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## Message from the CEO

### Why Semyx?

Over the past few years, we have seen exciting innovations in the field of cutting technology. It is our promise to deliver the latest technology in cutting machines to best suit your application. Our belief in innovation and application of new ideas has fueled our continuous growth, and our portfolio of clients and profitablity speaks for itself. We are ready to raise the bar of excellence in our field and are ready to exceed your expectaions through our unparalleled customer service and dedication. It is the quality of our products, management, and staff worldwide that has made Semyx a trusted partner.

We invite you to join us on our journey and we hope Semyx can be a part of your growth in new markets. We look forward to hearing from you.

Thank you for your interest in Semyx.



Semyx headquarters in Dalton, GA, USA

## Company Profile

Semyx continues its success by offering customers a complete turnkey cutting system with the latest innovative technology and advanced options. Our systems have become widely known in the market for reliability, durability, and flexibility by using high quality parts and components. Along with Semyx's world renowned cutting tables, Semyx also offers top of the line additions of plasma and router systems to our waterjet cutting tables. All of our systems offer choices ranging from economical to high end and from standard to custom made while overseeing every aspect of our customer's needs ranging from sales, parts, service, installation, training, and customer support. Semyx offers tailored solutions for all of your cutting needs.

As experts in machinery, Semyx is able to deliver, install, and train on a global scale. Semyx evaluates and arranges tailored solutions for our customers based on the information the customer provides us for their application. Semyx takes pride in first class customer service along with our products and our ability to create and respond has contributed to our success.

## What is Waterjet Technology?

Waterjet technology is basically the flow of water to the pump, which then reaches pressures up to 100,000 psi. It then travels through high pressure tubing and out to the cutting head. There are two types of waterjet cutting: 1) pure waterjet and 2) abrasive waterjet.

Pure waterjet cutting is used for applications that take in consideration the speed of the waterjet cutting, reliability, and minimal residual moisture. The residual moisture residue is very low because of the very small stream (very small orifice streams) and very high speeds. For that reason alone, pure waterjet cutting is very popular in the paper industry. Pure waterjet cutting is very commonly used for the following industries: slitting, paper, foam, fabric, installation, diapers, plastics, leathers, and also used in food cutting such as cakes and produce.

Abrasive waterjet cutting is more popular than pure waterjet cutting. Abrasive waterjet cutting uses abrasives to erode the material. The waterjet cutting head needs to be close to the material being cut. Abrasive waterjet cutting is best for increased production for many types of applications. These applications include: glass cutting (kitchen, shower screens, bullet proof glass, inlays, stained glass, etc.) exotic metals (steel, titanium, aluminium, copper, stainless steel, bronze, tool steel, nickel, alloys etc.) stone and tile cutting (floor inlays, wall inlays, custom tiles, custom flooring, counter tops, etc.).

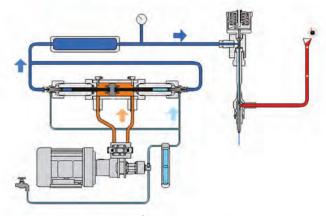


Diagram of how waterjet works



## The Semyx Advantage

#### Customer service and technical support

All purchases and questions will be handled by one customer service representative assigned to each client. Semyx takes great pride in the support we offer to our customers. We strive for excellence and strongly believe in 100% excellent service to our customers. Our products speak for themselves, but our service and support is what sets us apart from the others.

### Fully capable advanced controller

Semyx has combined all the functions needed for the waterjet cutting system in one easy to use CAM-embedded touch screen controller.

#### The world's best pump leaders

Semyx has chosen the world's leaders in waterjet pump manufacturing for all of its systems.

#### Worldwide Partners

























#### Standard Features



Semyx's global partnership with Eaton provides innovative solutions which are utilized to build high quality systems that are tailored to each customer's needs.



Semyx high end water jet cutting systems are driven by Yaskawa linear servomotors which are used to improve the reliability, speed, and accuracy of the performance. They can reach speeds as high as 5 m (196 inches per second) and reach an astonishing 206 s of maximum acceleration.



High pressure tubing enclosed in cable track



Phoenix brings expertise in maintaining contacts regarding Semyx water jet cutting systems around the world. Semyx partnered with Phoenix to offer the best possible solution for all of our automation tasks.

