MICROCUT
THE CHALLENGER

QUALITY CNC LATHE

Extremely high value lathe with maximum cutting capacity

MicroPanther 446

HIGH QUALITY AND COST-EFFECTIVE MACHINE TOOL

HIGH PRECISION
EASY OPERATION
UNIQUE FEATURES
LESS MAINTENANCE COST

National Award of Outstanding

ISO 14001:2004
EMS 546518

ISO 9001:2008
FM 538421

Extremely High Value Lathe

MICROCUT MicroPanther 446 offers higher spindle speed, output torque and power and faster rapid feed rate than average

Rapid Feed Rate

15m/min

2 TIMES FASTER

than the average lathe of the same level

Machining productivity is remarkably enhanced with shorter process time

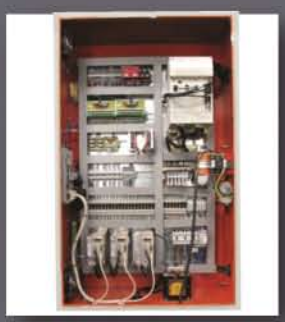
Photo shown:
MicroPanther 446 / Fagor 8055i FL controller

Features

Optimal axes structure
X and Z axes featuring box way design assure the best possible machine rigidity and stability

Easy-clean design
Two-layer collect drawers with filter function help to separate chip filings and coolant

Durable and efficiency clamping
Hydraulic 6" 3-jaw chuck (option) with a variety of hard and soft jaws (thru-hole dia. 40mm)



CE-regulated cabinet
24Vac low voltage circuit control system

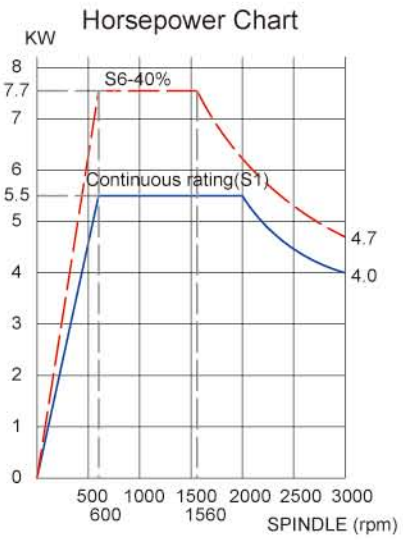
Convenient operation
The well designed tailstock is ideal for carrying workpiece and interference free

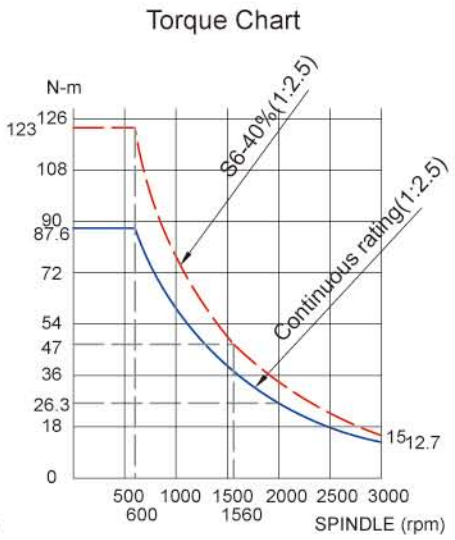
FAGOR 8055i FL controller *SIEMENS 828D BASIC controller*

User-friendly swivel panel
Friendly conversational CNC offers versatile and power programming features. Good for manual, Teach-in and automatic operation program

