

Today's

June 2009

# Industrial<sup>TM</sup> Products & Solutions

The Complete Purchasing Guide for Today's Industrial Market

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Increase  
**Speed,**  
Increase  
**Profitability**

with **Water Jet**  
**Cutting** from KMT  
Waterjet Systems

**Make**  
**your Roof**  
into an Asset  
with **Solar World**

The Evolution  
of **ISB's**  
**Press Control**



# Increase Speed, Increase Profitability

with Water Jet Cutting from KMT Waterjet Systems



**KMT Waterjet Systems** is the leading global manufacturer of waterjet cutting systems, Ultra High Pressure pumps and components for water jet systems. KMT's product offerings include: UHP Pumps, Waterjet cutting nozzles, Focusing Tubes, Pneumatic Cutting Valves, Intensifier and High pressure parts, Abrasive Cutting Systems, Waterjet Spare Parts, High pressure Valves, Fittings and Tubing Products, Diamond Orifices, Sapphire Orifices, Ruby Orifices, and Robotic applications.

KMT Waterjet Systems are used in a

wide variety of industries including automotive, military, aerospace, tile, stone, food, textiles, rubber, foam, glass and much more.

## KMT Waterjet Launches New Website: kmtwaterjet.com

Kmtwaterjet.com is The Knowledge Center for Waterjet, featuring comprehensive information on waterjet cutting solutions including Metal Cutting, Stone and Tile, Aerospace, Paper and Slitting, Glass, Food, Automotive, Composites, Waterjet Parts and much more. Each section is bro-

ken down into four categories: Detailed Information, Features and Benefits, and Everyday Uses.

Over 25 video customer testimonials, animations and hundreds of photographs are on the kmtwaterjet.com website to demonstrate the value added advantages of waterjet cutting.

The new website also provides on the Home Page a link to the most comprehensive list of complete waterjet table systems though a network of over 20 KMT OEM Integrators in North America.

## KMT Products: Streamline PRO 90,000 PSI for Faster Cutting

KMT Waterjet Systems Inc. introduces the Next Generation of waterjet pumps, an ultra high pressure (UHP) 90,000 PSI/6,200 bar pump. The KMT Streamline™ PRO pump is the solution for manufacturers requiring maximum performance and exceptional value!

With waterjet pressure up to 90,000 PSI/6,200 bar, the advanced KMT Streamline™ PRO pump delivers the manufacturer a reduction in operating costs by cutting products in less time than conventional waterjet systems. When compared with 60,000 PSI cutting speeds, the new PRO Line pump will significantly increase cutting productivity.

## KMT ULTRA HIGH PRESSURE PRO SERIES COMPONENTS

KMT supplies a full line of ultra high pressure components and parts for use with the Streamline™ PRO Pump.

KMT Autoline™ PRO Diamond Abrasive Cutting Nozzle

The Next Generation of the AUTOLINE™ Series, the AUTOLINE™ PRO, is designed to provide the ultimate in Waterjet Cutting efficiency at 90,000 PSI/6,200 bar!

The new KMT Waterjet AUTOLINE™ PRO has the same modular design and components found in the KMT AUTOLINE™ II but is designed to perform with the Streamline™ PRO 90,000 PSI /6,200 bar Pump at the highest water jet pressure for increased waterjet cutting speeds and increased productivity!

The KMT Autoline™ PRO is designed to provide the ultimate in cutting efficiency at 90,000 PSI, and cuts faster at a lower cost than any other nozzle. Independent tests performed by the University of Missouri-Science & Technology have shown that the KMT Autoline™ design is the ultimate in efficiency and has the lowest operating cost.

The self-aligning components of the KMT AUTOLINE™ PRO provide true, perfect alignment to extend the life of focusing tubes and mixing chambers. Everyone claims alignment; however, only the precision finish of the orifices in the KMT Waterjet AUTOLINE™ series enable true precision alignment—even at pressures up to 90,000 PSI for effective water cutting! Focusing tubes last longer and wear evenly in an aligned cutting nozzle.