# Product Line

























### The INFINITY waterjet cutting series can be customized in size to fit your needs.

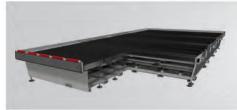
The new and improved INFINITY waterjet cutting series is our built to last flagship series that is suitable for large areas. The INFINITY waterjet cutting system offers precise cutting of extra-large sheets ranging from 10 ft. to 13 ft. wide by as long as needed, which allows for mass production and cutting of large materials. The INFINITY waterjet cutting series allows you to add multiple gantries and additional Z-axis to enable double production on the same machine and higher running speeds. Like all Semyx models, the INFINITY series features a central controller for all modules and CAM software enhancements.

### **Special Features**



### Linear Motors (optional)

Semyx's high end cutting systems are driven by Yaskawa linear motors which improve reliability, speed, and accuracy. They can reach speeds of 5 m/s (196 in/s) and up to 206 s of acceleration. The linear servomotors are extremely energy efficient, minimizing the motor's heat transfer to other areas of the machine. The main advantage of this technology in the Waterjet Industry is to have zero backlash with no mechanical engagement and zero friction from the energy transaction.



#### Heavy Duty Tank

The improved tank design distributes weight evenly across the tank. The improved slats have 3x longer lifetime, allow better gripping of material, give much better support, and reduce the risk of parts falling to the tank bottom.



#### Multiple Gantries and Customized Solutions (optional)

The INFINITY series allows you to add multiple gantries and dual Z-axis to multiply production (optional). The X-axis, which uses the rack and pinion mechanism, allows for extended and customized lengths and a width of 10ft or 13ft. The INFINITY series is great for mass production and cutting of large material.



#### Rack and Pinion X-Axis

Allows for large and customized cutting area.



X-Axis Cutting Stroke mm (in)
Y-Axis Cutting Stroke mm (in)
Z-Axis Stroke mm (in)
Footprint Width mm (in)
Footprint Length mm (in)
Accuracy mm (in)
Repeatability mm (in)
Drivers
Motion for X-Axis
Motion for Y-Axis

X-Axis Cutting Stroke mm (in)
Y-Axis Cutting Stroke mm (in)
Z-Axis Stroke mm (in)
Footprint Width mm (in)
Footprint Length mm (in)
Accuracy mm (in)
Repeatability mm (in)
Drivers
Motion for X-Axis
Motion for Y-Axis

Infinitu	Unfinity Infinity	Infinity
4000 (158")	6000 (240")	8000 (315")
4000 (158")	4000 (158")	4000 (158")
180 (7")	180 (7")	180 ( 7")
6200 (244")	6200 (244")	6200 (244")
4900 (193")	6940 (273")	9700 (382")
0.05 (0.002")	0.05 (0.002")	0.05 (0.002")
±0.025 (±0.001")	±0.025 (±0.001")	±0.025 (±0.001")
AC Servo Motors	AC Servo Motors	AC Servo Motors
Rack & Pinion	Rack & Pinion	Rack & Pinion
Ball Screw	Ball Screw	Ball Screw

Infinity	Infinity
10000 (394")	12000 (472")
4000 (158")	4000 (158")
180 ( 7")	180 (7")
6200 (244")	6200 (244")
11740 (462")	13780 (543")
0.05 (0.002")	0.05 (0.002")
±0.025 (±0.001")	±0.025 (±0.001")
AC Servo Motors	AC Servo Motors
Rack & Pinion	Rack & Pinion
Ball Screw	Ball Screw





X-Axis Cutting Stroke mm (in)
Y-Axis Cutting Stroke mm (in)
Z-Axis Stroke mm (in)
Footprint Width mm (in)
Footprint Length mm (in)
Accuracy mm (in)
Repeatability mm (in)
Drivers
Motion for X-Axis
Motion for Y-Axis

X-Axis Cutting Stroke mm (in)
Y-Axis Cutting Stroke mm (in)
Z-Axis Stroke mm (in)
Footprint Width mm (in)
Footprint Length mm (in)
Accuracy mm (in)
Repeatability mm (in)
Drivers
Motion for X-Axis
Motion for Y-Axis