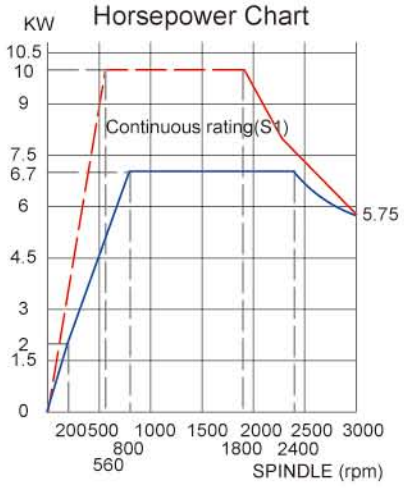
Horsepower & Torque Charts

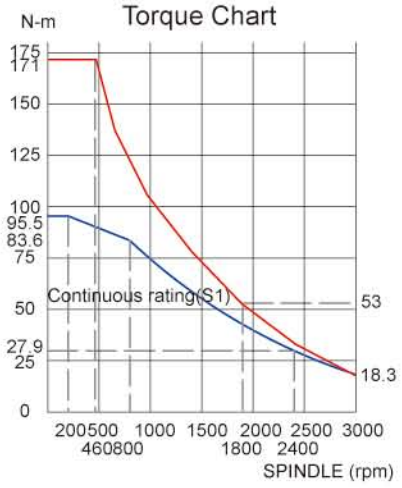
FAGOR 5.5/7.7 kw Spindle



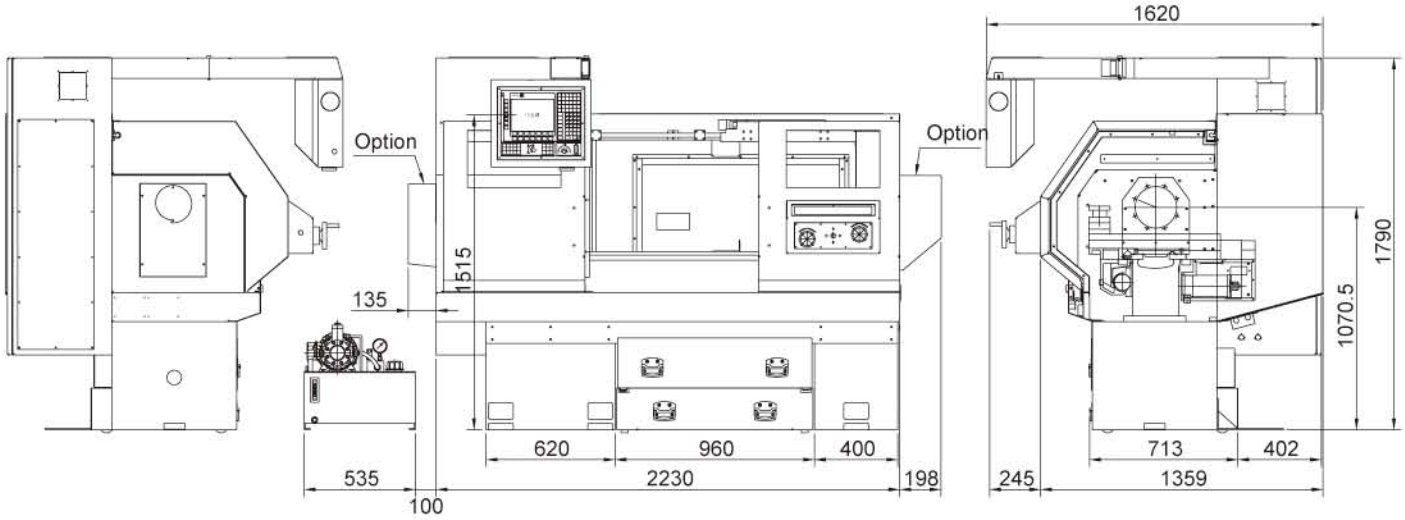


SIEMENS 7/10 kw Spindle



