VERTICAL MACHINING CENTRES
ROMI D SERIES
NEW GENERATION

D 1250

ROMI

MORE PRODUCTIVITY AND PROFITABILITY FOR YOUR BUSINESS!

*In the constant transformation of industrial processes, it is crucial to have **differentials that make your products superior to those offered by competitors.***

*In this context, the insertion of new technologies in its production process, mainly by means of **modern, fast and precise machine tools, raises production performance.***

You get higher quality, productivity, efficiency and the best: higher profits than already achieved in your business!

With more than 90 years of history and global presence, we have preserved the values that have made our products recognized worldwide. **We offer the most cost-effective machine tools on the market.** Our commitment to the constant development of new solutions and dedication to innovation, results in robust, high technology and quality machine tools.

We guarantee full support at all stages of purchase through our sales and sales engineering teams, customer training, specialized technical assistance and spare parts. **Having a Romi machine tool assures that you have state of the art equipment** combined with a reputation of value, providing a high resale value in the future.

At Romi, you get a complete solution, much more than just equipment: **you have the security and tranquility of our full support at all times, always when you need it.** Ask us to find a suitable solution that your needs. **Our main goal is to make your business even more productive and profitable.**

Ultra Clean room
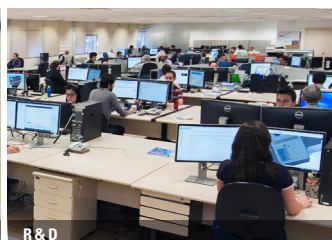
R & D

Flexible Manufacturing System (FMS)

Specialized technical assistance

Training

Spare parts

ROMI D SERIES

NEW GENERATION

High-productivity. Robustness. Precision. Tecnology.

ROMI

D 800

ROMI D Series machines are extremely versatile for several machining applications. They are designed to operate in high production sites as well as in tool rooms. Our D Series machines offers high rigidity even under severe machining conditions and present thermal and geometric stability ensuring great performance, precision and productivity.

ROMI D 600

Headstock	10,000 rpm
Spindle Taper	ISO 40
Main Motor	25 hp / 18.5 kW
Aut. Tool Changer	20 tools
Table - mm	914 x 560 m
CNC	Fanuc 0i-MF Plus

ROMI D 800

Headstock	10,000 / 15,000 rpm
Spindle Taper	ISO 40
Main Motor	25 hp / 18.5 kW (10,000 rpm) 20 hp / 15 kW (15,000 rpm)
Aut. Tool Changer	30 tools
Table - mm	914 x 560 mm
CNC	Fanuc 0i-MF Plus *i*-HMI

ROMI D 1000

Headstock	10,000 / 15,000 rpm
Spindle Taper	ISO 40
Main Motor	25 hp / 18.5 kW (10,000 rpm) 20 hp / 15 kW (15,000 rpm)
Aut. Tool Changer	30 tools
Table - mm	1,220 x 560 mm
CNC	Fanuc 0i-MF Plus *i*-HMI

ROMI D 1250

|	
Headstock	10,000 / 15,000 rpm
Spindle Taper	ISO 40
Main Motor	25 hp / 18.5 kW (10,000 rpm) 20 hp / 15 kW (15,000 rpm)
Aut. Tool Changer	30 tools
Table - mm	1,320 x 560 mm
CNC	Fanuc 0i-MF Plus *i*-HMI

STRUCTURE

ROBUSTNESS AND TECNOLOGY

Manufacturing process quality grants reliability and operational efficiency of ROMI machines. All machines are inspected with a laser system for positioning measurement and repeatability.

Axes alignment inspection is performed with a ballbar sytem ensuring perfect interpolation of X, Y and Z axis. ROMI D Series machines were designed with 3D CAD system and the entire structure was dimensioned by finite elements analysis software (FEA), resulting in superior structures for each machine size.

Linear guide benefits

- Feed rates up to 40 m/min*
- Fast positioning of axes minimizing idle times and increasing productivity
- Allow high rates of acceleration
- Low lubrication oil consumption
- Easy maintenance
- High rigidity and long durability
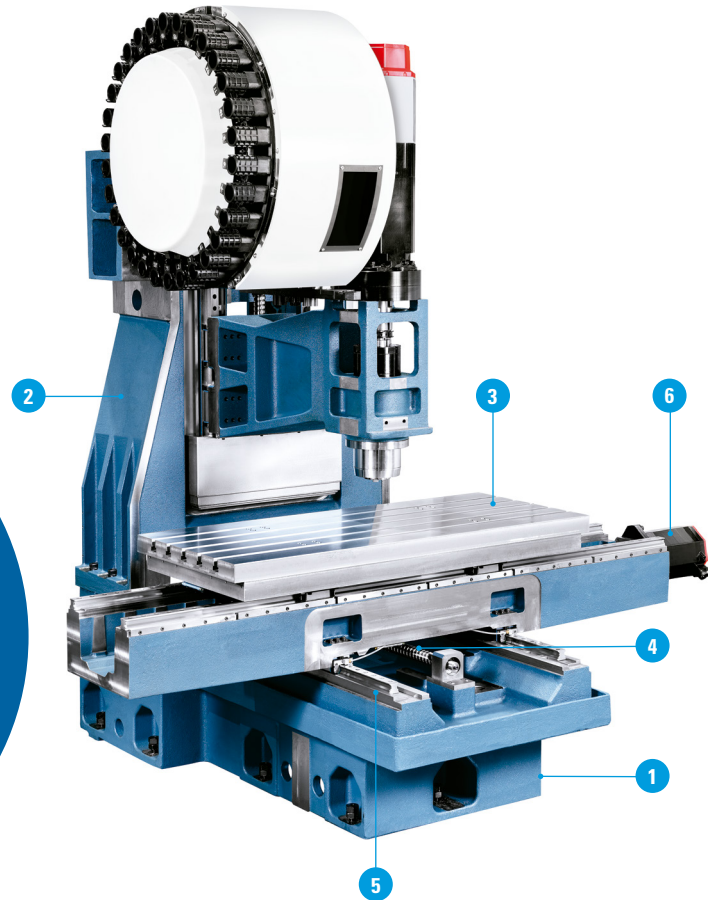
1 Monoblock **BASE** made of cast iron, designed to absorb vibrations, provides parts with excellent finishes, longer machine life and longer lasting cutting tools.

2 **COLUMN:** Dimensioned to support the headstock assembly with excellent geometric stability for the whole assembly.
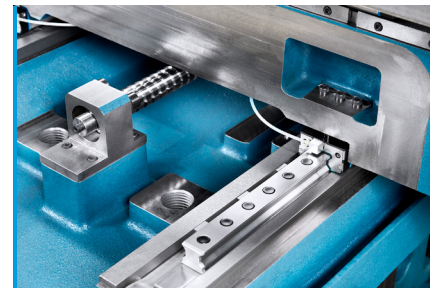
3 The **TABLE** is supported on linear guides, with multiple T-slots for mounting and securing devices. Designed to supprt heavy parts with excellent stability.

