Mid Rail Gantry

A Cut Above the Competition
- **Industry Leading Precision and Accuracy!**
    - +/- 0.001" Linear positional accuracy (over 12") - per axis
    - +/- 0.001" Repeatability (bi-directional)
- Sturdy design ensures lasting precision.
- Motion system separated from the catcher tank, eliminating vibration and ensuring maximum part quality.
- Motion components are protected by metal covers with brush seals versus bellows that can puncture or tear.
- 300 IPM contouring and 500 IPM rapid positioning (460V)
- Easy to load with a forklift or crane.
- Cuts virtually anything!
- Optional mirroring - cuts part cycle time in half!

Standard Features
- Table sizes include 5'x5', 5'x13', 8'x5', 21'x5', 8'X13' and 21'X13'.
- 1 abrasivejet cutting head
- Closed loop drive system on X & Y Axis
- AC digital brushless servo motors, absolute encoders, SERCOS communication platform.
- Preloaded anti-backlash recirculating ball screws
- Linear bearings with hardened precision ground ways
- Split Y-axis drive system (dual motors)
- Industrial PC controller
- Variable feed-rate override for contouring and rapid motions
- Individually controlled water and abrasive functions
- Auto, MDI (manual data input) and manual operation
- Full-featured hand-held pendant
- High pressure whip delivery system with hand valve
- 21'X13' table features scissor arm high pressure plumbing to X-axis bridge; whip line high pressure plumbing to Z axis carriage.

Options
- 2nd abrasivejet cutting head
- Idler-type secondary Z carriage tied to primary Z carriage and manually adjusted; motorized or servo-driven 12" height control (vertical travel). Follows primary Z; occupies 16" of work envelope when parked.
- Z axis AC brushless digital servo with absolute encoders
- Secondary Z carriage: servo-motor driven, fully programmable with mirroring capabilities, motorized or servo-driven with 12" height control (vertical travel); occupies 16" of work envelope when parked.
- Programmable contact height sensing on motorized Z
- Water Raise/Lower for under-water cutting
- Closed loop water system - eco-friendly
- Abrasive removal system - reduces tank maintenance
- Abrasive recycling system - reduces operating costs
- SigmaNEST CAD/CAM nesting software
- Pneumatic drill
- Stainless steel catcher tank and slat kits
- Splash shields
- Water level to follow Z axis travel (upward travel only)
- Twin catcher tank bladders to decrease cycle time

Intensifier Pumps
- Multiple models: 30-200hp, 60,000-90,000 psi

The Mid Rail Gantry Waterjet System produces complex parts out of virtually any material. Designed to easily accommodate overhead loading, the Mid Rail Gantry is available in several sizes and comes standard with one abrasivejet cutting head; a second cutting head can be added for increased productivity. The Mid Rail Gantry is ball-screw driven for higher accuracy. It utilizes an industrial PC controller and can be configured so that all three axes are fully programmable (Z optional). It also features direct-couple AC brushless digital servo motors and single or double carriages.

The Mid Rail Gantry's sturdy heavy-wall tubular steel beams eliminate vibration and increase system longevity. Critical X and Y bearing components are protected with heavy metal covers with brush seals. The system's catcher tank is isolated from the motion system so energy from the cutting stream does not disrupt the mechanics of the motion system. The catcher tank features heavy gauge C channel reinforced steel side walls (stainless steel optional), replaceable steel slats (stainless steel optional), clean-out couplings on both ends, an adjustable overflow to drain, and multiple C channel floor supports. The slat surface can be leveled and is adjustable.

AquaVision Di® Controller
The AquaVision Di® Controller is the most advanced waterjet motion controller in the industry. Its customized Visual Basic front end guides the user through the process from job set-up to production. Single parts, mirroring, rotation, plate alignment and part arrays (optional) are right at your fingertips. It is fully networkable, allowing part programs to be generated offline and easily transferred to the system's hard drive for production.

Specifications Subject to Change