WJ-4X4CNC

BAILEIGH

INDUSTRIAL

PRECISION. PERFORMANCE. PERFECTION.
**Technology at work for you**

- **Table Style**: Cantilever / Flying Arm
- **Tank Style**: Detached tank, offers easy cleanout and maintenance
- **Effective Cutting Area 4x4**: 49” x 49”
- **Machine Installed Power**: 480v 60Hz, 60Amp
- **Pressure Pump**: Hammelmann® – Direct Drive Pump (made in Germany)
- **Maximum System Pressure**: 58,000 PSI
- **Maximum Operating Pressure**: 55,000 PSI
- **Motor Horse Power**: 48 HP Italian Elvem® Motor
- **Axis Drive Type**: Allen-Bradley® Servo motor turning Hiwin® double nuts on ball screws
- **Axis Bearing Rails**: Hiwin® 25mm Bearings (made in Taiwan)
- **Frame Construction**: Precision Laser Cut Tube (+/- .004” accuracy) (materials from the UK)
  - **Linear Positional Accuracy**: +/- 0.001”
  - **Repeatability Accuracy**: +/- 0.0005”
- **Electrical Components**: Allen-Bradley® / Rockwell Automation
- **Control Module/HMI**: ISAC® (Italy), controls pressure, garnet feed, and machine motion
- **Software**: BobCAD-CAM® SheetCam 2.5D, with water jet rules
- **Garnet Delivery System**: Variable speed stepper motor
- **Garnet Hopper**: Integrated into chassis (no footprint)
- **Recommended Garnet**: 80# for most applications
- **Cutting Head**: “Flow Style”
- **Head Consumables**: .014” (.35mm) Jewel, .040” (1mm) Nozzle
- **Water Supply**: Pressure not critical, Untreated Water is Best*
- **Onboard Water Filtration**: 2 Stage, 1 Micron Household Water Filter Cartridge
- **Internal Water Reservoir**: Maintains constant supply to onboard charge pump. This eliminates issues with inconsistent water supply
- **High Pressure Valve**: Installed on pump, not on cutting head
- **Cooling System**: None required. The unique design of our direct drive pump eliminates the need for coolers, chillers, radiators, or waste-water cooling.

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**Machine setup**: There are no “changeovers” required with the Baileigh Industrial Water Jet when changing from steel to stone or any other material. Pressure, speed, and garnet flow are the only adjustments, and they are controlled from the IP65 touchscreen.

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**MACHINE DIMENSIONS** - Setup footprint includes, the tank/table, the base/arm with garnet hopper built in, and the control pedestal. No competitor offers a footprint as compact as the Baileigh Industrial water jet.

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*Mineral content in the water helps maintain the pump seals. Hardness range: 90-170ppm CaCo3. Please ask for more details*
Machine Drive System: The Baileigh Industrial water jet uses a Hammelmann® direct drive pump. The direct drive system is over 40% more efficient, quieter, and able to adjust pressure on demand. To date, there has been no need for pump maintenance inside of a 2,000 hour operating window*, double the lifespan of our competition. Garnet feed is controlled with a feed wheel and stepper motor; competition typically uses a venturi feed known for clogging. The cutting head is Allfi-Switzerland (Flow Style).

High-performance machines. Profitable solutions. Expert technical support

Baileigh Industrial looked at traditional water jets and thought that there must be a better way. The first aspect addressed was the antiquated intensifier design; Baileigh chose a direct drive that takes up less space and requires less maintenance than what is already on the market. Enter the Hammelmann® direct drive system. The Hammelmann® pump was born in the high volume, high demand industrial mining business where downtime isn’t an option, and maintenance intervals need to be as long as possible. Knowing that Baileigh’s customers would expect nothing less, we’ve built the “heart” of our water jets with a Hammelmann® direct drive pump. This pump system can run a 100% duty cycle at maximum pressure! And it’s achieving this while being up to 40% more energy efficient than an intensifier water jet system!

Cutting stone, glass, marble, granite, tile, or anything brittle? Traditional water jets tend to chip or blow-out the surface of brittle material when piercing. Baileigh’s direct drive system has addressed this headache with the powertrain that lies behind the Hammelmann pump. An Italian Elvem 48hp motor, powered by an Allen Bradley PowerFlex VFD, enables the cutting system pressure to be varied infinitely, in real time. This means your expensive stone can be pierced at low pressure to avoid damage, then cut at high pressure for increased production speed; all handled by the Windows based controller! That’s right, no more manually adjusting the hydraulic system. In fact, Baileigh water jets don’t have a hydraulic system at all, which also alleviates the need for a cooling system. No hydraulic system, no cooling system, and an integrated garnet hopper make the Baileigh water jets some of the smallest footprint water jets in the industry! The only items you see on your shop floor are the chassis, water table/tank, and control pedestal.

Integrated garnet tray

Electrical Components: Allen-Bradley® / Rockwell Automation
1 Full Year of standard technical support

Support will assist you on how to use specific features and functionality when you need it. If there is a problem, a support technician will review and assess the issue, then help correct the problem, or instruct you how to correct the problem either verbally or by example.

- Expert technical support
- Starts from day of registration
- Unlimited phone and email support
- Getting started videos
- Forum access
- Manuals
- Knowledge base
- FAQ
- Software updates
- 3 extra standard post processors
- Online remote session support
- Access to remote web support

1 hour of online training

Training will teach you how to use the BobCAD-CAM system and apply the learned methods to your parts.

- One on one web training
- Your parts
- Your questions
- Your office
- Video recording of training session
BobCAD CAM Express (covers: mill/router, laser, plasma, and waterjet)

This software is best for 2D/3D CAD and 2 axis shape cutting

- DXF, DWG, IGES, AND MORE
- SHAPE LIBRARY, STRETCH, SPLINES, SNAP GRID
- HOLE PATTERNS, GEARS, CAMS, AND SPROCKETS
- PROFILING, KURF COMP, LEAD IN/OUT, BACKPLOTTING
- POST PROCESSOR

Bob Art

This software is best for image conversions and embossing's

- EPS, AI, PDF
- JPEG, BMP, TIFF, GIF, PNG, PSD, AND MORE...
- VECTORIZE (CONVERT IMAGES)
- EMBOSsing, TEXTURE, SMOOTHING
- V CARVING
- ARRAY : NESTING
About Baileigh Industrial

Cutting-edge designs

It’s no exaggeration to say that we lead the industry. Each Baileigh Industrial machine is engineered to exacting standards of endurance, convenience, and accuracy. But we don’t rest on our past accomplishments, through continuous improvement, we’re always looking for ways to make them better.

'Upgrades' come standard

Many of those features that other companies consider 'extras' are automatically part of the package when you buy a machine from us.

Quality parts and materials

We use only the best component parts, like Siemens® controls and Delta® inverters, to build equipment that you can depend on. On a structural level, our heavy-duty machines draw strength and stamina from frameworks made of solid steel and iron castings.

Knowledgeable service team

Baileigh support representatives all have years of hands-on experience working with our products—figuring out solutions for applications like yours. When you call us, you’ll talk to real technical specialists, not sales reps reading answers from a script!

Lifetime technical support

Whether you’d like advice on a project 10 days or 10 years after you buy a Baileigh machine, we’re happy to help. There’s no limit on our commitment of after-sale service. Our machines last a long time and we want you to get the most out of them.