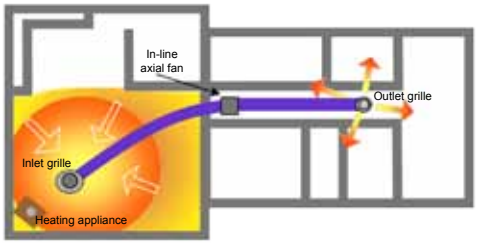
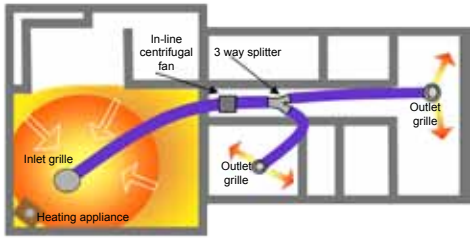
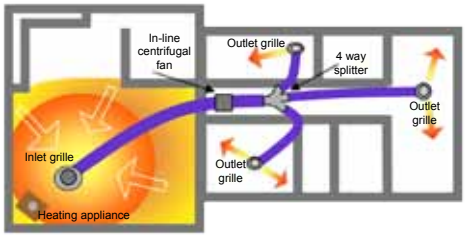
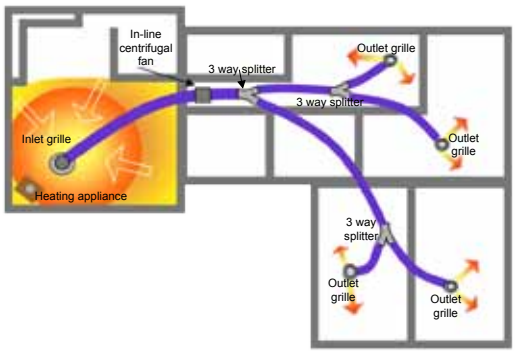
# HTU Heat Transfer Unit




## One Room

**Kit contains:** in-line fan (150mm, ***FID 83 l/s***), inlet grille, outlet grille, insulated duct (two lengths150mm x 3m), duct tape (3m)

| Model # | extra |
|---|---|
| HH01 | |
| HH01th | with thermostat with on/off switch |

## Two Rooms

**Kit contains:** in-line fan (150mm, ***FID 128 l/s***), inlet grille, two outlet grilles, 3way splitter, insulated duct (four lengths 150mm x 3m), duct tape (6m)

| Model # | extra |
|---|---|
| HH02 | |
| HH02th | with thermostat with on/off switch |

## Three Rooms

**Kit contains:** in-line fan (200mm, ***FID 210 l/s***), inlet grille, three outlet grilles, 4way splitter, insulated duct (three lengths 150mm x 3m, plus two lengths 200mm x 3m), duct tape (6m)

| Model # | extra |
|---|---|
| HH03 * | |
| HH03th | with thermostat with on/off switch |

## Four Rooms

**Kit contains:** in-line fan (200mm, ***FID 210 l/s***), inlet grille, four outlet grilles, 3x 3way splitters, insulated duct (one length 200mm x 6m, two lengths 200mm x 3m, plus four lengths 150mm x 3m), duct tape (2x 6m)

| Model # | extra |
|---|---|
| HH04 * | |
| HH04th | with thermostat with on/off switch |

## Other Four Room configurations available

HTU Heat Transfer Unit is now available with down jets and adjustable ceiling diffuser. POA.

* See Accessories for 3 speed switch fan controller for HH03 & HH04 options.

## Accessories

| Code | Description |
|---|---|
| ThermoRAA31 | Thermostat with on/off switch |
| VERS-1-400 | Speed controller (for 1&2 rooms) |
| SC3 * | 3 speed switch (for 3&4 rooms) |
| PYCD150 | 150dia. Ceiling Outlet Grille |
| BRM151515 | 150-150-150 splitter |
| J150 | 150dia. Duct Joining Collar |
| J200 | 200dia. Duct Joining Collar |
| PY150 | 150dia. Ins. Duct 3m |
| PY200 | 200dia. Ins. Duct 3m |
| ILD150 | 150dia. Balancing Damper |
| ILD200 | 200dia. Balancing Damper |
| TPW | Duct Tape |

**Note:** FID – Fan performance with free inlet & discharge conditions

*ThermoTA3*

All HTU Heat Transfer Units are available from your local branch.





