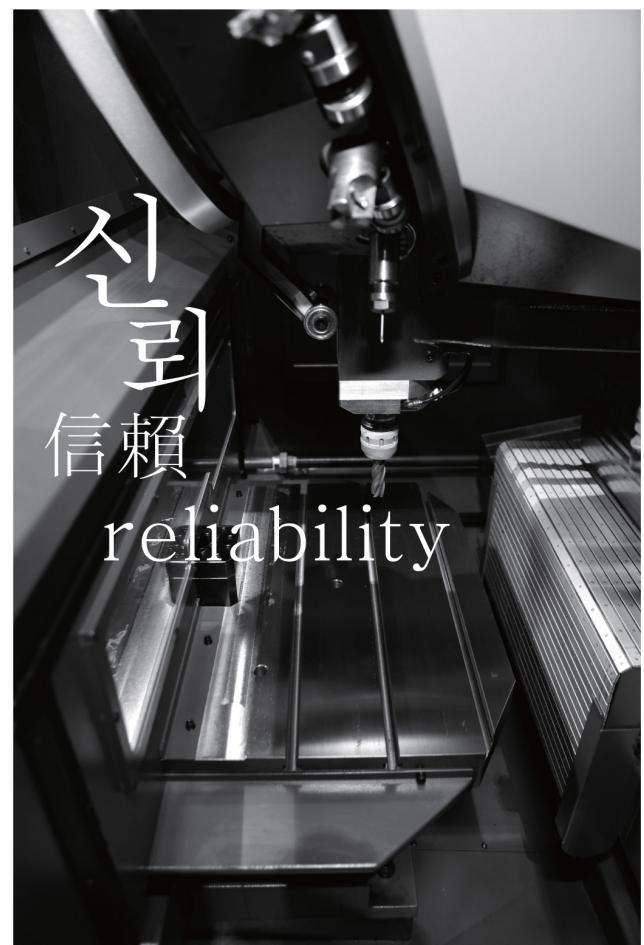


ENGLISH VER.

## PRODUCT LINEUP



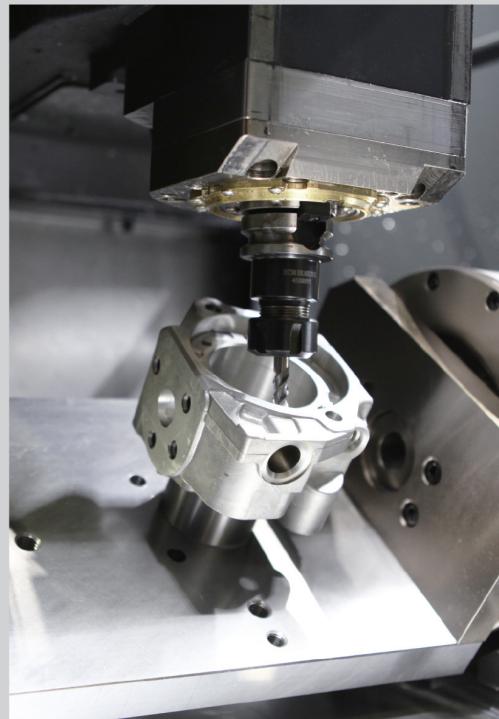
**KOMATECH**

# KOMATECH

## MACHINE TOOLS LINE-UP

Examples of target workpieces

IT, Automobile & General parts



# HIGH SPEED TAPPING CENTER

## KT 420(420L)

THE HIGHEST PERFORMANCE TAPPING CENTER  
WITH THE FASTEST SPEED IN-CLASS

660X400	800X400	X/Y/Z	14 / 21	1.08 sec	1.40 sec	10k/15k/24k

Travels(X/Y/Z)	mm	560(700) / 420 / 300
Spindle speed	rpm	10,000 [15,000], [24,000]
Spindle power	kW	21.2/4.8 [21.2/4.8], [26.2/3.5]
Spindle taper		ISO No.30 (7/24)
Tool storage	pcs	14 [21]
Rapids(X/Y/Z)	m/min	60 / 60 / 60 (50 / 50 / 60)

[ ]Opt



## KT 420A(420AL)

THE HIGHEST IN-CLASS PERFORMANCE TAPPING  
CENTER WITH FLEXIBLE MACHINING CAPABILITY

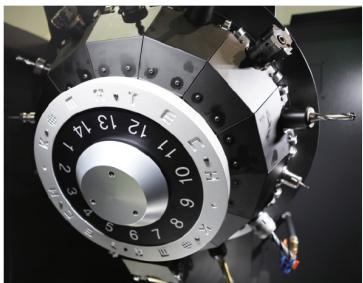
660X400	800X400	X/Y/Z	20 / 26	1.2 sec	1.8 sec	10k/15k/24k

Travels(X/Y/Z)	mm	560(700) / 420 / 430
Spindle speed	rpm	10,000 [15,000], [24,000], [High Torque10,000]
Spindle power	kW	21.2/4.8 [21.2/4.8],[26.2/3.5],[28.3/11.0]
Spindle taper		ISO No.30 (7/24)
Tool storage	pcs	20 [26]
Rapids(X/Y/Z)	m/min	60 / 60 / 60 (50 / 50 / 60)

[ ]Opt



## TURRET TYPE MAGAZINE KT420(L)



Tool to Tool

S 1.08 sec M 1.07 sec

Chip to Chip

S 1.40 sec M 1.37 sec

## TWIN ARM TYPE MAGAZINE KT420A(AL)



Tool to Tool

1.2 sec

Chip to Chip

1.8 sec

Magazine is improved by servo motor drive instead of the conventional cam motor. It is possible fast long distance tool change with nonstop and chip to chip time is significantly shortened by optimizing Z axis section and movement of magazine.

