Microchannel Coil Technology

What is a microchannel coil?
The Microchannel coil design is based on technology from the automotive industry. It is constructed of parallel flow aluminum tubes that are mechanically brazed to enhanced aluminum fins, resulting in better heat transfer and a smaller, lighter, corrosion resistant coil.

![Microchannel Design](image1)

How does Microchannel compare to other types of coils?
Other manufacturers use copper tubes with aluminum fins, or spiny fin coils which are aluminum tubes with spiny fins tightly wrapped around them. Both of these designs result in a larger coil that is MUCH easier to damage and both require twice as much refrigerant. The aluminum fins in both of the above designs are delicate and very hard to clean without causing damage.

![Tube and Fin Coil](image2)

What are the advantages of using Microchannel coils?
**Size and Efficiency** - Microchannel coils are 40% smaller, 40% more efficient, and use 50% less refrigerant than standard tube and fin coils.

**Durability and Resistance to Corrosion** – Microchannel coils are much sturdier and harder to damage. These coils last up to 7 times longer in a coastal environment.
**Easier to clean** - Microchannel coils are easy to clean! You can actually wash the Microchannel coils with a high pressure sprayer without bending the fins – with a tube and fin coil that would bend all the fins flat! Now you have an opportunity to add condenser coil cleaning to your maintenance contracts; you can easily clean a coil to like-new condition in less than 10 minutes with a pressure spray; there is no other coil that is this easy to clean.

Here’s what a pressure sprayer does to a standard coil!

**Enhanced coil protection** - Standard tube and fin coils are easily damaged in transit and handling. See photo below for a typical example. This kind of damage is a thing of the past with Microchannel coils – the coils are far more resistant to damage, plus these units also have a steel coil guard and a Diamond Mesh guard to keep coils thoroughly protected and great looking for years.

Microchannel coils are very hard to damage but very easy to repair – with just a propane or MAP gas torch and the Microchannel repair kit they can be repaired easily in just a few minutes.

Both of the 3 ton coils on the right were pressure washed in a Z pattern. The Microchannel coil has no damage but the standard coil fins have been flattened wherever the spray touched it.