



L.K Machinery Corp.

LUX series



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CE ISO 9001
ISO 14001

LUX201910(E)

Five Axes Machining Center

Two-Stepped Column Configuration Design Reinforces the Rigidity of Cutting

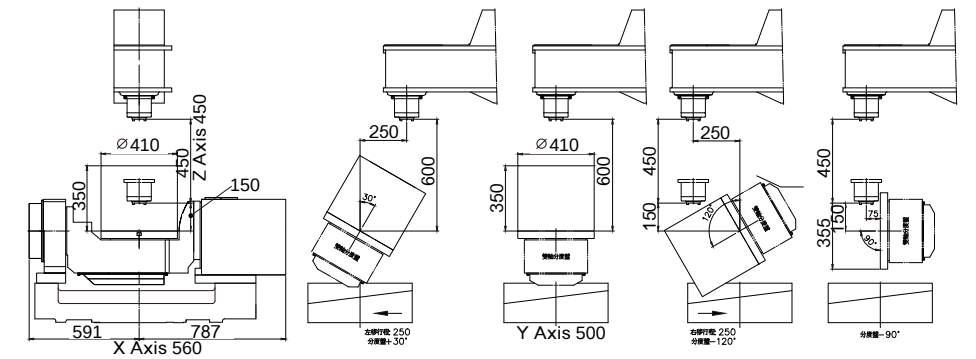


Optimum Structure Design

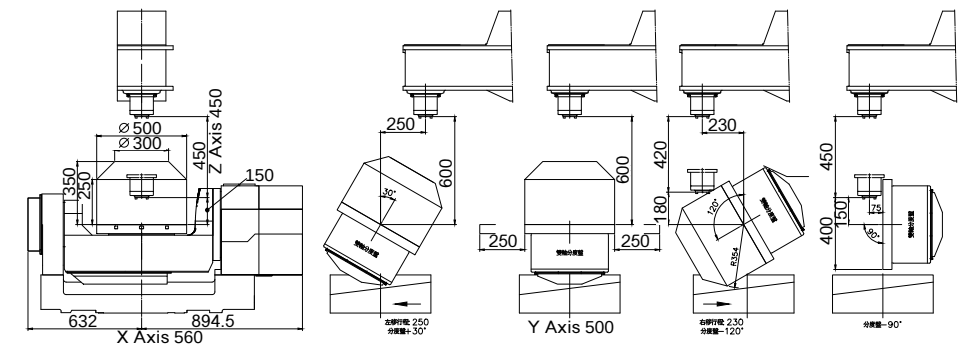
- ◎ Optimum design on X/Y/Z axes, best rigidity performance stabilizes axes moving and processing.
- ◎ Grounded tool magazine connected with base machine base, reduce the instability from moving column, as well as axial load.