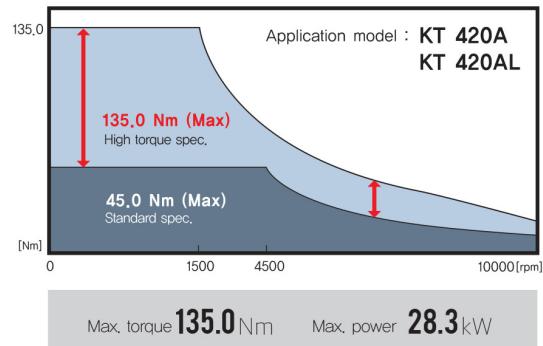
## HIGH PERFORMANCE SPINDLE



STD. 10,000 rpm

OPT. 10,000 rpm (HIGH TORQUE)  
15,000 rpm  
24,000 rpm

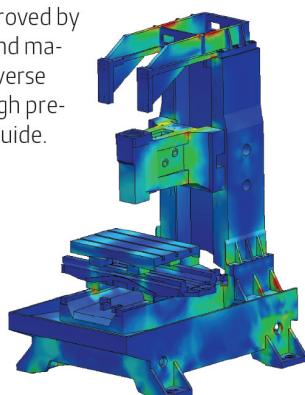
## HIGH TORQUE SPINDLE MOTOR (Opt.)



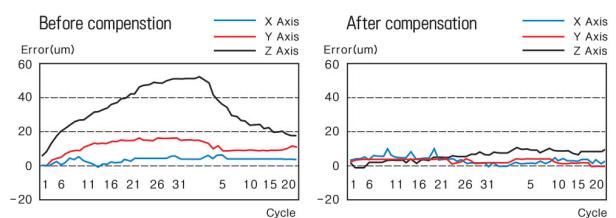
A wide range spindle speed enables to variable work piece application from high speed machining to heavy duty cutting.

## HIGH RIGIDITY STRUCTURE

Each axis's rigidity is improved by FEM structure analysis and machine has high speed traverse capability by applying high precision ball screw & L/M guide.



## HIGH ACCURACY MACHINING



Komatech's own test program (limitation test)

Optimized thermal deformation compensation system for Komatech's machine is realized by analyzing actual operation/non-operation hours. The differentiated positioning control function compare with others enables high precision machining.

# HIGH SPEED TAPPING CENTER

## KT 420DH

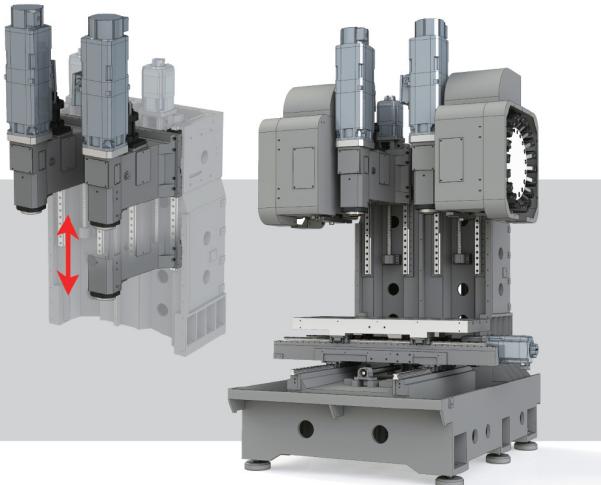
OVERWHELMING HIGH PRODUCTIVITY DUAL SPINDLE TAPPING CENTER



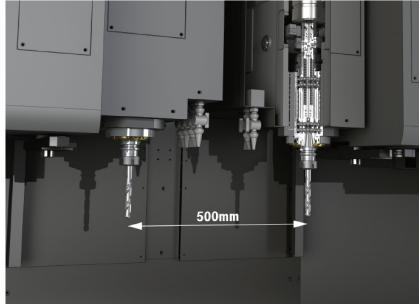
Travels(X/Y/Z)	mm	560 / 420 / 430
Spindle speed	rpm	10,000 [15,000] [24,000], [High Torque 10,000]
Spindle power	kW	21.2/4.8 [21.2/4.8],[26.2/3.5],[28.3/11.0]
Spindle taper		ISO No.30 (7/24)
Tool storage	pcs	20 [26]
Rapids(X/Y/Z)	m/min	48 / 48 / 60

## DUAL HEAD STRUCTURE

KT 420DH is optimized for same accuracy after simultaneous machining as two independent Z-axis and head structure. Convenient tool length and Z-axis work coordinate setup is available and various machining application is possible through separated motion when it is necessary.



