

# **JAINNHER**

## **DOUBLE SPINDLE GRINDING MACHINE**

**JHD-3205**



**JHD-1503**



# CNC DOUBLE SPINDLE

EXCEEDING THE PURSUIT OF  
**EXCELLENCE**  
DILIGENCE IS THE SOUL OF  
**BUSINESS**

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# Structure

JHD-1503



JHD-3205



## Applicable Industries This machine is designed for

- Motor vehicles and other transportation
- Energy, precision machine tool components
- Air / hydraulic components, precision measuring instruments
- Electronic / optical instruments

This machine adopts oil-water separation and high-rigid box structure designed, high rigidity. The lubrication oil and coolant is separated to collect from outside the machine, in order to eliminate vibratory and heat, increase the efficiency of oil collection, to enhance the cooling effect and increase stability.

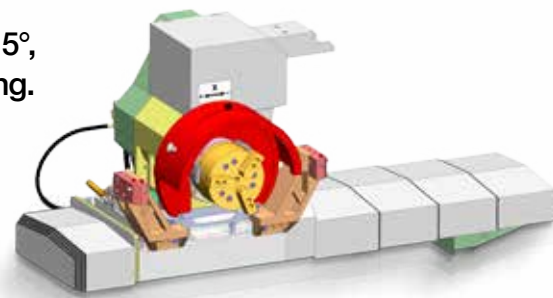
The main structure is X, Y, Z axis feeding system, they are work head, internal grinding head and external grinding head, the feature is X, Y, Z 3 axes servo transmission or 2 axes (X,Y - X,Z) move simultaneously or can choose 3 axes (X,Y,C - X,Z,C - B,C,Y) or 4 axes (X,Y,Z,C) or 5 axes (X,Y,Z,C,B) move simultaneously, in order to reach high precision and complicated workpiece grinding process requirement.

X, Y, Z axis feeding system uses high precision roller linear guide-way and double pre-tensioned ball screws. The repeated positioning accuracy is through servo motor, high precision ball screw, roller linear guide-way, angular contact ball bearing, coupling and automatic forced lubrication system. All axes slider adopt high precision roller linear guide-way, high precision and long service life features. All sliding and rotating parts uses automatic forced lubrication, to ensure optimal machine life and accuracy.

# Product Features

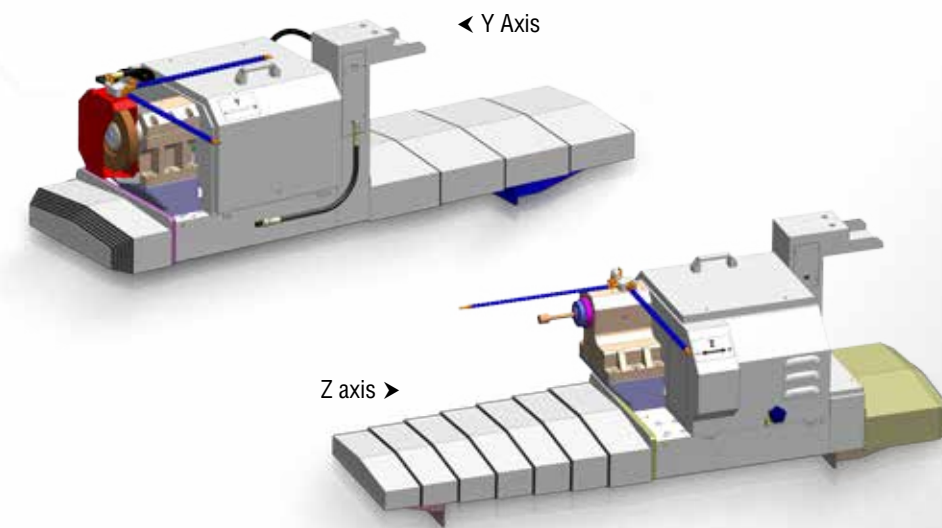
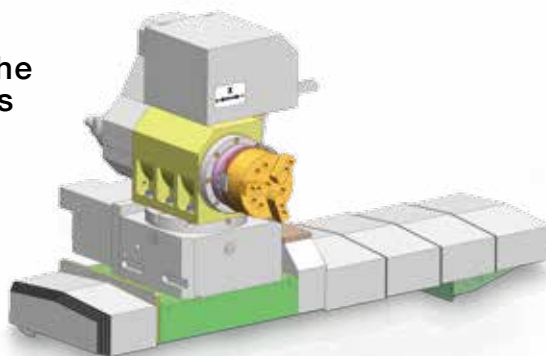
## Work Head Spindle

- The cartridge spindle in work head is supported by P4-class precision double roller and angular contact ball bearing.
- The work head can be adjusted angel  $+15^\circ$  and  $-15^\circ$ , it is suitable for internal and external taper grinding. Or can choose. ( for JHD-3205 series only )
  - a. Manual rotating angle type, for grinding internal and external of cylindrical and taper.
  - b. Automatic rotating type (B axis) (X,Y,Z,B) (optional), for grinding internal and external.
  - c. Angel positioning control type (C axis) (X,Y,C / X,Z,C) (optional), for grinding cam or eccentric hole.
- It is to shorten grinding time, improve grinding accuracy and expansion grinding field.



