

# World Class Swiss-Style CNC Automatic Lathes

20 mm to 38 mm - Fully Loaded

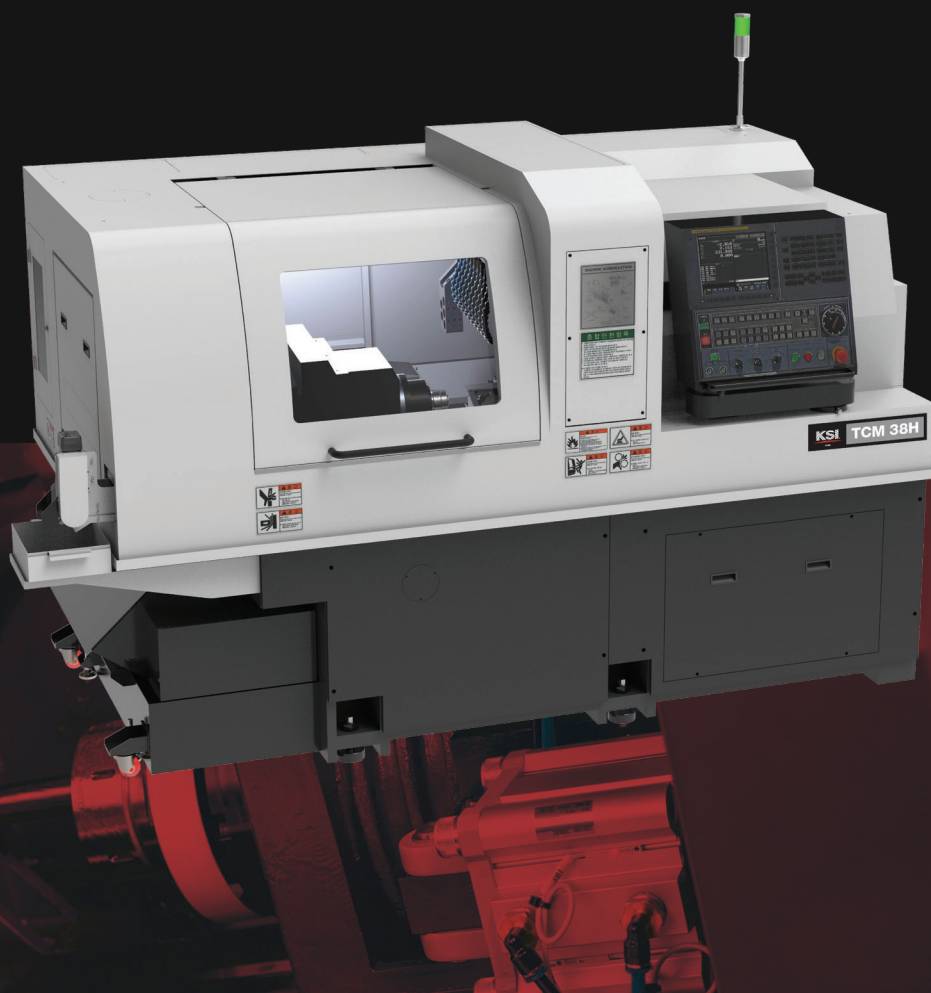


## S E R I E S

20SII 26SII 32SII 38SII

32H 38H

32H(Y2) 38H(Y2)



# THE STORY OF KSI SWISS

## How we began, and where we're going.

KSI Swiss is a world-class manufacturer of Swiss-style CNC automatic lathes. We provide our customers with the highest quality machines and services in the industry, all while remaining cost-effective. Our team of experts are dedicated to providing our clients with trusted advice and support, ensuring that they always get the most out of their investment. With over 30 years of experience, KSI Swiss is your go-to source for precision CNC lathes.

Here's how we got started.

### Swiss Lathe Users

We began our journey in the 1990s as people who purchased and operated Swiss CNC Automatic Lathes. Back then, there weren't very many options, and they were prohibitively expensive.

**January  
1989**

### KMT/Nexturn's First Importer

In our quest to find better, more affordable options for use in our own shop, we found a small machine tool builder in South Korea and became the first importer of the Nexturn line in the USA. We imported them first for our own use, then continued to sell over 100 Nexturn CNC Swiss machines all across the country.

**July 2003**

### We Decided to Build Our Own

After the instant success of the Nexturn line—and after hitting some roadblocks of engineering with the build teams—we decided to build our own line of machines in the USA. We wanted to control the engineering and quality of the machines and produce the most feature-packed machines on the market for their price range.

**March 2005**

### The SQC Was Born



**October 2005**

### The first 13

The first 13 SQC Models were produced in Denver, Colorado, and we quickly realized that the cost to produce these machines in the USA was going to prevent us from hitting our pricing targets.

