

THOUGHT-LEADER IN STEEL PROCESSING AUTOMATION

**SUPERIOR MACHINERY SYSTEMS** 

KISTLER: THE SPECIALIST IN ENGINEERING AND MANUFACTURING OF WELDING AND CUTTING SYSTEMS

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#### **CUTTING AND WELDING TECHNIQUES**

## KISTLER MASCHINEN-UND ANLAGENBAU GMBH

KISTLER stands as a long-established family business with a rich history rooted in engineering and manufacturing excellence. Specialising in welding positioning and cutting systems tailored to the welding trade, particularly for pipe welding and cutting applications, Kistler has solidified its reputation as a trusted name in the industry.

With a firm commitment to meeting the diverse needs of its customers, Kistler goes beyond offering a comprehensive range of standard equipment, including positioners, turning rolls, and manipulators. The company prides itself on its ability to provide bespoke solutions tailored to each client's specific requirements. From concept to completion, Kistler's team of skilled engineers and technicians work closely with customers to design and manufacture automation equipment that precisely meets their unique needs and challenges.

By offering both standard equipment and customised automation systems, Kistler ensures that customers have access to the tools and technologies they need to optimise their welding processes and enhance productivity. With a focus on innovation, quality, and customer satisfaction, Kistler continues to uphold its legacy of excellence in engineering and manufacturing, serving as a trusted partner to welding professionals worldwide.





### UNDERSTANDING THE DIFFERENT TYPES OF CNC CUTTING MACHINES

Industries today rely on CNC (Computer Numerical Control) machines to achieve precise and efficient production processes, surpassing the limitations of manual machining. These advanced machines use CAM (Computer-Aided Manufacturing) or CAD (Computer-Aided Design) software to precisely control cutting tools across multiple axes, transforming raw materials into precise shapes with minimal error.

CNC machines encompass a variety of types: CNC milling machines for drilling and cutting tasks, CNC lathes for rotational operations, CNC drills for creating precise holes, CNC lasers for high-precision cutting, CNC water jets for cutting heat-sensitive materials, CNC plasma cutters for electrically conductive metals, NC Electrical Discharge Machines for controlled electrical sparks, CNC routers for softer materials, and CNC 3D printers for additive manufacturing layer by layer. These machines ensure consistent product quality, enhance accuracy, increase production speed, and improve operator safety, making them indispensable in modern manufacturing processes.

At Kistler, we specialise in providing high-tech machining systems and offer a range of premium-quality CNC cutting machines. Visit our demo center to experience our machines firsthand and consult with our expert professionals to meet your manufacturing needs efficiently.



#### PIPE PROFILE PLASMA CUTTING MACHINES SCM RANGE

Our PLC controlled pipe cutting machines excel in delivering fully automatic and precise cutting across various pipe diameters, operating in a circular fashion around the pipe. Designed with versatility in mind, they are offered in three models: SC 300, SCM-400, and SCM-630, catering to diverse workshop and on-site pipe profiling requirements. These machines are particularly effective when paired with oxy-fuel torches or plasma cutters, utilising PLC-controlled axes to ensure precise and efficient cutting operations.

The user-friendly nature of these machines is highlighted by their menu-driven programming interface, allowing operators to easily input and adjust cutting schedules and sizes as needed. Automatic measurement of pipe length further enhances accuracy, ensuring each cut meets exact specifications. For added flexibility, the machines can be equipped with a third axis for specialised tasks such as beveling, accommodating various end cut configurations including straight cuts, miters, and branches.

This combination of advanced technology and intuitive operation makes our PLC controlled pipe cutting machines a reliable choice for enhancing productivity and precision in pipe cutting and profiling applications.



#### CNC PIPE CUTTING MACHINES RSM RANGE

At Kistler, we specialise in manufacturing CNC controlled pipe cutting machines tailored to meet diverse customer needs. Our RSM range includes three main models: RSM-400, RSM-630, and RSM-1200, designed for cutting adaptations and penetrations in pipes. These machines are crafted under the guidance of a skilled technical team using cutting-edge technology, ensuring high quality and competitive pricing for our customers.

Our CNC pipe cutting machines find wide application across industries such as infrastructure, engineering, pipelines, chemicals, and material handling. They offer precise cutting capabilities for pipes of varying thicknesses, leveraging computer control for consistent and reliable performance.

