

Chiller Tube Cleaner Buying Guide

INNOVATIVE MAINTENANCE SOLUTIONS FOR MOST EFFICIENT CHILLER TUBES



Beneath the surface of each industrial chiller lies long metal tubes that require annual maintenance. Cleaning them can be a very daunting task, but what if we told you selecting the right equipment could make the job much quicker and easier to accomplish? Here at Goodway, we believe that every maintenance task needs specialized tools designed for the job. That's why we invented many unique tube cleaning machines that can make chiller tube cleaning easier, especially for you.

So what's most important to you - is speed a factor? Will you be using a tube cleaner for a single facility or are you a contractor that will be using it for several chillers? To better match your maintenance needs, read the following buying guide and then speak with your Goodway salesman about our wide selection of rotary tube cleaners.

Common Tube Cleaning Methods

If this is your first tube cleaning job, an overview is in order. If it's your thousandth, it's always good to review other options available. Over the years, many techniques have been used for tube cleaning tasks. Below are some of the most commonly used methods for cleaning chiller tubes.

1. Rod and brush - the oldest and least effective method, which is labor and time intensive and the results can vary dramatically. Did we mention it's a very labor-intensive task?

2. Chemical - uses an acid-based solution that circulates through the chiller to clean mainly hard, mineral deposits. Perfect to use in combination with rotary tube cleaners when heavy scale is present.

3. Rotary tube cleaners - the most common and most effective technology in tube cleaning for removing a wide variety of deposits.

Goodway provides solutions for all of these and more. Each has their own benefit, but rotary tube cleaning tends to be the most popular. In fact, we have been delivering the best tube cleaning technology for over 50 years and have been expanding our popular line of equipment to efficiently handle several different applications and deposit types.



Check the Deposit Type

One of the most important ways to help identify which cleaning system you will use is to identify which substances are building up inside the tubes. Is it light to medium buildup - like algae, mud or slime, or is it more of a crusty buildup - like scale and other mineral deposits? Consider this carefully to select the best brush equipment for the task. Goodway offers a variety of models that have different technology features like integrated water flushes, reversible brush rotation and variable speed brush rotation.



Did You Know? Goodway's ScaleBreak formula safely dissolves scale-like deposits and hard mineral deposits faster than any other chemical descaler on the market. For the best results on heavily scaled tubes, consider ScaleBreak to soften hard-to-remove deposits in tubes before polishing them off with a rotary tube cleaner.

The Types of Tubes

After identifying what type of deposits are on your tubes, take a closer look to understand what type of tubes you'll be handling.

Smooth bore tubes are commonly used for heat exchanger tubes in chillers and have smooth tube walls.



Internally enhanced tubes are commonly found in newer models of chillers and heat exchangers and are manufactured with spiral grooves inside them to create more turbulence in the water passing through them than smooth bore tubes. This allows more surface area in the tube, which correlates to better heat exchange and less energy consumption. The grooves that are so important to their effectiveness also have unique cleaning challenges.



Keep these in mind so you can choose the best tools specifically designed for the tube type. For example, cleaning enhanced tubes is best accomplished with a tube cleaning machine offering variable speed brush rotation. If you'd like to achieve maximum results, this step is one of the most important when selecting which tube cleaner and brush combination you'll be using.



Did You Know? The efficiency of a chiller is affected more by the cleanliness of its heat transfer surfaces than anything else.

The Basics of Brushes

Now that you've identified the type of deposits to be cleaned and the type of tubes you have, choosing the right brush is the next step. Goodway offers a variety of high-quality brushes designed to fit each curve and crevice of chiller tubes, as well as handle many different deposits.

- **Patriot® Dual Diameter Nylon Brushes** - offer the best in brush technology and are perfect for removing soft deposits like algae and mud in internally enhanced tubes.
- **Blue Nylon Brushes** - work best for removing soft deposits like algae and mud in straight tubes.
- **Grit brushes** - work when you have light, hard deposits, such as mineral buildup in smooth bore tubes.
- **Brass brushes** - work great when using on light to medium hard deposits in smooth bore tubes.
- Specialized cleaning tools - are available to solve almost any tube cleaning challenge, even completely plugged tubes.



