



www.jyoti.co.in

DX 200 Series
CNC Turning Center



DX 200 Series

CNC Turning Center

Overview

In today's competitive market, you need to produce world class products quickly, accurately and with the minimum of non-productive time. In DX 200 Series manufactured by JYOTI, you can find a range of high technology CNC Lathes that deliver the fastest throughput needed in this competitive market. These machines are a result of continuous developments and innovations we have made in the field of machine tool ever since we started manufacturing CNC Lathes, compiling and considering the customer feedbacks and incorporating our own innovations. DX 200 Series with its unique feature delivers optimum performance to match demand of various workpiece size applications.

Rigid Structure

The rigid bed and single piece 30 deg. slant saddle are made out of high grade cast iron for stability and least distortion enabling heavy cuts and faster production. With virtually no vibration, it means higher surface finish even on hard materials.

Step-up Structure Concept enables consistent machining performance because of widely space guideways, even at bigger diameter.

Headstock & Spindle

Headstock is made out of 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 controlled temperature 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.



3-Point Leveling System

Due to high rigidity of the base design and 3 point leveling, twisting of bed is eliminated. This feature in DX 200 Series allows machine to be installed or relocated quickly and easily.

High Speed Servo Turret

DX 200 Series 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.

Tail Stock

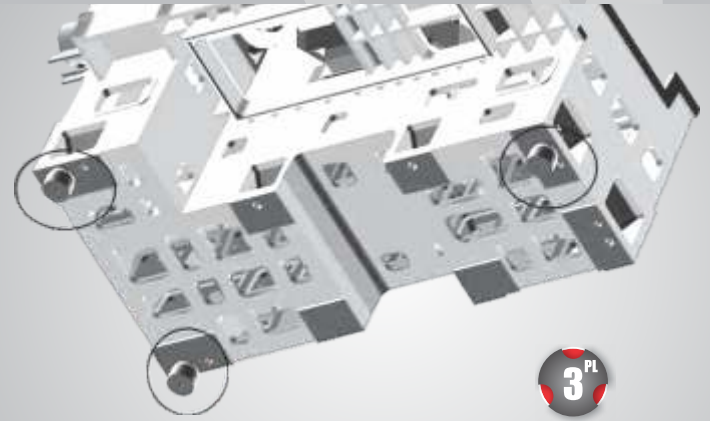
A manually movable tailstock with hydraulically actuated quill is a standard feature of the machine. Programmable tailstock with hydraulic movement is offered as an option.

Efficient Chip Disposal

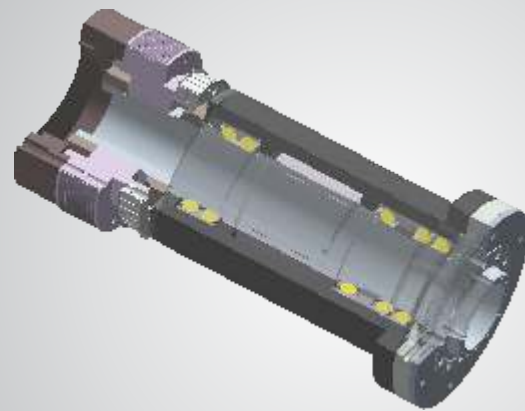
Ergonomically designed concept of DX 200 Series enables it to give efficient chip disposal system via chip tray. In case of applications with higher material removal rates or applications requiring long un-interrupted cutting, chip conveyor can be opted for better productivity..

