HURON
CRÉATEUR DE MACHINES-OUTILS

DX Series

CNC Turning Centres

Performance
Technology
Power
Accuracy

DX Series

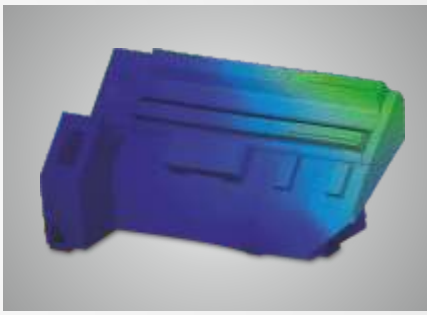
Overview

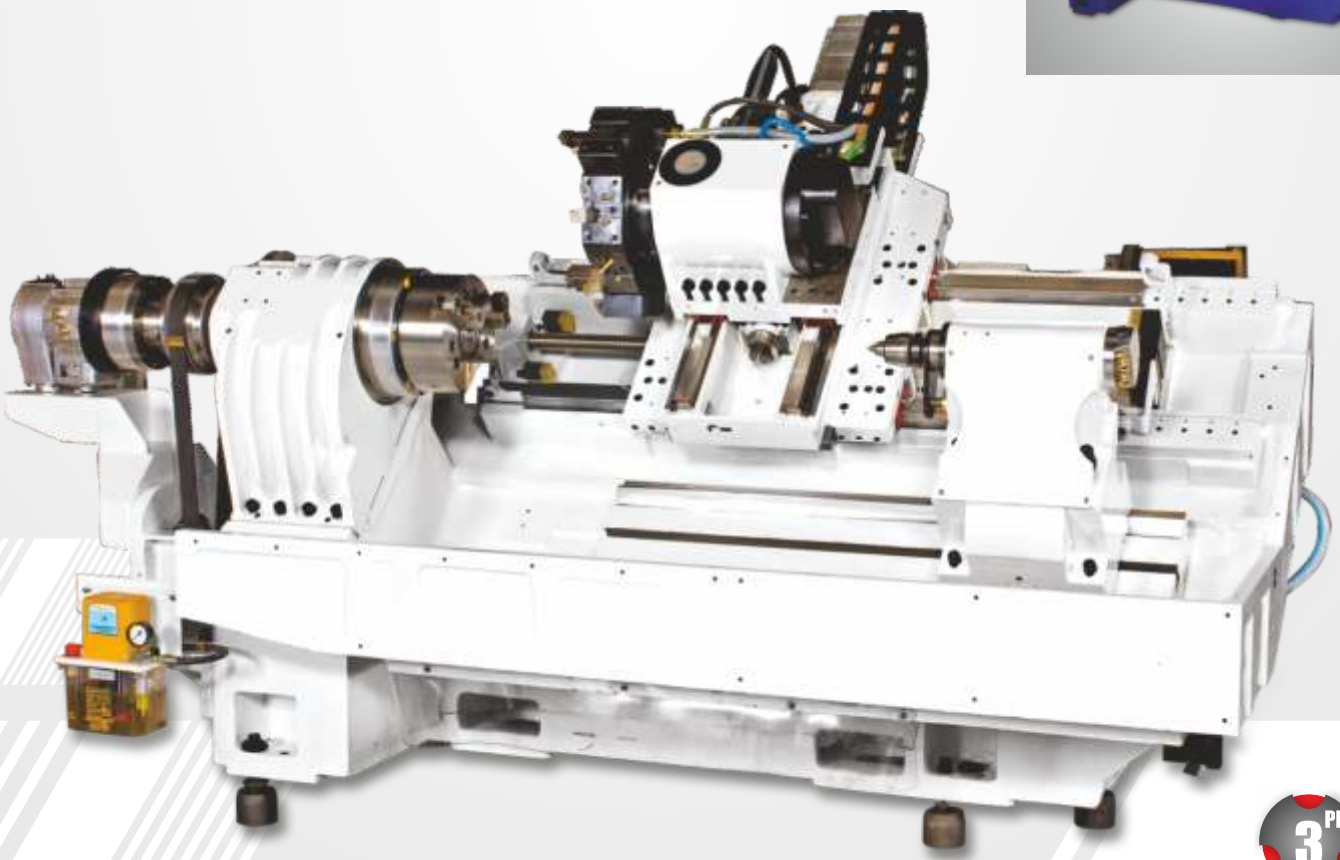
We exist to fulfil the global demand to produce world class products quickly, accurately and with minimum non-productive time. You will find a range of technology CNC lathes that deliver the fastest throughput you need in DX Series. Our machines are a result of continuous developments and innovations in the field of machine tool ever since we started manufacturing CNC lathes.