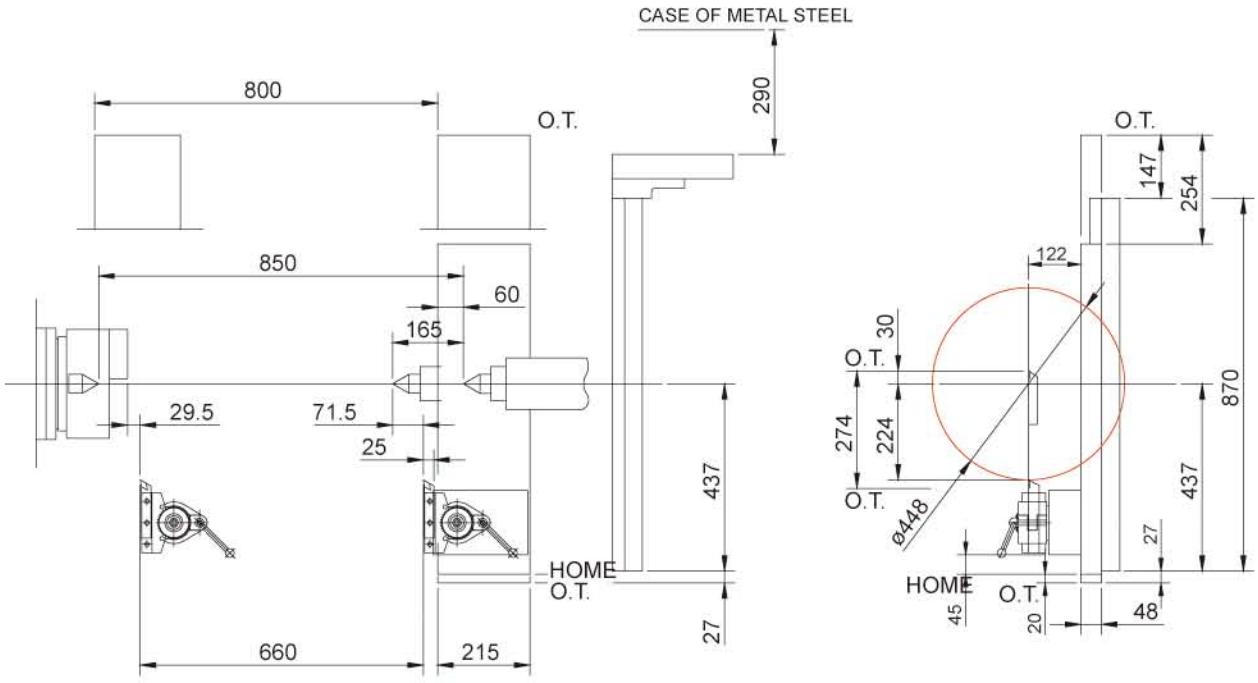


Layout Drawing

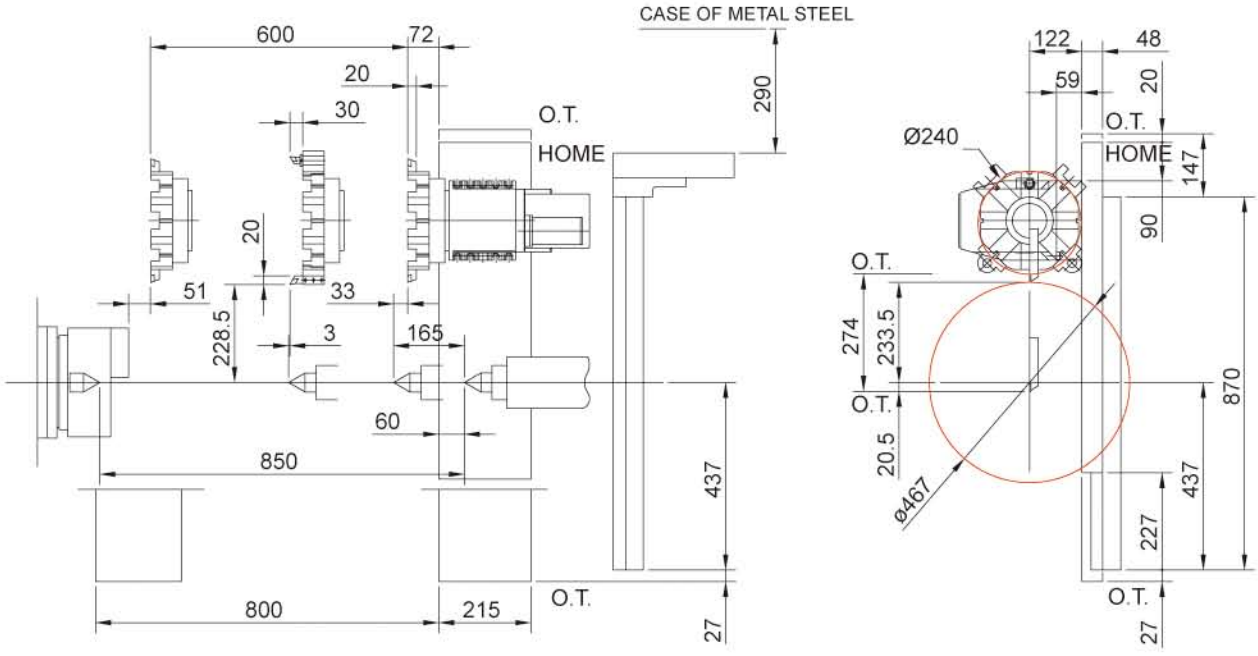


Interference Drawing

Multifix-B QCT at front



Hydraulic LS-120 regular type 8 tools at rear (Option)



