aspen peristaltic & tank pump selector

use either:
- HI-FLOW 4m head
- HI-LIFT 12m head

install STANDARD either inside unit if space is available or away from unit max 3m height

is signal on cooling 150-240V? NO
where low voltage signal is available install UNIVERSAL

install UNIVERSAL air on sensor in ambient, air off sensor in air off coil

is a/c system wall mounted YES
is a/c system floor mounted YES
is a/c system cassette mounted YES
is a/c system ceiling suspended YES

will tank pump fit inside unit? YES

UNIVERSAL in all cases unless a tank pump can be sited without being seen

will tank pump fit above ceiling tiles? NO
install HI-LIFT 12m head

is cooling capacity over 14kw s? YES
install either:
- HI-FLOW 4m head
- HI-LIFT 12m head

is signal on cooling 150-240V? NO
will tank pump fit inside unit? YES

use either:
- HI-FLOW 4m head
- HI-LIFT 12m head

use HI-FLOW tank pump 4m head

install either:
- HI-FLOW 4m head
- HI-LIFT 12m head

install either:
- HI-FLOW 4m head
- HI-LIFT 12m head

controls

bbj engineering

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visit our website at: www.aspenpumps.com
**standard peristaltic pump**

no sensor required

Simply connect the **Aspen Standard Pump** to the appropriate drip tray (using the vinyl tube supplied), mains supply and control link to the air-conditioning units cooling signal.

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 head of 12 metres.

The Aspen Standard pump is designed to run constantly while the air conditioning system is cooling.

This is achieved by linking the pump to the cooling signal. When the cooling switches off, a timer in the pump ensures that the drain tray is emptied before the pump switches off. The signal wire can be connected to the cooling signal and therefore on heating, the pump does not run.

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 any embarrassing noise. It is not sensitive to water borne contaminants as reciprocating pumps are, and there is no mechanical water sensor to fail!

It 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 be used on cassettes fitted with an internal lift pump. The rollers act as check valves to stop condensate draining back into the drip tray.

The standard pump now has a **NEW push in plug** which makes installation and maintenance easier.

**SERVICE GUIDE**

Inspect pump head regularly and change the pump head tube every 12 months or more frequently if required.

To remove pump head make sure the roller assembly is vertical. Remove transparent cover and fit replacement pipe. The addition of a smear of silicon grease will ease the refitting of the lid, reducing potential friction noise.

This only takes 3 minutes!

The test switch should always be returned to the NORMAL position after inspection.

**TECHNICAL SPECIFICATIONS**

- Operates on 240V 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
- Fits into shallow ceiling void
- Pumps water, fibrously contaminated water and air
- Pump has a manual test switch
- Pump rating: 0.2A, 240V AC
- Alternative voltages available
- Fire retardant plastics
- No siphoning back

**INSTALLATION NOTES**

This pump is designed to be sited upright in any position, but at all times it must have free space around the case for ventilation. Ensure there are no kinks or trapped sections in the piping. Vinyl piping must have an ID 1/4 by OD 3/8 . Fix the pipes with the tie wraps to the pump outlet and inlet.

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

All peristaltics, Standard, Universal, MK4 & Mechanical now come with a wall-mounted bracket.

**ELECTRICAL CONNECTIONS**

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

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>standard</td>
<td>142mm</td>
<td>160mm</td>
<td>83mm</td>
<td>1.4kg</td>
</tr>
</tbody>
</table>

**NEW plug and socket feature**
universal
peristaltic pump
integral pcb and 2 sensors

The Aspen Universal Pump is unique. Integral to the pump are a PCB and two 2 metre sensors, which sense 5°C differential across the evaporating coil to operate the pump. This is a great advantage on systems where anything other than a 240V cooling signal is used.

Simply connect the pump to the condensate tray (using the vinyl tube supplied). The Universal 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 Aspen Universal is designed to run constantly while the air conditioning system is cooling. By placing the red sensor in the ambient air on side of the coil and the blue sensor to the air off the PCB will sense 5°C differential and operate the pump. When the cooling switches off, a 3 minute timer in the pump ensures that the drain tray is emptied before the pump switches off.

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 any embarrassing noise. It is not sensitive to water borne contaminants as reciprocating pumps are, and there is no mechanical water sensor to fail!

It is also designed to fit in ceiling voids and lift the condensate water from wall mounted machines where a gravity drain is too obtrusive. It can be used on cassettes fitted with an internal lift pump. The rollers act as check valves to stop condensate draining back into the drip tray.

The universal pump now has a NEW push in plug which makes installation and maintenance easier.

SERVICE GUIDE
Inspect pump head regularly and change the pump head tube every 12 months or more frequently if required.

To remove pump head make sure the roller assembly is vertical. Remove transparent cover and fit replacement pipe. The addition of a smear of silicon grease will ease the refitting of the lid reducing potential friction noise.

This only takes 3 minutes!

