

COMPANY PROFILE ///

McLAUGHLIN FURNACE GROUP

MAKING A DIFFERENCE IN THE HEAT-TREAT INDUSTRY



A furnace before a rebuild (inset) and after McLaughlin Furnace Group rebuilt it. (Photos courtesy: McLaughlin Furnace Group)

Blending cutting-edge technology with more than 100 years of combined expert experience on staff, McLaughlin Furnace Group has set an industry standard for customer service and custom, go-to solutions.

By **KENNETH CARTER**, Thermal Processing editor

Jeff McLaughlin doesn't want his customers to consider McLaughlin Furnace Group as an average service company. The company's ultimate goal is to give its customers a product they want.

"I'm a hands-on guy; I'm a field guy," said McLaughlin, the company founder and president. "I understand the equipment inside and out. When they deal with McLaughlin Furnace Group, they're not only dealing with my highly-skilled staff, but a lot of times I'm involved in the process from the beginning."

McLaughlin brings his unique bag of skill-sets to the services and products McLaughlin Furnace Group offers the heat-treat industry.

REBUILDS

McLaughlin Furnace Group rebuilds all types of furnaces. Most furnaces are rebuilt at McLaughlin's facility in Avilla, Indiana. The furnaces are stripped down to the shell and sandblasted down to the bare metal. Warped metal is straightened or replaced, and cracks are repaired and reinforced. The lining is re-bricked including proprietary hearth and door lintel designs. The combustion system is upgraded with fuel-efficient burners and state-of-the-art controls. Door and elevator mechanicals are upgraded with rugged, yet easy-to-maintain systems.

McLaughlin Furnace Group also repairs and rebuilds vacuum pumps including mechanical and diffusion pumps to reduce vacuum processing systems' downtime.

TRU-MIX™ ENDOTHERMIC GAS GENERATOR

In trying to better meet customers' needs, McLaughlin has developed the Tru-Mix™ endothermic gas generator, which has been engineered to consistently produce the highest quality gas.

"The Tru-Mix generator is one of the most innovative units that we've done," he said. "We designed and tested it against other OEMs, and it's 33 percent more efficient. Nobody has that on the market. It's very robust, very consistent, and has little margin for error."

The Tru-Mix generator is efficient and its design allows it to be installed in areas with low ceilings, according to McLaughlin.

"We clam-shelled it," he said. "You can open it from the side. It's very, very maintenance- and operator-friendly."

VARIABLE TEMPERATURES

McLaughlin Furnace Group also offers tempering furnaces that have a variable temperature range.

"We run a really robust temper furnace that ranges from 250 degrees to 1,450 degrees within plus-or-minus 10 degrees to meet all the Nadcap specs," he said. "A lot of people struggle with getting the low ends, and we can take it to 200 degrees — if we would like to — all the way up to 1,550 degrees with a gas-fired furnace. That's unique to some of the processes because when you're selling the



A Tru-Mix™ Endothermic Gas Generator.

commercial and captive heat treats, they want to be able to have that lateral movement of temperature range."

CUSTOMER APPROACH

McLaughlin Furnace Group's wide range of services and products are a needed part of the industry, but McLaughlin said his company's excellent customer approach often takes it to the next level.

"I listen to the customer," he said. "I can communicate with the CEOs, the plant engineers, production managers, maintenance managers, purchasing managers. I can touch on all those levels because I've been in those positions — all of them — and I'm still a field guy. I view things from a maintenance side, and I view things from an engineering side."

McLaughlin said he explains to the customer what products he uses, as well as how the customer can benefit from the company's manufacturing processes.

"My biggest thing is efficiency," he said. "We want to make equipment more efficient and more effective. That's what I think we give our customers that sets us apart from other OEMs. The big thing we offer is a different philosophy than just putting a product out there."



A McLaughlin-Vesco Vacuum Pump. The company is scaling out its business in order to cover the vacuum side.

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EXCEEDING EXPECTATIONS

McLaughlin Furnace Group’s ability to go that extra mile for its customers is evident in a recent furnace rebuild.

“We came in with a different view of we’re going to build you a new shell and cut this one out,” he said. “We’re going to pull it out like a bad tooth. We’re going to put a new set of dentures on this furnace, so to speak, right? We’re going to give you a better product. That’s exactly what we did, and it was up and running in two-and-a-half weeks. The customer couldn’t believe it.”

The bottom line for the customer added up to only \$50,000 more, but the new shell was built off-site, allowing the customer to continuously run product until cutting out and marrying the new shell into the line, according to McLaughlin.

“That saved them money,” he said. “Now they’ve got a furnace that they never shut down. They’ve got a brand-new shell, a brand-new design, and it’s 30 percent more efficient.”

NITRIDING

Another area of the heat-treat industry that McLaughlin Furnace Group is diving into is nitriding.

“We’ve designed our Tru-Tride system for horizontal nitriding,” he said. “It’s a nitriding furnace that holds a very tight uniformity nitriding process, very robust. It has internal dual cooling. Nobody else is doing that.”

MULTI-FACETED COMPANY

McLaughlin started McLaughlin Services in 2007, and in 2017, he bought Vesco, a vacuum service company in East Windsor, Connecticut, and created McLaughlin Furnace Group.

McLaughlin Furnace Group covers the company’s OEM side, supplying furnaces, generators, car bottom furnaces, and heat-treat equipment.



A McLaughlin Temper Furnace.



A McLaughlin Nitriding Furnace.

McLaughlin Services operates underneath that, as well as Vesco-McLaughlin, which specializes in vacuum engineering.

“We’re scaling out a little bit to be able to cover the vacuum side of the business — pump repairs, full service maintenance on the vacuum systems, installations, removals, rebuilds, and hot zone rebuilds,” he said. “We do service; we do installations, and we’re kind of ‘umbrellating’ all of the heat-treat industry as a whole.”

Being able to service customers quickly and efficiently is part of what keeps McLaughlin Furnace Group busy. Often, that means completing a job faster than the lead times offered by their competitors.

“I want to be able to have faster delivery and service,” he said. “I want to be able to build a robust product that customers can rely on and which helps minimize their need for service and makes them money.”

TECHNOLOGY GROWTH, COMPANY GROWTH

McLaughlin said that he expects the heat-treat industry to grow as advances in technology increase.

“As technology grows across the world in many other industries, heat-treat is always going to follow it — or lead it. I see the heat-treating industry leading some of the technology that we have moving forward with electric cars, semiconductors, and everything else.”

Along with that growing technology, McLaughlin sees McLaughlin Furnace Group growing with it.

“My vision is to change the furnace industry as people know it,” he said. “That’s my goal. That’s why I went into it.”



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