Harinity 1	21711	Infinity
4000 (158")	6000 (240")	8000 (315")
3000 (118")	3000 (118")	3000 (118")
180 (7")	180 (7")	180 (7")
5100 (201")	5100 (201")	5100 (201")
4900 (193")	6940 (273")	9700 (382")
0.05 (0.002")	0.05 (0.002")	0.05 (0.002")
±0.025 (±0.001")	±0.025 (±0.001")	±0.025 (±0.001")
AC Servo Motors	AC Servo Motors	AC Servo Motors
Rack & Pinion	Rack & Pinion	Rack & Pinion
Ball Screw	Ball Screw	Ball Screw

Infinitu
12000 (472")
3000 (118")
180 (7")
5100 (201")
13780 (543")
0.05 (0.002")
±0.025 (±0.001")
AC Servo Motors
Rack & Pinion
Ball Screw



X-Axis Cutting Stroke mm (in)
Y-Axis Cutting Stroke mm (in)
Z-Axis Stroke mm (in)
Footprint Width mm (in)
Footprint Length mm (in)
Accuracy mm (in)
Repeatability mm (in)
Drivers
Motion for X-Axis
Motion for Y-Axis

X-Axis Cutting Stroke mm (in)
Y-Axis Cutting Stroke mm (in)
Z-Axis Stroke mm (in)
Footprint Width mm (in)
Footprint Length mm (in)
Accuracy mm (in)
Repeatability mm (in)
Drivers
Motion for X-Axis
Motion for Y-Axis

	PUS Infinity	256 Infinity	Infinity
	4000 (158")	6000 (240")	8000 (315")
	2000 (79")	2000 (79")	2000 (79")
	180 (7")	180 (7")	180 ( 7")
	4000 (158")	4000 (158")	4000 (158")
	4900 (193")	6940 (273")	9700 (382")
	0.05 (0.002")	0.05 (0.002")	0.05 (0.002")
=	±0.025 (±0.001")	±0.025 (±0.001")	±0.025 (±0.001")
	AC Servo Motors	AC Servo Motors	AC Servo Motors
	Rack & Pinion	Rack & Pinion	Rack & Pinion
	Ball Screw	Ball Screw	Ball Screw

Infinity	2120 Infinitu
10000 (394")	12000 (472")
2000 (79")	2000 (79")
180 ( 7")	180 (7")
4000 (158")	4000 (158")
11740 (462")	13780 (543")
0.05 (0.002")	0.05 (0.002")
±0.025 (±0.001")	±0.025 (±0.001")
AC Servo Motors	AC Servo Motors
Rack & Pinion	Rack & Pinion
Ball Screw	Ball Screw



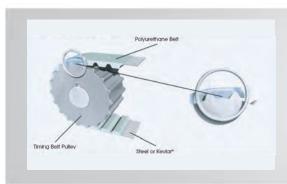


### The COBRA waterjet cutting series can be customized in size to fit your needs.

The COBRA waterjet cutting series is best suited for large areas. The COBRA waterjet cutting system offers (precise) cutting of extra large sheets up to 16 feet wide which allows for mass production and cutting of large materials. The COBRA waterjet cutting series allows you to add additional cutting heads to enable double production on the same machine and higher running speeds. Like all Semyx models, the COBRA Series features a central controller for all modules and CAM software enhancements.

The COBRA is specially designed for textile applications and has been used on fields for the MLS, NCAA, and NFL.

### Special Features



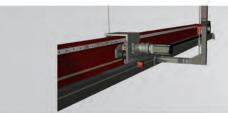
#### Special Linear Drive Belt in All Axes

- ATL timing belt is designed for the highest accuracy
- Predictably negative belt length tolerance to allow near perfect length tolerance after proper pre-tensioning
- Larger tension members for the highest tensile strength & spring rate for better repeatability and reduced settling time
- Used with standard AT-Series pulleys (zero backlash pulleys available for highest accuracy)



### Cutting with Pure Water

With pure water cutting, it is especially easy to cut soft materials with this procedure, including paper products, sealing materials, plastics, foams, textiles, carpets, turf, and food. Pure water cutting is extremely precise: the water jet can be finer than 0.2 millimeter and it allows the cutting of fine contours, sharp angles, and tight radii.



#### Higher Speed and Acceleration

The COBRA waterjet cutting series has a high cutting speed 0-60m/min with high acceleration to increase production.



