



BNC-2200/2600 Series

CNC Flat-Bed Lathe

BUFFALO MACHINERY CO., LTD.

56, Lane 318, Desheng Road, Daya District, Taichung City 428-46, Taiwan
P.O. Box 320, Daya, Taichung City, Taiwan
Tel: +886-4-25 60 37 59 Fax: +886-4-25 60 37 69
E-mail: info@mail.buffalo.com.tw
www.buffalo.com.tw



National Award
of Outstanding



ISO 14001:2004
EMS 546518



ISO 9001:2008
FM 538421



BNC-2260X with full guard



BNC-22160X with full guard (option)



Ballscrew support bracket for bed length longer than 3 meters



The headstock is rigid and well machining balanced for high speed cutting. An automatic speed changing system, hydraulic chuck fitting device, bar feeder interface are available.



The double box-way design is used for rapid traverse in extremely wide bed to carry heavy workpieces. The bed is also designed for easier chip flow into the chip tray or optional chip conveyor. The ballscrews are preloaded to ensure repeatability accuracy.



A conveniently constructed cross slide ensures easy access to the tool post. A hydraulic turret with standard disc or VDI disc is available on request.



BNC 2200/2600 is equipped with a pneumatic automatic spindle speed changer, enabling the machine running under full automatic mode.



Effortless approaching design can let the operator stand near the spindle center line for easy loading/unloading the workpiece.



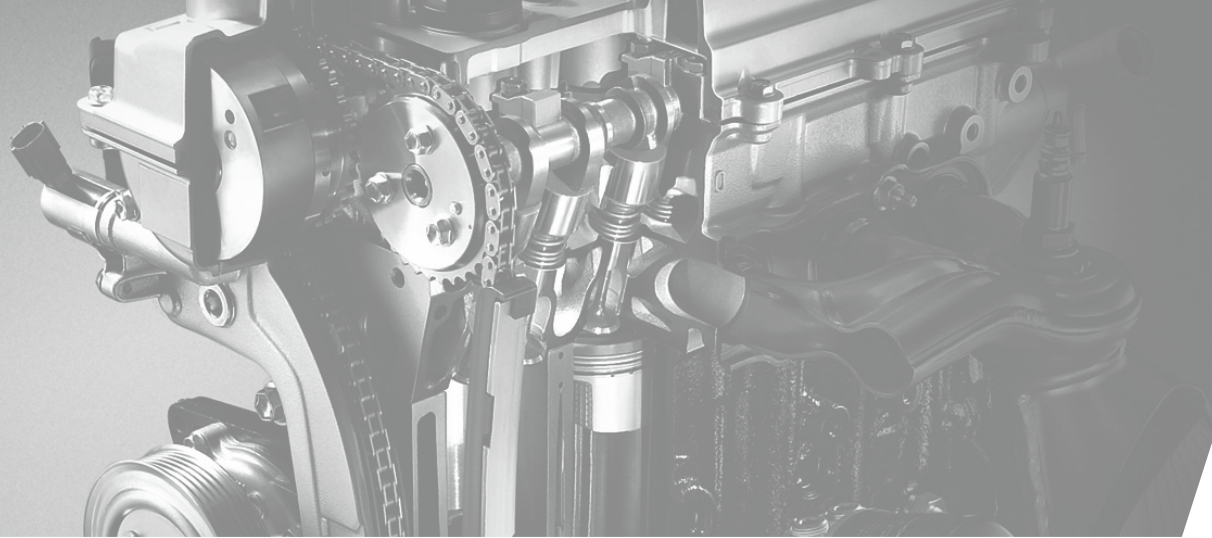
The A1-8 (82mm bore) / A1-11 (106mm bore, option) / A2-11 (153mm bore, option) spindle nose accommodates a heavy-duty chuck for production. The face is easy to clean and maintain. Cam-lock type spindle nose is available on request.



An interlock carriage carrier system (std. for 3M up) for convenient tailstock movement.



The control panel can be carried through the whole Z axis travel. The control can be used in either ISO code or conversational programming with a teaching function. The gap design at the machine bottom allows the operator easy approaching the machine, which can shed the fatigue from the long-hour working.



The large tailstock is ideal for carrying heavy workpieces and interference free. Revolving quill is available on selected models.



A large opening gate at rear is convenient for cleaning the machine and easy access for service purpose.



A selected chip conveyor with wash down system is available. The system offers efficient chip clean solution. It is exchangeable for standard chip tray.



The chip tray is designed to be removed from the back of machine. The coolant tank is designed for easy roll-out. The tray can be cleaned easily.



The well-designed cross slide can accommodate a 12-station turret (VDI30) or 8-station turret (VDI40). Both can be installed at the operator side or rear side. Alternatively, an electric 4-way turret or manual quick-change tool post can be fitted.



High-tech electric cabinet meets the latest CE regulation. All CE declared components are applied and easy to find the replacement locally. A totally sealed cabinet ensures a good quality environment.



The high pressure pump offers ample coolant during machining.



A resistance type lubrication unit can detect the oil volume.



BNC-2600



BNC-26160X with travelling front single door

*Photo shows a preparation for rear mount chunk; a chuck guard will be supplied.

Standard accessories:

- Fagor 8055A TC, 8055A FL & Power or Fanuc 0iTD or Siemens 808 Basic
- 11/15.5kW main spindle motor for 2240/2260/2280; 15/22kW for 22120/22160
- Tailstock
- Gap bed
- Fully enclosed front guard with interlock system for 1M/1.5M/2M C.D.
- Travelling front single door interlocked with carriage for 3M/4M C.D.
- Coolant system
- Lubrication system
- Quick change tool post with 6 pcs standard tool holder
- Low voltage circuit system
- Tailstock interlock for 3M/4M C.D.
- CE declaration of conformity for EU countries
- Leveling bolts & pads for installation

