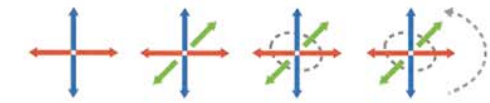


# KMT Waterjet System Integrators

## *More Options, Better Choices!*

The Power of Water



KMT Waterjet Systems has the largest and most advanced global network of Original Equipment Manufacturers (OEM) who will design, engineer, and manufacture the right waterjet cutting system for your cutting application.

The KMT Waterjet OEM network contains accomplished manufacturers in their field of integration, whether its One Dimensional, X-Y, X-Y-Z, or 4, 5 and 6-Axis (3D) Robotic cutting application.

KMT Waterjet System 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.

### **With KMT Waterjet Integrators,** **You Can Choose From These Options:**

Standard and Customized Tables ■ Multiple Cutting Heads  
X-Y, X-Y-Z, 4, 5 & 6 Axis Cutting ■ Robotic Trimming  
Combination Waterjet Systems include: Saw, Plasma, or Drill



Find a  
KMT OEM



KMT Waterjet Systems Inc.

635 W. 12th Street • P.O. Box 231 • Baxter Springs, KS 66713  
800-826-9274 • Tel.: +1-620-856-2151 • Fax: +1-620-856-5050



k m t w a t e r j e t . c o m



kmtwaterjet.com



The Heart of Waterjet Cutting



# INSIDE FEATURES

KMT Waterjet Systems History.....	3-4
Maximum Industries-Contract Cutting "Whatever It Takes" .....	5-6
Jiangsu Daming Manufacturing-World's Largest Waterjet Cutting Center.....	7-8
KMT STREAMLINE PRO <sup>2</sup> ® 90,000 psi/6.200 bar 125 HP Pump.....	9-10
KMT STREAMLINE PRO <sup>2</sup> ® 90,000 psi/6.200 bar 60 HP Pump.....	11-12
The KMT PRO <sup>2</sup> ® Topworks.....	13
Material Cut Speeds Chart @90,000 psi/6.200 bar.....	14
KMT STREAMLINE® 60,000 psi/4.137 bar Pumps.....	15-16
KMT STREAMLINE® 55,000 psi/3.800 bar Pumps.....	17-18
KMT PRO® Cutting Nozzles.....	19-20
KMT Genuine Parts and Service.....	21-22



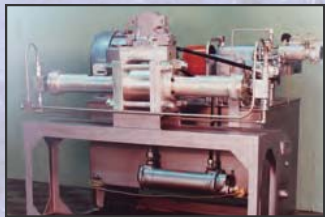
KMT Waterjet Systems is a world leader in the development of waterjet cutting technology and offers a wide range of ultrahigh waterjet pumps, advanced cutting nozzles, aftermarket KMT Genuine Parts and accessories for waterjet cutting technology. KMT Waterjet operates using a certified ISO9001 Quality Management System standard.



KMT WATERJET SYSTEMS. OVER 40 YEARS  
OF GLOBAL WATERJET TECHNOLOGY!



- 1946 McCartney Products founded by Joe McCartney, in Baxter Springs, Kansas, US
- 1951 Manufacturer of first LDPE high pressure pump with 36,000 psi/2.500 bar for the chemical industry
- 1964 Ingersoll Rand acquires McCartney Products and lays foundation for Waterjet Division



1971  
Ingersoll Rand launches the STREAMLINE® SL-I, the first 55,000 psi/4.000 bar high pressure pump for waterjet cutting

- 1986 Best-Matic opens the waterjet center in Bad Nauheim, Germany



1988  
STREAMLINE® SL-II 55,000 psi/4.000 bar introduced

- 1989 Ingersoll Rand (IR) takes over the Best-Matic Group

1990  
STREAMLINE® SL-III 55,000 psi/4.000 bar launched

- 1993 IR Bad Nauheim appointed sales office for HP pumps for ESA (Europe, Africa, Middle East & Asia)



1996  
STREAMLINE® SL-IV 55,000 psi, with fewer intensifier parts introduced

1996  
Autoline® cutting head is introduced with interchangeable orifices, representing an alignment efficiency and performance breakthrough

- 2001 AMS abrasive management system launched
- 2002 STREAMLINE™ SL-IV Plus with 60,000 psi/4.137 bar high pressure introduced

- 2003 Karolin Machine Tool (KMT) purchases the waterjet division from Ingersoll Rand



2004  
STREAMLINE® SL-V 60,000 psi/4.137 bar with HSEC (Hard Seal End Cap) Technology is introduced with a metal-to-metal seal, reducing consumables to save operating costs

- 2005 KMT acquires Aqua-Dyne® water blasting products
- 2006 KMT acquires H2O Jet™, waterjet pumps, and aftermarket parts products
- 2008 Acquisition of the KMT Group by the Swedish investment company Nordstjernan