4 **BALLSCREWS:** Hardened and ground with pre-loaded nuts provide high rigidity and high accuracy in both positioning and repeatability of axes.

5 **LINEAR ROLLER GUIDES.** Allows faster movements whilst ensuring precision and high accelerations due to low friction coefficient between the rails and blocks.

6 Brushless **AC SERVO MOTORS** are directly coupled to the ballscrews and have integrated absolute encoders, which transmit the movement directly, providing accurate positioning and excellent repeatability of axes.

(*) Except **ROMI D 600**
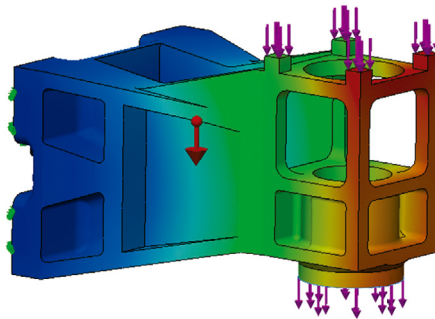
HEADSTOCK

HIGH PERFORMANCE AND PRECISION

Main motor is directly coupled to the headstock cartridge which offers great efficiency in the transmission of torque, power and rotation. Spindle taper is prepared for BT / BBT, offering great rigidity for tool holders.

A robust spindlecartridge with ultra precision bearings enables excellent accuracy and minimal temperature increases of the bearings even when operating continuously in high rpm's

CARTRIDGE prepared for cooling system (optional). For headstocks with 15,000 rpm, the cooling system is standard, contributing to the thermal and geometric stability of the assembly.

THERMAL COMPENSATION

Strategically placed on the machine, mathematical algorithms correct the position of the axes in real time. In this way, stable dimensional results are obtained, even for long periods of time.

HEADSTOCK STRUCTURE that offers great thermal and geometric stability, rigidity and high capacity to absorb machining efforts without vibrations even the ones generated from heavy machining.

Ultra precision angular contact **BALL BEARINGS** with permanent lubrication.

Bearing sealing by labyrinth.

PRESSURIZED SYSTEM - pneumatic seal: to prevent the bearings from contamination by cutting coolant and particles.

PNEUMATIC SYSTEM FOR SPINDLE TAPER CLEANING, preventing the entry of chips to avoid damage on tool shanks.

LINEAR ROLLER GUIDES. Allows faster movements whilst ensuring precision and high accelerations due to low friction coefficient between the rails and blocks.

AUTOMATIC TOOL CHANGER

EFFICIENCY AND PRODUCTIVITY

Fast, accurate, and reliable automatic tool changers, helping to increase productivity and machining efficiency. The automatic tool changer has 30 tools capacity (ROMI D 800/ D 1000 / D 1250) or 20 tools capacity (ROMI D 600).
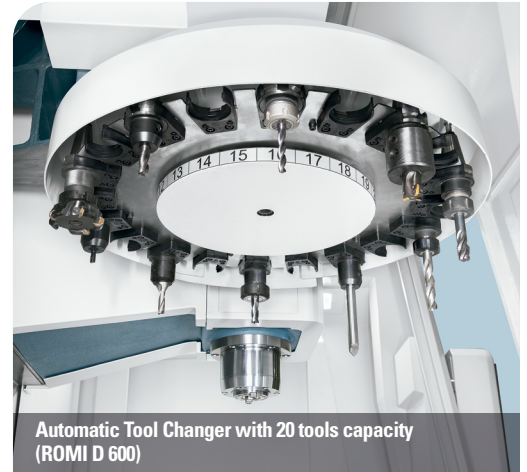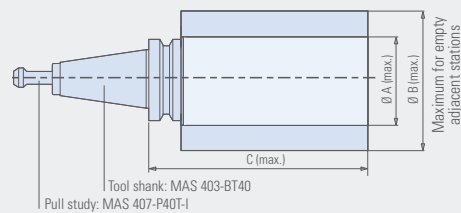
Automatic Tool Changer with 20 tools capacity (ROMI D 600)

Automatic Tool Changer with 30 tools capacity (ROMI D 800 / D 1000 / D 1250)

Tool dimensions BT / CAT / DIN (*)

Type		ROMI D 600	ROMI D 800 / D 1000 / D 1250
Type		BT-40 / BBT-40	BT-40 / BBT-40
A	mm	100	75
B	mm	200	127
C	mm	254	300
Max. weight	kg	6	7
Max. weight total	kg	68	150

Ø A (max.)
Ø B (max.)
Maximum for empty adjacent stations
C (max.)
Tool shank: MAS 403-BT40
Pull study: MAS 407-P40T-I

(*) For machines with thru spindle coolant system, the tool shanks and pull studs must have a hole to pass the coolant thru spindle

For rotations over 10,000 rpm, it is recommended to use BBT mandrels. Regardless of rotation, all tools should be balanced in G2.5

CNC
TECHNOLOGY AND RELIABILITY

1. Environment that provides the visualization of various information on a single screen. Ex.: feed axes and main spindle load indicators, current program, modal codes, tool information, icons, alarms, etc.

Vertical Machining Centres from ROMI D Series are equipped with a Fanuc 0i-MF Plus i-HMI CNC, which offers the user great facilities for programming with main screen with different areas for planning, machining, improvements and utilities, allowing access to functions in only two clicks. Ethernet interface, drive for Compact Flash card and USB port is standard.

**2.** Complete and dynamic tool manager, providing quick access to information.
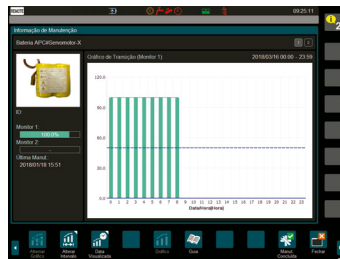
3. Resources for corrective and preventive maintenance (messages, alarms, history, etc.). Alert messages are sent before the fault even occurs, for efficient preventive maintenance.
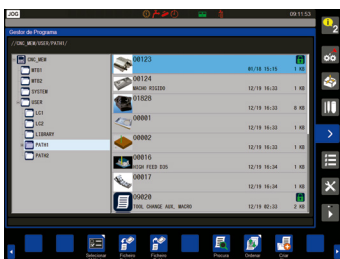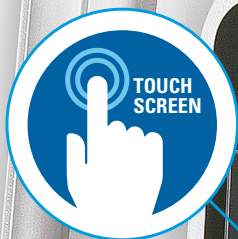

4. The machining programs can be easily accessed and viewed in organized folders, with part figure, name and program number, making it easier to identify them.

5. Allows viewing of files in several formats, allowing the storage of manuals, diagrams and important information.
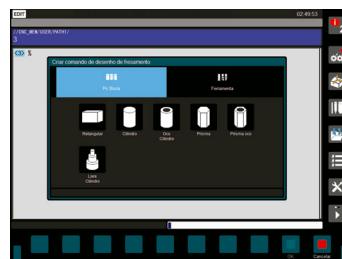
6. Several interactive machining cycles, such as: cavity cycles, drilling, threading, measurements, etc.

