

Maximart
www.maximart.com.tw

R

Rapido series

HIGH SPEED
Machining Centers



A large, stylized white letter 'R' is positioned on the left side of the top blue banner. To its right, the text 'Precision Fast Cutting & Super Fine Finishing' is written in white. Below the 'R', the words 'Rapido series' are written in a smaller white font. The background of the banner is a solid blue color with a rounded right edge. On the far left, a black chevron points to the right. The rest of the page has a dark, grayscale background showing a close-up of a machine's spindle and tool cutting into a metal workpiece.

Rapido series

Precision Fast Cutting & Super Fine Finishing

> Fine Surface Finishes

The Rapido series VMC is the only choice to achieving a super fine surface finish on molds. The impressive accuracy and high performance of this machine eliminates the need for secondary polishing, which in turn greatly reduces production time.

> High Removal Rates

The powerful spindle and rigid structure allow for high material removal rates through increased cut depth and feedrate. For block metal cutting, this is essential to minimizing the length of time for the initial rough cutting phase, and thereby saves on your overall cycle time.

> Block Metal >>> Finished Part

Single Set Up - Avoid Additional Processing

Avoiding additional processing is paramount for mold production. Transforming block metal into a finished component in a single step allows for maximum machining precision and production efficiency. In addition, the high quality C3 ball screws and linear guideways on this series of machines deliver the positioning accuracy you can rely on every time.



Maximor

Rapido 32

V-6D

CE

R

Rapido series

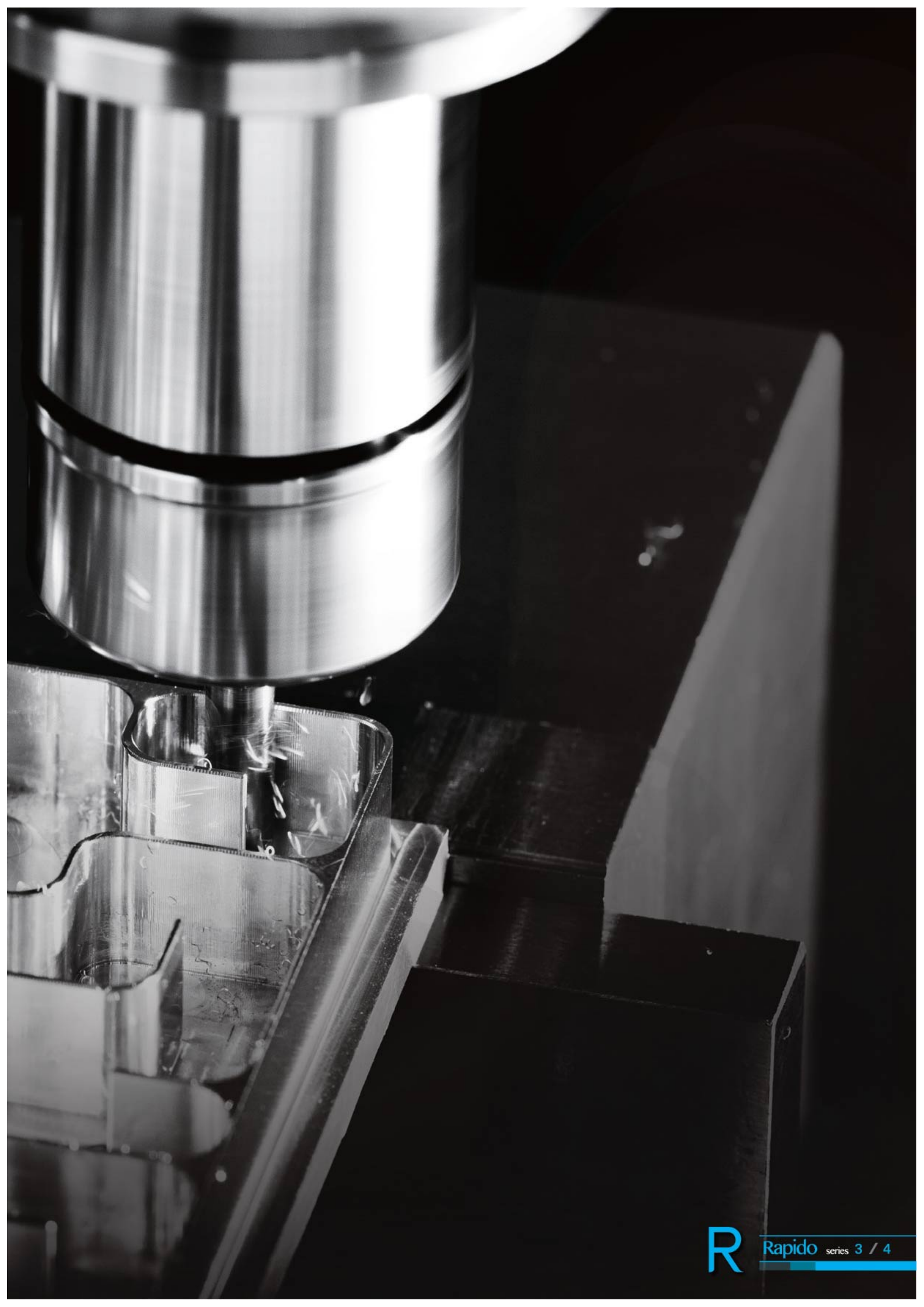
Maximum Accuracy for Complex Machining

> **Thin Walled Applications**

Outstanding Accuracy & Repeatability

In the aerospace industry, thin walled machining is vital, and will drastically improve component accuracy and quality. The Rapido VMC's impressive design and high speed spindle ensures smooth cutting, while keeping tight tolerances when working on parts with straight, thin, and flat walls.