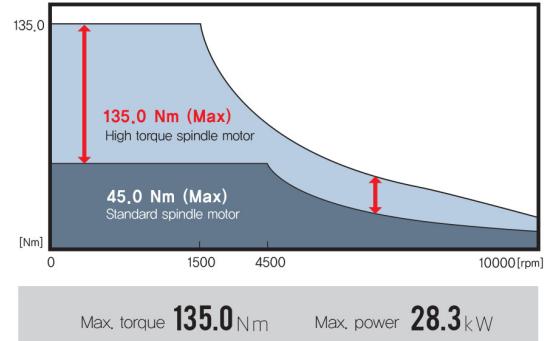
## HIGH PERFORMANCE SPINDLE



DISTANCE BETWEEN SPINDLES  
**500mm**

Direct driven spindle applied high-precision angular ball bearing, high-tension spring and design of cutting oil inflow prevention achieves high durability, precise and stable machining. And a wide fixtures application is available through 500 mm distance between spindle.

## HIGH TORQUE SPINDLE MOTOR (Opt.)



It is possible to achieve an over BT30 grade machining capability with high torque motor.

## SLIDEWAY

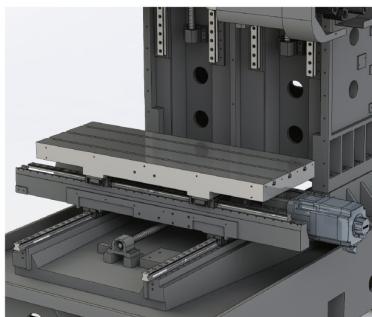


Table size  
**1,150X400 mm**  
Travels (X / Y / Z)  
**560 / 420 / 430 mm**  
Rapids (X / Y / Z)  
**48 / 48 / 60 m/min**

Achieve silent and fast traverse capability through premium quality high-precision LM guide, ball screw and link type slide cover application. And various fixtures are available with a wide table size and travels.

## HIGH SPEED TOOL CHANGER



Tool change time  
Tool to Tool **1.2 sec**  
Chip to Chip **1.8 sec**  
Mass storage magazine  
2 \* 20PCS **40 PCS**  
OPT 2 \* 26PCS **52 PCS**

Tool changer is cam motor driving type and optimized tool change section for fast and stable tool change. Magazine tool port moves next tool position during machining to reduce tool change time and various machining application is available with mass storage magazine.

# HIGH SPEED TAPPING CENTER

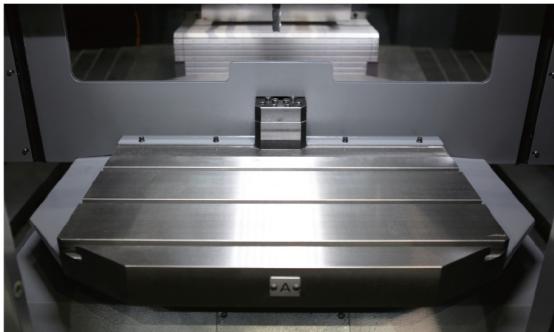
## KT 360D

COLUMN TRAVERSE TYPE HIGH PRODUCTIVITY TAPPING CENTER WITH DUAL TABLE

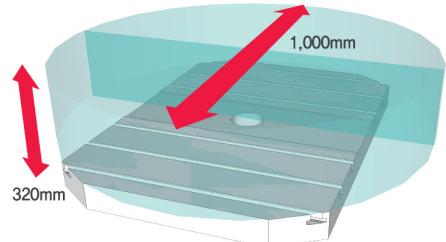


Travels(X/Y/Z)	mm	520 / 360 / 300
Spindle speed	rpm	10,000 [15,000], [24,000]
Spindle power	kW	21.2/4.8 [21.2/4.8],[26.2/3.5]
Spindle taper		ISO No.30 (7/24)
Tool storage	pcs	14
Pallet change time	sec	4.5
Rapids(X/Y/Z)	m/min	50 / 50 / 60

## HIGH RELIABILITY DUAL TABLE



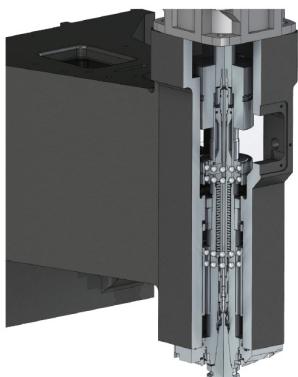
Pallet change time  
**4.5 sec**  
(opt.) **3.2 sec**



Turn diameter **1,000 mm**  
Jig height **320 mm**  
Loading weight **200kg x 2**

Hirth coupling gear method precision dual table is operated with oil pressure and performs positioning quickly and accurately without additional UP & DOWN operation.

## HIGH PERFORMANCE SPINDLE

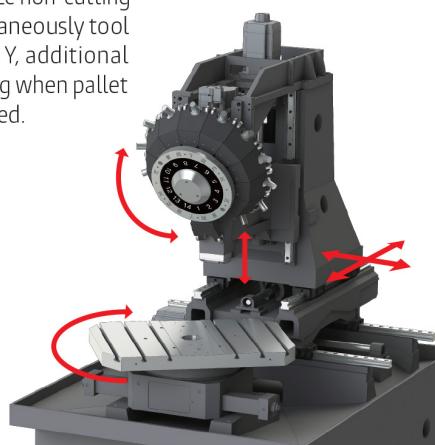


STD. **10,000 rpm**  
OPT. **15,000 rpm**  
**24,000 rpm**

A wide range spindle speed enables to variable work piece application from high speed machining to heavy duty machining.

