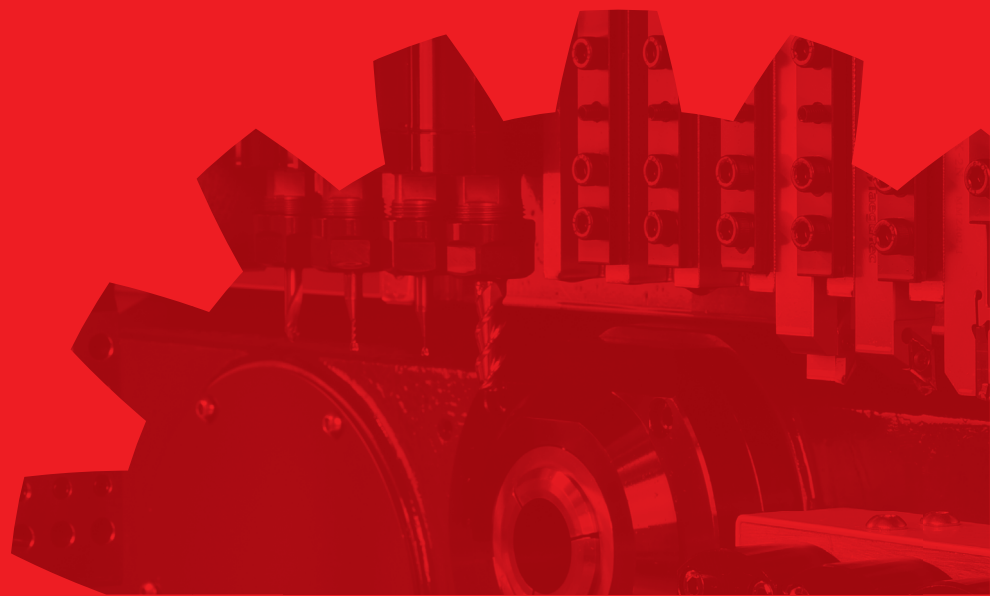


TCM series of Swiss type lathes offers an integral premium covering price, quality & service, all of which are based on cost effectiveness and certified by US customers over the last 20 years.

TCM SERIES

205 265 325 385
205II 325II 385II 38H



TCM
Industry

TCM INDUSTRY

moves forward into industry 4.0
based on the root technology

TCM Industry is a machine tool specialized company who develops, produces, and sells CNC Swiss type auto lathes based on casting technology regarded as the root of the industry. With our mission statement as Creative Innovation, Thinking Action, Quality Responsibility, we've been supplied large-sized casting to major machine tool companies in Japan and aimed at maximization of production efficiency by introducing flexible production system which enable us to produce all models of TCM series in one production line.

TCM SERIES

TCM Swiss type auto lathes,
take the lead in the cost effectiveness trend

TCM Industry sold SQC-SQX-SM models in the US market for the last 20 years after acquiring MMTC, located in Colorado, United States, and succeeded in the local US market as well as extending the sales to the world market with integrating models, TCM series.

Based on casting technology accumulated over the past 30 years, we now take the lead in the cost effectiveness trend over pure price competitiveness.

TaeChang Metal Industry established

1987

Technology Exchange conducted with Yukawa Iron Casting Works Co., Ltd

1990

Foundry Division

Machine Division



2005
MMTC acquired by TCM

2004

KSI/MMTC established for R&D & Manufacturing of Swiss lathes located in Westminster, Colorado, United States

