



| ROMI VTL 500R | ROMI VTL 500L | ROMI VTL 500MR | ROMI VTL 500ML  
| ROMI VTL 700R | ROMI VTL 700L | ROMI VTL 700MR | ROMI VTL 700ML

VERTICAL TURNING CENTERS

**ROMI VTL** SERIES





ROMI Industrial Complex, in Santa Bárbara d'Oeste - SP, Brazil

## INNOVATION + QUALITY

### ROMI: Producing high quality technology since 1930.

Since the beginning, Romi has been recognized for its focus on creating products and innovative solutions which has guaranteed its technological leadership among large manufacturers of machine tools.

Romi's industrial complex is among the most modern and productive sites in the fields of machine tools, plastic processing machines, and high quality cast iron parts.

### Continuous investments in Research & Development result in products with state-of-the-art technology.

The technology applied to Romi machines offers highly reliable products, with high accuracy, efficiency and great flexibility for several types of machining processes.

Romi R&D is focused on increasing competitiveness for its customers.

### Present throughout Brazil and in over 60 countries.

Romi covers all domestic territory through its sale subsidiaries network fully prepared to support customers by supplying an extensive range of services from marketing to after sales assistance.

The international market is covered by Romi's subsidiaries which are located in the United States, Mexico, Europe, and by its many dealers located in strategic logistic centers around the globe that are capable of serving customers in 5 continents.



Plant 16

## ROMI VTL SERIES



| ROMI VTL 500R | ROMI VTL 500L | ROMI VTL 500MR | ROMI VTL 500ML | ROMI VTL 700R | ROMI VTL 700L | ROMI VTL 700MR | ROMI VTL 700ML

### Technology, reliability and productivity for machining of pieces with the aid of chuck.

Vertical turning centers from ROMI VTL Series were designed to operate in medium and high production environment. They have a robust structure, offer rigidity, stability and flexibility in the processes for machining several types pieces with the aid of chuck.



High metal cutting capacity high precision and assured productivity.



ROMI VTL 500R / VTL 500L

- Max. diameter allowed: Ø 740 mm (29")
- Max. turning diameter: Ø 500 mm (20")
- Chuck diameter: Ø 315 (12.4") or Ø 390 mm (15.4")
- Main motor: 28 hp / 21 kW
- Turret: 12-station for fixed tools

ROMI VTL 500ML / VTL 500MR

- Max. diameter allowed: Ø 740 mm (29")
- Max. turning diameter: Ø 500 mm (20")
- Chuck diameter: Ø 315 (12.4") or Ø 390 mm (15.4")
- Main motor: 28 hp / 21 kW
- Turret: 12-station - BMT-65 disc - for fixed and driven tools for drilling, milling and tapping operations

Flexibility for multiple applications, resulting in a significant increase in productivity and profitability.



ROMI VTL 700L / VTL 700R

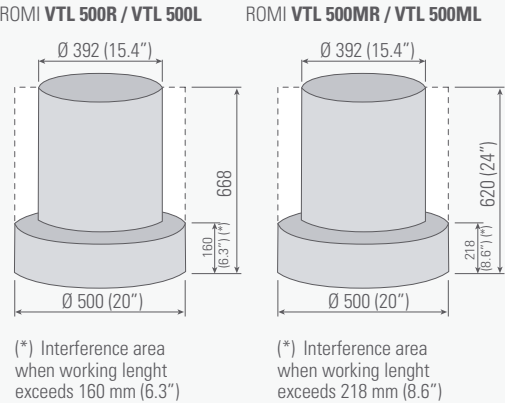
- Max. diameter allowed: Ø 750 mm (30")
- Max. turning diameter: Ø 700 mm (28")
- Chuck diameter: Ø 390 (15.4") or Ø 500 mm (20")
- Main motor: 46 hp / 34 kW
- Turret: 12-station for fixed tools