Productivity Improving Options

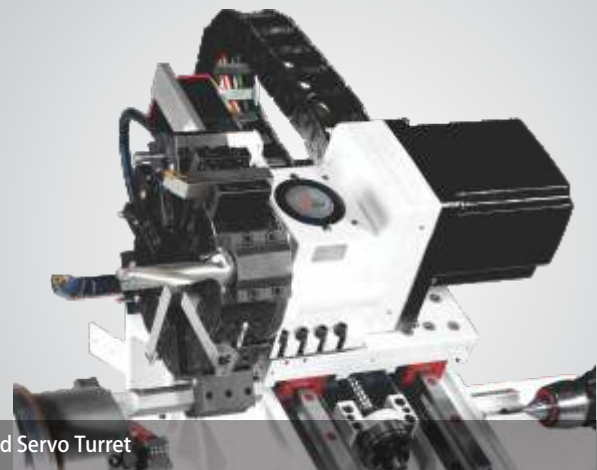
DX 200 Series design concept gives flexibility by enabling user to interphase various productivity improving options making it even more efficient to achieve different critical productivity targets. A combination of bar feeder, bar puller & part catcher can really give impetus for mass production type of application from long bars. Also for a user having variety of shafts from small to larger lengths can combine options of steady rest and programmable tailstock giving better edge for batch type variety productions. Other options are also available to suit different user needs.



3 Point Leveling System



Spindle



High Speed Servo Turret



Tail Stock

DX 200 Series

CNC Turning Center

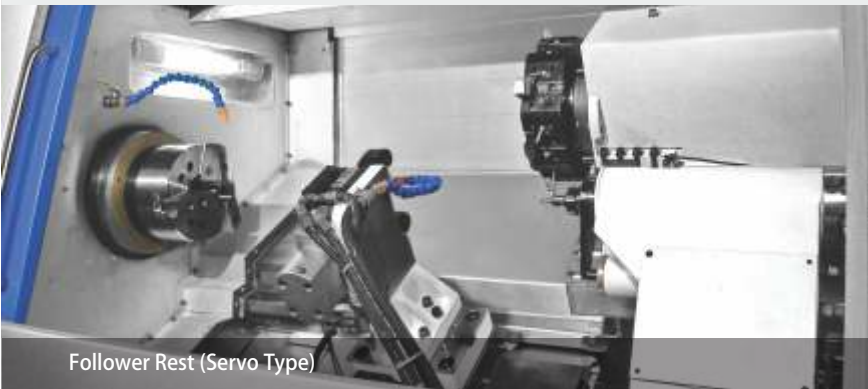
Productivity Improving Options



Automatic Tool Setting



Part Catcher



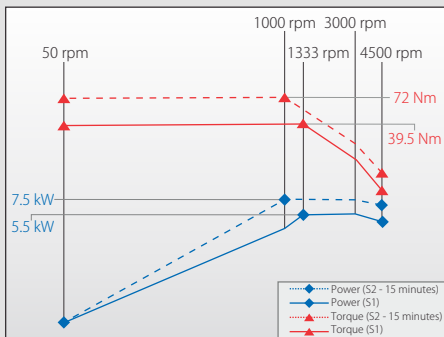
Follower Rest (Servo Type)



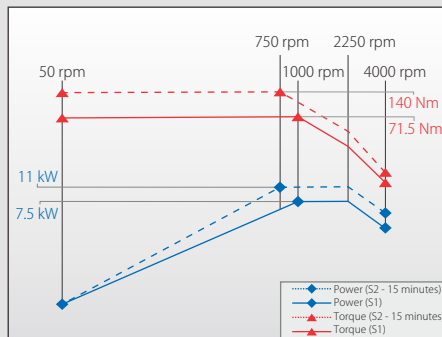
Programmable Tail Stock

Power Torque Diagram

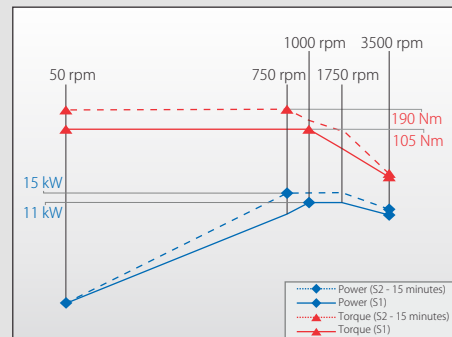
7.5 / 5.5 kW (Fanuc)