Cutting Area & Working Zone

LUX-400

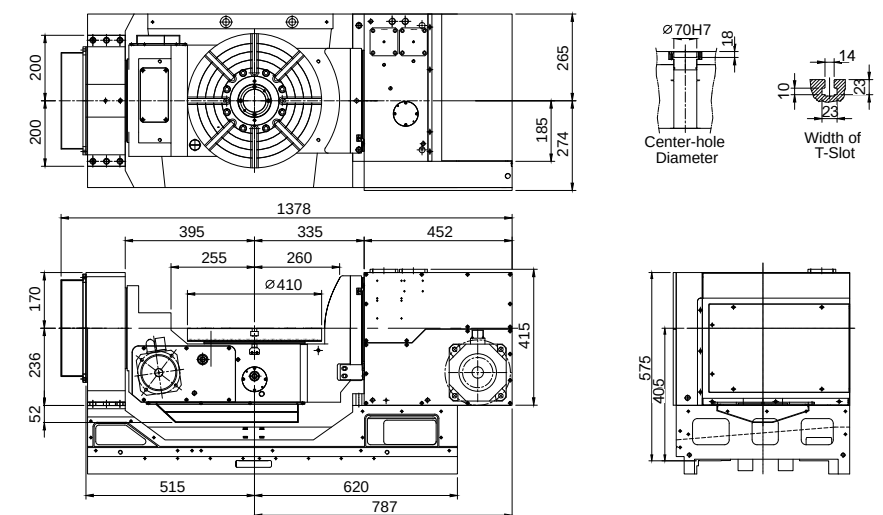


LUX-500

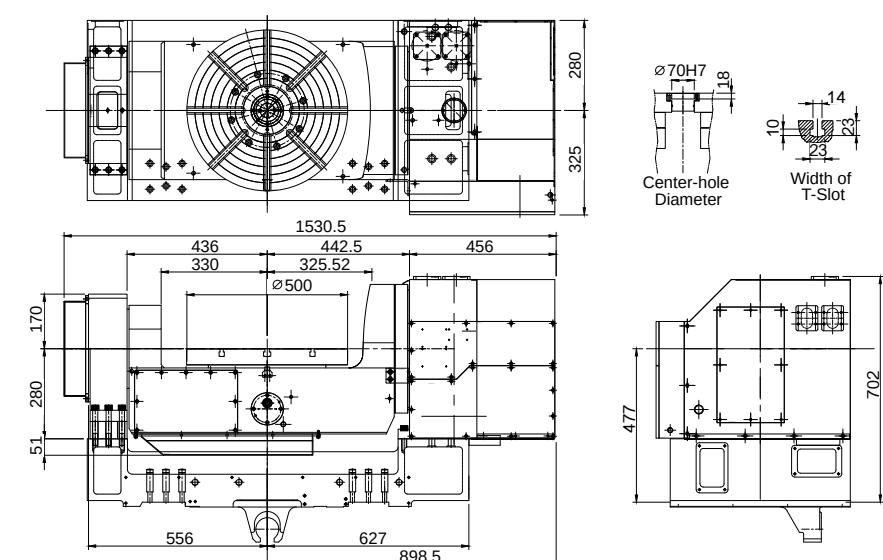


Rotary Tilting Table Specification

LUX-400



LUX-500



Five Axes Moving Column Ram Type Machining Center

Five Axes Simultaneous



<<Europe style ergonomic state of the art design operating box, 360° rotation and any angle can be fixed. Convenient, modern.

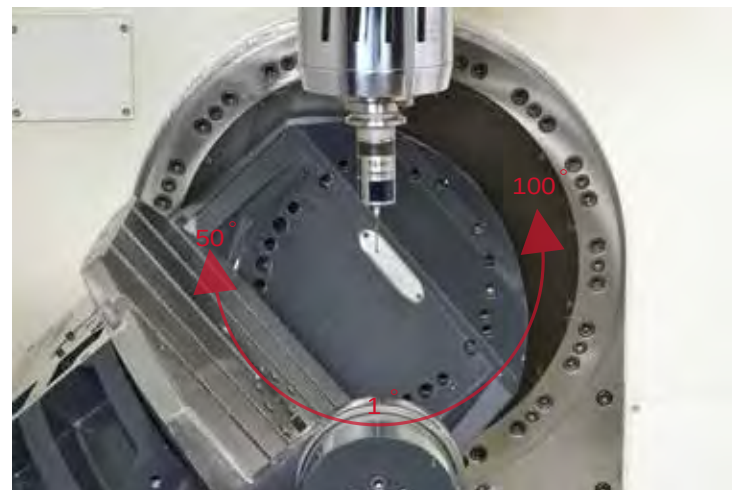
Europe Design High Speed Machining

- ◎ Five axes simultaneous control.
- ◎ The advanced control will dramatically increase machining accuracy, efficiency and safety during machining.
- ◎ 12,000 rpm direct-drive spindle.
- ◎ 32 (54) tool magazine.
- ◎ Handles complicated machining with ease.
- ◎ Best Bessel theorem structural design.
- ◎ Linear scales/encoders on five axes.
- ◎ Thermal isolation design compensation kit.

