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Product/Installation Guide

A split indoor fan coil unit, specifically designed for Australian truss roof homes.
The fan section is a high air volume, high external static pressure model, made by Australians for Australian conditions.
The coil section is enhanced with 25mm internal insulation and is equipped with the MHI exclusive high efficiency evaporator coil.

Connected to MHI model FDCVA502 or 602 Inverter Outdoor Condensing Set.

Models FDUSA 502 and 602

High Efficiency, Inverter Technology

It's all about the Air

The concept…..

The basic intent of the system is to allow the installer to install two smaller pieces into the very tight roof structures of Australian truss roofs rather than one large combined fan coil unit or one that needs to be screwed together while in the roof.
The MHI model FDUSA indoor unit comes in two distinct packages, a fan section and a coil section. The two sections are connected with field supplied normal flexible ductwork as you currently use in your installations. In addition, 3 electrical control cables + earth for fan operation are required between the two units.

The installation technique…….

1. Cut the return air grille opening of 900mmx400mm.
2. Lift the coil section into the roof space and install the supply air plenum (field supplied).
3. Lift the fan section into the roof space
4. Suspend the coil and fan sections from suitable roof truss's at least 1.5m apart
5. Connect the fan and coil sections together with 400mm duct at least 1.5m in straight length.
6. Connect the electrics between the coil and fan sections. A selection between Hi-Med or Hi-Lo or Med-Lo is permissible (the thermostat has only two fan speed selections as standard.

7. Connect the supply and return air ductwork and fit the condensate drain, electrical connects and refrigeration pipework to the outdoor unit.
8. Fit the ceiling outlets into the various rooms and connect the ductwork. Suspend the flexible duct with Blue tape for support.
9. Run thermostat control cables to a suitable position.
10. Fit pipe duct to wall adjacent to outdoor unit.
11. Complete electrical interconnects, 6mm single phase electrical mains to an electrical isolator and pipework connections to outdoor unit. Install suitable anti-vibration rubbers under outdoor unit feet.

The commissioning technique…….

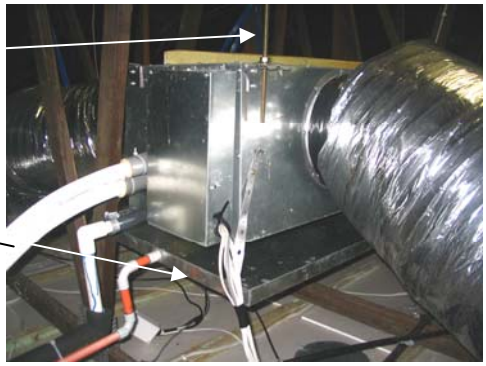
1. Connect refrigeration gauges and evacuate the system.
2. Open valves and start the system.
2. Complete a log of suction and discharge pressures plus running currents.
3. Clean the site and instruct end-user on operation and maintenance of the system.
4. Collect monies due from the end-user and pay MHI and other suppliers for their products.

Note the blue hanging strap to support the flexible duct.

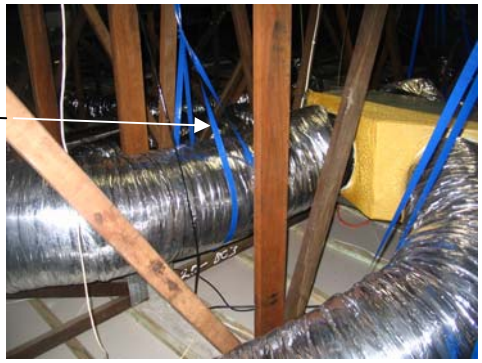
10mm booker or threaded rod to support the coil and fan section.

Note the safety condensate tray

Be generous with duct tape on oval spigots. Secure the duct to spigot with a flat head Tek screw over the piano wire of the duct to reduce air leakage and maintain support.



Note the blue hanging strap to support the flexible duct off the field supplied supply air plenum.



The zone motor and damper for day zone.

Note equal duct lengths for equal pressure drop and therefore equal air flow per outlet.

With this particular roof, a standard one piece indoor unit or even a split fan coil that needs to be connected together within the roof space, would not have fitted.

The FDUSA model fitted easily. A two man easy operation.

Where a return air grille needs to be located near the edge of the roof, having a lighter and narrower component allows the sections to still be taken through the return air grille opening.

The FDUSA model fitted easily. A two man easy operation.

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MHI Commissioning Sheet

Measured suction pressure	……..Kpa
Measured discharge pressure	……..Kpa
Measured air flow	……l/s
Measured voltage (with system running)	……volts
Measured running current	…….amperes
Has roof space and outdoor been cleaned	(Yes / No)
Have all screws been replaced on the outdoor condensing set	(Yes / No)
Is there any abnormal noise emanating from the outdoor or indoor units	(Yes / No)
Has client been instructed in the efficient use of their new air conditioning system	(Yes / No)
Has the warranty card been completed and handed to client for submission to MHI	(Yes / No)
Have you left your business card for future referral work from your client	(Yes / No)
Installing contractors name, address and contact details	…… …… ……

Date of installation…… ……..__/__/_____

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