Big Size Tck600-3000mm Slant Bed Machine With Driven Turret Y Axis

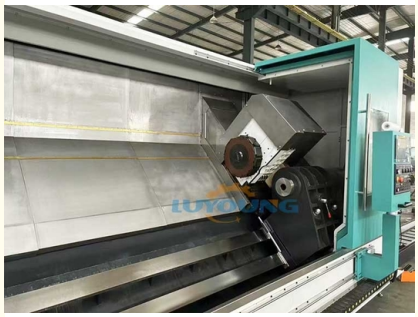
Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Luyoung
- Certification: CE
- Model Number: TCK600
- Minimum Order Quantity: 1
- Price: USD172000-USD180000
- Packaging Details: Fumigation-free plywood
- Delivery Time: 45 working days
- Supply Ability: 100sets

Product Specification

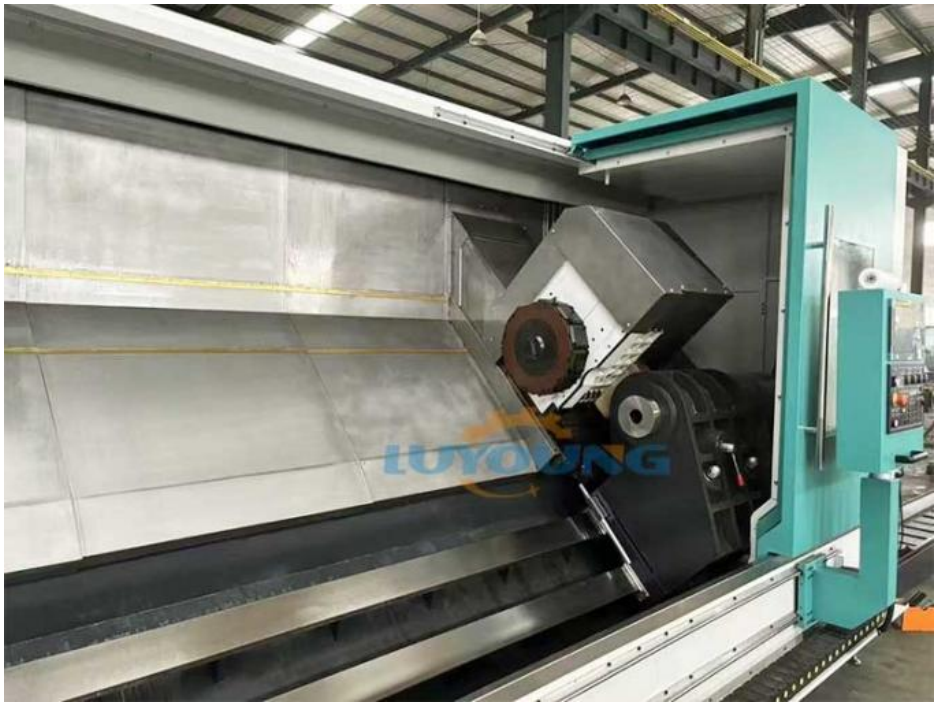
- Tool Turret: 12 Station
- Bar Diameter: 70
- Core Components: Bearing, Gear
- Max Turning Length: 3000mm
- Key Words: Slant Bed CNC Lathe Machine
- Weight: 12000
- Spindle Motor Power: 15KW
- Repeatability Accuracy: ±0.003mm ±0.01mm
- Key Selling Points: High-accuracy
- Tailstock Max Travel: 2700
- Axis Movement: X/Z Axis
- CNC Power: Three-phase 380V 50Hz
- Highlight: **Big Size Slant Bed Machine**, **3000mm Slant Bed Machine**, **Driven Turret Slant Bed Machine**



