

# **BARON-MAX<sup>®</sup>** Heavy Duty **CNC Plus** Lathes

*Combination of manual, teach and full CNC operation for CNC beginners  
And experts no CNC skills requiring.*



*The Baronmax range of heavy duty Versatile CNC lathe are designed to undertake large diameter work from 650mm to 840 mm diameter and up to 5100mm between centers. 20/25 hp main drive with auto shifting, CSS, 450 mm width bedway, extra large carriage V-ways, Choice of large spindle bore: 4", 6", 9" or 12"(rear nose optional) make these machines extremely versatile on large work. They are ideal for one offs and small batch work, as well as production work. The user-friendly FAGOR 8055TC CNC control which can be operated in Manual, Teach-in, Semi-Automatic or CNC operation*

# Heavy Duty *CNC Plus* Lathes

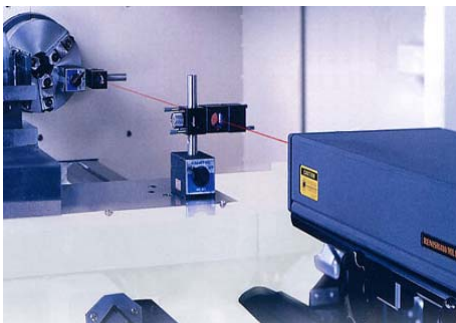






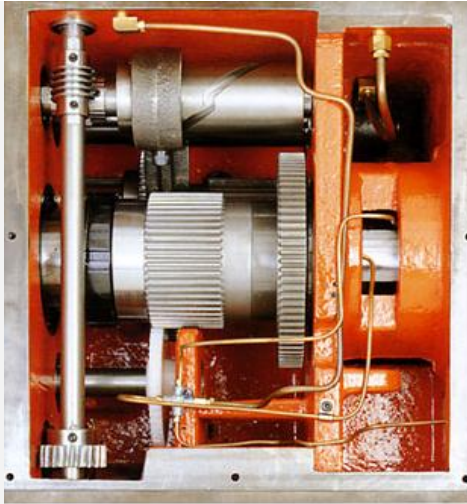
## Features:

- Rugged heavily ribbed Meehanite casting construction.
- Extra wide induction hardened and precision ground bed ways,
- Turicte-B coated on carriage sliding ways for smooth, stick slip free movement.
- Precision hand scraped for all mating sliding surfaces and gibes.
- Hardened & Ground ball-screw with preloaded double nuts, fitted on 60° angular contact bearing.
- Powerful YASKAWA AC Vector spindle drives, provide high power for Constant Surface Speed Cutting.
- Large bore heavy duty spindle mounted on precision taper roller bearing for heavy cutting.
- 3 infinitely variable speed gear ranges with auto shifting for fully programmable spindle speeds.
- Heavy duty manual tail-stock with safety switch. (2-speeds ratio).
- FAGOR AC servo axes motors and drives provided high performance
- Dual electronic hand wheels allow for manual operation.
- Automatic lubrication to all sliding surfaces and axes ball-screws.
- Flood coolant system and Halogen work light are as standard.
- Cycle stop light tower indicator
- All electric component are built-in a enclosure cabinet and main disconnect switch.
- Fully enclosed guarding with interlocked sliding doors access, to CE standard.
- Every machine before shipping is inspected by Laser calibrated and cutting and coolant testing and Undergoes a rigorous 48 hours non-stop running



**Laser Calibration**





**Geared Headstock:**

The Spindle & gears are made of CR-MO alloy steel which are carburizing & precisely ground, forced lubricating & oil bathed combined in headstock which can be prolonged servicing life



**Rugged heavy construction:**

Rugged heavily ribbed cast iron bed constructed, with hardened and ground Turcite-coated bed and saddle guideways for high accuracy and durability.



**Variable, Programmable Speed:**

Continuously variable spindle speeds are programmable through three gear ranges by automatically shifting. The constant surface speed control feature maintains excellent part surface finish and improves tool life.



**Rear nose double Chuck System:**

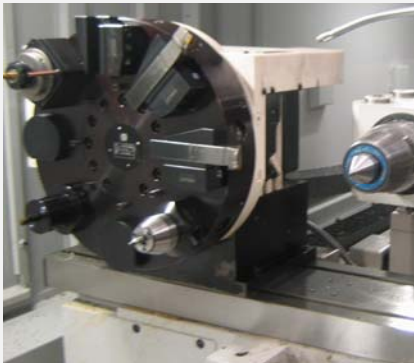
For pipe threading and long shaft work, extra large spindle size available up to Ø6", Ø9", Ø12" and Ø14



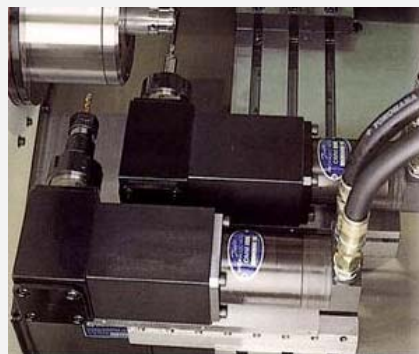
**Electrical Cabinet:**

All electric component are built-in an enclosure cabinet and main disconnect switch. The control circuit with no-volt release, designed to meet CE requested.

