



# Ultra-High Pressure Pumps

## STREAMLINE™ SL-V

### High Performance Waterjet Technology





## **KMT. Creating value through precision.**

KMT WATERJET SYSTEMS is a major manufacturer of waterjet cutting systems and develops system solutions for clients in a very wide range of industries. Strong waterjet experience, customer relationships and advancements in technology have given the company a unique position on the market at the forefront of the industry.

The systems made by KMT WATERJET are known for ease of use, intelligent design and reliability. These systems have been proven useful in the most demanding, ultra-high-speed robotic systems and in high-volume 1-D, 2-D and multiple axis' production environments for cutting metal, glass, ceramics, plastics, composites as well as fresh produce and other products.

Experience working with these installations has enabled the employees of KMT WATERJET to find solutions for a wide range of customers.

In addition, by drawing on relationships with a large global network of waterjet companies in the world, KMT WATERJET is able to find solutions for customers with even the most demanding applications.

Coupling this experience with the research and development required to find industrial solutions, the employees of KMT WATERJET have been able to continually advance the technology. Efforts are focused on delivering the most advanced, easiest-to-use waterjet systems.

For the best waterjet system for your individual requirements, rely on the "Cutting Edge Solutions" delivered by the people at KMT WATERJET



## Table of Contents

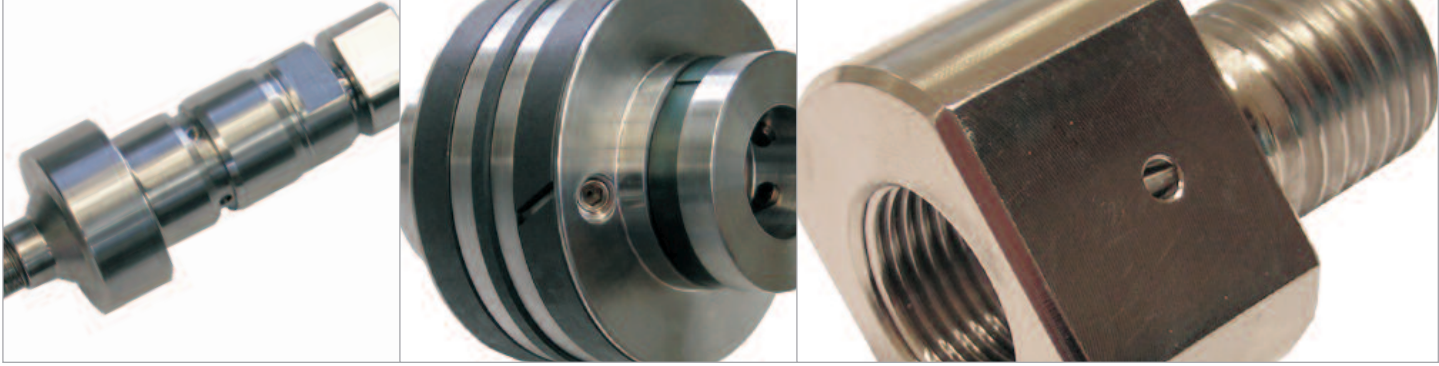
Establish your Competitive Edge by Using of the Expert's Pump Technology	4
High Pressure Generation by STREAMLINE™ SL-V Series	4
How to Choose the Right Pressure System	4
The New Intensifier in HSEC Design	6
STREAMLINE™ SL-V 15	8
STREAMLINE™ SL-V 30 / 50 / 60 / 75 /100	8
Technical Specifications, Features, Accessories & Options	10
STREAMLINE™ SL-V-Classic high-pressure pump	12
STREAMLINE™ 150/200	14

**6,200 bar High-Pressure Innovations**

- STREAMLINE™ PRO-I ultra high-pressure pumps
- PRO series cutting heads
- AMS PRO abrasive management system
- PSC PRO installation parts

**High-Tech Waterjet Cutting**

Ask about our "PROLINE" brochure and discover the benefits of water-jet cutting with 6,200 bar.



## Establish your Competitive Edge by Using the Expert's Pump Technology

### Expert Experience for Your Profit

For more than 40 years, the waterjet cutting industry has grown into a leading flexible production technology for a huge variety of different materials. The history of KMT WATERJET strengthens the company's stance as a pioneer in this industry by continuously pushing the development of advanced solutions.

### Waterjet – The Most Flexible Cutting Tool

Our cutting method is known to be an extremely user- and environmentally friendly technology. The cold cutting method does not change the material structure due to heat effects; no toxic smoke, vapor or dust endanger the operator and almost any given material up to 150 mm/6 inches and even thicker can be cut.

### KMT WATERJET SYSTEMS – State of the Art High Pressure Generation for Today and Tomorrow

Today's operating pressures of up to 4,136 bar/60,000 psi give a large impact on the high performance of modern waterjet cutting. This enormous pressure has been generated for decades by our well known STREAMLINE™ pump series. A culmination of advancements developed over the period of many years, the new STREAMLINE™ SL-V line is designed to meet your needs today and well into the future by delivering first-rate performance, flexibility and investment returns.

### STREAMLINE™ SL-V Series – The Most Convenient Ultra High Pressure Generation

Our new STREAMLINE™ SL-V pump series follows the trend of easier, more reliable and more convenient operation.

### Less Wear Parts – Faster Cutting – Cleaner Edges

Significant advances were achieved, extending the up-time of your cutting system, by eliminating high pressure seals and changing materials used for other components at pressure levels of up to 4,136 bar/60,000 psi. The increased pressure enables you to cut at higher speeds and to achieve cleaner edges.