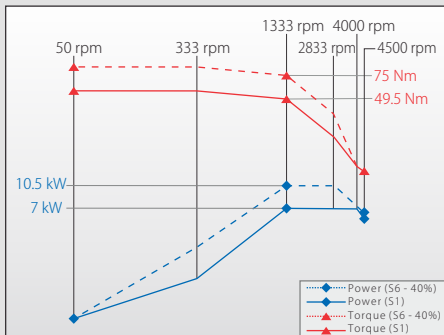
11 / 7.5 kW (Fanuc)



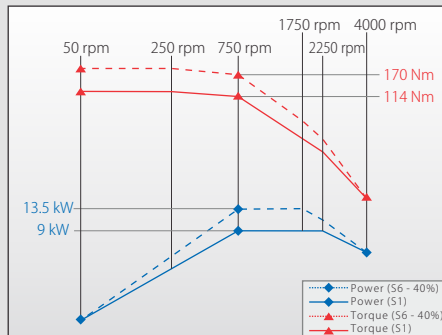
15 / 11 kW (Fanuc)



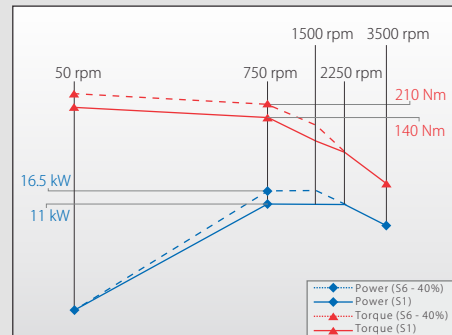
10.5 / 7 kW (Siemens)



13.5 / 9 kW (Siemens)

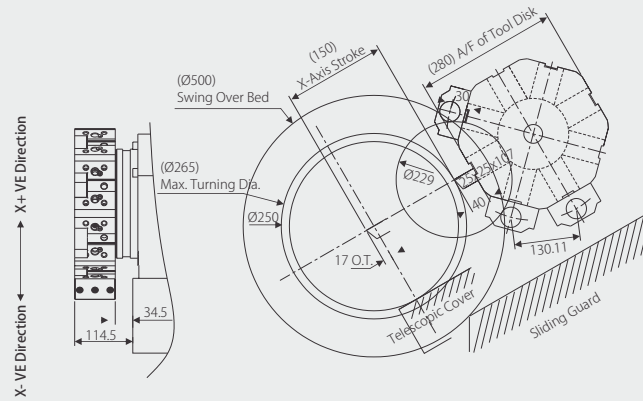
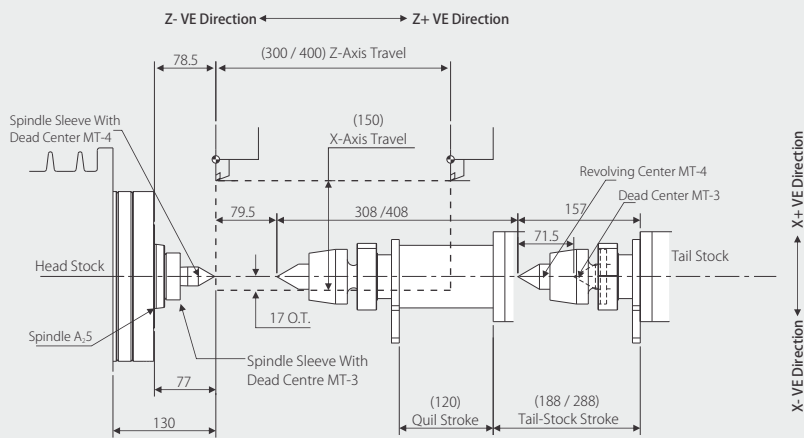


16.5 / 11 kW (Siemens)