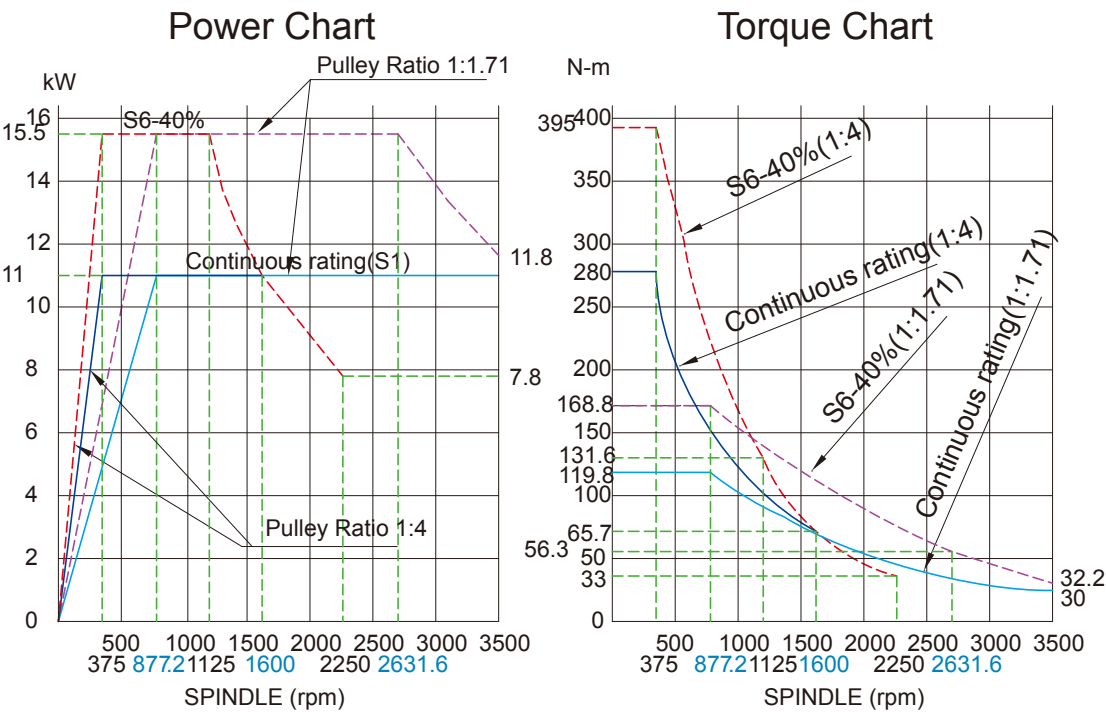
Optional accessories:

- Steady rest
- Follow rest
- 3 jaw chuck(hydraulic or manual or pneumatic)
- 4 jaw manual chuck
- Automatic V8 turret
- Hydraulic V8 turret
- Hydraulic tailstock quill
- 15/22 kW spindle motor
- C axis & power turret
- D1-8 spindle nose
- 106mm spindle bore capacity for BNC-2200, 106/153mm for BNC-2600
- Y axis for BNC-2600 series
- Joy sticker
- Portable MPG
- EMC
- Extra I/O for functions
- Chip conveyor & wash down device
- 5 bar high pressure coolant pump
- Hydraulic steady rest
- Tailstock interlock for 2M below
- 20 bar coolant through tool device
- Lifting device
- Fully enclosure guard for 3M and 4M machines
- Safety module

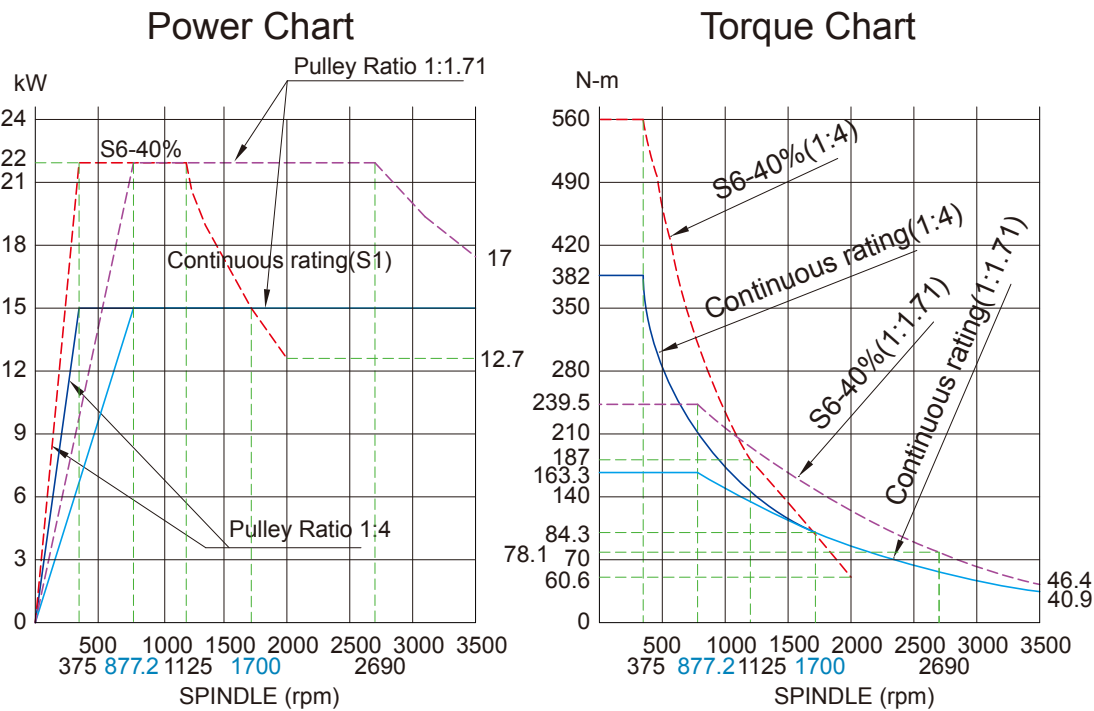
Power & Torque chart

(Below charts are for Fagor spindle motors)

82mm bore, speed 3500rpm, 11/15.5kW motor



82mm bore, speed 3500rpm, 15/22kW motor



Y Axis

Y axis is available on BNC-2600 series. It increases the linear motion capability of the machine tool and eliminates many requirements of secondary operation. With the additional Y-axis, to turn and mill complex parts and perform multiple operations on a single machine is easy and convenient.



Rear Mount Ballscrew

Rear mount ballscrew device provides rigid structure to support the carriage during heavy duty cutting when the turret is mounted at rear side of the carriage.