With so many great brushes to choose from, remember, the most basic brush is not always the answer. The more your selection matches your cleaning needs, the easier the task becomes.

One of the most frequently asked questions when cleaning chiller tubes regards the amount of tubes you can get out of a brush. This varies and several other factors contribute to its endurance, such as the length of the tubes you'll be cleaning, the deposit type and the tube type. But once tubes are matches with the correct brush, it can produce remarkable results. Speak directly with a Goodway representative to help you identify how long each brush might last.



Did You Know? Goodway's exclusive nylon brushes are made with x-filaments that offer a greater surface area for cleaning in smooth bore and internally enhanced tubes than any other brush.

Choose Wisely

Now comes the best part - choosing the right tube cleaner for your specific job. From the traveling contractor to the large-scale industrial end user, our expanding line of tube cleaners offers something for everyone. If your cleaning needs require portable, high speed or heavy-duty equipment to get the job done, we have an assortment of powerful chiller tube cleaner machines ready to take on the challenge.

Continued, Choose Wisely

Here are some of many convenient chiller tube cleaners we offer, but don't go it alone. Call a Goodway sales representative to talk.

- **RAM-PRO** - This award-winning chiller tube cleaner is portable, powerful and specifically designed to stand up to rough and rugged cleaning environments. It's equipped with roll cage for maximum protection and a chain drive system for a smoother performance - perfect for the on-the-go-contractor.
- **RAM-PRO-XL** - This heavy-duty machine features our innovative TubeGuard technology that offers inline chemical injection to break down biofilm for a better, more effective clean. It also protects tubes from corrosion and oxidation.
- **RAM-5** - With over 20 years of proven performance, this tube cleaner features a revolutionary speed-feed gun that controls the direction of the shaft rotation and the flow of water, taking chiller tube cleaning to a new level of quickness.



Goodway offers ten models of tube cleaners. Call us for the best match to your needs.



Did You Know? Using the Speed Feed gun with Goodway Blue Nylon Brushes will clean tubes up to 4x faster than any other rotary tube cleaner.

Accessories & Specialty Tools

Now that you have a better idea on how to make chiller tube cleaning easier, you might be wondering what's next. It's time to take your cleaning experience up a notch and see which high-quality tube enhancements Goodway offers that can simplify the task even further.

Are Leaky Tubes a Problem?

- **Tube Leak Detector Kit LD-2X2** is a simple, smart and accurate tool to help detect leaks in tubes. Use this to perform periodic checks for leaks to keep chiller tubes healthy and as efficient as possible.
- **Brass Heat and Chiller Tube Plugs** are a great way to plug leaking chiller and heat exchanger tubes so they go back to performing at their very best.



Continued, Accessories & Specialty Tools

Using best practices to control scale and other buildup preserves the health of a chiller, prevents corrosion and can help manage the growth of harmful bacteria like Legionella from overwhelming your hydronic HVAC system. Legionella bacteria can cause Legionnaire's Disease and it is caused by the inhalation of water vapors containing it. This bacteria grows underneath layers of slime and scale and each year an estimated 109,000 to 18,000 people are infected with Legionella in the United States alone.



Taking preventative measures on fouled tubes and cooling towers can be part of a strategy to help prevent it from spreading before the bacteria multiplies and contaminates the environment. Speak with your Goodway sales rep about proper chiller maintenance and other component maintenance to help your fight against Legionella outbreaks.



Did You Know? Using a cooling tower vacuum for muddy or dirt-like deposits can eliminate nearly 80% of its substances before it reaches your chiller.

Who knew selecting the best chiller tube cleaner could make maintaining them seem so simple? For more information on selecting the best chiller tube cleaner for the job, speak with a Goodway salesman right away.