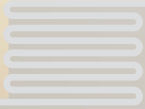
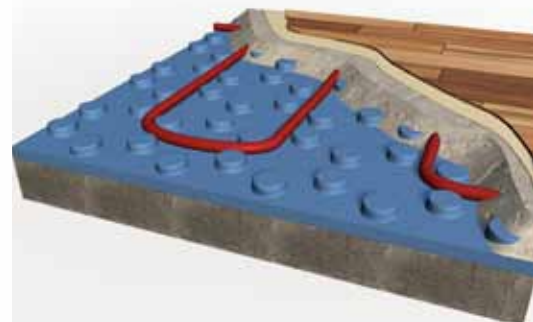
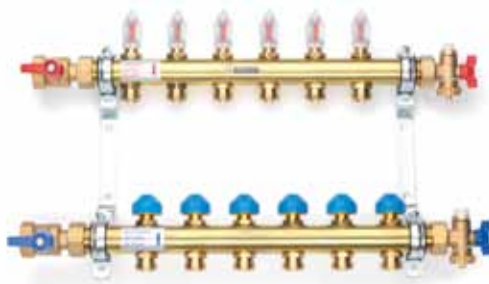
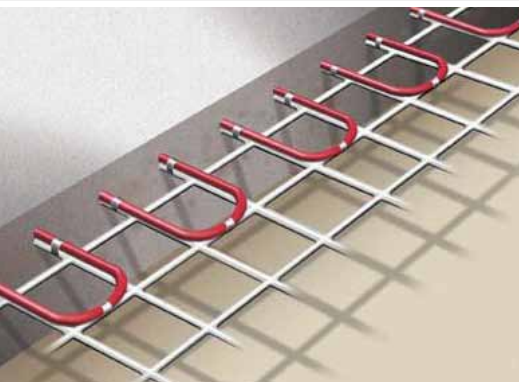


# IN-SLAB (UNDERFLOOR) HEATING



Floor coils are the most efficient, cost effective and discreet way to heat your home.



Floor coil heating is an age old method of heating your home first used by the Romans; a warm, gentle and sumptuous radiated heat is emitted from the floor warming the room. Under floor hydronic heating systems are ideal for homes where wall space is at a premium allowing for uninterrupted wall space providing a feeling of freedom due to the absence of any visible radiators.

A floor coil system is the most cost effective type of hydronic heating system; the install time is reduced and the running costs are lower due to the heating boiler operating at a lower supply temperature.



**Tel:** 03 9584 3115  
**Fax:** 03 9584 3112

[info@h2oheating.com.au](mailto:info@h2oheating.com.au)  
[www.h2oheating.com.au](http://www.h2oheating.com.au)

# IN-SLAB (UNDERFLOOR) HEATING



Floor coils are particularly effective when coupled with a high efficiency condensing boiler due to the low return water temperatures (See High efficiency boiler brochure); in fact under floor heating systems account for over 60% of the European market for these reasons. Floor coils systems, like other types of hydronic heating systems, can still offer flexibility and increased efficiency through being zoned thus offering a room by room controlled environment in your home. As the heat is emitted evenly throughout the room cold spots are eliminated, further adding to your comfort.

Floor coil systems work best in rooms with a concrete or tiled finish floor but in some circumstances can be used with timber or carpet (please consult your flooring specialist). A floor coil system can be mix and matched with standard and/or designer radiators adding to the flexibility of the system and making the design possibilities endless.

## HOW A FLOOR COIL SYSTEM WORKS

Under floor heating is provided by way of a series of floor coil pipe work being installed in the concrete slab of a home. Warm water is circulated from the boiler which turns the entire floor into a big heating panel. Whilst the initial response time is longer the heat is evenly distributed as a comfortable warmth throughout the home.

A flow & return pipe is run from the boiler to a header manifold, the floor coil pipe work is then distributed to each room or zone. There can be between 2 - 12 circuits of floor coil per header manifold but if more zones or coil circuits are required then more header manifolds can be used. It is sometimes necessary to use multiple manifolds where the floor level changes or a construction joint is to be installed into the floor slab.

Each floor coil circuit can be controlled from the header manifold and, if required, electronic actuators can be connected to individual thermostats to create multiple zones within the house, this allows

for the temperature of each room or area to be set independently offering further savings on running costs by only heating the rooms you want to the temperature you desire.

In some instances it is possible to fit a floor coil heating system to an existing slab if a covering screed is to be fitted, the floor coil pipe work is attached to a thermal reflector base and then covered by a concrete screed level. (Consultation with your floor engineer will determine if this is possible).

## BENEFITS OF UNDER FLOOR HEATING

### Aesthetics

Under floor heating is invisible allowing for a complete freedom of interior design meaning you can design your heating system to suit your needs.

### Economical

Under floor heating is more efficient to run due to the lower operating costs.

### Health

There are no fans to circulate dust and moisture content is minimised thus helping to reduce house mites; all great benefits to asthma and allergy sufferers.

### Comfort

It is generally accepted that the most comfortable environment is when the temperature at floor level is higher than that at head height, which is exactly how a under floor heating system operates. There is no noise with underfloor heating systems and the radiant heat ensures an even temperature throughout.

