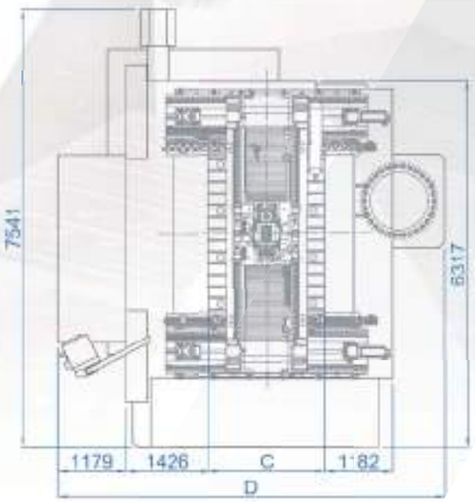
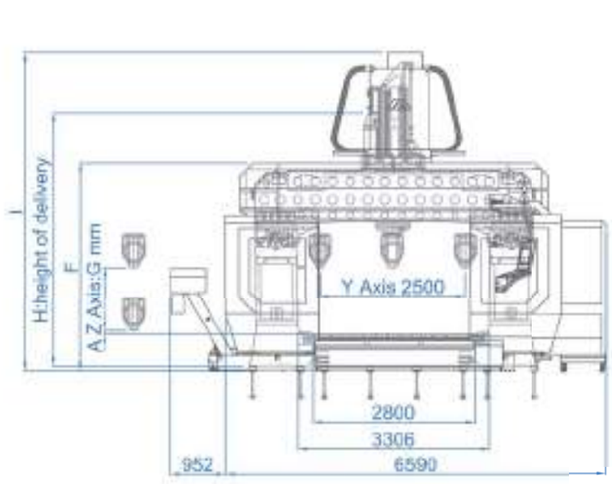
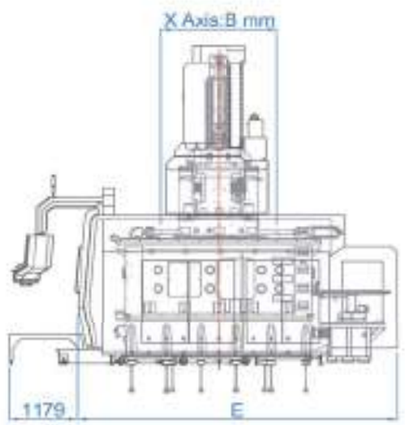
Dimension

	G2520	G2525	G2532
A	250	250	250/50
B	2000	2500	3200
C	2000	2800	3400
D	6687	7187	7887
E	5508	6008	6708
F	3595	3595	3595/3895
G	1100	1100	1100/1400
H	4380	4380	4380/4680
I	5500	5500	5500/6100







2021.07 DESIGNED BY JOEL 886-4-2296-6969

G

MAXXTRON

HIGH SPEED 5-AXIS GANTRY TYPE MACHINING CENTER

G2520, G2525, G2532

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Agent

G Series High Speed 5-Axis Gantry Type Machining Center

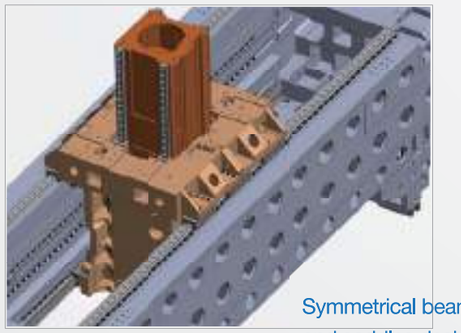
MAXXTRON

G series Characteristic

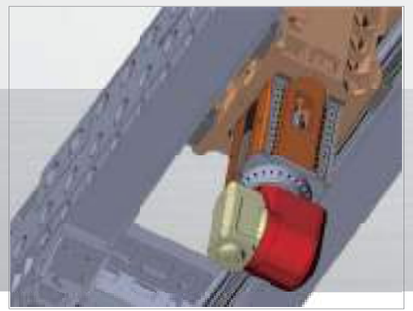
Rigidity

- **High strength structure cast iron**
  High damping structure. High rigidity. Less deformation.
- **High dynamic**
  The structure have been powerful advanced.
- **Extra thick table**
  High load table thickness 500mm, less deformation.
- **Symmetrical beams design**
  To keep machine structure permanently parallel.
- **Symmetrical head and saddles structure (Patent M530200) (option)**
  Ram bracing by two sides (4 Linear guideway).
  Longer and wider saddle and adopts 10 sliders design, to keep ram with straightness and rigidity.
  Stay thermal equilibrium and deformation.
- **Overall symmetrical structure design**
  Complete machine design with symmetrical structure, ensure deformation consistency.