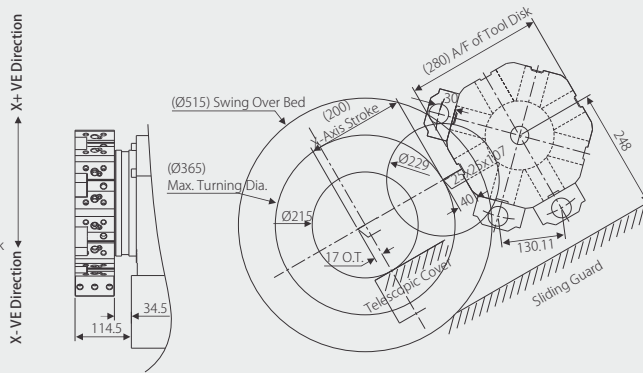
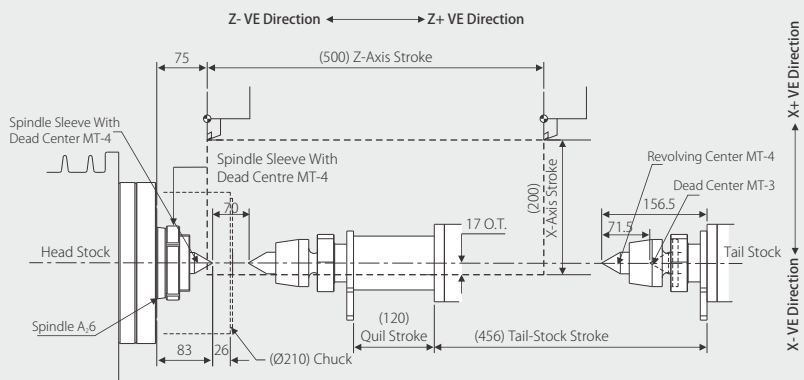


Machining Range & Interference Diagram

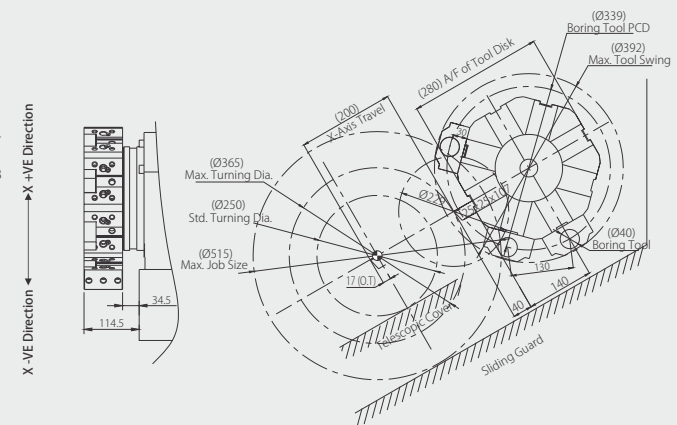
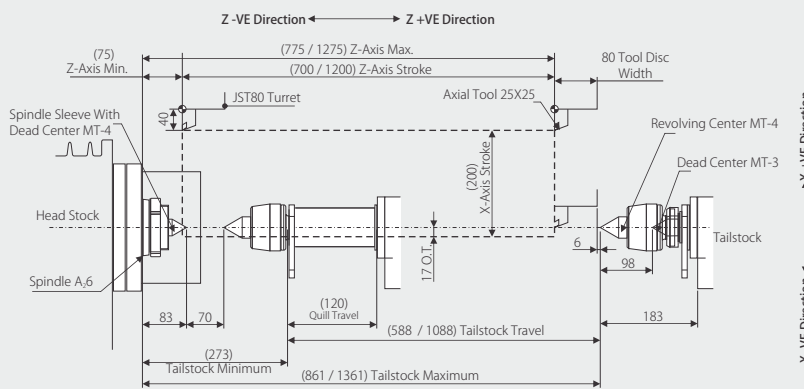
DX 200 - 3 / DX 200 - 4