8-Station Power Turret

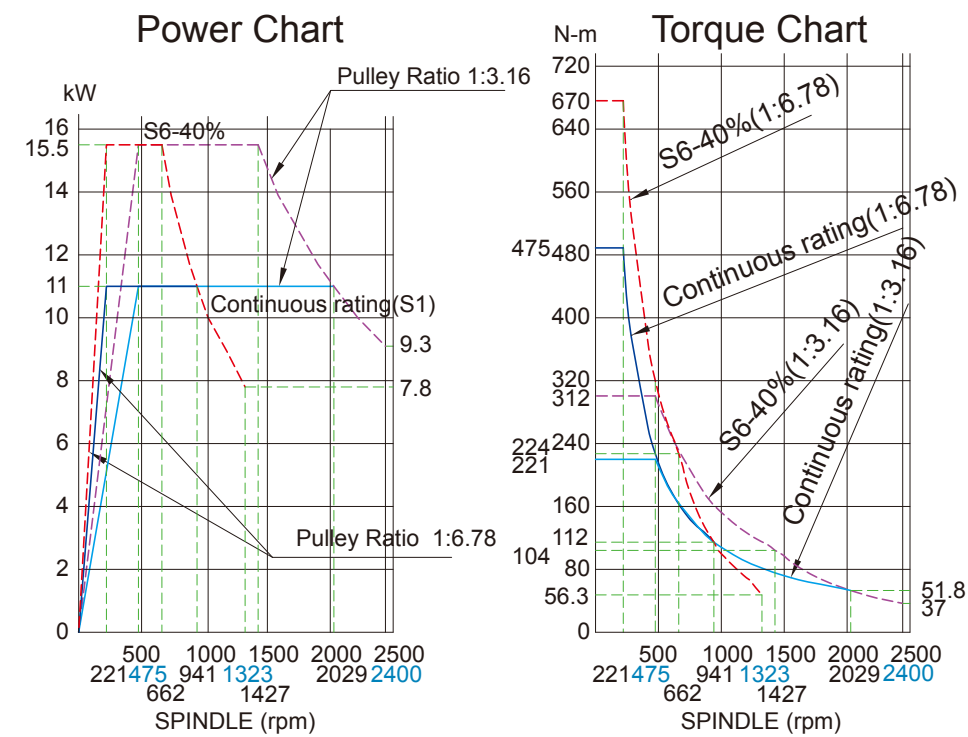
8-station Power Turret as shown in the photo or 12-station Power Turret (VDI-40) (option) provides more efficient performance.



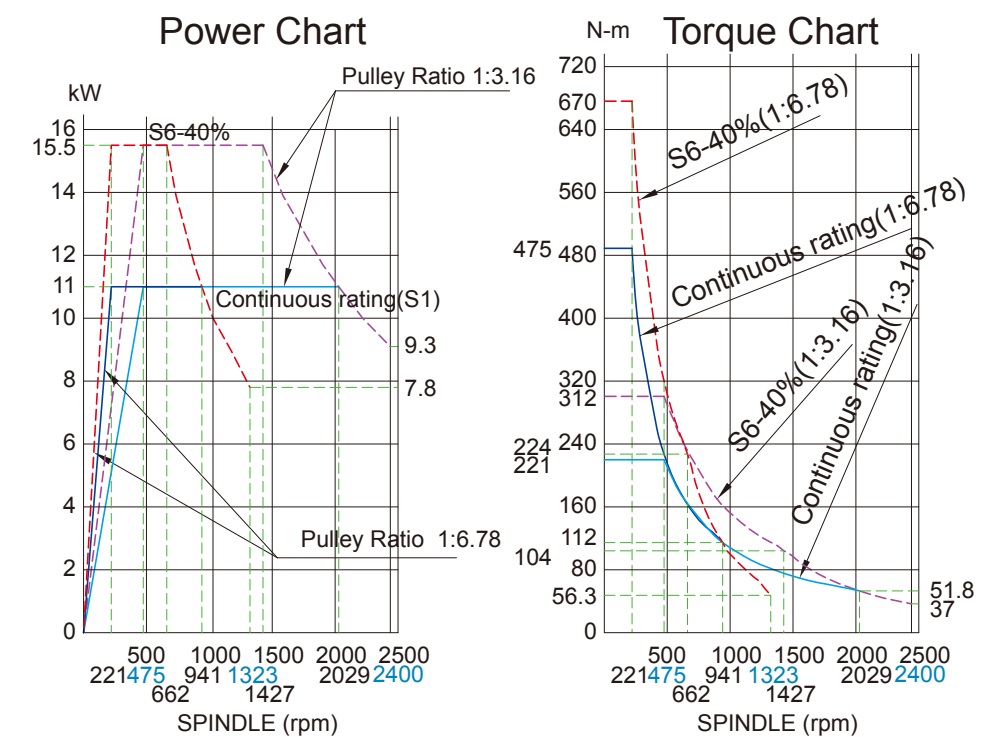
C Axis

C-axis is available (option) with braking system, upgraded spindle motor.

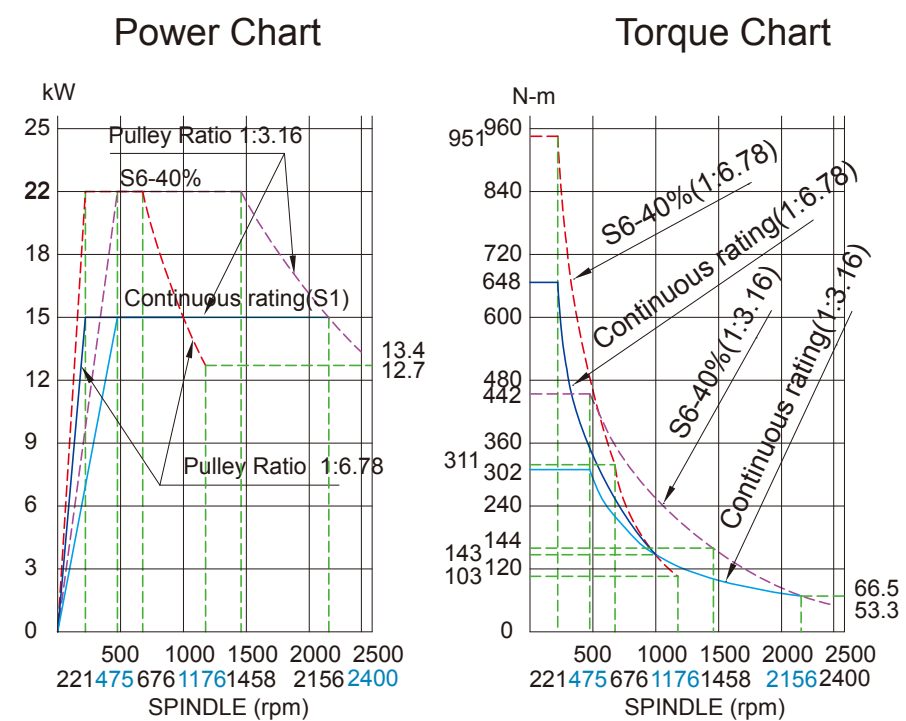
82mm bore, speed 2400rpm, 11/15.5kW motor



