



# Tenuta & Co

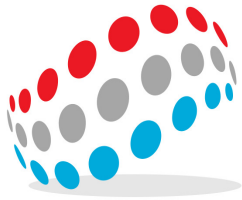
## REPLACEMENT COILS

We have made the process easier to replace damaged coils. Our focus is strictly on the needs of our clients. We dedicate our time to **water**, **booster**, and **steam** applications in institutional, commercial, and industrial markets.

## WHAT WE DO

- ✓ We focus a great deal on **customer service**. Each client is as different as each application. Those needs fuel our promise to keep clients first.
- ✓ **All orders are directly placed with the factory**. No time is lost from when an order is submitted to when it is processed as there's no "middle man" adding to the order process.
- ✓ We work with pipe fitters and field technicians on developing **proper measuring techniques** in order to expedite the sizing process. This reduces the time waiting for various reps to be on site.
- ✓ A call, email, or text to provide us with the basic information of the type of coil (steam-hot, water-chilled, water-DX), how many rows deep, fin area of coil & type of material (copper, aluminum, etc.) will allow us to **price the replacement coil that very day**. We also offer site visits to provide a piece of mind your replacement coil will fit.
- ✓ The faster we ship ... the quicker you can install the replacement coils. We offer quick standard shipments and offer even faster shipments with our 10 day and 5 day premiums. **Freight is always included**.
- ✓ Often-times we must redesign the coil to be replaced in order to a change in capacity. Our long experience in the coil replacement market provides **engineering expertise** as well as computer selection calculations.
- ✓ Our factory also carries **a stock of standard booster coils**. A call, email, or text and we will tell you quickly what we have in stock at the time.
- ✓ Our coils carry **ARI certification** and ratings of guaranteed performance.

**Our Mission is to be OF SERVICE to our clients**



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## REPLACEMENT TIPS

- ✓ Take as many photos as possible of the coil and the units it is installed in.
- ✓ Use Tenuta & Co coil measurement sheets to take as many measurements possible.
- ✓ Secure details on the application.
- ✓ Note any system or piping details.
- ✓ If the coil in question is located within an Air Handling unit, avoid using the Air Handling model number. Always use the coil's model number if it can be located.
- ✓ Always error on the smaller side of a dimension because even if smaller than intended, the coil is still useable. If too large, the coil is essentially useless.
- ✓ Fins are measured in fins per inch. Hold a tape measure up to the coils and count the number of fins in one inch. A safe rule of thumb is:
  - 10-12 Chilled Water Coil fins/inch.
  - 8-14 Hot Water Coil fins/inch.
- ✓ Try to avoid adding more fins per inch to the replacement coils in an effort to increase performance out of the coil. Proper fins per inch keeps the coil cleaner and has better performance.
- ✓ There will be small differences in performance. Everything will function as planned Coils within 3% (+ or -).
- ✓ All coils require small offsets in the piping to accommodate new coils ¼" (+ or -).
- ✓ The overall casing dimensions are the most important. Work backwards to determine fin dimensions.
- ✓ Overall length (OAL) is the length from the return bends to and includes the headers that are inside the unit.
- ✓ Depth is a function of rows deep and height is a function of tubes in a row. The depth of any coil is the total casing depth in the direction of airflow.
- ✓ The height is the number of tubes high in any row.
- ✓ Connections are to be measured from the top of the casing to the centerline of the connection or the bottom of the casing to the centerline.



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- ✓ Fitting the coil in the existing space with the least amount of labor has everything to do with measuring a coil. Duplicate the coil in almost every respect and the performance will match and take care of itself.
- ✓ Do not rely on just proposals and quotes. Always secure a drawing.
- ✓ Standard HVAC water coils are mostly constructed in the same design, the number of rows contained within the coil is a key differentiator in determining if the coil is hot water or chilled water.
- ✓ 99% of all hot water coils are (1) or (2) rows based on performance requirements since the “Delta T” between the entering air temperature and the hot water temperature is very large.
- ✓ Hot water coils commonly have face velocities across the coil from 600 to 1,200 FPM (feet/minute).
- ✓ Hot water coils commonly have water velocities of 2-4 FPS (feet/second).
- ✓ Chilled water coils with greater face velocities may be subject to moisture carryover resulting in water traveling off the face of the coil and may require a drip pan.
- ✓ Most (1) or (2) row coils will be within 8-14 fins/inch.
- ✓ Hot water booster coils are always (1) or (2) rows.
- ✓ The casing depth of a booster is designed for duct work installation.
- ✓ There are two casing options for booster coils:
  - A 1” or 1.5” casing on all four sides of the coil and a transition must be fitted to install the coil.
  - A “slip & drive” casing is when the coil is installed in the duct work.
- ✓ There are two types of Steam Coil:
  - Standard Steam Coil – For use where no outside air is present
  - Distributing Steam Coil – For use where outside air is present
- ✓ For Steam Coils, the system as a whole is the most important issue when sizing any steam coil. Always make sure that the following are sized and installed properly:
  - steam traps
  - casing pitch
  - Vacuum breaker
  - Air Vents