R

Rapido series

Superb Efficiency and High Precision

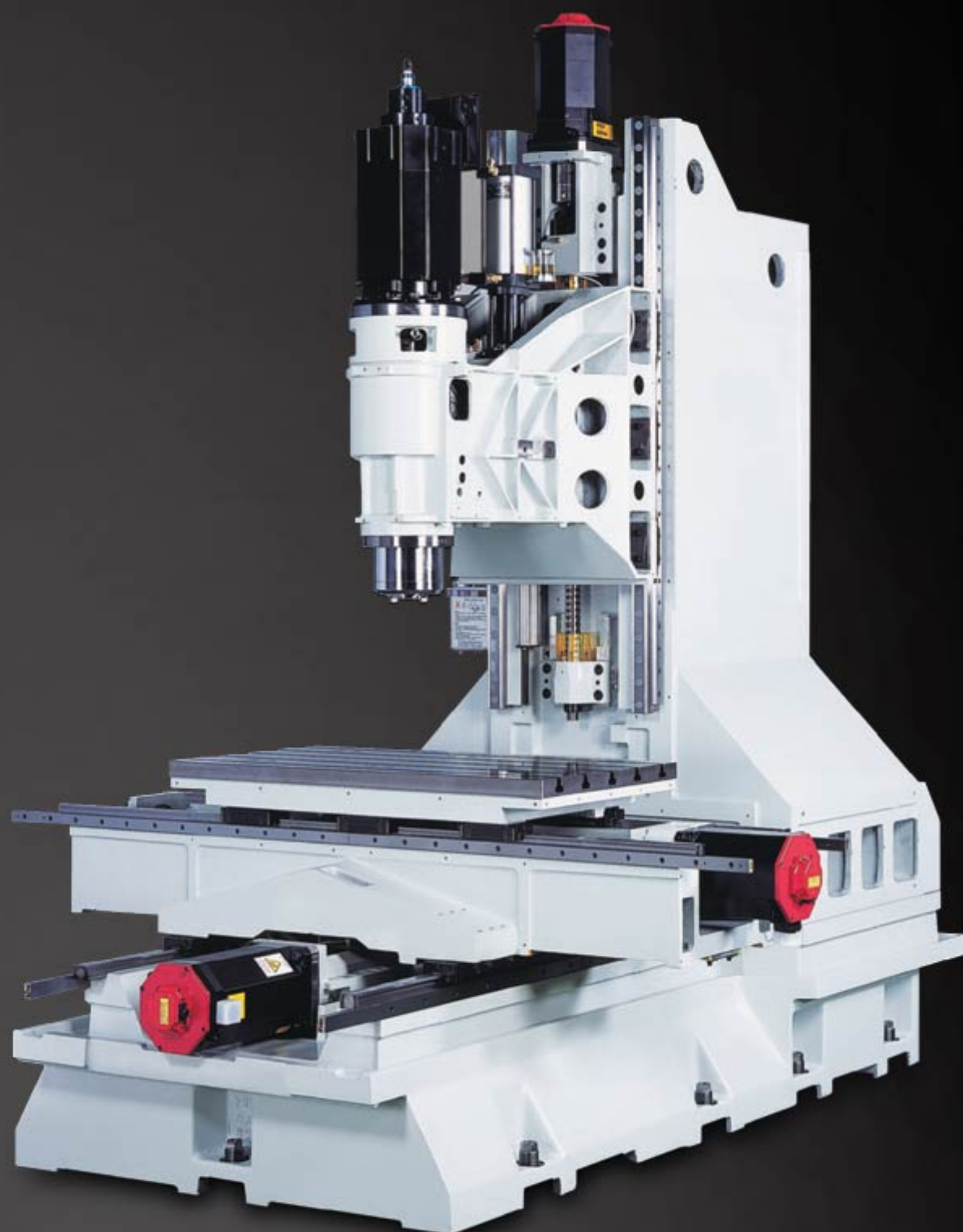
> 4 Axis Simultaneous

A 4th axis rotary table can also be added to the Rapido series VMC especially for the machining of spindle components, turbine blades, cams, worm gear shafts, and other aerospace components. These complex parts require the excellent positional control of four axis machining to ensure outstanding precision and surface finish.

