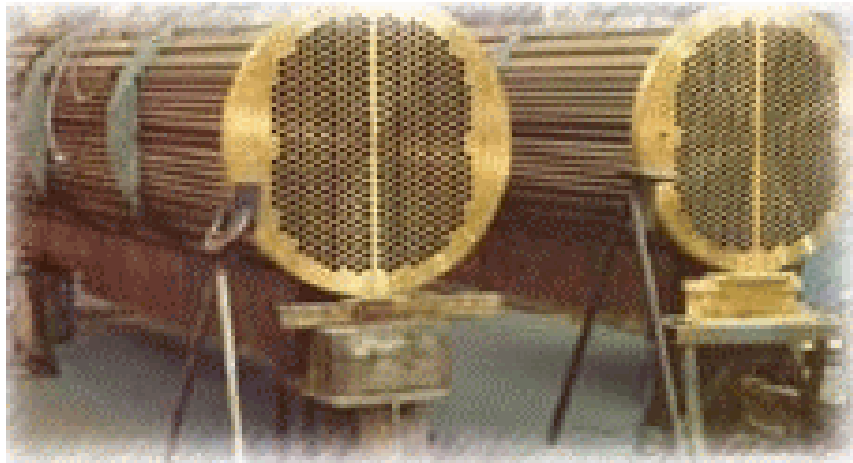


24 Series Condenser Expanders Results Report

US Fabricator Achieves A 35% Increase In Tool Life With Elliott's 24 Series



“The Elliott 24 Series are the best expanders that I have used in quite a while. The 24 Series held up 35% better than our current expander brand. I’m telling my boss that we are switching over to Elliott.”

-Tool Room Manager

The Challenge

A leading US fabricator provides a full range of heat transfer products and services. A large part of its business includes manufacturing and servicing heat transfer vessels such as heat exchangers, condensers, and feedwater heaters. Producing a quality product in a timely manner for customers is one of the company’s primary objectives.

This company regularly uses tube expanders in its work to expand tubes into its heat transfer vessels. The Tool Room Supervisor, finds two challenges especially frustrating when it comes to condenser tube expanders.

First, the expander’s mandrels and rolls sometimes break inside the tube during expansion. This means that the operator must try to beat the mandrel or roll out of the tube. Doing this destroys the tube so that it needs to be removed and replaced, costing significant time and money. In addition, the broken mandrel or roll needs to be replaced, increasing the cost of tooling. Sometimes the operator is unable to remove the broken mandrel or roll from the tube. This is especially

frustrating because the tube then needs to be plugged since it is useless. Since OEMs want to maintain the highest quality for customers, this can certainly be problematic.

The second challenge is getting tube expanders to consistently hit the target rolled ID during expansion. This is critical because under or over rolling the tubes can cause leaks, which are very costly and time consuming to correct. If the leaky tube is chosen to be plugged instead, this detracts from the quality of the vessel.

The fabricator needs to find a tube expander with superior tool life to minimize tool breakage and tube leaks. Finding this tube expander will allow Thermal Engineering to achieve its quality and customer service goals.



The Solution



The Tool Room Manager and his operators tried Elliott's new 24 Series Condenser Expanders on a high pressure heater with 5/8" OD x 13-14 BWG stainless steel tubes. They were extremely impressed with the tool life of the 24 Series on this challenging application of 8,400 expansions.

The operators performed a side by side test of Elliott's 24 Series Condenser Expander versus the current expander brand they were using. He was pleased to find that Elliott's 24 Series lasted 35% longer than the expander brand they were currently using! In addition to tooling savings, the 35% increase in tool life translated into less mandrel and roll breakage – a great relief for operators because it saved them time, money, and hassle on the job.

He also appreciated the quality rolled joint that resulted from Elliott's 24 Series Condenser Expander. In fact, he experienced a consistent target ID for each expansion, meaning cost savings for him and a high quality vessel for his customers.

In addition to the 35% tool life increase and rolled target ID consistency, the Tool Room Manager and his operators also appreciated these key features of Elliott's 24 Series Condenser Expanders:

- Proven tool life from the inventor of the tube expander.
- Smaller collar diameter: works in tight spaces.
- Reduced expander weight: higher operator satisfaction.

After trying Elliott's 24 Series Condenser Expander for himself, the Tool Room Manager's statement said it all: "The Elliott 24 Series are the best expanders that I have used in quite a while. Tell anyone you want to call me about this product."

The Results

With Elliott's 24 Series, this fabricator experienced a 35% increase in tool life, which reduced rework and improved productivity. These benefits mean significant cost savings for them by switching to the 24 Series from their current expanders.

Based on early results, increased tool life should cut tooling costs by about 35%. In addition to using less tools to complete the job there is also increased productivity due to less time being spent on replacing tooling or removing broken tooling from the tube. In the event that the tool did break inside the tube the 24 Series expander came out of the tube easier than other expanders.

The team at Thermal Engineering is extremely pleased with the tool life and savings he experienced with Elliott's 24 Series Condenser Expanders. In fact, he is so satisfied that he is advising his supervisor to switch to Elliott as its primary expander brand.

Contact Us

To start experiencing similar results from the 24 Series Condenser Expander, contact your local support or Elliott Tool Technologies.

www.elliott-tool.com/24-series

+1 937 253 6133 • +1 800 332 0447
sales@elliott-tool.com

Locally Supported By
www.elliott-tool.com/support