Mazak & Toshiba Machine contracted to supply beds

2006

IMTS 2006
SQC 20_32_38Ø displayed

2008

IMTS 2008
SQC & SQC_SM
20_32_38Ø displayed

2011

Selected as Promising Small-Medium Company

2015

TCM series released
S type 20S 26S 32S 38S

2016

4th Successive Winner at Casting Competition in 2013-16

Selected as INNO BIZ

Selected as Root Technology Specialized Company

2017

2021

Product Enhancement
SII type 20SII 32SII 38SII

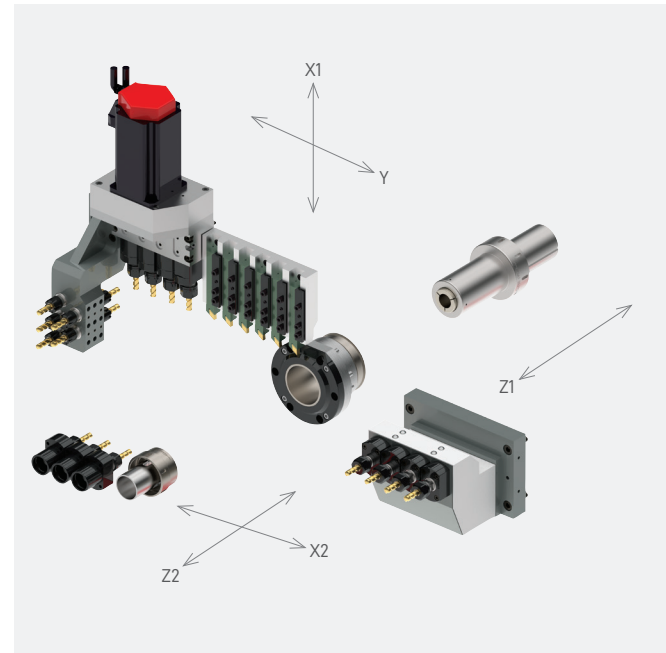
2022

New Model, TCM38H

TCM20S 26S 32S 38S

TCM series S type

The More for Less Tough enough to tackle any job



S type	Unit	20S	26S	32S	38S
Max Machining Diameter	mm	Ø20	Ø26	Ø32	Ø38
Max Machining Length	mm	300/1 chucking			
Main Spindle	rpm	10,000	8,000		
	kW	2.2/3.7	5.5/7.5		
Sub Spindle	rpm	8,000	8,000		
	kW	1.5/2.2	1.5/2.2		
Weight	kg	3,500			

No of Tools	Unit	20S	26S	32S	38S
Total	each	27			
OD	each	6			
ID (Front)	each	10	Front 5+Rear 5 (ER16M)		
Cross	each	4	ER16		
Back	each	4	2 Driven+2 Fixed (ER16)		
Sub (Eccentric)	each	3	2 Driven+1 Fixed (ER16)		

Feed Drive System	Unit	Z1	X1	Y	Z2	X2
Feed Distance	mm	300	62	391.5	300	403
Rapid Feed Speed	m/min	32	20	32	32	32

300mm/1 chucking
Max Machining Length

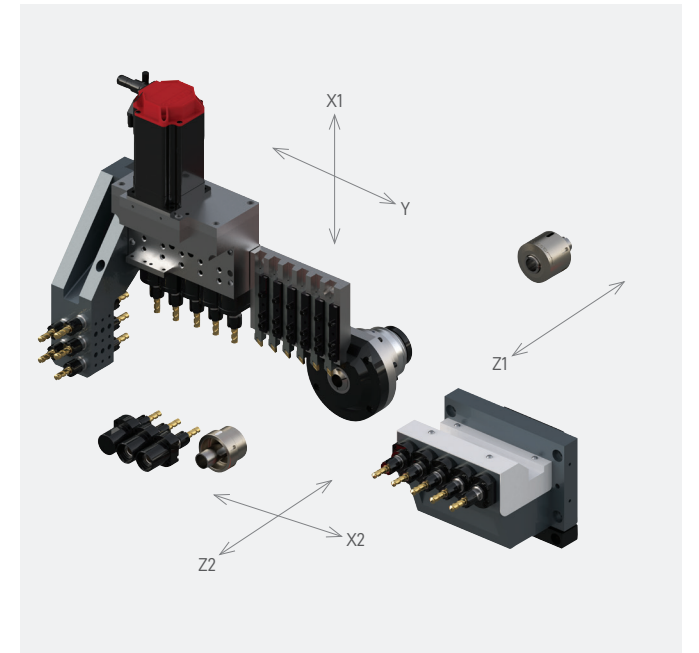
27 tools
Total Number

3,500kg
Weight

TCM20SII

TCM series SII type

The More for Less Versatile enough to tackle any job



S type	Unit	20SII
Max Machining Diameter	mm	Ø20
Max Machining Length	mm	300/1 chucking
Main Spindle	rpm	10,000
	kW	2.2/3.7
Sub Spindle	rpm	8,000
	kW	1.5/2.2
Weight	kg	3,500

No of Tools	Unit	20SII	
Total	each	29	
OD	each	6	
ID (Front)	each	10	Front 5+Rear 5 (ER16M)
Cross	each	5	ER16M
Back	each	5	2 Driven+3 Fixed (ER16M)
Sub (Eccentric)	each	3	2 Driven+1 Fixed (ER16M)

Feed Drive System	Unit	Z1	X1	Y	Z2	X2
Feed Distance	mm	300	70	398.5	300	403
Rapid Feed Speed	m/min	32	20	32	32	32

300mm/1 chucking
Max Machining Length

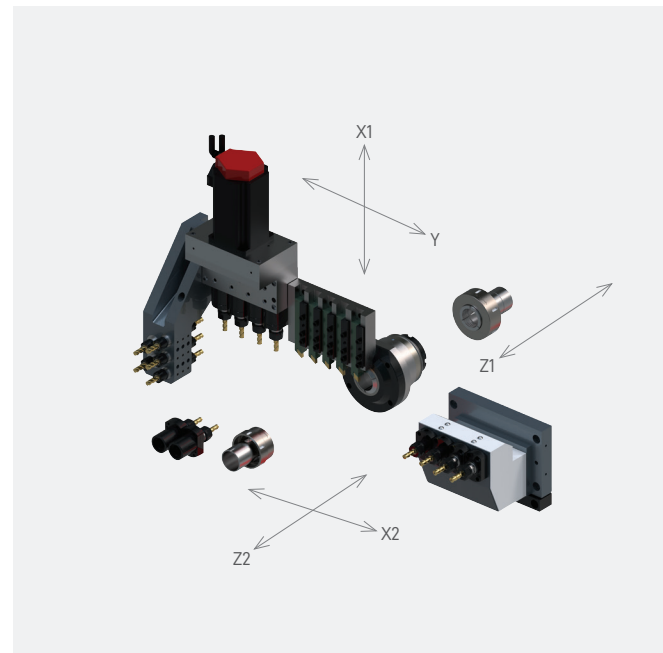
29 tools
Total Number

3,500kg
Weight

TCM 32SII 38SII

TCM Series SII Type

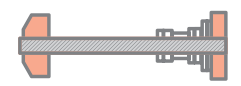
The More for Less Reliable enough to tackle any job