Introducing DX Series - a revolution in turning center technology. With this we build a world class machine that delivers exceptional performance even in hard part machining. DX Series of machines with monoblock 45^0 slant bed structure offers advanced rigidity and durability which proves to be a value for money. This Series is a benchmark in terms of power, torque, precision and accuracy, being fully capable to work with higher load carrying capacity. Besides, the Series even entertains complex jobs with cost effective solutions offering better tool life.

Monoblock structure

The rigid single piece 45^0 slant bed is made out of high grade cast iron for rigidity, heavier cuts and faster production.





*Structure of DX 350

3 PL

Spindle

Machine spindle is manufactured in house with the help of world class precision mother machineries and assembled in a dust free controlled temperature environment. Spindle is housed in a super precision 3 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.

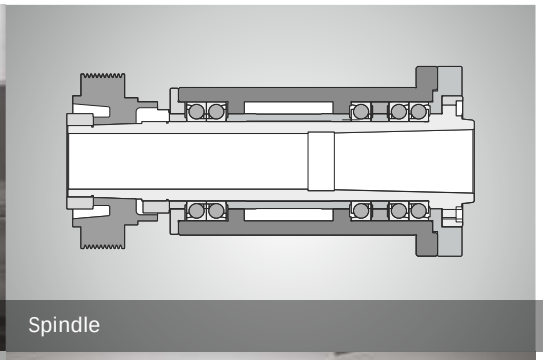
Powerful spindle with High Torque Motor allow high material removal rate.

Headstock

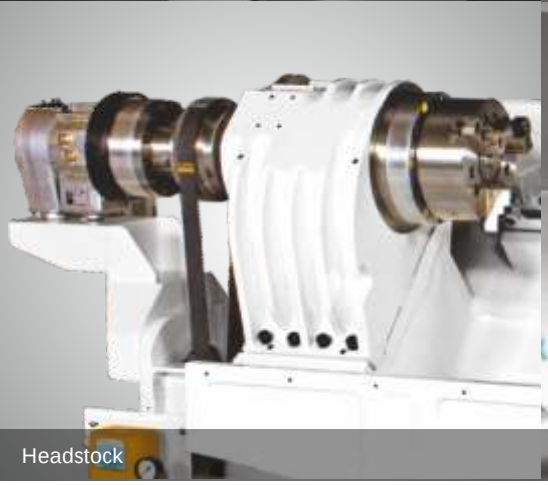
Taking into consideration ability to take heavy cutting loads, head stock is made out of closed grain FG 300 grade casting. Fins are provided with better surface area for proper heat dissipation enabling better life.

Linear axes

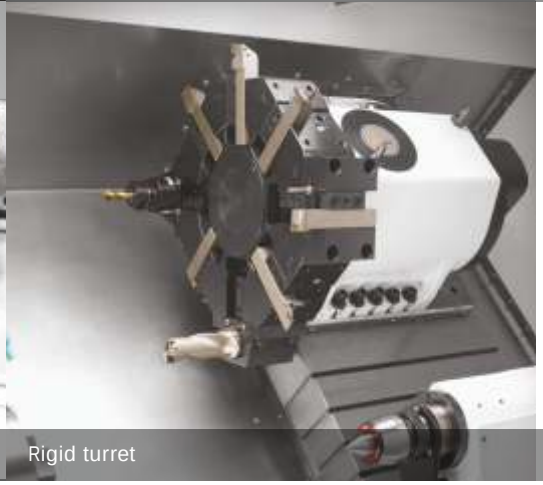
Machines are fully able to take higher cutting parameters even with hard turning materials thanks to wide linear roller guideways, preloaded and direct coupled ball-