**January 2006**

### KSI/MMTC Established in South Korea

In order to increase the quality and decrease the cost of our CNC Automatic Lathes, we established MMTC in South Korea, and hired engineers and factory workers to produce SQC #14 and beyond.

**July 2006**

### Opened KSI Advanced Tech Center

We decided to expand operations from the Denver area to allow for training, distribution, and engineering from our new location in Burnsville, Minnesota.

**January 2007**

**July 2007**

**May 2008**

### KSI Purchased by the Berkness Family

The Berkness family decided to purchase KSI from the original family that started the business after working for the business for several years.

### Launched 2nd Gen Machines

We partnered with HJC (the helmet manufacturer) to form HJM, in South Korea and created our next generation of machines.



# TCM SERIES

**KSI Swiss type automatic lathes,  
take the lead in the cost effectiveness trend**

TCM Industry commercialized SQC-SQX-SM models 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.

**September 2010**

## **Launched 3rd Generation Machines**

We were thrilled to combine the best of the SQC series, with new ideas and to launch the SQX and SM Series machines.



**January 2014**

## **Launched the TS Series Machines**

KSI Swiss launched a brand new model, with new features, better performance, and a lift-up door. Packed with new Fanuc features.



**October 2009**

## **KSI Expansion**

KSI moved to a new facility to handle increased sales volume.

**June 2008**

## **Began to Import BarLoad**

In our quest to always find the most value for the dollar, we partnered with BarLoad to begin to import their high-quality bar loaders into the USA to continue to provide the best value on the market.



**February 2016**

## **Launched the 4th Gen TCM S Series Machines**

We're always striving to improve performance and value. The TCM S Series is our fastest, most advanced, most feature-filled, and highest-performing machine yet. Be sure to check out the specifications.



**January 2018**

## **KSI Continues To Grow**

We continued our journey of expansion through services and increased warehouse space by growing our distribution network in both the US and Canadian markets.

**October 2021**

## **New Expanded location**

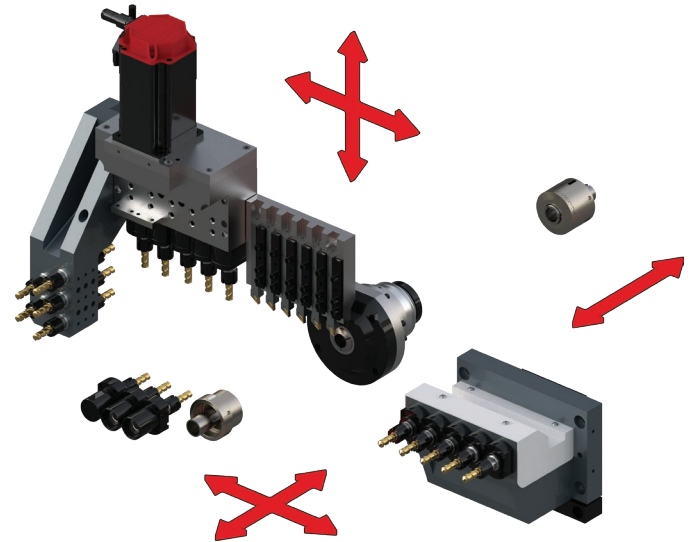
**April 2023**

## **Added 8 New Models**

Including the SII Type, H Type, now with Y2 Axis, and more.

# TCM 20SII

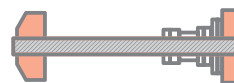
**More for Less** Tough enough to tackle any job



S type	Unit	20SII
Max Machining Diameter	mm	020
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 ER16
Back	each	5 2 Driven+3 fixed {ER16}
sub (Eccentric)	each	3 2 Driven+1 fixed {ER16}

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



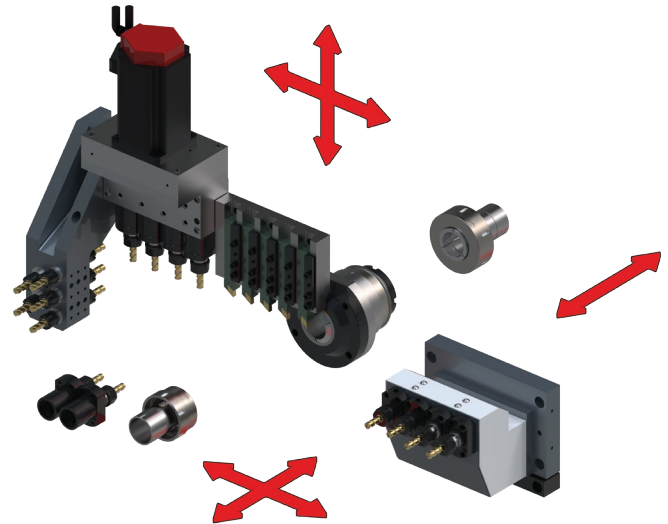
**29 tools**  
Total Number



**3,500kg**  
Weight

# TCM 32SII 38SII

**More for Less** Tough enough to tackle any job



S type	Unit	32SII	38SII
Max Machining Diameter	mm	032	038
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+3 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