overall symmetrical structure
high rigidigy, high damping
and less deformation



Symmetrical beams
and saddles design



Accuracy

- **Z axis with double ball screws & servo motors (option)**
  High precision, High response, High speed.
- **Heidenhain linear scale**
  X,Y,Z axis adopt in Heidenhain linear scale, to increase position precision.
- **2 axis milling head arrange in angle encoder**
  Effective control rotation and oblique angle in 2 axis milling head.
- **Mechanical prevent collision mechanism (option)**
  X,Y,Z axis arrange in prevent collision mechanism.
- **Axis cooling ball screw and bracket**
  Monitor axial temperature at all time.
- **Spindle cooler device**
  The equipment control temperature difference in ±0.1°C, that can effective control spindle temperature.
- **Casting thermal control system**
  Real time casting thermal monitor and control
- **High spatial accuracy**
  Optimize the structure design and thermal deformation.
  Optimize the geometric accuracy and angular error.

Effectiveness

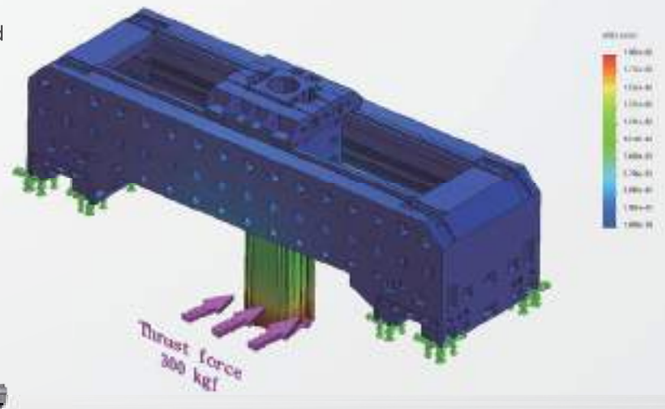
- **XY axes moving by linear motor drive (option)**
  The highest feed at 60m/min and highest cutting feed at 20 m/min, high performance.
  Direct-drive for each axis moving without others connection parts, no abrasion.
- **Zero-backlash 2-axis milling head (option)**
  High rigidity, high accuracy, rapid precise positioning.
- **Equipped with 2-axis milling head and spindle**
  Multiple 2-axis milling head can choose.
  Comprehensive processing angle.
  High speed and high torque spindle HSK-A63 24000rpm and HSK-A100 12000rpm.
  For cutting all shape of mold and components.
- **TCPM axis simultaneously move**
  TCPM to reduce extra steps.

Multiple choose of 2 axis
milling head and spindle
HSK-A63 24000rpm &
HSK-A100 12000rpm

FEM

- **FEM of the cast iron strength**
  FEM was used to dynamic analyze of structure and optimize the structure improvement deisgn.
- **Minimum deformation design**
  Improve machine durability and accuracy.

Integrated one block
Thermal control
Keep spatial ccuracy



Minimum deformation design
Deformation less than 0.02mm
under thrust force 300 kgf

G Series High Speed 5-Axis Gantry Type Machining Center

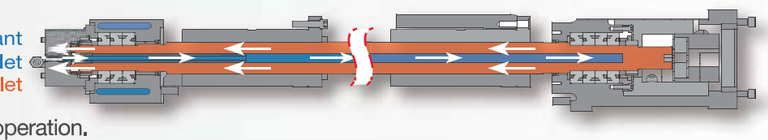
MAXXTRON

G series Characteristic

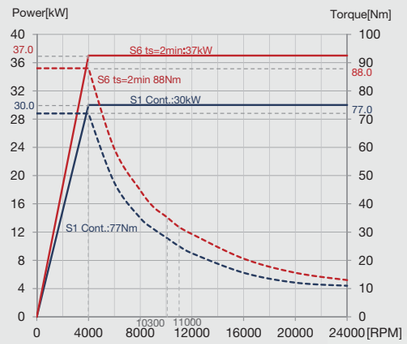
XY axis with surrounding supported device
High speed. High precision. High response.

- **High precision transmission components**
  Machine adopts high precision transmission's components to reach high speed, high precision and high efficiency.
- **High precision roller type linear guide way**
  All the 3 axis are quipped with high precision roller type linear guide ways to optimize acceleration and deceleration. And match the high speed, accuracy and performance manufacturing requirements.
- **Ball screw supported device (Patent M565101 & M562102)**
  XY axis ball screw with surrounding supported device, high stability of axis moving in high speed.
  Improve ball screw service life.

