be fitted in the ceiling void or installed within the condenser unit (or nearby), as long as the pump and its plug/socket are sheltered and fully protected from any water ingress. The pump can be mounted remotely in this way, as it is self-priming to a height of 5m and will pump 6.25L/h of water against a maximum head of 12m. The Compressor Sensor pump is a peristaltic rotary type - which means that it is quiet in operation, very reliable and will run dry without fear of damage or embarrassing noise.

TECHNICAL SPECIFICATIONS

- Tank capacity: 1 litre or 2 litres
- 12 metres discharge head
- No siphoning back
- No loud sound from dry running
- Requires 230V supply only
- Water flow rate: 11 litres per hr @ 12 metres
- Clear deck for quick and easy inspection
- Fits into shallow ceiling void or unit
- Incorporated back-plate for vertical mounting
- Pump rating: 0.4A, 230V A.C. Alternative voltages available
- Pumps water, fibrously contaminated water and air
- 4 amps pre-wired safety switch
- Fire retardant plastics
- 2 inlet positions: 25mm ø
- Outlet size: 6mm

HI-LIFT PERFORMANCE



SERVICE GUIDE

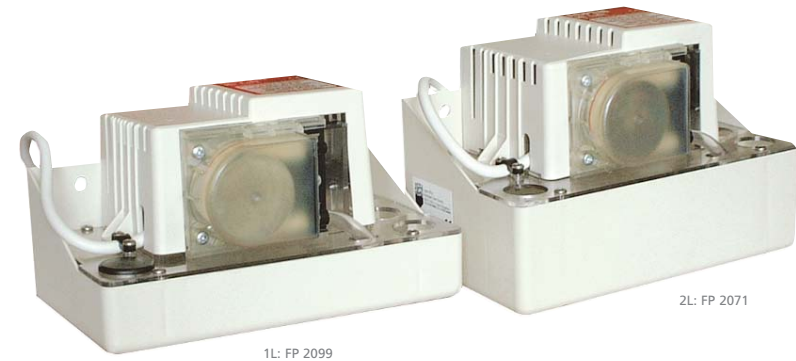
Inspect the pump head regularly and change the pump head tube every 12 months or more frequently if required. Flush the pump thoroughly with anti-bacterial wash every 6 months to avoid sludge build-up in the pump. This only takes 3 minutes!

ELECTRICAL CONNECTIONS

Brown	Live
Blue	Neutral
Green/ Yellow	Earth
2x Black	Safety switch

PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
HI-LIFT 1L	132mm	235mm	140mm	1.8kg
HI-LIFT 2L	165mm	235mm	140mm	2kg



Hi-lift 1L & 2L

Aspen's Hi-lift tank pumps are designed to collect condensate water from refrigeration and air-conditioning units. They operate automatically when the float rises to discharge to a head of 12 metres.

The Hi-lift will pump a smaller volume of water than the Hi-flow, but to a greater head.

The pumps incorporate two high quality switches, activated by a float system. One operates the centrifugal type pump and the other is used as a high level safety

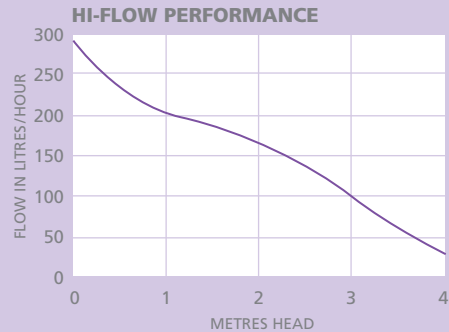
switch. In the event of a pump failure this device will switch off the refrigeration unit and can simultaneously activate an optional audio and/or visual alarm.

The pump is a peristaltic rotary type, which means that it is quiet in operation, very reliable and will run dry without fear of damage or embarrassing noise.

Unlike other pumps using either mechanical or electrical conductivity sensors, the Hi-lift does not suffer from corrosion or contamination problems. The deck of the pump is clear plastic for quick and easy internal inspection.