> Machining of Hardened Materials

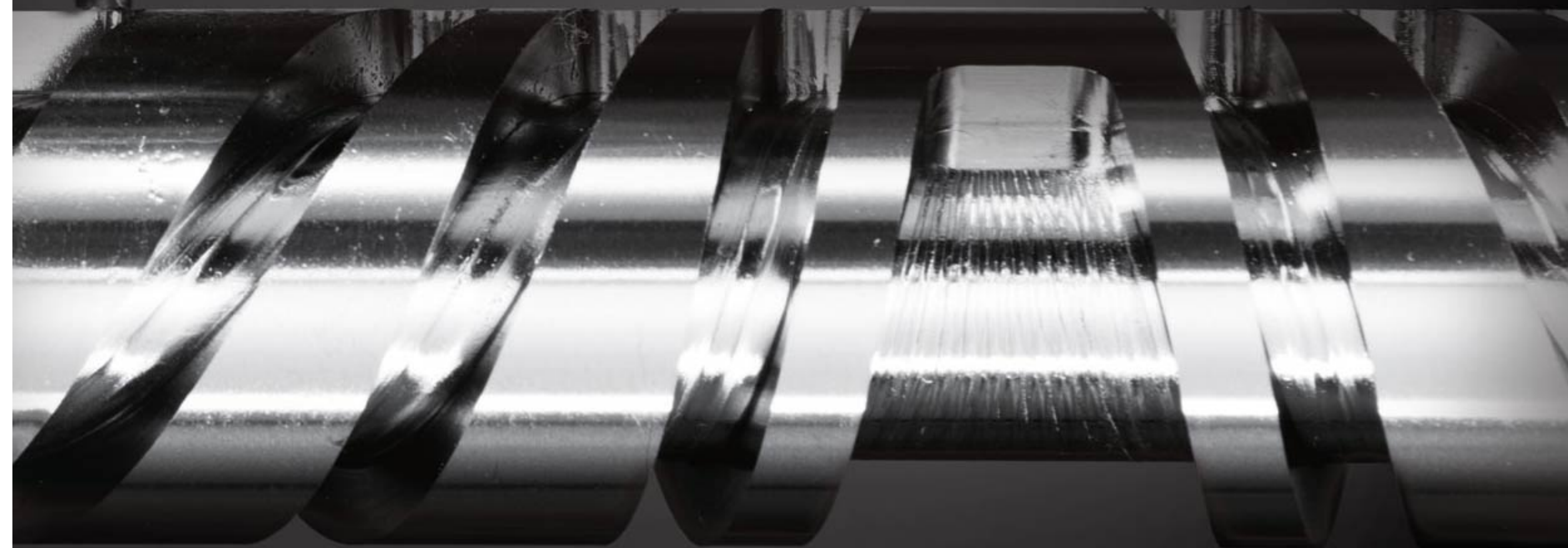
The Rapido series VMC excels at the machining of components that are hardness treated up to HRC53-55. The rigidity and power of the Rapido series VMC allow for excellent machining accuracy, even when using small-diameter cutting tools.





HRC55

- ✓ Cutting depth: 2mm
- ✓ 4 axis simultaneous milling



> Maximart Technology Center

With the valuable feedback provided by our customers, and years of experience, Maximart's technology center provides an excellent range of customized services.



> Machine Assembly & Testing

All Maximart machines are assembled by Maximart's skilled technicians in a temperature controlled production facility. During the assembly process, rigorous inspection and testing procedures ensure that each component and the assembled machines exceed customer expectations.

> Machining Testing / Comprehensive Tests

Maximart performs a series of precise machining tests on each machine before packing and shipping. This service is standard for all Maximart customers. The performance results of each machine as well as the workpiece are labelled and logged for reference.



Rapido series

Maximart Technology Center

Investing in Quality



We have accumulated enormous application experience over the years and our machining experts can rapidly understand and design the perfect machining set up for your product.

R

Versatile Machining

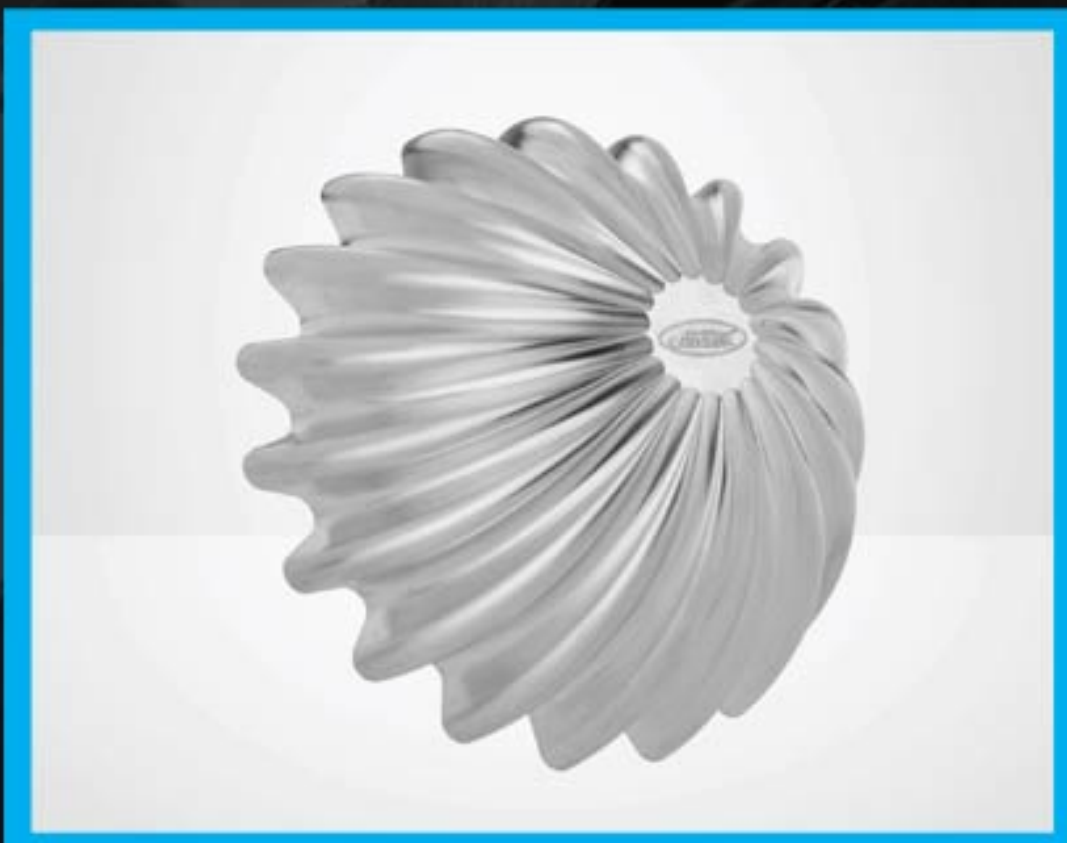
Rapido series Industry Application Examples