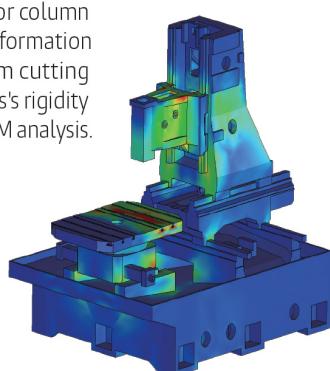
## SIMULTANEOUS MOVEMENT CONTROL

It could minimize non-cutting time by simultaneously tool change and X, Y, additional axes positioning when pallet is being changed.

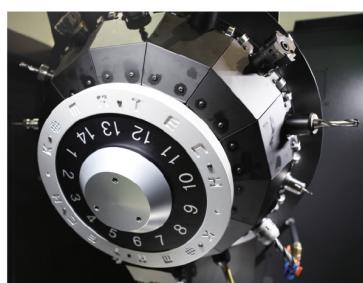


## HIGH RIGIDITY STRUCTURE

Base structure is suitable for column moving type. Minimized deformation and vibration coming from cutting feedrate and improved axes's rigidity by structure design with FEM analysis.



## HIGH SPEED ATC WITH A SERVO MOTOR

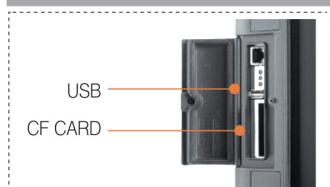


Tool to Tool  
**S 1.08 sec M 1.07 sec**  
Chip to Chip  
**S 1.40 sec M 1.37 sec**

Magazine is improved by servo motor drive instead of the conventional cam motor. It is possible fast long-distance tool change with nonstop and C-C time is significantly shortend by optimizing Z axis section and movement of magazine.

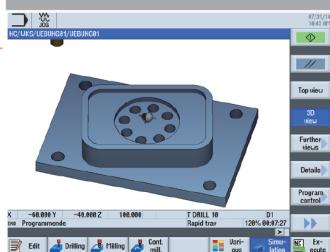
# CONTROLLER

## Convenient Data Expandability



USB driver and CF memory card interface are standard for expansion of memory, easy for file copy & save.

## Simple Programming



G-Code, M-Code and interactive program input mode (Shop Mill) are available including user friendly function, copy, cut, paste, search etc.

## Administrator Edit Setting



NC Control lock function is applied to prevent operation mistake and lock level setting is available upon operator's level.



## Switch Panel



CL/UNCL, START, FEED HOLD, SINGLE BLOCK and EMERGENCY STOP buttons are separately configured on the SWITCH PANEL, ensuring ease of operation.

## User Friendly Centralized Control Panel



Rotary switch and On/Off buttons are added on each function for operator's convenience and common buttons are user friendly located for easy to operate and access.

## External communication interface

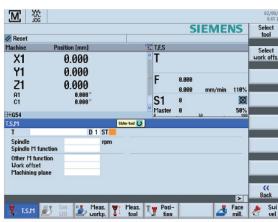


Ethernet port, 220V outlet and 25-pin connector are installed for convenient external communication devices.

\*1 RS232C is available with Mitsubishi M80 and Fanuc OiMF (OPT.)

# SIEMENS SINUMERIK 828D

## Easy Operation



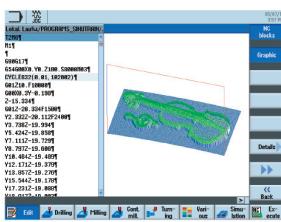
### JOG functions

Tool, spindle, M Commands without coding on JOG mode, saves your time



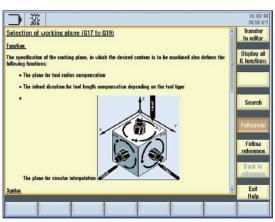
### Tool management

Intuitive tool screen with icons. Tool life monitoring function is provided as a Standard.



### Mold making Quick view

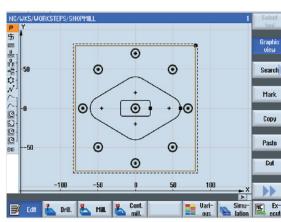
Quick and filtered view on mold & die details



### Online help

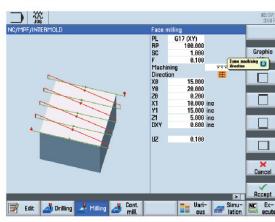
Powerful online help system including user-friendly graphics

## Easy Programming



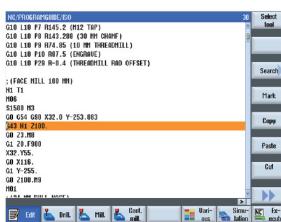
### ShopMill

Interactive program input mode. Achieving shortest programming time.