### KMT Autoline™ II Waterjet Abrasive Cutting Nozzle

For nearly four decades, KMT has been refining the water jet cutting process, developing the very best technology to meet modern manufacturers' demands for versatility, speed, and efficiency from their water jet cutting systems. Whether the application calls for water-only or an abrasive waterjet, KMT Waterjet offers cutting nozzles that deliver high-pressure water at speeds that slice through diverse materials with ease. With KMT self-aligning AUTOLINE nozzles, stone cutting is just as precise as paper cutting or food cutting. Just as important as cutting marble and other hard materials, however, is the ability of the nozzle to undergo maintenance and replacement, as necessary, without stalling opera-

tions. A unique feature of the KMT Waterjet design is that individual components can be swapped out without requiring the entire nozzle to be replaced (more detail about this design is included below). As a result, water cutting operating costs are kept to a minimum and production is kept to a maximum. This offers manufacturers a competitive advantage in their cutting processes.

In addition to AUTOLINE nozzles, KMT Waterjet also manufactures efficiently designed water jet pump parts, filters, tubing, adapters, fittings, and more. When your margin for error is zero, rely on KMT Waterjet.

The net result is an outstanding nozzle that delivers a sharper, more coherent cutting stream for faster cutting while using less abrasive. KMT Waterjet AUTOLINE II™ is the best, most precise option for cutting marble, glass, composite parts, and a variety of other materials.

### NEW, FASTER CUTTING IDE™ PRO 90,000 PSI Cutting Nozzle

The New KMT 90,000 PSI/6,200 bar, IDE™ PRO, which has achieved successful cutting performance at 100,000 PSI, consistently demonstrates superior performance and reduced operating cost when compared to competitive brand abrasive cutting heads.

#### Features:

- New Diamond Mounting Design Improves Alignment & Cutting Performance
- Newly Designed Nozzle Increases Performance



- Less Seal Torque Required
- User Friendly Retro-fit for Current Users
- Engineered for the New, Faster Cutting Streamline PRO 90,000 PSI Pump
- HyperTube™ PRO Focusing Tube\*

\*The superior design of the HyperTube™ PRO is engineered for longer, more uniform wear preventing "focusing tube blow-out". The HyperTube™ PRO includes an Indexing feature to insure uniform internal abrasive wear.

### KMT Waterjet IDE™ Abrasive Waterjet Cutting Head

KMT Waterjet IDE™ (Integrated Diamond Eductor) Abrasive Waterjet Cutting Head Provides Breakthrough Simplicity and Performance!

The KMT IDE, the most advanced and simplistic cutting nozzle in the water jet industry, is an abrasive cutting head for cutting steel, stainless steel, titanium, aluminum, stone, tile, marble, brass, glass and much more.

The IDE water jet abrasive cutting nozzle offers the fewest possible parts making performance simple and reliable. Now, the only pieces which need to be replaced are the focusing tubes and head body. Each KMT Waterjet IDE™ has a permanently perfect mounted diamond and mixing chamber and each includes the removable abrasive inlet, focusing tube retaining nut, retaining ring and high pressure filter element.

### PSC (Precision System Components) 100,000 PSI/6,900 bar Replacement Parts

KMT supplies a full line of ultra high pressure elbows, tees, tubing and fittings rated to 100,000 PSI/6,900 bar and ideal for use with the KMT Streamline™ PRO pump and other high pressure applications.

### KMT Waterjet Performance is Guaranteed

Every KMT IDE™ water jet cutting nozzle is guaranteed to last a minimum of \*500 hours, saving money in maintenance, improving cut quality and operation.

The KMT Waterjet Advantages: OEM Network Integrators

KMT has a global network of reliable, highly trained professional OEM's (Original Equipment Manufacturers) who will design and manufacture the waterjet cut-



## KMT pump with abrasive water jet nozzle mounted to an ESAB cutting table to cut this 72" OD, 3" wall thickness, 516 Gr70 Elliptical Head.

ting table system that works best for your cutting application.

KMT system integrators are experienced in waterjet cutting and will team up to insure that you and your employees are trained, and have all the tools and support you need for a successful and profitable waterjet cutting application.

Only KMT Waterjet Systems can offer customers the most options and best choices for complete waterjet table systems. There are over 20 OEM's in North American to assist customers in making the best water jet system choice for their cutting needs.

