



BROACHING SOLUTION

Supplied to more than 30 countries



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CNC Helical Broaching Machine

Axisco's CNC helical broaching machine is built to make any internal helical angle precisely and efficiently. With this machine, you don't need high technical skills to make a complex helical shape with high accuracy and a good surface finish.



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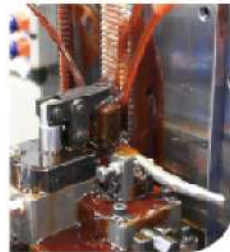
AXISCO offers internal spline broaching machines, with one-time spline broaching, efficient production, accurate location, and high speed broaching.



07

Hydraulic Surface Broaching Machine

AXISCO specializes in hydraulic surface broaching machines and customized machines such as auto broach cleaner, hydraulic fixtures, broach tools, and so on.



09

CNC Broach Tool Resharpener Machine

Broaching is a machining process that uses a toothed tool, called a broach, to remove material. In linear broaching, the broach is run linearly against the surface of the workpiece to effect the cut. Linear broaches are used in a broaching machine, which is also sometimes shortened to broach.



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Entities Photo

We have customers all over the Automobile, motorcycle, gear, hand tools, lock, hydraulic valve, electrical parts business.



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Broaching Machines Industry Applications

Our customers are all over the aerospace, automobile, gear, bicycle, hand tools, locks, hydraulic valve parts, electronic parts, and various hardware industries.



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BROACH TOOL RE-SHARPENING MACHINE

The machine has heavy duty design for long life time. Re-sharpening for different broach tool hook angle and pitch. Fast and easy to set up and operate.



EST. 1984

**ABOUT
AXISCO**

Established in 1984, Axisco Precision Machinery Co., Ltd. built its name by helping customers in more than thirty countries with broaching turnkey solutions.

The solutions are including electrical-mechanical table-up broaching machines, CNC helical broaching machines, hydraulic internal broaching machines, hydraulic surface broaching machines, broach tools, fixtures, training, and so on.

Axisco's main factory is in Taiwan. Two additional Sales & Service offices are located in China and the US.



CERTIFICATION

Axisco is an ISO9001:2015 certified company with annual audits and training. Other certificates, such as D-U-N-S Registered for the company, CE certification, and the patents for the products, are also renewed annually.



ISO 9001:2015



ISO 9001:2008



D-U-N-S



TAIWAN EXCELLENCE



CHU, CHX-CE



CHI-CE



YST-CE



SBL-CE

HISTORY

1984
Established in 1984, Axisco developed the first customized machine tool.



1991
Axisco developed the first broaching machine.



1999
Axisco hit the sales of 1000 machines.

2003
Axisco acquired SGS ISO9001 certification.

2007
Axisco acquired TUV ISO9001 & CE certification.

2009
Axisco acquired TUV ISO9001 : 2008 certification.

2010
Axisco developed vertical table up broaching machine. Axisco developed automation for broaching machine. Axisco supplied machine to more than 30 countries in the world.



2011
Axisco acquired D&B D-U-N-S REGISTERED certification.

2017
Axisco acquired the 26th Taiwan Excellence Award.



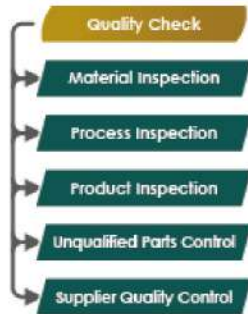
2018
Axisco increased the registered capital to 8 million USD. The new headquarter with 5000 sq. meters. Axisco acquired ISO 9001 : 2015 certification. Axisco started the office in North America.



QUALITY MANAGEMENT

Quality Check

In manufacturing, there are inspections in the material, the process, and the products. The unqualified parts and the quality improvement of the suppliers are seriously controlled.



Quality Assurance

Not only us but also suppliers and customers are all involved in the quality system. It helps to do the right thing from the beginning, and make sure we do it right in every process.



INSPECT REMOTELY

The machinery industry highly depends on mutual visits in factory checks, contract negotiation, machine inspections, etc. When having machine inspections, it is challenging to let buyers feel confident about machine quality when they can not see and touch the machine themselves. Luckily, with the application of the internet and technology, those are no longer problems.



