



Product Manual

# OTHER INDUSTRY MACHINERY

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2024/2025

## Rich Product Portfolio

- Automobile Machinery

# **AUTOMOBILE MACHINERY**

## AUTOMOBILE MACHINERY

At Absolute Machine Tools, we understand the dynamic and demanding nature of the automotive industry. As a leading provider of cutting-edge machinery and solutions, we are dedicated to empowering automotive manufacturers with the tools they need to stay ahead in this competitive market. With our state-of-the-art equipment and unwavering commitment to quality, precision, and efficiency, we are your trusted partner for all your automotive manufacturing needs.

## Your Partner In Automotive Manufacturing Excellence

Our comprehensive range of automotive machinery is designed to optimize your production processes and enhance your manufacturing capabilities. Whether you're involved in engine component manufacturing, precision machining, or automotive part production, we have the perfect solution for you. No matter what your application or machining requirement, you're sure to find exactly what you're looking for at Absolute. Ranging from bridge mills to drill and tap centers, flat bed and slant bed lathes to Swiss lathes and screw machines, and large industrial robots to collaborative robots, we have it all.

## Types Of Automobile Machinery

- Electronic Diagnostic Equipment
- Welding Systems
- Lifts and Hoists
- Scanners
- A/C Machine
- Jacks & Jack Stands
- Oxygen-Acetylene Torch
- Free-Standing Press
- Brake Lathe
- Battery Charger & Jump Box

## Electronic Diagnostic Equipment

Electronic diagnostic equipment encompasses the type of handheld tools that use digital controls and electronic sensors to solve electronic and electromechanical auto problems. The equipment achieves this goal by enabling mechanics to compare their analysis of a vehicle with the information the car manufacturer's database provides.

## Welding System

Welding systems are some of the most common types of automotive shop equipment used in the automotive industry today. Welding machines use heat and air to melt two or more metal pieces and create one larger metal piece.

Since welding machines are such versatile tools, they can be used to carry out various functions—such as repairing cracks and fixing damaged fenders or bumpers. Another factor to keep in mind is that welding systems generally require three-phase power to carry heavy loads. If your auto shop only receives utility single-phase power, you'll need to invest in a single to 3 phase converter.

## Lift and Hoists

Lifts and hoists are a type of heavy-duty automotive machinery used to move vehicles between locations, load and unload them, and are necessary to complete maintenance and repairs. Their primary function is to elevate vehicles so mechanics can inspect and work on the undercarriage components with greater visibility.

Some basic types of lifts and hoists include:

- Forklifts
- Jacks
- Pneumatic lifts
- Scissor lifts

## Scanners

Automotive scanners help mechanics diagnose, test, and repair vehicles by scanning a car and reading the information provided by the computer system in your car. This type of automotive machinery plugs into your car to read the error codes and generate a report listing possible solutions to fix the problem. These devices can be either handheld or stationary. Scanners generally focus on the following parts: bodywork, engine, transmission, brakes, and suspension.

## A/C Machine

An A/C machine fixes problems with the air conditioning systems of vehicles. By removing moisture from the air in a vehicle, the A/C machine regulates the internal temperature. Here are the three components of an A/C machine used in the automotive industry:

- **Evaporator:** Produces cold air by cooling down the refrigerant gas that has been heated by the engine
- **Condenser:** Releases heat from the compressed gas back into the atmosphere so it can be cooled down again by atmospheric air or water before returning to a closed-loop
- **Compressor:** Compresses the refrigerant gas so that the evaporator can cool it

## Jacks & Jack Stands

Similar to the purpose of lifts and hoists, jacks and jack stands support the weight of a vehicle while it's being raised and provide a stable base for mechanics to work underneath it. They're typically made of metal, wood, or plastic and can be used to lift objects that are either too heavy or too awkward for one person to lift alone. Jacks and jack stands are even equipped with rubber pads so they don't damage the surface they're placed on and have handles for convenient portability.

## Oxygen-Acetylene Torch

An oxygen-acetylene torch is a type of gas torch often used for cutting and welding metal. This type of automotive shop equipment uses a mixture of oxygen and acetylene gases, which produces an intense flame that can be adjusted to meet the user's needs. Oxygen-acetylene torches can also correct rust issues on cars residing in particularly moist or humid areas.