### Better Ergonomics

Performing maintenance on the SL-V is very easy, due to care taken in the design of the unit. From the top cover, which opens on both sides, to the high pressure intensifier, which can be disassembled on one end at a time, extreme convenience was a high priority.

### Built-In Safeguards

Hightech software and built-in sensors provide protection and immediate access to information. More control and information is available faster.

### Long-Term Competitiveness

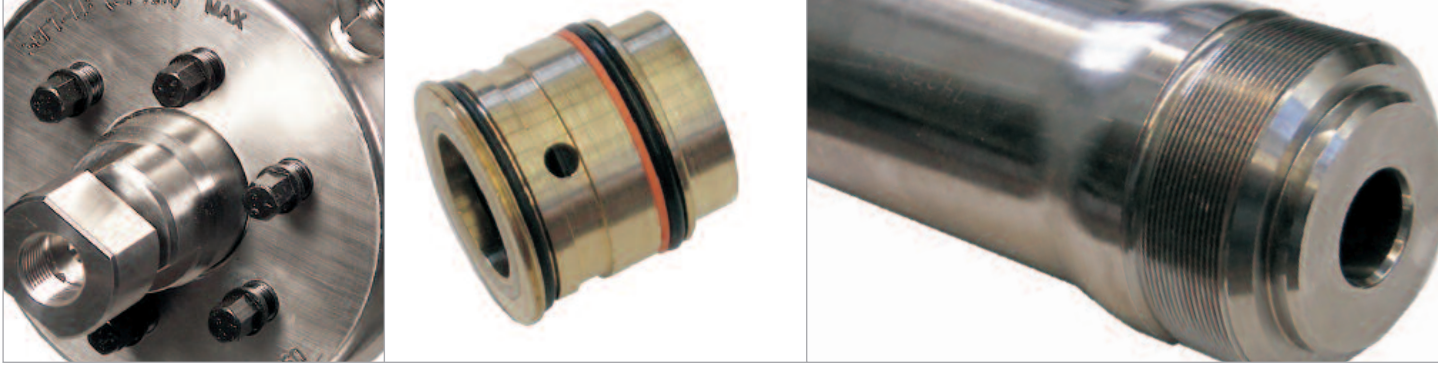
We are continually adding new technology to our pumps and making it available as retrofit kits for older pumps. Buy a KMT WATERJET pump today and be assured that you will have access to the most efficient and latest technology long into the future.

## Choosing the Right Pressure System

The following tables can be used to find the high pressure system that is best for a specific application. There are three main variables driving the choice:

- 1) **Type of material** – determines the size requirement of the orifice (focusing channel that restricts the release of water under pressure and determines the diameter of the waterjet). The orifice size required will vary, based on material type and thickness and will determine the volume of water consumption.
- 2) **Cutting speed** – determines the number of orifices needed to meet your production requirements. Speed per cutting head will vary based on the thickness of the material, the operating pressure, the quality and quantity of abrasive, the shape to be cut and type of edge finish desired. The tables below are based on producing a medium to fine edge finish.
- 3) **Size and number of orifices needed** – determines the volume of water to be released. Larger orifices release more water; adding more orifices multiplies the demand on the pump.

For personal assistance in selecting the high pressure system which is right for a specific application, call KMT WATERJET. If you do not find your individual material in the list below, our KMT experts will help you to determine the relevant cutting speeds for you.



**Step 1** – Determine the approximate Cutting Speed Rates required. By knowing the speed rate and estimating the

orifice size range, a decision can be made on the number of cutting heads required.

**Abrasive Materials**

Material	Thickness [mm]	Diameter of Water Orifice [mm] / Focusing Tube [mm]			
		0.17 / 0.54	0.25 / 0.76	0.30 / 0.90	0.35 / 1.10
		Cutting Speed [mm/min]			
Aluminum	5	315 – 470	595 – 855	750 – 1,200	970 – 1,470
	10	140 – 215	270 – 385	340 – 540	440 – 665
	20	65 – 95	120 – 175	155 – 245	200 – 300
Stainless Steel	5	110 – 160	205 – 295	255 – 410	335 – 505
	10	50 – 75	95 – 135	115 – 185	150 – 230
	20	25 – 35	45 – 60	55 – 85	70 – 105
Titanium	5	125 – 190	235 – 340	300 – 480	385 – 585
	10	60 – 85	105 – 150	135 – 215	175 – 265
	20	25 – 40	50 – 70	60 – 100	80 – 120
Marble	10	350 – 440	555 – 800	705 – 1,130	910 – 1,380
	20	160 – 200	255 – 360	320 – 510	410 – 625
	40	70 – 90	115 – 160	145 – 230	185 – 280
Glass	5	520 – 780	980 – 1,420	1,240 – 1,995	1,610 – 2,440
	10	235 – 350	445 – 635	560 – 890	725 – 1,100
	20	105 – 160	200 – 290	255 – 405	330 – 495

at 3,600 – 4,136 bar; 250 – 450 g/min abrasive flow; surface quality: medium – fine

**Pure Water Materials**

Due to large variations on the structure of those materials usually cut with a pure waterjet, general values for the relevant cutting speeds are impossible to list in an accurate fashion. These figures can only be determined precisely in a test cut

procedure. Please feel free to provide us with a sample of your material for this purpose so we can determine your parameters.