Rotating/Tilting Axis (B/C-axis)

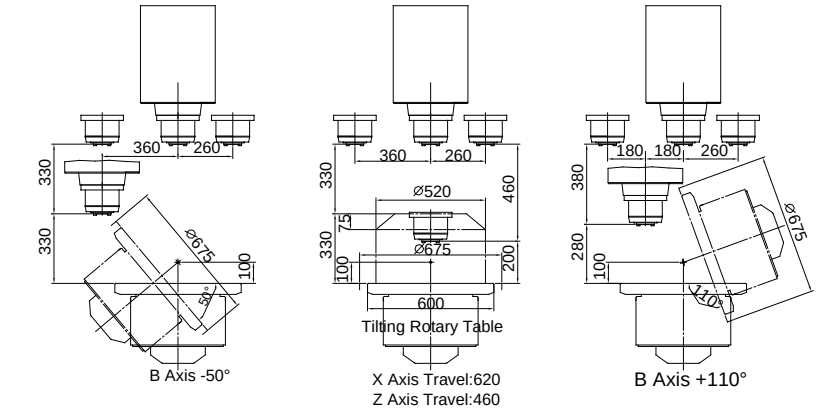
- ◎ The high rigidity NC controlled rotating/tilting rotary table is equipped with linear encoders, ensuring excellent accuracy when performing complicated machining.

Assuring high accuracy in simultaneous machining of five axes and positioning at any angle.>>

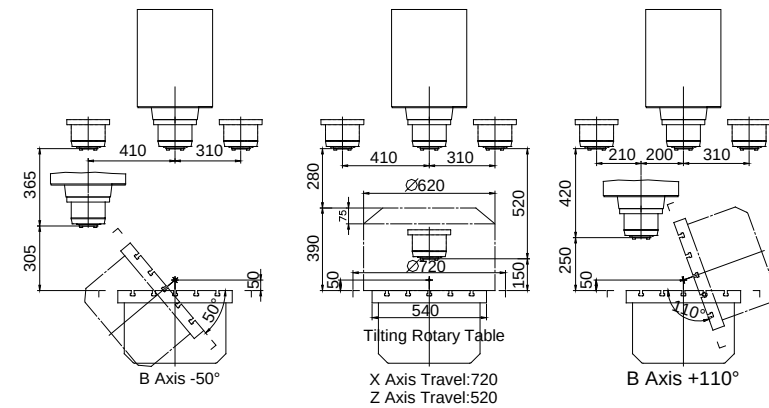


Cutting Area & Working Zone

LUX-650

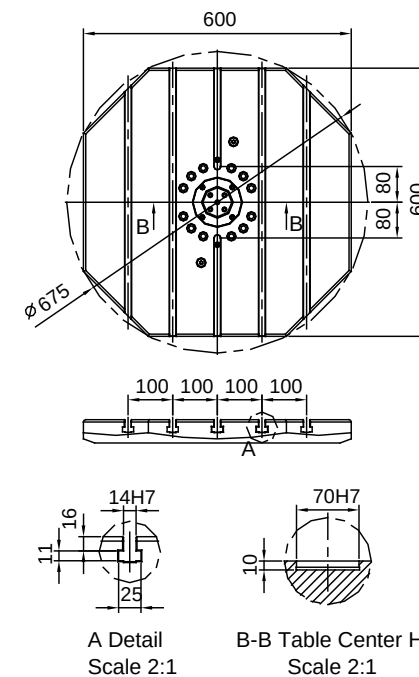


LUX-720

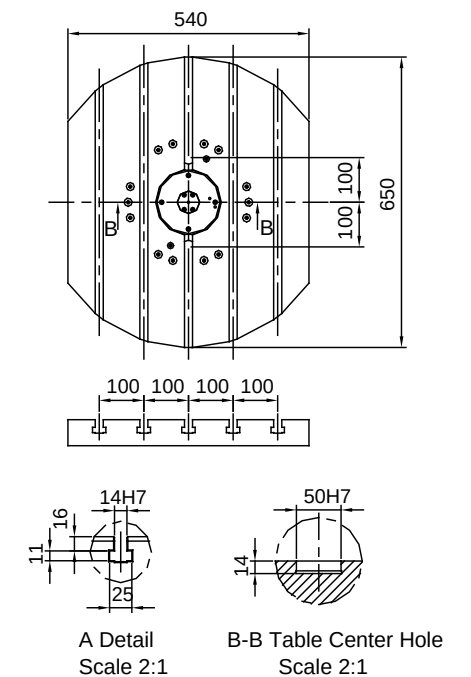


Rotary Tilting Table Specification

Tilting Rotary Table (Worm Gear Transmission)



Tilting Rotary Table (DDM)