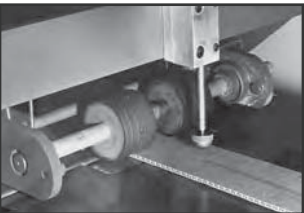
2008  
Launch of IDE® Cutting Nozzle with permanent diamond mounted orifice improving alignment and cutting performance

- 2009 KMT opens Shanghai, China office for sales and service to the Asia-Pacific Region

2009  
KMT introduced the STREAMLINE PRO® 90,000 psi/6.200 bar 60 HP Ultra-High Pressure Pump

2010  
STREAMLINE PRO® 90,000 psi/6.200 bar 125 HP Ultra-High Pressure Pump--- *World's Fastest Waterjet Cutting* is introduced

2011  
NEOLine® 55,000 psi/3.800 bar 40 HP Pump is launched as a value option for small job shops



1971  
Ingersoll Rand first commercial waterjet installation in Alton, IL

1972  
Tulsa World newspaper feature waterjet story on Ingersoll Rand and the "Blade That's Always Sharp"



1976  
Ingersoll Rand featured in Business Week magazine on General Motors' use of Waterjet cutting



# KMT WATERJET. THE BROADEST RANGE OF WATERJET SOLUTIONS!



## Maximum Industries

Irving, Texas  
maximumind.com  
972-501-9990



Video

Maximum Industries utilizes the latest technology in CNC equipment for waterjet cutting, laser cutting, machining, routing and precision laser marking. Maximum Industries has five waterjet systems including a true 5-axis system powered by the KMT STREAMLINE PRO<sup>2</sup>® 125 HP 90,000 psi pump. There are also two dual cutting head waterjet systems and two single head systems to handle large production runs and multiple projects. Maximum Industries. “Whatever It Takes” to exceed customer expectations.





# KMT WATERJET. THE POWER TO BE MORE PRODUCTIVE!

CUSTOMERS



## Jiangsu Daming Manufacturing

Wuxi, China

wuxidm.cn

0086-510-8385-8000



Video

Jiangsu Daming Manufacturing is a leading large scale stainless steel processing manufacturer with numerous locations including Wuxi, China. The production facilities machinery includes waterjet technology, laser, plasma, plate sawing, surface polishing, and processing platforms. Daming operates multiple waterjet systems including 5-axis cutting. Daming's primary contract applications include shipyards, bridges, and pressure containers.





90,000 psi/6.200 bar

KMT STREAMLINE PRO<sup>2</sup>® 125 HP

MAXIMUM POWER, MAXIMUM PERFORMANCE,  
FASTEST CUTTING!

PRODUCTS



KMT Waterjet Systems introduces the Next Generation of waterjet pumps, a 90,000 psi/6.200 bar, 125 HP pump.

The KMT STREAMLINE PRO<sup>2</sup>® 125 pump is the BEST solution for manufacturers requiring maximum performance and exceptional value.

Increased Production

With waterjet pressure up to 90,000 psi/6.200 bar, the advanced KMT STREAMLINE PRO<sup>2</sup>® 125 pump delivers the manufacturer twice the power, by cutting products in half the time over conventional 60,000 psi - 100 HP waterjet systems.

Faster, Easier Maintenance

Intelligent design simplifies and speeds the access to seals and wear parts.

Fastest Cutting in the Waterjet Industry

Continuous production of 90,000 psi/6.200 bar with dual phase intensifiers to virtually eliminate pressure drop and enables twice the cutting power over lower pressure systems. Perfect for cutting thick steel, titanium, aluminum, brass and much more.

Essential Features

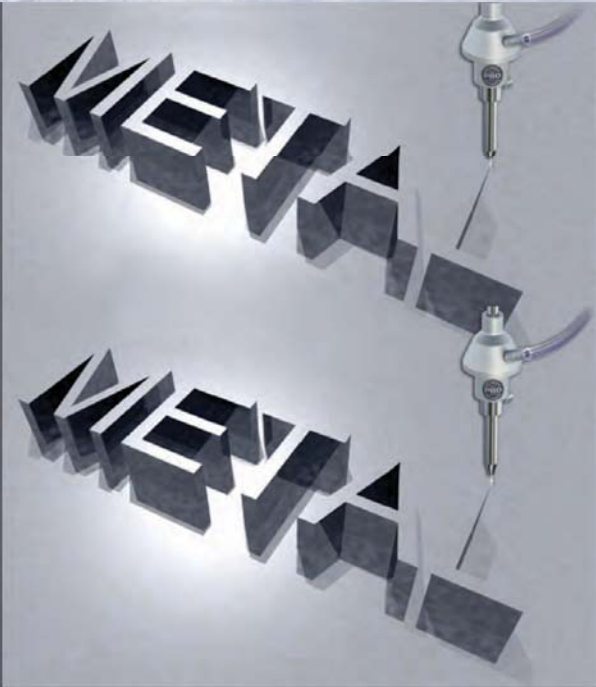
- 90,000 psi at 125 HP with dual phase intensifiers.
- Dual Intensifiers for Maximum UHP, Maximum HP and Maximum Productivity.
- Downwards compatible to 30,000 psi operational pressure when less waterjet force is needed to complete the project.
- Sophisticated software includes remote access and ability to network multiple pumps.
- Double front doors for easy access and maintenance with padded insulation for sound reduction.
- Multiple language controls.
- Ceramic plungers for maximum reliability.