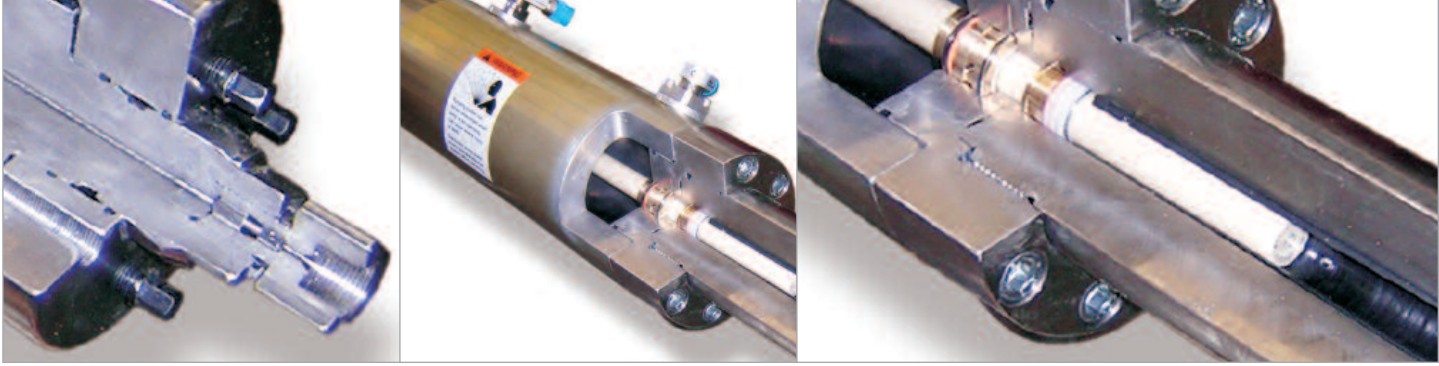
**Step 2** – Determine, based on the orifice size and number of cutting heads, the size of the machine. KMT WATERJET

has one type of system available. The “Plus” system, capable of sustaining 4,136 bar / 60,000 psi.

Orifice Size	SL-V 15S	SL-V 30S Plus	SL-V 50S Plus	SL-V 60S Plus	SL-V 75S Plus	SL-V 100S Plus
0.10	3	5	9	11	14	19
0.12	2	4	6	8	9	13
0.15	1	3	4	5	7	9
0.17*	1	2	3	3	5	6
0.20	1	1	2	3	4	5
0.23*	–	1	2	2	3	4
0.25*	–	1	1	2	2	3
0.28	–	–	1	1	2	2
0.30*	–	–	1	1	1	2
0.33*	–	–	1	1	1	2
0.35*	–	–	–	1	1	1
0.40	–	–	–	–	1	1

at 4,136 bar

\* This orifice size is used for abrasive cutting also.



## The Intensifier: The Reliable Heart of all STREAMLINE™ SL-V Ultra-High Pressure Pumps

The source of the power in high pressure systems is found in the intensifier. KMT WATERJET has modified that source to set new standards in terms of user friendliness, maintenance requirements and overall reliability.

### Plunger

**Ceramic Plunger** – Harder and smoother surface resists best against wear, eliminates scoring and increase seal lifetimes



**Exclusive Long, Slow Stroke** – Reduced maintenance at extended seal life are a result of the longer (8") stroke generating less stress reversals than alternative products

### HYPERLIFE™ Seal Kit

Patented high pressure seal design ensures optimized lifetime.



### "One-Step" Seal and Valve Replacement

Low and high pressure valves installed in the check valve body can be replaced in one step within a period of 5–10 minutes only.



### Weep Hole Indicators

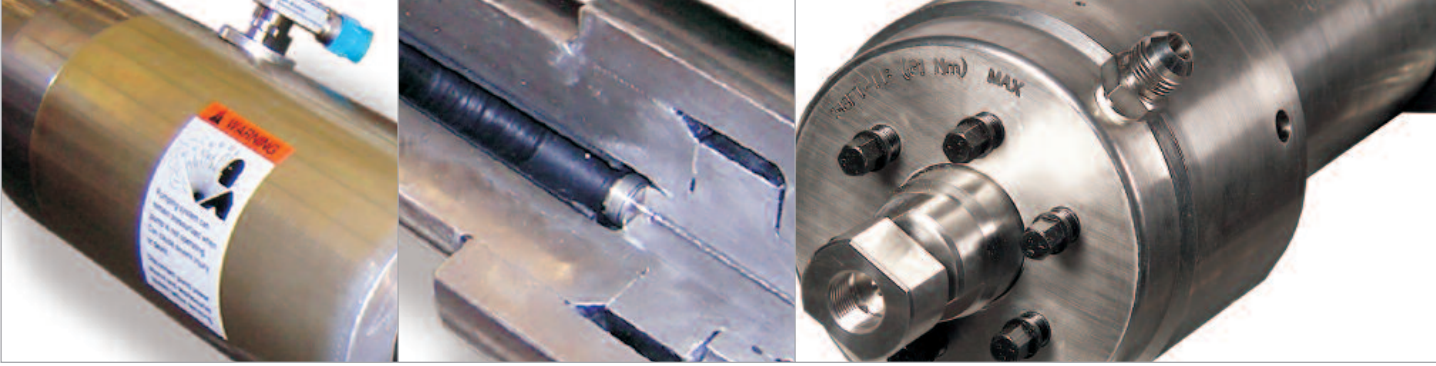
Weep holes reveal the condition of internal seals to protect all high pressure components from major damage due to wear and to achieve maximum lifetimes of the components.