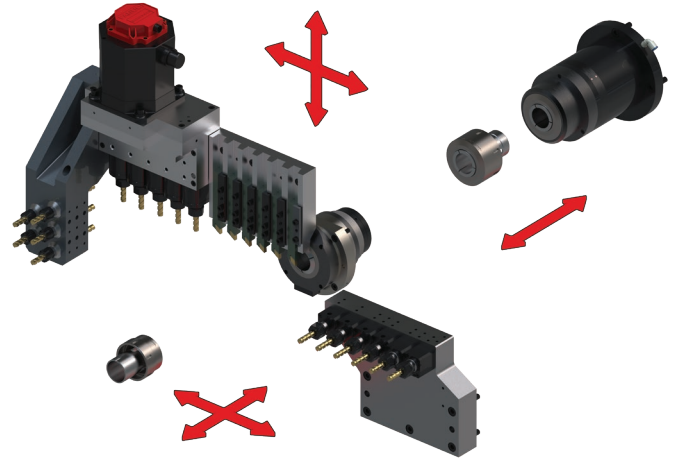
**25 tools**  
Total Number



**3,500kg**  
Weight

# TCM 32H 38H

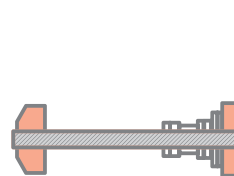
**More for Less** Tough enough to tackle any job



H type	Unit	32H(N)	38H(N)
Max Machining Diameter	mm	032	038
Max Machining Length	mm		100 (350)
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	32/38H	32/38H(N)
Total	each	27	27
OD	each	6	
ID (front)	each	10 Front 5+Rear 5 (ER20M)	
Cross	each	5 (ER16)	
Back	each	6 Front 2+Rear 4 (ER16)	
sub (Eccentric)	each	NA	

Feed Drive System	Unit	Z1	X1	Y	Z2	X2	Y2
Feed 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



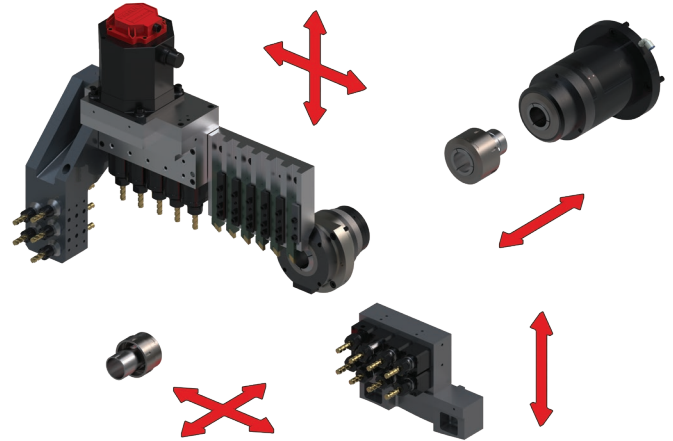
**27 tools**  
Total No of Tools



**4,500kg**  
Weight

# TCM 32HY2 38HY2

**More for Less** Tough enough to tackle any job



H type	Unit	32H(YN)	38H(YN)
Max Machining Diameter	mm	032	038
Max Machining Length	mm		100 (350)
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(YN)
Total	each	29
OD	each	6
ID (front)	each	10 Front 5+Rear 5 (ER20M)
Cross	each	5 (ER16)
Back	each	8 Front 4+Rear 4 (ER16)
sub (Eccentric)	each	NA

Feed Drive System	Unit	Z1	X1	Y	Z2	X2	Y2
Feed 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

**29 tools**  
Total No of Tools

**4,500kg**  
Weight



# Optimized Special Tools



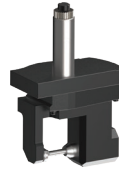
SPECIAL  
Straight offset cross  
drill-milling unit x2



SPECIAL  
Counter face  
drillmilling unit



SPECIAL  
Polygon unit



SPECIAL  
Gear hobbing unit



SPECIAL  
3-spindle-Face drill milling  
unit 0-90 angular adjustable



SPECIAL 3-spindle-Counter  
face drillmilling unit-0-90  
angular adjustable



SPECIAL 3-spindle  
Face drillmilling unit



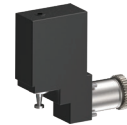
SPECIAL  
3-spindle-Face drill  
-milling unit