Industry Standard  
60,000 psi/50 HP  
Single Head  
Cutting



Cut twice the material in  
the same time frame!



STREAMLINE PRO<sup>2</sup>®  
90,000 psi/125 HP  
Dual Head  
Cutting

Perfect for high volume production from single head to multiple cutting head requirements and for intricate detailed cutting with tight tolerance requirements.

Cut thick metals including steel, stainless steel, titanium, and aluminum.  
The KMT STREAMLINE PRO<sup>2</sup>® 125 is the World's Fastest Waterjet Cutting Solution.

SYSTEM INFORMATION:

Nominal Power Rate: 125 HP (93kW)  
Maximum Pressure Range: 90,000 psi (6.200 bar)  
Max. Water Flow Rate @ 90,000psi (6.200 bar): 1.43 gpm (5.4 lpm)  
Maximum Single Orifice Diameter: 0.016" (0.406 mm)  
Number of Language Options on Display: 5  
Control Voltage & Power Supply: 24 V DC; 5 Amps DC

Max. Noise Level: 84 dB (A)  
Ambient Operating Temperature: Min.: 40° F (5° C)  
Max.: 104° F (40° C)  
Length: 88.00" (2,230 mm)  
Width: 59.09" (1,500 mm)  
Height: 61.12" (1,552 mm)  
Weight: 6,850 lbs (3,107 kg)

High Pressure Water System  
Inlet Flow Rate: 9.2 gpm (34.8 lpm)  
Minimum Inlet Cutting Water Pressure: 35 psi (2.4 bar)  
Plunger Diameter: 0.875" (22.2 mm)  
Max. Nominal Strokes per Minute (at 90,000 psi, 6.200 bar): 45 Per Intensifier  
Accumulator Volume: 0.42 Gal. (1.6 L)

Hydraulic System  
Max. Hydraulic Pressure, Operating at Maximum Water Pressure: 2,400 psi (165 bar)  
Hydraulic Reservoir Capacity: 110 gal (416 L)  
Single Hydraulic Pump Flow Rate at 60Hz (@1,750 rpm): 64 gpm (242 lpm)

Cooling System  
Cooling Water Consumption at 75° F (24° C) Water Temp. (Max): 6.5 gpm (24.6 lpm)  
Minimum Cooling Water Pressure: 35 psi (2.4 bar)  
Options & Other Features  
Booster Pump (adjustable & protected): Included

Soft Start: Included  
Dual Pressure Control: Standard  
Dual Intensifier Topworks: Standard  
Proportional Control: Standard  
Remote Online Diagnostics (via Modem): Optional  
Digital Pressure Display: Standard



90,000 psi/6.200 bar

KMT STREAMLINE PRO<sup>2</sup>® 60 HP

INCREASE PRESSURE, INCREASE SPEED,  
INCREASE PRODUCTIVITY!

PRODUCTS



KMT Waterjet Systems introduces the Next Generation of water jet pumps, a 90,000 psi/6.200 bar, 60 HP pump. The KMT STREAMLINE PRO<sup>2</sup>® 60 pump is the BEST solution for manufacturers requiring higher performance and outstanding value.

Increased Production

With waterjet pressure up to 90,000 psi/6.200 bar, the advanced KMT STREAMLINE PRO<sup>2</sup>® 60 pump delivers the manufacturer a substantial improvement over cutting at 60,000 psi - 50 HP for a greater return on investment. When compared with 60,000 psi cutting speeds, the new STREAMLINE PRO<sup>2</sup>® 60 pump will significantly increase cutting productivity by 30% - 40%.

Faster, Easier Maintenance

Intelligent design simplifies and speeds access to seals and wear parts.

Faster Cutting

Continuous production of 90,000 psi/6.200 bar enables faster cutting over lower pressure systems. Perfect for cutting thick steel, titanium, aluminum, brass and much more.

Essential Features

- 90,000 psi at 60 HP
- Threaded, stud design utilizes hydraulic tension for ease of maintenance.
- Downwards compatible to 30,000 psi operational pressure when less waterjet force is needed to complete the project.
- Sophisticated software includes remote access & ability to network multiple pumps.
- Multiple language controls
- Maximum Pressure



Industry Standard  
60,000 psi/50 HP  
Single Head  
Cutting

**Increase Productivity!**



PRO<sup>2</sup>® 90,000 psi/60 HP  
Single Head Cutting

SYSTEM INFORMATION:

Nominal Power Rate: 60 HP (45kW)  
Maximum Pressure Range: 90,000 psi (6.200 bar)  
Max. Water Flow Rate @ 90,000psi (6.200 bar) : .73 gpm (2.8 lpm)  
Maximum Single Orifice Diameter: 0.011" (0.279 mm)  
Number of Language Options on Display: 5  
Control Voltage & Power Supply: 24 V DC; 10 Amps DC

