

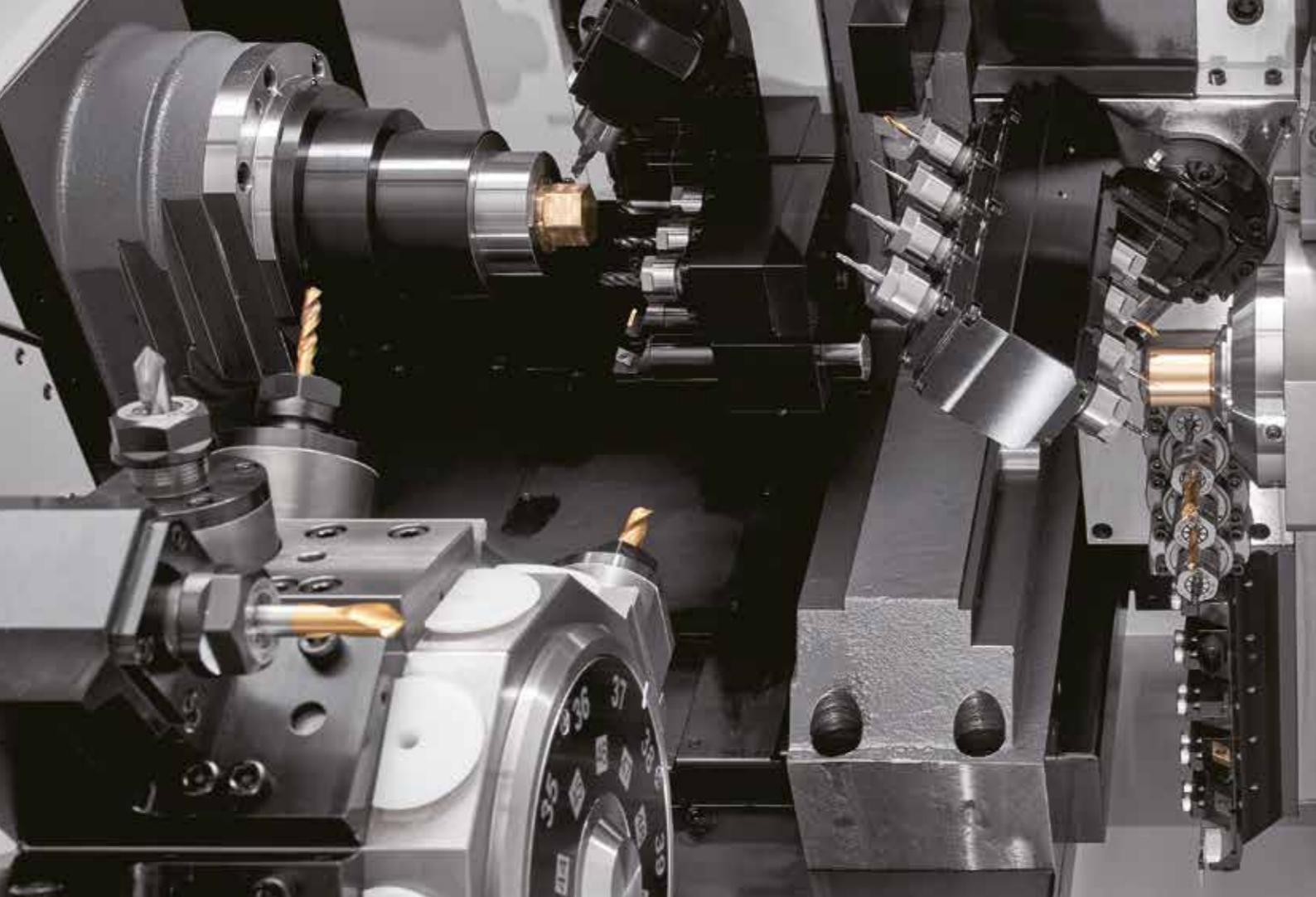
CITIZEN

**Cincom**

**M32**

Sliding Headstock Type CNC Automatic Lathe





M32-VIII

## Ultimate Gang + Turret: The M32 is Reborn

Adoption of newly designed covers to provide better access, as well as a new HMI operating panel for the new NC unit. A touch panel provides improved productivity and operation.