Specifications

Features / Description	Unit	MicroPanther 446
Capacity		
Swing over bed	mm	446
Swing in gap	mm	546
Swing over cross slide	mm	240
Distance between centers	mm	850
Max. turning length(w/ turret)	mm	650(QCT); 600(LS)
Bar capacity (Hyd. chuck cylinder)	mm	40(for 52 bore)
Gap length from spindle nose surface	mm	243
Travel		
X axis	mm	250
Z axis	mm	760
Spindle		
Spindle nose	mm	A2-5
Spindle hole diameter	mm	ø52
Suitable chuck size	mm	6"~8"
Transmission		Belt (1: 2.5)
Spindle speed	rpm	3000
Motor power	kw	Fagor: 5.5/7.7, Siemens: 7/10
Axes Transmission		
X axis ballscrew	mm	ø25 × P5 × C3
X axis transmission		Belt (1:1)
X axis power	Nm	Fagor: 6.3, Siemens: 6
Z axis ballscrew	mm	ø40 × P10 × C5
Z axis transmission		Direct
Z axis power	Nm	Fagor: 6.3, Siemens: 8.5
Guideway		
X axis guideway type		Dovetail guideway
X axis guide distance	mm	215
Z axis guideway type		Box way
Z axis guide distance	mm	300
Axes feed rate		
X axis rapid traverse	m/min.	15
Z axis rapid traverse	m/min.	15
Jog feed	m/min.	3
Cutting feed rate		
X axis cutting feed	m/min	5
Z axis cutting feed	m/min	5
Tailstock		
Quill stroke	mm	165
Quill diameter	mm	65
Quill inside taper	MT	4
Coolant		
Pump motor	W	270(50Hz)/350(60Hz)
Max pump flow	L/min.	80(50Hz)/95(60Hz)
Max pump pressure	kg/cm^2	7(50Hz)/10(60Hz)
Lubrication		
Pump motor	W	12
Max pump flow	L/min.	0.13
Max pump pressure	kg/cm^2	8
Dimension		
Weight	kg	2100
Length	mm	2230
Width	mm	1620 (incl. control panel)
Height	mm	1790
Total power consumption	KVA	Fagor: 15, Siemens: 15

**Specifications are subject to change without notice.*

Standard Accessories

- CNC control Fagor or Siemens
- Fagor / Siemens package servo motor including spindle and axis servo motors
- A2-5 Ø52mm spindle bore
- Single speed
- Tailstock
- Fully enclosed splash guard with interlock safety device
- Coolant system
- Automatic lubrication system
- Quick Change Tool Post, Multifix-B, including 3 of square tool holders & 1 of bar holder
- Swivel control panel
- Tool set & box, level pads, operation manual & parts list
- CE-regulated

Optional Accessories

- 3-jaw chuck (Hydraulic or Manual)
- Manual 4-jaw chuck
- Steady rest
- Follow rest
- Work light
- Riser block for PARAT NO. 2 QCT
- Hydraulic turret LS-120 regular type/8 tools rear mounted
- Toolholder package (for LS-120 regular turret)
- LS turret preparation (riser block & wiring only)
- Heat exchanger
- Joy sticker
- EMC
- Transformer
- Fagor Options--
  *Extra Fagor I/O module
  *CF card 2G
  *Fagor Service Contract for 12 months
- Portable MPG
- Tailstock end cover with limit switch
- Hydraulic tailstock quill

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MICROCUT

CNC-Teach-in Lathe

NEW BNC-1600 & BNC-1700 Series

Photo shown BNC-1760

Distributed by:

July 2004

BNC-1700 Series

We offer unparalleled value!

Photo shown BNC-1740

The large tailstock is ideal for carrying heavy work pieces and is interference free.

The spindle is conveniently close to the operator; this will ensure ease in the loading and unloading of the work piece, resulting in increased production.

The chip tray as well as coolant tank is designed to be removed from the back of machine.
This allows easy cleaning of the tray and filter.