Below are the three parts that comprise every oxygen-acetylene torch:

- **Burner:** Produces heat through combustion by mixing air with fuel gas
- **Nozzle:** Emits a high-temperature flame
- **Handle:** Holds the nozzle in place while allowing control over how much air is mixed with the fuel gas, thus controlling how hot or cool the flame will be

## Free-Standing Press

A free-standing press is an essential part of the automotive production and repair processes. This type of automotive machinery can be used for various purposes such as bending, pressing, and shaping metal sheets. A free-standing press is different from a hydraulic press because it uses air or hydraulic, rather than water, as the main source of pressure. It also differs from a turret press because it doesn't rely on an external power source.

## Brake Lathe

A brake lathe is a machine that carves out metal to create the shape of a brake disc and smooth it out. The process, known as "turning," is done by rotating two different-sized cutting tools against one another. This device corrects common brake problems, such as excessive noise or vibration.

## Battery Charger & Jump Box

A battery charger is an automotive device used to recharge a car's battery when it dies. Car batteries can die from natural wear and tear as well as after sitting idle for extended periods.

A jump box is a portable power source used to start a vehicle that has a dead battery. This device contains a set of jumper cables with alligator clips attached to one end. The jumper cables attach to the battery terminals of two vehicles to provide enough power from one to start the other.

# **AUTOMOBILE MACHINERY**

## **BRIDGE MILLS**





## Bridge Mills

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Absolute Machine Tools has been importing, distributing, and servicing CNC bridge mills since its inception in 1988. Our history with these big machines assures our expertise when pairing our customers' applications with the right machine. Brands such as Johnford and APEC, are the two types of options we offer because they support the entire spectrum of bridge cutting including box ways and geared heads to linear ways and motors.

## About Johnford Bridge Mills

Johnford bridge mills, or double column machining centers, are built for machining heavyweight workpieces while performing deep-cutting milling, drilling and boring operations:

- Strong box ways support the weight of the table and workpiece, while the double columns provide a stable and rigid framework to support the gantry, spindle and tool head.
- Guideways and ballscrews in the columns allow for controlled movement of the bridge for positioning the tool head or workpiece during machining operations.
- The columns, box ways, and gantry all work together to distribute loads and forces generated during machining helping to maintain accuracy and reduce vibrations.
- Johnford bridge mills are available in a wide variety of configurations and can be custom designed and made to fit specific machining needs.

**Spindle Options:** A wide range of spindle choices from both 40 and 50 taper to HSK-63A and 100A are available, depending on specific applications.

**Configurations:** A full range of highly engineered configurations including W axis (cross rail up and down controlled by CNC), full 5-face machining with multiple heads and automatic attachment changer, and full 5-axis articulating heads for simultaneous machining in both high speed and heavy duty versions. This includes:

- **DMC Series** – 900mm-1500mm
- **DMC Series** – 1600mm – 4100mm
- **S/SH Series** – 2100mm – 6100mm with 1780mm (70") Extended Y-Axis Travel
- **P/PH Series** – 3100mm – 4100mm with 2300mm (90.5") Extended Y-Axis Travel
- **L/LH Series** – 3100mm – 6100mm with 2800mm (110.2") Extended Y-Axis Travel
- **Massive Fixed/Moving Column & 5-Axis/5-Face** – 4000mm – 6000mm+W

Starting with our smallest DMC-900 with 36" x 36" x 30" travels to our giant sliding column SDMC-20000 with 720" x 240" x 120" (42" Z + 78" W axis) travels, we can supply virtually any size and any configuration necessary to get the job done right.

## APEC

APEC's MT series of 5-axis high-speed double-column machining centers are designed for unparalleled precision and efficiency, especially when machining aluminum alloy structural parts for aerospace and high-precision molds.

