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ROMI[®] Centur 30G

CNC lathe for bars machining

Centur 30G



- CNC lathe designed for turning parts from bars
- Equipped with hydraulic collet chuck and automatic system for parts unloading
- Minimal time for parts load and unload
- Reduction of idle time
- Increased part production
- Parts machined and finished in one clamping
- Reduce labor cost
- Prepared to work with Romi bar feeder ABR80 (optional) commanded by the machine CNC, using customized Romi software, increasing productivity
- Gang tool system, U shaped cross slide with T slots for tool holder positioning. Allows flexibility in the tool set up so tools can be used for multiple applications

- Longitudinal and carriage guideways with turcite minimizes friction, provides great rigidity and excellent geometric accuracy
- Rigid bed structure, with hardened and ground guideways
- Spindle supported by ultra precision bearings with lubrication for life, direct driven by AC motor, by pulleys and micro V belt
- Transversal chip conveyor (standard), with coolant reservoir incorporated

Standard Equipments

- Automatic lubrication system with line filter and oil level sensor
- Bar feeder Romi ABR-80 interface
- CE safety regulation compliance (only for Europe Community)
- Hydraulically actuated collet system
- Coolant system, pump with 2 bar / 29.4 psi - 10 l/min / 2.6 gpm - 0.5 kW / 0.75 hp motor
- Electrical installation with 8 tap auto-transformer for 200/210 - 220/230 - 240/250 - 360/380 - 390/410 - 420/440 - 460/480 V - 50/60 Hz, 15 kVA (for CE market)
- Electrical installation for 230 V, 50/60 Hz, 15 kVA (for USA market)
- Fully enclosed work area, with interlocked safety door
- Gang tool system, U shaped cross slide with T slots, including O1 cut-off tool holder, O1 mechanical bar puller with build-in cut-off tool holder, O2 external turning tool holders, O2 boring bar holders, O1 double boring bar holder and O5 reduction sleeves
- Hinged belt chip conveyor (TCE)
- Modular bar guide tube and blind discs kit for bar guidance thru spindle, to be modified by customer in accordance with your requirements
- Parts catcher, with capacity up to Ø 42 x 120 mm (Ø 1 5/8" x 4 3/4")
- Sealed worklight
- Set of leveling screws and nuts
- Set of operating, maintenance, programming, installation and parts manuals
- Set of wrenches for machine operation
- Standard colors: 10B 3/4 Munsell blue textured enamel epoxy and RAL 7035 light gray textured powder epoxy paint
- Wash gun

Accessories

- 16C type collet for round and hexagonal bars
- Automatic door attachment, electric motor drive
- Auto-transformer for 200/210 - 220/230 - 240/250 - 360/380 - 420/440 - 460/480 V, 50/60 Hz, 15 kVA (for USA market)
- Auto-transformer for 200/210 - 220/230 - 240/250 V, 50/60 Hz, 15 kVA (for USA market)
- Bar feeder Romi ABR - 80
- Bar feeder Romi BF - 66
- Bar feeder Romi BF - 66 interface
- Bar puller with built-in cut-off tool holder
- Extra tool holders
- High pressure coolant holder (simple internal and double)
- High pressure coolant pump, with 7 bar / 101.5 psi - 35 l/min / 9.25 gpm - 3 kW / 4 hp motor
- Holders with internal coolant and reduction sleeves
- Scraper type chip conveyor (TCA)
- Special cut-off tool holder
- Spindle indexing system with hydraulic locking
- Status light indicator

Main features		
Capacity		
Maximum round bar capacity	mm / in	Ø 42 / 1 5/8
Maximum hexagonal bar capacity	mm / in	○ 32 / 1 1/4
Maximum square bar capacity	mm / in	□ 25.4 / 1
Maximum bar length	mm / in	1,200 / 47.24
Maximum cutting length	mm / in	120 / 4.72
X axis travel	mm / in	360 / 14.17
Z axis travel	mm / in	500 / 19.68
Bed		
Width	mm / in	305 / 12.00
Length	mm / in	350 / 13.77
Headstock		
Spindle nose	ASA	A2-5"
Spindle hole diameter	mm / in	53 / 2.08
Speed range	mm / in	5 to 5,500
Collet	type	16C
Main features		
Feeds		
Rapid traverse X axis	m/min / ipm	16 / 630
Rapid traverse Z axis	m/min / ipm	13 / 512
Tool holder type Gang Tools		
Number of tools		10
Tool section (square)	mm / in	20 x 20 / 3/4 x 3/4
Tool section (boring bar holder - diameter)	mm / in	25 / 1
Motor and electric requirements		
AC spindle motor	kW / hp	10 / 7.5
Total power required	kVA	15
Dimensions and weights		
Floor space required (*)	m / in	2.4 x 2.2 / 94.5 x 86.6
Net weight (approximate)	kg / lbs	2,200 / 4,850