ELECTRICAL CONNECTIONS
Brown - Permanent/Live
Blue - Neutral
Green/Yellow - Earth

TECHNICAL SPECIFICATIONS
- Senses 5°C differential across the evaporating coil
- Requires 230V supply only
- Only requires live/neutral supply and two sensors either side of the evaporating coil — one air on and one air off
- Self-priming lifts 3 metres
- 12 metres discharge head
- Operates only on cooling
- 3 minute timer overrun
- Water flow rate: 6.25 ltrs per hr @ 12 metres head
- No siphoning back
- No loud sound from dry running
- Pump has a manual test switch
- Pumps water, fibrously contaminated water and air
- Fits into shallow ceiling void or unit
- Pump rating: 0.2A, 230V AC
- Alternative voltages available
- Fire retardant plastics

INSTALLATION NOTES
Situate the red sensor in the ambient air on evaporating coil (NOT TOUCHING COIL). Position blue sensor to the air off side of evaporating coil. Connect pump to 240v live, neutral and earth. This pump is designed to be sited upright in any position, but at all times it must have free space around the case for ventilation. Ensure that there are no kinks or trapped sections in the piping. Vinyl piping must have an ID 1/4 by OD 3/8 . Fix the pipes with the tie wraps to the pump outlet and inlet.

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.

DIMENSIONS

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal</td>
<td>142mm</td>
<td>160mm</td>
<td>83mm</td>
<td>1.4kg</td>
</tr>
</tbody>
</table>
Simply connect the peristaltic pump to a permanent mains supply, fit the sensor to the air conditioner drip tray and connect to the drip tray using the vinyl tube supplied. Aspen’s MK 4 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. Unlike other pumps using either mechanical or electrical conductivity sensors, the MK4 does not suffer from corrosion or contamination problems. The water level 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 setting the pump into motion. The pump will only turn off when the water level has reduced below the lower sensor and any moisture on the sensor has evaporated. The MK 4 operates in dirty water.

**INSTALLATION NOTES**

The level detector has two sensors within the head, one for the ambient and the other for the water, both of which give off heat in normal operating conditions and will feel warm to the touch. It is for this reason that when the unit is first switched on to allow 5 mins for the electronics to stabilise. To ensure that the detector will operate satisfactorily, please abide by the following:

- **water level** 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.
- **pumping** Once the level of the water has dropped below the tip of the sensor, the pump will continue for some 5 or 6 minutes until the heat of the sensor has completely dried all the water, this also allows time for the pump to drain the remaining water.

**position of sensor** Free from direct draught and the tip should be a minimum of 5mm from the base of the tray or water container. Ensure the tip is in free air and unable to touch the sides. The ambient sensor within the cable 5cm from the gland can be seen as a small disc beneath the sleeve, this should be in free air to avoid any heat conduction.

The MK 4 pump now has a **NEW push in plug** which makes installation and maintenance easier.

### TECHNICAL SPECIFICATIONS
- Operates on bead contact with water
- Requires only 230V supply
- Pumps water, fibrously contaminated water and air
- Self-priming lifts 3 metres
- 12 metres discharge head
- No siphoning back
- No loud sound from dry running
- Fits into ceiling void or unit

#### ELECTRICAL CONNECTIONS
- **Brown** - Live
- **Blue** - Neutral
- **Green/Yellow** - Earth

### TECHNICAL SPECIFICATIONS
- Operates on a float switch
- 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
- Fits into ceiling void
- Pump rating: 0.2A, 230V AC
- Alternative voltages available
- Fire retardant plastics
- Available with an alarm option

#### ELECTRICAL CONNECTIONS
- **Brown** - Live
- **Blue** - Neutral
- **Green/Yellow** - Earth
The highly competitive Aspen Hi-Flow Tank Pumps are designed to collect condensate water from air conditioning machines, refrigeration units, gas boilers etc, and operate when the float rises to discharge a head of 4 metres.

The deck of the pump is clear plastic for quick and easy internal inspection. It is built with two floats; one to operate the pump and the other has a pre-wired safety switch incorporated to wire into the circuit to prevent water leaks from sensitive installations if necessary.

**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
- Black - Safety switch

The Hi-Flow Tank pump now has a **NEW push in plug** which makes installation and maintenance easier.

**DIMENSIONS**
<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 litre</td>
<td>140mm</td>
<td>235mm</td>
<td>140mm</td>
<td>1.7kg</td>
</tr>
<tr>
<td>2 litre</td>
<td>170mm</td>
<td>235mm</td>
<td>140mm</td>
<td>1.75kg</td>
</tr>
</tbody>
</table>

**PERFORMANCE GRAPH**

The Aspen Hi-lift Tank Pumps operate when the float rises, and two extremely useful features are: it does not siphon back and it discharges a head of 12 metres.

The deck of the pump is clear plastic for quick and easy inspection. It is built with 2 floats: one to operate the pump and the other a safety float to be wired into the air conditioning control circuit as a matter of good practice.

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 any embarrassing noise. It is not sensitive to water borne contaminants as reciprocating pumps are and there is no water sensor to fail!

**SERVICE GUIDE**
Inspect 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
- Green/Yellow - Earth
- Blue - Neutral
- 2x Black - Safety switch

**TECHNICAL SPECIFICATIONS**
- Tank capacity: 1 litre or 2 litres
- 4 metres discharge head
- Water flow rate: 288 ltrs 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

**DIMENSIONS**
<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 litre</td>
<td>132mm</td>
<td>235mm</td>
<td>140mm</td>
<td>1.8kg</td>
</tr>
<tr>
<td>2 litre</td>
<td>165mm</td>
<td>235mm</td>
<td>140mm</td>
<td>2kg</td>
</tr>
</tbody>
</table>

**PERFORMANCE GRAPH**

**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
- 4 amps pre-wired safety switch
- Clear deck for quick and easy inspection
- Fits into shallow ceiling void or unit
- Pumps water, fibrously contaminated water and air
- Incorporated back plate for vertical surface fixing
- Water flow rate: 11 ltrs per hr @ 12 metres
- Pump rating: 0.4A, 230V A.C.
- Alternative voltages available
- Fire retardant plastics
The Aspen Heavy Duty Pump models are designed for the rapid removal of condensate. Particularly useful where multiple refrigeration units are installed, or where large air conditioning and refrigeration systems deposit considerable quantities of condensate at one time.