Spindle



Headstock



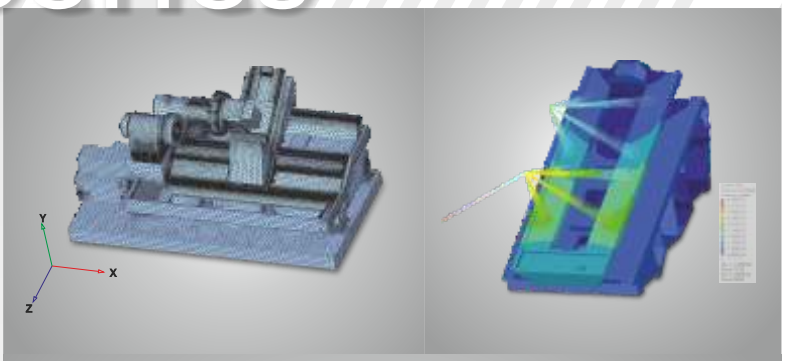
Rigid turret

DX Series

Overview

DX 500 Series CNC turning centers are the most robust machines designed for heavy & interrupted cutting thereby letting you to achieve superior finishing & long term accuracies in conjunction with ease of service, excellent maintainability & flexibility. The machine offers wide range of cutting along with rapid positioning & fast bi-directional turret indexing resulting in unmatched cycle times.

DX 500 is an ideal partner for machining large diameter components used in automotive and sub-contracting industries. The machines are environmentally stable to meet your production demands.