## B axis for JHD-3205 series only

- This is high accuracy rotary table with the design of double leads and bearings, it is suitable for heavy grinding procedure and continuous process.
- Occlusion area reaches 35% ~ 45%.
- Good abrasion resistance, no need to adjust backlash within 2 years.
- Keep accuracy within  $0.003^\circ$ .
- Repeated positioning accuracy can be reached  $0.001^\circ$ . It satisfies fast positioning grinding requirement.



## External Internal grinding horizontal feeding system, Y / Z axis

- Y, Z axis adopts UP class roller linear guide-way, automatic forced lubrication system and oil cooler system.
- Direct drive servo motor transmission, C1 class double pre-tensioned ball screws and P4 class angel contact ball bearing and  $0.05\mu\text{m}$  high-resolution linear scale.
- External, internal wheel use high speed, high precision and low vibration motor.
- Y, Z axis wheel spindle can be chose optional build-in type spindle, high speed and small vibration can be reached high accuracy workpiece after grinding.



# Accessories



## Standard Accessories



• Grinding wheel spindle



• 3-jaw chuck



• Levelling plate



• Coolant tank



• Tool box and tools

## State-of-the-Art CNC Control

- This CNC grinding machine is equipped with a FANUC (0i-TF) control. It employs macro (marco programs) operation interface combined with the use of an 8.4" colorful LCD screen, greatly upgrading production and providing outstanding grinding accuracy.

## Optional Accessories



• Paper filter



• Magnetic separator



• Oil Skimmer



• Oil mist lubricator



• Grinding wheel spindle



• Hydraulic 3-jaw chuck



• Hydraulic rotary cylinder



# Specification

Model		JHD-3205IO	JHD-3205II	JHD-3205IU	JHD-1503IO
Item					
Capacity	ID(Hole, Depth)	Ø6-Ø200 (0.25"~8")x 150 mm			Ø6~ Ø120 x 80 mm Ø2~Ø6 (opt)
	Max. grinding dia.	Ø320 mm(12.5")		Ø320 mm(12.5")	Ø150 mm(5.9")
	Max. grinding length.	200 mm		100 mm	ID: 100/ OD: 120 mm
	Max. swing over	Ø500 mm (19.6")			Ø 300
	Max. job weight	130 kgs (287 lbs)			70 kgs (154lbs) 100 kgs (220lbs) OPT
	Type of wheel head	(OD, ID)	(ID, ID)	(OD, ID)	
X axis	chuck	8"			6"
	Spindle rpm	20~1000 rpm/ min (variable speed)			
	Max. stroke	500 mm (19.6")			350 mm (13.7")
	Swing angle	+15°~+15°(Manual)			
	Rapid speed	10 m/ min (32.8 ft / min)			
	Min. Setting unit	0.001 mm ( 0.00004" )			
Y axis	OD wheel size	Ø205 x 25 mm	Depends	Ø405 x 50 mm	Ø 150 x 25mm
	R.P.M	3100 rpm	Depends	1780 rpm	4200 rpm
	Max. stroke	500 mm (19.6")			350 mm (13.7")
	Rapid speed	10 m/ min ( 32.8 ft / min )			
	Min. setting unit	0.001 mm ( 0.00004" )			
Z axis	ID wheel size	Depends			
	R.P.M	Depends			
	Max. stroke	500 mm (19.6")			350 mm (13.7")
	Rapid speed	10 m / min ( 32.8 ft / min)			
	Min. setting unit	0.001 mm ( 0.00004" )			
Motor	X axis	FANUC β12 1.8 kw			FANUC β8 1.2 kw
	Work head spindle	FANUC αiF22 3.5 kw			FANUC β12 1.4 kw
	Y axis	FANUC β12 1.8 kw			FANUC β8 1.2 kw
	Y axis spindle	3.75 kw 2P V3 (5HP 2P V3)		3.75 kw (5HP) 4P 5.5 kw (7.5HP) 4P (OPT)	2.2 kw ( 3HP ) 2P V3
	Z axis	FANUC β12 1.8 kw			FANUC β8 1.2 kw
	Z axis spindle	3.75 kw 2P V3 (5HP 2P V3)			2.2kw ( 3HP ) 2P V3
	Lubrication pump	0.18 kw ( 0.25HP ) 4P			
	Hydraulic Pump	0.75 kw (1 HP) 4P			
	Coolant pump	0.18 kw ( 0.25HP ) 4P			
Machine Measurements	Net weight.	5,100 kgs			3,800 kgs
	Gross weight	5,500 kgs			4,200 kgs
	Machine Dimension ( L x W x H)	3100 x 2150 x 2270 mm			2800 x 1950 x 2100mm



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