DX 200 - 5



DX 200 - 7 / DX 200 - 12



All Dimensions in mm

DX 200 Series

CNC Turning Center

Technical Specification

Capacity		DX 200 - 3 A	DX 200 - 3 B	DX 200 - 4 A	DX 200 - 4 B
Swing Over Bed	mm	500	500	500	500
Std. Turning Dia.	mm	200	200	200	200
Max. Turning Dia.	mm	265	265	265	265
Max. Turning Length	mm	300	300	400	400
Slides					
X-Axis Travel (Cross)	mm	150	150	150	150
Z-Axis Travel (Longitudinal)	mm	300	300	400	400
Rapid Feed (X & Z Axis)	m/min	24	24	24	24
Main Spindle					
Spindle Motor Power - Fanuc	kW	7.5 / 5.5	11 / 7.5	7.5 / 5.5	11 / 7.5
Spindle Motor Power - Siemens	kW	10.5 / 7	13.5 / 9	10.5 / 7	13.5 / 9
Spindle Speed Range	rpm	50-4500	50-4000	50-4500	50-4000
Spindle Bore	mm	50	70	50	70
Spindle Nose		A ₂ 5	A ₂ 6	A ₂ 5	A ₂ 6
Max. Bar Capacity	mm	38	52	38	52
Turret					
No. of Station		8	8	8	8
Max. Boring Bar Dia.	mm	40	40	40	40
Tool Size (Cross Sectional)	mm	25 x 25	25 x 25	25 x 25	25 x 25
Tail Stock					
Quill Dia.	mm	85	85	85	85
Quill Stroke	mm	120	120	120	120
Thrust (Adjustable)	Kgf (Max.)	300 (500)	300 (500)	300 (500)	300 (500)
Accuracy (as Per VDI/DGQ 3441)					
Positioning Uncertainty (P)	mm	0.007	0.007	0.007	0.007
Repeatability (Ps Medium)	mm	0.005	0.005	0.005	0.005
Other Data					
Machine Weight (Approx.)	Kg	3200	3200	3500	3500
Machine Dimension (Approx.) :					
Length	mm	2420	2420	2420	2420
Width	mm	1500	1500	1500	1500
Height	mm	1710	1710	1710	1710

Note :- All above information is 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 shown in the catalogue.

Control System

The CNC System offered with the DX 200 series machine is with latest digital controller from FANUC Oi Mate TD or SIEMENS 828 D Basic T.

Standard Features

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

DX 200 - 5 A	DX 200 - 5 B	DX 200 - 7 A	DX 200 - 7 B	DX 200 - 12 A	DX 200 - 12 B
500	500	515	515	515	515
200	200	250	250	250	250
350	350	365	365	365	365
500	500	700	700	1200	1200
200	200	200	200	200	200
500	500	700	700	1200	1200
24	24	24	24	24	24
11 / 7.5	15 / 11	11 / 7.5	15 / 11	11 / 7.5	15 / 11
13.5 / 9	16.5 / 11	13.5 / 9	16.5 / 11	13.5 / 9	16.5 / 11
50-4000	50-3500	50-4000	50-3500	50-4000	50-3500
70	90	70	90	70	90
A ₂ 6	A ₂ 8	A ₂ 6	A ₂ 8	A ₂ 6	A ₂ 8
52	75	52	75	52	75
8	8	8	8	8	8
40	40	40	40	40	40
25 x 25	25 x 25	25 x 25	25 x 25	25 x 25	25 x 25
85	85	85	85	85	85
120	120	120	120	120	120
500	500	500	500	500	500
0.007	0.007	0.010	0.010	0.010	0.010
0.005	0.005	0.005	0.005	0.005	0.005
3900	3900	4350	4350	4800	4800
2690	2690	2870	2870	3720	3720
1735	1735	1685	1685	1685	1685
1580	1580	1640	1640	1640	1640

Productivity Improving Options

- Chip Conveyor (Rear or Side) for DX 200 - 3/4/5
- Chip Conveyor (Side) for DX 200 - 7/12
- Bar Feeder
- Bar Puller
- Programmable Tail Stock
- Part Catcher
- Auto Door
- Automatic Tool Setting
- Live Quill (Built-in Revolving Center)
- Steady Rest
- Follower Rest for DX 200 - 7/12
- Two Speed Gear Box for A₂5 and A₂6 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.

G-506, Lodhika G.I.D.C., Village : Metoda, Dist : Rajkot - 360 021, Gujarat (INDIA).
Phone : +91-2827-306100/306101/287081/287082,
Fax : +91-2827-306161/287811, E-mail : info@jyoti.co.in, sales@jyoti.co.in

