



# DX 200



CNC Turning Centers

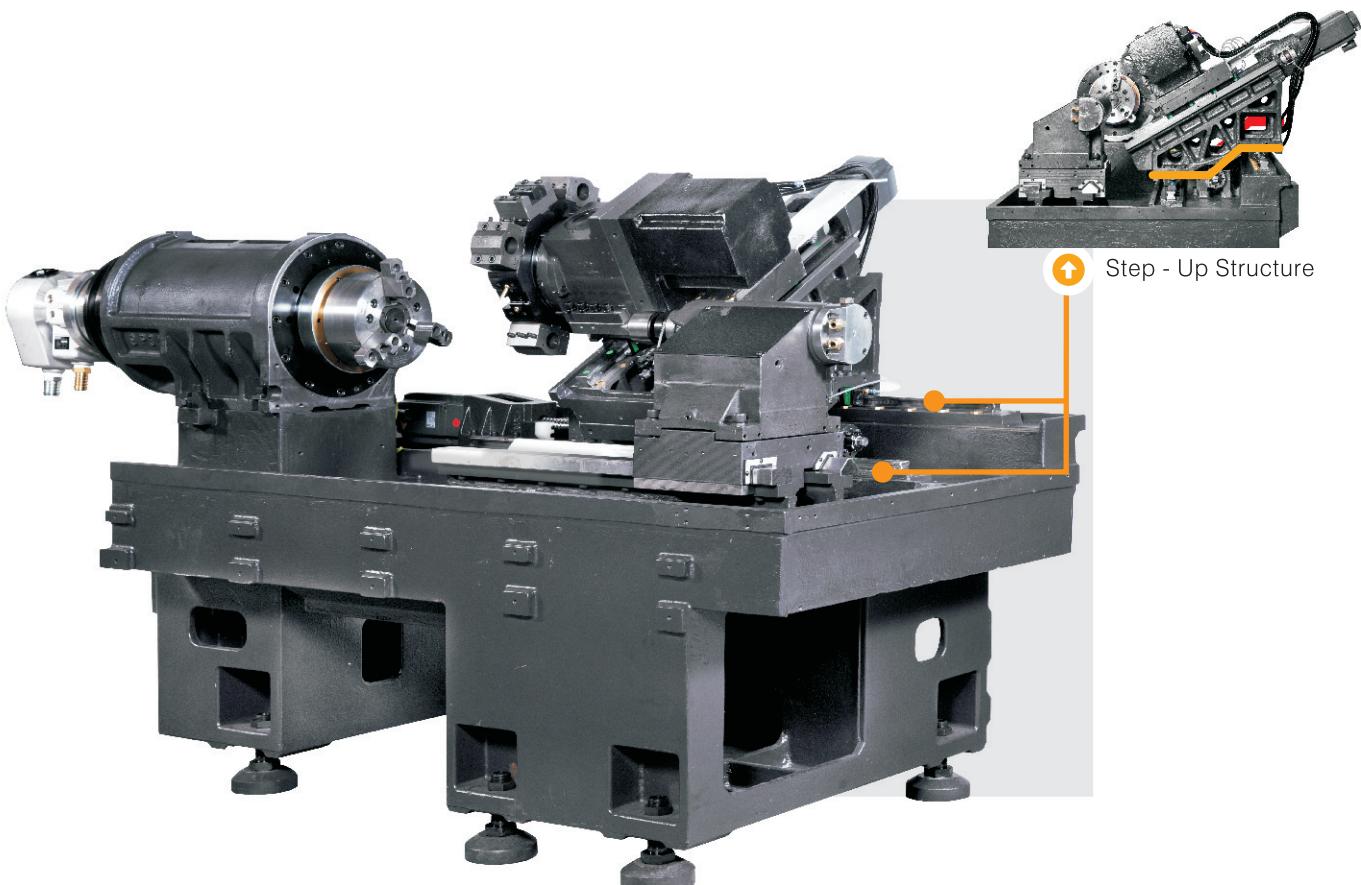


# DX 200 nvu

CNC Turning Center

## OVERVIEW

DX 200 nvu offers a range of high technology CNC lathe to deliver fastest throughput needed in present competitive market. This range is the result of continuous innovative development Jyoti has made in the field of machine tools, ever since we started manufacturing CNC lathes. The Series is resultant of innovation and customer feed back for performance in the product. With unique features, DX 200 nvu delivers optimum performance to match demand of various sized workpiece applications.