- Construction of the Duo Block design for the machine's framework enhances rigidity and machining stability.
- The machine's 5-axis capabilities allow for superior accuracy when machining in X, Y, and Z axes while simultaneously rotating A and B axes using direct drive motors for high-end complex parts processing.
- APEC machines are built with linear guideways and linear motors for lightning fast machining, incredibly high tolerances and accuracies, and pristine surface finishes.
- Rapid traverse rate of 1181"/min and high-speed ballscrews for acceleration/deceleration ranges from 16.4 ft./sec<sup>2</sup> to 197 ft./sec<sup>2</sup> ensure unparalleled time-saving efficiency in every operation.
- Built with AGA or GTW spindles with max speeds of 15,000 and 24,000 RPMs.
- Travels range from 78.74" to 118.11" in X, 78.74" in Y, and 33.46" in Z.
- High-speed automatic tool changers with HSK63A or HSK100A tool shanks for 32 and 40 tool capacities. Heidenhain TNC640 5-axis CNC control or Heidenhain iTNC530 5-axis CNC control both with HR510 MPG.
- All APEC 5-axis double-column machining centers all include a 2-axis head drive by direct drive motors for superior contour finish and complex curved surface machining capabilities.

As the leading machine tool distributor in North America, Absolute Machine Tools remains committed to providing a comprehensive range of machine tools and equipment from reputed brands to cater to several industries.

## Machines



**Johnford  
DMC-900 ~ DMC-1500**



**Johnford  
DMC Series 1600 – 4100**



**Johnford  
DMC S/SH Series**



**Johnford  
DMC P/PH Series**



**Johnford  
DMC L/LH Series**



**Moving Table  
Fixed Column Bridge Mills**



**Johnford  
SDMC Series**



**APEC  
MC30200 Series**



**APEC  
MT15 Series**



**APEC  
MTH15 Series**



**Johnford DMC-900 ~ DMC-1500**

**AUTOMOBILE MACHINERY**

## FEATURES

- • The innovative arc mechanism guarantees flawless expansion of elastic fabrics.
- • The machine will automatically return to its original position once the fabric runs out.
- • Simple operation enhances production efficiency and guarantees top-notch quality.
- • After 5 minutes of idle time, the machine's power will automatically shut off.
- • When the emergency stop is triggered, the fabric will not be spread.
- • The user-friendly operation system includes a PLC touch panel.
- • Spreading the fabric without tension.
- • The streamlined shape of the machine reduces wind disturbance, noise, and vibration.
- • The automatic fabric expanding system ensures convenience and efficiency.
- • Variable cutter travel distance.

# **AUTOMOBILE MACHINERY**

## **EDM MACHINE**



## EDM MACHINE

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Absolute Machine Tools is your premier source for high-quality CNC EDM machines. Discover the power and precision of our industry-leading brands, AccuteX and Ocean Technologies. With cutting-edge technology and exceptional performance, our machines redefine EDM machining, delivering unmatched quality and efficiency for your manufacturing needs. Our OEMs are renowned for their cutting-edge technology and exceptional precision, providing the perfect solutions for all your electrical discharge machining needs. Whether you're looking to enhance your manufacturing capabilities or boost productivity, our EDM machines are the ideal choice.

## Optimize Your EDM Efficiency and Save Thousands with Absolute Machine Tools

By partnering with Absolute for your EDM needs, you can optimize your machining efficiency while saving substantial operating costs. Our machines' reduced wire consumption and advanced technologies deliver unparalleled precision and productivity. Don't miss out on the opportunity to enhance your manufacturing processes and increase your bottom line.

Contact us today to explore our range of CNC EDM machines and revolutionize your EDM machining capabilities.