The pump unit is robustly constructed and designed to give high performance.

Two floats provide the operational control, one to operate the pump and the other a safety float to be wired into the air conditioning/refrigeration unit control circuit as a matter of good practice.

**TECHNICAL SPECIFICATIONS**

- Tank capacity: 4 litres
- 6 & 10 metre discharge head
- No siphoning back
- **6 metre:** 230V, 0.4A, 118W
- **10 metre:** 230V, 0.7A, 150W

Alternative voltages available

- 4 amps pre-wired safety switch
- Water flow rate:
  - **6 metre:** 900 ltrs per hr
  - **10 metre:** 1250 ltrs per hr
- Plastic tank and pump unit fire retardant plastics

**PERFORMANCE GRAPH**

<table>
<thead>
<tr>
<th>Flow in ltrs/hr</th>
<th>0</th>
<th>200</th>
<th>400</th>
<th>600</th>
<th>800</th>
<th>1000</th>
<th>1200</th>
<th>1400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metres head</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

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

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 metre</td>
<td>210mm</td>
<td>300mm</td>
<td>150mm</td>
<td>3.5kg</td>
</tr>
<tr>
<td>10 metre</td>
<td>265mm</td>
<td>300mm</td>
<td>150mm</td>
<td>4.3kg</td>
</tr>
</tbody>
</table>

**HEAVY DUTY SPECIFICATION**

- 2 metres connecting cable
- Pre-wired safety switch 230V, 4A max
- Water flow rate: 1800 ltrs per hr
- Non-return valve
- Tank capacity: 5 ltrs
- Maximum discharge head: 15 mtrs
- Pump rating: 230V AC 1.1A 275W

Alternative voltages available

**ECONOMY SPECIFICATION**

- 2 metres connecting cable
- Water flow rate: 900 ltrs per hr
- 4 ltrs heat resistant tank
- Maximum discharge head: 6 mtrs
- 230V, 7A max, 175 watts

Alternative voltages available

- Fire retardant plastics

The pump unit is built of heat resistant cycloy and operates the same way as the heavy duty pumps.

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
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<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>heavy duty</td>
<td>160mm</td>
<td>355mm</td>
<td>320mm</td>
<td>7kg</td>
</tr>
<tr>
<td>economy</td>
<td>205mm</td>
<td>300mm</td>
<td>150mm</td>
<td>3.6kg</td>
</tr>
</tbody>
</table>

**ECONOMY SPECIFICATION**

- 2 metres connecting cable
- Water flow rate: 900 ltrs per hr
- 4 ltrs heat resistant tank
- Maximum discharge head: 6 mtrs
- 230V, 7A max, 175 watts

Alternative voltages available

- Fire retardant plastics

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
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</thead>
<tbody>
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<td>7kg</td>
</tr>
<tr>
<td>economy</td>
<td>205mm</td>
<td>300mm</td>
<td>150mm</td>
<td>3.6kg</td>
</tr>
</tbody>
</table>

**ECONOMY SPECIFICATION**

- 2 metres connecting cable
- Water flow rate: 900 ltrs per hr
- 4 ltrs heat resistant tank
- Maximum discharge head: 6 mtrs
- 230V, 7A max, 175 watts

Alternative voltages available

- Fire retardant plastics

**DIMENSIONS**

<table>
<thead>
<tr>
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<th>Height</th>
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</thead>
<tbody>
<tr>
<td>heavy duty</td>
<td>160mm</td>
<td>355mm</td>
<td>320mm</td>
<td>7kg</td>
</tr>
<tr>
<td>economy</td>
<td>205mm</td>
<td>300mm</td>
<td>150mm</td>
<td>3.6kg</td>
</tr>
</tbody>
</table>

**ECONOMY SPECIFICATION**

- 2 metres connecting cable
- Water flow rate: 900 ltrs per hr
- 4 ltrs heat resistant tank
- Maximum discharge head: 6 mtrs
- 230V, 7A max, 175 watts

Alternative voltages available

- Fire retardant plastics

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>heavy duty</td>
<td>160mm</td>
<td>355mm</td>
<td>320mm</td>
<td>7kg</td>
</tr>
<tr>
<td>economy</td>
<td>205mm</td>
<td>300mm</td>
<td>150mm</td>
<td>3.6kg</td>
</tr>
</tbody>
</table>

**ECONOMY SPECIFICATION**

- 2 metres connecting cable
- Water flow rate: 900 ltrs per hr
- 4 ltrs heat resistant tank
- Maximum discharge head: 6 mtrs
- 230V, 7A max, 175 watts

Alternative voltages available

- Fire retardant plastics
The Aspen **Mini Orange Pump** is designed to be installed:

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

By connecting the drain hose to the reservoir and placing the pump drive unit within the evaporator, condensate water can be pumped to a height of 8 metres. Within the Mini Orange kit there are two reservoirs to choose from, 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, providing it is sitting flat and horizontal.