Additionally, structural analysis was performed to achieve a highly rigid design that provides an optimal balance between strength and weight to greatly improve the rigidity required during the machining process.

The turret tooling has been completely redesigned with a conversion to single-drive for rotary tools and strengthening of the rotary tools motor. The gang tool post has been equipped with a type VIII B-axis spindle for contouring by using the new five-axis control system. The back tool post has been equipped with adjustable-angle type VII and VIII spindles to provide complex machining in conjunction with the Y axis. Increased back machining capability allows more freedom in choosing the optimum machining process for your components.

A 5.5/7.5 kW high-output spindle motor has been adopted for front and back spindles.

You can switch between use and non-use of guide bushings for compatibility with 38-mm oversize specifications.



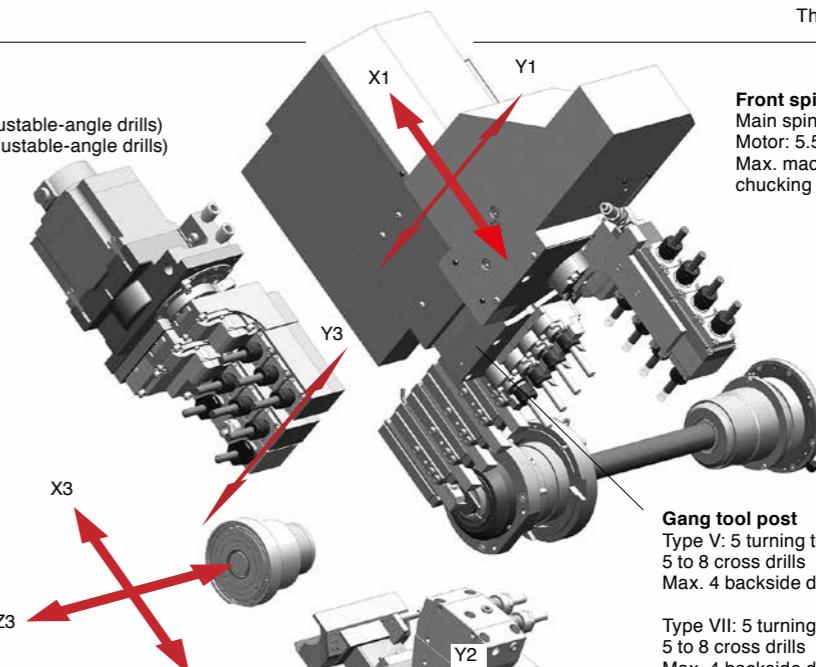
## Basic Structure

The image shows the type VIII

### Back tool post

Type V: 5 drills  
Type VII: Max. of 9 drills (including 3 adjustable-angle drills)  
Type VIII: Max. of 9 drills (including 3 adjustable-angle drills)

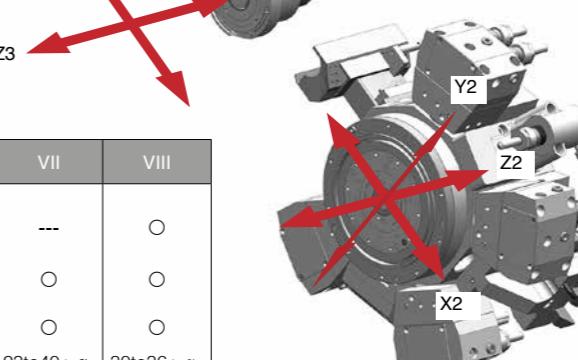
Back spindle  
Main spindle speed: 8,000 min<sup>-1</sup>  
Motor: 5.5/7.5 kW



### Machine configuration by type

Type	V	VII	VIII
B axis (gang rotary tools)	---	---	○
Y3 axis (back tool post Y axis)	---	○	○
Spindle speed of the back tool post rotary tool	---	○	○
Total number of tools	25to36+ $\alpha$	23to40+ $\alpha$	30to36+ $\alpha$