- Multiple Cutting Heads, Any Size Table Systems, Robotic Trimming
- Attractive Financing Plans
- Cutting to 90,000psi with a 60hp or 125hp for maximum pressure
- Cut materials including 8" Aluminum, 6" Steel, 4" Titanium, Stone, Tile, Ceramic and more.
- Waterjet/Saw Combinations
- Plasma/Waterjet Combinations
- 6-Axis Cutting

### KMT Waterjet Applications:

Here is a sample of some of the videotaped customer success stories featured on the [kmtwaterjet.com](http://kmtwaterjet.com) website.

KMT PRO 90,000 PSI Pump Cuts Parts 30-40% Faster for  
Sparks will FLY BUT NOT BURN when you cut with 90,000 PSI!

cuts their aerospace parts 30-40% faster, and uses less abrasive with the KMT Streamline PRO 90,000 PSI water jet cutting pump. They typically cut 8" thick Aluminum at 1" per minute and 4" thick Titanium Steel at 4-5" per minute with no heat affected zone caused by laser cutting.

"With the PRO 90,000psi Pump, we now cut parts faster than we can keep up with!"

uses their new KMT Waterjet 90,000 PSI Streamline PRO pump to cut more parts in less time from sheet metal to polyethylene plastic. MPI regularly receives customer re-

quests to have their parts cut using water jet only!

### Carbon Steel Cut with Waterjet

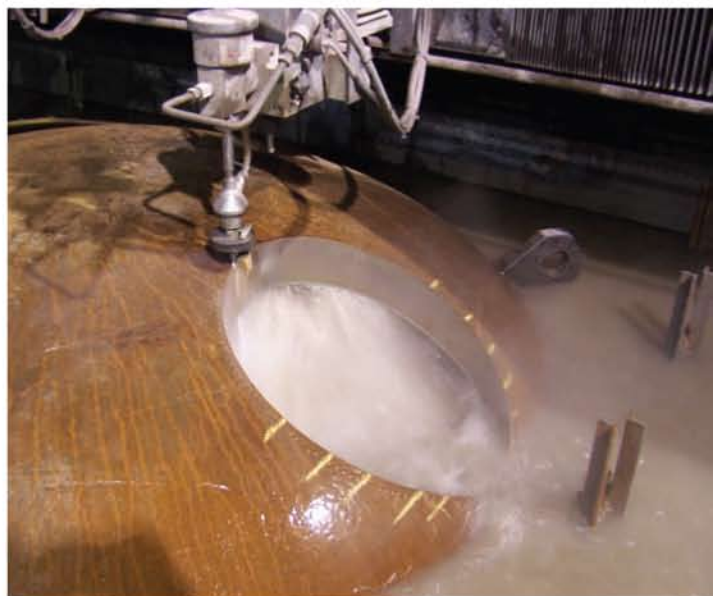
Waterjet Cutting offers unlimited possibilities. Paul Zuccatto of Advanced Profiles uses KMT water jet cutting because of the flexibility of the process and the ability to hold tighter tolerances. It can cut almost anything in any shape resulting in unlimited possibilities!

Advanced Profiles Ltd. of Ontario, Canada, uses KMT Waterjet Systems to cut 14' diameter, 1-1/2" thick 44W Carbon Steel ring parts used in the mining industry.

Still not convinced Water Jet can Cut Everything?!!!

used a KMT pump with abrasive water jet nozzle mounted to an ESAB cutting table to cut this 72" OD, 3" wall thickness, 516 Gr70 Elliptical Head. The Elliptical Head is for a 6' OD x 10' Seam-Seam Production Separator (Pressure Vessel).

The 16-1/4" hole was cut 24" off center w/axis parallel to the vessel to accommodate the weld neck flange shown. Nominal thickness for the vessel is 3" which is comprised of a 516 Gr70 shell





clad w/  $\sim 1/4$ " of Inconel Alloy 625. Because all work was done in reference to the vessel's axis actual cutting thickness ranged from 3-1/8" to 6".