### Hydraulic Seal

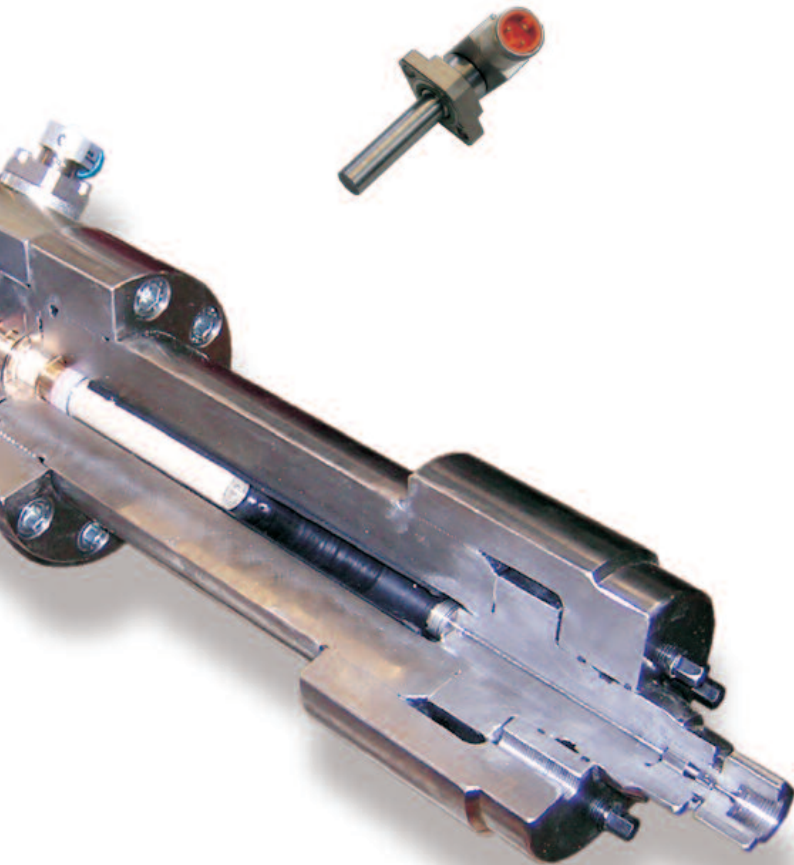
The convenient, cartridge-style seal in the intensifier combines 6 seals on one cartridge; it can be changed quickly without the need to disassemble the entire hydraulic section of the intensifier.





**Electronic Shifting**

Electronics provide reliable signals for smoother shifting to contribute to a stable pressure signal, which is needed to achieve best cutting edge quality.



**Hard Seal Connection**

The innovative, new end cap design provides a metal-to-metal seal, eliminating rubber seals thus reducing consumables and saving operating costs at increased uptime of your cutting system.

**Bolted End Cap for the Cylinder**

New design is easier and much more convenient to service at minimum torque of just 48 Nm which is needed to tight a screw M10- 8.8. Maintenance can be done to just one side of the intensifier without removing the entire intensifier.



**“Quick Release” Plunger Concept**

To remove the ceramic plunger from the hydraulic piston it needs just 4 steps without the need to disassemble the entire hydraulic section.

**“Quick Release” Plunger** – Patented design makes it easy and fast to remove the plunger (see picture below) and access the hydraulic cylinder seal cartridge. Removal of the plunger is done by sliding a tool over the plunger, rotating it and extracting the tool and plunger

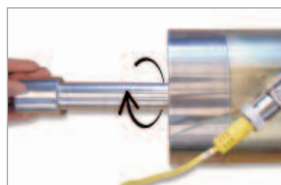
Step 1



Step 2



Step 3



Step 4





## STREAMLINE™ SL-V 15S

**The smallest pump in the SL-V family delivers big performance and reliability – fitting for a product bearing the STREAMLINE™ name.**

### For Light Duty Applications

This pump was designed specifically for light-duty applications demanding a reliable source of high pressure. It is dedicated to cutting systems using one to three cutting heads to cut soft materials with a pure waterjet. Such materials would be foam, gaskets, rubber, plastics, paper etc.

### Compact Design for Convenient Integration

The compact design of the STREAMLINE™ SL-V 15S supports the machine manufacturer to integrate the pump in his individual systems design communicating with the control system of the entire machine. On the other hand, it can also be installed as a stand alone unit. It does not require

much space and all components are very easy to access for maintenance. For better visibility and ease of maintenance, it provides an open view to the high pressure generating intensifier.

### Safety Functions and Features

The safety dump valve kit releases the pressure from the system as soon as the pump shuts off by pressing the emergency stop. It shuts off automatically if the oil level is below the minimum level or if the oil overheats. In these cases a red light also starts in order to remind the operator on the abnormal operating condition to protect the system from any kind of damage.

### Options

On request, our STREAMLINE™ SL-V 15S can be equipped with an oil / air cooler. In some applications where laminated material is cut, variable pressure adjustment is required. The integration of an optional proportional valve helps to satisfy these demands.