TOUCH SCREEN

FANUC

Series 0i-MF /Plus/

PLANEJAMENTO
GESTOR FERRAMENTAS ROMI Planejamento CALENDÁRIO

USINAGEM
OPERAÇÃO NC ROMI Processos

MELHORAMENTO
REGISTRO DADOS ROMI Aprimoramentos GESTOR DE MANUTENÇÃO SERVO Viewer Consumo de energia

UTILITÁRIOS
MANUAL ROMI Utilitários NOTA NAVEGADOR OPERAÇÃO PC

FANUC 0i-MF Plus with 10.4" screen
(D 600) and **FANUC 0i-MF Plus i-HMI**
with 15" touch screen (D 800, D 1000
and D 1250)

CHIPS TREATMENT
FULL REMOVAL OF MACHINING WASTE

The accentuated inclination of telescopic covers and chip trays favor the disposal of the chips, which are driven by the internal auger to the chip conveyor. **(ROMI D 800 / ROMI D 1000 / ROMI D 1250)**

Chip conveyors (optionals)

Types of chips / Model	Curled or long chips	Short thin chips	Material			
			Steel	Aluminum	Non-ferrous metals (bronze and brass)	Cast iron
TCE (Longitudinal Hinged belt chip conveyor)	◉	X	◉	X	X	X
TCA (Longitudinal Drag belt chip conveyor)	X	◉	○	○	○	○
TCL (Longitudinal light chip conveyor - floating chips)	◉	○	◉	◉	○	X

◉ **Fully indicated**   ○ **Partly indicated**   X **Not indicated**

TCA: chips smaller than 0.5 mm may contaminate the coolant tank and require frequent cleaning / chip clusters or chips larger than 50 mm may lock the conveyor
TCE: short chips smaller than 5 mm may contaminate the coolant tank and require frequent cleaning
TCL: chips smaller than 0.5 mm may contaminate the coolant tank and require frequent cleaning

$\alpha = 145^\circ / 155^\circ$

Only available for models
**ROMI D 800 / ROMI D 1000 /
ROMI D 1250**
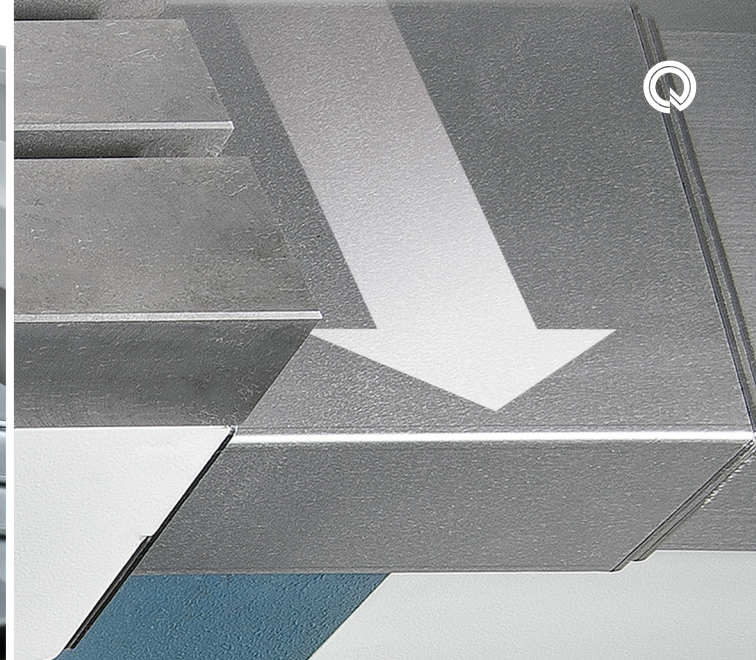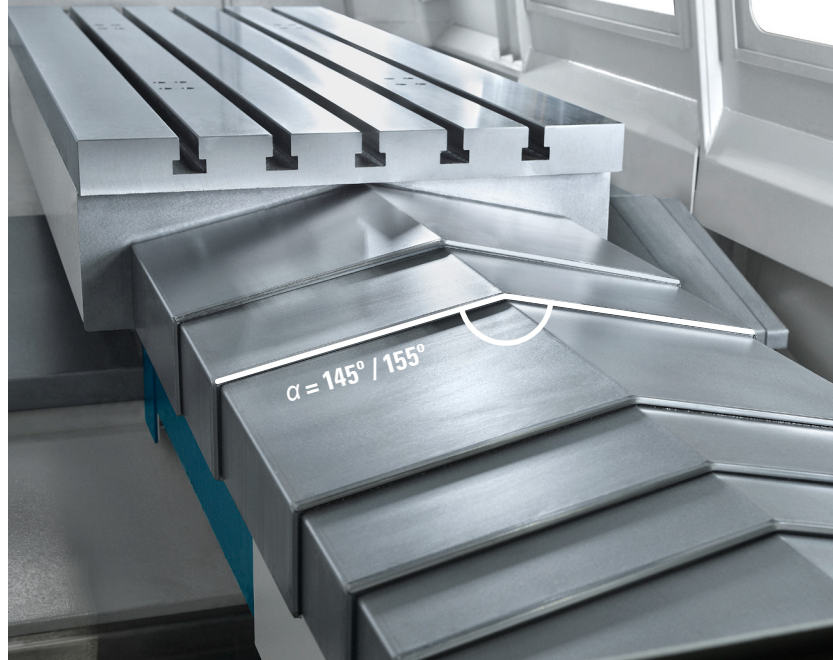
OPTIONALS

VERSATILITY FOR YOUR PRODUCTION

To adapt perfectly your Vertical Machining Centres from **ROMI D Series** to your machining needs, we offer a wide variety of optionals that can equip your machine and make it even more versatile.

1. Automatic Door and Safety Light Curtain
2. Status indicator light
3. Mist exhausting system
4. Wash Gun
5. Chip conveyor
6. Headstock cooling system (standard to 15,000 rpm and optional to 10,000 rpm)
7. Oil Skimmer
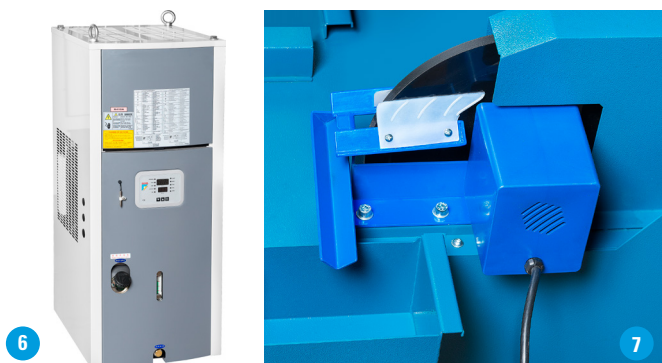
4TH AXIS ROTARY TABLE ROMI MGR