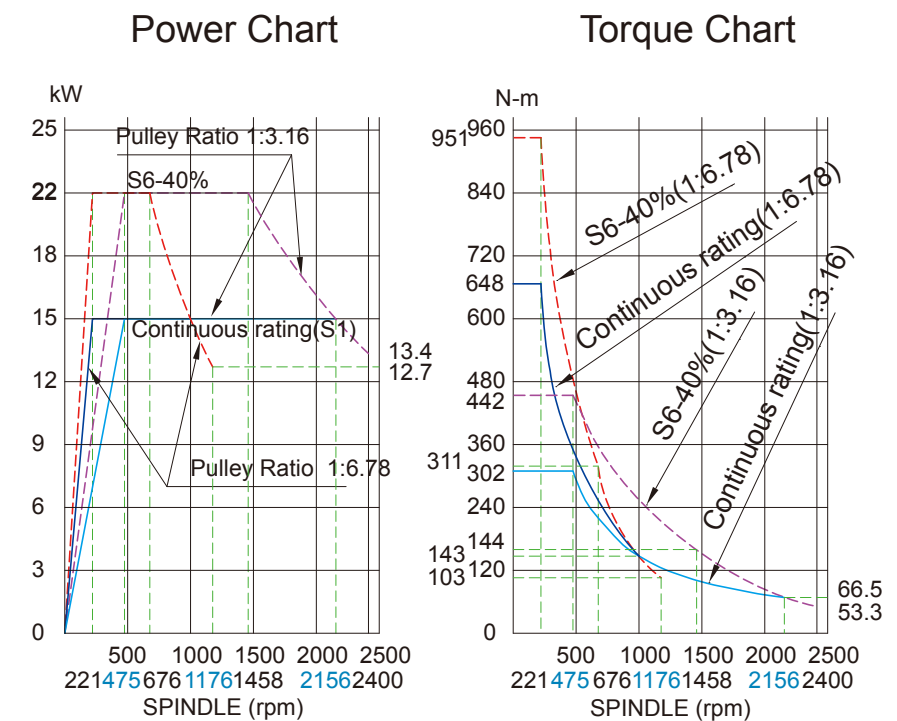
106mm bore, speed 2400rpm, 11/15.5kW motor