#### **Enclosed Cable Track**

High pressure tubing enclosed in cable track



	Cobra	Cobra	Cobra
X-Axis Cutting Stroke mm (in)	4000 (158")*	8000 (315")*	10058 (396")*
Y-Axis Cutting Stroke mm (in)	2000 (78")*	2000 (78")*	4572 (180")*
Z-Axis Stroke mm (in)	180 (7")	180 (7")	120 (4.5")
Footprint Width mm (in)	3360 (132")	3360 (132")	6300 (248")
Footprint Length mm (in)	4970 (196")	10566 (416")	11600 (456")
Accuracy mm (in)	0.2 (0.008")	0.2 (0.008")	0.2 (0.008")
Repeatability mm (in)	±0.05 (±0.002")	±0.05 (±0.002")	±0.05 (±0.002")
Drivers	AC Servo Motors	AC Servo Motors	AC Servo Motors
Motion for X-Axis	Belt Drive	Belt Drive	Belt Drive
Motion for Y-Axis	Belt Drive	Belt Drive	Belt Drive

<sup>\*</sup>The COBRA waterjet cutting series is made to order. Sizes may vary based on customer needs. Machines are available as both tank and pit installations.





The OPTIMA waterjet cutting series is an addition to our Semyx waterjet cutting product line. It provides a vigorous industrial design and rigid construction that combines precision and simplicity. The OPTIMA model is made to handle high production for versatile applications. The OPTIMA has a special waterjet tank feature that allows for extra weight on the tank. Our OPTIMA waterjet cutting system is also equipped with roller bearings, a technology superior in design guaranteeing the longest life possible. The OPTIMA models come in a wide variety of sizes.

### **Special Features**



#### Heavy Duty Tank

The separate waterjet tank feature allows for extra weight on the tank. This feature also presents the option to have a unique design for the tank utilizing distinctive needs such as the accommodation of extra thick or delicate parts.



#### **Ball Screws**

Precision ball screws feature high reliability and repeatability. They are highly efficient and increase precision and accuracy while reducing motor wear. Other benefits include low friction and noise, backlash elimination is an option, robust design, and customized safety devices with lubricating options.



#### Precise Rigid Design

Rotary nut for parallel access enclosed in a strong aluminium gantry guided by precision flat guide ways.



#### Front Rollers

Front rollers allow for easy loading and unloading of materials.



X-Axis Cutting Stroke mm (in) Y-Axis Cutting Stroke mm (in) Z-Axis Stroke mm (in) Footprint Width mm (in) Footprint Length mm (in) Accuracy mm (in) Repeatability mm (in) Drivers Motion for X-Axis Motion for Y-Axis 1600 (63") 1600 (63") 180 (7") 3130 (123") 2400 (95") 0.05 (0.002") ±0.025 (±0.001") AC Servo Motors Ball Screw Ball Screw

2000 (78") 3000 (120") 180 (7") 4530 (178") 2800 (111") 0.05 (0.002") ±0.025 (±0.001") AC Servo Motors Ball Screw Ball Screw 2000 (78")
4000 (158")
180 (7")
5650 (222.5")
2800 (111")
0.05 (0.002")
±0.025 (±0.001")
AC Servo Motors
Ball Screw
Ball Screw





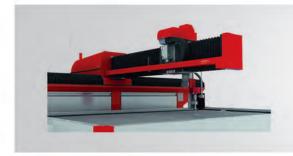
The SCORPION waterjet cutting system is the most versatile waterjet cutting system on the market when it comes to speed and accuracy. The SCORPION waterjet cutting system is efficient both in size and price. The control system and the ultra high pressure pump are integrated into the body of all the models in the series resulting in the smallest footprint among all waterjet cutting systems. It also allows for easy access from all three sides. The SCORPION waterjet cutting system is perfect for those looking for a compact footprint and extreme accuracy.

#### Special Features



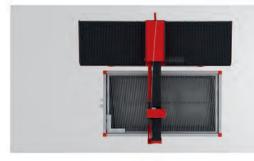
#### Easy Loading

Due to the fact that there is a single X-axis, material can be loaded and unloaded from all three sides of the table. Also, the small footprint can help make use of work space efficiently. It also has an optional space efficient abrasive tank.