This optional allows the machining of parts at any angle and with continuous interpolation. It provides excellent positioning and repeatability. Its heavy duty construction and rigidity offers excellent vibration dampening. For machinig of long parts it can be supplied with the optional tailstock.
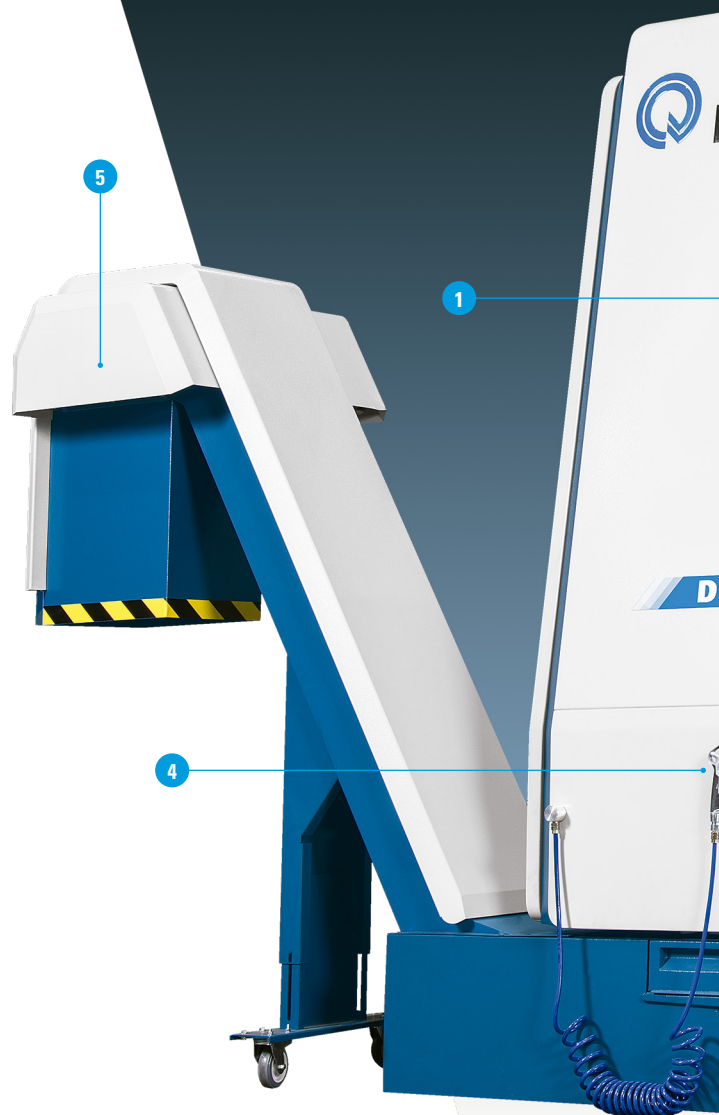
ROMI

1250

4.Q **ROMI D SERIES HYBRiD**

Machining and Additive Manufacturing in one machine

Technical Specifications		ROMI D 600	ROMI D 800	ROMI D 1000	ROMI D 1250
Vertical headstock					
Spindle taper	ISO	40	40	40	40
Speed range (version 10.000 rpm)	rpm	10 to 10,000	10 to 10,000	10 to 10,000	10 to 10,000
Speed range (version 15.000 rpm)	rpm	-	15 to 15,000	15 to 15,000	15 to 15,000
Feeds					
Rapid traverse (X / Y / Z axes)	m/min	30	40	40	40
Max. programmable cutting feed	m/min	20	20	20	20
Travels					
Superior table travel (X axis)	mm	600	800	1,020	1,270
Inferior table travel (Y axis)	mm	610	610	610	610
Headstock travel (Z axis)	mm	640	640	640	640
Distance from spindle nose to table	mm	110 to 750	110 to 750	110 to 750	110 to 750
Table					
Surface	mm	914 x 560	914 x 560	1,220 x 560	1.320 x 560
T-slot width x distance	mm	18 x 89	18 x 89	18 x 89	18 x 89
Number of T-slots	un	5	5	5	5
Max. Weight on table (uniformly distributed)	kg	900	900	1,100	1,400
Automatic Tool Changer					
Type		carousel	automatic arm	automatic arm	automatic arm
Tools capacity	un	20	30	30	30
Max. tool diameter	mm	100	75	75	75
Max. tool diameter when adjacent stations are empty	mm	200	127	127	127
Max. tool length	mm	254	300	300	300
Tool holder type	type	BT / CAT / DIN	BT / CAT / DIN	BT / CAT / DIN	BT / CAT / DIN
Max. tool weight	kg	6	7	7	7
Max. tool weight on ATC	kg	68	150	150	150
Tool change time (tool to tool)	s	4.0	3.2	3.2	3.2
CNC					
Model		Fanuc Oi-MF Plus	Fanuc Oi-MF Plus *i-HMI*	Fanuc Oi-MF Plus *i-HMI*	Fanuc Oi-MF Plus *i-HMI*
Installed power (10.000 rpm)					
AC main motor	hp / kW	25 / 18.5	25 / 18.5	25 / 18.5	25 / 18.5
Total installed power	kVA	30	35	35	35
Installed power (15.000 rpm)					
AC main motor	hp / kW	-	20 / 15	20 / 15	20 / 15
Total installed power	kVA	-	40	40	40
Dimension and weight (approx.)					
Height**	mm	3,140	3,140	3,140	3,140
Area (front x side)*	mm	2,495 x 2,425	3,170 x 2,535	3,390 x 2,535	3,700 x 2,535
Machine net weight	kg	6,000	6,600	6,900	7,000
Net weight (machine + optionals + piece)	kg	9,300	9,700	9,900	10,400

(**) Without mist exhausting system (optional)

(*) Without chip conveyor

Machine dimensions - dimensions in mm

Front view

Side view
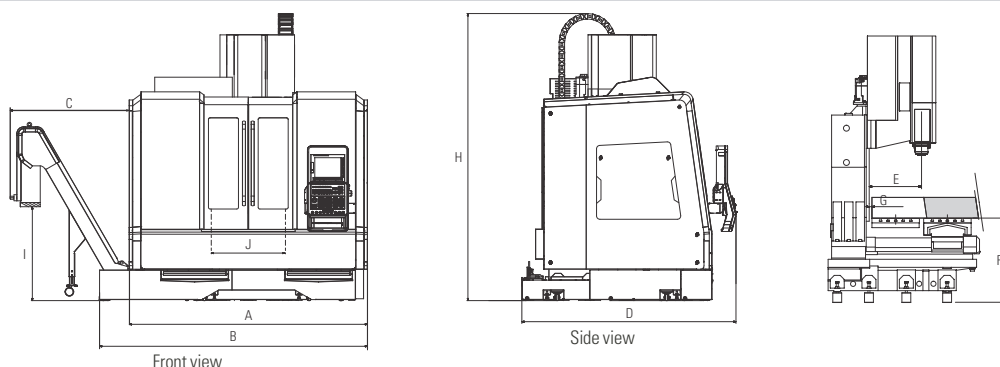
		A	B	C			D	E	F**	G	H***	H	I	J
				TCA	TCE	TCL					max	min		
ROMI D 600	mm	2,495*	3,080	1,650	1,910	1,890	2,425	617	990	32	3,140	2,810	1,110	790
ROMI D 800	mm	2,820	3,170*	1,410	1,670	1,650	2,535	617	990	32	3,140	2,810	1,110	820
ROMI D 1000	mm	3,040	3,390*	1,410	1,670	1,650	2,535	617	990	32	3,140	2,810	1,110	1,040
ROMI D 1250	mm	3,350	3,700*	1,410	1,670	1,650	2,535	617	990	32	3,140	2,810	1,110	1,340