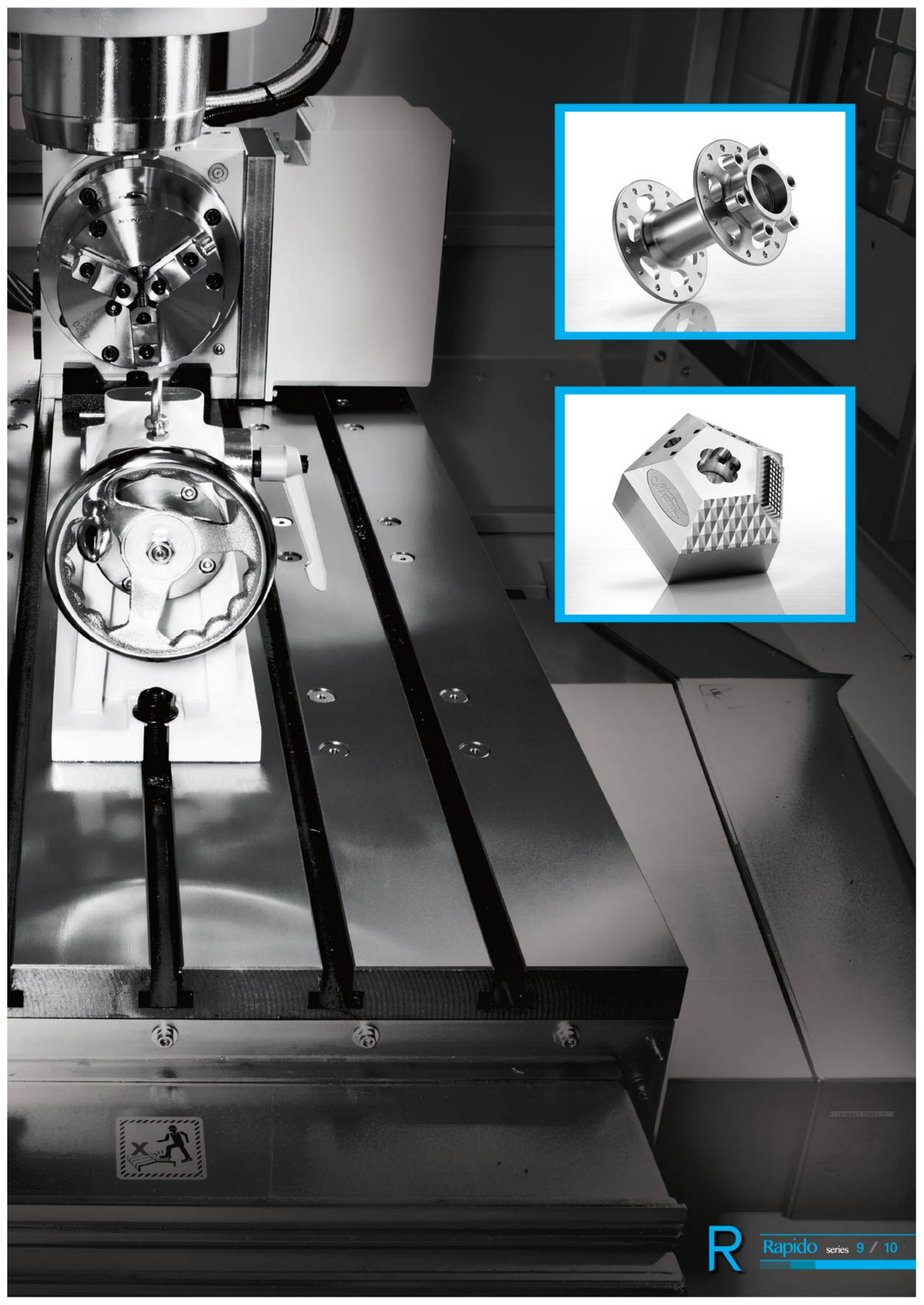
> Quality from Start to Finish

With the excellent fine machining and rough cutting capabilities of the Maximart Rapido series VMC, a wide range of industry applications can be covered. This ensures that Maximart customers optimize their production, and profit from their investment.

> Competitive Edge

Maximart is committed to providing expert service and high-quality machines that will improve your machining efficiency, giving you the competitive advantage that you need.