S type	Unit	32SII	38SII
Max Machining Diameter	mm	Ø32	Ø38
Max Machining Length	mm	300/1 chucking	
Main Spindle	rpm	8,000	
	kW	5.5/7.5	
Sub Spindle	rpm	8,000	
	kW	1.5/2.2	
Weight	kg	3,500	

No of Tools	Unit	32SII	38SII
Total	each		25
OD	each		5
ID (Front)	each	10	Front 5+Rear 5 (ER16M 3EA/ER20M 2EA)
Cross	each	4	ER16
Back	each	4	2 Driven+2 Fixed (ER16)
Sub (Eccentric)	each	2	2 Driven (ER16)


Feed Drive System	Unit	Z1	X1	Y	Z2	X2
Feed Distance	mm	300	70	397.5	300	403
Rapid Feed Speed	m/min	32	20	32	32	32



300mm/1 chucking
Max Machining Length



25 tools
Total Number

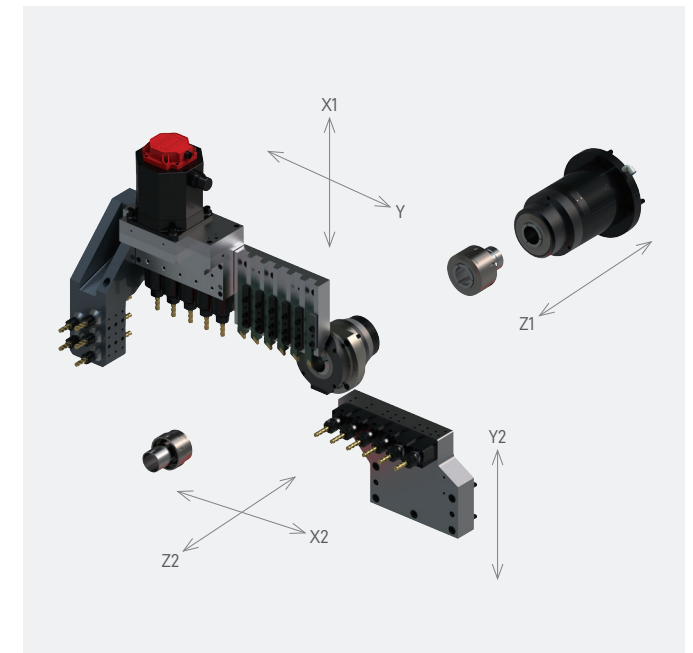


3,500kg
Weight

TCM 38H

Simtos 2022

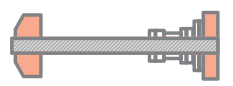
The More for Less More than enough to tackle any job




S type	Unit	38H	38H(N)	38H(Y2)
Max Machining Diameter	mm		Ø38	
Max Machining Length	mm	320	100 (350)	320
Main Spindle	rpm	6,500		
	kW	5.5/7.5		
Sub Spindle	rpm	6,500		
	kW	2.5/5.5		
Weight	kg	4,500		

No of Tools	Unit	38H	38H(N)	38H(Y2)
Total	each	27	27	29
OD	each		6	
ID (Front)	each		10 Front 5+Rear 5 (ER20M)	
Cross	each		5 (ER16)	
Back	each	6 Front 2+Rear 4 (ER16)	6 Front 2+Rear 4 (ER16)	8 Front 4+Rear 4 (ER16)
Sub (Eccentric)	each		NA	


Travel	Unit	Z1	X1	Y	Z2	X2	Y2
Distance	mm	320	80	477.5	300	425	72
Rapid Feed Speed	m/min	32	20	32	32	32	20