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**0800 SMOOTH** (0800 766 684) www.smooth-air.co.nz sales@smooth-air.co.nz

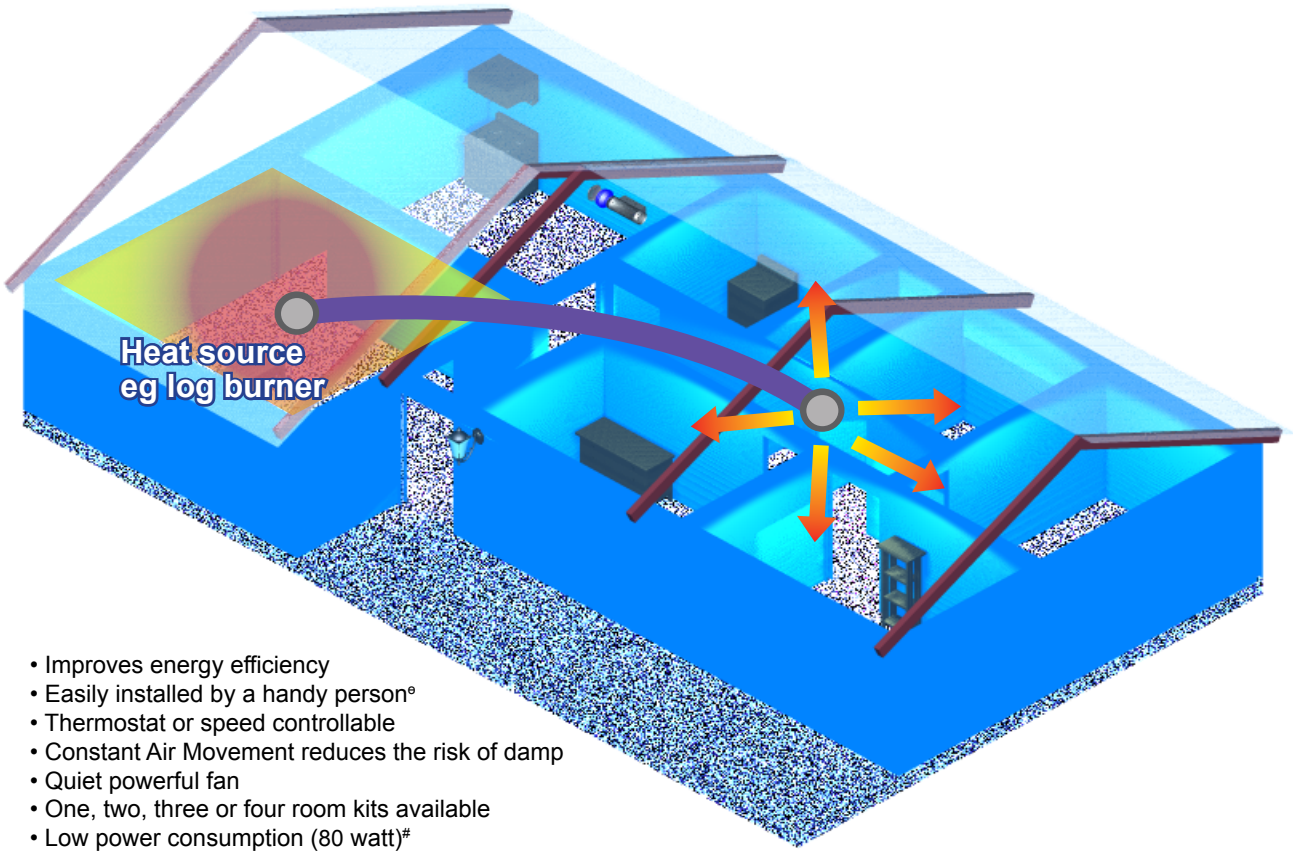
**Use the excess capacity of your heating appliance to warm other rooms in your home.**

# How?
# With the HTU Heat transfer Unit!

An average size lounge requires 2-4 kw of heating, yet heating appliances such as log burners* can generate 10-20kw. That's 5 times the amount of heat required for a lounge room. This leaves an excess of 8-16 kw of heat available to warm other rooms in your home.