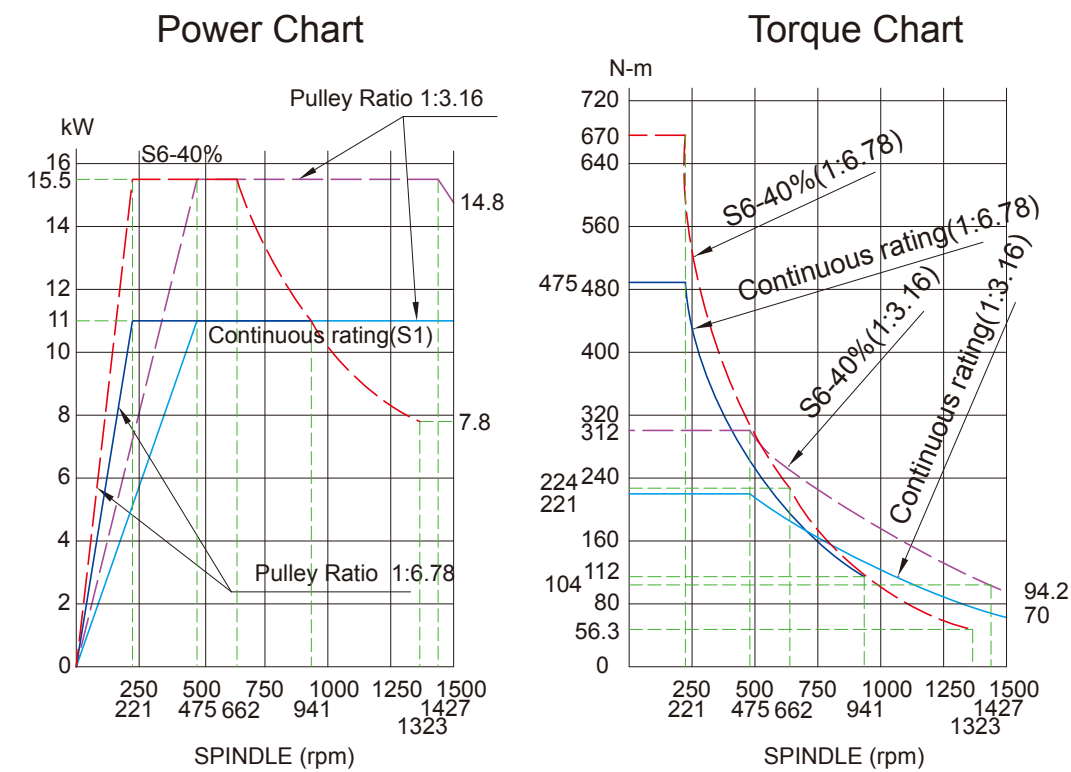
82mm bore, speed 2400rpm, 15/22kW motor



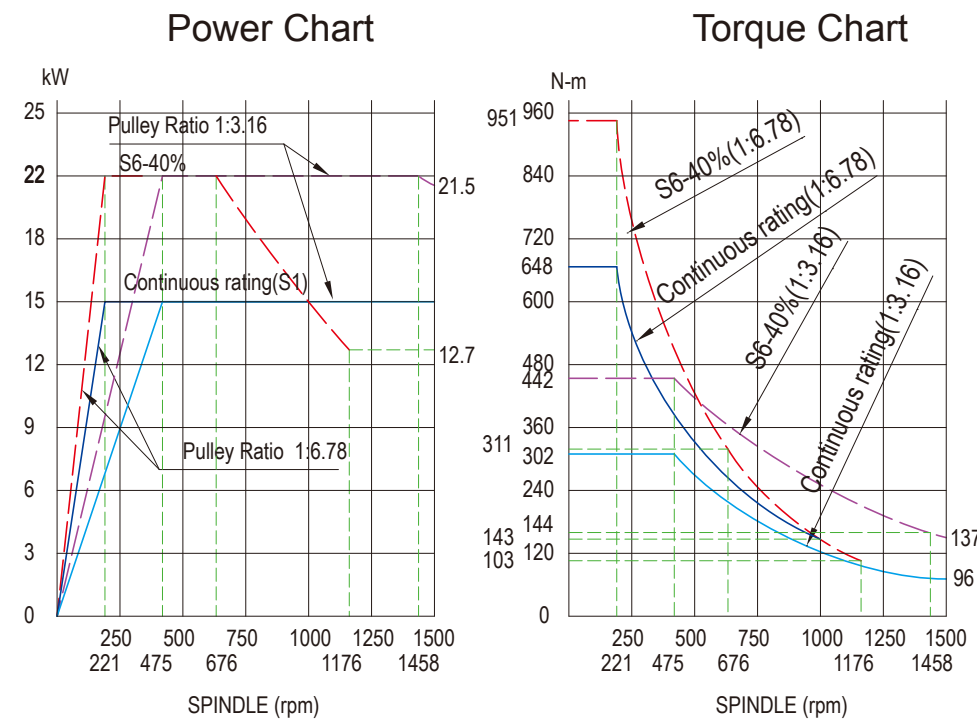
106mm bore, speed 2400rpm, 15/22kW motor



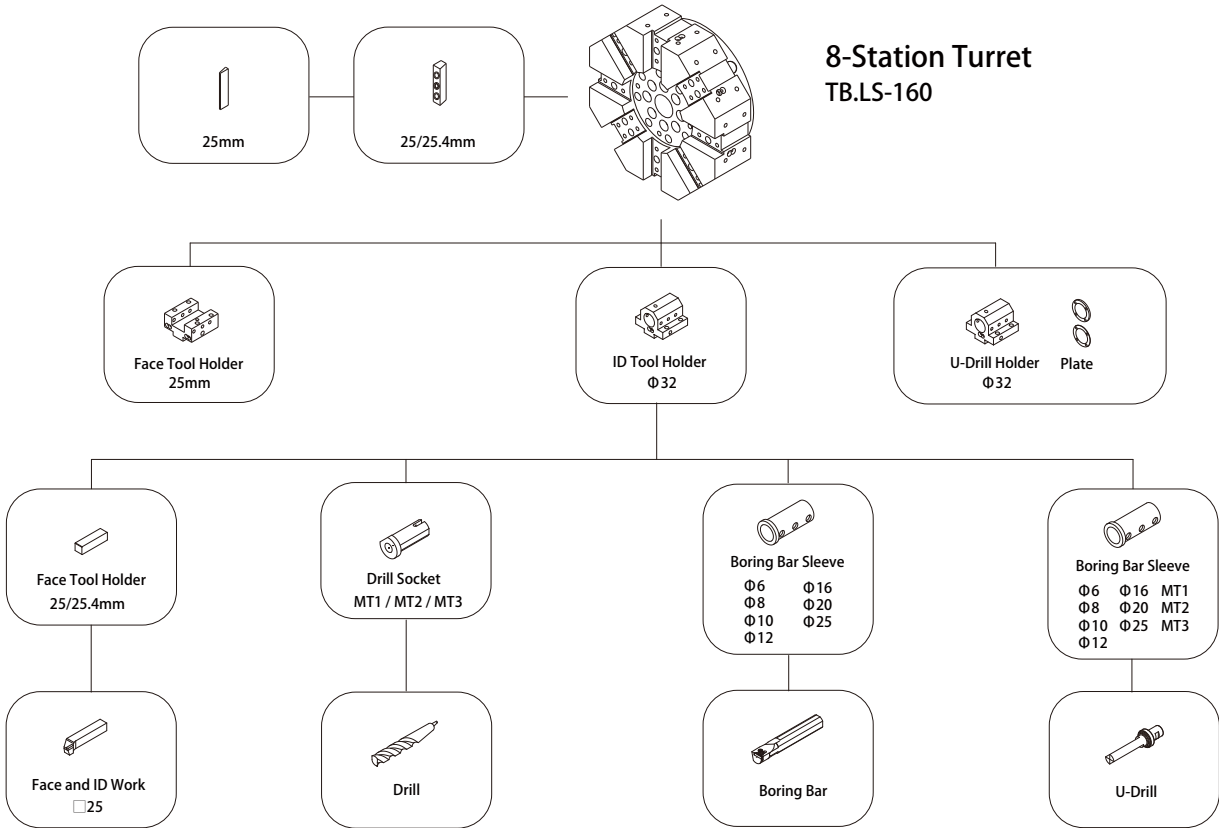
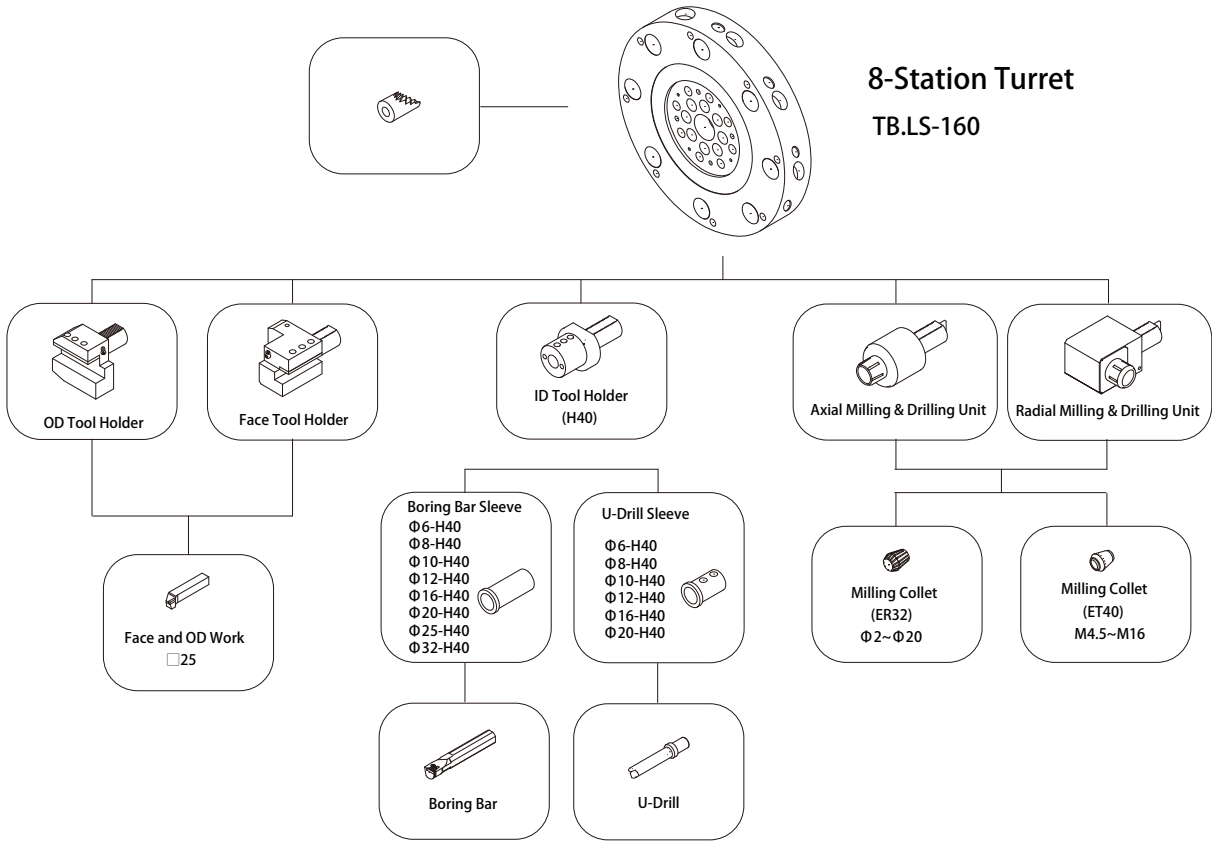
153mm bore, speed 1480rpm, 11/15.5kW motor



