

KMT
KMT Waterjet



kmtwaterjet.com

KMT Waterjet Cutting Products

WORLD'S FASTEST WATERJET



KMT WATERJET SYSTEMS. OVER 47 YEARS OF GLOBAL WATERJET TECHNOLOGY!

In 1971, KMT became the "Birthplace of Waterjet" and history was made when the very first commercial use waterjet cutting system was installed in a cardboard box manufacturing facility.

Known as the "Fluid Jet Cutting System", it eliminated the use of commercial saws, and was designed for the contour cutting of furniture packing forms.

Over 45 Years later, KMT Waterjet is known as the Global Leader in Waterjet Technology with the release of the World's Fastest Waterjet, the PRO-III Series 90,000psi intensifier pumps and PRO Series precision cutting heads.

Thousands of companies around the world have harnessed waterjet cutting to manufacture products for use in a variety of industries including Aerospace, Automotive, Agriculture, Baking, Construction, Energy, Oil & Gas, Manufacturing, Marble/Stone, Signage and much more.



WATERJET BENEFITS:

- Burr Free Finish
- Tight Nesting of Parts
- Smaller Cutting Kerf
- No HAZ (Heat Affected Zone)
- Eliminates Most Finishing
- Environmentally Friendly
- Cuts Multilayer Materials
- Cuts Materials & Thicknesses: Thin foil to 12" Titanium
- High Speeds for Most Materials
- Easily Adapted to Automation
- Contouring Systems
- Easy Programming w/Standard CAD/CAM Systems
- Multiple-axis Cutting Capability
- Allows Rapid Prototyping
- Minimal Fixturing Required
- No Material Stress or Crushing
- No Tool Sharpening
- No Dust, Fumes or Gases

OEM SYSTEM OPTIONS:

- Standard and Customized Tables
- Multiple Cutting Heads
- X-Y, X-Y-Z, 4, 5 & 6 Axis Cutting
- Robotic Integration
- Combination Systems: Saw, Plasma & Drill
- Conveyors for Food Production
- Vision Systems - Fish & Chicken Portioning
- Cake & Pastry Unique Shape Cutting Machines



KMT Original Equipment Manufacturers (OEM's) design, engineer & manufacture the right waterjet cutting system for your application.

KMT Waterjet Integrators are experienced in waterjet cutting to ensure that you and your employees are well trained, and have all the tools and support you need for a successful and profitable waterjet cutting business.

STREAMLINE® PRO-III SERIES 90,000PSI PUMPS



125hp/60hp Dual Head Cutting, Redundant Intensifiers

When you factor in the greater productivity of cutting faster, a 50-100% increase in capacity, reduced abrasive costs up to 50% and increase gross margins, the PRO III 90,000psi waterjet system is an attractive alternative to the standard 60,000psi waterjet technology.

WORLD'S FASTEST WATERJET

- Increase Productivity and Profitability
- Lowest Cost Per Part
- Thinner Kerf, less waste of raw materials
- Reduced Abrasive Costs
- Increased Capacity

MAX. ORIFICE SIZE:

PRO-III 60HP: .011
PRO-III 125HP: .016



More Information
Videos/Testimonials

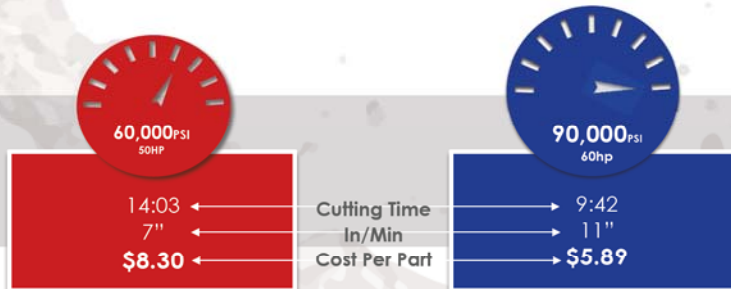
THE PRO-III ADVANTAGE: 60,000PSI vs. 90,000PSI Comparison

The diagrams below shows the KMT PRO-III 90,000psi (60hp & 125hp) pumps compared to standard 60,000psi (50hp) waterjet pumps. The data demonstrates when cutting 1 inch aluminum at 90,000psi, there is a significant improvement in productivity, lower cost per part and substantial abrasive savings.

Increase Productivity/Profitability



Lowest Cost Per Part



Reduce Abrasive Cost



**Total Job
Cost Savings
\$34,840
Year!**

Increase Capacity



* 60,000psi Parts
Shown for
Comparison



STREAMLINE™ SL-VI 60,000PSI PUMPS



THE RIGHT SOLUTION FOR EVERY APPLICATION

The KMT SL-VI Series utilizes the latest technology and a configurable design for ease of use, reliability and convenience. The result is a system that delivers the highest efficiency & profit.

