

# CONDENSER

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**Day&Zimmermann**

## **THE LARGEST CONDENSER RETUBING CONTRACTOR IN THE UNITED STATES.**

Day & Zimmermann brings innovative and cost-effective services using the most advanced methods, tooling, and equipment in the industry. Our extensive portfolio includes full-scope condenser retubing services, as well as augmented condenser support. With hundreds of millions of linear feet retubing and a working knowledge, Day & Zimmermann understands the characteristics, idiosyncrasies, and inherent problems with every type of tube and tubesheet material, and various combinations of the two.

All levels of our project team have proven expertise encompassing hundreds of years of combined experience providing us with a unique perspective in exploring innovative methods to address the many challenges presented by individual plant designs. This expertise translates into projects that are consistently completed on-time and on-budget, even when unexpected issues arise. Our inventory of specialized condenser retubing equipment (in many cases built or modified to our specifications) ensures that we have all the primary and back-up equipment required to meet the rigorous demands of retubing projects.

## **LEAK DETECTION**

Day & Zimmermann brings to the table thousands of hours of experience in locating leaks, as well as complete testing services. Our leak detection teams use mass spectrometry and helium to precisely locate condenser air and water in-leakage as small as  $3 \times 10^{-4}$  CFM. Any system under vacuum or able to be pressurized can be tested, including turbines, condensers, condenser tubes, generators (off and on-line), air-cooled condensers, and Cardox® fire protection systems.

## **ACC-U-CLEAN® ADJUSTABLE TUBE CLEANER**

Our Acc-U-Clean® design features 12 independent blades positioned around a neoprene core which is held in place by a flexible spring steel sleeve. This unique configuration makes the Acc-U-Clean® effective on virtually all forms of scaling, biofouling, and corrosion and allows the cleaner to maintain its integrity (constant pressure), pass after pass. In fact, testing has demonstrated our cleaner lasts twice as long as other cleaners.



*We do what we say.®*

## PATENTS

Day & Zimmermann maintains numerous U.S. and foreign patents for innovative condenser-related products, processes and equipment, including:

- **The Eliminator®**
- **Cradle-Lock® Anti-Vibration Tube Stakes**
- **S-Flex® Rubber Expansion Joints**
- **S-Flex II® Rubber Expansion Joint System**

## THE ELIMINATOR®

Aptly named by our condenser crews, the Eliminator® is an all-in-one machine that pulls old tubes from the condenser at the tubesheet, flattens them, and chops the scrap material into 4" to 6" pieces in a single operation; eliminating wasted labor hours.

## ANTI-VIBRATION TUBE STAKES

The industry standard for tube vibration resolution, our patented Cradle-Lock® design is installed into the tube bundle midway between support plates, locking the tubes into a vibration-free unit. Cradle-Lock® eliminates the need to rebundle in many instances of tube vibration

## RUBBER EXPANSION JOINTS

Our patented S-Flex® Rubber Expansion Joint and S-Flex II® Expansion Joint System (which includes hardware) are unique designs for rubber turbine-to-condenser expansion joint replacements. The S-Flex® features a unique, flexible "S" shape with improvement to the fabric core configuration. The S-Flex II® is primarily utilized in new construction or for the replacement of troublesome stainless steel bellows or rubber "u" type expansion joints.

## ADDITIONAL PRODUCTS AND SERVICES

- **General condenser consulting services**
- **Tube cleaning**
- **Tube pullout testing**
- **Brass and fiber jacketed tube and tubesheet plugs**
- **Vibration analysis**
- **Basket tip connections**
- **Tube inserts**

Day & Zimmermann is a century-old, family-owned company whose 21,000 employees specialize in construction & engineering, staffing and defense solutions for leading corporations and governments around the world. Operating from more than 150 worldwide locations with 2.2 Billion USD in revenue, Day & Zimmermann is currently ranked as one of the largest private companies in the U.S. by Forbes. Founded in 1901 and headquartered in Philadelphia, PA, our first work was to develop "Betterment Reports" that helped modernize American factories. Today, we are still in the business of betterment -- maintaining the nation's power infrastructure, protecting American freedoms and driving technological advancements around the world. We do what we say.®

Headquarters: Philadelphia, PA • Established: 1901 • [dayzim.com](http://dayzim.com)