**Front spindle**  
Main spindle speed: 8,000 min<sup>-1</sup>  
Motor: 5.5/7.5 kW  
Max. machining length: 320 mm/1  
chucking (GB)



**Gang tool post**  
Type V: 5 turning tools  
5 to 8 cross drills  
Max. 4 backside drills

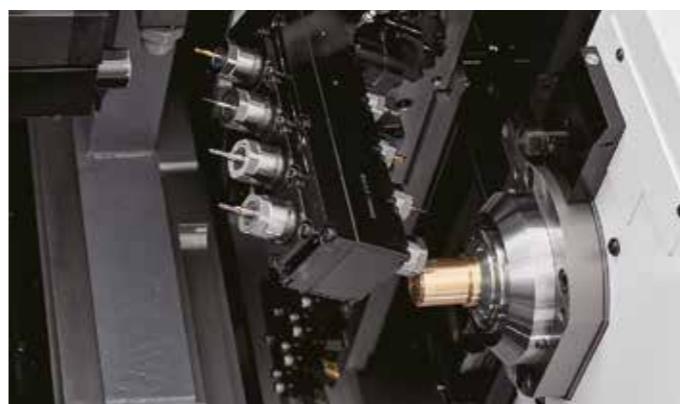
Type VII: 5 turning tools  
5 to 8 cross drills  
Max. 4 backside drills

Type VIII: 5 turning tools  
8 cross drills (including 4 B-axis drills)  
4 backside drills (including 4 B-axis drills)

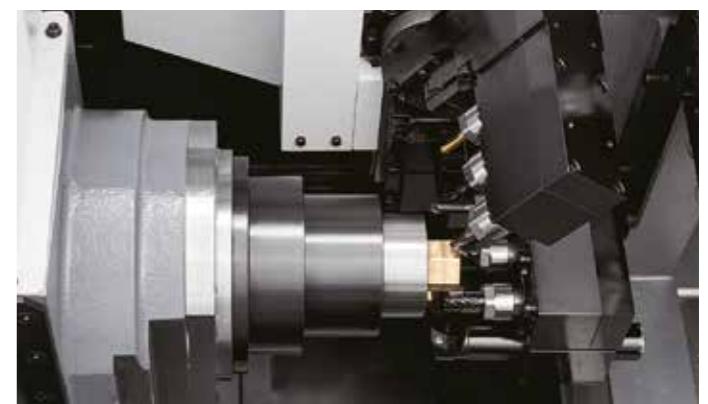
**Turret tool post**  
Number of turret stations: 10

## Back Machining to Provide Compatibility with even more Complex Shapes

The gang tool post has been equipped with a programmable B axis (45° backside and 105° front side) type VIII. The back tool post has been equipped with three-tool adjustable angle spindles type VII and VIII to provide even more complex machining.



Gang rotary tool B axis



Three-tool adjustable angle type spindle

### New single-drive turret

A single drive that only drives the selected rotary tool has been adopted for the 2.2-kW/22-Nm high-output high-torque milling turret.

This prevents backlash and vibration to provide longer tooling service life.



### New HMI (Human Machine Interface) operating panel

A new HMI-equipped operating panel with a 15-inch touch panel has been adopted. This serves to improve operability. Additionally, universal design has been applied to operating panel colours.