Max. Noise Level: 72.5 dB (A)  
Ambient Operating Temperature: Min.: 40° F (5° C)  
Max.: 104° F (40° C)  
Length: 78.00" (1,981 mm)  
Width: 36.00" (914 mm)  
Height: 57.19" (1,453 mm)  
Weight: 3,450 lbs (1,565 kg)

High Pressure Water System  
Inlet Flow Rate: 4.0 gpm (15.0 lpm)  
Minimum Inlet Cutting Water Pressure: 35 psi (2.4 bar)  
Plunger Diameter: 0.875" (22.2 mm)  
Max. Nominal Strokes per Minute (at 90,000 psi, 6.200 bar): 45  
Accumulator Volume: 0.42 Gal. (1.6 L)

Hydraulic System  
Max. Hydraulic Pressure, Operating at Maximum Water Pressure: 2,350 psi (162 bar)  
Hydraulic Reservoir Capacity: 48 gal (182 L)  
Hydraulic Pump Flow Rate at 60Hz (@1,750 rpm): 64.0 gpm (242 lpm)

Cooling System  
Cooling Water Consumption at 75° F (24° C) Water Temp. (Max): 3.5 gpm (13.2 lpm)  
Minimum Cooling Water Pressure: 35 psi (2.4 bar)  
Options & Other Features  
Booster Pump (adjustable & protected): Included

Wye-Delta Starter or Soft Start: Optional  
Dual Pressure Compensator: Included  
Redundant Intensifier Topworks: Optional  
Proportional Control: Standard  
Remote Online Diagnostics (via Modem): Optional  
Digital Pressure Display: Standard



THE KMT INTENSIFIER

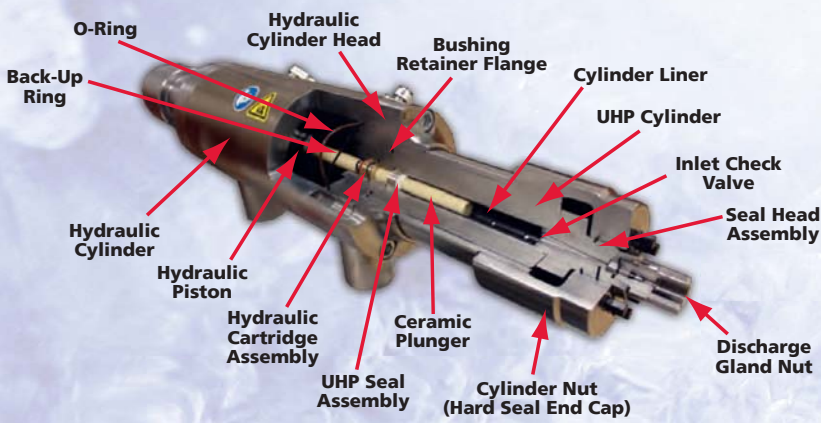
THE SOURCE OF PRESSURE. No other system incorporates the features of the KMT STREAMLINE PRO<sup>2</sup>® to deliver the simplest, easiest-to-operate, most reliable system. The KMT intensifier can be disassembled one side at a time and features quick, one-step seal replacement.

Precision Designed, Rapid Change UHP Intensifier

- Unsurpassed Productivity
- Reduced Maintenance

Benefits of KMT's Rapid Change UHP Intensifier<sup>SM</sup>:

- ✓ Maintenance friendly design = more uptime
- ✓ Reduces seal change time by 50% vs. comparable UHP pumps
- ✓ Low torque hard seal end cap metal-to-metal design
- ✓ Eliminates complicated bolt tensioning and tie rods
- ✓ No specialty hydraulic tools required
- ✓ Longer life on seals & consumable parts
- ✓ Improved cylinder alignment
- ✓ Fewer component parts
- ✓ Improved UHP cylinder, seal head and check valve life



KMT STREAMLINE PRO<sup>2</sup>® Intensifier Cross Section

Material/Cut Speeds Chart

MATERIAL	ORIFICE DIA.	0.011	0.016	Dual .011
	THIC NESS	Maximum Cut Speed ipm	Maximum Cut Speed ipm	Maximum Cut Rate ipm
Aluminum	0.5 (13mm)	55.0	76.	110.16
	1.0 (25mm)	21.14	29.26	42.2
	2.0 (51mm)	7.7	10.6	15.74
Stainless Steel	0.5 (13mm)	17.2	24.71	5.64
	1.0 (25mm)	6.4	9.47	1.6
	2.0 (51mm)	2.55	.51	5.1
Titanium	0.5 (13mm)	24.4	4.44	49.6
	1.0 (25mm)	9.5	1.20	19.07
	2.0 (51mm)	.55	4.90	7.1
Granite	0.5 (13mm)	62.16	5.72	124.2
	1.0 (25mm)	2.1	20.41	47.62
	2.0 (51mm)	.	7.4	17.66
Abrasive Flow Rate Lbs./Min.		1.1	1.7	1.1 per head



STREAMLINE PRO<sup>2</sup>®  
View Rapid Seal  
Change video



Download the  
KMT PRO<sup>2</sup>®  
90,000 psi Cut  
Calculator





60,000 psi/4.137 bar

KMT WATERJET  
STREAMLINE® PUMPS

THE RIGHT PUMP MATTERS!