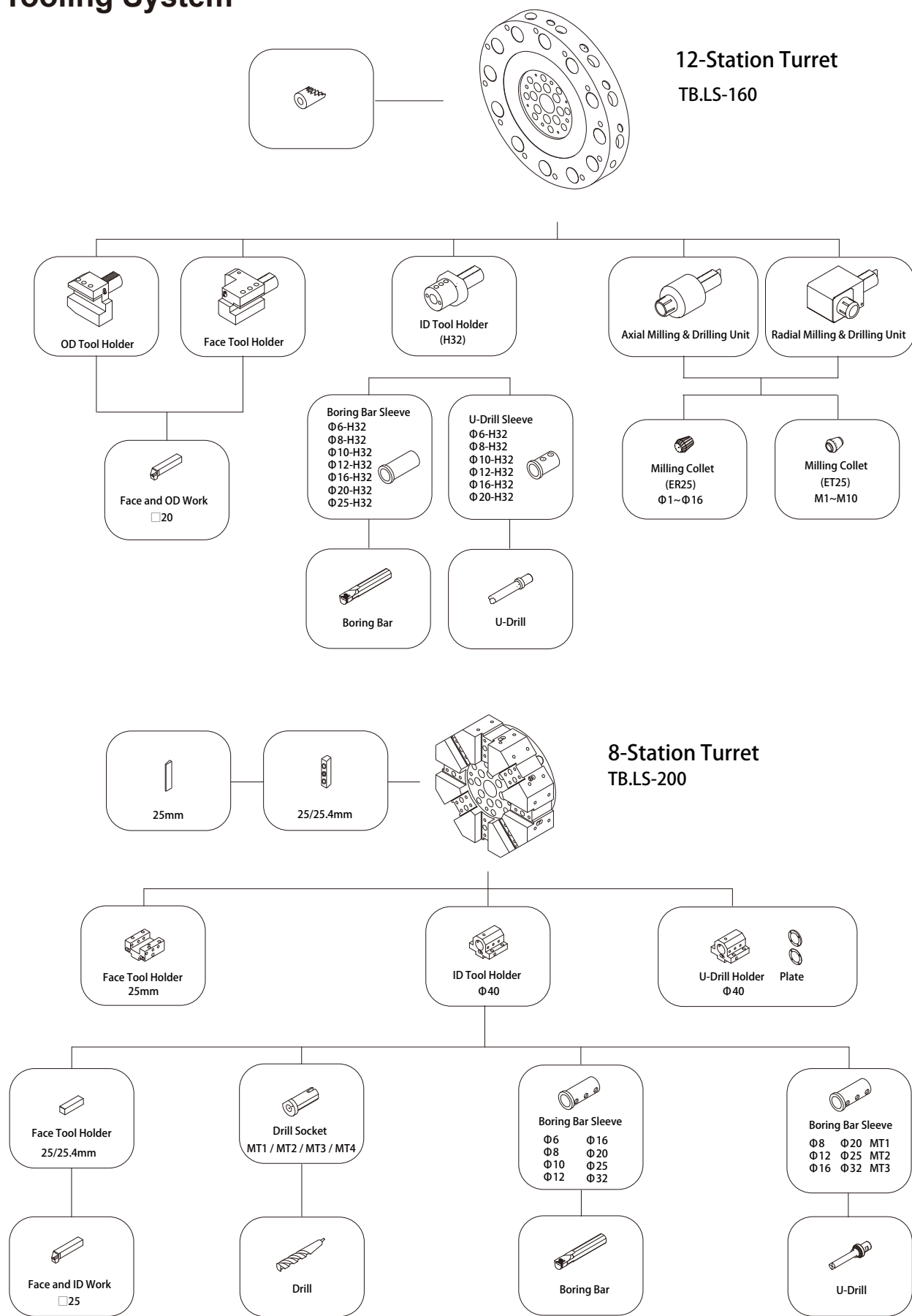
153mm bore, speed 1480rpm, 15/22kW motor