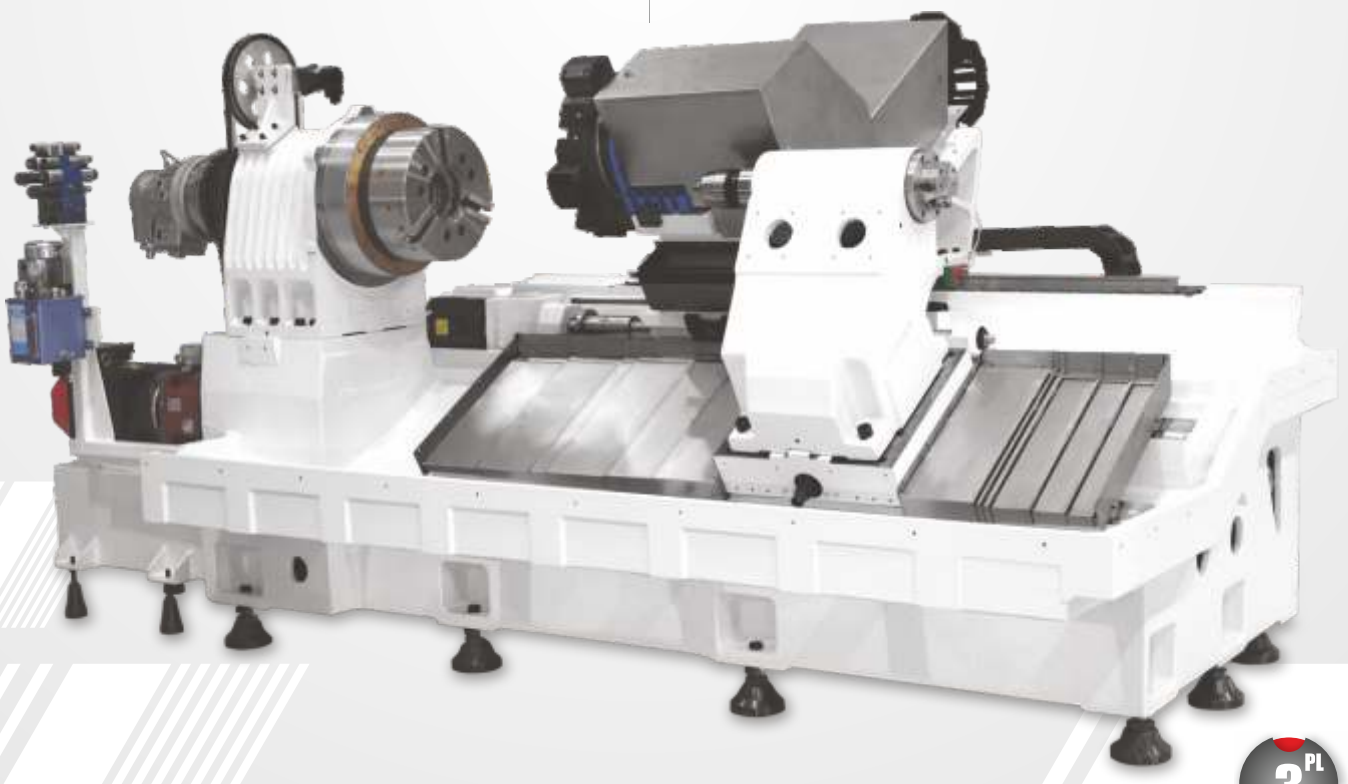


Rigid Structure

Distinctively DX 500 the robust bed & single piece 30°slant saddle construction is designed for high speed and heavy duty process forces. The bed and saddle made from higher grade cast iron provides maximum rigidity, thermal stability, damping & least distortion which makes it most suitable for hard part turning.

Step-up structure concept with widely spaced guideways enables consistent machining performance even at bigger diameter.

Finite Element Analysis were deployed to design a rigid and structurally optimized machine resulting in superior damping characteristics which minimizes the vibrations occurring during the heavy interrupted metal cutting



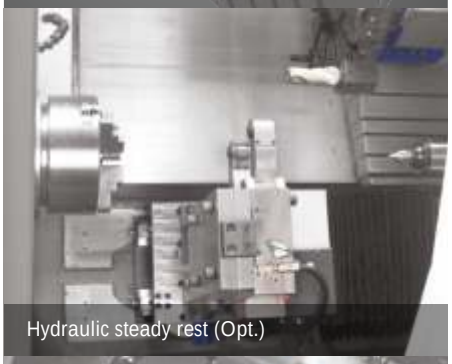
*Structure of DX 500

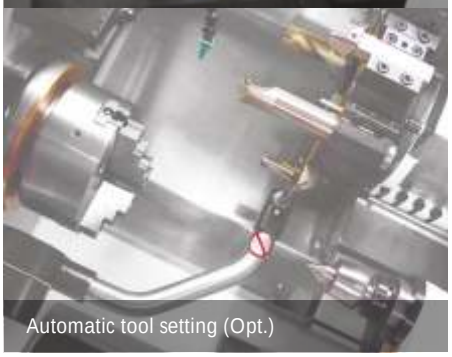
Technical specifications

			DX 500 1000	DX 500 2000
Capacity				
Swing over bed		mm	800	800
Std. turning dia.		mm	550	550
Max. turning diameter		mm	700	700
Max. turning length		mm	1.000	2.000
Travels				
X axis		mm	360	360
Longitudinal (Z axis)		mm	1.000	2.000
Rapid feed (X & Z axis)		m/min	24	24
Spindle				
Spindle motor power (30 min. / Cont.)		kW	25,5 / 18,5	25,5 / 18,5
Spindle bore		mm	80	80
Spindle nose			$A_2$8	$A_2$8
Max. bar capacity		mm	65	65
Spindle speed range		rpm	50 - 2.500	50 - 2.500
Full power range		rpm	750 - 2.500	750 - 2.500
Turret				
No. of stations			8	8
Max. boring bar diameter		mm	50	50
Tool size (Cross section)		mm	32 x 32	32 x 32
Tailstock				
Quill diameter		mm	130	130
Quill stroke		mm	150	150
Thrust (adjustable)		kg	1.000	1.000
Accuracy (as per VDI/DGQ3441)				
Positioning Uncertainty(P)		mm	0,010	0,015
Repeatability (Ps medium)		mm	0,005	0,007
Other datas				
Weight		kg	9.500	12.500
Dimension	Length	mm	3.950	4.975
	Width	mm	2.400	2.400

*Large spindle bore options available


Built-in motor spindle (Opt.)