**Baron-Max<sup>®</sup> Heavy Duty CNC lathes is now available with C axis and driven tools**  
**- for combined Milling and Turning in one machine (Option)**



**Turret with live tools**



**Hydraulic live tools**

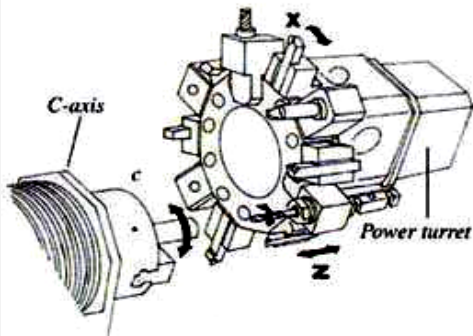


**Electro-magnetic disk brake**

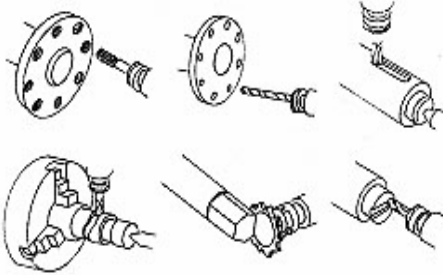


Mill/Turn series with FAGOR full package digital motors and drives, the 22 KW spindle motor and its 100 revs/min. which Cf-axis spindle and live tools to allow for milling and drilling to be completed on one machine. The Mill/Turn series with disc brake on the spindle locks the programmed position to provide a rigid workholding datum for operation of the third-axis tooling, by means of either a VDI 40 driven tool turret or a Hydraulic live tools with Radial milling/drilling head or Axial milling/drilling head for combined milling and turning in one machine

## TM series with full C axis and driven tool capability



### C-axis Proess Drawing



### Driven Tool Specification

Tool holder type	40 VDI x 8 stations (4 driven tools + 4 fixed tools )
Cf axis motor torque	300 Nm
Driven Tool Speed	3000 rev/min
Tool shank size	25 x 25 mm (40 VDI)
Rotating Tool Coupling	DIN 5480 W16 x 0.8

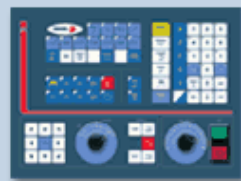
### C-Axis Specification

Minimal Programmable Increment	0.001°deg
Positional Measurement	HEIDENHAIN ERM 280
Positioning accuracy	± 0.03° deg



**CNC 8055i TC Control, Simple as a DRO, Powerful as a CNC**

### CNC 8055i TC Control



- Easy to Operate, No Programming Skills Necessary
- Choice of Manual, Teach-in, Semi-Automatic or CNC operation
- Wide range of turning, boring and threading operations in one complete package
- Up to 1,000,000 part programs and 10,000 subroutines
- Unlimited tool library
- RS232 communications link
- Interactive graphic display - solid or tool path
- Full range of canned cycles, 17 in all
- Tool radius compensation
- User defined cycles

Ask whatever you want of it...

Because the FAGOR CNC 8055i TC is a CNC for lathes which due to its versatility and capability, offers maximum features with absolute ease of operation. Any operator, with no previous knowledge of programming, can take care of any need that arises with absolute efficiency. All he/she has to do is key in the machining conditions and the geometric data of the part

# Specifications for CNC Heavy Duty Teach-in Lathes

Description	KL-2660 / KL-2680 KL-26120 / KL-26160 KL-26200 / KL-26240	KL-3060 / KL-3080 KL-30120 / KL-30160 KL-30200 / KL-30240	KL-3260 / KL-3280 KL-32120 / KL-32160 KL-32200 / KL-32240
Model			

## WORKING CAPACITY

Swing over bed	670 mm	770 mm	840 mm
Center height to bed	335 mm	385 mm	420 mm
Center height to top cross slide	205 mm	250 mm	280 mm
Swing over cross slide	400 mm	500 mm	570 mm
Dis. Between centers	1600 mm / 2100 mm / 3100 mm 4100 mm / 5100 mm / 6000 mm	1600 mm / 2100 mm / 3100 mm 4100 mm / 5100mm / 6000 mm	1600 mm / 2100 mm / 3100 mm 4100 mm / 5100mm / 6000 mm
Width of bed	450 mm		