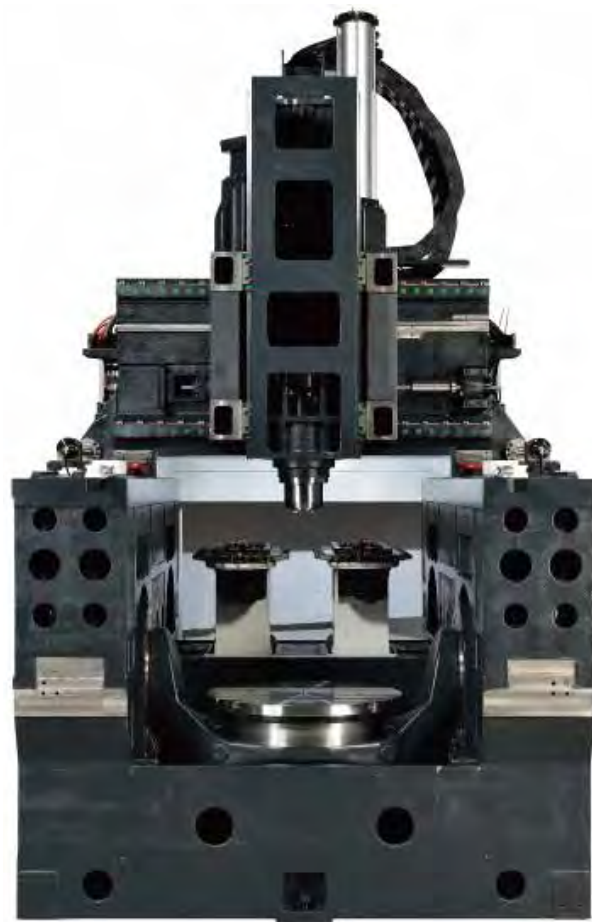
Five Axes Gantry Type Machining Center

Five Axes Simultaneous



Maximal Work Area

Minimal table to door distance 720mm (for easy workpiece loading)