Hydraulic steady rest (Opt.)


Automatic tool setting (Opt.)

Possible options

Built-in motor spindle (Opt.)

The power of machine lies in its spindle. Built-in motor spindle for DX is offered as an option. This high speed and high torque spindle employs a uniform heat construction that maintains an equal temperature all around the spindle which is protected from rise in temperature by the spiraling oil jacket located all the way to the back side. A separate oil chiller is provided for cooling purpose.

Digital tailstock (Opt.)

Digital tailstock is provided as an option. The highly rigid tailstock is driven by a servo motor and moved on linear guideways. A digital tailstock with variable speed, feed control allows separate speeds to be set for approach and engagement, reducing the operating time of the tailstock spindle by over 20 %. The digital tailstock which has outstanding functionality as a tailstock uses the servo motor drive that allows it to be used as a third axis.

Hydraulic steady rest (Opt.)

Machine can be equipped with hydraulic steady rest for smooth machining operation on over-hang work pieces as per required applications.

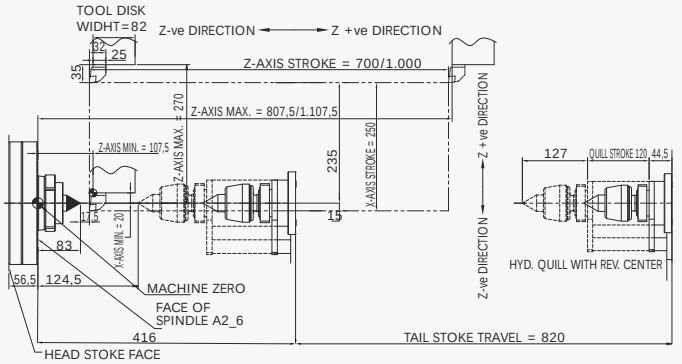
Automatic tool setting (Opt.)

Programmable for confident unmanned running. Allows the machine to set accurate tool data and even detect in-process

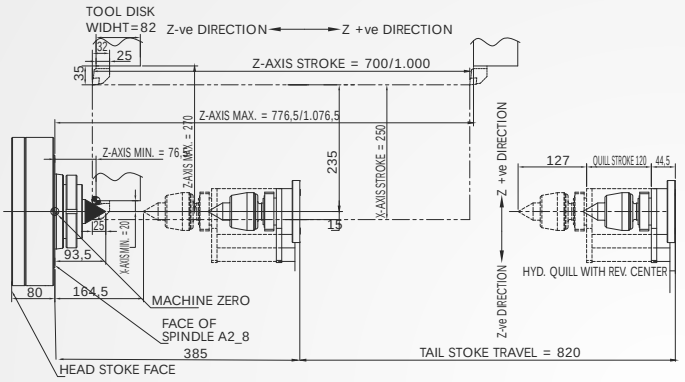
DX Series

Machining range diagram

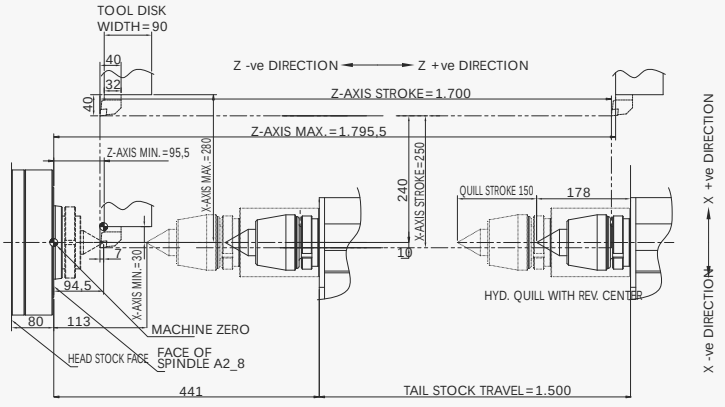
DX 250 (700/1000)