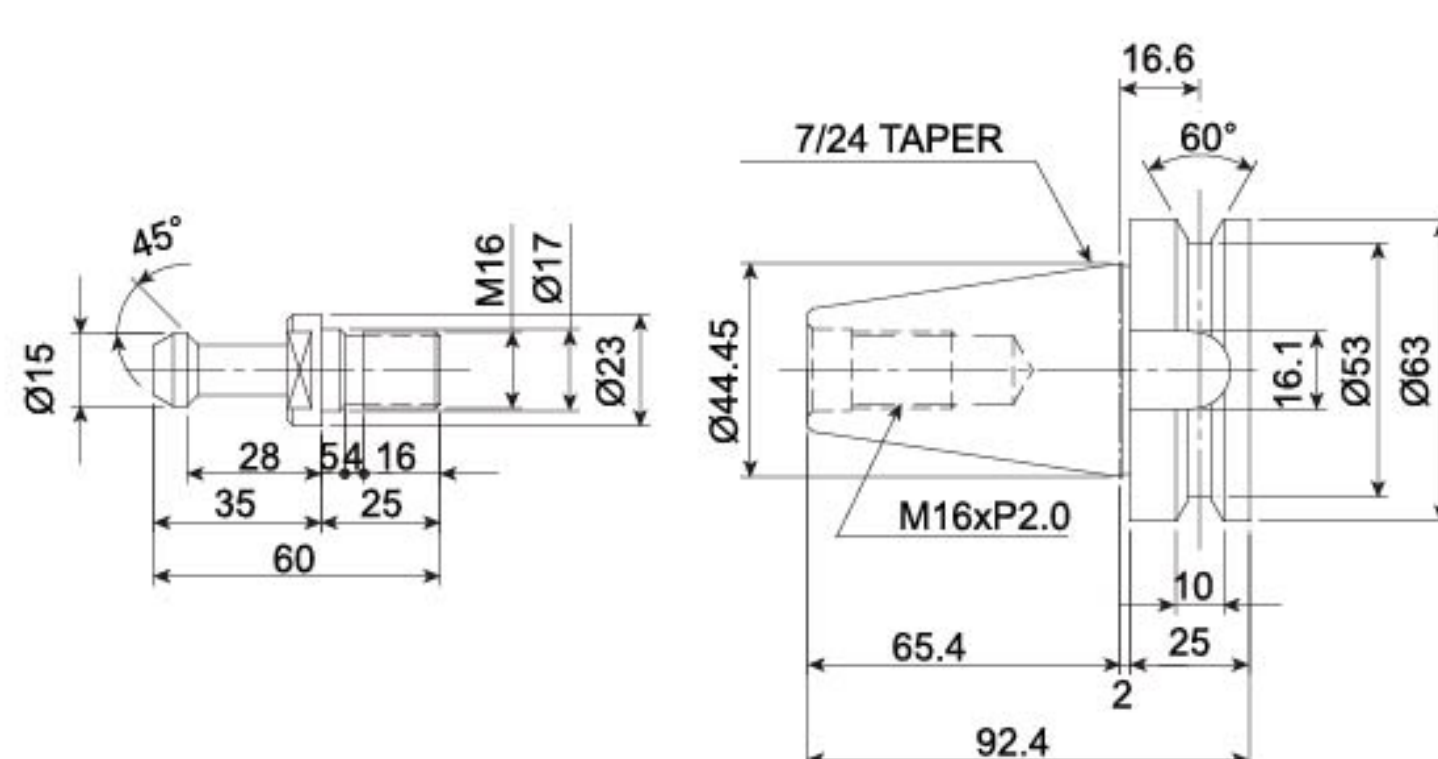
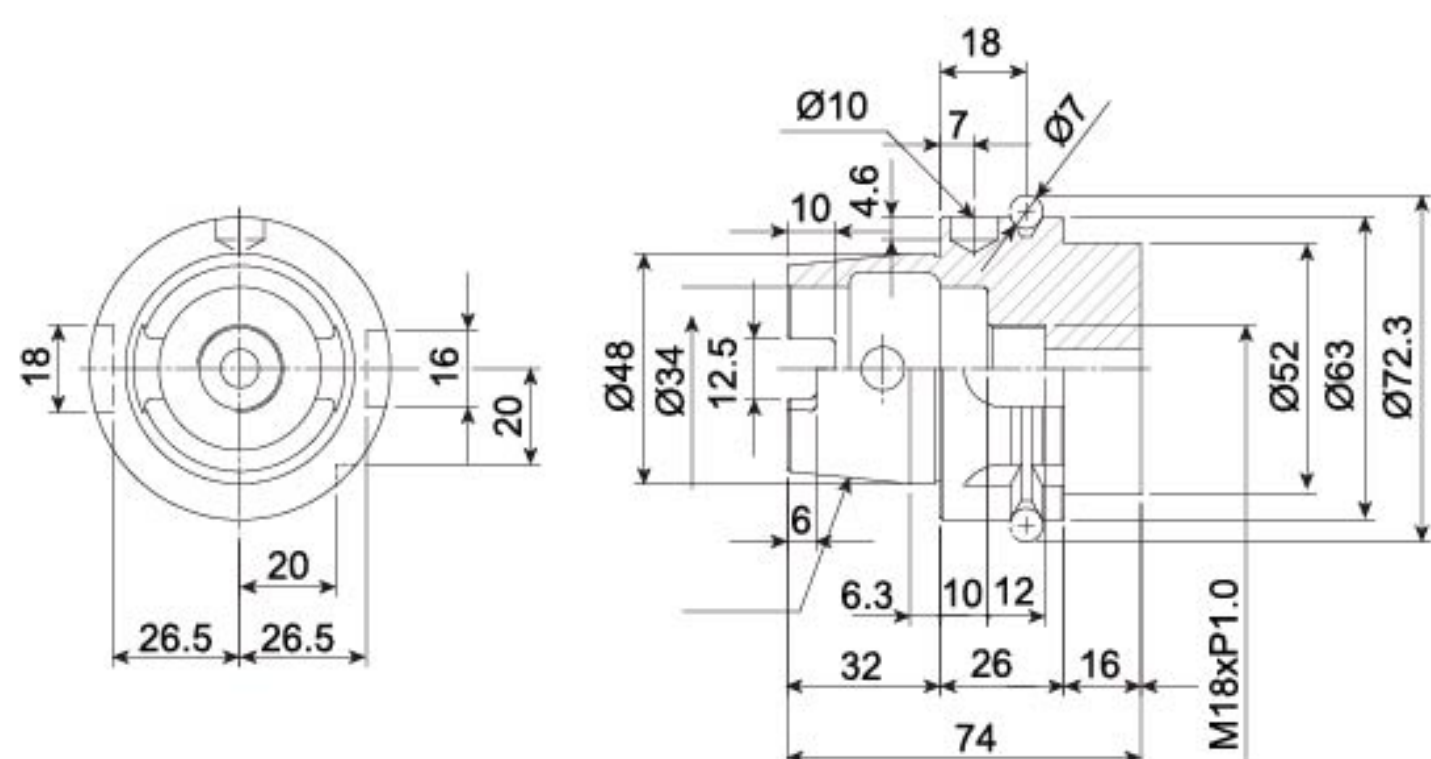