320mm/1 chucking
Max Machining Length




27/29 tools
Total No of Tools




4,500kg
Weight

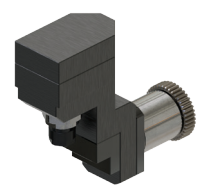
Optimized Special Tools




Thread whirling unit




3 spindle face outer drill/milling unit



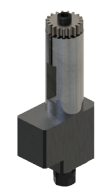
Slotting unit




Turning bite holder



3 spindle face drill/milling unit 0-90° angular adjustable

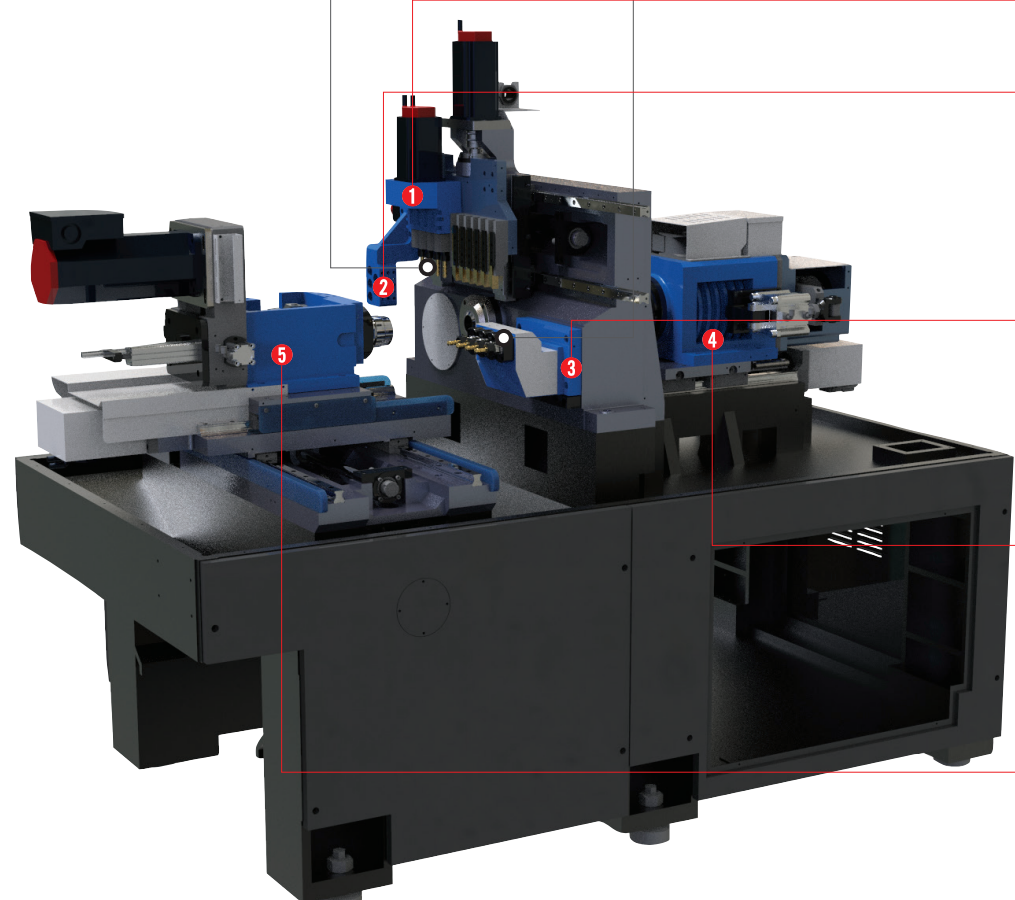


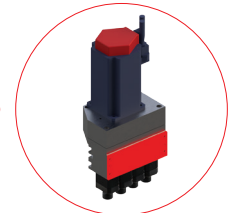
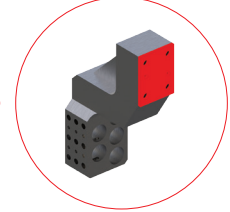
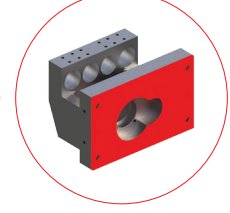

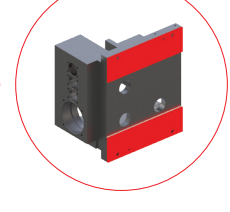
Speeder drill /milling unit



Speeder drill /milling unit

Hand scrapping applied



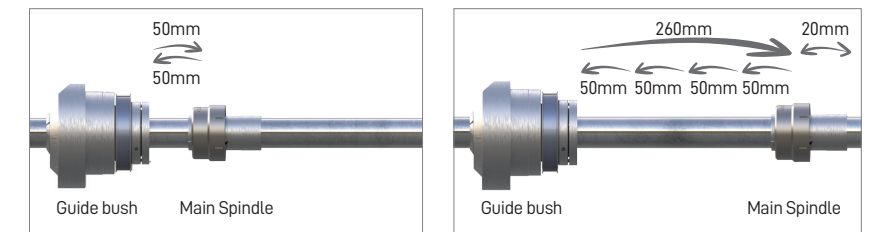






Differentiated Strengths

ICS



Intelligence Chucking System takes advantage of the ample 300mm stroke to reduce the number of bar rechucks during long production runs. Instead of rechecking for each part the spindle feeds 280mm of material to make multiple parts in a single chucking operation and increments forward for each part. See how this can save even more off your cycle time.