More Images

Our Product Introduction

Product Description



Big size tck600-1000mm slant bed machine with driven turret y axis
This machine is a CNC horizontal lathe controlled by two axes: vertical (Z) and horizontal (X). The main body of the lathe is made from a single cast, featuring a 45° inclined layout for the bed guide rails. It boasts a wide processing range, high rigidity, precision, speed, efficiency, reliability, and high torque. It can automatically perform various cutting processes on different types of shaft and disc parts, including internal and external cylindrical surfaces, conical surfaces, arc surfaces, end faces, grooving, and chamfering. The machine can also turn metric and imperial straight threads, tapered threads, and end face threads. It is equipped with a 12-station servo turret that allows for multiple operations such as turning, drilling, boring, expanding, and reaming in one setup. This makes it suitable for the production of diverse small to medium batch products and particularly advantageous for complex and high-precision components. Additionally, it can be integrated into automated production lines for mass production.
Main Structural Features
High-Strength Cast Iron Bed: The bed is made from HT300 high-grade resin sand casting with a 45° inclined design. Its internal structure includes tubular ribs that enhance resistance to bending and twisting. Major components undergo two aging treatments to ensure overall rigidity and stability while reducing vibration and improving precision retention and lifespan.
Efficient Chip Removal: The spacious chip removal area combined with the 45° inclined bed design and full protective covers facilitates smooth and rapid chip discharge, making it easy for operators to handle work pieces.
High-Precision Linear Guides: The X and Z axes utilize P-grade linear guides that prevent crawling and provide high positioning accuracy with rapid movement capabilities.
Advanced Layout: The twelve-station servo turret and tailstock move along their respective tracks, avoiding severe interference issues found in flat-bed CNC lathes while ensuring the rigidity of the tail stock sleeve (which does not need to extend excessively). The tailstock features hydraulic control with automatic sleeve extension/retraction for convenience.
C3 Class Ball Screws: Positioned centrally on the slide or saddle for optimal load distribution, these screws offer excellent precision and stability.
Direct Drive Structure: The servo motors for the X and Z axes are directly connected to the ball screws via elastic couplings, resulting in a short transmission chain that minimizes noise and backlash while providing high servo precision and responsiveness.
Robust Spindle Design: The spindle unit features high-quality domestic bearings; the front support consists of a combination of NN double-row cylindrical roller bearings and bidirectional thrust angular contact ball bearings, while the rear support uses NN double-row cylindrical roller bearings. The spindle housing is designed with heat dissipation features for enhanced rigidity, low temperature operation, high precision, long lifespan, and ease of maintenance.
Servo Turret Operation: The horizontal twelve-station servo turret is driven by a servo motor for indexing. It uses hydraulic pressure to release and clamp tools with precise positioning via a tooth disk mechanism. This allows for bidirectional indexing and quick tool selection.
Variable Speed Spindle Drive: The spindle is driven by a servo motor with stepless speed regulation capabilities that allow for low-speed constant torque cutting as well as high-speed constant power cutting.
Compact Structure: The machine's compact design minimizes its footprint while maintaining an aesthetically pleasing appearance. It emphasizes precision stability, safety, reliability, ease of operation, maintenance accessibility, and excellent cost-performance ratio. Optional chip removal devices are available upon special order.
Industry Applications: This machine is particularly suitable for industries such as IT, precision instruments, aerospace, military applications, etc., where there is a demand for complex and precise small to medium-sized rotating components

Technical specifications		TCK600
	(mm) Max.swing dia over bed	Φ600
	(mm) Max.cutting dia.	Φ320
	(mm) Max.cutting length	3000
	(mm) Max.cutting dia	Φ500
	X /Z (mm) X/Z axis width	45/45

Spindle	(Kw) Servo motor	15
	(mm) Spindle bore	Φ86
	(mm) Bar through-hole	Φ70
	Spindle taper	A2-8
	(r.p.m) Spindle speed	5-3000
Feeding system	(X) (mm) X axis travel	280
	(Z) (mm) Y axis travel	3000
	* (X)mm Ball screw diameter * Pitch(X) (Z) (mm) Longitudinal(Z)	Φ40X8 Φ63X12
	(m/min) X axis feed speed	18
	(mm/min) Z axis feed speed	18
	(mm/min) X/Z manual feed speed	0.01 1000
	X Z X/Z reposition accuracy(mm)	±0.003mm ±0.01mm
	Work piece machining accuracy	IT6 IT7
	Work piece surface roughness	≤Ra1.6μm Non-ferrous metals≤Ra1.6μm
Tailstock	/ (mm) Sleeve Dia/Travel	Φ100/180
	Sleeve taper	MT6#
	(mm) Tail stock travel	2700
Turret	Servo turret	SH160-8
	(mm) Tool mounting dimension	32×32/50

Note:
The spindle speeds listed in the table represent the range of speeds under standard configuration. When installing other configurations of chucks or tooling, or when replacing the main motor, please pay attention to the maximum allowable speed of the selected chuck or tooling.
The maximum torque of the machine listed in the table is constant torque; however, as the cutting diameter increases, the achievable cutting parameters will decrease. Therefore, please adjust the machining parameters according to the work piece size.
CNC

CNC system	KND	
PowerPoint	Power	Three-phase 380V 50Hz
	(KVA) Power consumption capacity	35
tsystem	(L) Water tank capacity	60
	W Cooling pump motor power	450
	L/min Cooling pump flow rate	50
Dia and weight	(* *)(mm) Machine size	6300×2480×2400
	( )KG Machine weight	12000

shandong lu young machinery co.,ltd

86 18660852746 sales@luyoungmachinery.com luyoungcncmachines.com

Room 1061, Building A, Guoshan Center, Taiqian Street, Taishan District, Taian City, Shandong Province