V-6 series

HSK-63A

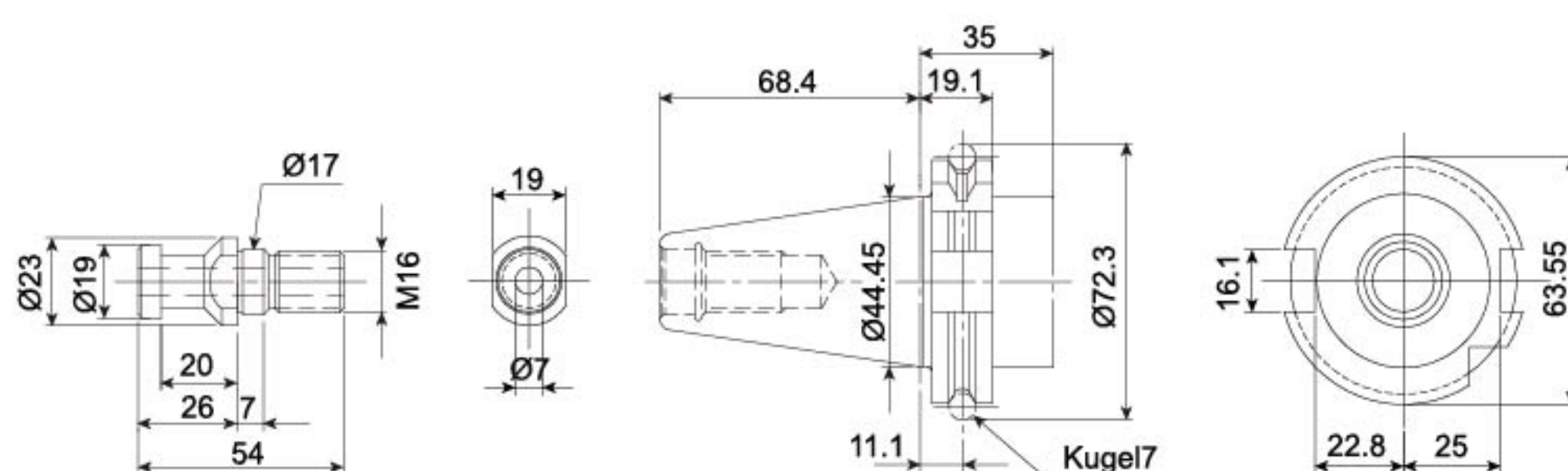
BT-40

unit: mm



DIN 69871/72

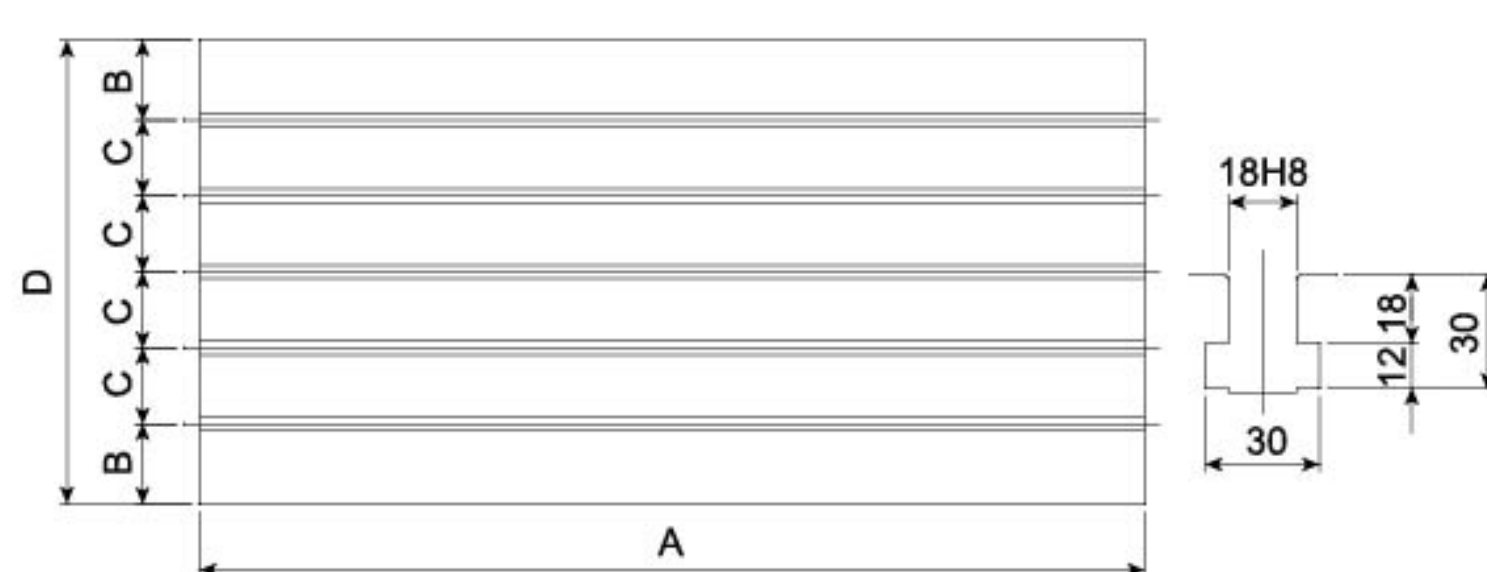
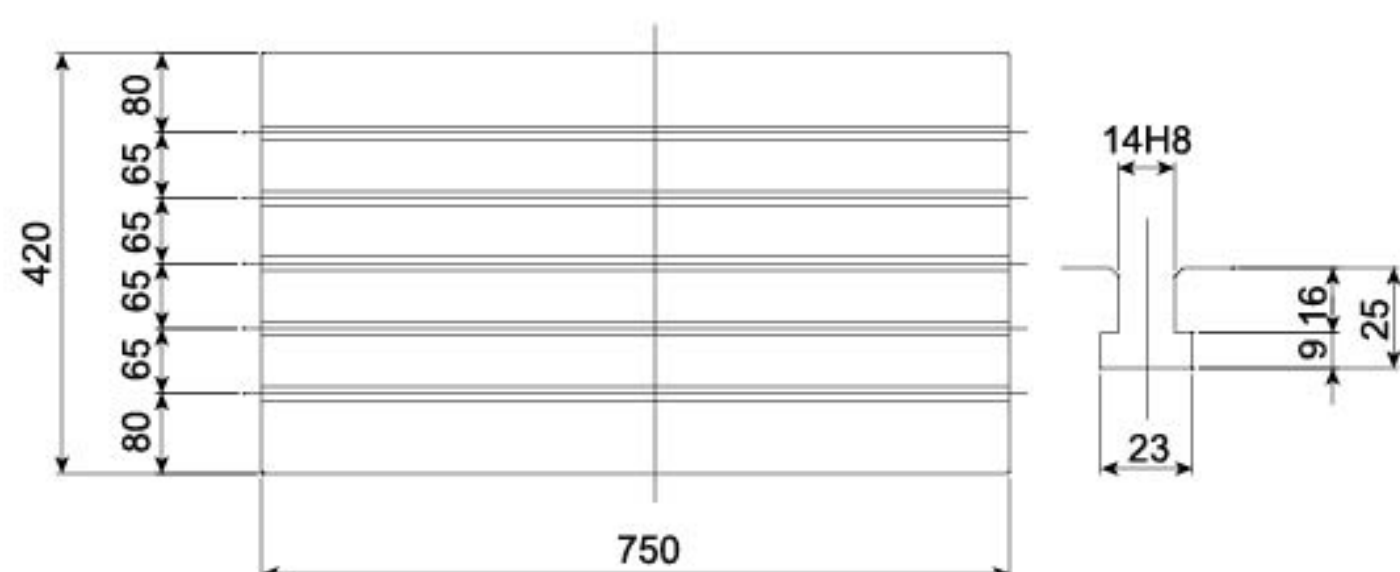
unit: mm