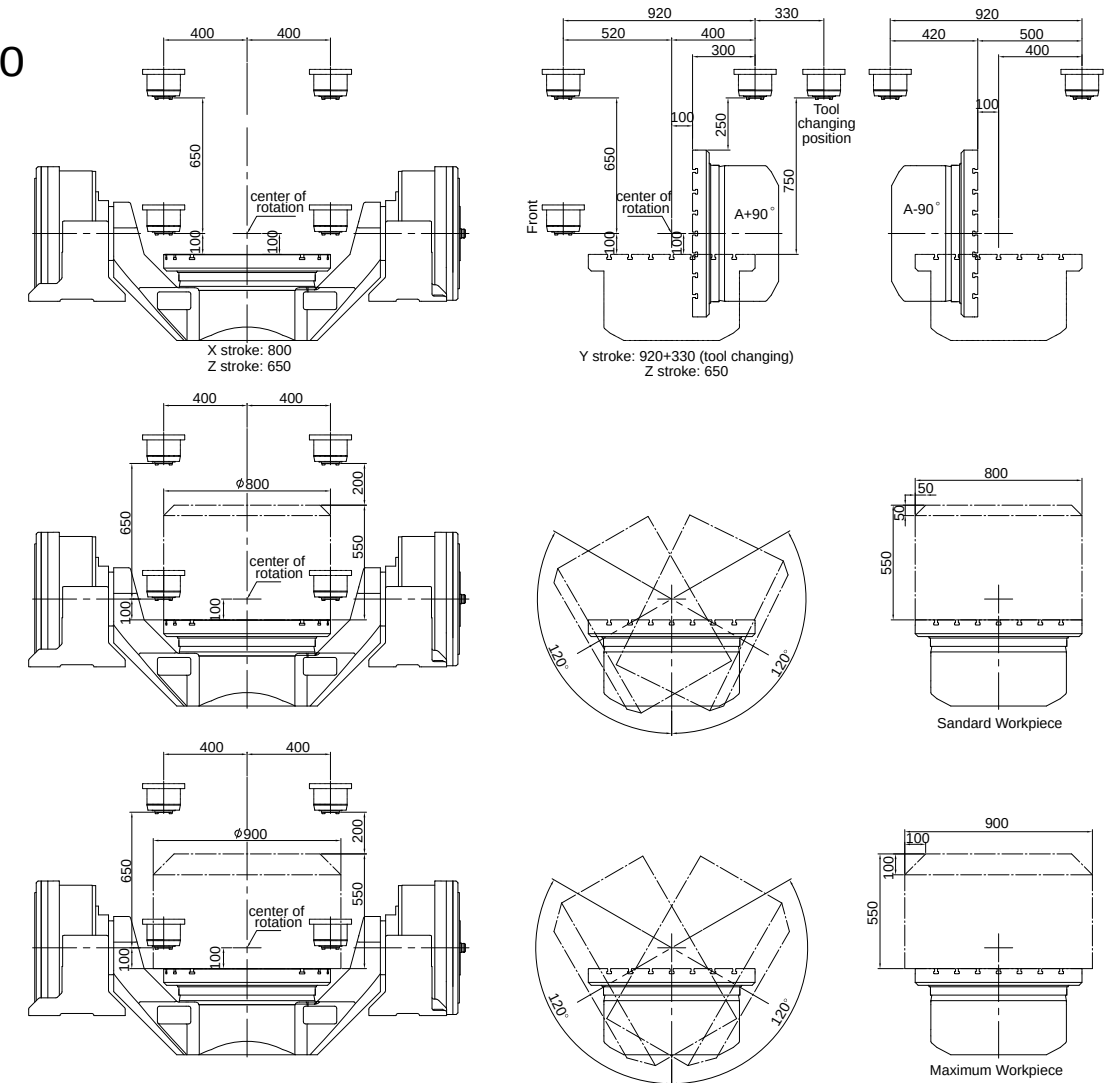
Built & Design with High Rigidity

- ◎ Spindle move by 3 linear axes and no rotary axis between the tool and the machine body.
- ◎ Same stability in all travels of X, Y axes.
- ◎ Highest rigidity in roughing process with high torque spindle.
- ◎ Table moved by swiveling rotary axes with best accuracy.
- ◎ Best servo response to milling forces massive gantry sliding on 2 synchronized axes.
- ◎ All body made of high quality casting.

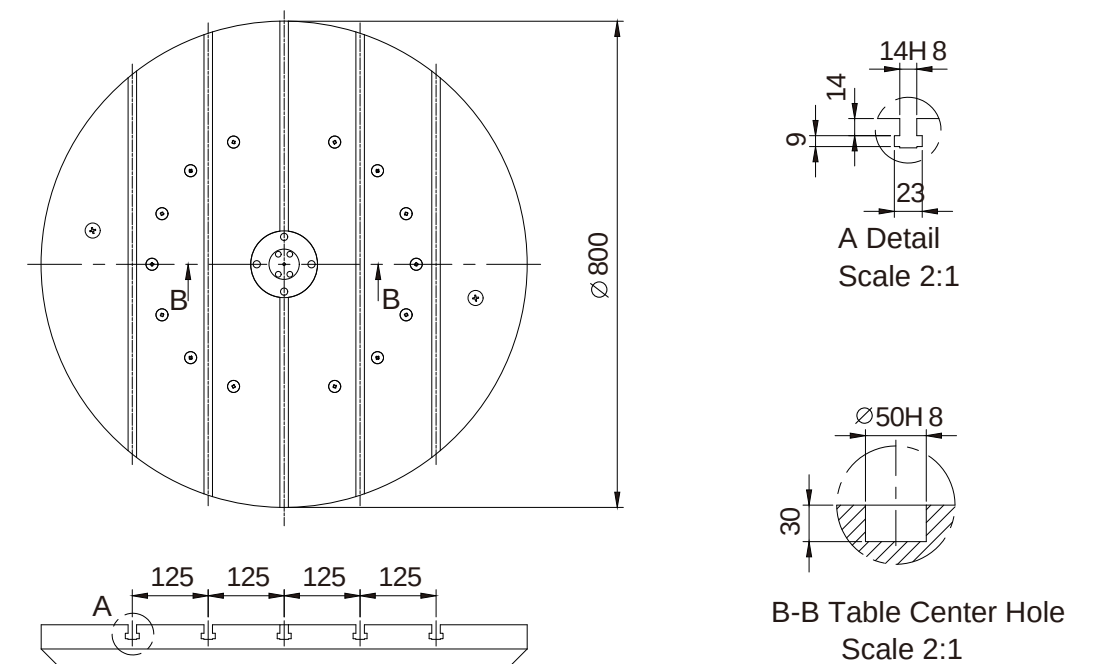
<<The most components with high-tech design and from world-class suppliers to ensure the best quality and reliability. L.K. patented AI technology attains reaching high levels of accuracy and embrace industry 4.0 technologies, reliability is upgraded. Maintenance costs minimized and downtime avoided.