Key benefits include superior cut quality, exceptional precision, and minimal maintenance requirements, making our CNC pipe cutting machines a dependable choice for enhancing operational efficiency and accuracy in industrial settings.



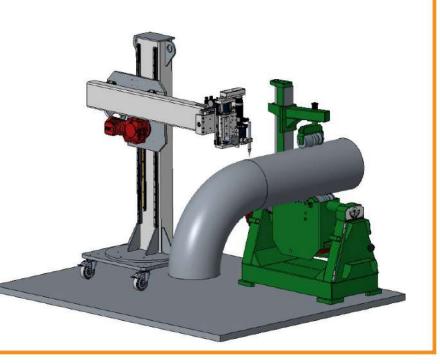


## 5 WELDING AUTOMATION OPTIONS YOU NEED TO KNOW

Welding can appear daunting for beginners due to the variety of tools involved, the heat and sparks generated, and potential safety risks. However, understanding essential automated welding machines can alleviate concerns and improve efficiency. Key tools include:

- Welding Pipe Rotators: Essential for steadying and rotating pipes during welding, enhancing precision and reducing labor.
- Turning Rollers: Positioners that facilitate rotational movement of workpieces, available in conventional and self-aligning models.
- Welding Positioners: Aid in achieving optimal welding angles and positions, crucial for accuracy and ease of operation.
- Welding Chucks: Securely hold workpieces under high welding pressures, ensuring stability during operations.
- H Beam Welding Lines: Used for precise welding of steel beams in construction and industrial applications, enhancing productivity and quality.

Automation in welding not only enhances precision and production efficiency but also reduces errors and improves weld quality compared to traditional methods. For superior automated welding solutions, Kistler Machines offers industry-leading technologies that ensure reliable results and operational savings. Whether for large-scale production or complex welding projects, automated solutions provide the accuracy and efficiency needed to meet demanding requirements effectively.



#### PIPE ROTATORS WITH CLAMPING SYSTEM U RANGE

Pipe rotators are essential tools in fabrication and production workshops, particularly for welding circular items like pipes and cylindrical components. At Kistler, we offer a variety of U-range pipe rotators designed to enhance productivity and streamline welding procedures. These rotators come in different load capacities to suit various industrial requirements, reducing the need for manual handling and improving workmanship quality. Whether you need a single-drive or three-ton pipe rotator, our robust solutions ensure reliable performance and efficiency in welding operations.

Welding rotators, also known as tank rotating rolls or pipe rotators, are mechanical devices crucial for welding, fabrication, and assembly processes involving cylindrical workpieces. They feature rollers or wheels mounted on movable arms that facilitate smooth rotation during welding. Our Kistler rotators are capable of handling a wide range of projects, from pressure vessels and storage tanks to pipeline welding and monopile constructions for wind tower turbines.

Available in capacities ranging from 500 kg to 500,000 kg, these rotators improve safety, reduce handling time, increase output, and enhance welding quality across various applications. Whether for small diameter pipes or large-scale industrial projects, our comprehensive selection of pipe rollers and turning rolls ensures dependable solutions tailored to meet diverse customer needs.



#### INDUSTRY-LEADING RANGE FOR PIPES AND PRESSURE VESSELS **TURNING ROLLS**

Kistler offers a leading range of turning rolls designed for precise rotation of cylindrical weldments in heavy manufacturing, ensuring improved throughput, safety, low maintenance, and extended service life. Our turning rolls cater to specific applications such as tanks, pressure vessels, tank cars, and pipe spooling, with various designs and capacities tailored to meet diverse industrial needs.

Our engineering expertise allows us to assess load capacities, production processes, and material requirements to recommend optimal positioning solutions. While standard products are commonly used, we also specialise in custom-engineered turning rolls integrated with welding solutions for specialised applications.

Available in both bogie-mounted and stationary configurations, our turning rolls feature manual or motorised spindle adjustments to accommodate different diameters. Self-adjusting options are also available, along with anti-drift mechanisms to prevent pipe movement during welding. These turning rolls can be integrated into complete systems for use with welding gantries or column & boom manipulators, ensuring synchronised operations for enhanced production outcomes.

