



**Mach 500**  
Waterjet Series



# Mach 500

make more.



**AHB** Tooling & Machinery, Inc.  
Complete Metalworking Solutions  
Roseville Saginaw & Jackson, MI

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# Mach 500: THE WORKHORSE OF WATERJET

Experience a new level of uptime and productivity with the Mach 500, your total cutting solution. Combining unmatched accuracy with the fastest acceleration in waterjet, the Mach 500 will elevate your cutting production and performance levels.

More parts. More productivity. More accuracy. More reliability. **Make more.**

Acceleration  
improvement of

# 200%

# 2X

improvement in  
repeatability

Up to

# 50%

increase in Z travel  
(over legacy systems)

## ENGINEERED FOR PRODUCTION

Industry leading drive  
technology for smooth  
motion and fast part  
production.

## MODERN ARCHITECTURE

Ensuring peak  
performance from the  
absolute core of the  
system.

## ROLL AROUND CONTROL

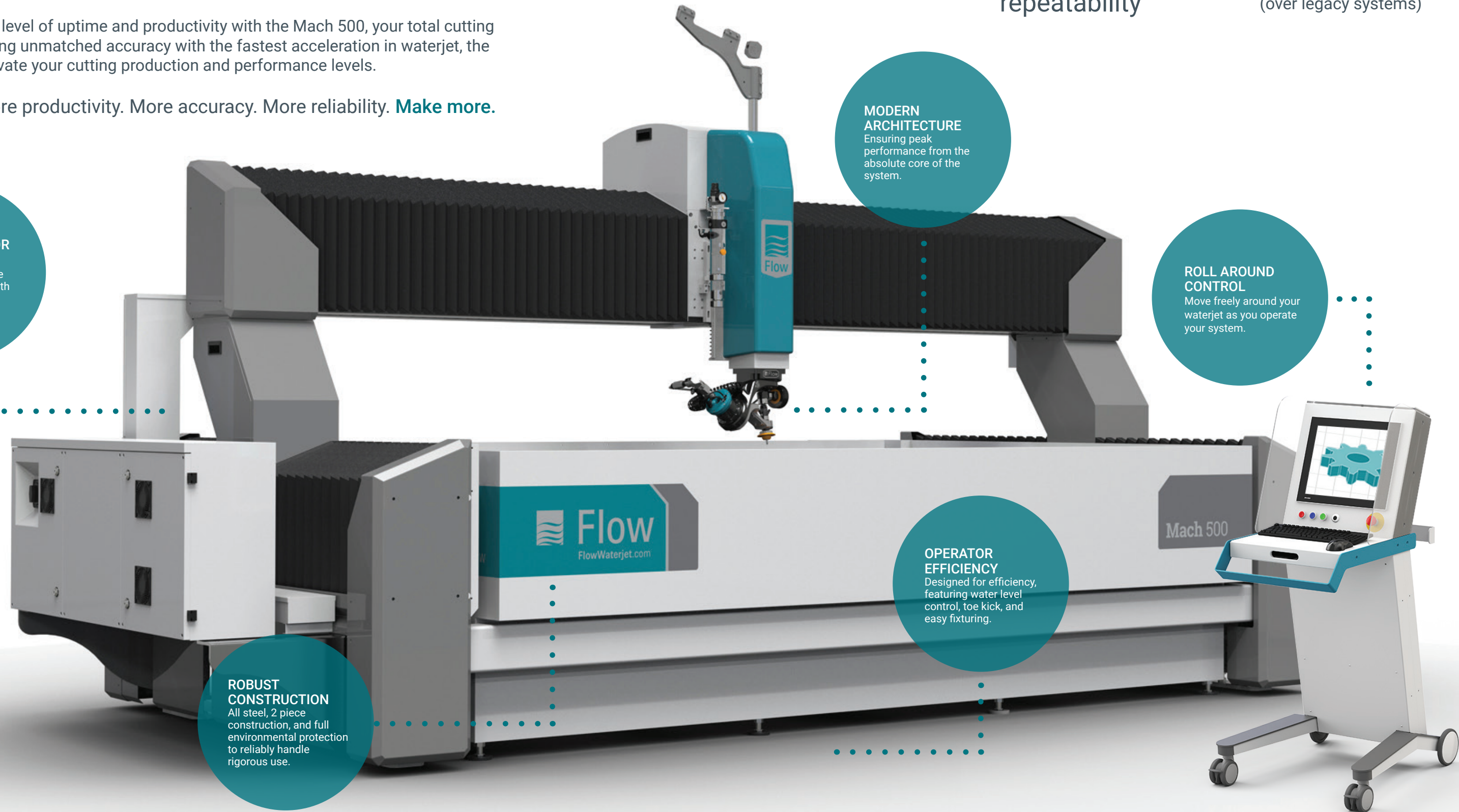
Move freely around your  
waterjet as you operate  
your system.