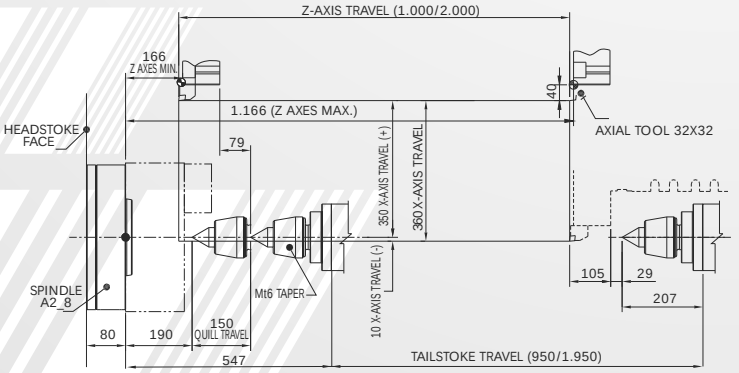
DX 350 (700/1000)



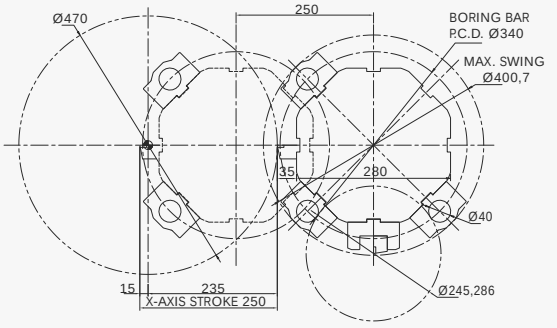
DX 350 (1700)



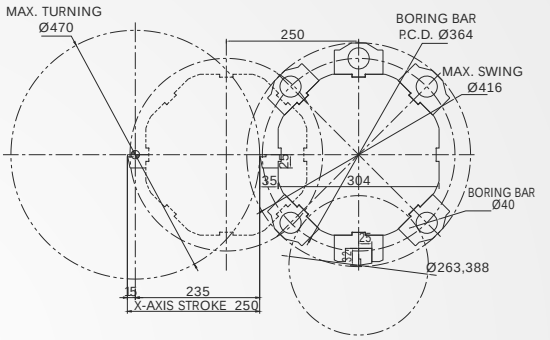
DX 500 (1000/2000)