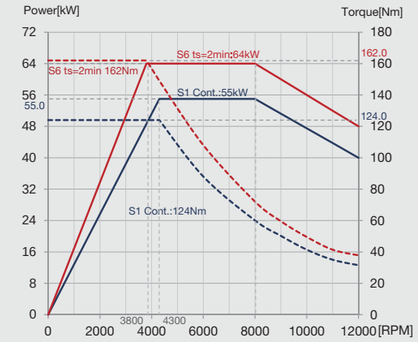
- **Ball screw hollow cooling and bearings cooling system**
  Improve stability of ball screw accuracy in high speed and long hours operation.



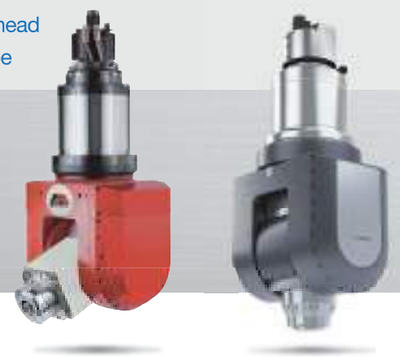
Build-in Spindle HSK-A63 24000rpm output



Build-in Spindle HSK-A100 12000rpm output



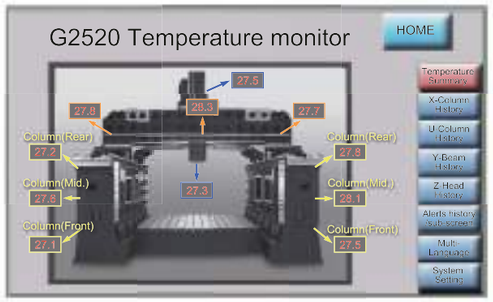
2 axis milling head
mono/fork type
(option)



Armless type magazine
A100: 20/40/60T
A63: 30/60T
(option)

User-friendly interface and integrated

- **CAD/CAM software integration**
  Comprehensive training class.
  Cutting program, post etc. integrated and testing.
- **Heidenhain TNC640 advanced mold processing function**
  AFC,HSC integrated and high performance.
- **User-friendly swivel operation panel**
  According to operator, allow adjusted operating with any position and angle.
- **Wider door opening**
  The winder space of door opening makes workpiece easier to be loaded and unloaded.
- **Indication light bar**
  Obviously indication the status of machine, keep watching of the machine situation.



Real-time display casting temperature
and thermal control

- **Casting thermal control system (option) (Patent M543746)**
  HMI real-time display casting temperature.
  Forcibly radiating function under thermal control for whole structure to absolute thermal stability on accuracy.
  Improved stability and reliability of feed driven system of positioning precision and machining accuracy.

Forcibly radiating function
Under thermal control for whole structure
To absolute thermal stability on accuracy

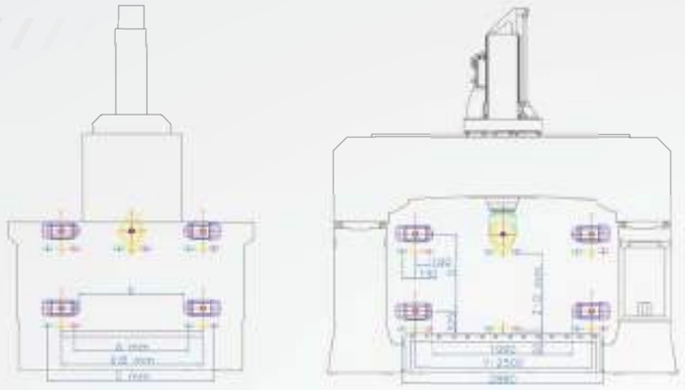
Linear motor (option)

G series Characteristic

Work Area

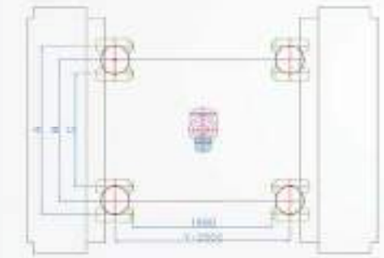
- Ultra-large working space can quick and easy handling