Available in 30hp, 40hp, 50hp & 100hp, and an Optional Redundant Intensifier, the KMT SL-VI has the Horsepower, Pressure and Options to Fulfill Most Every Application.

INCREASED ORIFICE SIZES = INCREASED PRODUCTIVITY

SL-VI Single Head Cutting		
Orifice Size @ 30hp	→	.011
Orifice Size @ 40hp	→	.013
Orifice Size @ 50hp	→	.014

SL-VI 100hp	Orifice Size	@ PSI
# Cutting Heads		
1 (1.88 gpm max)	.019"	60,000
2 (1.88 gpm max)	.013"	60,000
1 (2.00 gpm max)	.020"	55,000
2 (2.00 gpm max)	.014"	55,000

Values good for 60Hz & 50Hz



SL-VI s-Series BASIC MODEL

- No Doors
- No Cover
- No Electric Panel

SL-VI e-Series ECONOMICAL MODEL

- No Cover

SL-VI i-Series INDUSTRIAL MODEL

- Fully Loaded

More SL-VI Information



TRILINE™ 55,000PSI PUMPS



The TRILINE™ delivers high efficiency at continuous operation and is ideal for small job shops performing conventional shapecutting. **30hp Models: With Doors, No Doors & Frameless**

DIRECT DRIVE TECHNOLOGY - EFFICIENT & ECONOMICAL

- Three Frame Options for Flexible, Easy Integration
- Continuous Duty Water Pressure Generator
- Patented Valve Automatically Controls Pressure & Flow Rate
- Small Footprint & Emits a Low 82dBa Sound Level

More TRILINE Information



CUTTING NOZZLES - 60,000PSI & 90,000PSI



AUTOLINE® PRO 90,000PSI NOZZLE

HIGH SPEED, SELF-ALIGNING ABRASIVE CUTTING NOZZLE

Independent tests prove the KMT AUTOLINE® Series of Abrasive Nozzles cut faster and at a lower cost than any other nozzle. The Next Generation of the AUTOLINE® Series, the AUTOLINE® PRO, is designed to provide the ultimate in cutting efficiency at 90,000 PSI/6,200 bar.

Simple, Self-aligning Components

The self-aligning components of the KMT AUTOLINE® PRO provide true, perfect alignment to extend the life of focusing tubes and mixing chambers.

AUTOLINE® 60,000PSI PRESSURE AVAILABLE



IDE® PRO DIAMOND 90,000PSI NOZZLE

(IDE - Integrated Diamond Eductor)

DIAMOND MOUNTING DESIGN IMPROVES ALIGNMENT AND CUTTING PERFORMANCE

The KMT Diamond Orifice Integrated Diamond Eductor PRO is integral to the cutting head & factory aligned for life. The IDE® PRO cutting nozzle is a 1 piece body, with a permanent mounted orifice, reducing operating downtime compared to changing a diamond orifice.

The IDE® PRO has achieved successful test cutting performance at 100,000psi & has demonstrated 1,000+ cutting hours in the field for many applications. The IDE® PRO performance rating is 10-20 times better over sapphires or rubies.

IDE® 60,000PSI PRESSURE AVAILABLE



AQUALINE® PRO PURE WATER VALVES

PROVEN PERFORMANCE AT EXTREME PRESSURES

Pure water cutting applications are among the most demanding of subcontracting jobs in the industry.

Demands put on waterjet components and some industry production units usually run 3 x 8-hour shifts throughout the complete week highlighting a need for extremely high reliability and speed.

AQUALINE® 60,000PSI PRESSURE AVAILABLE



Normally Open & Normally Closed Options



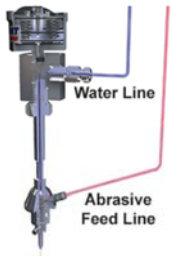
WATERJET CUTTING: THE TECHNOLOGY OF POSSIBILITIES

There are 2 methods of waterjet cutting: **Water Only & Abrasive**



Water Only Cutting

This method is primarily used for soft materials such as plastics, foam, paper, rubber, produce, cardboard, baked goods, and much more. Tap water is pressurized and forced through a small precious stone orifice, producing a water jet exiting the orifice at Mach 3 speed, and cuts materials at much higher speeds (determined by the properties of the material).