(*) Values for machines equipped with chip trays only   (**) It may vary according to the type and quality of the ground   (***) Without mist exhausting system (optional)

Standard equipment

- Headstock with BT/ BBT-40 interface (spindle taper ISO-40)
- Rapid traverse 30,000mm/min - X, Y and Z axis (ROMI D 600)
- Rapid traverse 40,000mm/min - X, Y and Z axis (ROMI D 800 / D 1000 / D 1250)
- CNC Fanuc 0i-MF Plus with 10.4" LCD color screen (ROMI D 600)
- CNC Fanuc 0i-MF Plus with 15" LCD color touchscreen with new HMI (ROMI D 800 / D 1000 / D 1250)
- Fully enclosed splash guard
- Thermal compensation
- Complete documentation for ROMI product in electronic media
- Speed range from 10 to 10,000 rpm, maximum torque - 118 Nm
- Speed range from 15 to 15,000 rpm, maximum torque - 102 Nm (available ROMI D 800 / D 1000 / D 1250)

- Linear roller guides for X, Y and Z axis
- Electrical installation available for the following voltage/frequencys: 400VCA/50-60Hz
- Ethernet Interface
- Main set of wrenches for machine operation
- Set of levelling screws and nuts
- Sealed worklight
- 25hp / 18.5kW (regime S3-15%) Fanuc AC main motor for 10 to 10,000rpm
- 20hp / 15kW (S1 continuous regime) for 15 to 15,000rpm - available to ROMI D 800 / D 1000 / D 1250
- Manual auxiliary panel, with JOG and handwheel functions for the both axis
- Electric panel with centrifugal climatization and positive pressure
- Interlocked sliding safety simple door (ROMI D 600)
- Interlocked sliding safety double door (ROMI D

800 / D 1000 / D 1250)
- Headstock coolant system with temperature control for 15 a 15,000rpm version (available to ROMI D 800 / D 1000 / D 1250)
- Automatic lubrication system with line filter and oil level sensor, for the guides and ball screw
- Cutting cooling system with coolant pump (5bar) (coolant tank not included)
- Pneumatic system for cleaning the spindle taper and tool unlocking
- 20 tools umbrella-type automatic tool changer (ROMI D 600)
- 30 tools automatic tool changer (ROMI D 800 / D 1000 / D 1250)
- Standard colors: Texturized Epoxy Enamel Munsell Blue 10B-3/4 and Texturized Epoxy Gray RAL 7035.

Optional equipment

- Non-articulated horizontal control panel adaptation (ROMI D 800 / D 1000 / D 1250)
- Air conditioning for electric cabinet
- Autotransformer - 200 to 250VCA or 360 to 480VCA
- Box for chips collecting (coolant tank) 400 liters capacity (A)
- Auto power off
- Magnetic Filter (G)
- Filter for smoke - generated from the heating of the coolant oil during machining process (C)
- 6 M codes for external automation interface - 3 independents outputs: 3 Ms Code Enable and 3 Ms Code Disable
- Eletrical wiring interface - preset of tools and
- Measure and inspection of parts
- Electronic interface
- Remote diagnostics interface via cable
- Rotary table interface (B)
- Preset of tools and measure and inspection of parts interface (F)
- Status light indicator (3 colors)
- Rotary table MGR 230 or MGR 400 (available to D 1000 and D 1250) (D)

  - MT-3 center for rotary table
  - Manual or Pneumatic tailstock for rotary table
  - Universal chuck and adapter plate for MGR
- Wash gun
- Automatic door electronic sensor security system
- Oil skimmer
- Mist exhausting system
- Pneumatic chip cleaning system during machining process
- Cleaning system the machining area, for machine equipped with chip conveyor (H)
- Preset of tools OTS sensor (E)
- Headstock coolant system with temperature control
- High pressure pump for thru spindle coolant system (7 bar or 15 bar)
- High pressure pump for thru spindle coolant system (20 bar or 70 bar)
- Measure and inspection of parts system with OMP-60 probe, optical sensor, with tip: PS3-1C (E)
- Linear scale for X, Y and Z axis

- Longitudinal Hinged belt chip conveyor (TCE) and coolant tank 600 liters capacity (A)
- Longitudinal light chip conveyor (TCL), coolant tank 600 liters capacity (A)
- CAT 40 or DIN 40 Automatic Tool Changer (in place of standard)
- Longitudinal Drag belt chip conveyor (TCA) and coolant tank 600 liters capacity (A)

(A) Configurable Optional Equipment Mandatory to select
(B) This interface is applied to the rotary table manufactured according to Romi's specification.
(C) Mandatory "Mist exhausting system" (optional)
(D) Mandatory "Rotary table interface" (optional)
(E) Mandatory "Preset of tools and measure and inspection of parts interface" (optional)
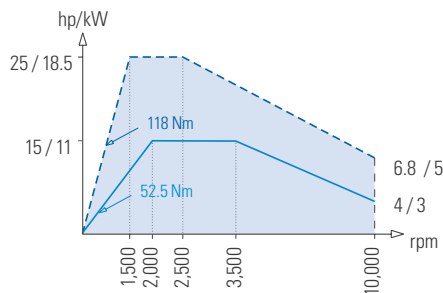**(F)** Mandatory "Eletrical wiring interface - preset of tools and Measure and inspection of parts" (optional)
(G) Only applied to machine equipped with "chip conveyor"
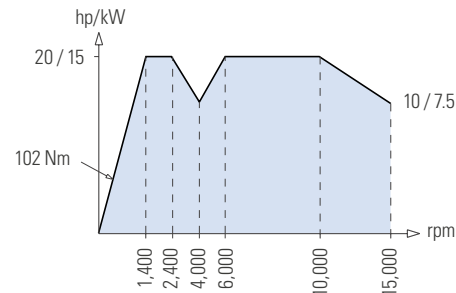**(H)** Recommended the sale for aluminium machining.