### Machines



**NEW Accutex  
ueX10 CNC Controller**



**Accutex  
CNC Wire EDM Series**



**Accutex  
Die Sinker Series**



**Ocean Technologies  
River Series**



**Consumables**

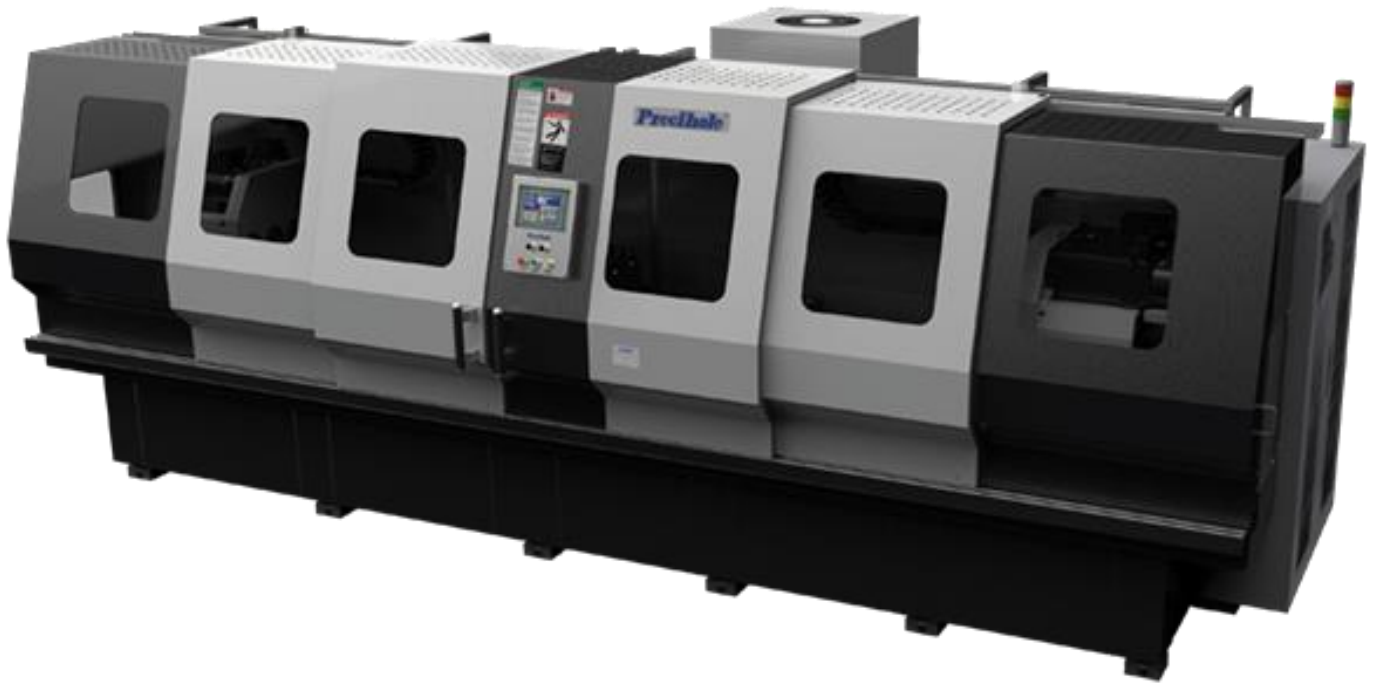


**Tongtai Graphite Milling  
Machine Series**

# **AUTOMOBILE MACHINERY**

## **GUN DRILLING MACHINE**





## GUN DRILLING MACHINE

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Gun Drilling or deep hole drilling is a hole making machining process that generates holes that can be up to 200 times longer than the diameter of the hole. Applications in today's industry demand deep hole drilling in exotic materials or hard super-alloys while maintaining accuracy and productivity. Maintaining straightness of holes with good tolerances and surface finish requires the proper machine. Gun drilling machines from Precihole perfectly fit the mold of extraordinary quality machines with superb precision, tolerance, and surface finish. Browse our extensive range of Precihole Series to find one that exactly meets your needs.

## Precihole — The Leader in Deep Hole Drilling and Hole Finishing Equipment and Solutions

As one of the most recognized machine tool distributors, Absolute Machine Tools remains committed to supplying customers with the highest quality tools and equipment from reputable manufacturers worldwide.

With the most complete range of deep hole drilling and finishing solutions, Precihole is easily the leading provider of such equipment, catering to the requirements of diverse segments and companies across the world. Their expertise in this niche technology has earned them the enviable position of the leading brand across the globe.

Precihole offers custom engineering solutions to meet the specific demands of over 150 varied types of applications in more than 20 sectors. Oil & gas, automotive, aerospace, defense and firearm, medical implants, die and mold, seamless tube manufacturing, energy, and hydraulic cylinders are some of the most crucial domains for which they design highly effective gun drilling machines.

In addition, they also cover other application areas including but not limited to BTA (STS) / ejector drilling, pull boring, counter boring, honing, pull reaming, roller burnishing, and bottle boring. Moreover, as an ISO 9000-certified company, it maintains strict compliance with quality standards. A focus on product optimization by increasing ease of use, accuracy, performance, workmanship, and aesthetics makes adherence to the highest quality benchmarks easy. Their consistent optimization efforts have resulted in a tremendous improvement in key performance metrics such as hole straightness, bore tolerance and surface finish.