TECHNICAL SPECIFICATIONS

- Tank capacity: 1 litre or 2 litres
- 4.6 metres discharge head
- Water flow rate: 288 litres per hr max
- In-line valve to prevent siphoning back
- Pre-wired safety float switch
- Clear deck for quick and easy inspection
- Incorporated back-plate for vertical mounting
- Pump rating: 0.6A, 230V A.C. Alternative voltages available
- Auto-resetting thermal cut-out to shaded pole motor
- Connecting cable: 2 metres
- Safety switch 4.0A max
- Fire retardant plastics
- 2 inlet positions: 25mm ø
- Outlet size: 6mm x 10mm



SERVICE GUIDE

Flush the pump thoroughly with anti-bacterial wash every 6 months to avoid sludge build-up in the pump housing.

ELECTRICAL CONNECTIONS

Brown	Live
Blue	Neutral
Green/ Yellow	Earth
2x Black	Safety switch

PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
HI-FLOW 1L	140mm	235mm	140mm	1.7kg
HI-FLOW 2L	170mm	235mm	140mm	1.75kg



Hi-flow 1L & 2L

Aspen's Hi-flow tank pumps are designed to collect condensate water from refrigeration and air-conditioning units. They operate automatically when the float rises and will discharge to a head of 4.6 metres.

The Hi-flow will pump a greater volume of water than the Hi-lift, but to a lesser head.

The Hi-flows incorporate two high quality switches, activated by a float system. One operates the centrifugal type pump and the other is used as a high level safety

switch. In the event of a pump failure this device will switch off the refrigeration unit and can simultaneously activate an optional audio and/or visual alarm.

The deck of the pump is clear plastic for quick and easy internal inspection, and it comes with a 2 metre long cable with push in plug which makes installation and maintenance easier.

In all cases a tank pump must be sited under the source of the condensate.

TECHNICAL SPECIFICATIONS

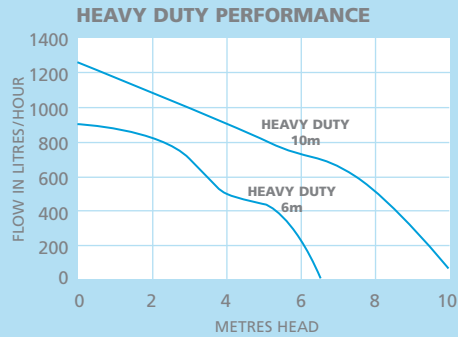
Heavy Duty 6m

- 6 metre discharge head
- Power supply: 230V 1.5A
Alternative voltages available
- Water flow rate: 900 litres per hr

Heavy Duty 10m

- 10 metre discharge head
- Power supply: 230V 0.7A
Alternative voltages available
- Water flow rate: 1250 litres per hr

- Tank capacity: 4 litres
- 6 & 10 metre discharge head
- Non-return valve
- No siphoning back
- 4 amps pre-wired safety switch
- Plastic tank and pump unit fire retardant plastics
- 2 inlet positions: 40mm ø
- Outlet size: 10mm



SERVICE GUIDE

Flush the pump thoroughly with anti-bacterial wash every 6 months to avoid sludge build-up in the pump housing.

ELECTRICAL CONNECTIONS

Brown	Live
Blue	Neutral
Green/ Yellow	Earth
2x Black	Safety switch

PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
HEAVY DUTY 6m	205mm	300mm	150mm	3.5kg
HEAVY DUTY 10m	265mm	300mm	150mm	4.3kg



Heavy Duty 6m & 10m

The Aspen Heavy Duty pumps are designed for the rapid removal of condensate. They are particularly useful in situations where multiple refrigeration units are installed, or where large refrigeration systems deposit considerable quantities of condensate at one time.

The pump unit is robustly constructed and designed to give reliable performance. This is particularly important in environments where efficient cleanliness is of utmost importance.