Making parts for Boeing Aircraft, Davidson Fabricating located in Broomall, PA uses the KMT Streamline™ S-30 60,000psi Waterjet Cutting Pump for the production of 85-90% of the parts run through their manufacturing facility. The waterjet allows for perfect integration of multiple cutting applications from the aerospace industry to the food industry along with numerous small detail components requiring one-piece part production. Davidson & KMT were recently featured in Cutting Tool Engineering magazine detailing their "Chopper Shop" producing parts for Boeing Aircraft's Chinook helicopter and the V-22 Osprey aircraft.

"Waterjet doesn't know what it can't Cut." Krando Metal Products also of Broomall, PA satisfies their customers needs for cutting not only metal cutting, but because of the waterjet's cutting flexibility, they can cut concrete, granite and multiple other materials! Tony Di-Angelus says that since waterjet doesn't know what it can't cut, it's the most versatile cutting tool in the industry.

"Waterjet will cut most anything profitably" Rodie Woodard, President of Maximum Industries in Irving, TX attributes that 65-70% of their business is for the aerospace industry. Because of its "cool cutting process," their KMT Waterjet Cutting Systems allow them to cut the delicate designs and materials that would be damaged with a laser or other heat generating, wide kerf cutting tool.

### Waterjet Glass Cutting using KMT Waterjet Systems

"It can be done with Waterjet!"

Will Watts of Dependable Glass Works is an extreme fabricator of glass. Dependable Glass Works uses KMT Waterjet Systems to cut blast resistant, bullet-proof & monolithic glass up to 9" thick! Architects & Designers come to Dependable when others have told them "it can't be done!"

"Hey, we can do this on the Waterjet!"

Jay Leno, The Tonight Show host on NBC, is also the proud owner of "Jay Leno's Big Dog Garage," a 17,000 square



foot collection of antique automobiles spanning over 100 years, as well as hard to find motorcycles. The "Big Dog Garage" finds more & more uses for water jet cutting when restoring their classic autos & motorcycles.

### Robotic Waterjet Cutting

International Automotive Components of Mississauga, Ontario uses 6 axis robots with KMT pumps & water-only cutting valves for their cutting. Because water jet is the only cutting tool with a cutting kerf tolerance of  $\pm .001$  accuracy, IAC can hold

their required  $\pm 1$ mm to 2mm maximum tolerance on all materials and parts. For more examples of Customer Success Stories, go to [kmtwaterjet.com](http://kmtwaterjet.com). All of the above stories are also featured in video as well on the KMT Waterjet Systems website.

### Impeccable Quality!

Caesars Palace in Las Vegas is world famous for its beautiful stone, granite and tile architecture. Along with most every other Vegas hotel & casino, they have Billy Patton of Patton & Patton to thank. Patton & Patton has created memorable works-of-art out of stone for the Paris, Wynn, Venetian, Ballys, Flamingo, Harrahs, Mirage, MGM and many more! Whether its a custom designed granite roulette table, tiled lobby, exclusive shop sign, pool or spa, you can bet the Pattons and KMT had a part in it.

### Combination Waterjet/Saw Cutting

Mark Lauzon of Stone Works of Oregon uses a combination saw and KMT waterjet cutter to rapidly produce custom cut bathroom vanities, kitchen sink counters and much more with minimal scrap. Hand finishing is eliminated and perfect parts can be created when using a sawjet combination cutter. As Mark puts it, the combination of saving time with less material scrap makes for insane efficiency! Mark runs a stone cutting information website, [www.stoneadvice.com](http://www.stoneadvice.com) where you can find out more about waterjet cutting technology for the stone industry.

From 8" cutting of aluminum to 6" cutting of steel, KMT Waterjet Systems can virtually cut any materials.

### Waterjet Cutting Everyday Uses:

Metal Stainless Steel Copper Aluminum Brass Carbon Fiber Titanium Inconel Plastics Composites Circuit Boards Metal Alloys Foam Glass Bullet Proof Glass Stone Tile Marble Granite Porcelain Ceramics Wood Rubber Acrylic Food Carpet Paper Plexiglass Graphite Bronze. □

*To find out more on how water jet cutting would work in your manufacturing application, Call 800-826-9274, Contact Us or e-mail [sales@kmtwaterjet.com](mailto:sales@kmtwaterjet.com) for information on how water jet cutting can increase production speed and improve profitability at your facility.*