PRODUCTS

High Pressure Pumps for 60,000 psi Cutting  
KMT STREAMLINE® Series Pumps  
The Industry Standard and an Exceptional Value



STREAMLINE® SL-V 50 Plus  
(50 HP)

STREAMLINE® SL-V 50 Plus Specifications

Nominal Power Rate	50hp (37 kW)
Max. Continuous Pressure	60,000 psi (4.137 bar)
Max. Water Flow Rate	1.0 gpm (3.79 L/min)
Max. Single Orifice Dia. (Full pressure)	.014 in. (0.355 mm)
Control Voltage & Power Supply	24V DC; 10 Amps DC
Ambient Operating Temperature	Min. 40 F (5 C), Max. 104 F (40 C)
Hydraulic Reservoir Capacity	28 gal (106 L)
Cooling Water Flow 75 (24 C) Water Temp.	3 gpm (11.4 L/min)
Attenuator Volume	.25 gal (.96 L)
Length	67.75" (1.7 m)
Width	36" (914 mm)
Height	57.19" (1,453 mm)
Weight	2,900 lbs.



STREAMLINE® SL-V 100 Plus (100 HP)  
(Also available in 75 HP, 60 HP & 30 HP)

The KMT STREAMLINE® Series utilizes the latest technology and an innovative design for ease of use, reliability and convenience. The result is a system that delivers the highest efficiency and profit.

Our full-featured, SL-V pumps are available in more sizes and with new "Cutting Edge" options only from KMT Waterjet. These pumps are the easiest to maintain and the most advanced STREAMLINE® pumps ever offered. Depending on pressure and water quality, KMT seals last longer than any other system – allowing for continuous operation in the most demanding production schedules.

STREAMLINE® SL-V 100 Plus Specifications

Nominal Power Rate	100hp (75 kW)
Max. Continuous Pressure	60,000 psi (4.137 bar)
Max. Water Flow Rate	2.0 gpm (7.57 L/min)
Max. Single Orifice Dia. (Full pressure)	.020 in. (0.508 mm)
Control Voltage & Power Supply	24V DC; 10 Amps DC
Ambient Operating Temperature	Min. 40 F (5 C), Max. 104 F (40 C)
Hydraulic Reservoir Capacity	48 gal (182 L)
Cooling Water Flow 75 (24 C) Water Temp.	4 gpm (15.1 L/min)
Attenuator Volume	.51 gal (1.92 L)
Length	77.75" (2.0 m)
Width	36" (914 mm)
Height	57.19" (1,453 mm)
Weight	4,200 lbs.



STREAMLINE® SL-V 200R Plus  
(200 HP)

Easiest to Maintain

- Single Topwork per Pump – 60,000 psi is produced with just one topwork, delivering lower maintenance costs, and quieter operation with fewer parts.
- Larger Plunger – The longer, slower strokes of the ceramic plunger move more water with each stroke, providing more uptime and longer seal life.
- "Quick Release" Plunger – Exclusive plunger removal design simplifies removal. Cartridge seal system design is the fastest change-out design and provides a redundant sealing system.

STREAMLINE® SL-V 200R Plus Specifications

Nominal Power Rate	200hp (149 kW)
Max. Continuous Pressure	60,000 psi (4.137 bar)
Max. Water Flow Rate	4.0 gpm (14 L/min)
Max. Single Orifice Dia. (Full pressure)	.028 in. (0.71 mm)
Control Voltage & Power Supply	24V DC; 10 Amps DC
Ambient Operating Temperature	Min. 40 F (5 C), Max. 104 F (40 C)
Hydraulic Reservoir Capacity	125 gal (473 L)
Cooling Water Flow 75 (24 C) Water Temp.	16 gpm (61 L/min)
Attenuator Volume	.8 gal (3 L)
Length	91" (231 cm)
Width	67" (170 cm)
Height	70" (178 cm)
Weight	9,220 lbs.



STREAMLINE® SL-V 15 Plus  
(15 HP)

Optional Redundant Topworks

- Adding a Redundant Topworks provides a completely identical high pressure production system to any pump over 15 HP. Activating the redundant system takes just a few minutes and maintains a continuous flow of maximum high pressure for continuous production. The option is well worth the investment for shops under tight production schedules and in need of continuous, reliable production from just one machine. It is nearly the equivalent of having two pumps in one, while consuming less space - and far less capital.