#### Rigid Bridge Gantry

The SCORPION, with its single X-axis, uses a rigid bridge gantry system that maintains high accuracy in cutting. Along with this rigidity comes extreme accuracy provided by the ball screw.



#### Small Footprint

The control system and the Ultra High Pressure Pump are enclosed in the body of the SCORPION which allows this footprint to be much smaller among all waterjet cutting systems. The single X-axis contributes to the small footprint without affecting the quality of the cut.



X-Axis Cutting Stroke mm (in)
Y-Axis Cutting Stroke mm (in)
Z-Axis Stroke mm (in)
Footprint Width mm (in)
Footprint Length mm (in)
Accuracy mm (in)
Repeatability mm (in)
Drivers
Motion for X-Axis

Motion for Y-Axis

3000 (120") 1600 (63") 180 (7") 3570 (141") 4020 (159") 0.08 (0.003") ±0.025 (±0.001") AC Servo Motors Ball Screw Ball Screw





The GENESIS waterjet cutting series is a unique monoblock design that provides the ideal system for smaller projects and a great introduction for first time waterjet users looking to become familiar with the industry. The rigid mechanical design of the GENESIS allows for high end performance using high quality components often found in other manufacturers elite systems. The compact design of the GENESIS makes installation simple and allows the flexibility for the system to be used in a multitude of locations. The GENESIS series provide various sizes that have been designed to be space friendly and maintain the ability to fit in the most challenging spaces.

## **Special Features**



### Sturdy Aluminium Profile

The rigid construction of the aluminium profile gives the GENESIS a sturdy yet light structure.



#### Front Rollers

Front rollers allow for easy loading and unloading of materials.



#### Stainless Z-Axis

The z-axis has a stainless steel construction for longer life. IP 69 rating is achieved by using double seals on the main shaft resulting in better lifetime and fewer failures.



X-Axis Cutting Stroke mm (in)			
Y-Axis Cutting Stroke mm (in)			
Z-Axis Stroke mm (in)			
Footprint Width mm (in)			
Footprint Length mm (in)			
Accuracy mm (in)			
Repeatability mm (in)			
Drivers			
Motion for X-Axis			
Motion for Y-Axis			

230 Conesis	Conesis	260 Genesis
3000 (118")	4000 (158")	6000 (236")
2000 (78")	2000 (78")	2000 (78")
180 (7")	180 (7")	180 (7")
3050 (120")	3050 (120")	3050 (120")
3800 (150")	4800 (189")	6800 (268")
±0.075 (±0.003")	±0.075 (±0.003")	±0.075 (±0.003"
±0.025 (±0.001")	±0.025 (±0.001")	±0.025 (±0.001 "
AC Servo Motors	AC Servo Motors	AC Servo Motors
Rack & Pinion	Rack & Pinion	Rack & Pinion
Ball Screw	Ball Screw	Ball Screw

4000 (158")
2000 (78")
180 (7")
3050 (120")
4800 (189")
±0.075 (±0.003")
±0.025 (±0.001")
AC Servo Motors
Rack & Pinion
Ball Screw

6000 (236")
2000 (78")
180 (7")
3050 (120")
6800 (268")
±0.075 (±0.003")
±0.025 (±0.001")
AC Servo Motors
Rack & Pinion
Ball Screw



## **Cutting Edge Controller**

Semyx brings to our customers the performance of cutting edge CNC machines with years of experience in the motion control and cutting industries. Our shape cutting controller is designed for multiple axis cutting machines and features the latest advances in CNC technology on a proven platform engineered to increase productivity, reduce costs, and enhance your profitability. Our software provides you with flexibility, ease of use and technologies that puts our experience and expertise in the operator's hands, resulting in extremely good cutting quality and high productivity.

#### Standard Features

#### Large, Bright Touch Screen

An industrial-grade touch screen provides an extremely user friendly machine interface. It exhibits high resolution graphics that generate a bright display. This allows operators to easily and effectively move through the menus and guide the cutting machine.

#### Touch Screen Interactive Display

Eliminate dry runs and confirm the part program before cutting. Use the zoom tools to verify part spacing and eliminate wasted or unusable product.