### Abrasive Cutting Also Possible

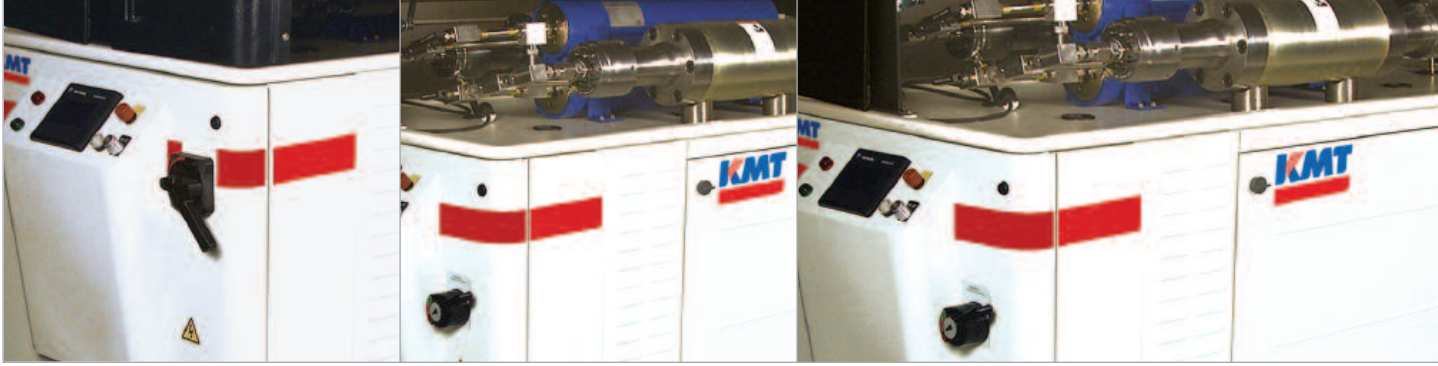
The pump also has the capability to supply one abrasive cutting head for cutting harder materials of smaller thickness. It allows to operate the lowest orifice combination needed for abrasive cutting: Inner diameter of water orifice = 0.17 mm/0.007"; inner diameter of focusing tube = 0.54 mm/0.021". If you intend to use your system mainly for abrasive applications and if the thickness of the materials varies case by case, you should consider the installation of a more powerful STREAMLINE™ pump, which we introduce on the next page. One of these pumps will enable you to use orifice combinations which can cut any material of almost any thickness of up to 150 mm and even thicker.

### Heat Exchanger Included

The standard unit includes an oil / water heat exchanger, which can be connected to a closed loop cooling system or to an open water circuit whatever the local circumstances require.

### Hard Seal End Cap HSEC Technology

The HSEC design, which is common to the entire SL-V series meets all the expectations required from the field to run the pump at a maximum uptime level. Ceramic plunger as well as HYPERLIFE™ seal technology, smooth and precise hydraulic shifting and the long 200 mm/8" stroke supported by an 0.5 l attenuator contribute to minimum wear in the high pressure section of the pump.



## STREAMLINE™ SL-V 30S, 50S, 60S 75S & 100S

**Our STREAMLINE™ SL-V STD and Plus series represents the latest KMT WATERJET quality standard. Top level pressure generated by the new Hard Seal End Cap (HSEC) topwork design determine the trend in the waterjet cutting industry.**

### **Any Application Possible in Any Kind of Installation**

The STREAMLINE™ SL-V Plus pumps enable you to use the generated pressure for both pure water and abrasive applications. Regardless of how your machine concept is designed: The STREAMLINE™ SL-V Plus pumps can be installed and operated either independently or they can be controlled remotely through any kind of central control system.

### **Designed for Multiple Shift Operation**

Day by day, hundreds of our STREAMLINE™ pumps do their job, often up to 3 shifts per day. In particular, automotive endusers honor their outstanding high reliability level.

### **Working Pressure of up to 4,136 bar**

The pump units are available in five different power rates from 22 kW to 75 kW. Wherever required, the STREAMLINE™ SL-V Plus supplies high pressure water of up to 4,136 bar. In some areas where such a high pressure is not needed, the STREAMLINE™ SL-V can cut the dedicated material at a pressure of 3,800 bar.

### **Single Intensifier Concept on all Pump Sizes**

Up to 4,136 bar/60,000 psi is produced with just one intensifier in all pump sizes, delivering lower maintenance costs and quieter operation with fewer parts. The longer, slower strokes of the ceramic plunger move more water with each stroke to provide increased lifetimes through reduced seal wear.

### **New Hard Seal Endcap Design (HSEC)**

The new topwork design HSEC is now common to all high pressure pumps of the STREAMLINE™ SL-V series. Its compact design allows to maintain the thousands of bar by tightening the check valves at the end of each cylinder by means of a small torque of only 48 Nm. In comparison, a regular M10 – 8.8 screw requires almost the same torque for tightening.

### **Booster Pump Protection**

Sensors before and after the booster pump assure that the flow of water is continual and adequate. This is an important feature to protect components particularly in the high pressure section.

### **Softstarter as Standard Saves Electricity Costs**

The included softstarter helps you additionally to decrease your operating cost. Your local current supply usually does not have to get modified to install the STREAMLINE™ SL-V unit. The softstarter represents a standard feature for power rates of 22 to 75 kW.



### **MOELLER Touch Screen Control with Multi-Language Display**

The Moeller touch screen control system provides you with all comfort you can expect from a control system. You can select up to 11 different display languages. You have access to individual alarm histories to achieve best components lifetimes and you get guided very accurately through any maintenance related topic.

### **Ability to Feed into one Common Network**

Many companies expand their business year by year. If more capacity is required, additional STREAMLINE™ pumps can get connected together in order to feed into one common network supplying several cutting stations with high pressure water. Step by step, you can increase productivity depending on your business' needs.