**KIT INCLUDES**

- 1x reservoir (32 x 70 x 40mm)
- 1x submersible reservoir (as above)
- 1x pump unit (52 x 88 x 38mm)
- 1x orange rubber connector
- 1x 15cm length of 6mm o/d vinyl tube
- 1x 1.5m length of 9mm o/d vinyl tube
- 1x 6-pin socket lead assembly
- 2x self adhesive velcro
- 4x cable ties

**SYSTEM LOCATION**

1. above ceiling
2. inside conduit
3. behind evaporator

**TECHNICAL SPECIFICATIONS**

- Power supply: 230V - 20W
- Alternative voltages available
- 1PH 50/60 Hz
- Volt free N.O, N.C 8A RESISTIVE (5A INDUCTIVE)
- Hall effect semi conductor level sensors

- Water flow rate: 14ltrs at zero head
- Maximum recommended head: 8mtrs
- CE marked

**PERFORMANCE GRAPHS**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Length</th>
<th>Width</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>mini orange</td>
<td>52mm</td>
<td>122mm</td>
<td>38mm</td>
<td>0.23kg</td>
</tr>
</tbody>
</table>

**PERFORMANCE GRAPHS**

**KIT INCLUDES**

- 1x reservoir (32 x 70 x 40mm)
- 1x submersible reservoir (as above)
- 1x pump unit (52 x 88 x 38mm)
- 1x orange rubber connector
- 1x 15cm length of 6mm o/d vinyl tube
- 1x 1.5m length of 9mm o/d vinyl tube
- 1x 6-pin socket lead assembly
- 2x self adhesive velcro
- 4x cable ties

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Length</th>
<th>Width</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>mini orange</td>
<td>52mm</td>
<td>122mm</td>
<td>38mm</td>
<td>0.23kg</td>
</tr>
</tbody>
</table>
The Aspen Mini Lime Pump system is completely reversible, quick and easy to install and slim-line at only 50mm. It is designed to be installed next to the evaporator unit of an air conditioning system. The system comprises of all components required (see kit pg15), and offers a simple and neat solution.

By connecting the drain hose to the reservoir of the pump unit, condensate water can be pumped to a height of 8 metres.

In addition to this slim-line system, we also offer Mini Lime supporting elbows which are compatible with Inoac, Inaba and BBJ trunking systems. (See pg16)

KIT INCLUDES

- 1x elbow back
- 1x assembled mini lime pump including breather tube and green drainage tube
- 1x elbow front
- 1x internal conduit sleeve
- 1x conduit back (800mm)
- 1x conduit front (800mm)
- 1x ceiling plate
- 1x 6mm-4mm reducer
- 6x rawl plugs and screws
- 4x cable ties

Please note: you will also need several metres of 9mm o/d x 6mm i/d vinyl tube. Additional internal conduit sleeves and 800mm lengths of conduit are available on request.

TECHNICAL SPECIFICATIONS

- Power supply 230V AC~10%~20W
- Alternative voltages available
- 1PH 50/60 Hz
- Volt free N.O. N.C 8A RESISTIVE (5A INDUCTIVE)
- Hall effect semi conductor level sensors
- Water flow rate: 14ltrs at zero head
- Maximum recommended head 8mtrs
- CE marked
- Gravity inlet
- Thermally protected pump
- Max pipe size: 5/8 and 3/8 (including insulation)
- Maximum head 8mtrs
- CE marked
- Gravity inlet
- Thermally protected pump
- Max pipe size: 7/8 and 3/8 (including insulation)
- Power supply 400V AC
- Volt free N.O. N.C 12A RESISTIVE (10A INDUCTIVE)
- Hall effect semi conductor level sensors

SYSTEM LOCATION

DIMENSIONS

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>mini lime pump</td>
<td>79mm</td>
<td>93mm</td>
<td>44mm</td>
<td>0.31kg</td>
</tr>
<tr>
<td>mini lime system</td>
<td>930mm</td>
<td>131mm</td>
<td>50mm</td>
<td>1.05kg</td>
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</tbody>
</table>
The Mini Lime Pump can be purchased in two additional packs, for use within the ranges of BBJ, Inoac and Inaba trunking systems.

These packs contain a mini lime pump, an elbow, trunking (800mm) and ceiling plate.

These two packs allow the Mini Lime Pump to be integrated neatly into the BBJ Trunking system (pages 21, 22 & 23) and the Inoac trunking system (pages 24, 25 & 26).

This allows a very flexible approach, using the range of components in these systems. (The Mini Lime Inoac elbow also fits Inaba trunking - Product code: SD.77)

The answer to all cold cabinet problems!

The low height of the cold cabinet allows easy siting where many units may be drained into one pump.

Stainless steel construction makes our cold cabinet pump easily cleaned... ideal for the supermarket industry.

Three level sensors including on/off and a high level sensor to operate an alarm if required.

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The EcoBuddy has many features which make it unique in comparison to other reclaim rigs. These have all been designed to meet the needs of service engineers in the field.

**EASY TO CARRY**

The adjustable shoulder strap enables the EcoBuddy to be carried wherever you want, leaving your hands free. Integrated into this strap is a short carry handle for easy maneuvering.

**The EcoBuddy is lightweight at under 13kg.**

It is small for transportation and to fit through tight gaps on site.

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Depth</th>
<th>Width</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>EcoBuddy</td>
<td>305mm</td>
<td>260mm</td>
<td>430mm</td>
<td>12.7kg</td>
</tr>
</tbody>
</table>

**SOCKET FEATURE**

The plug socket on the side of the EcoBuddy can be used to power a vacuum pump, electric drill, battery charger or even your radio!

**TOOL TRAY**

A tool tray is incorporated at the front of the EcoBuddy for small fittings and tools. This releases at the push of a button and latches securely when pushed shut.