Kistler's conventional and self-aligning welding turning rolls provide practical and cost-effective solutions for rotating cylindrical vessels, improving productivity and weld quality across various industries. Whether for small diameter pipes or large-scale industrial vessels like those used in wind tower manufacturing, our turning rolls are indispensable for ensuring precise and efficient welding processes such as SAW, TIG, and MIG.





#### HOW WELDING POSITIONERS IMPROVE WELDING EFFICIENCY AND PRODUCTIVITY

Technological advancements have revolutionised productivity across industries, with welding positioners standing out as pivotal tools in enhancing efficiency. By automating the tilting and rotating of workpieces, welding positioners alleviate the time-consuming tasks welders face in positioning materials manually. This automation not only reduces setup time and minimises downtime between jobs but also enhances welding precision by eliminating human errors due to fatigue or lack of experience.

Additionally, the cost efficiencies of using welding positioners are substantial, as they reduce labor expenses and require minimal maintenance compared to traditional methods. Moreover, these tools contribute to improved weld quality and workplace safety by reducing the risk of musculoskeletal injuries associated with manual handling of heavy materials.

Kistler exemplifies these advancements with their commitment to quality in welding automation solutions. Their products, renowned for reliability and durability, meet stringent industry standards while enhancing productivity in welding operations. With a strong global presence and decades of expertise, Kistler remains a leader in welding machinery, ensuring that their equipment not only meets customer expectations but also supports safe and efficient welding practices worldwide.



#### FOR DIFFICULT AND LARGE WORKPIECE WELDING WELDING POSITIONERS

Kistler has been a pioneer in designing and manufacturing welding positioners for over 50 years, specialising in handling large and challenging workpieces. These positioners allow welders to operate continuously on a stable surface, reducing worker fatigue and increasing productivity by eliminating the need for constant movement around the workpiece. This setup ensures consistently high-quality welds as it avoids overhead or vertical runs.

The primary function of Kistler welding positioners is to position workpieces optimally for safe and efficient welding, significantly enhancing productivity by up to 70%. These positioners integrate seamlessly with other systems, offering flexibility and efficiency in steel fabrication operations.

They support various tasks such as downhand welding, strip cladding, circumferential welding, and assembly of intricate components, rotating and tilting with precise variable speeds and high load ratings. Businesses utilising Kistler positioners report reduced handling time, crane usage, and maintenance costs, leading to improved competitiveness in bidding and profitability on contracts.





### WELDING CHUCKS: THE COMPLETE GUIDE TO PRECISION AND EFFICIENCY

Welding chucks are essential tools in the welding industry, offering precision, efficiency, and safety during the welding process. They securely hold workpieces in place, preventing movement and ensuring accurate alignment throughout the welding operation. Available in manual, pneumatic, and hydraulic types, welding chucks cater to diverse welding applications—from intricate automotive parts to heavy-duty aerospace components.

These chucks enhance productivity by streamlining setup times and minimizing workpiece handling, thus increasing overall efficiency. Their ability to provide a stable grip improves weld quality by reducing the risk of misalignment and defects. Additionally, welding chucks contribute to workplace safety by preventing workpiece slippage and allowing welders to focus on the welding task at hand. Choosing the right welding chuck involves considering factors such as workpiece size, clamping force requirements, welding application, material compatibility, and integration with automation systems. Regular maintenance ensures prolonged performance and reliability, making welding chucks indispensable assets in achieving superior welds and successful welding projects.



#### WELDING CHUCK AVAILABLE WELDING CHUCKS

Kistler, a leading manufacturer in the welding industry, specialises in producing high-quality welding chucks through over 20 years of dedicated experience and ongoing R&D efforts. They offer customisable systems tailored to meet specific client requirements, supported by a team of technical experts skilled in advanced customisation techniques. Kistler prioritises customer satisfaction by consistently delivering superior welding chucks and providing prompt support for all inquiries.

Their product lineup includes manual welding chucks in the MC and QCS ranges, designed for reliability and ease of use in both internal and external chucking applications. Kistler's welding chucks feature self-centering capabilities and are engineered for efficient, rapid operations, allowing welders to focus on achieving precise welds without compromising productivity.

For those seeking dependable welding chucks backed by robust manufacturing and dedicated customer service, Kistler stands out as a trustworthy partner committed to excellence in every aspect of their products and support services.