ROMI VTL 700ML / VTL 700MR

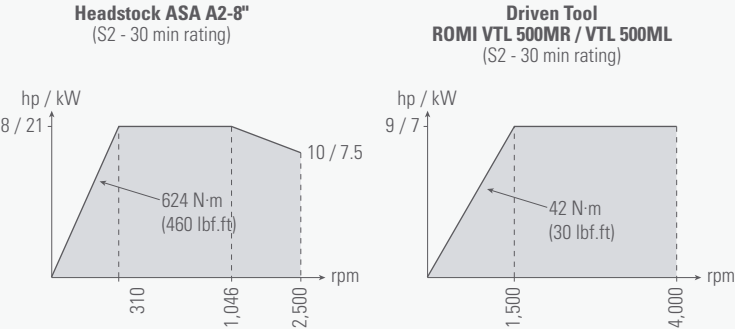
- Max. diameter allowed: Ø 750 mm (30")
- Max. turning diameter: Ø 700 mm (28")
- Chuck diameter: Ø 390 (15.4") or Ø 500 mm (20")
- Main motor: 46 hp / 34 kW
- Turret: 12-station - BMT-65 disc - for fixed and driven tools for drilling, milling and tapping operations

ROMI VTL 500R / VTL 500L / ROMI VTL 500MR / VTL 500ML

Capacity

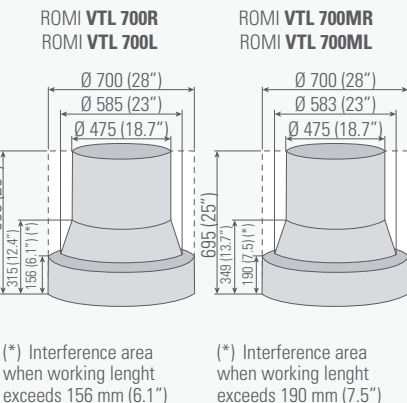


Power Graphs

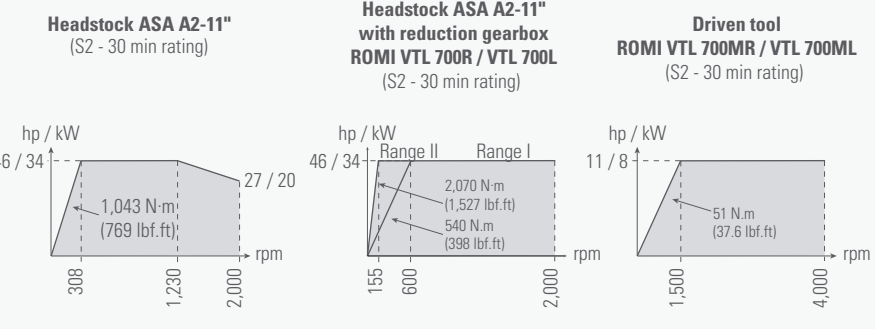


ROMI VTL 700R / VTL 700L / ROMI VTL 700MR / VTL 700ML