**LIGHT FEATURE**

With its own switch, the light is invaluable in roof spaces, or on roofs when nights draw in to help you finish the job.

**PERFORMANCE & FEATURES**

- Liquid recovery rate: up to 80kgs/hr
- Vapour recovery rate: up to 30kgs/hr
- 230V & 110V models available
- 500W compressor
- Large condenser and high air flow
- Oil-less compressor
- Suitable for all types of refrigerant, both liquid and vapour
- Shoulder strap (easy carry)
- Auxiliary socket
- Includes light and tool drawer
- Rugged, moulded case
bbj insulated copper pipes

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A (mm)</th>
<th>B (mm)</th>
<th>Overall Length (m)</th>
<th>Qty</th>
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<tbody>
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bbj economy trunking

<table>
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<th>B (mm)</th>
<th>Overall Length (m)</th>
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<table>
<thead>
<tr>
<th>Wall Cover for Inlet or Outlet Product Code</th>
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<th>B (mm)</th>
<th>Overall Length (m)</th>
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<tbody>
<tr>
<td>WC.70</td>
<td>110</td>
<td>180</td>
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<tr>
<td>WC.105</td>
<td>145</td>
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<table>
<thead>
<tr>
<th>90° Flat Bend Product Code</th>
<th>A (mm)</th>
<th>B (mm)</th>
<th>Overall Length (m)</th>
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<tr>
<td>FB.70</td>
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<td>FB.105</td>
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<table>
<thead>
<tr>
<th>90° Elbow Bend Product Code</th>
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<th>Overall Length (m)</th>
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<tr>
<td>EB.70</td>
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<td>EB.105</td>
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<tr>
<td>CP.105</td>
<td>110.4</td>
<td>80.4</td>
<td>105.4</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

SPECIFICATION

- ACR unwelded copper pipe, according to UNI 5649/3310, cleaned and protected
- Copper wall thickness suitable for the new refrigerants
- Cross-linked polyethylene foam having excellent thermal insulation and high resistance to oils and solvents
- Class of fire resistance of the insulating foam: M1 (NoB 013035 CEMATE/1)
- For refrigeration and air conditioning applications

TECHNICAL DATA

- Copper pipe: CU-DHP 99.9 ASTM-B379
- Appearance: embossed off-white
- Foam density: 30kg/m3
- Thermal conductivity: $\lambda = 0.0334$ (ASTM C236)
- Coefficient of resistance of vapour transmission: 3170 (DIN 52615)
- Service temperature range: -80°C to +100°C
- Fire resistance: Class M1
### bbj economy trunking

**plastic trunking for professional installers**

#### t-joint

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A (Size)</th>
<th>B (Size)</th>
<th>C (Size)</th>
<th>Qtyboxed</th>
</tr>
</thead>
<tbody>
<tr>
<td>TJ.105</td>
<td>200</td>
<td>106.4</td>
<td>104.4</td>
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#### reducer joint

<table>
<thead>
<tr>
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<th>A (Size)</th>
<th>B (Size)</th>
<th>C (Size)</th>
<th>Qtyboxed</th>
</tr>
</thead>
<tbody>
<tr>
<td>TJ.105</td>
<td>105.4</td>
<td>80.4</td>
<td>70.4</td>
<td>20</td>
</tr>
</tbody>
</table>

#### wall rosette

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A (Size)</th>
<th>B (Size)</th>
<th>C (Size)</th>
<th>Qtyboxed</th>
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</thead>
<tbody>
<tr>
<td>WR.70</td>
<td>110.4</td>
<td>110.4</td>
<td>70.4</td>
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</tr>
<tr>
<td>WR.105</td>
<td>120.4</td>
<td>120.4</td>
<td>105.4</td>
<td>20</td>
</tr>
</tbody>
</table>

#### flat rosette

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A (Size)</th>
<th>B (Size)</th>
<th>C (Size)</th>
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</thead>
<tbody>
<tr>
<td>FR.70</td>
<td>115.4</td>
<td>90</td>
<td>70.4</td>
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<tr>
<td>FR.105</td>
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<td>100</td>
<td>105.4</td>
<td>20</td>
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</tbody>
</table>

#### flexible joint

<table>
<thead>
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<tbody>
<tr>
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<td>20</td>
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<tr>
<td>A.FJ.105</td>
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<td>20</td>
</tr>
</tbody>
</table>

#### elbow – external 90°

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A (Size)</th>
<th>B (Size)</th>
<th>C (Size)</th>
<th>Qtyboxed</th>
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</thead>
<tbody>
<tr>
<td>EIN.70</td>
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</tr>
<tr>
<td>EIN.105</td>
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<td>110</td>
<td>105.4</td>
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</table>

#### duct end

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A (Size)</th>
<th>B (Size)</th>
<th>C (Size)</th>
<th>Qtyboxed</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE.70</td>
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</tr>
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<td>50</td>
<td>105.4</td>
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#### 45° flat bend

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A (Size)</th>
<th>B (Size)</th>
<th>C (Size)</th>
<th>Qtyboxed</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB.70</td>
<td>92.58</td>
<td>145.5</td>
<td>70.4</td>
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</tr>
<tr>
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<td>92.58</td>
<td>170.3</td>
<td>105.4</td>
<td>20</td>
</tr>
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</table>

#### duct cap

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A (Size)</th>
<th>B (Size)</th>
<th>C (Size)</th>
<th>Qtyboxed</th>
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<tr>
<td>DC.70</td>
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<td>DC.105</td>
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<td>75</td>
<td>2</td>
<td>20</td>
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</table>
### bbj inoac