	G2520	G2525	G2532
A	2380	2880	2500
B	2000	2500	3200
C	1620	2120	2820
D	1100	1100	1100/1400
E	1490	1540	2690



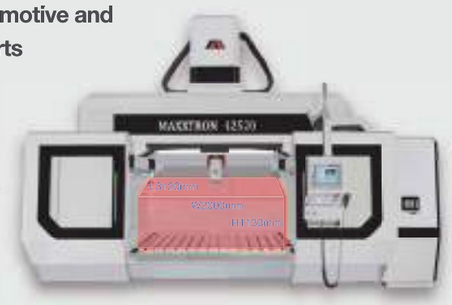
Workpiece space

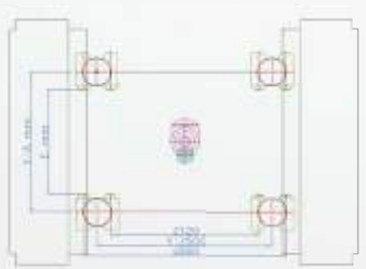
	G2520	G2525	G2532
L	3120	3120	3120
W	2000	2500	3200
H	1130	1130	1130/1430



spindle horizontal direction (left-right direction)

- Ultra-large working space for mold, automotive and aerospace parts





spindle vertical direction (front-rear direction)

G series Specification

Travel	unit	G2520	G2525	G2532
X axis	mm	2000	2500	3200
Y axis	mm	2500	2500	2500
Z axis	mm	1100	1100	1100/opt:1400
Dist. between spindle nose & table surface	mm	50-1150	50-1150	50-1150/opt:50-1450
Dist. between columns	mm	3320	3320	3320
Table				
Dimension	mm	2000*2800	2800*2800	3400*2800
Max. load	kg/m²	5000	5000	5000
T-Slot		14x28HxP200	14x28HxP200	14x28HxP200
Spindle				
Spindle type		Build-in	Build-in	Build-in
Spindle power (S1/S6)	kW	30/37	30/37	30/37
Spindle torque (S1/S6)	Nm	72/88	72/88	72/88
Spindle speed	rpm	24000	24000	24000
Spindle taper		HSK-A63	HSK-A63	HSK-A63
Milling head				
Max. speed A/C	rpm	60/60	60/60	60/60
Max. torque A/C	Nm	1030/1030	1030/1030	1030/1030
Clamping torque A/C	Nm	2500/2500	2500/2500	2500/2500
Swivelling angle A/C	deg.	±115/±220	±115/±220	±115/±220
Positioning A/C	arc.sec	±3/±3	±3/±3	±3/±3
Feed rate				
Rapid traverse (X/Y/Z)	m/min	20/20/20 opt:60/60/30	20/20/20 opt:60/60/30	20/20/20 opt:60/60/30
Cutting feed rate	mm/min	1-20000	1-20000	1-20000
ATC & Magazine				
ATC type		Armless	Armless	Armless
Magazine capacity	pcs	30	30	30
Max. tool weight	kg	7	7	7
Max. tool length	mm	300	300	300
Max. tool dia. (next empty)	mm	100/150	100/150	100/150
System requirement				
Power consumption	kVA	120	120	120
Pneumatic pressure	Kg/cm²	7	7	7
Hydraulic pressure	Kg/cm²	90	90	90
Dimension (LxWxH)	mm	7380*8260*5500	8880*8260*5500	10580*8260*5500
Machine weight (no opt)	kg	50000	53000	56000

*Specifications are subject to change without notice.

STANDARD:

- HEIDENHAIN TNC 640 5-Axis controller -15" screen and Hand wheel -Ethernet, USB and RS-232C interface
- 3 axis absolute encoder motors
- Euro system Build-in Spindle 24000rpm
- 2 axis milling head & angle encoder
- HEIDENHAIN 3 axis Linear scale
- Armless type 30 Tools magazine
- 3 axis linear guide way/P class/ roller type or same class
- 3 axis ball screw (XY with hollow cooling and surrounding supported device)
- Standard splash guard (no roof)
- Centralized auto lubrication system (3 axis & bearings)
- Spindle cooler
- Spindle air blast
- Cutting air blast
- Cutting coolant system
- Electric cabinet air conditioner
- Working lamp & Indication lamp
- Steel belt type chip conveyor & chip cart
- Oil skimmer
- Nitrogen counterbalance system

OPTIONAL:

- Hydraulic system
- Coolant flushing system
- Washing gun & air gun
- Leveling block and bolt & anchor
- Tool kit
- Operation manual (electronic file)
- HEIDEHAIN/SIEMENS/FAGOR 5-Axis Controller
- KinematicsOPT/DCM/TCPM
- Built-in high speed Spindle HSK-A63/HSK-A100
- Spindle thermal compensation system
- 2 axis milling head
- Magazine HSK-A63: 30/60T, A100:20/40/60T
- Linear motors-XY axis
- Centralized auto grease lubrication system
- Tool length measurement system
- Workpiece measurement system
- Calibration ball
- Casting thermal control system
- Transformer and regulator
- Oil mist cutting system
- Oil mist collector
- Scraper/Compound type chip conveyor
- Fully enclosed splash guard (with roof)
- CTS and ATS