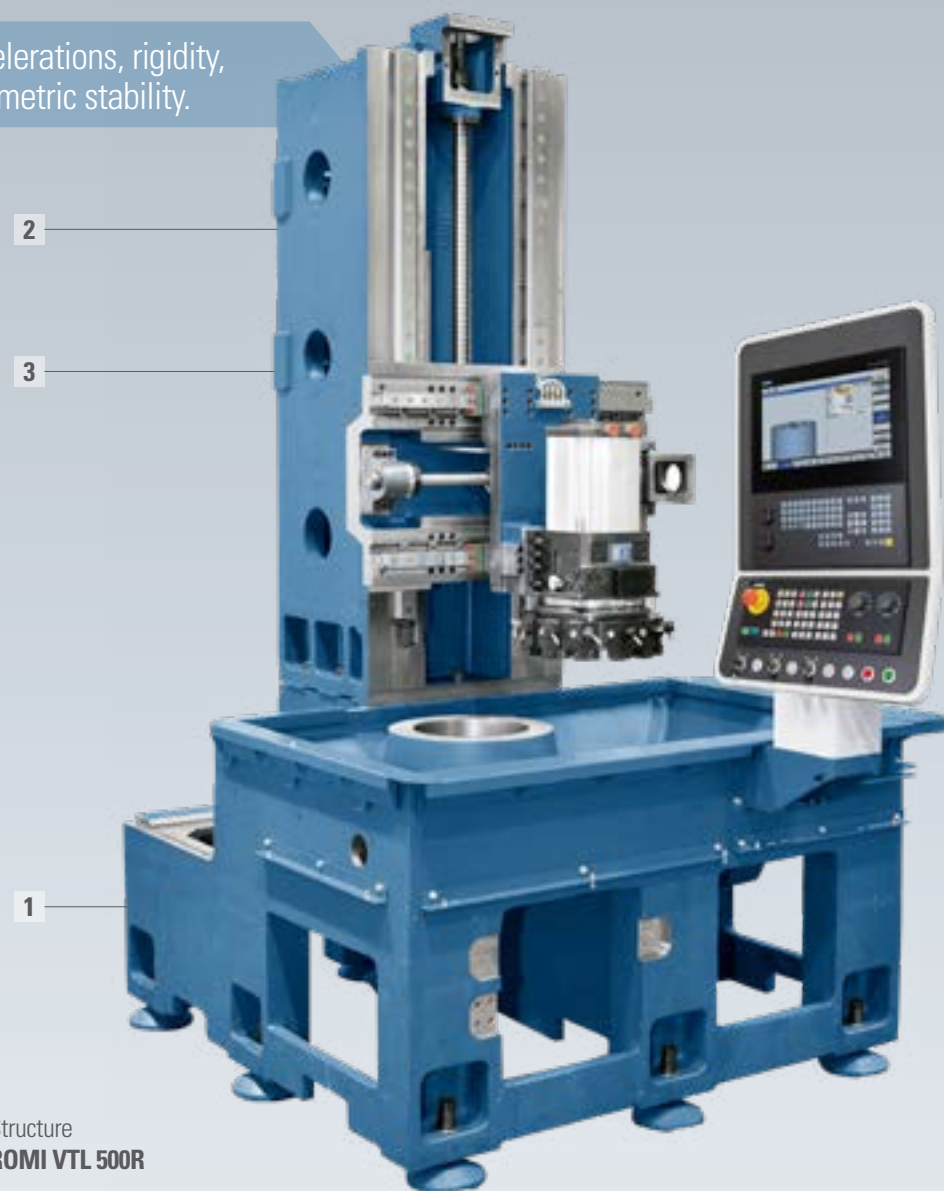
Capacity



Power Graphs



Speed, high accelerations, rigidity, thermal and geometric stability.



Structure  
ROMI VTL 500R

## STRUCTURE

### 1 Base

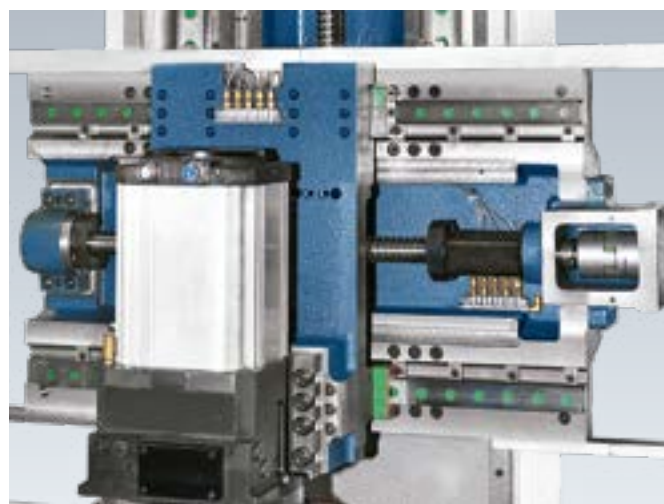
Robust monoblock base made of cast iron is designed to withstand heavy loads and absorb vibrations in severe machining conditions. It supports the motor and the headstock assemblies.

### 2 Column

Cast iron structure which supports X and Z carriages offering rigidity and stability for machining at full power.