## HEADSTOCK

Spindle nose	<b>D1-8 *</b>	<b>A2-11 *</b>	<b>A2-11</b>	<b>A2-15</b>	<b>A2-20</b>
Spindle bore	85 mm (3.34")	105 mm (4")	153 mm (6") opt	230 mm (9") opt	305 mm (12") opt
3-Jaw scroll chuck (Option)	Ø10" (thr. hole 76 mm) for D1-8 spindle nose only Ø 12" 3-jaw scroll chuck (thr. hole 103 mm) Ø 16" 3-jaw scroll chuck (thr. hole 155 mm) Ø 20" 3-jaw scroll chuck (thr. hole 160 mm) Ø 25" 3-jaw scroll chuck (thr. hole 200 mm)				
Hydraulic Power chuck (Opt.)	Ø 10" (thr. hole 75 mm) for D1-8 spindle nose Ø 12" (thr. hole 105 mm) for A2-11 spindle nose Ø 15" (thr. hole 117.5 mm) for A2-11 spindle nose, Ø 18" (thr. hole 117.5 mm) for A2-11 spindle nose, Ø 24" (non thr. hole) for A2-15 spindle nose,				
Bar capacity (Power chuck)	Ø 75 mm for D1-8 of 10" chuck, Ø 91 mm for A1-11 of Ø 12" chuck, Ø 117.5 mm for A1-11 of Ø 15" chuck and Ø 18" chuck				
Range of spindle speeds	3 Rang Gears Auto Shifting				
Spindle speeds range	<b>H:</b> 2000 – 441 rpm <b>M:</b> 440 – 111 rpm <b>L:</b> 110 – 25 rpm	<b>H:</b> 1500 – 331 rpm <b>M:</b> 330 – 93 rpm <b>L:</b> 92 – 24 rpm	<b>H:</b> 800 – 176 rpm <b>M:</b> 175 – 59 rpm <b>L:</b> 58 – 12 rpm	<b>H:</b> 450 – 108 rpm <b>M:</b> 107 – 31rpm <b>L:</b> 30 – 6rpm	<b>H:</b> 350 – 87rpm <b>M:</b> 86 – 26rpm <b>L:</b> 25 – 5rpm
Taper in spindle	MT# 6				

## SADDLE

Longitudinal travel (Z-axis)	1500 mm / 2000 mm / 3000mm 4000 mm / 5000mm / 6000 mm	1500 mm / 2000 mm / 3000mm 4000 mm / 5000mm / 6000 mm	1500 mm / 2000 mm / 3000mm 4000 mm / 5000mm / 6000 mm
Cross-slide travel	450 mm	450 mm	450 mm
Size of tool holder	Boring Tool : Ø40 mm, O. D. Tool & Facing Tool: □25 mm		
Ball screw (Dia x pitch)	X-Axis: Ø25 mm x P 5 mm, Z-Axis: Ø50 mm x P10 mm		

## TAILSTOCK

Quill Diameter	Ø 105 mm	Ø 105 mm	Ø 105 mm
Quill Travel	220 mm	220 mm	220 mm
Quill Taper	MT #5	MT #5	MT #5

## MOTOR

Spindle motor	20 HP (Std.), 30 HP (option)
Z-axis drive motor	12 Nm (FKM 44.3)
X-axis drive motor	6.3 Nm (FKM 42.3)
Coolant pump motor	1/4 HP – Std, 3/4 HP (Opt.)

High Pressure coolant	1-1/2 HP (Opt. for U drills) 6 bar or 20 bar		
<b>X, Z- AXES FEED</b>			
X axis rapid travel	6 M /min		
Z axis rapid travel	8 M /min		
<b>GENERAL</b>			
Power Required	20 KVA		
Floor space (L x M x H)	3590/4090/5090/6090/7090 x 1950 x 1820 mm		
Approx, machine weight	4200kgs / 4700kgs / 5700kgs 6700kgs / 7800kgs / 8800 kgs	4500kgs / 5000kgs / 6000kgs 7000kgs / 8000kgs / 9000 kgs	4500kgs / 5000kgs / 6000kgs 7000kgs / 8000kgs / 9000 kgs

**\* KL-2600 Series Spindle with D1-8, Ø85 mm Spindle bore as a standard, KL-3000 and KL-3200 Series Spindle with A2-11, Ø 105 mm Spindle bore as a standard.**

- Specifications are subject to change without prior notice.
- Actual working travels maybe reduced by Hyd. Turret and Chuck option are fitted.

## STANDARD EQUIPMENT:

- FAGOR 8055TC Teach-in CNC Control
- Two electric hand-wheels for X-Z axes
- Coolant system
- Automatic Lubrication
- *Cycle stop light tower indicator*
- Fully enclosed guarding with interlock sliding doors
- Manual Tailstock
- Manual 4-way tool post
- Halogen work light
- Instruction manual and tools box & tool kits

## OPIONAL EQUIPMENT:

- SINUMERIK 810D w/ManualTurn with 10" color TFT
- FANUC 0i mate TC with 7.2" LCD
- FANUC 0i TC w/Manual Guide w/8.4" color TFT
- ANILAM 4200T CNC Control with 14" color TFT.
- 3-jaw screw chuck (Manual), 16", 20"
- Hydraulic pump unit for chuck & Turret.
- Hydraulic chuck w/rotary cylinder.
- 8 station Turret.
- 12 station Turret.
- Quick change tool post with 6 holder
- 9", 12" or 14" Spindle bore
- Dual chuck option (factory installation)
- Chip conveyor.
- Steady rest w/roller Type.(  $\varphi$  160-  $\varphi$  360mm)
- Follow rest.(  $\varphi$  40-  $\varphi$  250 mm)