SPECIAL  
3-spindle-Counter face  
drillmilling unit



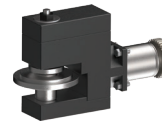
SPECIAL  
Thread whirling unit



Slitting saw unit



Face drillmilling unit  
for sub spindle



Face slotting unit  
for sub spindle



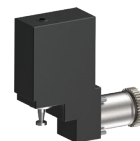
Cross drillmilling unit  
for sub spindle



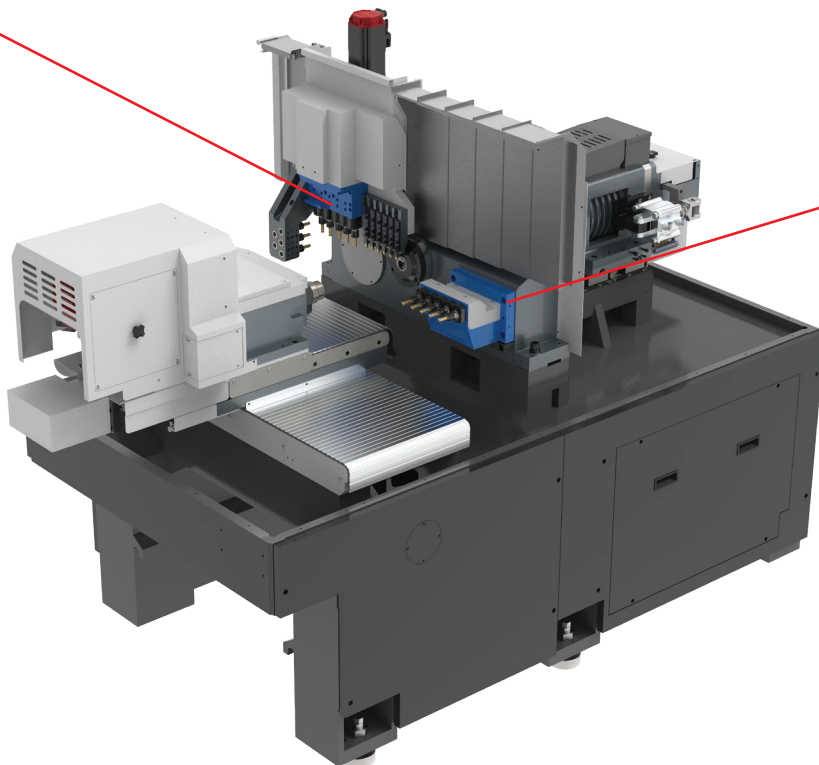
Face slotting unit  
for sub spindle



Face slotting unit  
for sub spindle



Face slotting unit  
for sub spindle





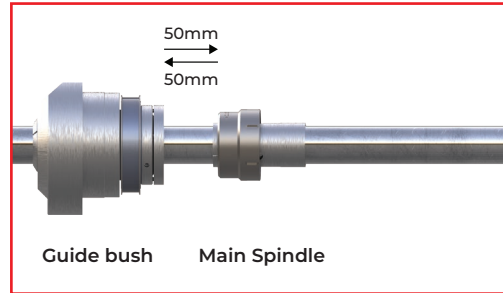
# Upgrade Your Expectations

In KSI Swiss Machines, Optional Features Are Standard

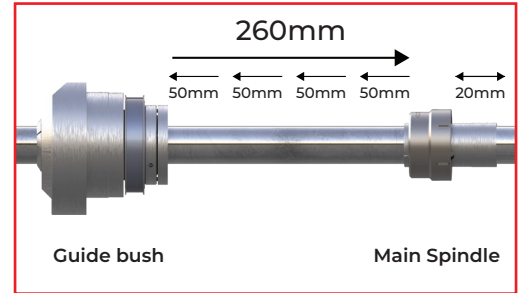
## ICS



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.

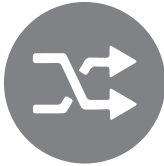


Intelligence Chucking System Off



Intelligence Chucking System On

## RTC



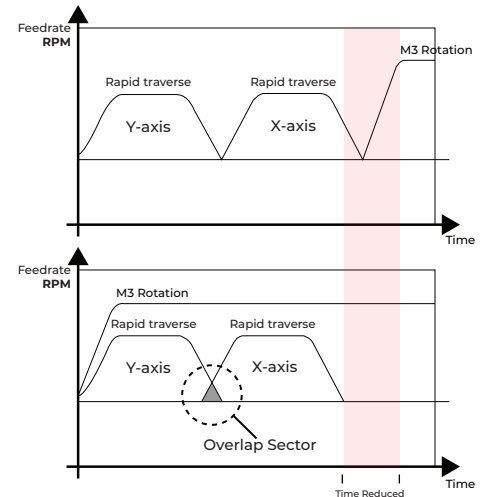
Rapid Tool Change calculates the smoothest and most efficient transition path from tool to tool saving time on every tool change.