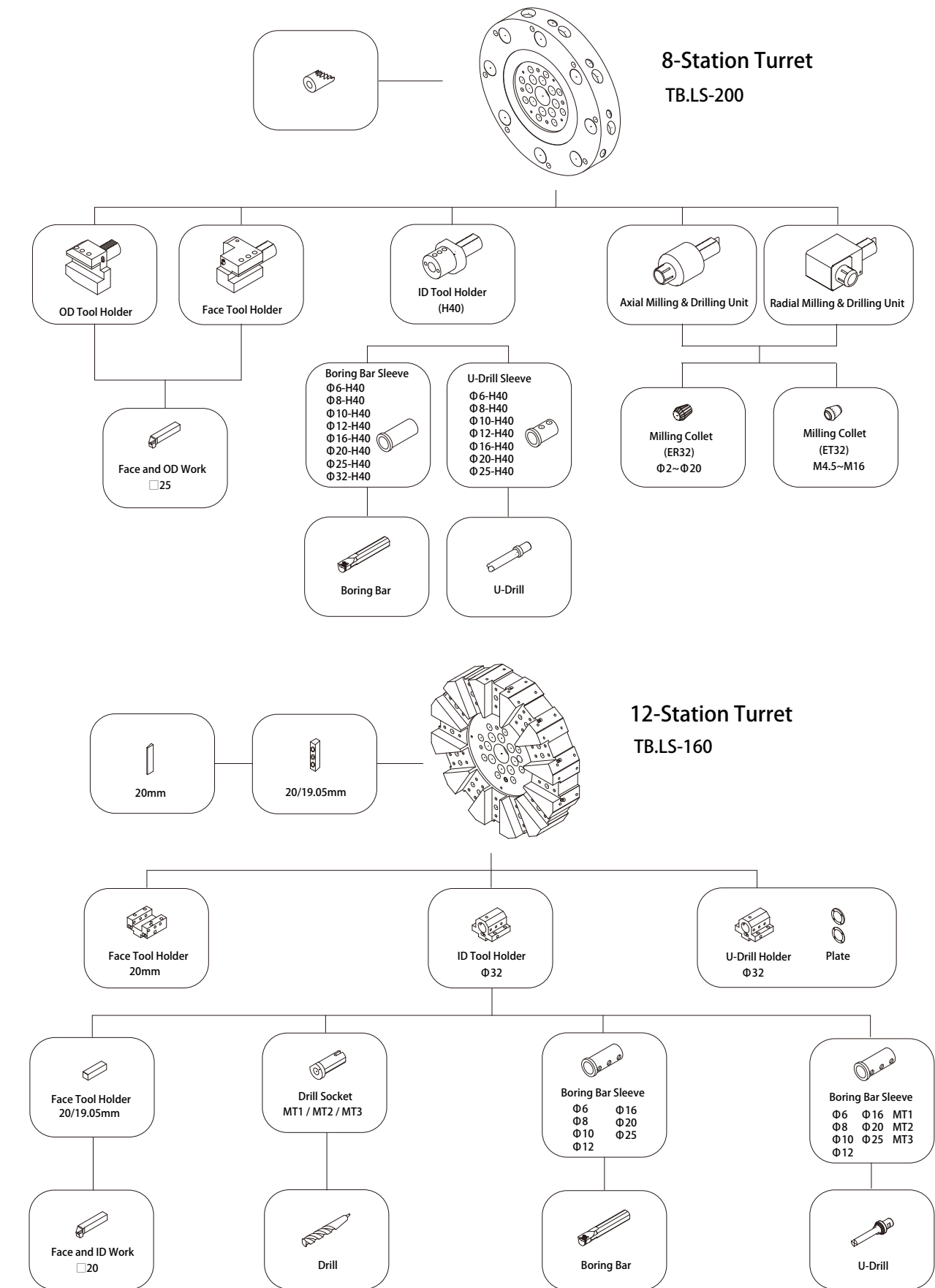
Tooling System



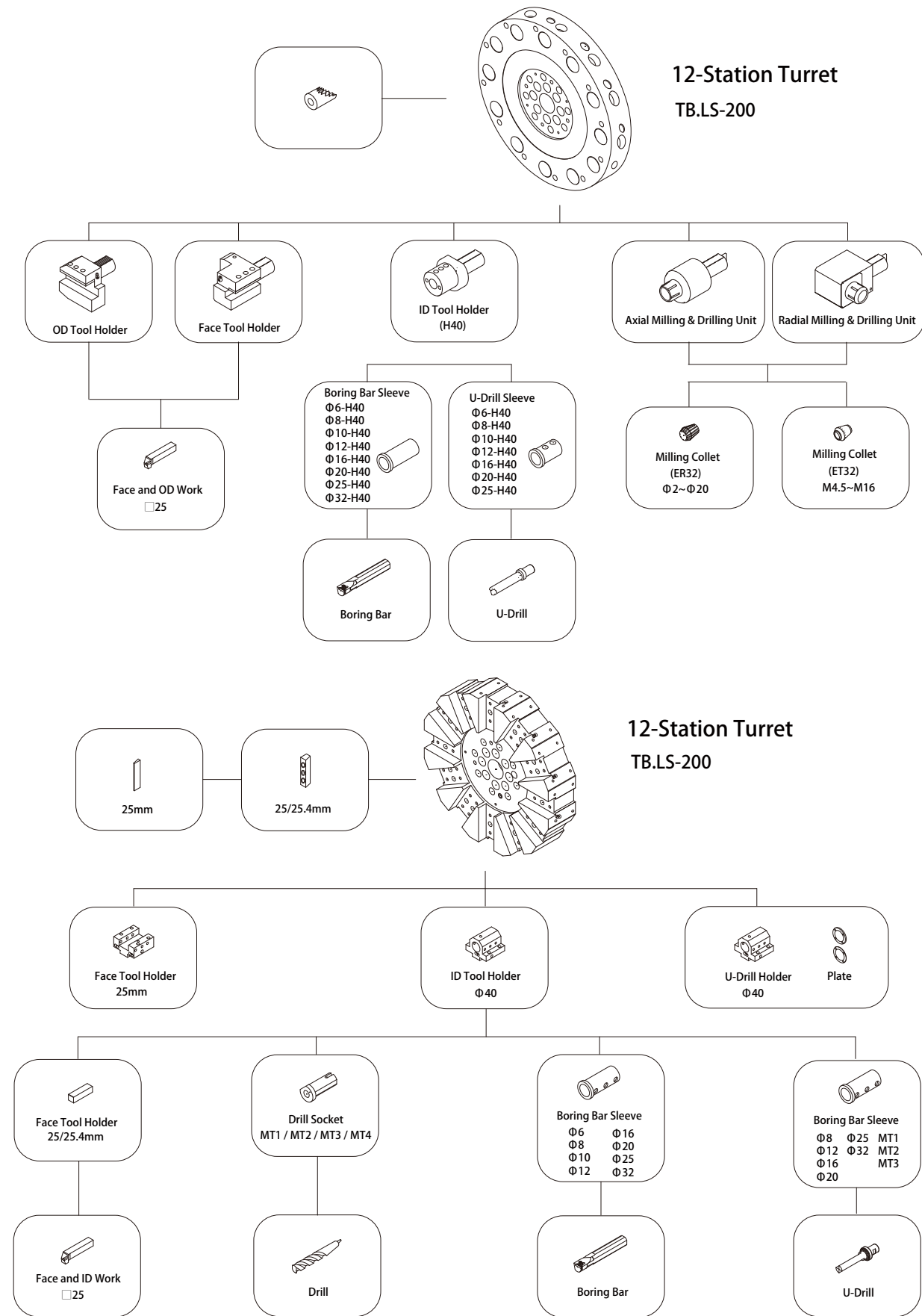
Tooling System



Tooling System



Tooling System



Technical Data

	Description	Unit	BNC-2240	BNC-2260	BNC-2280	BNC-22120	BNC-22160
			BNC-2640	BNC-2660	BNC-2680	BNC-26120	BNC-26160
Capacity	Swing in gap	mm	770 (BNC-2200X) / 870 (BNC-2600X)				
	Swing over bed	mm	550 (BNC-2200X) / 650 (BNC-2600X)				
	Swing over cross slide	mm	310 (BNC-2200X) / 410 (BNC-2600X)				
	Max. turning length (with turret)	mm	1000	1500	2000	3000	4000
	Bar capacity for hyd. chuck cylinder	mm	69(A1-8, 82) / 90(A1-11, 106) / 116(A2-11, 153)				
	Gap length from spindle nose surface	mm	283(A1-8) / 242(D1-8) / 274(A1-11, A2-11.4") / 255(A2-11.6")				
	Max. workpiece weight (w/ tailstock)	kg	2000				
Travel	X axis	mm	345				
	Y axis (opt, for BNC-2600X)	mm	±40				
	Z axis	mm	1150	1650	2150	3150	4150
Belt-drive Spindle (BNC-2200)	Spindle speed	rpm	Fagor/Siemens-82mm bore: 0-3500 or 0-2400/106mm bore: 0-2400 Fanuc- 82mm bore:0-3500 or 0-2100 /106mm bore: 0-2100				
	Suitable chuck size (opt)	mm	250/315				
	Spindle nose		A1-8/D1-8(82mm bore); D1-8/A1-11(106mm bore)				
	Spindle hole diameter	mm	82 (std) / 106 (opt)				
	Motor output	kW	Fagor: 11/15.5; Fanuc: 11/15, 15/18.5; Siemens: 12/18, 15/22.5 (opt)				
Belt-drive Spindle (BNC-2600)	Spindle speed	rpm	Fagor / Siemens- 82mm bore: 0-3500 or 0-2400/106mm bore:0-2400/153mm bore:0-1480 Fanuc-82mm bore: 0-3500 or 0-2100 / 106mm bore: 0-2100 / 153mm bore:0-1480				
	Suitable chuck size (opt)	mm	250/315				
	Spindle nose		A1-8/D1-8(82mm bore); D1-8/A1-11(106mm bore); A2-11 (153mm bore)				
	Spindle hole diameter	mm	82 (std) / 106 (opt) / 153 (opt)				
	Motor output	kW	Fagor: 15/22; Fanuc: 11/15, 15/18.5; Siemens: 12/18, 15/22.5 (opt)				
Turret (option)	No. of tool stations		8 (VDI 40) / 12 (VDI 30)				
	Tool allowance (square)		25x25 (VDI 40) / 20x20 (VDI 30)				
	Boring bar diameter	mm	Ø40 (VDI 40) / Ø 32 (VDI 30)				
	VDI tool shank (boring)	mm	Ø40 (VDI 40) / Ø 32 (VDI 30)				