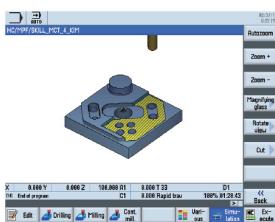
### Program GUIDE

Interactive Cycle provides convenient programming.



### ISO Dialect interpreter

Maximum compatibility for operators familiar with ISO codes



### Simultaneous recording

Program simulation test and Real time machining simulation are available.



## NC specification

- \* Controllable axes : 6 axes ( 8 axes )
- \* Display: 10.4" TFT COLOR
- \* Simultaneous controlled axes : 4 axes
- \* User memory: 3MB [Extensible]
- \* Minimum setting unit : 0.0001mm  
0.00001 inch
- \* Program format : G/M code  
[Conversational program]

## NC function

- \* Absolute / Incremental
- \* Inch / Metric
- \* Scaling / Rotating
- \* Block search
- \* Background editing
- \* ISO program (G291)
- \* Mirror image
- \* Program stop
- \* Program guide
- \* Progarm test
- \* Optional stop
- \* 2D simulation
- \* Max. work offset (100)
- \* Max.no of tools / cuttings (128/256)
- \* Ref.1,2 position
- \* Single block
- \* Feed hold
- \* Block skip
- \* Dry run
- \* Linear interpolation
- \* Helical interpolation
- \* Advanced surface
- \* Circular interpolation
- \* Synchro Tapping
- \* Jerk limitation
- \* Auto servo tuning function
- \* Feed forward control
- \* Auto servo tuning function
- \* Tap return
- \* soft limit
- \* Thermal displacement compensation

## NC optional specification

- \* Shop mill
- \* Real time simulation
- \* 3D simulation
- \* Network drive
- \* Additional axis control

Memory capacity is extensible with USB memory and CF card

# OPTIONAL CONTROLLER

FANUC Oi-MF



## NC specification

- |   |   |
|---|---|
| * Controllable axes : 6 axes                    | * Display : 8.4"[10.4"] TFT COLOR                       |
| * Simultaneous controlled axes : 4 axes         | * User memory : 512kbte [Extensible]                    |
| * Minimum setting unit : 0.001mm<br>0.0001 inch | * Program format : G/M code<br>[Conversational program] |

## NC function

- |                                    |                                 |
|------------------------------------|---------------------------------|
| * Absolute / Incremental           | * Inch / Metric                 |
| * Coordinate system rotating       | * Canned cycle                  |
| * Skip / High speed skip           | * Optional block skip           |
| * Background editing               | * Program stop                  |
| * Mirror image                     | * Subprogram call               |
| * Linear interpolation             | * Helical interpolation         |
| * Circular interpolation           | * Nano interpolation            |
| * Tool dimension interpolation     | * Tool length interpolation     |
| * Tool offset amount interpolation | * Tool offset pairs (400 pairs) |
| * Tool life management             | * MDI operation                 |
| * Single block                     | * Program test                  |
| * Feed hold                        | * Optional stop                 |
| * Dry run                          | * Rigid tapping                 |
| * Tap return                       | * Backlash compensation         |
| * Pitch error compensation         | * Stored stroke check I         |
| * Stored stroke check II           | * Emergency stop                |
| * Interlock                        | * Machine lock                  |

## NC optional specification

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| * Manual guide OI                 | * Manual guide I                    |
| * AI contour control I (40 block) | * AI contour control II (200 block) |
| * Nano smoothing                  | * Data server (1GB)                 |
| * Additional axis control         |                                     |

MITSUBISHI ELECTRIC M80



## NC specification

- |   |   |
|---|---|
| * Controllable axes : 8 axes                      | * Display : 8.4"[10.4"] TFT COLOR                       |
| * Simultaneous controlled axes : 4 axes           | * User memory : 500kbte [Extensible]                    |
| * Minimum setting unit : 0.0001mm<br>0.00001 inch | * Program format : G/M code<br>[Conversational program] |

## NC function

- |                                 |                                  |
|---------------------------------|----------------------------------|
| * Absolute / Incremental        | * Inch / Metric                  |
| * Coordinate system rotating    | * Canned cycle                   |
| * Background editing            | * Program stop                   |
| * Mirror image                  | * Optional block skip            |
| * Linear interpolation          | * Helical interpolation          |
| * Circular interpolation        | * High accuracy control          |
| * High speed&accuracy control I | * High speed&accuracy control II |
| * SSS control                   | * Tolerance control              |
| * Tool dimension interpolation  | * Tool length interpolation      |
| * Tool offset pairs (400 pairs) | * Rapid traverse block overlap   |
| * MDI operation                 | * Auto. Operation                |
| * Single block                  | * Dry run                        |
| * Feed hold                     | * Tap return                     |
| * Rigid tapping                 | * 3D program check               |
| * Backlash compensation         | * Pitch error compensation       |
| * Block skip                    | * Soft limit                     |
| * Emergency stop                | * Interlock                      |