## RIGID STRUCTURE

The rigid bed and single piece 30° slant saddle are made out of high grade cast iron for stability and least distortion enabling heavy depth of cuts and faster production.

Designed to support high acceleration rate as well as high cutting force.

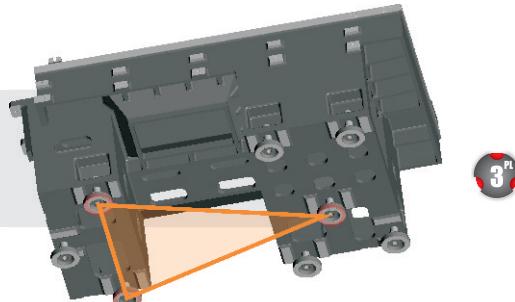
## STEP-UP CONCEPT

Step-up structure concept enables vibration free cutting even for larger diameter jobs. With virtually no vibration, it means higher surface finish even on hard materials.



### 3-POINT LEVELING

Twisting effect of bed can be eliminated due to 3-point leveling  
Quick Installation and relocation made easy with this feature.



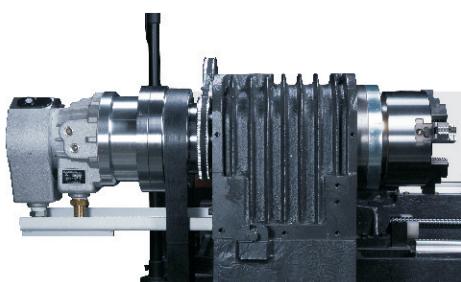
### HIGH SPEED SERVO TURRET

DX 200 nvu machine are equipped with high speed and high precision Bi-directional Servo Turret with hydraulic clamping system achieved by 3-piece hirth coupling.

- Tool Change Time is just 0.5 second which helps to Reduce Cycle Time.
- Upto 20% Higher Productivity
- Less Maintenance & Running Cost
- Increases Tool Life.

### TAILSTOCK

A manually movable tailstock with hydraulically actuated quill is a standard feature of the machine. The Tailstocks is supported on V-type & flat guideways. Programmable tailstock with hydraulic movement is offered as an option.



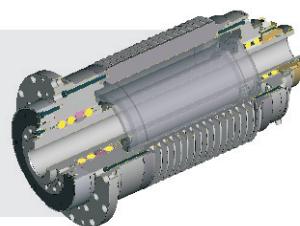
### HEADSTOCK & SPINDLE

Headstock is made from closed grain FG 300 casting and provided with fins for better heat dissipation. Main spindle is manufactured in-house using world class machinery and assembled in a dust free temperature controlled environment. Spindle is housed in a cartridge with 3 super precision angular contact bearings in the front and 2 angular contact bearings at the rear end. This arrangement takes care of radial as well as axial loads.

### ELECTRO SPINDLE (OPT.)

To make DX 200 nvu precision turning machine, world class electro spindle specially designed & manufactured in-house. High torque availability at low rpm for roughing to finishing operations with high quality surface finishing.

- No Stick Slip because no Belt Mechanism
- Noise free Machining
- Ramp up/Ramp down Time is Very Low.



- **Spindle Nose** A<sub>2</sub>6
- **Spindle Power (Cont.)** 9.15 kW

- **Spindle Speed** 4500 rpm
- **Base Speed** 500 rpm

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## ERGONOMIC DESIGN

The machine is made considering the reliability, human comfort and operator friendliness

Heavy components can be easily loaded/unloaded from wide front door entry as well as from top of the machine with the help of crane.



Keeping in mind operator's convenience, approach to spindle is less which make easy loading/unloading of component.

Extra sliding door for easy accessible to work with tailstock.

## ТИЛTING OPERATOR PANEL

90° tilting operator panel for better viewing of machine area while operating and tool box available in panel to keep handy items.



## EASY CHIP REMOVAL

Ergonomically designed concept enables to give efficient rear side chip disposal with coolant.

With such design chips will directly fall down into chip tray & removing of chips without disturbing of machining.

Rear or side chip conveyor options also available.



## TOTAL PRODUCTIVE MAINTENANCE

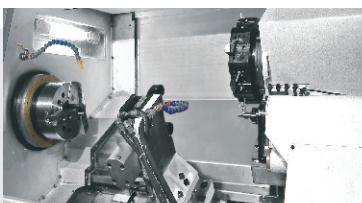
Units which requires regular checking like pneumatics, electrical panel, lubrication are conveniently located well within the reach of operator.