STREAMLINE® SL-V 15 Plus Specifications

Nominal Power Rate	15hp (11kW)
Max. Continuous Pressure	60,000 psi (4.137 bar)
Max. Water Flow Rate	0.30 gpm (1.14 L/min)
Max. Single Orifice Dia. (Full pressure)	.007 in. (0.178 mm)
Control Voltage & Power Supply	24V DC; 10 Amps DC
Ambient Operating Temperature	Min. 40 F (5 C), Max. 104 F (40 C)
Hydraulic Reservoir Capacity	12 gal (45 L)
Cooling Water Flow 75 (24 C) Water Temp.	2 gpm (7.6 L/min)
Attenuator Volume	.11 gal (.41L)
Length	56" (1.4 m)
Width	28" (711 mm)
Height	33" (838 mm)
Weight	1,800 lbs.



55,000 psi/3.800 bar

KMT WATERJET

THE BROADEST RANGE OF WATERJET PUMPS!

PRODUCTS



NEOLine® 40i  
(40 HP)

High Pressure Pumps for 55,000 psi Cutting  
**KMT NEOLine® and  
STREAMLINE® Series**  
Proven Reliability & Most Affordable



Download  
the 60,000 psi  
Cut Calculator

The Perfect Solution for Small Job Shop Cutting

The KMT Waterjet NEOLine® 40i Pump is the NEW Low Cost Option for Multiple Waterjet Cutting Applications.

The KMT Waterjet NEOLine® 40i pump uses KMT proven intensifier technology for superior performance with less maintenance.

The durable and reliable NEOLine® 40i pump is ideally suited for small job shops, sign and automotive shops requiring the versatility and flexibility found only with waterjet cutting.

The NEOLine® 40i features a new, low profile cabinetry design for easy access to pump controls and components along with 55,000 psi operating pressure to cut steel, glass, granite, tile, plastic, aluminum, stone and much more.

NEOLine® 40i Specifications

Nominal Power Rate	40hp (29 kW)
Max. Continuous Pressure	55,000 psi (3.800 bar)
Max. Water Flow Rate	0.72 gpm (2.73 L min)
Max. Single Orifice Dia. (full pressure)	.012 in. (0.30 mm)
Control Voltage & Power Supply	24V DC; 5 Amps DC
Ambient Operating Temperature	Min. 40 F (5 C), Max. 104 F (40 C)
Hydraulic Reservoir Capacity	32 gal (121 L)
Cooling Water Flow 75 (24 C) Water Temp.	3 gpm (11.4 L min)
Attenuator Volume	.26 gal (1L)
Length	56.53" (143.58 cm)
Width	42" (106.68 cm)
Height	39.5" (100.33 cm)
Weight	2,000 lbs.



STREAMLINE® SL-V E-Series  
(Available in 30 HP & 50 HP)

The E-Series of KMT STREAMLINE® pumps are equipped with the most popular and essential pump features for efficient production of 55,000 psi water pressure, at a very economical price.

Efficient Design

Controls include the dual pressure compensator (providing two pressure levels) but exclude features enabling use of the proportional control (electronic pressure adjustment).

The frame was redesigned to be less expensive, while remaining open and functional. Top covers have also been eliminated.

STREAMLINE® SL-V E-Series Specifications

	E-30	E-50
Nominal Power Rate	30hp (22 kW)	50hp (37 kW)
Max. Continuous Pressure	55,000 psi (3.800 bar)	55,000 psi (3.800 bar)
Max. Water Flow Rate	0.6 gpm (2.3 L min)	1.0 gpm (3.8 L min)
Max. Single Orifice Dia. (full pressure)	.011 in. (0.28 mm)	.014 in. (0.36 mm)
Control Voltage & Power Supply	24V DC; 5 Amps DC	24V DC; 5 Amps DC
Ambient Operating Temperature	Min. 40 F (5 C), Max. 104 F (40 C)	Min. 40 F (5 C), Max. 104 F (40 C)
Hydraulic Reservoir Capacity	40 gal (154 L)	40 gal (154 L)
Cooling Water Flow 75 (24 C) Water Temp.	1.5 gpm (5.7 L min)	3 gpm (11.4 L min)
Attenuator Volume	.26 gal (1L)	.26 gal (1L)
Length	68" (1.727 mm)	68" (1.727 mm)
Width	36" (914 mm)	36" (914 mm)
Height	49.2" (1,250 mm)	49.2" (1,250 mm)
Weight	2,350 lbs.	2,615 lbs.



STREAMLINE® S-Series  
(Available in 30 HP & 50 HP)

KMT Waterjet offers the S-Series, an intensifier pump manufactured for complete system integration.

The S-30 & S-50 intensifiers are designed for the user that prefers to design and build the pump control logic, including shutdown due to overstroking, overheating, loss of water pressure and all other aspects of pump control.