### 3 Linear guides

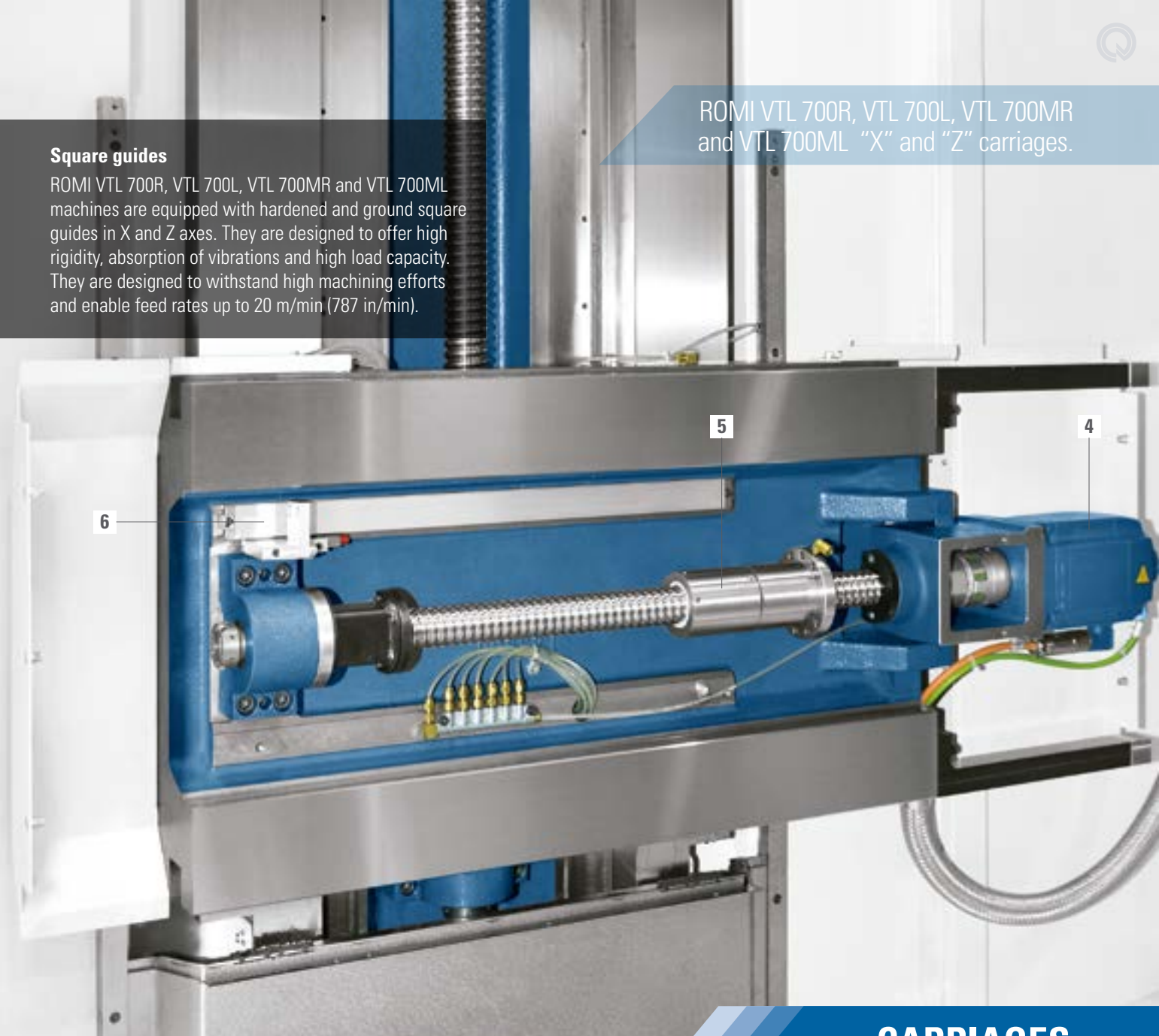
ROMI VTL 500R, VTL 500L, VTL 500MR and ROMI VTL 500ML machines are equipped with linear roller guides in X and Z axes offering high load capacity and excellent rigidity. They are designed to withstand high machining efforts and enable feed rates up to 30 m/min. (1,181 in/min)



### Square guides

ROMI VTL 700R, VTL 700L, VTL 700MR and VTL 700ML machines are equipped with hardened and ground square guides in X and Z axes. They are designed to offer high rigidity, absorption of vibrations and high load capacity. They are designed to withstand high machining efforts and enable feed rates up to 20 m/min (787 in/min).

ROMI VTL 700R, VTL 700L, VTL 700MR and VTL 700ML "X" and "Z" carriages.



## CARRIAGES

### 4 Servomotors

Directly coupled to high precision ball screws providing excellent performance in speed and accelerations of axes.

### 5 Ball screws

They are very precise, hardened and ground, with pre-loaded nuts and offer high rigidity for carriages motion. Together with the servomotors they offer fast and accurate displacements, high speed and accelerations.

### 6 Linear scale (optional)

ROMI VTL machines can be equipped with linear scale (optional) in X and Z axes granting high precision and repeatability of axes positioning. It provides a direct reading of the position where the axis is and send relative signals to the CNC. The reading is real and direct so there is no interference of any possible ball screw error caused by heating or expansion.