## NC optional specification

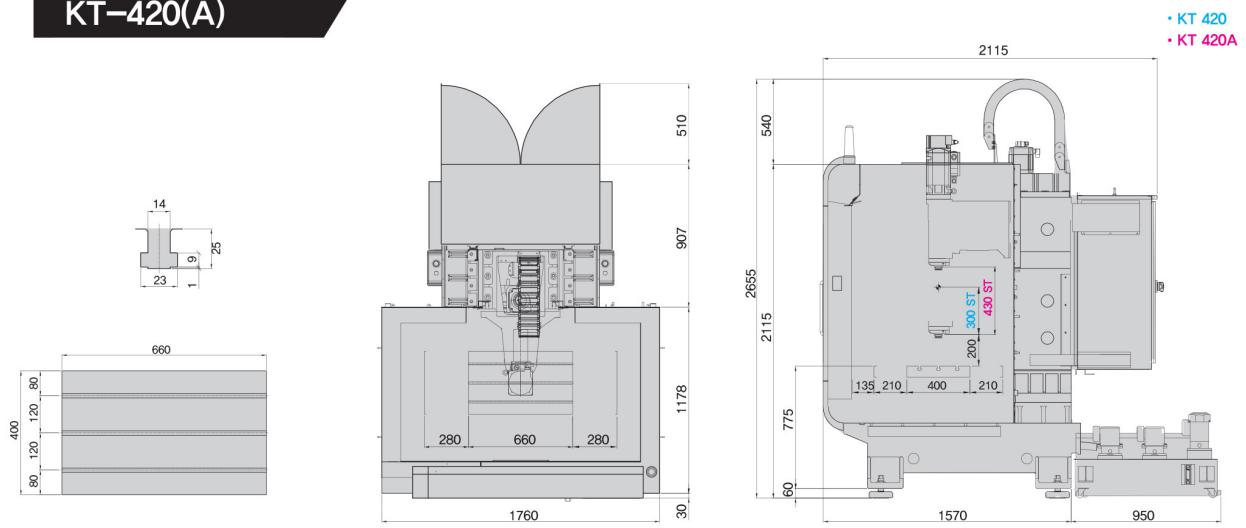
- \* Additional axis control

Memory capacity is extensible with USB memory and CF card

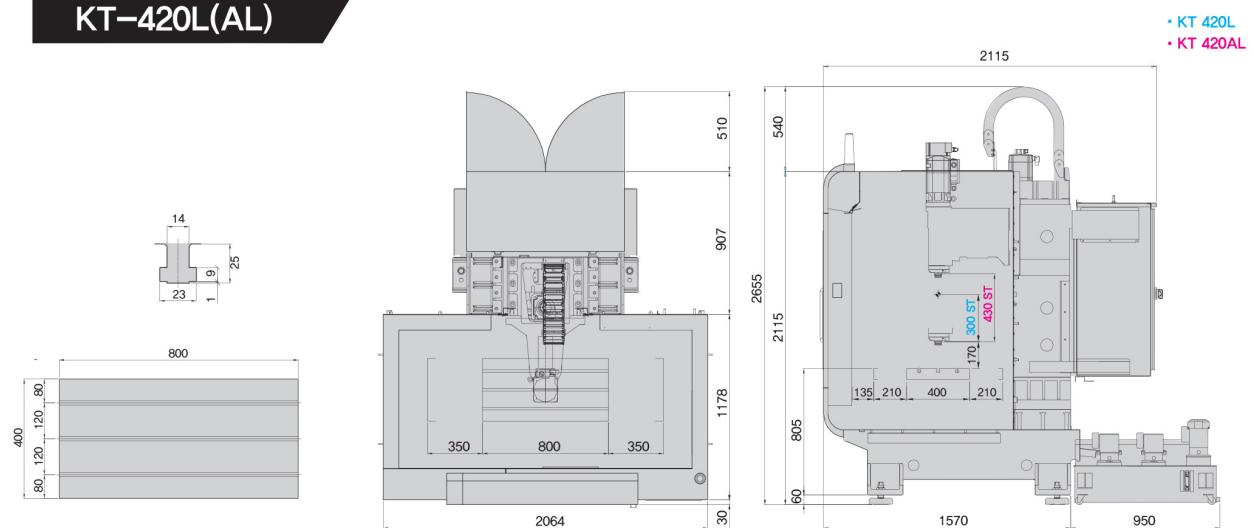
[ ]: OPT

# MACHINE DIMENSIONS

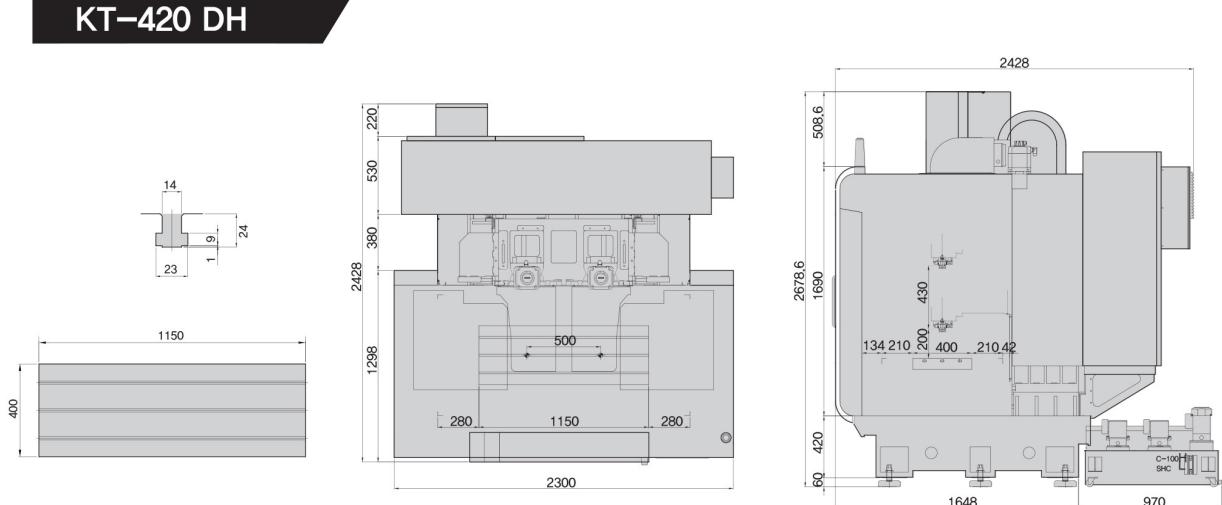
**KT-420(A)**



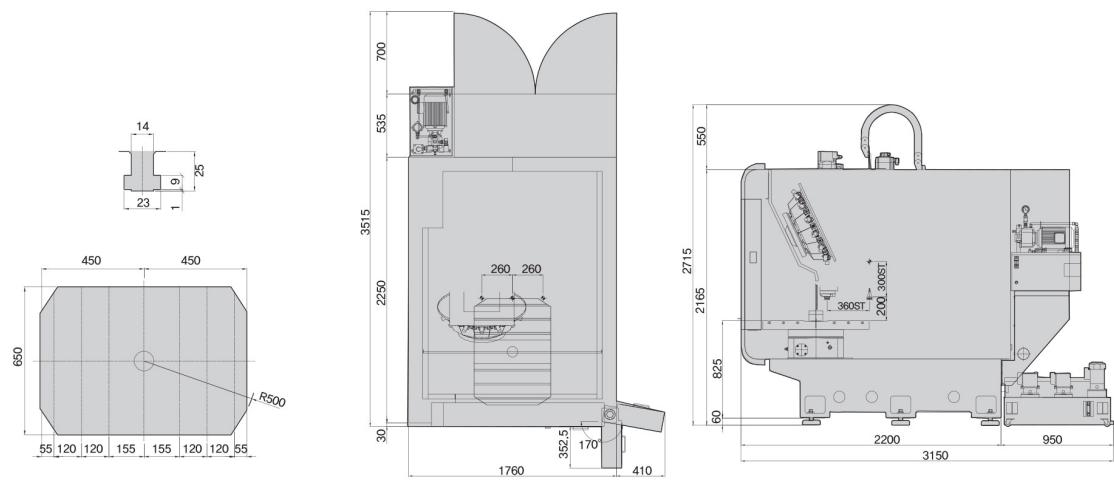
**KT-420L(AL)**



**KT-420 DH**



## KT-360D



# STD & OPT SPECIFICATIONS

	KT 420	KT 420L	KT 420A	KT 420AL	KT 420DH	KT 360D
Splash guard	●	●	●	●	●	●
Coolant tank	●	●	●	●	●	●
Work light	●	●	●	●	●	●
Indicator light	●	●	●	●	●	●
Leveling bolt and Nut	●	●	●	●	●	●
Instruction manual	●	●	●	●	●	●
Fixed MPG handle	●	●	●	●	●	x
Portable MPG handle	○	○	○	○	○	●
High column	150mm	○	○	○	○	x
	250mm	○	○	○	○	x
Coolant through spindle	20bar	○	○	○	○	○
	30bar	○	○	○	○	○
	70bar	○	○	○	○	○
Bed Shower	○	○	○	○	○	○
Coolant gun	○	○	○	○	○	○
Air gun	○	○	○	○	○	○
Chip conveyor	Scrapper Type	○	○	○	○	○
	Hinge Type	○	○	○	○	○
	Drum Filter Type	○	○	○	○	○