STREAMLINE® S-Series Specifications

	S-30	S-50
Nominal Power Rate	30hp (22 kW)	50hp (37 kW)
Max. Continuous Pressure	60,000 psi (4.137 bar)	60,000 psi (4.137 bar)
Max. Water Flow Rate	0.52 gpm (1.97 L min)	0.88 gpm (3.3 L min)
Max. Single Orifice Dia. (full pressure)	.010 in. (0.25 mm)	.014 in. (0.35 mm)
Control Voltage & Power Supply	24V DC; 5 Amps DC	24V DC; 5 Amps DC
Ambient Operating Temperature	Min. 40 F (5 C), Max. 104 F (40 C)	Min. 40 F (5 C), Max. 104 F (40 C)
Hydraulic Reservoir Capacity	28 gal (106 L)	40 gal (154 L)
Cooling Water Flow 75 (24 C) Water Temp.	2.5 gpm (9.5 L min)	3 gpm (11.4 L min)
Attenuator Volume	.25 gal (.96L)	.25 gal (.96L)
Length	44" (1.118 mm)	84.25" (2.140 mm)
Width	37" (940 mm)	39" (991 mm)
Height	36" (914 mm)	44.8" (1,140 mm)
Weight	2,101 lbs.	3,100 lbs.







**Abrasive Cutting Nozzle  
AUTOLINE® PRO**

High Speed, Self-aligning, Cutting Nozzle

Independent tests prove the KMT Autoline Series of Abrasive Cutting Nozzles cut faster and at a lower cost than any other nozzle. The Next Generation of the Autoline Series, the KMT Autoline PRO, is designed to provide the ultimate in cutting efficiency at 100,000 psi, while maintaining ease of use and exacting performance.

**Next Generation, Simplified Modular Design**  
The new 90,000 psi/6.200 bar Autoline PRO has the same modular design and components found in the KMT Autoline. Like the original KMT Autoline, all wear components can be changed individually, as needed, allowing maximum efficiency. In all abrasive cutting heads, there are three areas of wear: the orifice, the mixing chamber, and the focusing tube. The Autoline enables the individual replacement of any wear component, giving you the lowest operating cost.

**Proven to be Best**  
Independent tests have shown that the KMT Autoline design is the ultimate in efficiency and has the lowest operating cost. Tests performed by the University of Missouri-Science & Technology showed that the Autoline design achieved the best overall cutting performance for speed and efficiency. Fast cutting and low abrasive consumption helped it to win the top position. Of course, if you're more interested in speed, the orifice can be replaced in seconds with a larger size with just a quarter turn of the insert body.

The net result is an outstanding nozzle that delivers a sharper, more coherent, cutting stream for faster cutting while using less abrasive. The new KMT Autoline PRO is the best, most precise option.

- Summary of Features
- Wear Insert: Larger & relocated for visibility & easy access.
  - Same Interior Geometries as Autoline: High performance with very efficient abrasive usage.
  - Easy Orifice Change: No tools required.
  - Weep Hole Indicator: Shows when orifice needs to be tightened further, eliminating over tightening to protect both the orifice and the nozzle tube.
  - Redesigned: No tool, no designed for easy focusing tube tightening and disassembling.
  - Angled Abrasive Inlet: Inlet is mounted at an angle which allows for a smoother abrasive flow.
  - Easier Hose Attachment: Abrasive feed hose slips over inlet for easier visual attachment.



**Diamond Cutting Nozzle  
IDE® PRO**

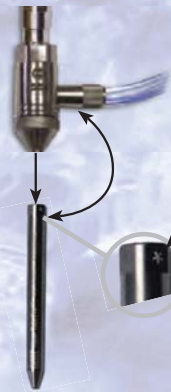
The Next Generation in Ultra High Pressure Diamond Abrasive Cutting

The KMT 90,000 psi/6.200 bar, Integral Diamond Eductor 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:

- Up to 50% more productivity no maintenance down time
- From 10 to 20 times greater mean time between failure
- Superior edge quality

KMT's expertise in diamond orifice manufacturing brings you a superior cutting head that has revolutionized the abrasive cutting industry.

**HyperTube™ PRO Indexing Focusing Tube  
for the IDE™ PRO & Autoline™ PRO**



**Indexing Feature:**  
Before using HyperTube™ PRO, line up "star" marking on same face as the abrasive feed connection.  
  
**Rotate 90° clockwise on a regular, scheduled maintenance program 3X before replacing.**

**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. (HyperTube PRO Trademark: S Patent Pending)

- Summary of Features
- Innovative Diamond Mounting Design Improves Alignment & Cutting Performance
  - Newly Designed Nozzle Increases Performance
  - Less Seal Torque Required
  - User-Friendly Retrofit for Current Users
  - Engineered for the Next-Generation Faster Cutting Streamline PRO 90,000 psi Pump



**Pure Water Pneumatic Nozzle  
AQUALINE**

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.

Any production stop is equivalent to expensive delays and shutdowns of processes further down the production line.

**Wide Range of Applications**  
Pure water cutting applications usually work with significantly higher cutting speeds compared to those of abrasive cutting. The typical applications of this nature are found in the Automotive and Aerospace Industries, as well as miscellaneous plastic and composite paneling.askets, foams and food are also sizeable application areas for pure waterjets.