The extra wide bed and "box way" designed carriage allows higher rapid movement.
The ballscrews are preloaded to ensure repeated accuracy.

Microcut

The efficient pneumatic fitting system offers ease in maintenance.

The high pressure pump ensures ample coolant no matter which type of tool holder is used
A bigger 5-bar high pressure pump is available on request

The automatic lubrication pump is installed at low level for easy monitoring.

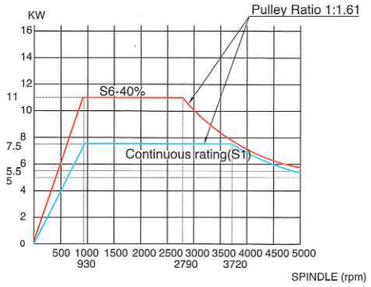
The chip conveyor(option), carries the chips outside the machine while filtering out coolant & wash down provided.

High-tech electric cabinet meets the latest CE regulation.

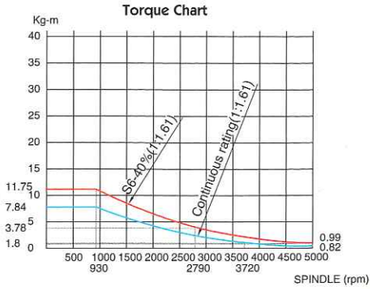
Torque chart

BNC-1640(I/II) 7.5/11 kw

Horsepower Chart

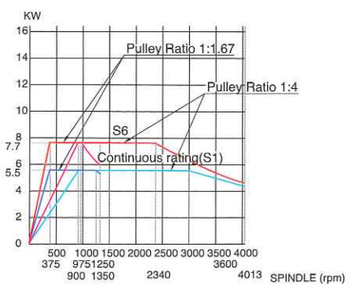


Torque Chart

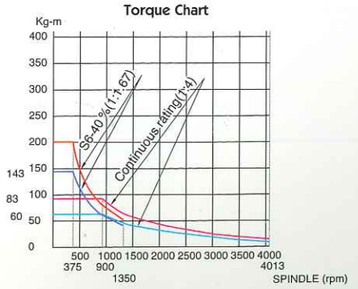


BNC-1700 5.5/7.5 kw

Horsepower Chart

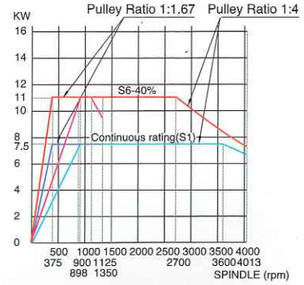


Torque Chart

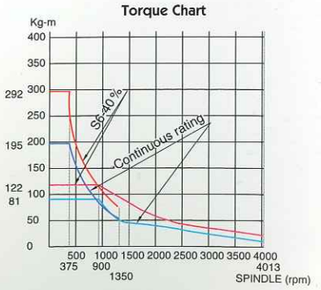


BNC-1700 7.5/11 kw(opt.)

Horsepower Chart



Torque Chart



Challenger

BNC-1600 & BN

The control operator panel is at eye level and is user friendly. The control can be used in either ISO code or conversational programming with a teaching function. The panel can be moved to any position at the front of the machine, no matter if the door is opened or closed. The viewing window is designed to be at operator level.
The operation is just like a conventional lathe when used under manual mode.

The spindle accommodates a heavy-duty chuck for quantity production. The face is very easy to clean and maintenance. (chuck is opt.)

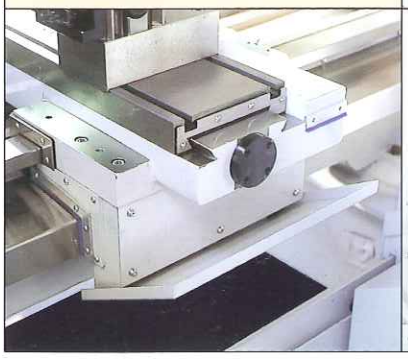
The headstock is rigid and well balanced for high speed running. An automatic speed changing system, hydraulic chuck fitting device, bar feeder interface is available if required.

The well-designed cross slide can accommodate electrical 4-way tool post located at the operator side or 8-station turret VDI30 installed at rear side.(opt.) Alternatively manual quick-change tool post can be fitted.