**plastic trunking for professional installers**

#### Easy to use and aesthetically pleasing ivory coloured plastic. Some sizes available in brown.

#### Product Size (mm) Weight Qty

<table>
<thead>
<tr>
<th>Code</th>
<th>A</th>
<th>B</th>
<th>C (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD-60</td>
<td>57.5</td>
<td>58</td>
<td>2,000</td>
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<tr>
<td>CD-75</td>
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<td>2,000</td>
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<td>CD-100</td>
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<td>CD-140</td>
<td>138</td>
<td>78</td>
<td>2,000</td>
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</table>

#### boxed

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NW-60</td>
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<td>65</td>
<td>200</td>
<td>77</td>
<td>81</td>
</tr>
<tr>
<td>NW-75</td>
<td>82</td>
<td>69</td>
<td>210</td>
<td>94</td>
<td>83</td>
</tr>
<tr>
<td>NW-100</td>
<td>107</td>
<td>75</td>
<td>231</td>
<td>119</td>
<td>96</td>
</tr>
<tr>
<td>NW-140</td>
<td>146</td>
<td>85</td>
<td>286</td>
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<td>105</td>
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#### boxed

<table>
<thead>
<tr>
<th>Product Code</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<tbody>
<tr>
<td>NT-100</td>
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<td>NT-75</td>
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#### boxed

<table>
<thead>
<tr>
<th>Product Code</th>
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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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#### Product Size (mm) Weight Qty

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<th>C (g)</th>
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<td>69</td>
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<td>NE-100</td>
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<tr>
<td>NE-140</td>
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#### Product Size (mm) Weight Qty

<table>
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<th>B</th>
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<td>69</td>
<td>124</td>
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<td>NC-100</td>
<td>107</td>
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<tr>
<td>NC-140</td>
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<td>85</td>
<td>149</td>
</tr>
</tbody>
</table>

---

**straight duct**

**saddle band**

**outlet cover**

**elbow (horizontal)**

**elbow (vertical)**

**socket**

**t-joint**

**flexible-joint**

**universal elbow (horizontal)**

**universal elbow (vertical)**
**bbj inoac**

**plastic trunking for professional installers**

### end socket

<table>
<thead>
<tr>
<th>Code</th>
<th>Product Size (mm)</th>
<th>Weight (g)</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
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<td>53 30 99 65.5 65</td>
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<td>5</td>
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<tr>
<td>NR-75</td>
<td>53 30 99 82 69</td>
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<td>NR-100</td>
<td>53 30 115 107 75</td>
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### 45% elbow (horizontal)

<table>
<thead>
<tr>
<th>Code</th>
<th>Product Size (mm)</th>
<th>Weight (g)</th>
<th>Qty</th>
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<td>NM-75</td>
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<td>5</td>
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<tr>
<td>NM-100</td>
<td>107 75 84</td>
<td>150</td>
<td>5</td>
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</tbody>
</table>

### 45% elbow (vertical)

<table>
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<th>Product Size (mm)</th>
<th>Weight (g)</th>
<th>Qty</th>
</tr>
</thead>
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<td>95</td>
<td>5</td>
</tr>
<tr>
<td>NU-75</td>
<td>82 69 72</td>
<td>120</td>
<td>5</td>
</tr>
<tr>
<td>NU-100</td>
<td>107 75 83</td>
<td>150</td>
<td>5</td>
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### corner cap

<table>
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<th>Product Size (mm)</th>
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<th>Qty</th>
</tr>
</thead>
<tbody>
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<td>67 65 66 105 110</td>
<td>90</td>
<td>5</td>
</tr>
<tr>
<td>NA-75</td>
<td>84 70 66 124 125</td>
<td>100</td>
<td>5</td>
</tr>
<tr>
<td>NA-100</td>
<td>109 76 66 149 140</td>
<td>130</td>
<td>5</td>
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</table>

### wall cap

<table>
<thead>
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<th>Code</th>
<th>Product Size (mm)</th>
<th>Weight (g)</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>NK-60</td>
<td>110 110 16 40</td>
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<td>5</td>
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<tr>
<td>NK-75</td>
<td>126 114 16 40</td>
<td>75</td>
<td>5</td>
</tr>
<tr>
<td>NK-100</td>
<td>175 145 16 40</td>
<td>125</td>
<td>5</td>
</tr>
</tbody>
</table>

**bbj condenser housings**

**for refrigeration units**

- Designed for easy installation, boxed and ready with all necessary fixings
- All steelwork undergoes a 5-part phosphating pre-treatment prior to a 60 micron powder coat finish in ivory

---

### INTERNAL DIMENSIONS

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
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</thead>
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<td>medium</td>
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### EXTERNAL DIMENSIONS

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<th>Height</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>small</td>
<td>500mm</td>
<td>710mm</td>
<td>600mm</td>
</tr>
<tr>
<td>medium</td>
<td>550mm</td>
<td>810mm</td>
<td>720mm</td>
</tr>
</tbody>
</table>

### bbj qpc

**quick positioning clip**

- All Bagged in 10 s
- A complete range of 8 sizes from 1/4" to 1 3/8"
- All for easy installation to channel 40mm x 20mm

- All positive, easy fixing, twist clip through 90 degrees
- All insulates — provides external diameter 9mm width (same as insulation)
- All material withstands temperatures between -30°C and +135°C
- All excellent resistance to oil

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**bbj condenser housings**

**for refrigeration units**

- Designed for easy installation, boxed and ready with all necessary fixings
- All steelwork undergoes a 5-part phosphating pre-treatment prior to a 60 micron powder coat finish in ivory
FAN SPEED CONTROLLER
Controls head pressure to air conditioning and refrigeration systems by increasing and reducing fan speed with temperature on the condenser coil. There is also a heat pump model for connection to the reversing valve.