**Reliability under Extreme Conditions**  
Our Aqualine pure water cutting head has gained an industry-wide reputation for being among the quickest and the most reliable pure water cutting heads under extreme working conditions. The heads have the fastest reaction times while maintaining long component lifetimes with high quality.

**Compact Design for Flexibility**  
The Aqualine head is lightweight and ensures flexibility in both multi-head and 2-D applications.

**Backup Solutions**  
The compact design allows it to be adapted to multiple cutting nozzles on a 1- or 2-D cutting machine to increase production throughput. The compactness also creates the possibility of installing a second set of cutting heads as a backup or redundant solution. In practice, more than 12 cutting heads have been hooked up to a single cutting system.

**Ease of Maintenance**  
Leak holes protect the nozzle body, nozzle tube and nozzle nut from damages and indicate clearly which connection has to be tightened or which seal has to be replaced. The unique design allows for replacing the seal in under 5 min.

\*KMT Autoline® and IDE® cutting nozzles are also available in pressure rated at 60,000 psi.

NUMBER OF CUTTING HEADS POSSIBLE @ 90,000 psi/6.200 bar MAXIMUM PRESSURE

Orifice Size	Inch	0.004	0.005	0.006	0.007	0.008	0.009	0.010	0.011	0.012	0.013	0.014	0.015	0.016
	mm	0.10	0.13	0.15	0.18	0.20	0.23	0.25	0.28	0.30	0.33	0.35	0.38	0.40
Pump Size	60 HP	7	4	3	2	1	1	1	1	0	0	0	0	0
	125 HP	15	10	6	5	4	3	2	2	1	1	1	1	1





**KMT Genuine Parts**

There's No Substitute for Proven Precision and Reliability. For over 40 years, KMT Waterjet Genuine Parts are manufactured in the USA using the exact specifications as the original parts for KMT new pumps.

**BENEFITS OF KMT GENUINE PARTS**

- KMT Genuine Parts receive quality control inspections for superior durability.
- KMT Genuine Parts maintain pump warranty.
- KMT Genuine Parts are made to precise specifications best suited for KMT Pumps.
- 24/7 access to Customer Service and Technical Service.
- New improvements made to KMT Genuine Parts are incorporated into KMT Genuine aftermarket parts.

**KMT Genuine Service**

*Experienced Support for Maximum Performance and Reliability.*

KMT Technicians provide the waterjet industry's best technical support averaging over 15 years waterjet experience.

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

**BENEFITS OF THE KMT PM PROGRAM**

- Improves operational performance, efficiency and dependability.
- Minimize maintenance costs.
- Reduce down times.
- Enable end users to focus resources on core business.
- Improve parts life and reduce down time with proper seal replacements.

**KMT Waterjet Preventive Maintenance  
Comprehensive 65 Point Inspection****INTENSIFIER**

1. HP Cylinders
2. Seal Heads
3. HP Seals
4. Liners
5. Plungers
6. Hydraulic Head
7. HSEC Nut
8. Jacking Bolts
9. Hydraulic Cylinder
10. Proximity Switch
11. Piston Assembly
12. Hydraulic Seal Cartridge
13. Hydraulic Seal Retainer
14. O-rings
15. Backup Ring
16. Retaining Ring

**MOTOR/PUMP**

17. Bearing Grease
18. Noise
19. Vibration
20. Leaks

**ELECTRICAL**

21. Display Function
22. Power Supply Test
23. Voltage Check
24. Cable Inspection

**CUTTING HEADS**

Autoline®, IDE® & Aqualine™

53. Actuator
54. N.C. Valve Body
55. Seals
56. Stem & Seat
57. Nozzle Tube
58. Wear Insert
59. Orifice
60. Focus Tube

**HIGH PRESSURE SYSTEM**

34. HP Bent Tubing
35. Attenuator
36. N.O. Valve
37. Seals
38. Stem & Seat
39. HP Fittings
40. Transducer

**LOW PRESSURE SYSTEM**

41. Water Filters
42. Check Valves
43. Relief Valve
44. Booster Pump
45. Hoses
46. Pressure Switches
47. Pressure Gauges

**COOLING**

48. Modulating Valve
49. Heat Exchanger
50. Temperature Gauge
51. Hoses
52. Temperature Sensor

**HYDRAULIC**

25. Piston Pump
26. Recirculation Pump
27. Compensators
28. High Pressure Relief Valve
29. Low Pressure Relief Valve
30. Pressure Gauge
31. Main Relief Valve
32. Directional Valve
33. Hoses & Fittings

**ABRASIVE FEEDERS AND VESSELS**

Feedline V, Feedline Precision, ADS 500 & 2,000 LB.

61. Abrasive Hopper
62. Metering System
63. Wear Insert
64. Transfer Hoses
65. Abrasive Output

**AFTERMARKET TEAM****IMPORTANT**

- Imitation parts DO NOT meet KMT stringent requirements.
- Imitation parts may reduce component lifetimes.
- Imitation parts may compromise safe failure modes.
- Use of Imitation parts WILL void KMT pump warranty.