# Technical Data

Description	Unit	SL-V 15	SL-V 30 PLUS	SL-V 50 PLUS	SL-V 60 PLUS	SL-V 75 PLUS	SL-V 100 PLUS	
Nominal Power Rate	kW/PS	11 / 15	22 / 30	37 / 50	45 / 60	56 / 75	75 / 100	
Pressure Range	bar/psi	500–3,800 / 7,250–55,000		500–4,136 / 7,250–60,000				
Max. Flow Rate	l/min	1.2	2.1	3.6	4.2	5.4	7.2	
Nom. Motor Current at 400V/50Hz	A	22	43	66	80	98	124	
Max. Circuit Braker at 400V/50Hz	A	25	50	80	100	100	125	
Control System		Relais			Moeller Touch Screen			
No. of Languages on Display		–	11*	11*	11*	11*	11*	
Control Voltage	VDC	24	24	24	24	24	24	
Cutting Water Inlet Pressure	bar/psi	2–4/30–60						
Max. Nominal Stroke Rate	1/min	17	32	54	54	53	71	
Accumulator Volume	l	0.5	2	2	2	3	3	
Max. Hydraulic Pressure	bar/psi	234/3.400						
Oil Tank Volume	l	53	106	106	151	182	182	
Hydraulic Pump Flow Rate at 50Hz	l/min	41	66	101	103	202	202	
Cooling Water Consumption at 24°C Water temperature	l/min	7.6	9.5	11.4	13.2	15.1	17	
Cooling Water Pressure	bar/psi	2–7/30–130						
Ambient Temp. Oil/Water Heat Exchanging	°C	5–45						
Pneumatic Supply Pressure	bar/psi	5.9 / 85						
Pneumatic Supply Volume	l/min	28.3						
High Pressure Outlet Connection	UNF	3/8"			9/16"			
Low Pressure Connection	NPT	1/2"						
Drainage Connection	NPT	1/2"						
Max. Noise Level	dB(A)	<75,5	<72,5	<72,5	<77,5	<77,5	<77,5	
Lenght	mm	1,422	1,721	1,721	1,721	1,975	1,975	
Width	mm	711	914	914	914	914	914	
Heigth	mm	833	1,453	1,453	1,453	1,453	1,453	
Weight	kg	735	953	1,315	1,542	1,724	1,905	
HSEC Intensifier Design HSEC		●	●	●	●	●	●	
HYPERLIFE™ Seal Technology		●	●	●	●	●	●	
Safety Dump Valve		●	●	●	●	●	●	
Inlet Shut-Off Valve		●	●	●	●	●	●	
LP Filter (10 µm abs.)		●	●	●	●	●	●	
Oil-/ Water Heat Exchanger		●	●	●	●	●	●	
Oil Level & Temperature sensor		●	●	●	●	●	●	
Booster Pump (adjustable & protected)		–	●	●	●	●	●	
Softstarter		–	●	●	●	●	●	
Oil-/ Air Cooler		○	○	○	○	○	○	
Ambient Temp. Oil/Air Cooling	°C	5–30						
Dual Pressure Compensator		–		●	●	●	●	
Redundant Topworks		–	○	○	○	○	○	
Proportional Control		○	○	○	○	○	○	
Remote Online Diagnostics (via Modem)		○	○	○	○	○	○	
ProfiBus Connection		○	○	○	○	○	○	
Networking Kit		○	○	○	○	○	○	
Calibration Control		–	○	○	○	○	○	
Electric Options		230/3/60, 380/3/50, 400/3/50, 415/3/50, 460/3/60, 480/3/60, 575/3/60**						
CE Mark attached		●	●	●	●	●	●	

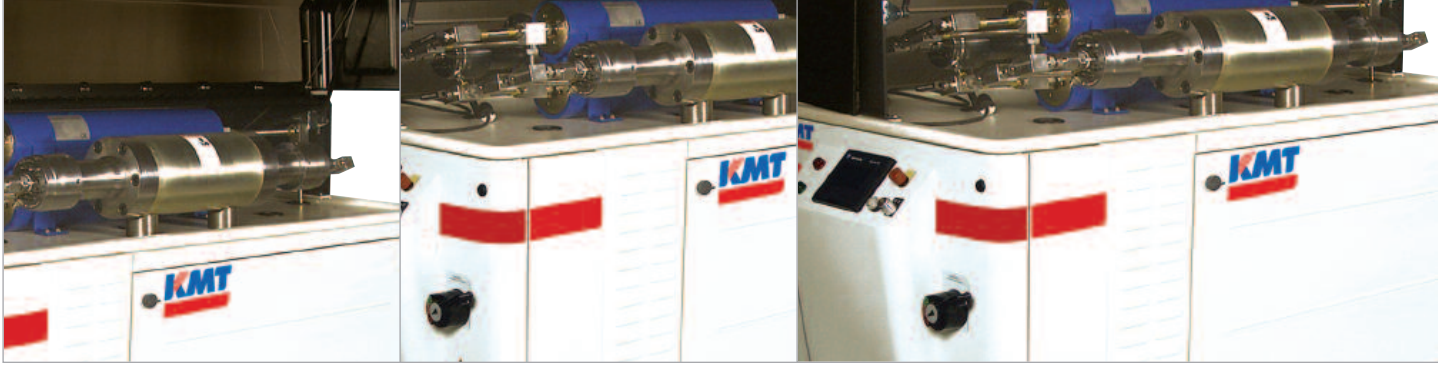
● = Standard

○ = Optional Feature

\* = Chinese, Czech, English, Finnish, French, German, Italian, Polish, Russian, Spanish, Swedish

\*\* = others on request

– = not available



## Accessories and Options

### Electrical Options

50Hz: 190/380, 200/400, 208/416,  
230/460 volts AC (3 phase)  
60Hz: 230/460, 240/480 volts AC (3 phase)

### Redundant Intensifier

Adding a redundant intensifier provides a completely identical high pressure production system to any pump over 15hp. 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 to having two pumps in one, while consuming less space – and far less capital.

### Proportional Control

The Proportional Control enables automatic changes to the pressure generated by the pump, even mid-job, in order to maximize machine time and vary the cutting speed. It can dramatically reduce the complexity of cutting and the cutting time required, especially when working with fragile materials such as ceramic tile and glass. Using the Proportional Control, pressure can be lowered to one level for starting new holes, ramped up for cutting lines, and adjusted again for cutting curves. Pressure can be instantly adjusted to any level.