Chip bucket	Fixed Type	○	○	○	○	○
	Swing Type	○	○	○	○	○
Auto door	○	○	○	○	○	○
Interface for Gantry Loader	○	○	○	○	○	○
Interface for multi-Joint robot	○	○	○	○	○	○
Auto power off	○	○	○	○	○	○
Oil mist cleaner	○	○	○	○	○	○
Oil Skimmer	○	○	○	○	○	○
MQL(Minimum Quantity Lubrication)	○	○	○	○	○	○
Air conditioner in main box	○	○	○	○	○	○
TOP COVER	○	○	○	○	○	○
Rotary table	○	○	○	○	○	○
Additional axis	○	○	○	○	○	○
Hydraulic Jig interface	○	○	○	○	○	○
Pnumatic Jig interface	○	○	○	○	○	○
Air confirm	○	○	○	○	○	○
Air blow	○	○	○	○	○	○
Tool Presetter	○	○	○	○	○	○
Broken tool detector	○	○	○	○	○	○
Workpeice probe	○	○	○	○	○	○
Tool monitoring system	○	○	○	○	○	○
Spindle cooler unit	○	○	○	○	○	○
Transformer	○	○	○	○	○	○
Hydro Unit	○	○	○	○	○	●
Heat expansion compensation	●	●	●	●	●	x
Tool counter	●	●	●	●	●	●
Work counter	●	●	●	●	●	●
Tool life management	●	●	●	●	●	●
Memory expansion	○	○	○	○	○	○
Conversation program	○	○	○	○	○	○
Interlock	●	●	●	●	●	●
Door lock	○	○	○	○	○	○