#### Advanced Nest Navigation

Interrupt the current cutting routine to cut a new part, move ahead multiple pierce points, recover from cut loss, recover from power loss, interrupt a long nest, jump to the end of a part or nest or reverse the cutting path – all quickly done at the touch of a button without losing machine position and without scrapping valuable material. Up to 18 programmable home positions can be used for multiple cutting tables, part start locations, consumable change areas, or remote park positions.

#### Fast DXF/DWG File Conversion

Accepts direct downloads of CAD files, which reduces the expense of third-party post processing software.

#### True Multitasking Environment

Increase operator productivity by performing many different tasks within the Windows® XP Embedded environment. Load a new part program, create or edit a part program from the shape library, create or edit a program nest.

#### Other Advanced Features

- 1. Networking via Wireless or Fiber
- 2. Remote Diagnostics
- 3. Automatic DWG/DXF CAD file conversion
- 4. 10 minute Quick System Recovery
- 5. Job Interrupt and Power Loss Cut Recovery
- 6. Standard Shapes Library
- 7. Programmable Laser Offset for Fast Part Alignment
- 8. Load other 3rd party program/application software
- 9. Easy to Configure with Mappable I/O



## Abrasive Delivery System





#### **Abrasive Tank**

The Semyx abrasive-conveying system with filling-level monitoring ensures that sufficient abrasive is available at all times throughout the cutting operation. The uninterrupted supply of abrasive is an essential condition for the successful cutting sequence, particularly in the case of brittle materials such as natural stone, marble, and glass.



## **Cutting Heads**

The IDE head is a single, easy to use piece. The single cutting head piece consists of a body, diamond orifice, and mixing chamber. It has a 90 degree inlet that keeps abrasive from building up at the head. It has a flat seal even to the nozzle tube which eliminates risk of breaking the orifice. It is very useful for companies with multiple waterjet operators.



#### **Abrasive Feeder**

By using a digitally controlled abrasive feeder the CNC controller ensures the exact supply of abrasive for the cutting process.



## Tilting Head

The Semyx tilting head allows the cutting head to cut at different angles. This eliminates the tapered cutting on higher quality cutting. The easy to use Semyx tilting head positions the tilting point at the material. Programmable tilt up to +/- 12 degrees maximum tilt angle with the capability to change angles rapidly for increased cutting speed.



#### 5 Axis

The Semyx 5-axis head took the tilting head a step beyond and cuts beveled and 3D parts with a 60 degree angle. The Semyx 5-axis head gives you the ability to cut parts even faster with more accuracy than ever.

Beveling angle (B-Axis)	0" to 60"
C-Axis rotation angle	Unlimited (infinite)
Angular accuracy	15"
C-Axis maximum RPM	17 RPM
Electronic resolution	0.9"



### **Dual Cutting Heads**

Dual cutting heads is an essential option for operations looking to cut a large quantity of relatively small items at a faster rate.

The two cuttings are mounted on one Z-axis and the distance between the cutting heads can be manually adjusted.

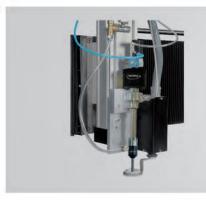


#### **Dual Z-Axis**

The dual Z-axis is similar to the dual cutting heads in allowing to cut larger quantity of relatively small items at a fast rate, however, the dual Z-axis provides room for flexibility.

The two cutting heads are mounted on separately independent Z-axis allowing for the use of one cutting head while parking the other and for widening the distance between the two heads.





## Auto Height and Anti-Collision

The auto height and anti-collision system automatically adjusts the cutting head at the proper height to cut at a fixed distance. At the same time, it also prevents damage to the tip of the cutting head by preventing collision. This system helps reduce wear and tear and results in less monitoring time.



#### Drill

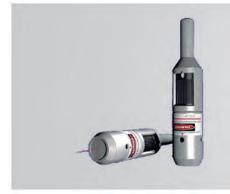
The Semyx pneumatic drill head is perfect for pre-drilling materials prone to delamination. It quickly and accurately pierces small holes in thick materials prior to abrasive waterjet cutting. It is easily mounted and adjustable, requiring no external power source. No need for customized registration templates or painfully tedious hand drilling. For reliability and speed, the Semyx pneumatic drill head is a must.