Intelligence Chucking System Off

Intelligence Chucking System On

RTC



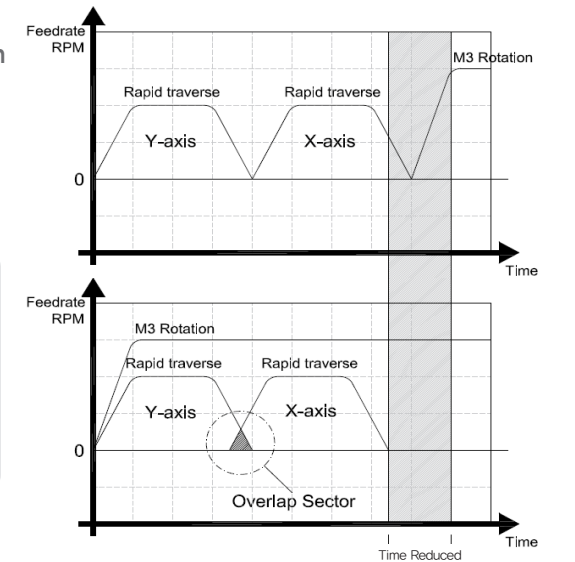
Rapid Tool Change calculates the smoothest and most efficient transition path from tool to tool saving time on every tool change. Savings that add up to a significant reduction of cycle time, which means more profits for you.

```

T0101;
M3 S3200;
GO X27. Z0.;
G99 G1 X25.5 F0.3;

T0101;M3 S3200 X27.Z0.;
G99 G1 X25.5 F0.3;
    
```

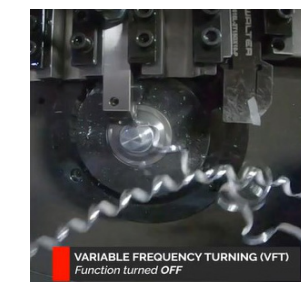
Before vs. After changing the programs



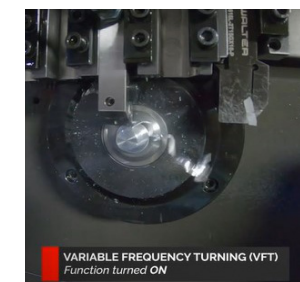
VFT



Variable Frequency Turning uses a modified sine wave equation to move the cutting tool at varying intervals to allow for greater chip thinning and chip breakage. This allows for better heat dissipation, chip control, and less machine downtime for taking care of chip issues.