V-6 series

V-8, 11, 13

unit: mm



ITEM	A	B	C	D
MODEL				
V-8	1000	60	100	520
V-11	1250	105	100	610
V-13	1400	105	100	610

R Specifications

ITEM / MODEL	V-6D		V-6H	V-6i	V-8D		V-8H
WORK TABLE							
Table Size	750 x 420 (mm)				1000 x 520 (mm)		
T-slot	14 x 5 x 65 (mm)				18 x 5 x 100 (mm)		
Table Load Capacity	300kg				400kg		
MOVEMENT & RANGE							
X.Y.Z Axis Travel (mm)	700 x 420 x 450				850 x 520 x 610		
Positioning Accuracy	0.003mm / 300mm				0.003mm / 300mm		
Repetition X.Y.Z. Axis	±0.003mm				±0.003mm		
Spindle nose to work table	120-570mm				130-740mm		
Spindle center to column	499mm				623mm		
3 Axes Ballscrew	X/Y: Ø32mm/P12mm/C3 , Z:Ø40mm/P12mm/C3				X/Y/Z: Ø40mm/P12mm		
3 Axes Precision Linear Guideway	X : THK SVS 30mm x 4pcs QZ type block				X : THK SVS 35mm x 6pcs QZ		
	Y : THK SVS 35mm x 4pcs QZ type block				Y : THK SVS 45mm x 4pcs QZ		
	Z : THK SVS 35mm x 6pcs QZ type block				Z : THK SVS 45mm x 6pcs QZ		
3 Axes Transmission	Direct drive				Direct drive		
SPINDLE							
Spindle Taper	BT#40/CAT#40/DIN#40 (Optional HSK-63A)			30000rpm HSK-E50	BT#40/CAT#40/DIN#40 (Optional HSK-63A)		
Spindle Speed	60-12000rpm	60-15000rpm		24000rpm HSK-63A	60-12000rpm	60-15000rpm	
Spindle Cooling Unit	Standard				Standard		
Spindle Transmission	Direct drive			Built-in	Direct drive		
Spindle Thru Spindle	Option : 8bar / 22bar				Option : 8bar / 22bar		
Spindle Dia.	Ø60mm			Ø55mm/HSK-E50 Ø65mm/HSK-63A	Ø70mm		
FEEDS							
Feed Rate (mm/min)	1-12000mm/min				1-12000mm/min		
Rapid Traverse (m/min)	X/Y/Z=32m/min(Optional X/Y/Z=48m/min , with internally cooled ballscrews)						
3 Axes Optical Linear Scale	Optional , absolute type 0.1μ resolution				Optional , absolute type 0.1μ		
A.T.C.							
Tool Storage Capacity	Armless-type 20-tool(Optional Arm-type 30-tool)				Armless-type 20-tool(Optional Arr		
Max. Tool Dia.	Ø76mm				Ø100mm(Armless-type) / Ø76mr		
Tool Selection	Bi-direction random shortest path				Bi-direction random shorte		
Max. Tool Weight	7kg/pc				7kg/pc		
Max. Tool Length	250mm				300mm		
GENERAL INFORMATION							
Coolant Motor	TPHK 4T3-3 1.27kW				TPHK 4T3-3 1.27kW		
Coolant Tank Capacity	300 Liter				420 Liter		
Coolant Thru spindle	50Hz, 8 bar Grundfos SPK2-23/23 0.75kW / 50Hz,22 bar MTR1-33/33 2.2kW 60Hz, 8 bar Grundfos SPK2-15/15 1.10kW / 60Hz,22 bar MTR1-33/33 2.2kW						
Chip Conveyor Motor	0.2kW x 1				0.2kW x 2 + 0.4kw x		
Air Pressure Required	6 kg /cm²				6 kg /cm²		
Power Consumption	25 kVA				30 kVA		
Machine Weight	4500 kg				7300 kg		

• Above specifications are subject to change without prior notice.