ROMI VTL Series machines are equipped with 3-jaw sealed chucks (hydraulic or universal) offering rigidity and stability.

## HEADSTOCK



### Headstock

It consists of a robust spindle cartridge supported on high precision ball bearings of high load capacity.

It enables high rotations ensuring excellent performance even under severe machining conditions.

It provides a system of bearing sealing, between the chuck and spindle, to prevent cartridge contamination with coolant and particles from machining process.



Chuck hydraulic cylinder



## TURRET



### T type turret

Servodriven with hydraulic locking system and ROMI disc for 12 fixed tools (ROMI VTL 500R / VTL 500L / VTL 700R / VTL 700L).



### T type turret

Servodriven with hydraulic locking system and ROMI disc for 12 fixed tools (ROMI VTL 500R / VTL 500L / VTL 700R / VTL 700L).





# CNC

## Technology, performance and reliability

### CNC Siemens Sinumerik 828D

15" touch screen LCD color monitor with softkeys for functions selection and activation, communication interfaces: USB port and Compact Flash card and Ethernet interface (optional), providing the user the flexibility for loading programs and parameters.

It offers excellent resources for creating and editing machining, programs, such as canned cycles for turning and drilling, linear and circular interpolation functions, thread opening functions, coordinate

systems, 512 pairs of tool wear offsets, tool de life cycle manager, 5 Mbytes of memory, background editing and excellent resources for simulation of 2D machining. Besides, the conversation system ProgramGUIDE is also available which that allows creation of machining programs in an easy and quick manner, through graphical resources, without the need of ISO codes.

Technical specifications		ROMI VTL 500R / ROMI VTL 500L	ROMI VTL 500MR / ROMI VTL 500ML	ROMI VTL 700R / ROMI VTL 700L	ROMI VTL 700MR / ROMI VTL 700ML
<b>Capacity</b>					
Max. diameter allowed	mm (in)	740 (29)	740 (29)	750 (30)	750 (30)
Max. door opening (load / unload)	mm (in)	640 (25) (A)	640 (25) (A)	790 (31)	790 (31)
Max. turning diameter	mm (in)	500 (20)	500 (20)	700 (28)	700 (28)
Max. turning diameter (recommended)	mm (in)	390 (15.4)	390 (15.4)	470 (18.5)	470 (18.5)
Max. turning height	mm (in)	668 (26)	620 (24)	627 (25)	635 (25)
Max. height allowed	mm (in)	668 (26)	620 (24)	627 (25)	635 (25)
Travel (X axis)	mm (in)	325 (12.8)	325 (12.8)	365 (14.4)	365 (14.4)
Travel (Z axis)	mm (in)	700 (28)	700 (28)	700 (28)	700 (28)
<b>Feeds</b>					
Rapid traverse (Z axis)	m/min (in/min)	30 (1,181)	30 (1,181)	20 (787)	20 (787)
Rapid traverse (X axis)	m/min (in/min)	30 (1,181)	30 (1,181)	20 (787)	20 (787)
<b>Headstock</b>					
Spindle	ASA	A2-8"	A2-8"	A2-11"	A2-11"
Chuck diameter	mm (in)	315 or 390 (B) (12.4 or 15.4)	315 or 390 (B) (12.4 or 15.4)	390 or 500 (C) (15.4 or 19.7)	390 or 500 (C) (15.4 or 19.7)
Speed ranges	rpm	2 to 2,500	2 to 2,500	2 to 2,000	2 to 2,000
Speed ranges with - ZF reduction gearbox	range I	-	-	6 to 600	-
	range II	-	-	2 to 2,000	-
Max. weight on chuck	kg (lbs)	590 (1,300)	590 (1,300)	1,200 (2,700)	1,200 (2,700)
<b>Turret</b>					
Number of tools / stations	un	12	12	12	12
Tool holder type		ROMI	BMT 65	ROMI	BMT 75
Tool section: square	mm (in)	25 x 25 (0.98 x 0.98)	25 x 25 (0.98 x 0.98)	32 x 32 (1.26 x 1.26)	25 x 25 (0.98 x 0.98)
Tool section bar: diameter	mm (in)	Ø 40 (1.57)	Ø 40 (1.57)	Ø 50 (2.0)	Ø 50 (2.0)
Axial driven tool holder	DIN 6499	-	ER-32 (Ø 3 - Ø 20 mm)	-	ER-40 (Ø 3 - Ø 26 mm)
Radial driven tool holder	DIN 6499	-	ER-32 (Ø 3 - Ø 20 mm)	-	ER-40 (Ø 3 - Ø 26 mm)
Speed ranges for driven tool	rpm	-	4 to 4,000	-	4 to 4,000
Driven tool motor (S2 - 30 min. rating)	hp/kW	-	9 / 7	-	11 / 8
<b>Power</b>					
Main motor (S2 - 30 min. rating)	hp/kW	28 / 21	28 / 21	46 / 34	46 / 34
Total installed power	kVA	30	30	50	50
<b>Dimensions and weight (approx.) (D)</b>					
Floor space required (front x side)	m (in)	1.7 x 2.3 (67 x 91)	1.7 x 2.3 (67 x 91)	2.0 x 2.3 (79 x 91)	2.0 x 2.3 (79 x 91)
Net weight	kg (lbs)	5,000 (11,000)	5,000 (11,000)	7,000 (15,500)	7,000 (15,500)
Max. machine height	m (in)	3.4 (134)	3.4 (134)	3.5 (138)	3.5 (138)