### Pneumatic Lifiting Arm

The platform can flip, ensuring the safe and convenient loading and unloading of fragile material like glass, marble, etc. onto and off of the cutting table, greatly reducing the incidence of accidental material damage and labor, thus increasing the working efficiency. The arm slats and machine table slats are provided with rubber to absorb shock and cutting force which may cause damage to brittle materials.

\*This option can be easily mounted on the Optima® Series.



## Semyx Laser Edge Finder

Semyx laser edge finder, slides over the focusing tube, allowing the machine operator to rapidly establish exact location points, edges, centres of material, and the centres of holes of pieces being cut on their Semyx table.



#### **GRS Abrasive Removal**

Semyx introduces the GRS abrasive removal system which can be adapted to any Semyx abrasive waterjet cutting machine. It is designed to continuously remove exhausted abrasive that collects in the waterjet catch tank, thus eliminating down time for clean out and maximizes production.



### Closed Loop Filtration

The Closed Loop Filtration System is designed for waterjet tables to filter and treat the overflow water for reuse. This system can service single or multiple heads on any waterjet table. By using the Closed Loop System, you will eliminate the need to drain by recycling the water such as RO units or water softeners. The machines maintain and maximize the performance, but most importantly, The Closed Loop System protects your high pressure pump by always supplying the manufactures specified vater quality.



### Reverse Osmosis System

The CLS-RO-O3-T system is used to lower the operating costs of the Closed Loop System in applications where make-up water quality is poor. Reverse Osmosis Systems are typically recommended when make up water is greater than 250 ppm total dissolved solid. The CLS-RO system is compromised of three main components.



#### Chiller

Our chillers are designed to cool high pressure pumps as well as the Closed Loop Filtration system, providing cooled DI treated water for cutting purposes to maximize high pressure pump seal life. We offer various models such as Closed Loop Chillers, In-Line Chillers, and Flow-Thru Chillers to work with all wateriet manufactures' high pressure pumps



#### Remote Controlled Pendant

The remote control consists of a transmitter and receiver. Innovative positioning of buttons allows intuitive and easy one-hand operation. Advanced battery technology allows full charge in 15 min. and run time of 30 hours. Robust performance and safety compliance promote easy maintenance with remote diagnostics capabilities to reduce downtime.

#### Water Level Tank

Accelerated water level control for reduced noise and splash caused by the jet allowing for a quieter and cleaner work area. Also, on the abrasive waterjet cut, the submerged cutting allows for a cleaner cut that maintains a slightly better cutting quality. The use of an analog measuring device maintains the level of cutting without the need to adjust the overflow each time the water level changes.



#### Advanced Software

Semyx has chosen the #1 software for waterjet nesting software to be embedded with our machines which includes amazing features dedicated to waterjet cutting.

#### **CAD Features:**

- Basic CAD functionality including drawing, measuring, snapping, layers, blocks, plotting, dimensioning, etc.
- User interface similar to Auto CAD
- Advanced CAD tools specially designed for the cutting industry
- Support for DWG, DXF, IGES, WMF, CNC, TTF, GEO, ORD, and CBF files
- Clean-up and optimization tools for repairing bad geometry
- Sign-and tile making for converting of fonts and images to CAD vectors
- Supports TTF, CFX, SHX fonts and JPG, BMP for images
- Standard parametric parts library
- Parametric 3D pipe library for unfolding of pipes

#### **NEST Features:**

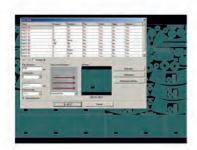
- Advanced Automatic true shape nesting of irregular shapes
- Dynamic, Single, and Rectangular nesting
- Quick nest with advanced bump technology
- Support for group nesting
- Support for irregular shaped sheets even with interior cut outs
- Nest on rest sheets
- Support for multiple cutting heads with variable distance