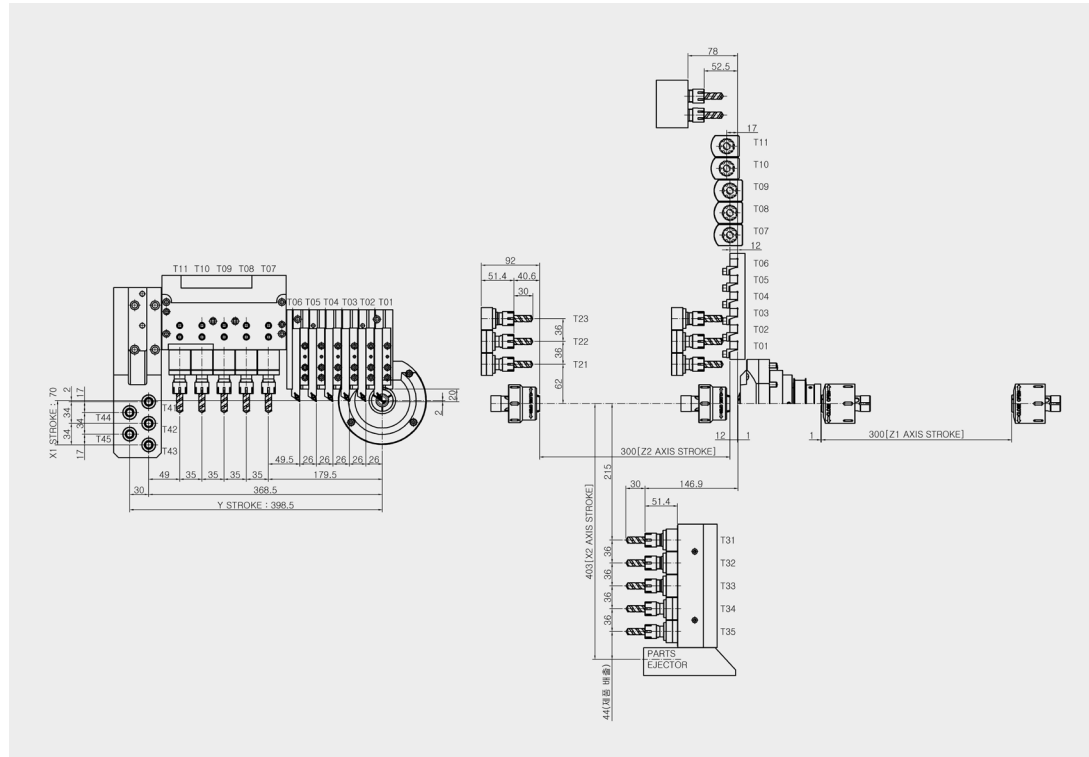
Variable Frequency Turning Off



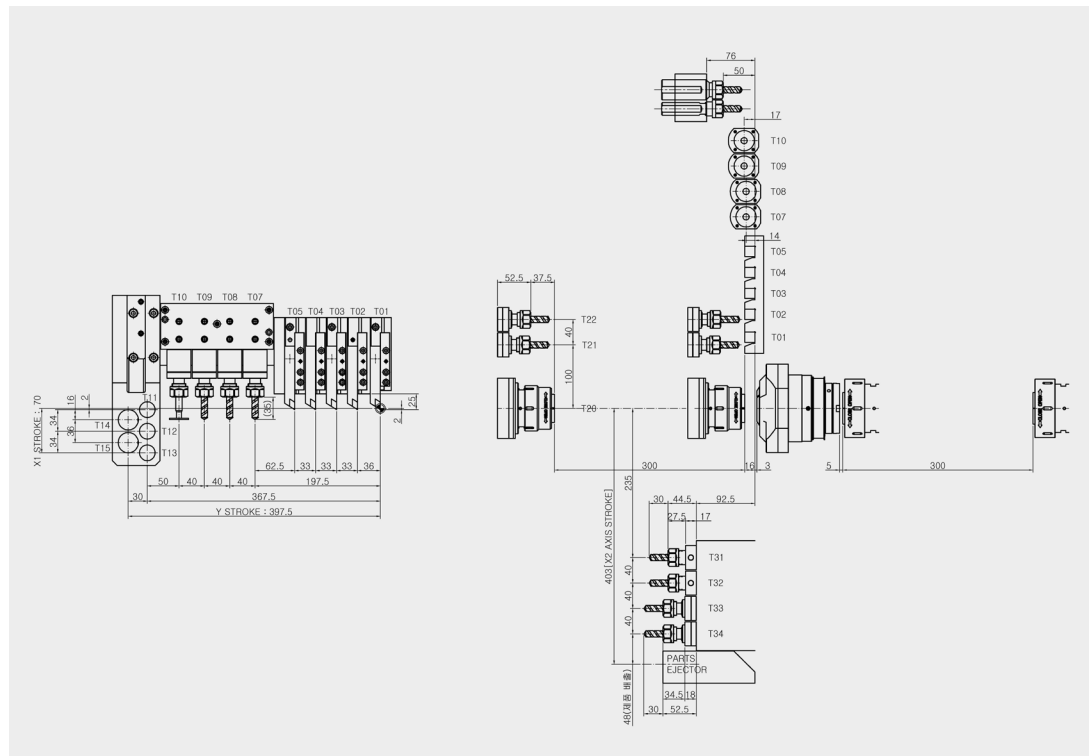
Variable Frequency Turning On

Tool Layouts

TCM 205II

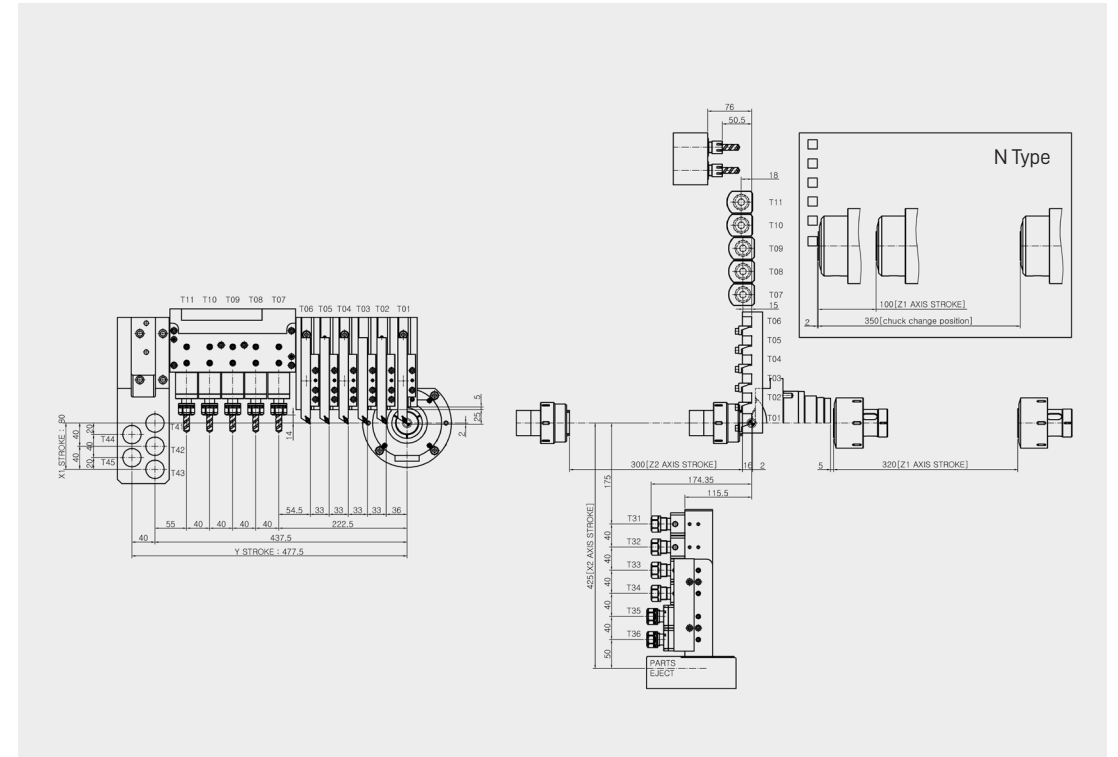


TCM 325II 385II

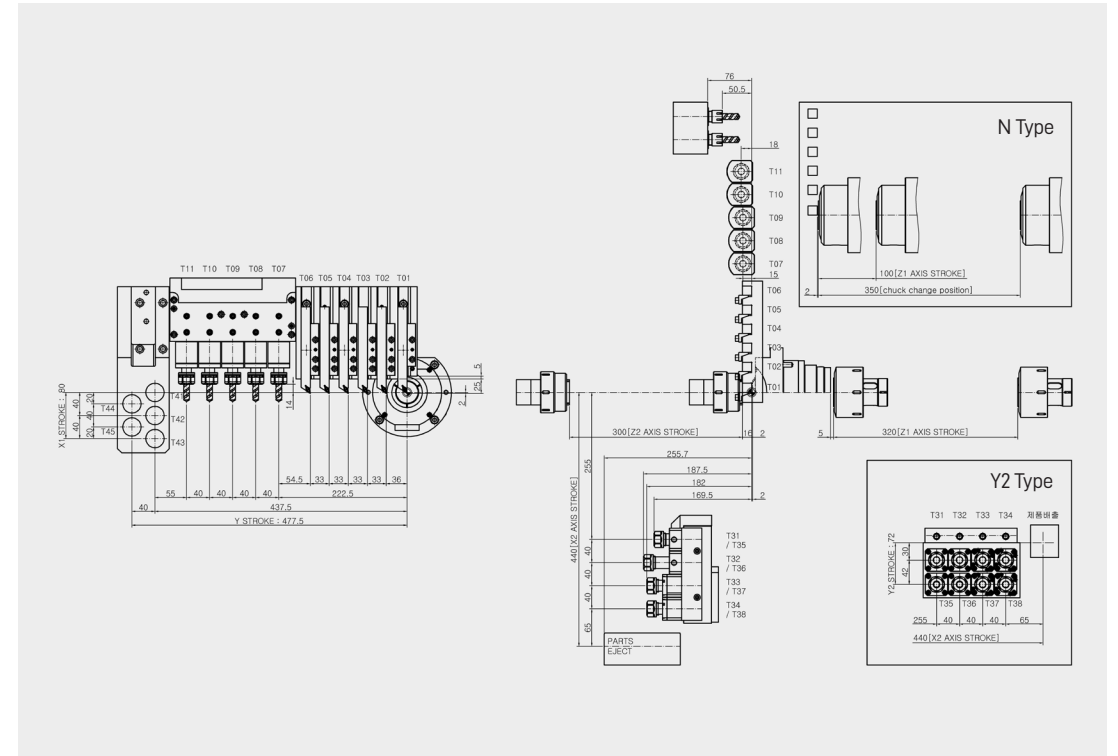


Tool Layouts

TCM 38H



TCM 38H (Y2)



Standard & Optional Specifications

S Standard_OPT Option_ - N/A

TCM series	S type			SII type			H type			
	20S	26S	32S	38S	20SII	32SII	38SII	38H	38H(N)	38H(Y2)
Coolant Pump	Medium Pressure Coolant Pump 15bar_2sol		OPT			OPT			OPT	
	Medium Pressure Coolant Pump 50bar_4sol		OPT			OPT			OPT	
	High Pressure Coolant Pump 70bar_4sol		OPT			OPT			OPT	
	High Pressure Coolant Pump 120bar_4sol		OPT			OPT			OPT	
	- Oil Chiller (for High Pressure)		OPT			OPT			OPT	
	- Oil Mist Collector (for High Pressure)		OPT			OPT			OPT	
	High Pressure Coolant Pump & Chiller 70bar_4sol		OPT			OPT			OPT	
	High Pressure Coolant Pump & Chiller 120bar_4sol		OPT			OPT			OPT	
Chip Conveyor	Chip Conveyor		OPT			OPT			OPT	
	Smart Chip Conveyor		OPT			OPT			OPT	
Machining	Total Control of Main & Sub Spindles' C axis		S			S			S	