● : Std.    ○ : Opt.    × : Can not apply

# MACHINE SPECIFICATIONS

ITEM		UNIT	KT 420 (420L)	KT 420A (420AL)
TABLE	SIZE	mm	660(800) x 400	660(800) x 400
	Max. loading capacity	kg	250 [300] <b>*1</b>	250 [300] <b>*1</b>
	Pallet change time	sec.	—	—
TRAVELS	X / Y / Z		560(700) / 420 / 300	560(700) / 420 / 430
	Distance from table surface to spindle nose		200~500 (170~470)	200~630 (170~600)
SPINDLE	Spindle taper	BT	ISO No.30 (7/24)	ISO No.30 (7/24)
	Big-plus (BBT)		OPTIONAL	OPTIONAL
	Distance between spindles		—	—
	Max. speed	rpm	10,000 [15,000], [24,000]	10,000 [10,000 High-torque], [15,000], [24,000]
	Spindle motor	Max. / Cont. kW	10,000rpm : 21.2 / 4.8 [ 15,000rpm : 21.2 / 4.8 ] [ 24,000rpm: 26.2/3.5 ]	10,000rpm:21.2/4.8 [High-torque] 10,000rpm:28.2/11.0 [15,000rpm:21.2/4.8], [24,000rpm:26.2/3.5]
FEED RATE	X / Y / Z	m/min	60 / 60 / 60 (50 / 50 / 60)	60 / 60 / 60 ( 50 / 50 / 60 )
ATC	Tool shank type		MAS403-BT30	MAS403-BT30
	Pull stud type		MAS403-P30T-1	MAS403-P30T-1
	Tool storage capacity	pcs	14 [21]	20 [26]
	Max. tool diameter	mm	110	80 [64]
	Max. tool length		200	200
	Max. tool weight	kg	3.0 (Total tool weight 25kg for 14tools, 35kg for 21tools)	3.0 (Total tool weight 40kg)
	Tool selection method		Turret (Fixed address)	Twin Arm (Random memory)
	Tool chang time	T – T C – C sec	Φ 1,08 Φ 1,07 Φ 1,40 Φ 1,36	1,2 1,8
POWER SOURCE	Power supply		AC380V±10%, 55Hz ±5Hz	AC380V±10%, 55Hz ±5Hz
	Power capacity	kVA	25	25
MACHINE DIMENSION	Size (Tank included)	W x L mm	1,760(2,064) x 2,520	1,760(2,064) x 2,520
	Height	H mm	2,655	2,655
	Weight	kg	2300 (2,600)	2,500 (2,800)
NC UNIT	Model		S-828D [M80], [F=OMF]	S-828D [M80], [F=OMF]
	Program format		G-code, M-code [Conversation]	G-code, M-code [Conversation]
	Display	inch	10.4" TFT Color	10.4" TFT Color

**\*1** : Acceleration for X and Y axes must be adjusted. **\*2** : AC motor type pallet change time. **\*3** : Only the length of the Y axis front part is extended, no stroke change.

<b>KT 420DH</b>	<b>KT 360D</b>
1,150 x 400	650 x 900
400	200 x 2
—	4.5 [3.2] <b>*2</b>
560 / 420 / 430	520 / 360 / 300
200~630	200~500
ISO No.30 (7/24)	ISO No.30 (7/24)
OPTIONAL	OPTIONAL
500	—
10,000 [High-torque10,000] [15,000] [24,000]	10,000, [15,000], [24,000]
10,000rpm: 21.2/4.8 [High-torque10,000rpm: 26.2/11.0]	10,000rpm : 21.2 / 4.8
[15,000rpm: 21.2/4.8] [24,000rpm: 26.2/3.5]	[15,000rpm : 21.2 / 4.8] [24,000rpm : 26.2 / 3.5]
48 / 48 / 60	50 / 50 / 60
MAS403-BT30	MAS403-BT30
MAS403-P30T-1	MAS403-P30T-1
20 x 2 [26 x 2]	14
80 [64]	110
200	200
3.0 (Total tool weight 40kg)	3.0 (Total tool weight 25kg)
Twin Arm (Random memory)	Turret (Fixed address)
1.2	<b>S</b> 1.08 <b>M</b> 1.07
1.8	<b>S</b> 1.40 <b>M</b> 1.36
AC380V±10%, 55Hz ±5Hz	AC380V±10%, 55Hz ±5Hz
25	25
2,300 x 2,618 [2,818] <b>*3</b>	1,760 x 3,200
2,678	2,715
5,500	4,300
S-828D [M80]	S-828D [M80], [F-OIMF]
G-code, M-code [Conversation]	G-code, M-code [Conversation]
10.4" TFT Color	10.4" TFT Color