	No. of tool stations	mm	8 (VDI 40) / 12 (VDI 30)				
Live tooling Turret	Size of turret disk		322				
	OD tool size	mm	20 / 16				
	Live tooling shank size	mm	ER32 (20) / ER25 (16)				
	Live tooling rpm range	mm	4000				
	Indexing drive type	rpm	Fagor: 3.7/5.5; Siemens: 4.82; Fanuc:2.2/3.7				
Feed rate	X axis rapid traverse	kW	15				
	Y axis rapid traverse (opt, for BNC-2600X)	m/min	10				
	Z axis rapid traverse	m/min	15 (up to 2M), 12 (3M & 4M)				
	Jog feed	m/min	3				
	X axis guideway type	m/min	Dovetail guideway				
Guideway	X axis guide distance		215				
	Y axis guideway type (opt)	mm	Box way				
	Y axis guide distance (opt)		220				
	Z axis guideway type	mm	Box way				
	Z axis guide distance		405				
Accuracy	Positioning accuracy	mm	0.01/300				
	Repeatability accuracy	mm	±0.01				
Feed motor	X axis power	mm	Fagor: 11.6; Fanuc: 11; Siemens: 11				
	Y axis power (opt, for BNC-2600X)	Nm	Fagor: 3.2				
	Z axis power	Nm	Fagor: 16.5; Fanuc: 20; Siemens: 20				
Axes transmission	X axis ballscrew	Nm	Ø32xP5xC3				
	X axis transmission	mm	Belt				
	Y axis ballscrew (opt, for BNC-2600X)		Ø32xP5xC3				
	Y axis transmission (opt, for BNC-2600X)	mm	Belt				
	Z axis ballscrew		Ø45xP10xC5 (1M/1.5M length); Ø50xP10xC5 (2M/3M/4M length)				
Tailstock	Z axis transmission	mm	Direct				
	Movement		Manual				
	Quill movement		Manual / Hydraulic (opt)				
	Quill stroke		150				
	Quill diameter	mm	80 (std) / 100 (opt)				
Coolant	Quill inside taper	mm	5				
	Pump motor	MT	450 (50Hz) / 560 (60Hz)				
	Max. pump flow	W	58 (50Hz) / 66 (60Hz)				
Lubrication	Max. pump pressure	L/min	10				
	Pump motor	kg/cm ²	12				
	Max. pump flow	W	0.13				
Weight	Max. pump pressure	L/min	15				
	Weight	kg/cm ²	3800	4300	4800	5800	6800
	Length (w/o chip conveyor)	kg	3190	3690	4190	5190	6190
Dimension	Length (w/chip conveyor)	mm	4337	4837	5337	6337	7337
	Width	mm	2245				
	Height	mm	2050				
Total power consumption		mm	Fagor: 35; Fanuc: 35; Siemens: 20				

*Specifications are subject to change without notice.

KVA