SPECIFICATIONS
- Two models available: one for cooling only, and the other for heating and cooling
- Optional heat pump model
- Condenser temperature coil sensor
- Max 3 amp output
- Push on connectors
- Minimum speed setpoint 30 to 60°C
- Volts: 230V Hertz: 50-60 Hz
- Power consumption internal : 8 W
- Heat pump model: reversing valve input 24 to 240V A.C. opto isolated

12 WAY POWER SEQUENCER
When a number of machines are switched on at once they cause power dips and surges which can damage sensitive equipment and cause computers to crash. The 12 way sequencer applies power in up to 12 delayed intervals of 10 seconds.

SPECIFICATIONS
- Power 20VA, 230V A.C.
- Hertz : 50-60 Hz
- 10 second delay with adjustment if required to 30 seconds
- Optional time clock, for 7 day control
- PCB size 220mm x 120mm with or without enclosure

HI-LEVEL WATER SENSOR
For utmost security! The High Water Sensor activates when water comes in contact with the base of the sensor providing volt free contacts.

3 PHASE FAILURE + PHASE PROTECTION DETECTOR
Designed to protect 3 phase motors and industrial equipment from overheating due to a phase failure. When one phase goes down motors can seem to run normally. It is not until the motor overheats that it is detected, which may be too late. The phase failure detector cuts the power instantly and only restores it when all 3 phases are present.

SPECIFICATIONS
- Input supply 300 to 480V A.C. phase to phase
- Supply frequency 48-63 Hz
- Temp range -20 to 60°C
- Relay output 8A 250V A.C. resistive 3A 250V A.C. inductive 8A 24V D.C.
- Din rail mounting

bbj suspenders
hanger for pipework lines
- Quick installation
- Avoids the need for cable tray
- Comes in three different sizes:
  - BBJ 2 approx pipe size 3/8 liquid 5/8 gas
  - BBJ 3 approx pipe size 1/2 liquid 7/8 gas
  - BBJ 4 approx pipe size 5/8 liquid 1 1/8 gas including insulation

bbj grip locks
designed by engineers for engineers
- Bagged in 10 s
- To support pipework from suspension rods
- For use on 8-10mm threaded rod
- 8 microns colour passivation coating
- Wide metal components for good pipe support
- Space for electrical cables and condensate tube
bbj insulclamps
the professional pipe support system

**TECHNICAL DESCRIPTION**

The insulclamp provides a simple yet excellently engineered solution to the problem of effective pipe support in the air conditioning, refrigeration and plumbing industries.

A semi-rigid insert, moulded from thermoplastic material, combines effective support indoors and outdoors (even for vertically mounted pipework) with good isolation properties which help to reduce the transmission of potentially damaging vibration and noise from plant, thus decreasing the risk of costly gas leaks into the environment.

The plastic material is able to withstand temperatures from $-25^\circ C$ to $+125^\circ C$ and has good resistance to ultra violet rays and other corrosive agents.

Metal parts of the insulclamp, including the stud-bolt and locking nut, are all zinc plated and colour passivated to provide extremely good protection against corrosion.

The special self-locking nut prevents the clamp from being shaken loose by vibration.

**DIMENSIONS**

- Insulclamp supplied in 14 different sizes from $1/4$ to $4\ 1/8$ O/D pipes
- Aluminium channel supplied in either 1 or 3 mtr lengths, 40 x 20 mm

**BASE DIMENSIONS:**

<table>
<thead>
<tr>
<th>Product</th>
<th>Length</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>52mm</td>
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</tr>
<tr>
<td>B2</td>
<td>67mm</td>
<td>45mm</td>
</tr>
<tr>
<td>B3</td>
<td>79mm</td>
<td>45mm</td>
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**TIE DIMENSIONS:**

<table>
<thead>
<tr>
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<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
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<td>250mm</td>
<td>20mm</td>
</tr>
<tr>
<td>T300</td>
<td>300mm</td>
<td>20mm</td>
</tr>
<tr>
<td>T350</td>
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<td>20mm</td>
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<td>T400</td>
<td>400mm</td>
<td>20mm</td>
</tr>
<tr>
<td>T450</td>
<td>450mm</td>
<td>20mm</td>
</tr>
</tbody>
</table>

**bbj pipe ties**

the fastest way
to put up pipe work

BBJ Pipe Ties are great for multiple pipework routes. These simple ties can be fixed easily and directly to a wall or channel. There are three sizes of pipe tie bases and five different lengths of cable ties to suit various pipe diameters.