Two floats provide the operational control, one to operate the pump, and the other a safety float to be wired into the refrigeration unit control circuit.

The Heavy Duty tank pumps have a greater water flow rate than the Hi-flow tank pumps, for more heavy duty applications.

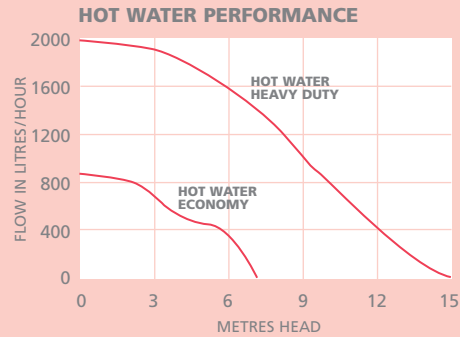
TECHNICAL SPECIFICATIONS

Hot Water Heavy Duty

- 2 metres connecting cable
- Water flow rate: 1800 litres per hour
- Tank capacity: 5 litres
- Maximum discharge head: 15 metres
- Pump rating: 230V AC 1.1A
Alternative voltages available
- Pre-wired safety switch 230V, 4A max
- Max. water temp: 100°C
- 2x non-return check valves
- 2 inlet positions: 40mm ø
- Outlet size: 15mm

Hot Water Economy

- 2 metres connecting cable
- Water flow rate: 900 litres per hour
- Tank capacity: 4 litres
- Maximum discharge head: 6 metres
- Pump rating: 230V 1.5A
Alternative voltages available
- Pre-wired safety switch 230V, 4A max
- Max. water temp: 100°C
- Fire retardant plastics
- No non-return valve supplied
- 2 inlet positions: 40mm ø
- Outlet size: 10mm



SERVICE GUIDE

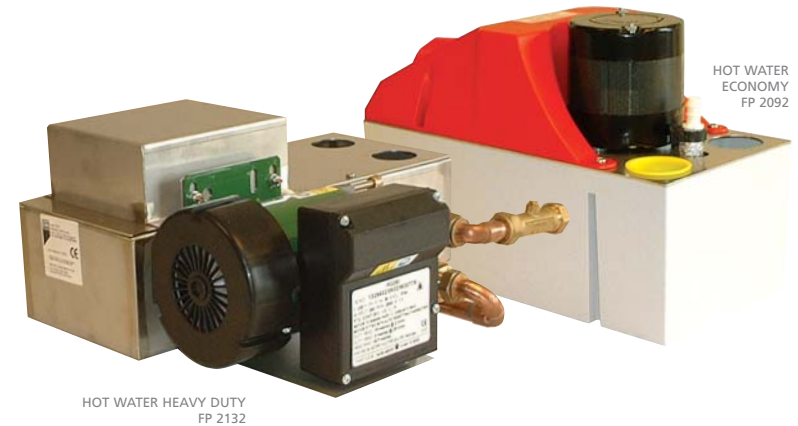
Flush the pump thoroughly with anti-bacterial wash every 6 months to avoid sludge build-up in the pump housing.

ELECTRICAL CONNECTIONS

Brown	Live
Blue	Neutral
Green/ Yellow	Earth
2x Black	Safety switch

PUMP DIMENSIONS

Product	Height	Width	Depth	Weight
HOT WATER HEAVY DUTY	160mm	355mm	320mm	7kg
HOT WATER ECONOMY	205mm	300mm	150mm	3.6kg



Hot Water Heavy Duty & Economy

The Hot Water pumps are designed to collect hot water from humidifier drain down cycles and normal condensate water from any associated air conditioning or boiler systems.

Hot Water Heavy Duty

The internal pre-wired safety float is a low current switch to stop the drain down cycle in the unlikely event of pump failure. The pump is operated via internal float switches.

Hot Water Economy

The pump unit is built of heat resistant cycloy and operates in the same way as the Heavy Duty tank pumps (see pages 20-21).