Power graphs

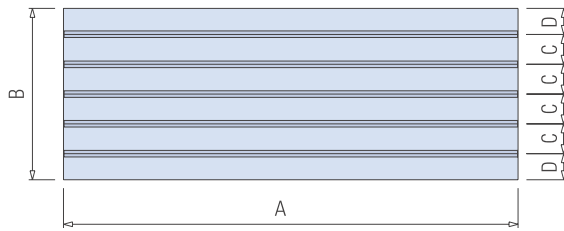### 10,000 rpm Headstock

15,000 rpm Headstock - Continous rating S1
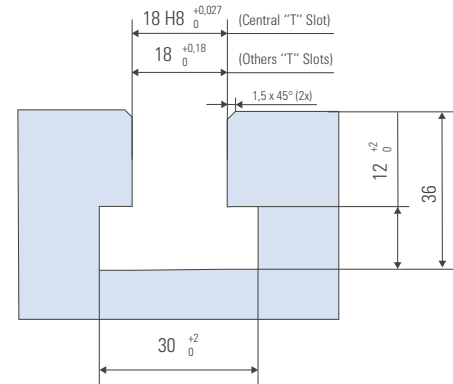

■ Continuous regime S1   ⬚ Intermittent regime S3 - 15%

Drawings are note in scale.
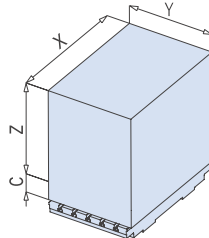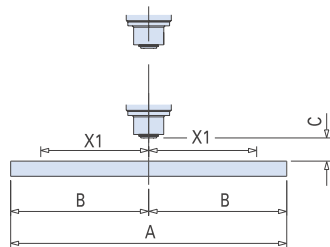
Table dimensions - dimensiones in mm (in)

"T" Slot Detail

18 H8 $^{+0,027}_{0}$ (Central "T" Slot)

18 $^{+0,18}_{0}$ (Others "T" Slots)

1,5 x 45° (2x)

12 $^{+2}_{0}$

36

30 $^{+2}_{0}$

		A	B	C	D
ROMI D 600 / D 800	mm	914	560	89	102
ROMI D 1000	mm	1,220	560	89	102
ROMI D 1250	mm	1,320	560	89	102

Work area layout - dimensions in mm

		A	B	C	X	X1	Y	Z
ROMI D 600	mm	914	457	110	600	300	610	640
ROMI D 800	mm	914	457	110	800	400	610	640
ROMI D 1000	mm	1,220	610	110	1,020	510	610	640
ROMI D 1250	mm	1,320	660	110	1,270	635	610	640

Internal space - dimensions in mm
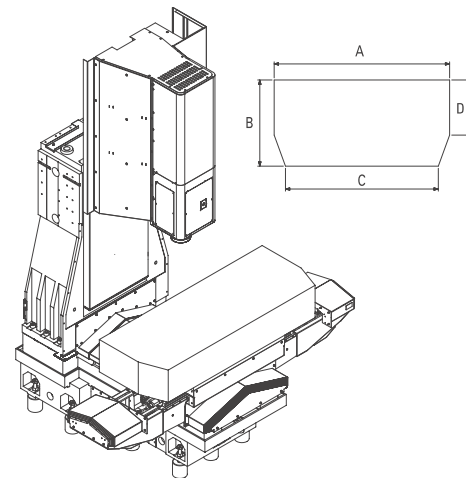
		A	B	C	D
ROMI D 600	mm	1,300	610	-	-
ROMI D 800	mm	1,630	610	1,470	390
ROMI D 1000	mm	1,750	610	1,590	390
ROMI D 1250	mm	1,935	610	1,775	390

4th Axis Rotary Table - ROMI MGR
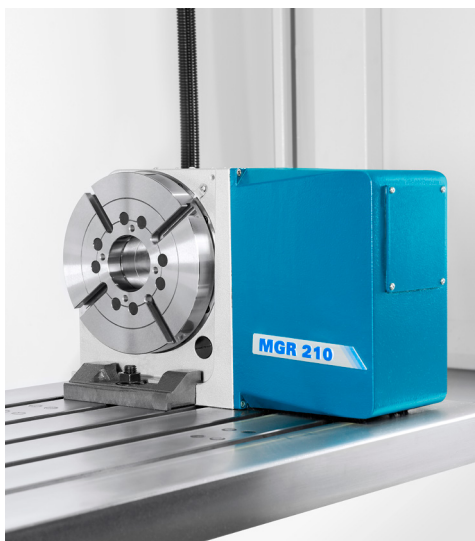
Technical specifications		MGR 210D	MGR 320D
Plate			
Centre height	mm	160	255
Plate diameter	mm	210	320
Centre hole diameter	mm	65	140
Calibrated hole diameter		65H7	180H7
Capacities			
Max. load capacity (on chuck only)	kg	125	200
Maximum speed - Fanuc servo motor	rpm	40	11
Maximum force allowed	N	17,000	28,000
Maximum momentum allowed	N.m	1,265	3,000
Braking system			
Brake locking torque	N.m	400 (pneumatic)	1,600 (hydropneumatic)

Work area layout - MGR - dimensions in mm

MGR 210D (ROMI D 600)

379.2 | 50 | 264.8 | 160 | 65

181 | 217 | 291.5

Sheet Metal (external limit)

(616) | Spindle
(222) | 394 max. | 216 max.

8° | 163
108.5

Travel +Y 305 | Travel -Y 305
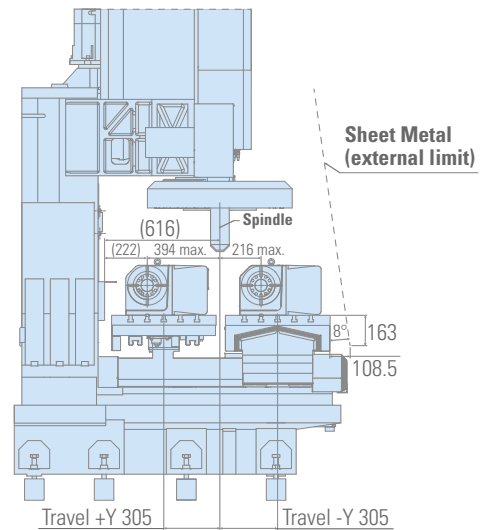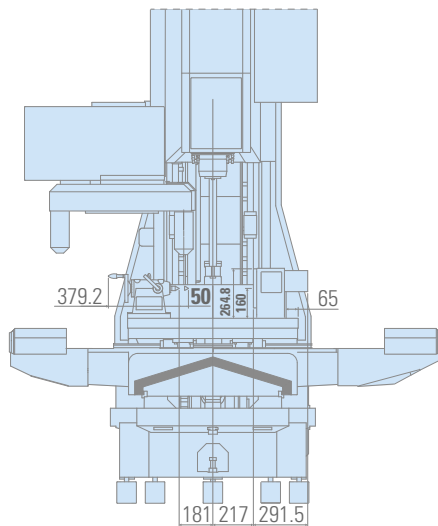
MGR 210D (ROMI D 800, D 1000 and D 1250)

291.5

379.2 | 50 | 268 | 160 | 65

D800 = 181
D1000 = 334
D1250 = 384

D800 = 217
D1000 = 370
D1250 = 419

Sheet Metal (external limit)

(617.3) | Spindle
(223.8) | 394 max. | 216 max.