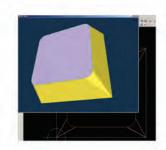
#### **CAM Features:**

- Supports AWJ-, Water-, Laser-, Oxyfuel- and Plasma cutting machines
- Machine and material database
- Lead in/out library with full collision control
- Different piercing methods to suit various material and cutting technologies
- Advanced part generation with automatic detection of contours and holes
- Automatic tool path generation with lead ins/outs fully collision controlled
- Manual-, Semi automatic and partial cut functionality
- Marking, Text Marking and Point marking technology
- Different cutting sequence algorithms for optimization of tool paths
- Advanced AWJ feed ramping technology based on materials and quality settings
- The AWJ feed ramping technology is fully associated between material and machine database and will ensure optimal feed rate at all times.
- Common Cutline command with different strategies
- Bridge cutting with dynamic placement of bridges between parts
- Sheet generator with standard sheets, irregular sheets and rest sheets
- Support for multiple tool heads
- Support for automatic change of tool setup within the same NC-preparation
- Cost calculation for accurate cost and time estimation
- Powerful and open postprocessor technology allows support for virtually all types of cutting machines.
- Report generator in HTML format
- 5-axis Bevel cutting
- 5-axis Taper Angle Control



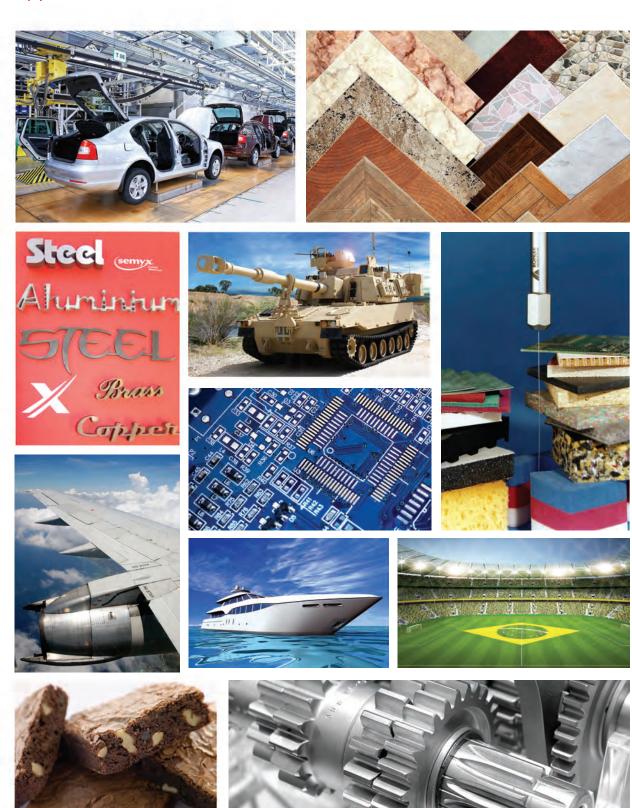








# Applications & Industries



## Service - Support - Parts

#### **Customer Service**

Semyx waterjet customer service department is what sets us apart from all the rest. Semyx has carefully planned out every detail to ensure the highest quality of service for all waterjet cutting needs for an application. After the purchase of every Semyx waterjet cutting system, all clients will be assigned a highly trained personal representative that will be available to answer any waterjet questions or request to guarantee customer services satisfaction. Semyx customer service team can assist customers with existing waterjet cutting parts for any competitor's Ultra High Pressure Pumps. Our Semyx customer service team will also help process all orders and help you decide what parts are needed to keep your waterjet machine cutting around the clock.



### **Technical Support**

Semyx maintains a diverse global network. Our Semyx service team is highly trained certified technicians that are dedicated to our customers 24 hours a day, 7 days a week. Our technical service and support team here at Semyx are highly experienced in identifying and resolving any tribulation in your waterjet cutting system, no matter how simple or complex it may be. The Semyx technical service team also works on any competitor's waterjet cutting systems and Ultra High Pressure Pumps.



#### **Spare Parts**

We supply parts for all Semyx waterjet cutting systems and most other waterjet cutting systems as well. We use genuine parts straight from the manufacturers for all spare parts. Our company provides all waterjet parts to ensure your waterjet cutting system runs and performs at its best consistently. We keep in stock all parts and consumables. If you encounter any problems please do not hesitate to contact us and speak to our parts department.









When it comes to creating custom vehicles,
West Coast Customs is known for making the
impossible possible. West Coast Customs relies
exclusively on Semyx water-jet cutting technology
to bring my creations from renderings to reality.







- Ryan Friedlinghaus Founder & CEO















Semyx Dealer in your area

Semyx L.L.C. 1010 Abutment Rd. Dalton GA. 30721 Phone (706) 529-0123 Toll Free (877) 78-SEMYX Fax. (706) 529-0124 www.semyx.com