## PRODUCTIVITY IMPROVING OPTIONS

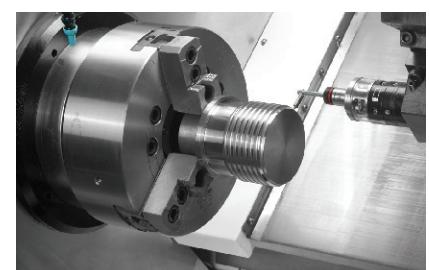
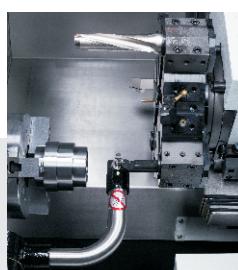
### STEADY REST

DX 200 nVU design concept gives flexibility for a user having variety of shafts from small to larger length, combine options of steady rest and programmable tailstock giving better edge for batch type variety productions.



### BAR FEEDER & PART CATCHER

A combination of bar feeder, bar puller & part catcher can really impetus for mass production type of application from long bars.



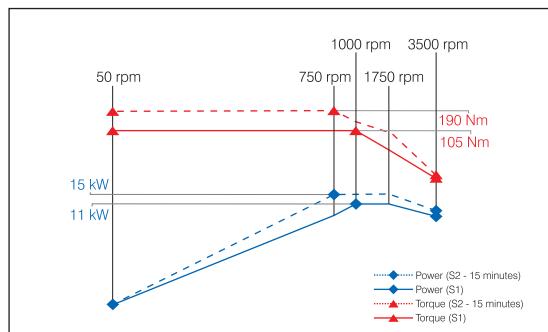
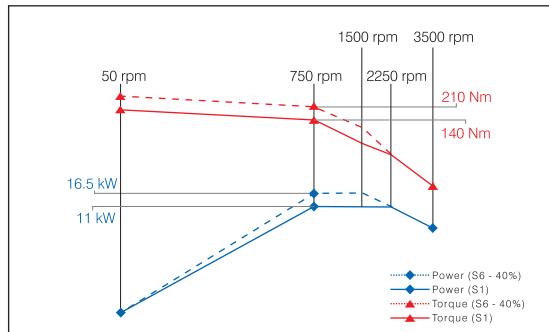
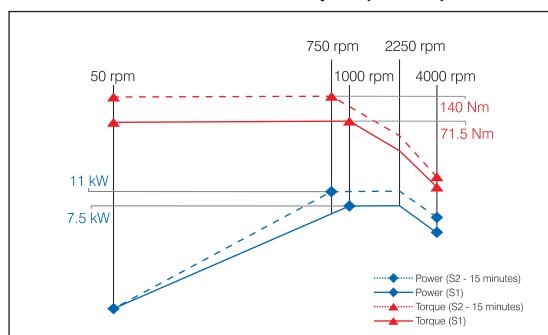
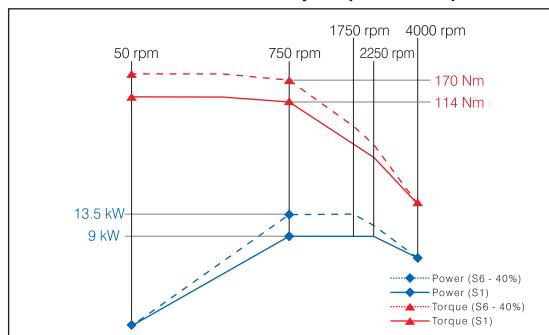
### TOOL PROBE & JOB PROBE

Automatic Tool Setting Probes and Job Probe can be incorporated with control feedback to set accurate tool data and even detect in-process tool wear or breakages.