## OPERATOR EFFICIENCY

Designed for efficiency,  
featuring water level  
control, toe kick, and  
easy fixturing.

## ROBUST CONSTRUCTION

All steel, 2 piece  
construction, and full  
environmental protection  
to reliably handle  
rigorous use.





## The Magic Behind the Machine

FlowXpert® Waterjet Software  
Your part, fast and simple.

Fully integrated into the Mach 500, FlowXpert is a 3D modeling CAD/CAM software suite.

- Import any CAD file
- Build your own CAD file
- Create a CAD file from an image you import

Using intelligent algorithms and 40+ of waterjet expertise, FlowXpert automatically creates the most efficient waterjet cut path for you, so you can **make more**.



## Industry Leading Pump Technology from Flow

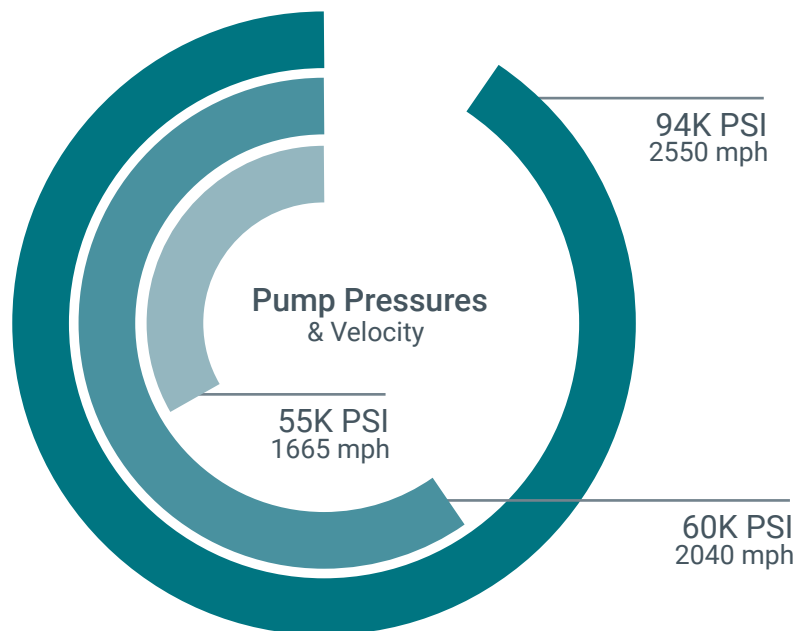
**PRESSURE = PRODUCTIVITY**

The pump is the heart of your waterjet. Higher pressure delivers faster cutting and **lower cost per part**.

Get the fastest velocity jet stream with our Flow HyperJet® pump.

The higher the pressure, the more parts cut – resulting in **lower cost per part**.

55K	60K	94K
\$\$\$	\$\$	\$



Flow offers the widest array of waterjet pumps.



HyperJet®

HyPlex Prime®



# ACCELERATE YOUR CUT

**The Mach 500 is the world's quickest waterjet.**

How quickly your waterjet accelerates or decelerates (not top speed) determines your cut part cycle time.