(*) With chip conveyor and without bar feeder

CNC Features

GE Fanuc - Oi Mate



Programming

- Interpolation functions
 - Linear interpolation (G00, G01)
 - Multi-quadrant circular interpolation (G02, G03)
- Thread functions
 - Constant lead threading (G33)
 - Multiple thread cutting (G33)
 - Continuous thread cutting (G33)
 - Thread cutting retract
- Reference functions
- Tool functions
 - Tool wear and geometry corrector
 - Tool nose radius compensation (G40, G41, G42)
 - Tool offset pairs - 64 pairs
 - Direct measurement of tool offset
 - Tool life management
- Macro B (User macro)
- Program creation and editing
 - G code family A, B, C
 - Program block search
 - Background editing
 - Part program storage: 400 programs
 - Memory space allocated to users: (256 kBytes - 640 m)
- Canned cycles
 - External / Internal roughing cycle (G77)
 - Thread cutting cycle (G78)
 - Facing Cycle (G79)
- Multiple repetitive cycle of roughing
 - Multiple repetitive cycle (finishing - G70)
 - Multiple repetitive cycle for roughing (G71)
 - Multiple repetitive cycle (facing - G72)
 - Multiple repetitive cycle (contouring - G73)
 - End face peck drilling cycle (G74)
 - Multiple thread cutting cycle (G76)

Operation

- Operational devices
 - Data protection key
 - Serial RS232 interface
- Manual operation
 - Electronic handwheel (MPG)
 - Manual continuous feed (JOG)
 - Feedrate override
 - Spindle override
 - Manual intervention and return
- Tests
 - Program test
 - Dry run
- Security functions
 - End travel
 - Security zone
- Alarm and diagnostic functions
- Graphic function

Optional

- Auto power off
- Rigid tapping cycle
- Remote diagnosis (*)
- Spindle orientation (M19)

(*) Requires the optional "Remote Diagnosis Interface"

Bar Feeder - Programming and Operation

In addition to the programming and operation functions, the CNC Fanuc Oi - Mate has custom software, developed by Romi, to command the Romi ABR 80 bar feeder.

In the process of bar feeding, parts unloading is commanded using G codes, with integrated movements between the machine and the bar feeder.

Using the key, Custom Graph, it is possible to access the display of the programming of the ABR 80.



Screen data for bars and parts



Screen data for positioning

The programming screens for the ABR 80 are interactive, making data input easy.

Numeric fields are used to program the data for bars and parts

After data input, the system may be used to calculate other parameters. For example, the number of possible parts to be machined using a specific length of bar.

Bar Feeder Romi ABR - 80 (optional)

The Bar Feeder increases the efficiency of production

The Bar Feeder can be the basis for an automated machining cell, become an important ally to increase the production and the quality of your finished products.

The Bar Feeder allows you to outperform the competition by focusing on more profitable

activities than the manual loading and unloading of parts in a CNC lathe.

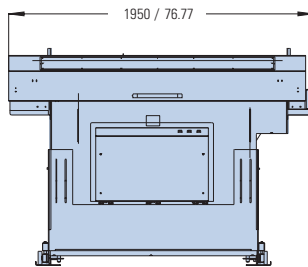
The investment in a bar feeder, enables faster loading of bars, reduces non-machining time, so that more parts are produced in less time. This results in higher productivity and earnings, due to the reduction of the final cost of machined parts.

To make you more competitive Romi designed the Bar Feeder ABR - 80, commanded by the machine CNC, using Romi customized software.

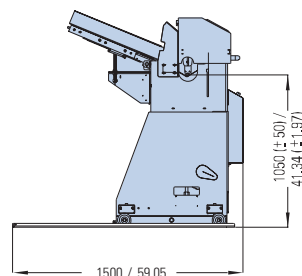
The ABR 80 affords:

- Reduced labor cost because of reduced set up time for bar fed parts
- Bars can be of a standard length, without regard to the parts to be machined.
- Reduced costs for material storage prior to machining

- Reduced work in process inventory
- Storage area is more compact and organized, bar lengths between 1,200 and 3,000mm.
- It is possible to easily change the geometry of parts, including the length.
- Reduction of non productive machine times, increased efficiency and productive time



Dimensions in mm / inches



Examples of machined parts from bars

Technical Features		ABR 80 (*)
Capacity		
Round bars	mm / in	Ø 8 to Ø 80 / Ø 0.31 to Ø 3.15
Hexagon bars	mm / in	○5 to ○ 65 / ○0.19 to ○ 2.56
Square bars	mm / in	□5 to □ 55 / □ 0.19 to □ 2.16
Bars length	mm / in	150 to 1,200 / 5.90 to 47.24
Space required (front x lateral)	mm / in	1,950 x 1,500 / 76.77 x 59.05

(*) For the Centur 30G with ABR 80 (optional), the user should consider the machine bar capacity, described in the technical specifications table on page 02.



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