(A) If piece diameter is equal or bigger than maximum door opening it may occur some difficulty for parts load / unload.  
(B) Speed range up to 2,400 rpm for Ø 390 mm (15.4") chuck

(C) Speed range up to 1,500 rpm for Ø 500 mm (20") chuck.  
(D) Without chip conveyor.

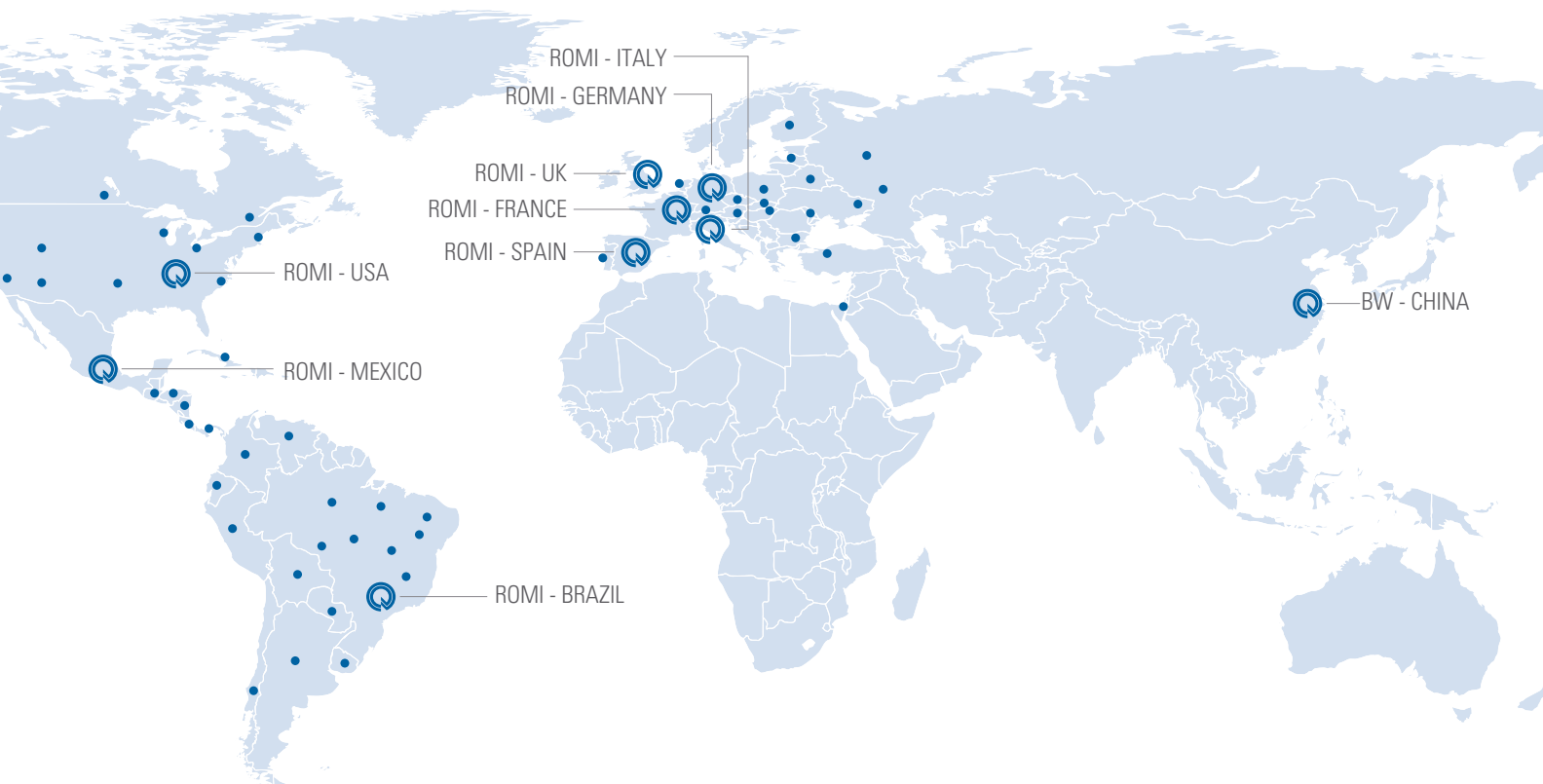
### Chip conveyors (optionals)