Air trapped at ceiling level can reach temperatures in excess of 30°C. ***So why not...***

## Transfer that heat to where it's needed




- Improves energy efficiency
- Easily installed by a handy person[e]
- Thermostat or speed controllable
- Constant Air Movement reduces the risk of damp
- Quiet powerful fan
- One, two, three or four room kits available
- Low power consumption (80 watt)[#]

**Notes:** *Please talk to us before using with a Heat Pump
[e]It is recommended to use a registered electrician to wire the fan.
[#]Applies to three room model.

Continued on next page





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## Heat Transfer Unit Installation Instructions

The Smooth-Air Heat transfer system is designed to transfer excess heating capacity from the main room containing a log or pellet fire, to the other end of the house.
We recommend the use of a thermostat in the main room that starts the transfer fan when the main room is warm enough and will continue to operate (even after occupants go to bed) until no further heat available.

**It is recommended these units are installed by a preferred installer, please contact us for a list in your area.**
**Installation instructions are a guide only.**
**All electrical connections are subject to NZ law.**


Fan – dependent on HH model


Diffusers - vary by HH model


Thermostat - may vary

## Contents:

| | HH01 | HH02 | HH03 | HH04 |
|---|---|---|---|---|
| **Fan** | x1 | x1 | x1 | x1 |
| **Diffusers** | x2 | x3 | x4 | x5 |
| **Branch** | 0 | 3-way x1 | 4-way x1 | 3-way x3 |
| **Duct** | 2x3m | 4x3m | 5x3m | 7x3m + 1x6m |
| **Tape** | 1x3m | 1x3m | 1x6m | 2x6m |
| **Optional Thermostat** | (x1) | (x1) | (x1) | (x1) |

## Pre-Installation Checks

Before starting the installation, check the site & establish the best position/s of the following components. Final position will depend on many variables, as the ideal placements are not always physically possible.

**Inlet Diffuser** should be in the ceiling at the highest point or near the opposite side of the room to the heat source if ceiling is flat (and not within 1m above heat source).

**Outlet Diffuser/s** should be mounted centrally in the room/s to be heated (but not directly over bed).

**Branches** should be located to distribute airflow evenly using shortest route. Diffusers should be placed at even distance from (each) branch, where possible, to encourage equal airflow.

**Fan Unit** should be approximately half way between the intake diffuser and the venting diffuser/s. This is to minimize fan noise that is transmitted down the duct.

**Thermostat or Switch** (thermostat, switch & wiring not supplied, available on request) is to be installed in the same room as the heat source, 1.5m above the floor. As the thermostat can be adjusted to suit the room and the occupants, positioning is not too critical. It is usual to place the switch or thermostat above an existing switch, so as to use the existing holes through the dwangs.

**Ducting** Installation of ducting should allow for a full stretch and a smooth sweep onto the rear of the diffusers. This will have a marked effect on the effective operation of the unit air flow & attenuation of fan noise.

## Installation Procedure

Based on the above criteria:

**1. Fit Diffusers** Before cutting hole for diffuser, check that it will clear ceiling joists and roof structure. Use circle template to cut correct sized hole in the ceiling. Attach duct to grille, taping the centre duct sleeve to the grille spigot then separately taping the insulation/outer to the spigot. Feed ducting through the hole from below and clip diffuser in place using the spring clips. Ensure grille has a minimum gap of 16mm between inner disk and outer collar.

**2. Installing Fan** Mount brackets (supplied) onto fan. It is suggested that the fan is mounted with bungies so that no fan vibration goes through the house. Either attach mounting brackets to wood or to bungy cords as follows: Fit cup hooks to roof structure. Clip bungies to the two mounting points on fan. Lift fan into position and hook other end of bungy cords over cup hooks.

**3. Connect Fan to Duct** Attach duct to fan outlet, taping core and insulation/outer as before. Adjust length of bungies so fan is level and tighten cable ties to lock unit into position.

**4. Wiring** Connect power supply to fan via optional switch/thermostat. Check wiring diagrams on components carefully. Note: the thermostat is wired as a cooling stat such that when the temp exceeds eg 25ºC, the fan operates to transfer excess heat.

**5. Check Operation.**





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