	OD Tools		S			S			S	
	Cross Drills		S			S			S	
	Milling Unit		S			S			S	
	FR/RR Drilling Unit		S			S			S	
	2 Driven/ 2 Fixed Back Tools		S			S			S	
	2 Driven/1 Fixed Sub Tools		S			S			S	
	Rotary Guide Bush Holder Unit		S			S			S	
	Parts Conveyor		S			S			S	
	Back Slotting Unit		OPT			OPT			OPT	
	3 Spindle Face Counter Drill/Milling Unit		OPT			OPT			OPT	
	"3 Spindle Face Counter Drill/Milling Unit 0-90° Angular Adjustable"		OPT			OPT			OPT	
	Thread Whirlig Unit		OPT			OPT			OPT	
Barfeeder	Barload BWG326		OPT			OPT			-	
	Barload AUTO538		-			OPT			OPT	
	Barload VITO545		-			OPT			OPT	
	LNS GT326		OPT			OPT			-	
	LNS XH552		-			OPT			OPT	
Etc.	Fanuc Service Warranty		OPT			OPT			OPT	
	Automatic Shut-off Device		S			S			S	
	Indoor Lighting (LED)		S			S			S	
	Signal Lamp		S			S			S	
	Cut Off Tool Breakage Detector (S/W)		S			S			S	
	Tools-Life Management System		S			S			S	
	Prevention Collision System		S			S			S	
	MPG (Mounted on the OP)		S			S			S	
	Intelligence Chucking System (ISP)		S			S			S	
	Rapid Tool Change (RTC)		S			S			S	
	Variable Frequency Turning (VFT)		OPT			OPT			OPT	