# Machine Specification

Item	M32			Main standard accessories
	V	VII	VIII	
M32 - 5M5		M32 - 5M7	M32 - 5M8	Main spindle chucking unit
Max. machining diameter (D)	32 mm dia. (38 mm <sup>OP</sup> )			Back spindle chucking unit
Max. machining length (L)	320 mm/1 chucking			Gang rotary tool driving unit
Max. front drilling diameter	12 mm dia.			Rotary guide bushing unit
Max. tapping diameter for the front spindle	M12 (Cutting tap)			Knock-out jig for through-hole workpiece
Main spindle speed	Max. 8,000 min <sup>-1</sup>			Coolant unit (with level detector)
Max. chuck diameter for the back spindle	32 mm dia. (38 mm <sup>OP</sup> )			Lubricating oil supply unit (with level detector)
Max. drilling diameter for the back spindle	12 mm dia.			Motor knock-out device for back machining
Max. tapping diameter for the back spindle	M12 (Cutting tap)			Motor-driven workpiece separator
Max. length of the back spindle workpiece	145 mm (Standard recovery unit)			Machine relocation detector
Back spindle speed	Max. 8,000 min <sup>-1</sup>			Spindle cooling unit
Gang rotary tools				Door lock
Max. drilling diameter	8 mm dia			Coolant flow rate detector
Max. tapping diameter	M8 (Cutting tap)			Product unloader
Main spindle speed	Max. 9,000 min <sup>-1</sup>			3-colour signal tower
Turret rotary tools				<b>Special accessories</b>
Max. drilling diameter	12 mm dia.			Chip conveyor
Max. tapping diameter	M12 (Cutting tap)			Long workpiece unit
Main spindle speed	Max. 6,000 min <sup>-1</sup>			High-pressure coolant unit
Back rotary tools				Workpiece conveyor
Max. drilling diameter	8 mm dia.			Medium-pressure coolant unit
Max. tapping diameter	M6 (Cutting tap)			M32 special tool
Main spindle speed	Max. 6,000 min <sup>-1</sup>			<b>Standard NC functions</b>
Number of tools	25 to 36 + $\alpha$	23 to 40 +	30 to 36 + $\alpha$	CINCOM SYSTEM M830W (Mitsubishi Electric) *Types V, VII
Turning tools	5			CINCOM SYSTEM M850W (Mitsubishi Electric) *Type VIII
Cross drills	5 to 8		8 (including 4 B-axis drills)	15-inch XGA touch panel
Gang tool post backside drills	Max. 4		4 (including 4 B-axis drills)	Program storage capacity: 160m (Approx. 64 KB)
Number of turret stations	10			Tool offset pairs: 99
Back tool post drills	5		Max. 9	Product counter indication (Up to 8 digits)
Tool size				Preparing operation functions
Turning tool		<input type="checkbox"/> 16mm		Machine operation information display
Sleeve diameter		25.4 mm dia.		Back machining program skip function
Chuck and bushing				Impact detection function
Main spindle collet chuck	TF37 (TF43, TF48 for 38mm dia. OPT.)			Constant peripheral speed control function
Back spindle collet chuck	TF37 (TF43, TF48 for 38mm dia. OPT.)			Spindle 1° indexing function
Guide bushings	T229 (STM38 for 38mm dia. OPT.)			Nose radius compensation
Rapid feed rate				Chamfering/Corner R function
X1,Y1,Z1,Z2,X3,Z3	32 m / min			Geometric command function
Y3	---	32 m / min		Spindle synchronised function
X2	18 m / min			Milling interpolation function
Y2	12 m / min			Back spindle C-axis function
B1	-	50 min <sup>-1</sup>		Synchronised tapping function
Motors				RS232C connector
Front spindle drive	5.5 / 7.5 kW			<b>Optional NC functions</b>
Back spindle drive	5.5 / 7.5 kW			Variable lead thread cutting
Gang rotary tool drive	2.2 kW			Arc threading function
Turret rotary tool drive	2.2 kW			Differential speed rotary tool function
Back rotary tool drive	1.0 kW			Tool life management I
Pneumatic unit: Required pressure an required flowrate	0.5 MPa at 110 NL/min. (When stationary)			Synchronised tapping phase adjustment function
Machine main unit dimensions	(W) 2,860 × (D) 1,465 × (H) 1,900 mm			Program storage capacity: 4800 m (1,920 KB)
Weight	4,250 kg	4,300 kg		External memory program driving
Power supply voltage	AC200V ± 10%			Optional block skip (9 sets)
				Inclined helical interpolation function
				Polygon function
				Helical interpolation function
				Hob function
				Sub inch command
				Network I/O function

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