**SHORTER CYCLE TIMES = INCREASED PRODUCTIVITY**  
*20% faster than legacy systems*

Get best in class acceleration on the Mach 500: 0.1 G

The result: more parts, faster. **Make more.**

### ProTip ✓

The speed of a waterjet will tell you how fast you can cut in a straight line, but in the real world, parts are not just straight. The ability of your waterjet to get up to speed quickly is the most important factor in determining how quickly you will end up with cut parts in your hands.

Make more with the Mach 500.



## State-of-the-art Cutting Technology

From 2D to multi-axis cutting, Flow technology provides the highest accuracy, fastest cut part.



### Conventional Waterjet

Uses pure water or garnet abrasive to cut virtually any soft or hard material.

INVENTED



### Dynamic Waterjet®

Up to 4x faster and more accurate cutting. Head tilts automatically eliminating stream lag and taper for flat stock cutting.

PATENTED




### Dynamic Waterjet® XD


The accuracy and speed of Dynamic Waterjet brought to the 3D world.

PATENTED

+



compass



dynamicXd

For exceptional accuracy with Dynamic XD, add Compass (patented) – the world's first multi-axis contour follower. Get the most precise part regardless of material flatness.

# FlowCare

With our three levels of support – Standard, Plus, or Complete – choose the option that best fits your business and your budget.

## Standard

All Flow systems feature our world class service and support, standard.

## Plus

With FlowCare Plus you gain comprehensive coverage and unique advantages on top of Flow's Standard service –automatically scheduled exchange programs, consumables & abrasive, and an extended factory warranty.

## Complete

FlowCare Complete, our premier service partnership provides comprehensive coverage including all the benefits of our Standard and Plus programs, as well as additional exclusive advantages.



Complete Consumables



Complete Abrasive



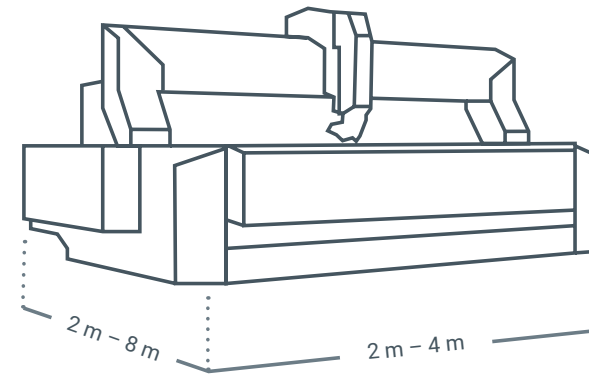
Complete Exchange



Complete Maintenance



# Mach 500 make more.



## SPECIFICATIONS & CONFIGURATIONS

Linear Straightness Accuracy	→ ± 0.0381 mm/m
Rapid Traverse Maximum	→ 17.8 m/min
Acceleration	→ 0.1 G
Repeatability	→ ± 0.03 mm
Ballbar Circularity	→ ± 0.0635 mm
Z-Axis Travel	→ 305 mm, 610 mm
Base	→ 2 m, 3 m, 4 m, 6 m, 8 m
Bridge	→ 2 m, 3 m, 4 m

## ANCILLARY OPTIONS & ACCESSORIES

- Paser CF900 Continuous Feed Hopper
- Compass™ 5 Axis Contour Follower
- UltraPierce™ Vacuum Assist
- Dynamic Contour Follower™
- Closed Loop Water Filtration
- Closed Loop Chiller
- Spray Containment Shields
- ProXtract™ Part Extractor
- Laser Edge Finder
- Abrasive Removal System
- Stainless Steel Catcher Tank
- Water Level Control
- 3 Stage Weir Tank
- Work Piece Fixturing System
- Dual Hopper
- Dual Pumps
- Rotary Indexer
- Dual Zone
- Dual Z-Axis
- Multi Head Spreader Bar

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