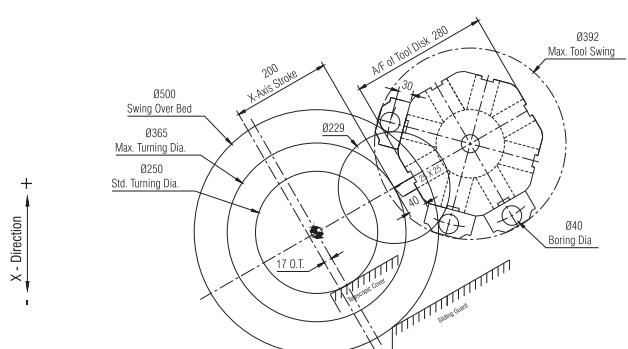
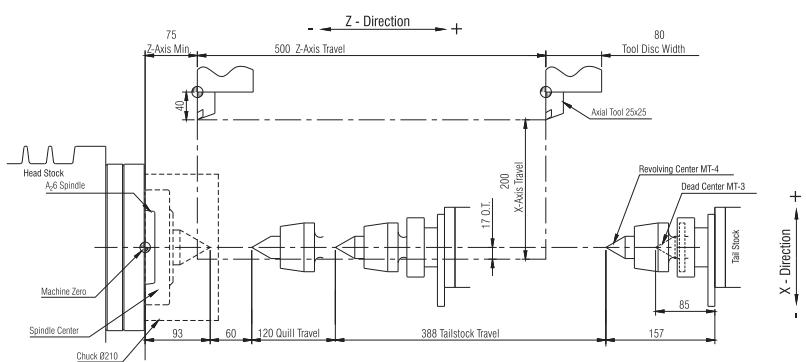
# DX 200 nvu

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## POWER TORQUE DIAGRAM



## MACHINING RANGE & INTERFERENCE DIAGRAM





## TECHNICAL SPECIFICATION

<b>Capacity</b>		<b>DX 200nvu - 5A</b>	<b>DX 200nvu - 5B</b>
Swing Over Bed	mm	500	500
Std. Turning Dia.	mm	250	250
Max. Turning Dia.*	mm	365	365
Max. Turning Length*	mm	500	500
<b>Slides</b>			
X-Axis Travel (Cross)	mm	200	200
Z-Axis Travel (Longitudinal)	mm	500	500
Rapid Feed (X & Z Axis)	m/min	24	24
<b>Main Spindle</b>			
Spindle Motor Power - Fanuc	kW	11 / 7.5	15 / 11
Spindle Motor Power - Siemens	kW	13.5 / 9	16.5 / 11
Spindle Speed Range	rpm	50-4000	50-3500
Spindle Bore	mm	70	90
Spindle Nose		A <sub>2</sub> 6	A <sub>2</sub> 8
Max. Bar Capacity	mm	52	75
<b>Turret</b>			
No. of Station		8	8
Max. Boring Bar Dia.	mm	40	40
Tool Size (Cross Sectional)	mm	25 x 25	25 x 25
<b>Tail Stock</b>			
Quill Dia.	mm	85	85
Quill Stroke	mm	120	120
Thrust	Kgf	500	500
<b>Accuracy (as Per VDI/DGQ 3441)</b>			
Positioning Uncertainty (P)	mm	0.007	0.007
Repeatability (Ps Medium)	mm	0.005	0.005
<b>Other Data :</b>			
Machine Weight # (Approx.)	Kg	3400	3600
Machine Dimension # (Approx.):			
Length	mm	2050	2050
Width	mm	2750	2750
Height	mm	1660	1660

### CONTROL SYSTEM

The CNC System offered FANUC 0i TF or SIEMENS 828D Basic T .

### STANDARD FEATURES

- AC Spindle Drive & Servo Digital Drive
- L. M. Guideways
- Hydraulic Chucking
- 8 Station Bi-Directional Servo Turret
- Rear Side Chiptray
- Auto & Manual Coolant System
- Tailstock with Hydraulic Quill
- Centralized & Programmable Lubrication
- Laser Calibrated Axis for Highly Precise Positioning Accuracy and Repeatability
- Electricals with Quality Devices & Panel with Cooling System

### PRODUCTIVITY IMPROVING OPTIONS

- Chip Conveyor (Rear or Side)
- Bar Feeder, Bar Puller & Part Catcher
- Programmable Tailstock
- Auto Door
- Automatic Tool Setting
- Live Quill (Built-in Revolving Center)
- Steady Rest
- Two Speed Gear Box for A<sub>2</sub>5 Spindle
- Hyd. Collet Chuck
- 12 Station Turret
- Manual Guide-i (Fanuc)
- Easy SMS System (Siemens)
- Shopturn (Siemens)
- Fully Toolled up Solution

**JYOTI CNC AUTOMATION LTD.**

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App



Note: Specified information are subject to change arising out of continuous product improvement without notice. The description standard accessories/feature conforms to its list; not the photo of machine show in the catalogue. Other controller will have different configuration. Machine images are shown with option.