Savings that add up to a significant reduction of cycle time, which means more profits for you.

```
T0101:
M3 S3200;
G0 X27. Z0.;
G99 G1 X25.5 F0.3;

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

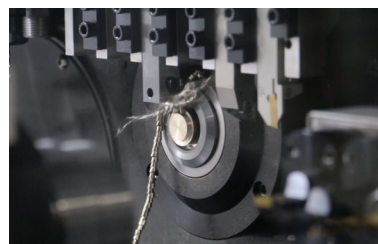
Before vs. After changing the programs



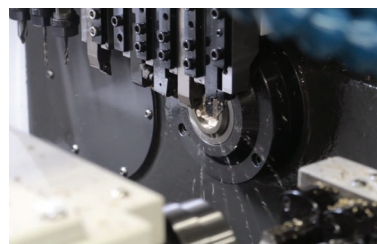
## VFT



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.

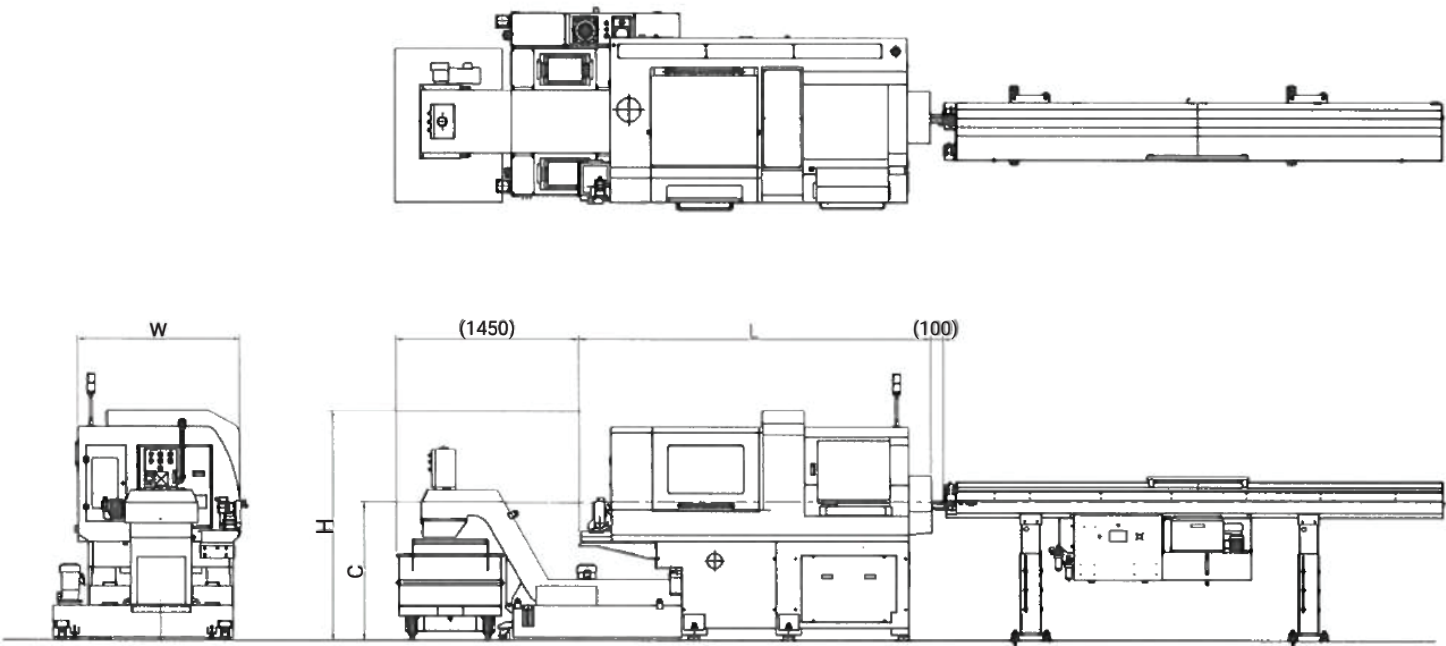


Variable Frequency Turning Off



Variable Frequency Turning On

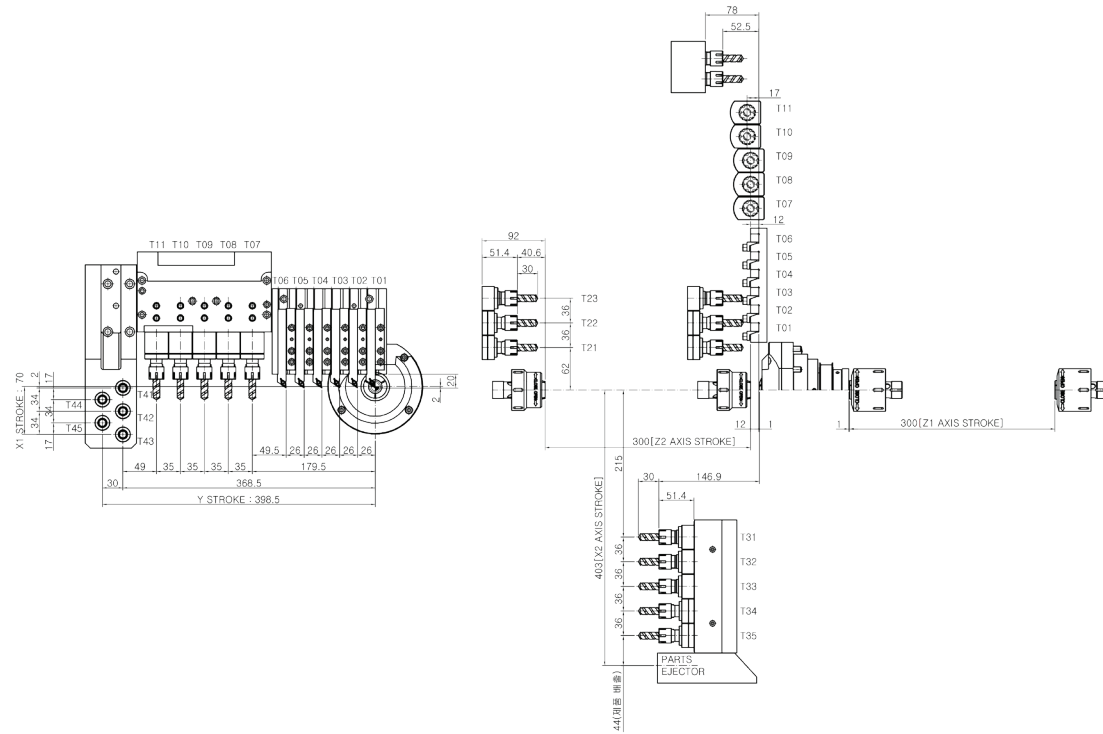
# Dimensions



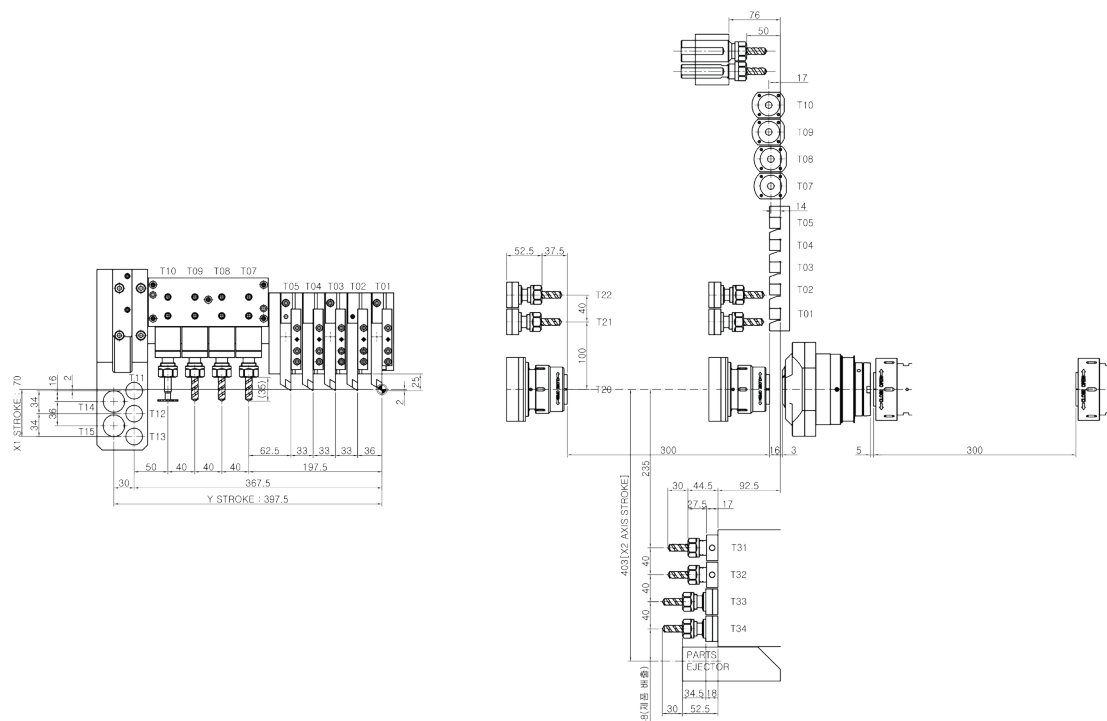
TCM Series	Unit	SII Type	H Type
Length(L)	mm	2,785	3,130
Width(W)	mm	1,285	1,470
Height(H)	mm	1,800	1,785
Center Height(C)	mm	1,080	1,060
Weight	kg	3,500	4,500

# Tool Layouts

# TCM 20SII

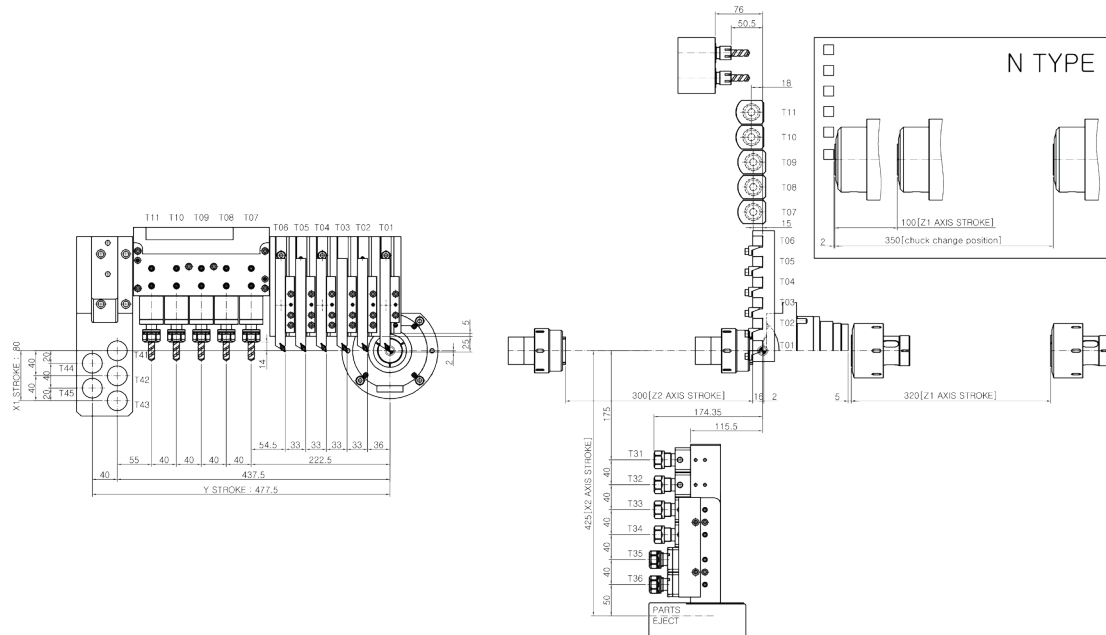


## TCM 32SII 38SII

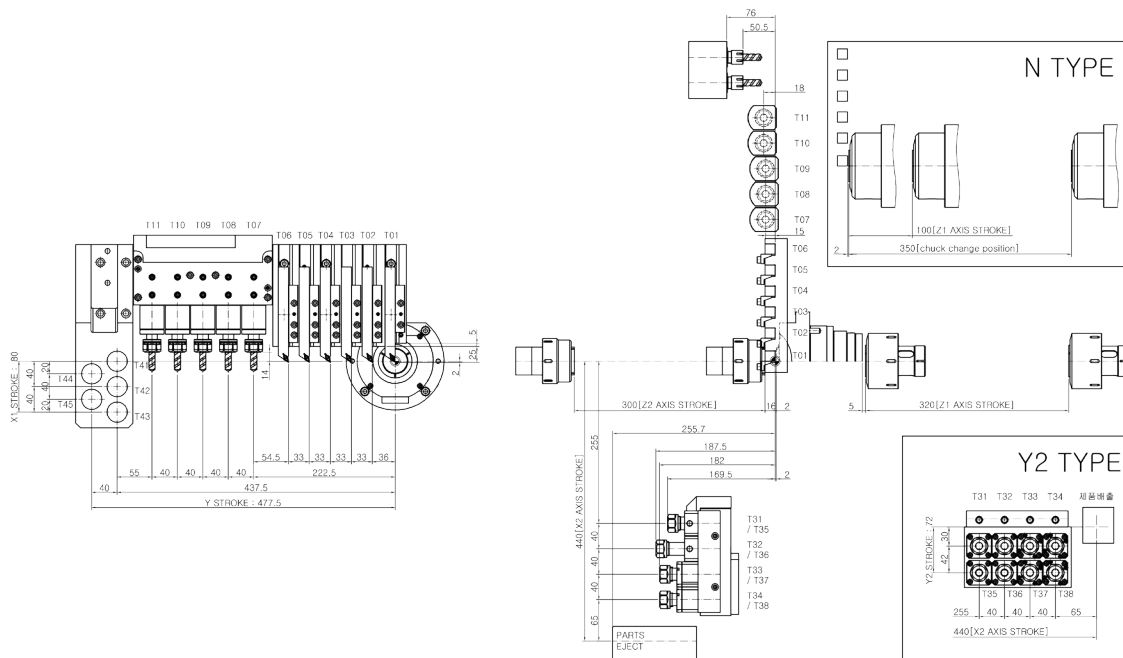


# Tool Layouts

## TCM 32/38H



## TCM 32/38H (Y2)





# Standard & Optional Specifications

S – Standard | OPT – Optional | N/A – Not Available

