Features	Benefits
Rollover Water Wall Quench	
Leadout table covered in graphite	• Work surface durability • Heat resistance
Trough converts to dry runout table	• Economy • Space efficiency
Water supplied to the quench trough via high-volume centrifugal pump	• Builds appropriate water wall height
Reservoir equipped with automatic water temperature and level controls	• Optimized performance
High-Pressure Spray Quench	
High pressure	• Penetrates steam barrier, thereby dramatically increasing cooling speeds
Maximum heat transfer available in a profile quench	• Maximum extrusion speed with minimum space requirements
Nozzles arranged in adjustable rings, divided into sections	• Precise cooling control appropriate to profile • Minimum distortion • Reproducibility of spray patterns
High pressure, in-line filtration system removes particles from water	• Minimizes spray nozzle contamination
Integral or pit reservoir designs (adaptable to external reservoir)	• Space savings (particularly important in retrofit) or accommodation of need for water storage
Air knives at each quench opening	• Minimize water running down the profile length and water vapor/spray entering work area

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.

GRANCO CLARK® WORLDWIDE

Performance. Productivity. Peace of Mind.

For more information contact us by phone, e-mail, or visit our web site.

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Quenching and Cooling Systems

Uniform, Efficient Cooling. Higher-Quality Profiles.

Uniform, efficient cooling is essential for boosting profile quality, throughput—and your bottom line. That's where Granco Clark's experience in profile quenching comes in.

We have a 35-year history of design innovations in profile quenches. No other manufacturer can match that level of experience. We offer a variety of quenching and cooling systems, accommodating a wide range of performance requirements and budget parameters.

Rollover Water Wall Quench

The Granco Clark Rollover Water Wall Quench is an economical solution for achieving moderate heat transfer rates. Our rollover design consists of a runout table—covered in heat-resistant graphite—that can quickly be converted to a trough. Water is supplied to the quench trough via a high-volume centrifugal pump, and the integral reservoir is equipped with automatic water temperature and level controls for optimal performance.

High-Pressure Spray Quench

Granco Clark's High-Pressure Spray Quench provides the maximum heat transfer available in a profile quench. Importantly, the Granco Clark High-Pressure Spray Quench cools more evenly than water wall quenches, for a gain in profile quality. Unlike flood quenches, the high-pressure spray quench disperses the steam barrier surrounding the profile and puts water droplets directly on the aluminum.

With the Granco Clark High-Pressure Spray Quench, the speed of the cooling process is greatly increased—in fact, it can provide more than twice the cooling rate of a flood quench and three times the cooling rate of low-pressure spray.

The arrangement of the spray nozzles allows extremely precise control of the cooling process. The quench is an enclosed spray chamber that contains the spray. It also features an in-line filtration system that minimizes spray nozzle contamination.

High Velocity Air Quench

When running alloys that don't require the rapid cooling rates associated with water quenches, Granco Clark's High Velocity Air Quench (HVAQ) provides superior air-cooling in a limited space. The working surfaces of the HVAQ include guides for the extrusions and are covered in heat-resistant, non-scratching material. An industrial blower provides a high-volume, high-pressure air supply and incorporates an outlet damper to provide variable airflow from 10 to 100%.

The HVAQ's air delivery system utilizes a series of air ducts aligned in pairs—a source duct and return duct on the same axis—set perpendicular to the profile path. This unique feature reduces turbulence and limits profile movement within the quench. A removable hood can be raised to feed a new profile into the puller jaws and then lowered for quenching.

Granco Clark's High-Pressure Spray Quench provides the maximum heat transfer available in a profile quench, while also minimizing distortion.

Granco Clark's Integral Runout Cooling System features distribution ducts within the runout table.

Granco Clark's Overhead Cooling Duct System creates a continuous "curtain" of cooling air over the runout conveyor.

Integral Runout Cooling

Granco Clark's Integral Runout Cooling System provides efficient air cooling in the extrusion runout area. Installed in conjunction with a roller runout conveyor, the system features distribution ducts within the runout table, allowing efficient use of space.

With air ducts located directly below extruded profiles, the Granco Clark Integral Runout Cooling System provides cooling rates several times greater than either individual fan or duct-style overhead cooling. The system includes a velocity adjustment to prevent light extrusions from being blown about on the runout table.

Overhead Cooling Duct System

Granco Clark's Overhead Cooling Duct System provides air cooling via ducts located above the runout conveyor. An air blend system accommodates fresh air, a mixture of fresh air and in-plant air, or in-plant air only.

Each duct section has a centrally located outlet nozzle that runs the full length of the duct, creating a continuous "curtain" of cooling air. Each unit features a motorized damper that can reduce air volume when extruding lightweight profiles, preventing them from being blown about on the runout table. The first duct also includes spray nozzles for water mist cooling.

Features	Benefits
High Velocity Air Quench	
Variable air-flow	• Adjusts air velocity to weight of extrusion, eliminating damage to light profiles caused by being blown about on runout table
Series of air ducts aligned in pairs set perpendicular to profile path	• Reduce turbulence • Limit profile movement within the quench
Integral Runout Cooling	
Air blend system	• Can accommodate fresh air, a mixture of fresh air and in-plant air, or in-plant air only
Cooling system's ducts installed within roller runout conveyor	• Efficient use of space
Velocity adjustment	• Prevents damage to light profiles caused by being blown about on the runout table
Overhead Cooling Duct System	
Air blend system	• Can accommodate fresh air, a mixture of fresh air and in-plant air, or in-plant air only
Centrally located outlet nozzle runs full length of the duct	• Creates a continuous "curtain" of cooling air
Motorized damper allows air volume to be adjusted	• Prevents damage to light profiles caused by being blown about on the runout table