8° | 155.4
113

Travel +Y = 305 | Travel -Y = 305
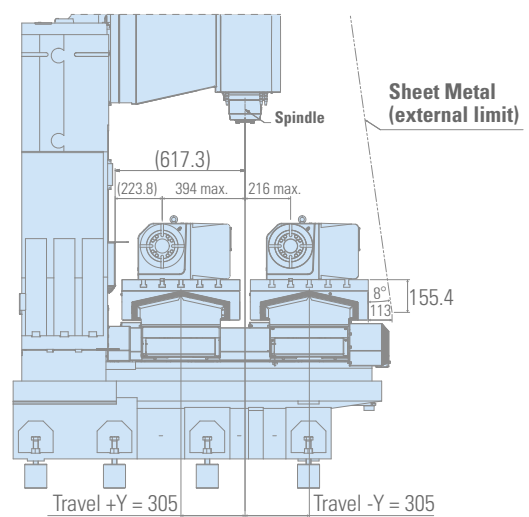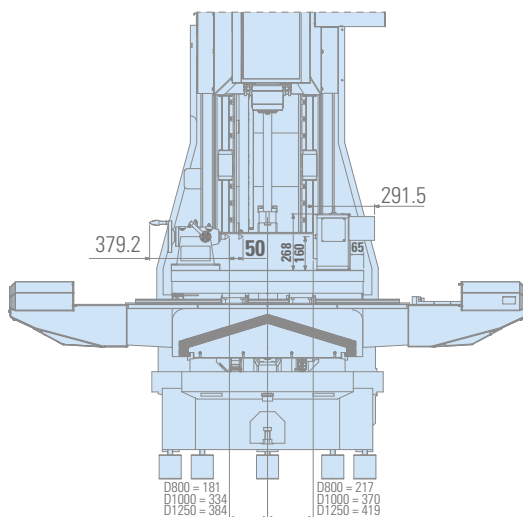
MGR 320D (ROMI D 1000 and D 1250)

351.5
79

377.2 | 50 | 415 | 255 | 10

D1000 = 289
D1250 = 339

D1000 = 325
D1250 = 374

Sheet Metal (external limit)

(617.3) | Spindle
(202.8) | 415 max. | 195 max.

8° | 155.4
113

Travel +Y 305 | Travel -Y 305
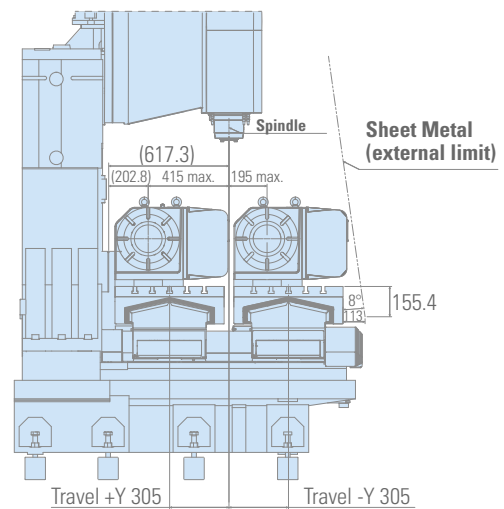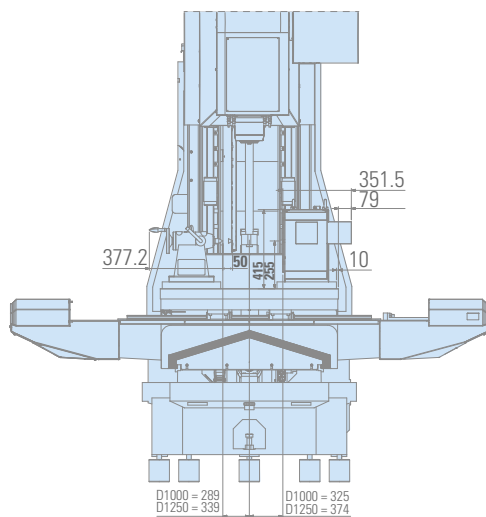
CNC FANUC 0i-MF Plus *i-HMI*
ROMI D 800 / D 1000 / 1250

1 - Resources and CNC Performance:
- Display touchscreen LCD 15"
- Qwerty keyboard
- Operation Panel
- Look Ahead = 200
- Minimum Increment Positioning 0.001 mm or 0.0001 inches
- Simultaneous control of up to 4 axes
- Stroke Limit Check Before Move
- Linear Interpolation
- Circular Interpolation
- Helical Interpolation
- Protection Key
- PCMCIA Interface - 16 GB Limit
- Ethernet Interface
- USB Interface
- Data automatic backup
- Auxiliary functions (T, S, M, F)
- Parts counter
- Clock
- Calculator
- Machining Cycle Time
- Pitch Error Compensation
- Bell-Shaped Accel./Decc. in Rapid Feed
- Linear acceleration/deceleration after interpolation for rapid traverse
- Rapid Traverse Block Overlap
- Power Mate Manager
- Machine Lock
- Software limit
- Interlocking
- Backlash Compensation
- Torque Limit Skip
- Languages: Portuguese, English, German, French, Italian,Spanish
- Energy Saving Level Selecting Function
- Stylus Plastic Pen

2 - Programming Resources:
- Floating Tapping
- Programmable Return to Reference Position of machine (G28, G30 e G53)
- High Speed and high quality Machining Package
- Programming Error Prevention

3 - Feedrate Functions:
- Feed per Minute
- Feed per Rotation
- Dwell (G04)

4 - Graphic Functions:
- Graphic Display
- Graphic Simulation - 2D
- Graphic Simulation - 3D
- Residual Material Removal

5 - Coordinate Systems:
- Local Coordinate System Setting
- Machine Coordinate System Selection (G53)
- Workpiece Coordinate System
- Workpiece Coordinate Preset (G92, G92.1)
- Tool Geometry and Wear Compensation = 100

6 - Coordinate Values and Dimensions:
- Absolute (G90) or Incremental (G91) Programming Mode
- Inch/Metric Conversion (G20, G21)
- Coordinate System Rotation
- Transfer Zero Point
- Programmable Mirror Image
- Programmable Data Input

7 - Spindle Functions:
- Spindle Speed Function
- Spindle Orientation (M19)
- Monitoring of current Spindle Speed

8 - Applied Tool Function:
- Tool Radius Compensation
- Input Relative Corrector Tool
- Tool Life Management
- Tool lenght measuring Screen – Manual Mode i-HMI

9 – Macro:
- Macro B
- Addition of Custom Macro Commom Variable
- Macro Executor
- Mbytes of memory for application in "Macro Executor" and "Fanuc Picture" = 6MB
- Ladder programming

10 - Simplification Program Functions:
- End Face Peck Drilling Cycle
- Direct Drawing Dimension
- Drilling / Boring
- Rigid Tapping
- Retraction for Rigid Tapping
- Cylindrical Interpolation

