

# LOCKFORMER

*since*  
**1938**

## VULCAN<sup>®</sup> 1600 WJ WATERJET

Cutting System



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# POWER OF WATER

Cutting insulation manually is a slow, costly and inexact procedure - even if you can find the laborer who cares enough about his job to do it. With the Vulcan 1600, Lockformer automates the insulation cutting and fabrication process for mechanical contractors. Delivering an unrivaled level of quality and efficiency. Whether you require precise insulation shapes for square to rounds, radius elbows or transitions, the 1600 can deliver savings of over 95%.

## THE COMPLETE SOLUTION:

And It's not just the hardware. It's not just the software. It's the combination of both that makes the 1600 such a complete solution. Lockformer, a name synonymous with unsurpassed engineering excellence, manufactures the 1600 system.

QuickPen, a leading software supplier to the mechanical construction industry, provides the system's powerful operating software. When two industry leaders work together, it's no surprise that an industry-leading piece of equipment is the result.

## CUT MORE THAN INSULATION:

This system helps you cut costs by reducing scrap. Insulation costs more than sheet metal these days and cutting it manually is old-school and wasteful. Just look at your scrap bin. You can dramatically reduce your inventory of duct liner because you'll reduce your scrap by close to 75 percent. When it comes to cutting labor costs and reducing waste – the 1600 WaterJet really shines. The precision and accuracy of these cuts fit into your metal blanks perfectly....completely eliminating trim cuts and re-fabrication. This industrial machine tool eliminates bottlenecking in your shop and allows you to work smarter and more efficient.

## ELASTOMERIC FOAM MATERIALS:

The HVAC Industry is taking a hard look at fiberglass insulation. The new trend is for specifying engineers to replace fiberglass duct liner with open or closed cell elastomeric foam. This foam insulation has no mold issues or potential to break down and get into the airstream.

Cutting a dozen insulation blanks can take 15 minutes by hand. The waterjet can do it in one tenth of the time. You know a 95% savings translates to fast cash and real profit for your business. Due to its precision speed and efficiency, you can fabricate insulate fittings for about one-tenth of what it costs to buy them. We've engineered every aspect of this machine to create unrivaled quality....quality that gives you a cut so clean and dry, your investment becomes a fast payback.

## SUPERIOR CONTROL:

One Software Tool for All Applications and All Systems - PLC, drives, communications, operator interface, programming, and diagnostics Robust Hardware Made for the Industry No moving parts, no fans, no hard disks, plus a high ambient temperature specification

## LONG TERM AVAILABILITY:

Components made by the manufacturer, not outsourced. This enables control of components and allows B&R to provide components for the long haul

## BETTER MAINTENANCE:

- Central program storage to all components in the system. Field replacements without programming for servo drives, HMIs, and other components.
- Excellent drive diagnostic features - ACOPOS software oscilloscope

## PERFORMANCE:

- CPUs have the highest performance in the PLC industry
- Fastest hardware – PLCs , inverter, trigger inputs, etc.
- Complex functions are programmable in high level languages
- Scalable for Quick Development:
- Saleable and compatible hardware
- Software can easily be adapted to different hardware configurations and machine applications

# VULCAN 1600 WJ WATERJET® CUTTING SYSTEM SPECIFICATIONS

*Note: Configurations vary based upon equipment and options selected System*

- 60" x 120" effective cutting area
- 60" x 240" optional cutting table size
- Up to 3,000 IPM cutting speed depending on the material type and thickness
- 4" maximum cutting thickness
- +/- 1/32" positional accuracy
- All Premium "plug-in" components
- Unitized, fixture-welded, 3" x 3" steel tubing framework for strength and stability
- Stand-alone control console
- All axis home positioning using motor torque measurement
- 8" x 8" steel table leg pads with leveling feature

## MACHINE CONTROL:

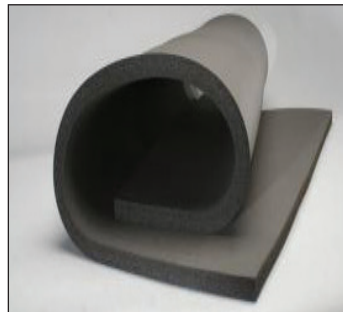
- Lockformer 759 CNC-TS control system with 15" color graphic industrial touch screen
- Digital drive devices
- Manual speed increase/decrease override
- Kerf compensation
- Auto home sense to set 0/0 automatically
- Automatic corner slow down
- Brushless AC servo motors with resolver feedback
- Remote safety stop switches and current limiting drives for safety

## TABLE:

- 1/4" steel plate table perimeter
- "Gull Wing" table design to protect the machine's drive system and reduce the footprint size
- Complete stainless steel table lining for rust-free performance longevity
- Rectangular exhaust plenum at the back end of the table for easy access connection
- Strategically located Emergency Stops [1 = controller; 1 = x-axis carriage]

## DRIVE:

- Dual precision Y-drive
- Double deck, 24 strand steel, precision reinforced radial timing belts
- HIWIN® linear x-axis bearing and way
- 3" diameter x 128" long, turned, ground & polished, heavy duty Y-axis guidance rail. Armaloy surface coated.
- Precision cam followers
- X-axis brush guard
- Steel enclosed housing for X-axis servo drive motor
- Y-axis drive housing enclosed and integral to the machines frame
- SNC® brand - Vertical dual cylinder pneumatic torch lifter with adjustable up/down pressure



# KMT STREAMLINE® SL-VI WATERJET INTENSIFIER:

- Pneumatic valve cutting head with .007 diamond orifice
- Intensifier cycles a maximum of 8 times per minute to reduce pressure fluctuations and improve component life
- Designed for non-abrasive pure water cutting only
- 55,000 PSI maximum continuous cutting pressure
- Maximum 3 GPM of water with 80 GPM inlet pressure
- Full amp load = 52A; Circuit Breaker = 80A
- Motor is totally enclosed fan cooled
- Pump footprint is 59"L x 42"W x 41"H



## ELECTRICAL:

- Machine CNC Control: 230 Volt, Single phase, 60 Hz (Dedicated circuit)
- High Pressure Water Pump: (Available Voltages) 208, 240 or 480 Volt, Three phase, 60 Hz

## AIR:

- 90 PSI low volume (less than 5 SCFM). The machine requires an Air Compressor to supply 99.997 percent dry compressed air at 5.0 SCFM @ 90 PSI. An Air Compressor is not included in the machine price. We recommend the purchase of the Air Filter and Dryer (option) to insure a clean, dry air supply for the water jet pump

## WATER:

- Customer's water supply may need to be softened or treated. Please refer to proposal for manufacturer minimum water quality.