### Pump Networking

Installing this option makes it possible to connect multiple pumps to a common high pressure line for the ultimate in continuous production shops: a networked pump system where the pumps are monitored by the Load Balancer control system. Exclusively available from KMT WATERJET, it is the perfect tool for connecting multiple pumps and creating a much more reliable source of high pressure. The Load Balancer controls the output of each pump to be consistent with the size of the pump and proportional to the total load required from the pump network. With the Load Balancer, the stroke rate of each pump is monitored so the total system demand is shared equally by all pumps. It is the ultimate in automated, reliable, high pressure production.

### Telediagnosis REMOTELINE

This option allows you to monitor the operating conditions of your system. Problems can be diagnosed and detailed information for the troubleshooting is being provided. To set up the Remote-Diagnosis, the control of the high pressure pump will only be connected to your IT-network. If necessary, you can grant KMT WATERJET access to your pump control in order to get immediate support by one of our experts. In general, you can save costs and downtimes caused by the deployment of a service technician. Typically, there is no delay in production as REMOTELINE enables your system to be fully operational immediately after the diagnosis and the troubleshooting.

### Softstarter

These energy efficient starters reduce electrical demand when pumps first start and are especially important in areas where energy costs are based upon peak-demand. This feature is standard to STREAMLINE™ SL-V 30S, SL-V 50S, SL-V 60S, SL-V 75S and SL-V 100S.

### Additional Tools and Options

Tool and spare part kits as well as threading & coning tool are available to run your equipment most securely. Accessories such as closed loop cooling systems, waste water filtration or water treatment systems can be supplied in accordance to the equipment installed.

### Detailed Information about our Products

You can find further detailed information about the STREAMLINE SL-V pumps on our homepage at [www.kmt-waterjet.com](http://www.kmt-waterjet.com). There, you can also read up on the other KMT Products about the waterjet cutting technology – from ultra high pressure pumps to cutting heads and abrasive systems to original spare parts and installation material.



## High Pressure Pump STREAMLINE™ SL-V CLASSIC

Our STREAMLINE™ SL-V Classic reflects the new market requirement for a completely self-contained, easy to hookup unit, guaranteeing you top HSEC intensifier technology in an affordable package.

### Completely Self-contained Adaptable System

You can use this pump both ways: either independently as a stand-alone unit or communicating with the central control system of the entire cutting machine.

### Applicable for Pure Water & Abrasive Cutting

The STREAMLINE™ SL-V Classic is designed for flexible production in pure water as well as in abrasive applications. It is dedicated to those kinds of cutting jobs which require cutting pressure of up to 3,800 bar/ 55,000 psi. The high reliability and lifetime performance equal those of our more sophisticated "Plus" series.

### Ideal for Starters

In particular smaller companies, which run their equipment in single shift operation or are just entering into the waterjet cutting business, will appreciate the SL-V Classic as an economic system solution. They now can afford to make use of the huge benefits which the KMT waterjet cutting technology provides at an affordable cost.

### New Hard Seal End Cap Design (HSEC)

The new HSEC intensifier design is now common on all high pressure pumps of the STREAMLINE™ SL-V series. Its compact design allows to maintain the high pressure by tightening the check valves at the end of each.



### MOELLER Display in 9 Languages

The Moeller control system provides you with all the classic features which are needed to run the pump and to reliably and economically operate your machine. You have the opportunity to select up to 9 different display languages.

### Softstarter as Standard Saves Electricity Costs

The included softstarter helps you additionally decrease your operating cost by reducing the startup current needed for the motor. This means savings not only in your monthly electricity bill, also expensive modifications to your power supply are no longer necessary with all the STREAMLINE™ SL-V Pumps, including the Classic.

### Low Pressure Circuit protected

The overall condition of the low pressure water influences the lifetime of all components in the high pressure section of the pump. Temperature and Pressure levels before and after the booster pump are continuously monitored in order to prevent costly damage from occurring.

# Technical Data

	Unit	SL-V 30HP Classic	SL-V 50HP Classic
Nominal Power Rate	kW/PS	22/30	37/50
Pressure Range	bar/psi		500–3,800 / 7,250–55,000
Max. Flow Rate	l/min	2.3	3.8
Nom. Motor Current at 400V / 50Hz	A	43	66
Control Voltage	VDC		24
Length	mm		1,727
Width	mm		914
Height	mm		1,203
Weight	kg	816	1.179
Max Noise Level	dB(A)		80
Accumulator Volume	l		1
Oil Tank Volume	l		144
Cutting Water Inlet Pressure	bar/psi		2–4 / 30–60
Max. nominal stroke rate	1/min	34	54
Pneumatic Supply Pressure	bar/psi		5.9/85
Pneumatic Supply Volume	l/min		28,3
Ambient Temp. Oil/Water Heat Exchanging	°C		5–45
Ambient Temp. Oil/Air Cooling	°C		5–30
Oil-/ Aircooler		○	●
Control System			Moeller
No. of Languages on Display			9*
HSEC Intensifier Design			●
HYPERLIFE™ Seal Technology			●
Safety Dump Valve			●
Quick Disconnect of LP Water Supply			●
Inlet Shut-Off Valve			●
LP Filter (10 µm abs.)			●
Booster Pump (adjustable & protected)			●
Dual Pressure Compensator			●
Oil Level & Temperature Sensor			●
Oil-/ Water Heat Exchanger			○
Separate Oil & Water Drip Pans			●
Electric Options**		208/3/60, 575/3/60, 460/3/60, 230/3/60 V/P/A	
Spare Parts Kit			○
Threading & Coning Tool			○
Closed Loop Cooling System			○
Waste Water Filtration System			○
Water Treatment System			○
CE Mark attached			●
Softstarter			●
Proportional Control			○
Tool Kit			○

● = Standard

○ = Optional Feature

\* = Czech, English, Finnish, French, German, Italian, Polish, Spanish, Swedish,

\*\* = others on request

## Max. Qty of orifices\*\*\* at 3,800 bar

SL-V	Classic	0.10	0.12	0.15	0.17	0.20	0.23	0.25	0.30	0.33	0.35
30HP	3,800	7	5	3	3	2	1	1	-/-	-/-	-/-
50HP	3,800	12	8	5	4	3	2	2	1	1	1

\*\*\* The maximum quantity of orifices installed can be increased or larger orifice sizes can be installed by reducing the working pressure. Please feel free to contact us for your individual calculation.

