

Furnace & Log Shear

Features	Benefits
Hot-Jet Furnace	
Counterflow preheating system that captures and recirculates exhaust gases	<ul style="list-style-type: none"> • Energy efficiency
State-of-the-art (PLC) temperature control systems	<ul style="list-style-type: none"> • Superior temperature uniformity • Ease of operation
Furnace chamber pressure controller	<ul style="list-style-type: none"> • Greater temperature uniformity and efficiency • Prevents hot exhaust from escaping furnace when discharging billets
Charge and discharge equipment suitable for any application	<ul style="list-style-type: none"> • Speed • Automatic operation
Multiple fuel firing capacity	<ul style="list-style-type: none"> • Versatility
Fully modulating independent flame-impingement zones	<ul style="list-style-type: none"> • Thermal control
Hot-Jet design	<ul style="list-style-type: none"> • Fuel efficiency
Integrated Hot-Jet Furnace/Quick-Cycle Log Shear System	
Multiple operating modes	<ul style="list-style-type: none"> • Greater flexibility, improved system control • Maximized recovery
Selectable “no scrap” mode	<ul style="list-style-type: none"> • 100% of the log can be consumed
Specially designed precision clamping system	<ul style="list-style-type: none"> • Excellent squareness of cut
Innovative shear ring design	<ul style="list-style-type: none"> • Superior cut • Minimal deformation
Billets sheared as needed	<ul style="list-style-type: none"> • Reduced inventory, greater liquidity
Patented storage gear temporarily stores billets before returning them to heated chamber	<ul style="list-style-type: none"> • Reduced capital investment • Less floor space • Faster operation
Engineered for quick cycles	<ul style="list-style-type: none"> • Increased throughput
Patented billet storage gear automatically transfers short, compensation cut pieces back to furnace between shearing cycles	<ul style="list-style-type: none"> • Reduced scrap • Increased productivity
Usable with pre-cut billets as well as one-piece and saw-face/saw-face cycling	<ul style="list-style-type: none"> • Versatility

Extrusion Expertise That's Always Within Reach

Granco Clark's commitment to assuring maximum equipment performance has earned us a record of more successful extrusion installations than any other company in North America.

First, we work with you to recommend the right equipment for your particular needs. Our highly experienced employees, together with our ISO-9001-certified quality assurance system, ensure a smooth acquisition from purchase order to up-and-running. Once equipment is

installed, we adjust it, train your personnel to operate it, and get it into service quickly.

After installation, we follow up to make sure equipment is performing at peak efficiency and that you're completely satisfied. And we back all of our equipment with the industry's best warranty.

We never stop being your key resource. Need a part? Order replacement parts any day of the week, any time with our 24-hour parts hotline—more than 80% are available for delivery the next day or sooner.

If equipment goes down, help is available immediately with Granco Clark's modem support. Service is free during standard business hours, with additional assistance available 24/7. We'll run diagnostics on your system via modem and walk you through any repairs.

With Granco Clark, you have peace of mind that your extrusion line is delivering the highest possible performance and productivity. And you can count on us for continued service and support over the full life of your equipment.



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Energy Savings. Fast Cycle Times.
 Better Metal Management.

No one knows furnaces the way we do.

We invented the flame-impingement furnace, the tunnel furnace, and the jet preheat furnace. Hundreds of plants around the world have Granco Clark furnaces, some of them more than 30 years old and still on the job.

When we introduced our direct flame-impingement concept 50 years ago, we set a new standard in the extrusion industry. That design has continued to evolve—most notably by the addition of an energy-saving “hot-jet” preheat section—but it’s still the fastest, most energy-efficient way to heat billets and logs.

The benefits increase even more when our Hot Jet Furnace is integrated with our Quick-Cycle Log Shear. The shear rapidly cuts billets to the size needed, optimizing performance and productivity. Working in tandem, our integrated furnace and log shear can reduce scrap significantly—you’ll always have the right length billet when you need it.

Hot-Jet Furnace

Maximum Energy Efficiency

The Granco Clark Hot-Jet Furnace is the most energy-efficient direct flame-impingement billet-heating furnace on the market.

Its “hot-jet” preheat section consists of a counterflow heating system that captures and recirculates exhaust gases through high-pressure “jet pipes.” This feature raises the average thermal efficiency of our flame-impingement furnace to 55%—so our furnace averages efficiencies that others only reach at their peak.



A “hot jet” preheat section boosts thermal efficiency.



Multiple thermocouple probes monitor the heating zones to assure precise, consistent temperatures.



The Granco Clark Log Shear allows you to reduce both inventory and scrap because it cuts billets to the correct length as needed.

Superior Thermal Uniformity for Superior Extrusions

Temperature uniformity has a significant impact on how a billet performs at the press, affecting both extrusion speed and profile quality. The Hot-Jet Furnace features a state-of-the-art temperature control system using a Programmable Logic Controller (PLC). This allows you to achieve superior temperature uniformity—as good as $\pm 10^\circ\text{F}$ —as well as greater reliability and ease of operation.

For greater efficiency and thermal control, the Hot-Jet Furnace also features an optional multiple-fuel firing capacity and fully modulating independent flame-impingement zones. It’s constructed from high-tech materials that ensure low heat retention and high insulating values, qualities vital to precise control of the temperature of the billet or log.

Thermal efficiency and control are also enhanced by a pressurized entrance chamber, which creates an air barrier that shields preheated jet gases from the cooler ambient air. That means less heat loss, more energy savings. And the chamber can maintain high “jet” temperatures without restricting the use of different log/billet diameters or limiting alignment flexibility.

Easy to Maintain, by Design

Several features have been designed into the Granco Clark Hot-Jet Furnace to make maintenance easier and less time-consuming. Pivoting crown blocks provide fast, easy access to the tunnel. The chamber, blower, combustion piping, and filter are all located at floor level where they’re easy to get at. All combustion piping is located on one side of the furnace. The multiple thermocouple probe assemblies

that monitor the heating zones are easily removed when necessary.

The Hot-Jet Furnace/Quick-Cycle Log Shear Combination

Better Metal Management

The greatest gains in productivity, though, come when our Hot-Jet Furnace is integrated with our Quick-Cycle Log Shear.

The Granco Clark Quick-Cycle Log Shear is built for better metal management. The electronically controlled shear cuts the correct length of billet every time. And, because it does, you never again need to tie up cash in an expensive inventory of billets of different lengths. You simply produce them as needed.

The shear’s patented billet storage gear automatically transfers short, compensation-cut pieces back to the furnace between shearing cycles—allowing 100% of the log to be consumed. No scrap. No need for “hot” storage chambers and the transfer gear that goes with them. No need to stock billets in a variety of increments, because you always have the correct length billet, and you’ll never have a furnace full of the wrong length.