

How To Clean Chiller Tubes

The best way to eliminate energy-zapping sludge and scale.

Clean Better, Smarter, Faster

Drop the heads on a chiller in the winter and you'll find slime, sludge and scale – maybe tubes that are packed solid with deposits. When you have thousands of tubes to service, your cleaning method matters. For most chillers, that means using a rotary tube cleaner with water flush to power through clogged tubes fast. The spinning shaft propels a scrubbing attachment the length of the tube, loosening deposits, while the high-pressure water stream flushes them out. If you're dealing with enhanced (rifled) tubes, you'll need a machine and attachments that are made specifically for the grooved interiors.



STEP-BY-STEP TUBE CLEANING

- Follow manufacturer's shut-down procedure.
- Open the chiller to expose the tube sheet.
- Clean the tube facing. Renew a corroded tube facing with the Tube Sheet Refacing Kit.
- ID the deposits in your tubes. A video scope gives you inside intel so you know what you're up against.
- Choose the attachment suited to the deposit type.
- Wet down tubes with a garden hose to soften dry deposits.
- Clean several tubes with a rotary cleaner. The RAM-5 SFVS is the fastest smooth-bore tube cleaner around. Choose the RAM-6 for enhanced/spiral tubes.
- Evaluate results with your scope; change attachments or reclean, if necessary.
- Clean remainder of the tubes; spot check a few.
- Clean up and put the equipment back online.

Cleaning Internally Enhanced Tubes

Enhanced tubes are more efficient – but only when they're clean. Rifling in the tube increases surface area, which speeds heat exchange. However, grooves are prone to fouling, accumulating slime, sludge and scale.

The RAM-6 features a variable speed motor that lets you match the shaft speed to the natural feed rate of the tube's spiral. Your brush bristles slip right into the grooves, scrubbing them clean.

The machine's reversible motor, with bi-directional foot switch, provides forward rotation for entering the tubes and reverse rotation for exiting, so you're cleaning on the way in and on the way out.

Choose the "Patriot" Dual Diameter Nylon Brush for optimal cleaning. The large diameter end reaches into the grooves; the smaller end scours the lands.



PATRIOT DUAL DIAMETER NYLON BRUSH



INTERNALLY ENHANCED TUBE

ESSENTIAL ACCESSORIES

SCALEBREAK

Double your cleaning punch with chemical descaling. ScaleBreak softens thick scale, speeding up mechanical cleaning. Periodic chemical descaling controls buildup between rotary cleanings.



Nylon brush clears soft deposits like mud and algae



Spin grit brush powers through light scale deposits



Buffing tool removes light to medium scale deposits



WHY WORK BLIND?

The naked eye sees only the first few inches of a fouled tube. Video scopes show clearly what you're fighting, and when you've won.

TUBE SHEET REFACING KIT

Clean thoroughly, then simply mix the two-part epoxy and apply with a roller or brush for superior protection.