MEASURING EQUIPMENT

There are professional inspection instruments including Mitutoyo CRYSTA-Apex S500 Coordinate Measuring Machine, Mitutoyo Linear Height Measuring Machine, Rockwell Hardness Tester, Profile Projector, etc. We can provide full support for your product inspection requirements.



Go Green with Axisco

The Power-saving and Environmental-friendly Nature of Axisco's Servo Broaching Machine

The servo power system is the primary power source of CNC helical broaching machines and servo table-top broaching machines. It saves up to 40% electricity comparing with traditional hydraulic broaching machines. No circulation oil is required for running the equipment. Axisco's servo broaching machines can help reduce power costs significantly as well as protect the environment.

Advanced Filtration System

The two-step filtration makes chips and coolant separate better. An external coolant tank that integrates a chiller, paper belt filter, and oil skimmer is a popular optional item for customers looking for better cutting performance and longer coolant life.

CHU
CHX





Servo Drive Table Up Broaching Machine



Highlights

- √ The machine is equipped with servo motor and ball screw, consistent broaching speed, low vibration, increase the tool life by up to 20%.
- √ Compare with the traditional hydraulic machine, the electrical mechanical design saves up to 40% electricity.
- √ The HMI makes it easy to operate and diagnose the machine.
- √ Adjust the broaching speed and stroke through HMI.
- √ No pit needed for electrical mechanical broaching machine, easy for automation.
- √ The broach retriever holds the broach to reduce vibration during broaching.
- √ CE certified safety design with easy maintenance.
- √ Control: MITSUBISHI · FANUC · AB · SIEMENS

Media



Servo drive table-up broaching machines apply the cutting-edge broaching technology for advanced precision, longer tool life, and better power efficiency. The working height is the same as most of the devices such as lathes, milling machines, etc., making it very easy to integrate automation.

CHX

Broaching Force: 5 - 60 Ton
 Broaching Stroke: 1000 - 3000 mm



CNC HELICAL BROACHING MACHINE

Highlights



Media

Axisco's CNC helical broaching machine is built to make any internal helical angle precisely and efficiently. With this machine, you don't need high technical skills to make a complex helical shape with high accuracy and a good surface finish.



- √ The broach rotates while the table goes up.
- √ The helical angle is controlled by CNC.
- √ Equip servo motor and ball screw, consistent speed, low vibration, increase tool life up to 20%.
- √ Compare with traditional hydraulic machine, the electrical mechanical design saves up to 40% electricity.
- √ The HMI makes it easy to operate and diagnose the machine.
- √ Adjust the broaching speed and stroke through HMI.
- √ No pit needed for electrical mechanical machine, easy for automation.
- √ The broach retriever holds the broach to reduce vibration during broaching.





The best and only cutting-edge broaching solution provider in Taiwan.

Gigantic Broaching Machines

Axisco is the only broaching solution provider in Taiwan that is capable of making gigantic broaching machines up to 120-ton force and 2200 mm stroke. 100% of the mechanical parts are made in Taiwan with the best quality and quick lead time. The main power is hydraulic with servo energy-saving system which makes the gigantic broaching machine powerful, stable, and more friendly to the environment as well.

Unique Broaching Solutions for Aerospace Industry

The parts of the aerospace industry, especially those parts in engines, require a high level of both technology and experience to manufacture. Entering the fourth decade, Axisco successfully developed a series of special broaching solutions for engine parts.

CHI
YST



Broaching Force: 3 - 100 Ton
 Broaching Stroke: 600 - 2200 mm



Hydraulic Internal Broaching Machine



Highlights

- √ Broaching internal spline or keyway.
- √ One-time spline broaching, increase production efficiency.
- √ Accurate location, high speed broaching, high accuracy.
- √ Heavy duty design, long life time.
- √ 37 years experience on fixture design.
- √ Infinitely variable broaching force/speed.
- √ Automatic load/unload system available.
- √ Automatic broach tool retriever.
- √ Up to 3 broaching station.
- √ CE specification based on requirement.

Media

AXISCO offers internal spline broaching machines, with one-time spline broaching, efficient production, accurate location, and high speed broaching.



√ Control: MITSUBISHI · FANUC · AB · SIEMENS



Hydraulic SURFACE BROACHING MACHINE



Highlights

- √ The surface of the workpiece.
- √ Accurate location, high speed broaching, high accuracy.
- √ One-time spline broaching, increase production efficiency.
- √ Heavy duty design, build for last.
- √ 37 years experience in fixture design.
- √ Stepless broaching speed adjustment.
- √ Can be equipped with auto loading/ unloading system.
- √ Up to 3 broaching station.
- √ CE specification based on requirement.

