VBA-WRIST AUTOMATED BEVEL SYSTEM

The premier solution for 3D cutting, featuring a simple, reliable system and heavy-duty design.
SUPERIOR IN EVERY FACET OF 3D CUTTING.
Complex applications such as heavy pipes, tubes, and domes demand a specialized cutting solution. Designed for automated 3D cutting, the VBA-Wrist can produce continuously variable bevel cuts—allowing for perfect fit-up and optimum weld joint geometry. It’s no wonder why structural steel and vessel fabricators around the world rely on the VBA-Wrist to reduce costs, improve accuracy, and enhance safety.

Optimal 3D cutting

Fully automated by the CNC and highly accurate, the VBA-Wrist is the best solution for cutting weld edge preparations on pipe, rectangular tube and dome, including cutting domes for boiler ends, vessels, and tank construction.

Simplicity and reliability

A simple-yet-robust design provides extensive bevel motion in a reliable mechanical system. This system features a natural tool-center point which reduces machine motion, making it ideal for large gantries.

Heavy-duty design

The VBA-Wrist is engineered and built for the most demanding steel fabrication applications such as thick walls and large diameters.
OPTIMIZED FOR COMPLEX BEVELING.

Available with either plasma or oxy-fuel cutting torches, VBA-Wrist perfectly complements your cutting machine by automating 3D beveling and profile cutting processes. A unique motion system offers the ability to reach down around a tank head or dome without interference, making it ideal for automated weld-joint bevel cutting of dome penetrations. Thanks to customized vertical lifters, the VBA-Wrist can handle larger domes and a wider range of pipe sizes than competitive systems.

- Eliminates manual measurements and cutting
- Automates weld preparation, dramatically reducing manual grinding
- Allows optimal angle cuts on more contours on pipes and domes
- Provides an automatic centering system for domes
- Offers CNC integrated pipe handlers for variety of sizes of large pipes or rectangular tubes
- Significantly reduces material handling
SIMPLE AND RELIABLE.

Engineered with a simple, compact, and durable mechanical design, the VBA-Wrist is well-protected from the harsh thermal cutting environment. Crash protection systems for both the torch and lower bevel arm prevent damage from collisions. Also, the motion systems are fully enclosed and protected. All of these design elements ensure reliable operation and a long service life.

- Design provides a wide bevel range with natural tool center point
- Breakaway crash protection prevents damage due to torch collisions
- Simple halo design protects lower bevel arm from collisions
HEAVY-DUTY DESIGN FOR HEAVY PRODUCTION.

At ESAB, we understand the demands and challenges of 3D cutting. Rest assured, the VBA-Wrist is expertly designed and built tough to deliver years of productivity. Cutting thick walls and large diameter pipes and domes are no problem for this robust system, whether it’s in mild steel, stainless steel, or aluminum. This makes the VBA-Wrist an excellent choice for structural steel and vessel manufacturers.

- Heavy-duty standard rotation control for commonality with other ESAB bevel systems
- Heavy-duty motorized lifter with CNC-controlled Z-axis for accurate vertical positioning
- Fully enclosed mechanics for low wear and maintenance
ENHANCING YOUR CUTTING OPERATION.

Powerful, intuitive software

The VBA-Wrist is controlled with ESAB’s industry-leading software that makes it extremely easy to program optimal bevel edges on a wide variety of joints, ends, and penetrations.

Safer, more efficient work environment

Since the VBA-Wrist automatically cuts welding preparations on pipes, tubes, and domes, it eliminates the need for manual grinding of these contours. Not only does this help reduce risk, debris, and noise, but also the cost of grinding consumables.

Specifications

<table>
<thead>
<tr>
<th>VBA-WRIST AUTOMATED PLASMA BEVELLER</th>
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<tbody>
<tr>
<td>Bevel Angle Range</td>
<td>+/- 60 degree standard. Optional +95/-25 degree range for dome cutting.</td>
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<tr>
<td>Rotation Range</td>
<td>± 540°</td>
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<tr>
<td>Z-Axis Stroke</td>
<td>350 mm standard, others as required</td>
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<tr>
<td>Bevel Angle Speed</td>
<td>45°/second</td>
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<tr>
<td>Bevel Angle Accuracy</td>
<td>&lt; ± 1°</td>
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<tr>
<td>TCP Accuracy</td>
<td>&lt; ± 0.5 mm</td>
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<tr>
<td>Initial Height Sensing</td>
<td>Ohmic+Soft Touch</td>
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<tr>
<td>Z-Axis Control</td>
<td>Arc Voltage/CNC Controlled Axis</td>
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UNRIVALED SERVICE AND SUPPORT.

Like all ESAB products, VBA-Wrist is backed by our commitment to superior customer service and support. Our skilled customer service department is prepared to quickly answer any questions, address problems, and help with the maintenance and upgrading of your ESAB equipment and software. We offer:

- Value packages, including machine and process audits to maximize your investment
- Proactive preventive maintenance programs and maintenance contracts to keep your equipment and software up and running
- ESAB plasma consumables for the perfect cut
- Specialized repair services
- Retrofit upgrade products and packages for the latest in machine, control, and software technology
- Complete product and process training, including advanced training programs

And, our products are backed with the most comprehensive warranty in the business. With ESAB, you can be confident that the product you purchased will meet your needs today and in the future. Ask your ESAB sales representative or distributor for a complete ESAB solution.

For more information, visit esab-cutting.com