- Polar Coordinate Command
- Engraving cycle

11 – Programming Format:
- Programming Format Command ISO Fanuc-10/11
- i-HMI CNC-Programming

12 – Execution Operations:
- Number / program search
- Comments
- Sub-program Call
- MDI Operation
- Cycle Start
- Single Block
- Stop Program Execution
- Optional Stop
- Block Delete ("/")
- Program Restart
- DNC Function
- Program Test Function
- Dry Run Function
- Machine Home
- High Speed Skip
- Spindle Override Switch
- Tool retract and recover
- G-Codes System A/B/C
- Sequence Number Search
- Extended Part Program Editing
- Background Editing
- Registerable Part Programs = 1000
- Part Program Storage Size = 2 Mbytes (5120m)
- Manual handle Feed
- JOG Feed
- Feed Override Switch

13 - Maintenance Functions:
- Course Limits
- Emergency Stop
- External Message Ladder
- Alarm History
- Operating History
- Maintenance
- Analysis of the servo system
- Help Function
- Diagnosis Screen
- Maintenance Screen
- Power consumption monitoring

OPTIONALS
- 4Gb/16 Gb PCMCIA card
- RS-232 Serial Interface (2 channels)
- Anti-Reflective Protection Membrane
- Linear Scale X/Z/Y axes
- Ethernet Data Server Interface
- Energy consumption monitoring

CNC FANUC 0i-MF Plus - ROMI D 600

1 - Resources and CNC Performance:
• Display LCD 10,4"
• Qwerty keyboard
• Operation Panel
• Look Ahead = 200
• Minimum Increment Positioning 0.001mm or 0.0001 inches
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• Stroke Limit Check Before Move
• Linear Interpolation
• Circular Interpolation
• Helical Interpolation
• Protection Key
• PCMCIA Interface - 16 GB Limit
• E t hernet Interface
• USB Interface
• Data automatic backup
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• Bell-Shaped Accel./Decc. in Rapid Feed
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• High Speed and High Quality Machining Package
• Programming Error Prevention

3 - Feedrate Functions:
• Feed per Minute
• Feed per Rotation
• Dwell (G04)

4 - Graphic Functions:
• Graphic Display ISO/2D/3D

5 - Coordinate Systems:
• Local Coordinate System Setting
• Machine Coordinate System Selection (G53)
• Workpiece Coordinate System
• Workpiece Coordinate Preset (G92, G92.1)
• Tool Geometry and Wear Compensation = 100
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• Spindle Override Switch
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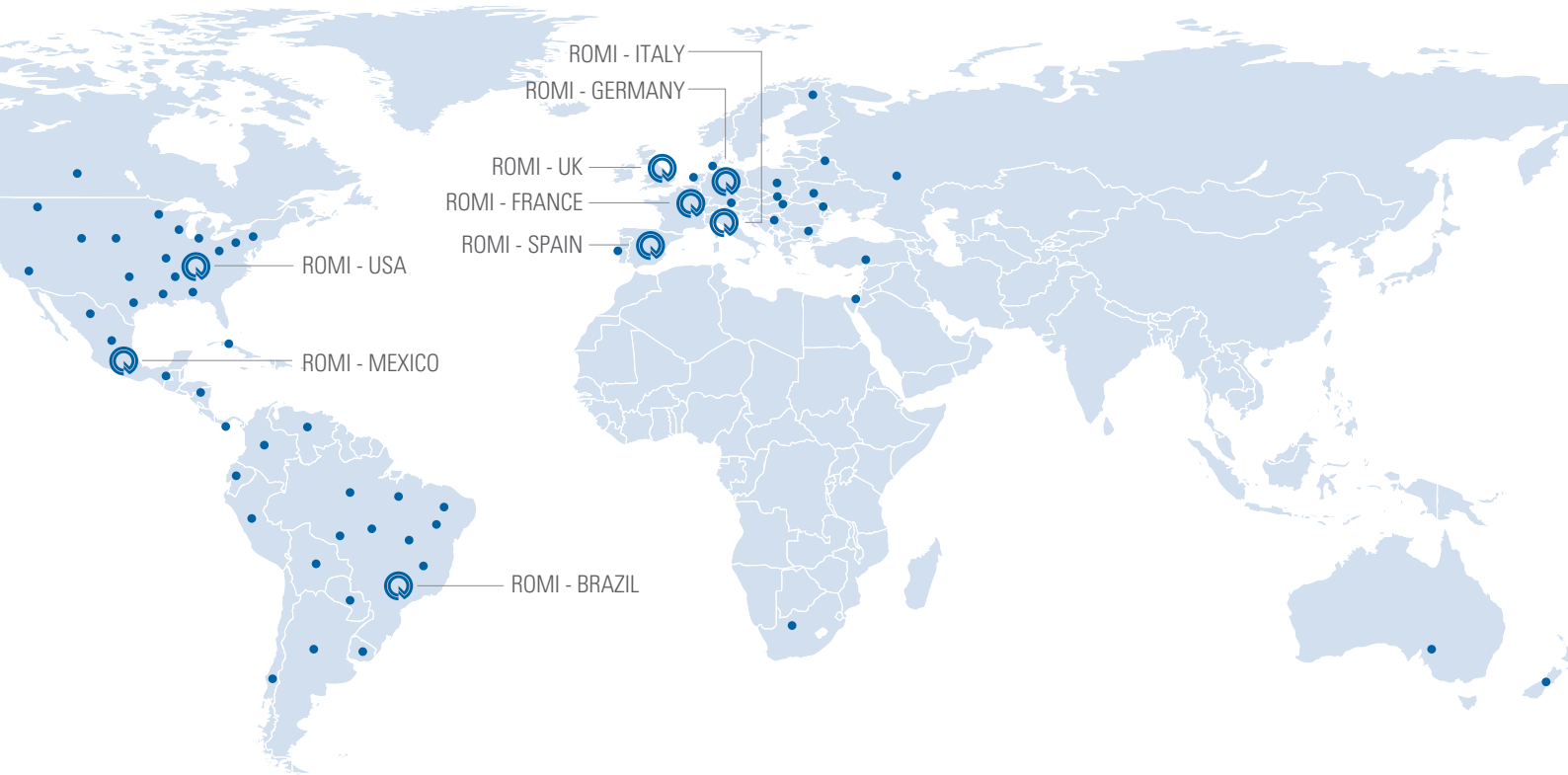• JOG Feed
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• External Message Ladder
• Alarm History
• Operating History
• Maintenance
• Analysis of the servo system
• Help Function
• Diagnosis Screen
• Maintenance Screen
• Power consumption monitoring

OPTIONALS
• Manual Guide i
• Number of Registered programs, expansion (1000)
• Ethernet Data Server Interface
• 4Gb/16 Gb PCMCIA card
• RS-232 Serial Interface (2 channels)
• Linear Scale X/Z/Y axes
• Energy consumption monitoring

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