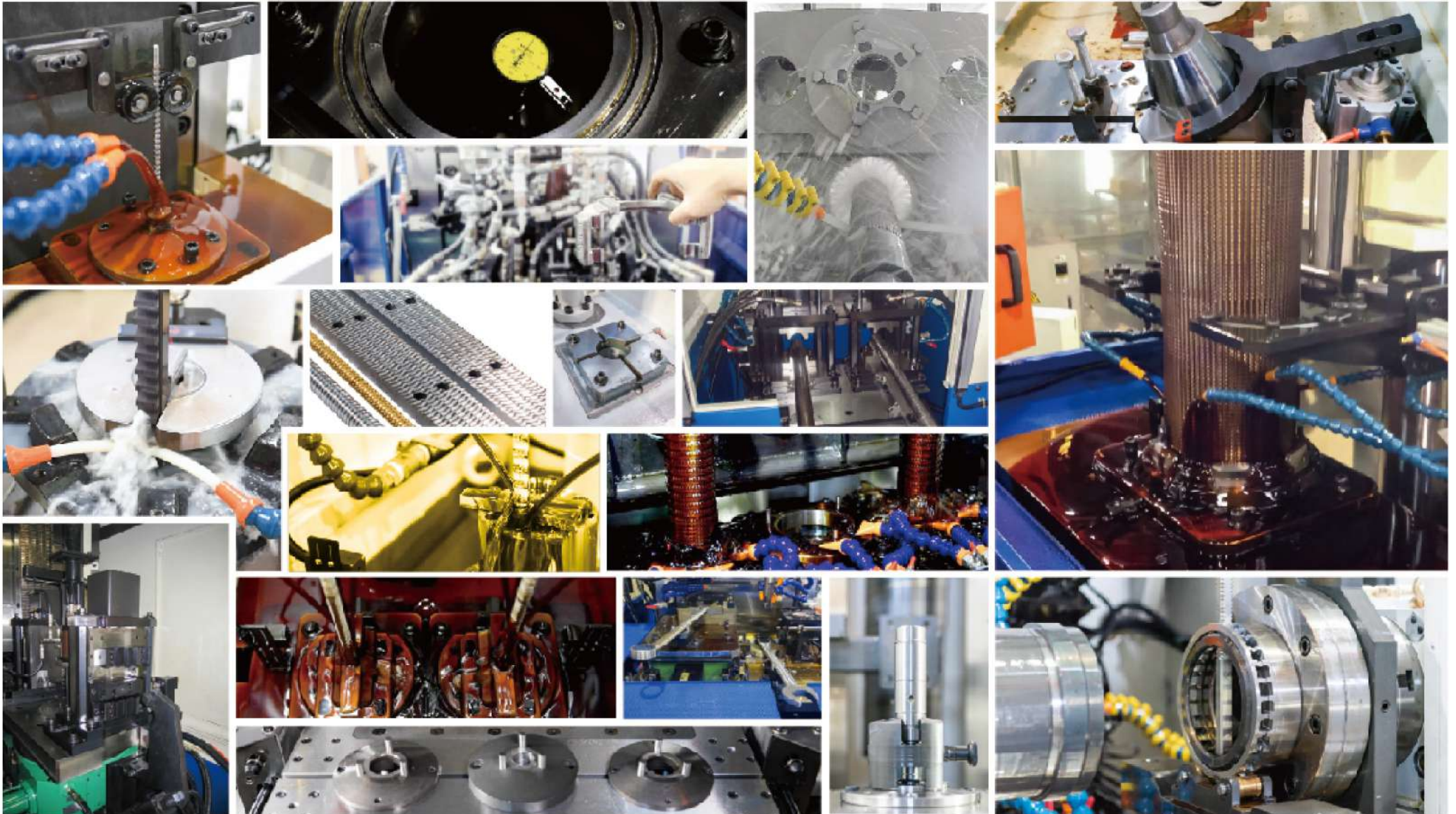
Media

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BROACHING APPLICATION

AXISCO



AUTOMATION APPLICATION

AXISCO



Good Broach Re-sharpener is the Key to Long-term Broach Performance

UBS
GRI

Broach

Broach is a customized cutting tool. The cost to make the broach tool is high; however, the per-piece manufacturing cost is quite low which makes it ideal for mass production. Even in products with less quantity, broaching is still economical for its short cycle time with high precision and stable quality.