Abrasive Cutting

For hard materials that cannot be machined with water only, abrasive garnet is added to the cutting head mixing chamber and through a diamond orifice (or other precious stones) for a pressurized stream. This process is ideal for cutting thick & thin metals, creating intricate patterns in sheet metal, aluminum, decorative tile & stone, composites, ceramics, glass, and much more.



KMT GLOBAL NETWORK OF OEM'S - WATERJET MACHINE SYSTEMS

There are 4 systems for waterjet cutting in every industry: **One-Dimensional, Two-Dimensional, Multi-Axis 3D & Robotic**

One-Dimensional Cutting

One-dimensional systems most often employ multiple cutting heads on a conveyor. These systems are used in high production multi-shift operations where high cutting speeds and reliability are very important: Slitting paper, cutting produce, cakes, pastries & much more.



Two-Dimensional Cutting

The most used application is the 2D cutting table from 2' x 2' to much larger tables and move in X-Y axes. In many cases, the Z (height) axis is controllable to cut irregular shaped or thicker materials & used for rapid production of parts from different materials.



Multi-Axis 3D Cutting

Three dimensional systems use a 5-axis cutting head to cut cones from flat sheets, drill holes in tubing & producing beveled edges. These flexible cutting systems are mostly used in the aerospace, automotive and medical device industries.



Robotic Cutting

In most robotic systems, the cutting head is attached to a robot arm, enabling numerous application options. Motion control robots operate several tasks simultaneously, are safe, productive and environmentally friendly compared to sawing, plasma, laser, punching, milling and deburring processes.





ACCESSORIES - ABRASIVE SYSTEMS

FEEDLINE V (ABRASIVE METERING SYSTEM)

OPTIMIZED ABRASIVE FLOW FOR CUSTOMIZED APPLICATIONS

Stable and Repeatable Parameters are a fundamental requirement for high quality waterjet cutting. Without this controlled supply, the mixing chamber for abrasive, air and water would become clogged up and lead to higher costs.

The FEEDLINE V accurately controls the abrasive flow required for each application, further lowering costs of operation.



FEEDLINE PRECISION (ABRASIVE METERING SYSTEM)

COMPACT, LIGHTWEIGHT, AND RELIABLE!

An Accurate & Consistent Abrasive Feed Rate is critical and a well regulated feed rate of abrasive cuts down on waste and results in a tighter cutting stream with a cleaner, smoother cutting edge.

The KMT EZ Feedline™ is EZ to mount, operate and maintain—no tools required to replace wear components! The gravity fed abrasive automatically feeds to the fill line.



ADS SERIES HOPPERS (ABRASIVE DELIVERY SYSTEM)

CONTINUOUS LEVEL MONITORING --FOR EFFICIENT PRODUCTION!

Abrasive Monitoring Saves Time & Costs
KMT ADS SERIES HOPPERS precisely monitor the availability of sufficient abrasive closely during the entire cutting process.

The abrasive level indicator uses a weighing mechanism combined with a low-level alarm (or warning light on 2,000lb unit) to detect the low limit (100 lbs.) and notify the user.

Available in 500 LB. & 2,000 LB. Capacity.



KMT Genuine Parts & Service

Your business is worth it.

KMT offers a Preventive Maintenance (PM) Program which provides a 65 Point Comprehensive Inspection for your KMT pumps, parts and components



PARTS & SERVICE CONTACTS



800-826-9274
24 Hours a Day/7 Days a Week
Normal business hours are 7:00AM CDT to 5:00PM CDT

kmtgenuineparts@kmtwaterjet.com
kmtgenuineservice@kmtwaterjet.com

Order Parts Online:
kmtgenuineparts.com



More Information on KMT Genuine Service PM Program



- Trained & Certified Technicians
- Worldwide Sales & Support Network
- ISO 9001:2000 Process Certification
 - PED Approval
 - TSSA Certification
 - CSA & CE Marked
- USDA Equipment Certification



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KMT Waterjet now offers a Cut Calculator APP that compares 90,000psi to 60,000psi cutting.

Increase Productivity @ 90,000psi!



KMT WATERJET CUTS...

- Alloys
- Marble
- Granola Bars
- Steel
- Plexiglass
- Titanium
- Aluminum
- Composites
- Tile
- Cardboard
- Granite
- Broccoli
- Copper
- Plastic
- Acrylic
- Food
- Inconel
- Stone
- St. Steel
- Phenolics
- Ceramic
- Rubber
- Graphite
- Paper
- Glass
- Bronze
- Produce
- Textiles
- Laminates
- Foam
- Porcelain
- Carpet
- Cake
- Carbon Fiber
- & more...