	TCM Series	SII Type			H Type		
		20SII	32SII	38SII	32H	38H	38H(N) 38H(Y2)
Coolant Pumps	Flood Coolant Pump	S			S		
	2000 PSI 4 Zone HP Coolant	OPT			OPT		
	2000 PSI 8 Zone HP Coolant	OPT			OPT		
	2000 PSI 8 Zone with Heat Exchanger HP Coolant.	OPT			OPT		
Chip Conveyor	LNS MH500	OPT			OPT		
	LNS MH250	OPT			OPT		
Machining	Total Control of Main & Sub Spindles' C axis	S			S		
	OD Tools	S			S		
	Cross Drills	S			S		
	Milling Unit	S			S		
	FR/RR Drilling Unit	S			S		
	2 Driven/ 2 fixed Back Tools	S			S		
	2 Driven/1 fixed Sub Tools	S			N/A		
	Rotary Guide Bushing	S			S		
	Parts Conveyor	S			S		
	Back Slotting Unit	OPT			OPT		
	3 Spindle Face Counter Drill/Milling Unit	OPT			OPT		
	"3 Spindle Face Counter Drill/Milling Unit 0-90° Angular Adjustable"	OPT			OPT		
	Thread Whirlig Unit	OPT			OPT		
Barfeeder	Barload BWG326	OPT			OPT		
	Barload BWG for 20/26 Other barloads upon request	OPT			OPT		
	Barload Vito for 32/38 Other barloads upon request	OPT			OPT		