Standard Accessories

- Fully enclosed machine guard
- Spindle cooling unit
- 3 axis THK linear guideway with self-lube device
- Z axis brake motor
- Automatic central lubrication system with alarm
- Z axis auto-ascends during power failure (with Fanuc CNC only)
- Armless 20-tool ATC (inverter drive) (HSK 63A not available) (V-6D, V-6H, V-6i Not Available)
- Arm-type 20-tool ATC (Only for V-6D, V-6H, V-6i)
- Screw drive chip conveyor (2 sides + front side) (V-6 front side only)
- Spindle nose coolant jet flushing
- Spindle side air blow nozzle & coolant nozzle
- Spindle air blast before tool-changing
- Spindle continuous air curtain
- Air gun & coolant gun
- Machine window with safety glass
- Rigid tapping
- Auto power off
- 3-color warning lamp
- Fluorescent work lamp (2 sets)
- Ethernet port
- Leveling pads & bolts
- Operation / Parts manuals
- Tools & tool box

V-8i	V-11D	V-11H	V-11i	V-13D	V-13H	V-13i
	1250 x 610 (mm)			1400 x 610 (mm)		
	18 x 5 x 100 (mm)			18 x 5 x 100 (mm)		
	900kg			1000kg		
	1100 x 610 x 610			1300 x 610 x 610		
	0.003 mm / 300 mm			0.003 mm / 300mm		
	±0.003 mm			±0.003 mm		
	120-730mm			120-730mm		
	668mm			668mm		
/C3	X/Y/Z: Ø40mm/P12mm/C3			X/Y/Z: Ø40mm/P12mm/C3		
type block	X :THK SVS 45mm x 6pcs QZ type block			X :THK SVS 45mm x 6pcs QZ type block		
type block	Y :THK SVS 45mm x 6pcs QZ type block			Y :THK SVS 45mm x 6pcs QZ type block		
type block	Z :THK SVS 45mm x 6pcs QZ type block			Z :THK SVS 45mm x 6pcs QZ type block		
	Direct drive		Built-in	Direct drive		Built-in
	BT#40/CAT#40/DIN#40 (Optional HSK-63A)			BT#40/CAT#40/DIN#40 (Optional HSK-63A)		
HSK-63A	BBT#40/HSK-63A			BT#40/HSK-63A		
24000rpm	60-12000rpm	60-15000rpm	20000rpm	60-12000rpm	60-15000rpm	20000rpm
	Standard			Standard		
Built-in	Direct drive			Direct drive		
	Option : 8bar / 22bar			Option : 8bar / 22bar		
Ø65mm	Ø70mm			Ø70mm		
	1-12000mm/min			1-12000mm/min		
	X/Y/Z=32m/min(Optional X/Y/Z=48m/min , with internally cooled ballscrews)					
resolution	Optional , absolute type 0.1μ resolution			Optional , absolute type 0.1μ resolution		
	Armless-type 20-tool(Optional Arm-type 30-tool)			Armless-type 20-tool(Optional Arm-type 30-tool)		
n-type 30-tool)	Ø100mm(Armless-type) / Ø76mm(Arm-type)			Ø100mm(Armless-type) / Ø76mm(Arm-type)		
n(Arm-type)	Bi-direction random shortest path			Bi-direction random shortest path		
st path	7kg/pc			7kg/pc		
	300mm			300mm		
	TPHK 4T3-3 1.27kW			TPHK 4T3-3 1.27kW		
	420 Liter			420 Liter		
	50Hz, 8 bar Grundfos SPK2-23/23 0.75kW / 50Hz,22 bar MTR1-33/33 2.2kW			50Hz, 8 bar Grundfos SPK2-23/23 0.75kW / 50Hz,22 bar MTR1-33/33 2.2kW		
	60Hz, 8 bar Grundfos SPK2-15/15 1.10kW / 60Hz,22 bar MTR1-33/33 2.2kW			60Hz, 8 bar Grundfos SPK2-15/15 1.10kW / 60Hz,22 bar MTR1-33/33 2.2kW		
1	0.2kW x 2 + 0.4kw x 1			0.2kW x 2 + 0.4kw x 1		
	6 kg /cm²			6 kg /cm²		
	30 kVA			30 kVA		
	8000kg			8350kg		

Optional Accessories

- CE / EMC conformity machine
- Transformer to suit local power
- Arm-type 30-tool ATC with 1.5 sec. quick tool change device
- Absolute 0.1μm resolution 3 axis optical scale with air-blow protection
- 3 axis 48M/min rapid traverse, with internally cooled ball screws (V-6D, V-6H, V-6i Not Available)
- High-pressure coolant through spindle 8 bars / 22 bars
- Front side chain-type chip conveyor (single side)
- Chip cart
- Wiring & connectors preparation for 4th axis (without AC motor & driver)
- 4th axis AC servo package (wiring / connectors / interface / AC motor & driver)
- 4th axis CNC rotary table with or without tailstock
- Oil-mist coolant system
- Oil-mist filtering & recycle system

- Tool length measurement system
- Workpiece measurement system
- HSK-63A spindle taper with arm-type 30-tool ATC with 1.5 sec. quick tool change device
- Coolant / oil skimmer

R

Rapido

series 13 / 14



Maximart.®

Maximart Corporation

TEL: 886-2-2531-4161

FAX: 886-2-2563-4936

maximart.tw@gmail.com

www.maximart.com.tw