



DX 60 / DX 100

CNC Chucker



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OVERVIEW

In the family of DX Series DX 60 & DX 100 are developed keeping in focus of industry's requirement of producing small disc type precision components in huge quantities. Monoblock structure of the machine is to maintain the rigidity even at higher dynamics. This machine is ideally suited for producing precision components in mass which could even multiply the productivity with the integration of options like Bar Feeder and Gantry Auto Loading. Incorporating the concept of TPM friendliness DX 60 & DX 100 have linear tooling system enabling it to avoid tool indexing time as in case of turret.



MONOBLOCK STRUCTURE

Working on the principal to eliminate joints, both DX 60 & DX 100 are slant bed machine with monoblock design that enables it to reduce vibration even at higher parameters thus providing better rigidity while machining and ability to absorb vibration. Such a design ensures highest precision, metal cutting capacity and better tool life. Integrated nut and bearing housing for X-Axis provides higher stiffness during movement of table.

3 - POINT LEVELING

Structural design followed with the concept of 3-PL provides higher base rigidity due to which twisting of bed is eliminated during actual working load conditions. This feature also enables DX 60 & DX 100 to be installed and relocated quickly and easily.

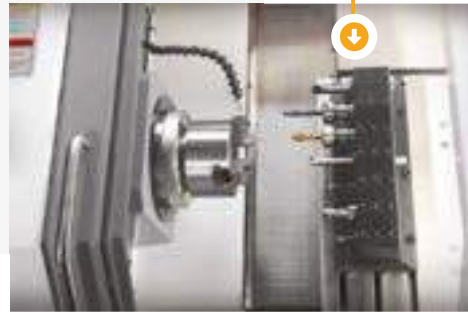


HEAD STOCK & SPINDLE

Made out of closed grain FG 300 casting is provided with fins for better heat dissipation. High precision spindle is housed in a cartridge with super precision angular contact bearings arranged as (3+2) for A:5 spindle and (2+2) for A:4 spindle in front and rear. This enables very high precision and stiffness in both axial and radial direction. The bearings are lubricated life time grease.

GANG TYPE TOOLING

The concept of linear tooling has a table surface with T-slots on which 5 or more tool posts could be accommodated separately with minimum interference. Linear tooling also performs an important role in reducing overall cycle time as the tool change time is quite fast. Also available as an optional quick change type tool post to avoid setup time of tool for multiple operations.

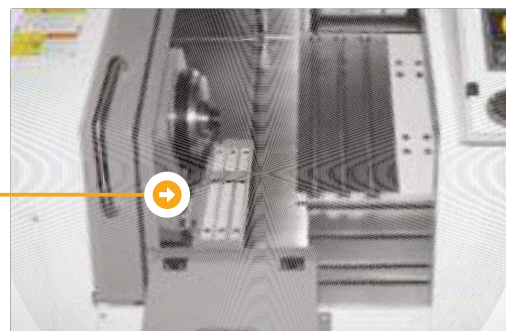


POLYGON MACHINING

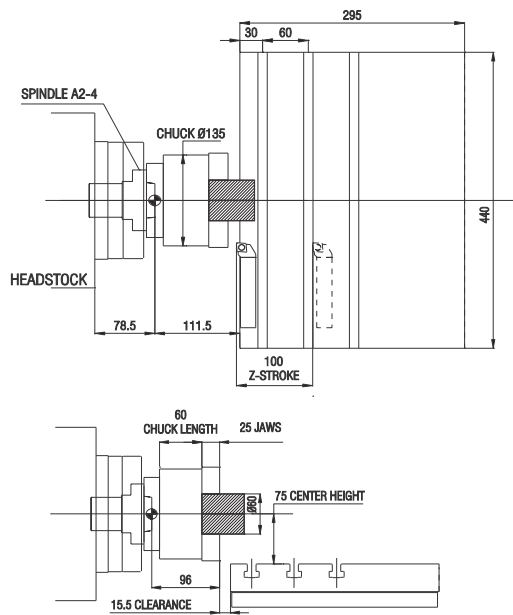
For machining multiple edged component DX 100 offers polygon machining with great accuracy and rapid machining including necessary software. DX 100 are most popular to achieve great productivity specially for brass components.

PART CATCHER

Part Catcher reduces non cutting time in machine and gives higher productivity by saving unloading time. DX 60 and DX 100 are offered with option of part catcher tray to obtain this high productivity solution.