High quality work light reduces operator fatigue.

A conveniently constructed cross slide ensures easy access to the tool post.

The double 'box ways' and the extremely wide bed ways will be able to take heavier work pieces. The bed is also designed for easier chip flow into the chip tray (opt.) or chip conveyor with washdown



A large opening at the rear of the machine allows easy access for maintenance.

Taiwan

Specification

Description	Unit	BNC-1640 I/II	BNC-1660 I/II	BNC-1740	BNC-1760
Swing over gap	mm	660		685	
Swing over bed	mm	425		450	
Swing over cross slide	mm	190		215	
Max. Turning diameter	mm	425		450	
Max. Turning length	mm	1000	1500	1000	1500
Bar capacity(hyd. Chuck cylinder)	mm	34	40	51	
Max. work piece weight(with tailstock)	kg	1000	1500	1000	1500
Travel					
X axis	mm	260		260	
Z axis	mm	1150	1650	1150	1650
Spindle					
Speed range	rpm	5000		4000	
Suitable chuck size	mm	160 (opt.)		200/250 (opt.)	
Spindle nose	mm	A2-5		A1-6	
Spindle hole diameter	mm	46	52	52	
Front bearing ID/OD	mm	70	110	100	150
Rear bearing ID/OD	mm	70	110	90	140
Motor type		FM7A075S1C1-E01		FM7A055S1C1-E01	
Motor power	kw	7.5/11		5.5/7.5(7.5/11 opt.)	
Max. speed torque	kgm	29.3		20.4/29.3(opt.)	
Turret(option)					
Number of tool stations		8		8	
Shank height for square tool	mm	20x20(V8)		20x20(V8)	
Shank diameter for boring bar	mm	20		20	
Indexing time(one tool)	mm	0.42(Baruffaldi)		0.42(Baruffaldi)	
Indexing time(80 degrees)	mm	0.65(Baruffaldi)		0.65(Baruffaldi)	
Feed rate					
X axis rapid traverse	m/min.	15		15	
Z axis rapid traverse	m/min.	15		15	
Jog feed rate	mm/min.	3000		3000	
Accuracy					
Positioning	mm	±0.005		±0.005	
Repeatability	mm	±0.005		±0.005	
Slides					
Overall bed guide width	mm	355		355	
Cross slide guide width	mm	215		215	
Feed motors					
X axis power	NM	7.3		7.3	
X axis motor type		Fargo FXM 33.30		Fargo FXM 33.30	
Z axis power	NM	11.9		11.9	
Z axis motor type		Fargo FXM 53.20		Fargo FXM 53.20	
Ballscrew					
X axis	mm	25x5-C5		25x5-C5	
Z axis	mm	40x10-C5		40x10-C5	
Tailstock					
Quill stroke	mm	150		150	
Quill diameter	mm	65		65	
Quill inside taper	MT	MT4		MT4	
Quill thrust	kgs	1000		1000	
Coolant					
Pump motor	w	375		375	
Pump capacity	L/min.	70		70	
Pump pressure	kg-cm²	2.7		2.7	
Tank capacity	L	84	120	84	120
Lubrication					
Pump motor	w	25		25	
Pump capacity	c.c./min	130		130	
Miscellaneous					
Power supply	KVA	20		20	
Weight	kg	2400		3050	
Length	mm	3020	3520	3020	3520
Width	mm	1935		1935	
Height	mm	2022		2022	

*Specifications are subject to change without notice.

Standard accessories :

- Gap bed
- 5.5/7.5 KW main spindle power (BNC-1700)
- 7.5/11 KW main spindle power (BNC-1640 I/II)
- Fagor 8040TC 11" LCD full key controller
- Fully enclosed front guarding with interlock system
- Coolant system
- Auto. lubrication system
- Quick change tool post with 6 pcs standard tool holder(25x25mm Tooling)
- Low voltage circuit system
- CE • 2-steps speed auto. changer

Optional accessories :

- Steady rest (20~200mm)
- Follow rest (10~100mm)
- Hydraulic tailstock quill & system
- Electronic 4-way tool post
- Chip conveyor & wash down device
- 7.5/11 KW spindle motor(BNC-1700)
- V8 turret (20mm tooling)