The Re-sharpening of the Broach

To achieve precise cutting result with good surface finish, the broach has to be re-sharpened after hundreds to thousands times of cutting. The re-sharpening interval depending on the material and cutting condition of the work piece. In general, a broach can be re-sharpened for eight to ten times. The conventional broach re-sharpener is a budgetary choice which requires skilled users. The CNC broach re-sharpener is an ultimate solution that users can program and run the re-sharpening automatically.



Workpiece Sample

Round Broach



Surface Broach



Serration Broach



Special Shape Broach



Special Spline Broach



Machine Function

Helical Broach



Round Broach



Flat Broach



Mechanical Axis

3AXIS
Flat Broach Resharpener(straight and tilt angle):
B Axis, C Axis manual adjustment with round scale)
Round Broach Resharpener
(manually adjust hook angle with round scale)

4AXIS
Flat Broach Resharpener
(Tilt Angle Resharpener:
C axis manual adjustment with round scale,
B axis use CNC adjustment)
Round Broach Resharpener
(CNC control B axis, manually adjust C axis)

5AXIS
Flat Broach(CNC) Straight angle and Tilt angle.
Round Broach Resharpener
(CNC control B axis and C axis)

6AXIS
Flat Broach (CNC control)
Round Broach Resharpener
(CNC control B axis and C axis)
Helical Broach Resharpener
(CNC control B axis and C axis)



UBS60

CNC BROACH TOOL RESHARPENING MACHINE



Machine Model		UBS60				UBS80			
Mechanical Axis	X Axis	60 Inch / 1500mm				80 Inch / 2000mm			
	Y Axis	8 Inch / 200 mm							
	Z Axis	10 Inch / 250 mm							
	A Axis	N/A	360°		N/A	360°			
	B Axis	N/A	0-90°	N/A	0-90°	N/A	0-90°	N/A	0-90°
	C Axis	N/A	±30°		N/A	±30°			
Motor	X	1.5 kW				1.8 kW			
	Y	1.5 kW				1.8 kW			
	Z	1.5 kW				1.8 kW			
	A	3 HP Motor		3 kW		3HP Motor		3 kW	
	B	Manual	1.5 kW	1.8 kW	Manual	1.5 kW	1.8 kW		
	C	N/A	1.2 kW		N/A	1.2 kW			
Capacity	Minimum Tool Dia.	0.8 Inch / 20 mm							
	Maximum Tool Dia.	6 Inch / 150 mm							
Spindle	Grinding Wheel Speed MAX.	10000 RPM							
CNC System	Control Model	MITSUBISHI M80	FANUC Oi-MF	FANUC or MITSUBISHI	MITSUBISHI M80	FANUC Oi-MF	FANUC or MITSUBISHI		

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* Windows 10, w/ Customer Choice of MITSUBISHI: M80 or FANUC: Oi-MF & Drives or Power Automation Controls & Drives



* Auto chip filtration system

* B sizes up to 80 Inch Tool Length



* Grinding Wheel Speed(MAX): 10000 RPM



* Alignment setting



* Grinding position detection

GRI

Broach tool length: 800~1500 mm
Control: hand wheel with linear scale



The machine has heavy duty design for long life time. Re-sharpening for different broach tool hook angle and pitch. Fast and easy to set up and operate.

BROACH TOOL RE-SHARPENING MACHINE



BROACH

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Helical broach

The internal helical broaches are mostly applied in helical transmission systems.



Round broach

Round broaches are finishing broaches used for high precise round hole, the round broach has the polish teeth to improve the surface up to 0.005mm.



Spline broach

The Spline broaches are used to transmission system to improve the transmission structure.



Involute spline broach

The Involute Broach are used in automotive mass-production, the alternating spline and round teeth and increase the precise.



Involute gear broach

Involute gear Broach are used in decelerate or transmission devices.



Special shape broach

Various complicated formed broaches can manufacture such as Outer Rotor Spline or Special shape or size.



Surface Broach

Surface broaching, also known as external broaching, refers to cutting single grooves, multiple grooves, or special shapes on an object's surface or edge.