INTERFERENCE DIAGRAM FOR DX 60



INTERFERENCE DIAGRAM FOR DX 100

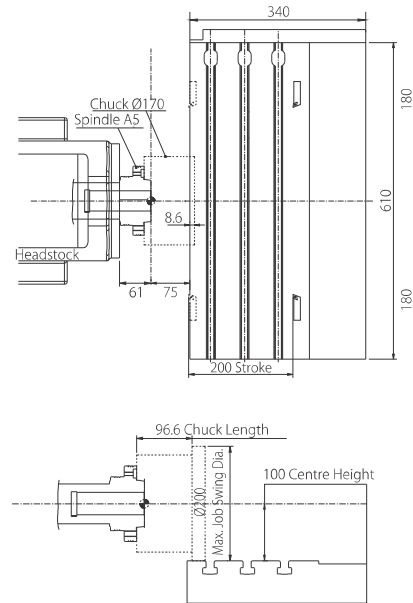
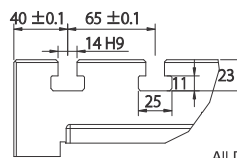
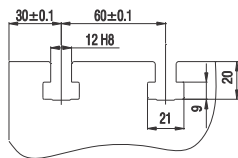


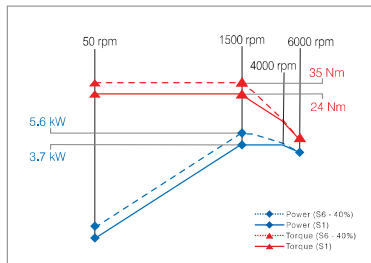
TABLE SLOT DETAILS



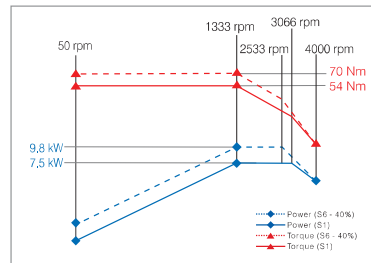
All Dimensions in mm

POWER-TORQUE DIAGRAM

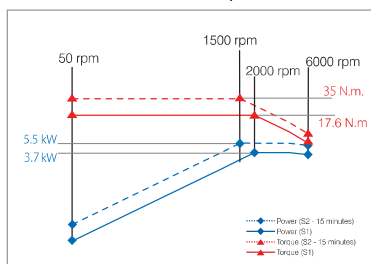
5.6 / 3.7 kW, 6000 rpm (Siemens)



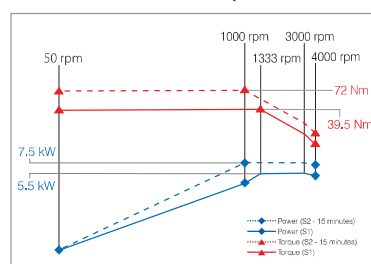
9.8 / 7.5 kW, 4000 rpm (Siemens)



5.5 / 3.7 kW, 6000 rpm (Fanuc)



7.5 / 5.5 kW, 4000 rpm (Fanuc)





TECHNICAL SPECIFICATION

Capacity		DX 60	DX 100
Max. Swing Over Bed	mm	360	470
Max. Turning Length *	mm	60	200
Max. Job Swing Dia. *	mm	145	200
Std. Turning Dia.	mm	60	100
Slides			
X-Axis Travel (Cross)	mm	240	360
Z-Axis Travel (Longitudinal)	mm	100	200
Rapid Feed (X & Z Axis)	m/min	24	24
Main Spindle			
Spindle Motor Power - Siemens	kW	5.6 / 3.7	9.8 / 7.5
Spindle Motor Power - Fanuc	kW	5.5/3.7	7.5 / 5.5
Spindle Bore	mm	39	55
Spindle Nose		A ₂ 4	A ₅ 5
Max. Bar Capacity**	mm	29	44
Spindle Speed Range	rpm	50-6000	50-4000
Full Power Speed Range	rpm	1500-4000	1333-3000
Linear Type Tooling			
No. of Tools for Std. Job Dia. Range	Nos.	4	4
Max. Boring Bar Capacity	mm	25	40
Tool Size (Cross Sectional)	mm	20 x 20	25 x 25
Accuracy (as per VDI/DGQ 3441)			
Positioning Uncertainty (P)	mm	0.007	0.007
Repeatability (Ps Medium)	mm	0.005	0.005
Other			
Machine Weight # (Approx.)	kg	1500	2500
Machine Dimension # (Approx.) :			
Length	mm	1425	1990
Width	mm	1255	1470
Height	mm	1560	1670

CONTROL SYSTEM

The Latest Digital CNC System Siemens 808D Advance T / Fanuc 0i TF Plus for DX 60 & Siemens 828D / Fanuc 0i TF Plus for DX 100

STANDARD FEATURES

- AC Spindle Drive
- AC Servo Digital Drive
- L. M. Guideways
- Hydraulic Chucking
- Auto & Manual Coolant System
- Centralised & Programmable Lubrication
- Laser Calibrated Axis for Highly Precise Positioning Accuracy and Repeatability
- Panel with AC

PRODUCTIVITY IMPROVING OPTIONS

- Industry 4.0 Complied with 7th Sense
- Chip Conveyor for DX 100 (Rear or Front)
- Live Tool / Polygon Machining Solution
- Bar Feeder
- Bar Puller
- Part Catcher
- Tool Life Management
- Hydraulic Collet Chuck
- Auto Door
- Gantry / Robot Interfacing
- Fully Toolled up Solution to Meet Customer Needs
- Manual Guide 0i (Fanuc)
- Easy SMS System (Siemens)

* Depends upon clamping arrangement, Tooling and Job.

** Bar Capacity - Depends on appropriate clamping between chuck and cylinder.

Refer Machine Detailed Layout for overall machine dimensions & space requirements.

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.