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

● 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

## WORLDWIDE PRESENCE



**Brazil**



**United States**



**Germany**



**England**



**France**



**Spain**



**Italy**



**Mexico**



**Germany - BW**



**China - B+W**



# ROMI

[WWW.ROMI.COM](http://WWW.ROMI.COM)

### ROMI S.A.

Rod. SP 304, Km 141,5  
Santa Bárbara d'Oeste SP  
13459 057 Brazil  
+55 (19) 3455 9000

### Latin America

+55 (19) 3455 9642  
[export-mf@romi.com](mailto:export-mf@romi.com)

### Burkhardt+Weber Shanghai

+86 21 6100-5568  
[info@cn.burkhardt-weber.net](mailto:info@cn.burkhardt-weber.net)

### Burkhardt+Weber

**Fertigungssysteme GmbH**  
Burkhardt+Weber-Strasse 57  
72760 Reutlingen, Germany  
+49 7121 315-0  
[info@burkhardt-weber.de](mailto:info@burkhardt-weber.de)  
[www.burkhardt-weber.de](http://www.burkhardt-weber.de)

### ROMI BW Machine Tools Ltd

1845 Airport Exchange Blvd  
Erlanger KY — 41018 USA  
+1 (859) 647 7566  
[sales@romiusa.com](mailto:sales@romiusa.com)  
[www.romiusa.com](http://www.romiusa.com)

### ROMI Europa GmbH

Burkhardt+Weber-Strasse 57  
72760 Reutlingen, Germany  
+49 7121 315-604  
[sales@romi-europa.de](mailto:sales@romi-europa.de)  
[www.romi-europa.de](http://www.romi-europa.de)

### ROMI France SAS

Parc de Genève, 240  
Rue Ferdinand Perrier 69800  
ST Priest  
+33 4 37 25 60 70  
[infos@romifrance.fr](mailto:infos@romifrance.fr)  
[www.romifrance.fr](http://www.romifrance.fr)

### ROMI Machines UK Limited

Leigh Road  
Swift Valley Industrial Estate  
Rugby CV21 1DS  
+44 1788 544221  
[sales@romiuk.com](mailto:sales@romiuk.com)  
[www.romiuk.com](http://www.romiuk.com)

### ROMI Maquinas España

C/ Telemática, 9 - Polígono  
Industrial La Ferreria - 08110  
Montcada I Reixac - Barcelona  
+34 93 719 4926  
[info@romi.es](mailto:info@romi.es)  
[www.romi.es](http://www.romi.es)

### ROMI en México

Condominio Parque Arista, Calle  
Gral. Mariano Arista 54, bodega 19  
Col. Argentina Poniente, Miguel Hidalgo  
C.O. 11230, CDMX, México  
+521 55 9154 5851  
[ventasmx@romi.com](mailto:ventasmx@romi.com)  
[www.romimexico.com](http://www.romimexico.com)

### ROMI Itália Srl

Via Morigi, 33 — 29020  
Gossolengo (PC) — Italy  
+39 0523 778 956  
[commerciale@romiitalia.it](mailto:commerciale@romiitalia.it)  
[www.romiitalia.it](http://www.romiitalia.it)



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