**bbj pipe hangers**

- A range of 7 hangers covering 10 different sizes from $1/4$ to $2\ 1/8$
- Combination nut fitting for 8mm and 10mm threaded rod
- Rubber mounting $-40^\circ C$ to $+120^\circ C$
- For refrigeration or water pipes
**bbj condensing unit brackets**

- A range of six condensing unit brackets with a high quality finish for the air conditioning and refrigeration industry

**TYPE 1: 3 sizes**
60kg, 90kg or 140kg maximum load

**TYPE 2: 3 sizes**
60kg, 90kg or 140kg maximum load

- Designed for easy installation, boxed and complete with all necessary fixings
- All steelwork undergoes a 5-part phosphating pre-treatment prior to a 60 micron powder coat finish in ivory
- The self-adjusting brackets are designed for quick installation and easy levelling on uneven wall surfaces
- The individual brackets are designed to give the choice of three positions, enabling the siting of equipment in difficult areas
- BBJ supports give a professional and highly economic solution to your installations

**bbj condensing unit trays**

to fit all bbj brackets

Two sizes flat packed with all required fixings

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>small tray</td>
<td>800mm</td>
<td>400mm</td>
<td>50mm</td>
</tr>
<tr>
<td>large tray</td>
<td>1100mm</td>
<td>400mm</td>
<td>50mm</td>
</tr>
</tbody>
</table>

**bbj upvc condensing blocks**

to fit all bbj brackets

- 450mm box quantity of twelve
- 1000mm box quantity of two including fixings
- Maximum load 250 kilos on one point

**bbj Vibromats**

Constructed from milled, sieved and graded Styrene Butadiene Rubber. Embedded in the Vibromat are two metal plates inserted to a depth of 15mm, this allows you to screw down the condenser unit to the Vibromat. Ideal for flat roofs and delicate surfaces.
The **Big Foot Support System** is a simple and universal framework which can be used to support anything on a flat roof. It is ideal for:

- Small external condensers
- Split or VRV air conditioning systems
- Ventilation units

Three standard frameworks are available, for supporting 2, 4 or 6 small condenser units.

- **2 Unit system framework:** 1m x 1.3m (42kg)
- **4 Unit system framework:** 2m x 1.3m (70kg)
- **6 Unit system framework:** 3m x 1.3m (97kg)

**Big Foot-print area:** 305mm x 305mm or 450mm x 450mm

**Total leg height:** 375mm

**Height adjustment:** 245mm - 350mm: floor to framework (245 - 550mm: stepped roof option)

**Maximum load conditions:** 120Kg per 305mm ‘Big Foot’

For special requirements the units may be double stacked.

To accommodate different sized units the width and length of the frames can be varied so you may create your own bespoke system.

**PICK ‘N’ MIX PRICE LIST AVAILABLE ON REQUEST**

**IMPORTANT**

The purchaser or installer of these products must satisfy themselves that the roof structure is of sufficient strength to take the combined weight of the Big Foot System and units.

**DUCTWORK SUPPORT**

The Big Foot System offers a simple, quick and economical solution for supporting both ducting and pipework.

The Ductwork Support Pack includes 2 x 305mm Big Feet, 2 Unistrut Inserts, 2 L-brackets, 4 x M10 bolts and square channel nuts.

**TWO FOOT SIZE OPTIONS**

The Big Foot now comes in two different sizes: 305 x 305mm and 450 x 450mm. The NEW bigger foot will spread the weight to take heavier loads. Both feet come supplied with an A/V mat, which fit neatly under each Big Foot.

**STEPPED ROOFS**

The lengths of studding (forming part of the leg assembly) provided with the Big Foot Support System legs are 200mm. Additional 400mm lengths of studding for stepped roofs are available on request, and can be added to the leg assembly on-site.

**bbj UltraLite paving slabs**

Being one-eighth the weight of patio stones, UltraLite offers the newest technology in lightweight equipment pads. UltraLite requires little or no ground preparation.

- One man installation
- Lightweight
- Durable
- Time Saving
- Will not break
- Self-levelling
- U.L. Classified
- Vibration absorbing
bbj condensing unit guards

A range of three aesthetically pleasing, unobtrusive condensing unit guards to deter vandalism and damage to valuable equipment.

The framework is a painted aluminium structure. The panels are steelwork which pass through a 5-part phosphating pretreatment prior to a 60 micron powder coat finish in ivory.

Easy to install. Simply attach back frame to the wall, push on the four horizontal bars and then attach front frame and panel. Side and top panels complete the installation.

A back panel is available for free-standing units. Extra bottom panels available for guards fixed at high level on walls.

Units can be supplied in other colours subject to requirements.

All panels are removable to allow maintenance of the condensing unit.

ASSEMBLY

1. Back frame is provided pre-assembled and should be attached to the wall through the frame in four places.
2. Push horizontal bars on to attached back frame.
3. Attach pre-assembled front frame and panel by pushing onto the horizontal bars.
4. Self drilling fixings for side and top panels secure the complete frame.
5. Self-adjusting feet are provided to level the front of the unit or to lift the unit off the ground to allow services at ground level.

DIMENSIONS

**EXTERNAL DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
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</thead>
<tbody>
<tr>
<td>small</td>
<td>700mm</td>
<td>1000mm</td>
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<tr>
<td>large</td>
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<td>600mm</td>
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**INTERNAL DIMENSIONS**

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<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>small</td>
<td>600mm</td>
<td>900mm</td>
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</tr>
<tr>
<td>medium</td>
<td>1000mm</td>
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</tr>
<tr>
<td>large</td>
<td>1300mm</td>
<td>1000mm</td>
<td>500mm</td>
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**PACKING WEIGHTS**

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<tbody>
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<td>medium</td>
<td>28.5kg</td>
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<tr>
<td>large</td>
<td>34kg</td>
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</table>

**bbj isolator security box**

Two part metal housing to protect an electric isolator with a facility to utilise a padlock or otherwise.

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>isolator box</td>
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<td>150mm</td>
<td>125mm</td>
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condensing unit guards