	Other Barloads Upon Request	OPT			OPT		
Etc.	2 Year Warranty Standard - Optional 1 Year Extensions	OPT			OPT		
	Auto Power Off	S			S		
	Indoor Lighting (LED)	S			S		
	Signal Lamp	S			S		
	Fire Suppression System	OPT			OPT		
	High Speed Electric/Air Spindle	OPT			OPT		

# Standard & Optional Specifications

S = Standard | OPT = Option

Etc.

TCM Series	SII Type			H Type		
	20SII	32SII	38SII	32/38H	32/38H(N)	32/38H(Y2)
Cut Off Tool Breakage Detector (S/W)		S			S	
Tools-Life Management System		S			S	
Prevention Collision System		S			S	
MPG (Mounted on the OP)		S			S	
Intelligence Chucking System (ISP)		S			S	
Rapid Tool Change (RTC)		S			S	
Variable Frequency Turnning (VFT)		S			S	

# Technical Specifications

TCM Series		Unit	20SII	32SII	38SII	32/38H	32/38H(N)	32/38H(Y2)
Fanuc Controller			OITF Plus			OITF Plus		
Main Spindle	Max Machining Diameter	mm	020	032	038	038	038	038
	Max Machining Distance/1 chucking	mm		300		320	100 *350	320
*By changing a collet chuck								
Sub Spindle	Max Machining Diameter	mm	020	032	038	038	038	038