# Advanced Pumps for Large, Demanding High Pressure Water Applications

The new high volume intensifiers from KMT WATERJET are designed for ease-of-use, simpler maintenance and lower total costs. Benefits include the following:



## High Pressure Water Reliability

- All KMT WATERJET intensifiers have the reserve option – the option of adding an additional intensifier as standby. Having an extra intensifier available with a 7.6 l/min capacity provides reliability for demanding production schedules.
- These pumps use the same advanced technology as the entire STREAMLINE™ family, which became a standard in the waterjet cutting industry.

## Minimal Floor Space Required

- One 200 horsepower pump requires much less floor space than four 50 horsepower pumps.
- Reduced efforts in terms of installation material and external balancing equipment saves additional space.

## Customer-Focused Design

- Intensifiers are located at the front of the machine for easy access during physical inspections and maintenance.
- Removable swinging front doors additionally facilitate the maintenance procedures.

## Reduced Total Costs

- The costs of one pump (both operating cost and investment cost) are lower than those of several smaller pumps.
- The minimized number of wear parts of just one pump results in lower operating costs.

## More Standard Features

- The high volume STREAMLINE™ pumps have attractive standard features such as softstart, proportional control, see-through doors, etc. Best of all, these pumps are backed by the high level of customer support, which KMT WATERJET customers have grown to expect.

## Reduced Maintenance

- Just two intensifiers provide full power. Each delivers up to 7.6 l/min, using 100hp. The 150hp pump, which also has two intensifiers for full capacity, is limited to a total output of 11.4 l/min.

## Service

- 24-hour (or faster) shipment of stock items.
- same-day emergency shipments, worldwide (7 days per week).
- telephone hotline service for ordering parts and answering technical questions.

## Local Presence

- KMT subsidiaries worldwide
- Immediate global field service technician support

## Detailed Information about our Products

You can find further detailed information about the STREAMLINE SL-V pumps on our homepage at [www.kmt-waterjet.com](http://www.kmt-waterjet.com).

# Technical Data

System Information	Unit	SL-V 150 PLUS (STD)	SL-V 200 PLUS (STD)
Nominal Power Rate	kW/PS	112 / 150	149 / 200
Max. Continuous Pressure	bar	500 – 4,136 (3,800)	
Max. Water Flow Rate @ Max. Pressure	l/min	9.1 (11.4)	13.6 (15.2)
Theo. Max. Single Orifice Diameter	mm	0.61 (0.64)	0.71 (0.75)
No. of Language Options on Display		11*	
Control Voltage & Power Supply	VDC	24	
Nom. Motor Current at 400V/50Hz	A	180	259
Circuit Braker at 400V/50Hz	A	250	350
Max. Noise Level/Operators Noise Level	dB(A)	< 84.5	
Ambient Operating Temperature	°C	4 – 37	
Length	cm	231	
Width	cm	170	
Height	cm	177	
Weight (Redundant Model)	kg	3,855 (4,037)	4,082 (4,264)
Control System		Touch-Screen-Display (Moeller)	

## Cutting Water

Minimum Inlet Cutting Water Flow	l/min	45	60
Minimum Inlet Cutting Water Pressure	bar	2.4	
Max. Nominal Strokes per Minute	min-1	51	71
Accumulator Volume	l	4 (3)	
LP Filter	µm abs.	10	

## Hydraulic System

Max. Hydraulic Pressure	bar	183	
Hydraulic Reservoir Capacity	l	473	
Hydraulic Pump Flow Rate at Max Output	l/min	2 x 129	2 x 174

## Cooling System

Minimal Cooling Water Pressure	bar	2.4	
Cooling Water Consumption at 24°C Water Temperature	l/min	19	22.7

## Options & Other Features

Booster Pump (adjustable & protected)	●
Soft Starter	●
Oil / Air-Cooler (Closed Loop Cooling System)	○
Redundant Topworks	○
Proportional Control	●
Remote Online Diagnostics	○
Networking Interface Kit	○
Door Swing Open (Remove Easily)	●
ProfiBus Connection	○
Food Grade Oil	○
Tool Kit	○
Spare Parts Kit	○
CE Mark attached	●

\* Chinese, Czech, English, Finnish, French, German, Italian, Polish, Russian, Spanish, Swedish,

● = Standard

○ = Optional Feature

## Orifice Size in mm at 3,800 bar resp. 4,136 bar

SL-V	0.10	0.12	0.15	0.17*	0.20	0.23*	0.25*	0.28	0.30*	0.33*	0.35*	0.40*	0.45	0.50	0.55	0.65
150	3,800	34	22	15	11	8	7	5	4	4	3	3	2	1	1	0
	4,136	27	17	12	9	7	5	4	3	3	2	2	1	1	0	0
200	3,800	46	30	21	15	11	9	8	6	5	4	4	3	2	1	1
	4,136	40	26	18	13	10	8	6	5	4	4	3	2	2	1	1

\* This orifice size is used for abrasive cutting also.



# KMT Waterjet Systems

## KMT. Creating value through precision.

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