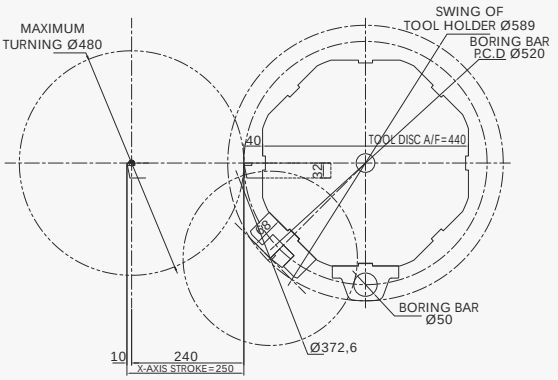
Interference Diagram



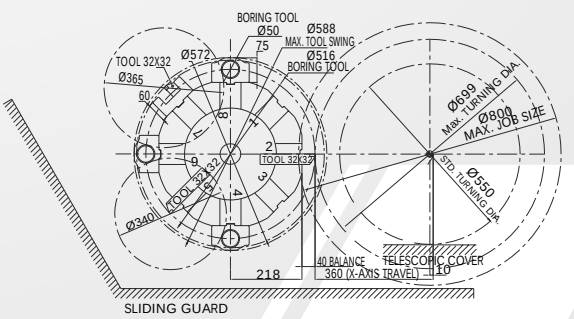
80 Center Height, Turret



100 Center Height, Turret



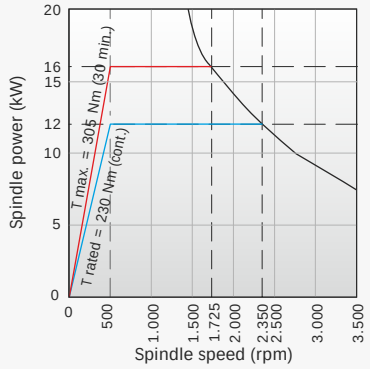
125 Center Height, Turret



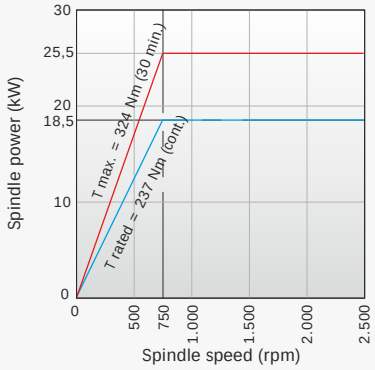
125 Center Height, Turret

Power speed diagram (Std.)

16 / 12 kW (30 min. / cont.)

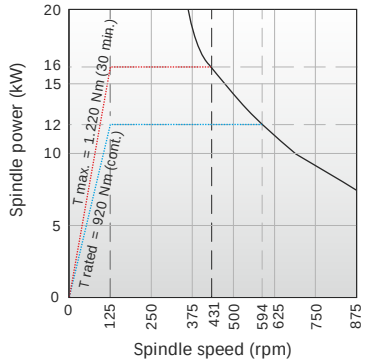


25,5 / 18,5 kW (30 min. / cont.)

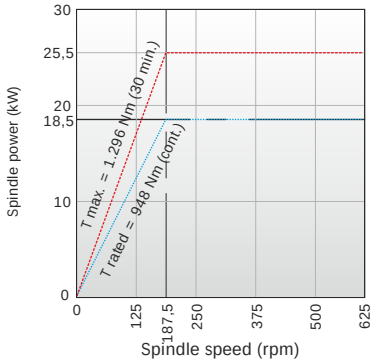


Power speed diagram (Opt.)

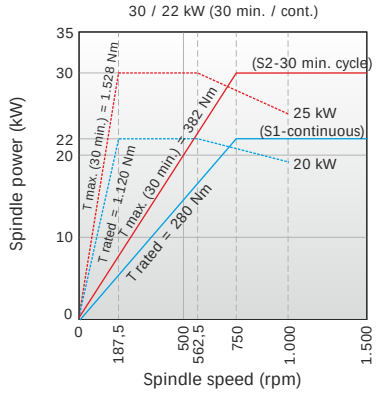
16 / 12 kW (30 min. / cont.)



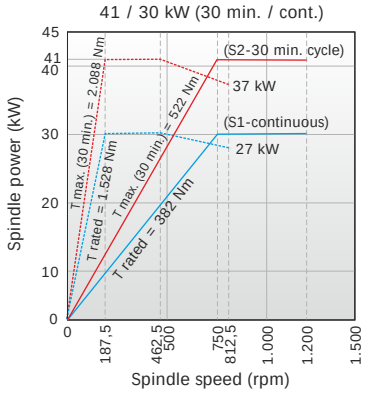
25,5 / 18,5 kW (30 min. / cont.)



30 / 22 kW (30 min. / cont.)



41 / 30 kW (30 min. / cont.)



Power speed diagram (Std.)					
16/12 kW (30 min. / cont.)	DX 250 (700)	DX 250 (1000)			
25,5/18,5 kW (30 min. / cont.)	DX 350 (700)	DX 350 (1000)	DX 350 (1500)	DX 500 (1000)	DX 500 (2000)
Power speed diagram (Opt.)					
16/12 kW (30 min. / cont.) With gear-box	DX 250 (700)	DX 250 (1000)			
25,5/18,5 kW (30 min. / cont.) With gear-box	DX 350 (700)	DX 350 (1000)	DX 350 (1500)	DX 500 (1000)	DX 500 (2000)
30/22 kW (30 min. / cont.) With / Without gear-box	DX 500 (1000)	DX 500 (2000)			
41/30 kW (30 min. / cont.)	DX 500 (1000)	DX 500 (2000)			