	Max Front Discharge Length	mm		100			100	
Tool Stations	Total	each	29		25	27	27	29
	OD	each	6		5		6	
	Front (ID)	Front/Rear	5/5		5/5		5/5	
	Cross	Driven	5		4		5	
	Back	Driven/Fixed	2/3		2/2	2/4	3/3	4/4
	Sub (Eccentric)	Driven/Fixed	2/1		2/0		N/A	
	OD	mm	□12		□16		□16	
	ID (Front)		ER16/20	ER16/20	ER16/20		ER20M	
	Cross		ER16		ER16		ER16	
	Max Main Drilling	mm	010		010		013	
	Max Main Tapping		M10		M10		M13	
	Max Cross Drilling	mm	08		08		010	



# KSI Swiss: Always Striving for Quality

Here at KSI Swiss, we're proud to offer the most affordable, finest quality Swiss-style CNC Automatic Lathes, and beyond. Take a look at our other products to get the most out of our automated machines. Whether you need a high-quality CNC Automatic Lathe in, or are looking for top-of-the-line bar loaders, KSI Swiss has them for you.



21730 Hanover Ave, Lakeville, MN 55044, USA



[www.ksiswiss.com](http://www.ksiswiss.com)



[info@ksiswiss.com](mailto:info@ksiswiss.com)



**952-564-3290**