## Machines



**Precihole  
BRM Series**



**Precihole  
BRVN Series**



**Precihole  
BSP Series**



**Precihole  
BTA Series**



**Precihole  
CR Series**



**Precihole  
FCVN Series**



**Precihole  
GDM Series**



**Precihole  
GVN Series**



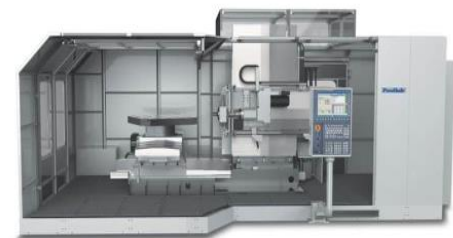
**Precihole  
GVN-C Series**



**Precihole  
HHM Series**



**Precihole  
LPVN Series**



**Precihole  
PMTC Series**

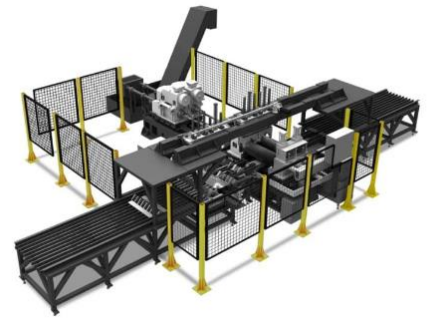
## Machines



**Precihole  
PRVN Series**



**Precihole  
SBN Series**



**Precihole  
SPM Machines**



**Precihole  
TGM Series**



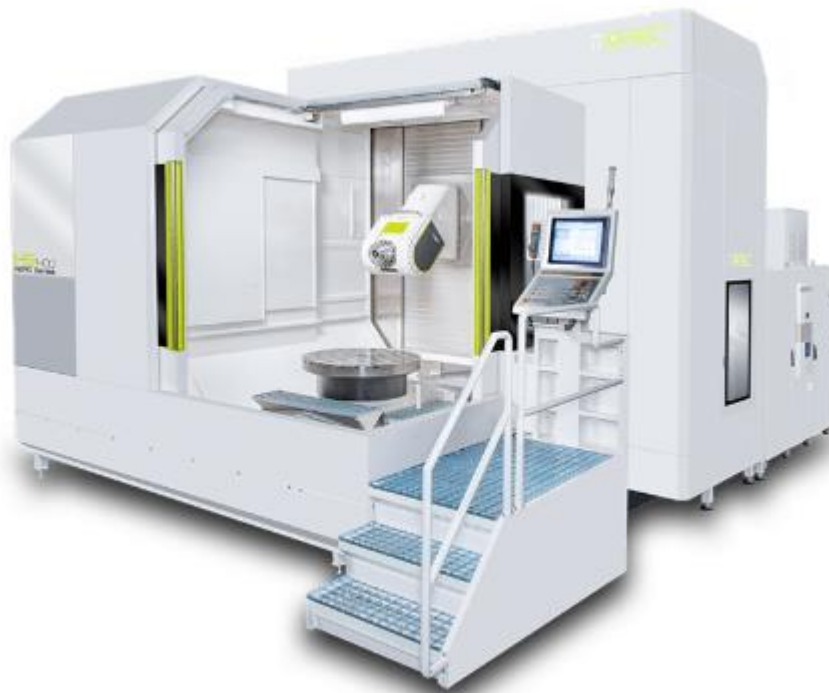
**Precihole  
VHM Series**



**Precihole  
XYGVN Series**

# **AUTOMOBILE MACHINERY**

## **Horizontal Machining Centers**



## Horizontal Machining Centers

Absolute Machine Tools offers horizontal machining centers from 3 different global manufacturers. A company is only as good as the products they sell and the work they do.

Much like you have pride in what you produce, we take pride in offering the right tools to help you get the job done. These HMCs come with the Absolute Machine stamp of approval. As machine tool distributors, we take our products seriously.