With gear box Without gear box

Technical specifications

ISO : 9001

		DX 250 700	DX 250 1000	DX 350 700	DX 350 1000	DX 350 1500
Capacity						
Swing over bed	mm	600	600	700	700	700
Standard turning dia.	mm	300	300	400	400	400
Max. turning dia.	mm	470	470	470	470	480
Max. turning length	mm	700	1.000	700	1.000	1.500
Travels						
X axis	mm	250	250	250	250	250
Longitudinal (Z axis)	mm	700	1.000	700	1.000	1.700
Rapid feed (X & Z axis)	m/min	24	24	24	24	24
Main Spindle						
Spindle motor power (30 min. / Cont.)	kW	16 / 12	16 / 12	25,5 / 18,5	25,5 / 18,5	25,5 / 18,5
Spindle bore	mm	70	70	80	80	80
Spindle nose		$A_2$6	$A_2$6	$A_2$8	$A_2$8	$A_2$8
Max. bar capacity	mm	52	52	65	65	65
Spindle speed range	rpm	50-3.500	50-3.500	50-2.500	50-2.500	50-2.500
Full power range	rpm	500-3.250	500-3.250	750-2.500	750-2.500	750-2.500
Turret						
No. of stations		8	8	8	8	8
Max. boring bar dia.	mm	40	40	40	40	40
Tool size (Cross section)	mm	25 x 25	25 x 25	25 x 25	25 x 25	32 x 32
Tailstock						
Quill diameter	mm	85	85	85	85	130
Quill stroke	mm	120	120	120	120	150
Thrust (adjustable)	kg	500	500	500	500	1.000
Accuracy (as per VDI/DGQ3441)						
Positioning Uncertainty(P)	mm	0,010	0,010	0,010	0,010	0,015
Repeatability (Ps medium)	mm	0,005	0,005	0,005	0,005	0,007
Other datas						
Weight	kg	5.750	6.000	6.500	6.750	10.000
Machine dimension: Length	mm	3.500	3.500	3.500	3.500	4.615
Width	mm	1.850	1.850	1.960	1.960	2.081

Standard features

- AC spindle drive
- AC SERVO digital drive
- Monoblock structure
- 8-Station bi-directional turret
- Guideways (Roller type)
- Hydraulic chucking
- Automatic & manual coolant system
- Centralised & programmable lubrication
- Laser calibrated axis for highly precise positioning accuracy and repeatability
- Tailstock with hydraulic quill

Options

- Bar feeder
- Bar puller
- Programmable tailstock
- Part catcher
- Steady rest
- Automatic loading/ unloading system
- Large spindle bore
- Digital tailstock
- Automatic opening door
- High speed motorized spindle
- Automatic tool setting
- Live quill (Built-in revolving centre)

Note : • All above information is subject to change arising out of continuous product improvement. • The description 'standard accessories / feature' conforms to its list; not the photo of machine shown in the catalogue. • Machine images are shown with option.

HURON
CRÉATEUR DE MACHINES-OUTILS

Jyoti Group
www.jyoti.co.in

FRANCE : HURON GRAFFENSTADEN
156, Route de Lyon - BP 30030
67401 Strasbourg-Illkirch Cedex
Tel +33 (0)3 88 67 52 52
Fax +33 (0)3 88 67 69 00
www.huron.eu / commercial@huron.fr

CANADA : HURON CANADA
408 Isabey
St-Laurent, Québec H4T 1V3
Tel +1 514 44 84 873
Fax +1 514 44 84 875
www.huron.fr / infocanada@huron.fr

GERMANY : HURON FRÄSMASCHINEN
Benzstraße 56 - 71272 Renningen
Tel +49 (0)7159 40686 12
Fax +49 (0)7159 40686 50
www.huron.de / verkauf@huron.de

2011-06-DXSERIES ENG FR-01 K 05