## UNDERSTANDING H BEAM WELDING LINES

H Beam Welding Lines represent a pinnacle in structural steel fabrication, where precision and efficiency converge to meet the demanding standards of modern construction. These systems, centered around advanced H-Beam Welding Machines and automated processes, ensure each weld is executed with meticulous accuracy and consistency. By integrating sophisticated technologies such as CNC controls and Submerged Arc Welding, these lines optimise production throughput while maintaining high-quality welds, crucial for ensuring the strength and durability of H beams used in diverse architectural and infrastructural projects.

Beyond precision welding, H Beam Welding Lines offer significant operational advantages. They enhance efficiency by reducing manual labor, increasing production rates, and minimising material wastage through precise automated processes. Their versatility in handling various beam sizes and specifications further underscores their adaptability to meet the dynamic needs of construction projects worldwide. As industry leaders like Kistler continue to innovate, these systems play an essential role in pushing the boundaries of what can be achieved in structural fabrication, ensuring robust and reliable construction solutions globally.



#### DESIGNED FOR CONTINUOUS PRODUCTION OF WELDED I AND T BEAMS

#### **H BEAM WELDING LINES**

H Beam welding lines are engineered for continuous production of welded I and T Beams, offering versatility for both parallel and tapered configurations. These lines are optimised with a vertical web plate positioning system that eliminates the need for initial tack welding, except for a small weld at the leading edge once alignment with the flange center line is achieved.

The welding process begins by feeding the web plate and the first flange into the machine, enabling simultaneous welding from both sides of the web plate across its entire length. After welding the first flange, a 180° rotation facilitates seamless alignment and welding of the second flange, ensuring comprehensive coverage and structural integrity throughout the beam.

These H Beam welding lines are indispensable in various applications, including construction and infrastructure projects where robust structural support is essential. By combining precision welding techniques with efficient workflow management, these machines contribute significantly to the durability and reliability of welded beams used in modern architectural and engineering endeavors.











#### LOOKING TO BUY PRE-LOVED MACHINERY?

Specialist Machinery Sales offer second-hand or used structural steel processing machinery from Kaltenbach, Gietart, Haeusler, SLF and more.

Generally, the machines that SMS has access to are from trading for new machines offered from the machine tool builders to clients of SMS in Australia and New Zealand. Most machines are between 5 and 15 years of age with full-service history available. Some machines can be inspected under power or in their shipping packing ready for immediate delivery to Australasia.

LEARN MORE HERE ▶











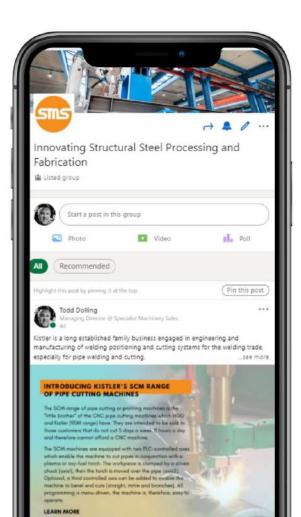
## READY TO SELL YOUR PRE-LOVED MACHINERY?

Selling your pre-loved machinery may appear to be a simple process but it might be more complicated than you think. Selling pre-loved machinery involves equipment liens, resale certificates and financing a buyer. BUT DO NOT WORRY!

Used Structural Machinery (USM) is here to partner with you. At USM, we are your ideal channel to take your equipment and place it in the right hands, with the security and confidence that characterises us. Review our checklist below to help you understand when to retire your machine and how USM can help you sell it off efficiently and effectively.

LEARN MORE HERE ▶





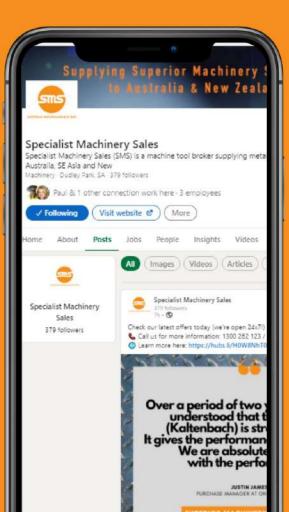
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Join our growing and exclusive LinkedIn Group 
Innovating Structural Steel Processing and Fabrication Group.

In this group, we bring in thought leadership content, topics, trends and challenges within the steel industry and steel processing automation. We encourage everyone to share your business challenges and solutions that you have encountered and how steel processing automation had helped achieved your business objectives.





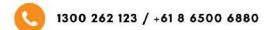


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