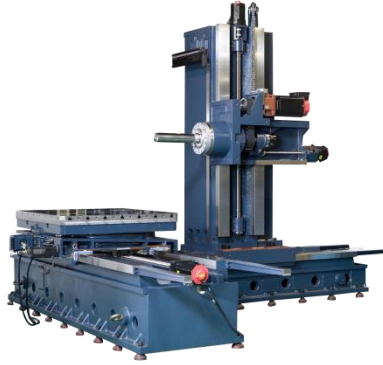
All of our horizontal machining centers display the speed and precision necessary to allow you to implement high-speed machining techniques in your shop. These techniques can leverage the machine's capabilities even further, allowing you to make the most of your investment. Your shop can benefit from an increase in profitability when these machines are used right. We offer many sizes and range capacities with pallet and non-palleted models. Whether the application requires ultimate production speed, heavy cutting, or large part capacity, we have a cost effective solution. All of our HMC machines are manufactured with high-precision and state-of-the-art design in mind. We offer our clientele cutting edge speed and accuracy through our products, so you can do your job and do it right.

Can't find the machines you are looking for or need a customized machine to fit your application? Please contact us directly.

## Machines



**Enshu  
GE Series**



**Johnford  
AHC Series**



**APEC  
HS700 Series**



**APEC  
HS1400 Series**



**You Ji  
HMC Series**



**Tongtai  
SH Series**



**Tongtai  
TMH Series**

# **AUTOMOBILE MACHINERY**

## **Lathes – Horizontal**





## Lathes – Horizontal

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Absolute Machine Tools offers a wide variety of CNC lathes for manufacturing very small to extremely large component parts.

## Machines



**Horizontal (Slant Bed)  
Turning Centers**



**Horizontal (Slant Bed)  
Turning Centers**



**Multitasking  
Turning Centers**



**Horizontal (Flat Bed)  
Turning Centers**



**Swiss-type Lathes**



**Turning Centers  
Automation (Auto Loading)**



**Vertical  
Turning Centers**

# **AUTOMOBILE MACHINERY**

## **Screw Machines**



## Screw Machine

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Absolute Machine Tools is proud to offer LICO CNC screw machines. Since 1978, LICO has built an exceptional reputation for producing precise, high-quality machine tools. The company remains committed to excellence, whether it is producing innovative and high-quality automatic CNC multi-slide screw machines or twin spindle multi-slide mills or turn centers. LICO multi-axis, multi-slide CNC screw machines combine up to 4 X-Z cross-slides with an 8-position turret that work simultaneously to maximize metal removal. Overlapping up to 5 tools simultaneously, LICO machine tools rival screw machine speed with CNC quality and versatility. These machines include either turret-mounted or independent counter-spindles, and they're available in spindle sized from 36mm to 100mm. When cycle times are important, overlapping tools get the job done faster!

## Machines



**LNDD Series**



**LNTS Series**

# **AUTOMOBILE MACHINERY**

**Swiss Lathes**



## Swiss Lathes

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Absolute Machine Tools is proud to offer Nexturn.Swiss-style CNC lathes, which engineered to maximize accuracy and profitability in the production machining of complex precision parts. Nexturn Swiss-style machines include basic guide-bushing-equipped machines with maximum bar capacities from 12mm to 38mm diameter, exchangeable guide-bushing machines from 20mm to 38mm capacity, and non-guide-bushing machines with 26mm to 51mm bar capacity. In addition, Nexturn provides turret type non-guide-bushing, sliding-headstock machines to process 45 mm, 56mm, and 67mm diameter bars.

Six different CNC Swiss lathe series are designed to meet specific production and economic requirements. Most models feature different levels of sophistication and options that enable Swiss CNC machine capabilities to be tailored to fit any budget.

## Machines



**Nexturn  
SA(B) Series**



**Nexturn  
SA(PII) Series**



**Nexturn  
SA(PYII) Series**



**Nexturn  
SA(XII) Series**



**Nexturn  
SA(XIII) Series**



# **AUTOMOBILE MACHINERY**

**Ultrasonic**



## Ultrasonic

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# **AUTOMOBILE MACHINERY**

## **Vertical Turning Centers & Lathes**



## Vertical Turning Centers & Lathes

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## REFERENCES

<https://absolutemachine.com/industries/automotive/>

SCAN ME



ANHUI GLEADER INTELLIGENT TECHNOLOGY CO. LTD.,  
安徽格莱德智能科技有限公司