Technical Specifications

TCM series	Unit	S type				SII type			H type						
		20S	26S	32S	38S	20SII	32SII	38SII	38H	38H(N)	38H(Y2)				
	Fanuc Controller		0iTF Plus				0iTF Plus			0iTF Plus					
Main Spindle	Max Machining Diameter	mm	Ø20	Ø26	Ø32	Ø38	Ø20	Ø32	Ø38	Ø38	Ø38	Ø38			
	Max Machining Distance/1 chucking	mm		300				300		320	"100 *350"	320			
												*By changing a collet chuck			
Sub Spindle	Max Machining Diameter	mm	Ø20	Ø26	Ø32	Ø38	Ø20	Ø32	Ø38	Ø38	Ø38	Ø38			
	Max Front Discharge Length	mm		100				100			100				
No of Tools	Total	each		27				29			25		27	29	
	OD	each		6				6			5		6		
	Front (ID)	Front/Rear		5/5				5/5			5/5		5/5		
	Cross	Driven		4				5			4		5		
	Back	Driven/Fixed		2/2				2/3			2/2		2/4	4/4	
	Sub (Eccentric)	Driven/Fixed		2/1				2/1			2/0				
Tools	OD	mm		□16				□12			□16		□16		
	ID (Front)			ER16M				ER16M			ER16M		ER20M		
	Cross			ER16				ER16			ER16		ER16		
	Max Main Drilling	mm		Ø10				Ø10			Ø10		Ø13		
	Max Main Tapping			M8				M8			M8		M10		
	Max Cross Drilling	mm		Ø8				Ø8			Ø8		Ø10		
	Max Cross Tapping			M6				M6			M6		M10		
	Max Cross Slotting (WidthXDepth)	mm		1.5X4.0				1.5X4.0			1.5X4.0		1.5X4.0		
	Max Back Drilling (Fixed)	mm		Ø10				Ø10			Ø10		Ø10		
	Max Back Drilling (Driven)	mm		Ø8				Ø8			Ø8		Ø10		
Max Back Tapping (Fixed)			M8				M8			M8		M10			
Max Back Tapping (Driven)			M6				M6			M6		M10			
Motor	Max Main Motor rpm	rpm		10,000			8,000			10,000			8,000	6,500	
	Max Main Motor Power	kW		2.2/3.7			5.5/7.5			2.2/3.7			5.5/7.5	5.5/7.5	
	Max Sub Motor rpm	rpm		8,000				8,000				8,000		6,500	
	Max Sub Motor Power	kW		1.5/2.2				1.5/2.2				1.5/2.2		2.2/5.5	
	Max Cross Motor rpm	rpm		6,000				6,000				6,000		6,000	
	Max Cross Motor Power	kW		1.0				1.0				1.0		2.2	
	Max Back Motor rpm	rpm		6,000				6,000				6,000		6,000	
	Max Back Motor Power	kW		1.0				1.0				1.0		1.0	
Collet Chuck	Main Spindle		TF25	TF30	TF44	TF48	TF25	TF44	TF48		TF48				
	Guide Bush		TD25NS	CD25	TD32S	TD38	TD25NS	TD32S	TD38		TD38				
	Sub Spindle		TF25	TF30	TF37	TF44	TF25	TF37	TF44		TF44				
Stroke	Z1	mm		300				300			300		320	"100 *350"	320
	X1	mm		62				70			70		80		
	Y1	mm		391.5				398.5			397.5		477.5		
	Z2	mm		300				300			300		300		
	X2	mm		403				403			403		425		
	Y2														72
General Info	Air Flow Rate	liter/min		120~150				120~150			120~150		120~150		
	Cooling Tank Capacity	liter		200				200			250		250		
	Electrical Power Consumption	kVA		15				15			15		15		
	- Cable Size	SQ		16				16			16		16		
	Weight	kg		3,500				3,500			4,500		4,500		

TCM Industry's expertise is based on casting technology accumulated over the past 30 years. Having established vertical integration from casting to machining & assembly, we now take the lead in the costeffectiveness trend over pure price competitiveness.



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