Cutting Area & Working Zone

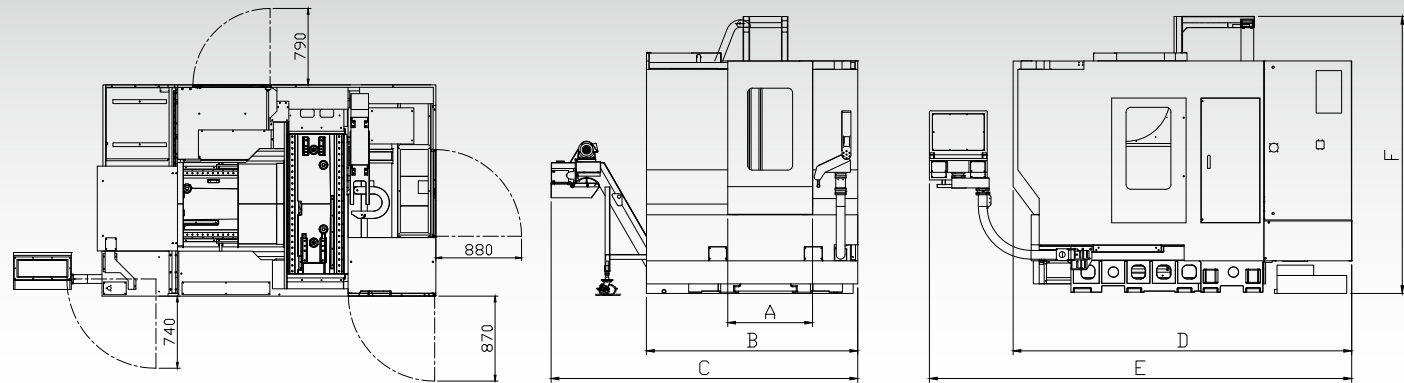
LUX-800



Rotary Tilting Table Specification



LUX-400.500 Machine/Exterior Size Specification



LUX-400. 500 Specification

Model	Unit	LUX-400	LUX-500
CNC Control System	-	Heidenhain iTNC 640	Heidenhain iTNC 640
5 axis Travel			
X axis Travel	mm	560	560
Y axis Travel	mm	500	480
Z axis Travel	mm	450	450
A axis Travel(Tilting)	degree	+30°~120°	+30°~120°
C axis Travel(Rotary)	degree	360°	360°
Distance from Spindle Center to Table	mm	150~600	150~600
Spindle			
Spindle Speed	rpm	DDS 12,000	DDS 12,000
Spindle Nose	ISO	#40	#40
Spindle Motor(Cont./30min)	kw	7.5 / 11	7.5 / 11
Table			
Table Size	mm	Ø410	Ø500
T Slot	mm	14H7	14H7
Max. Table Capacity	kg	H:200 / T:150	H:300 / T:250
Rapid Travel			
Rapid Travel(X/Y/Z)	m/min	36 / 36 / 36	36 / 36 / 36
Rapid Travel(A/C)	min-1	11.1 / 16.6	11.1 / 16.6
Cutting Speed Rate	m/min	1-12	1-12
X/Y/Z Feed Motor	kw	6.0/5.7/5.0B	6.0/5.7/5.0B
Tool Magazine			
Tool Change Type	-	Arm	Arm
Tool Capacity	set	30	30
Max. Tool Weight	kg	7	7
Max. Tool Length Distance	mm	280	280
Max. Tool Diameter	mm	Ø71 / Ø150	Ø71 / Ø150
Tool Change Time(T-T)	sec	4.5	4.5
Tool Change Time(C-C)	sec	2.3	2.3
Accuracy			
Positioning Accuracy	mm	0.008	0.008
Repeating Accuracy	mm	±0.005	±0.005
Others			
Compress Air Supply	kg/cm²	5~7	5~7
Machine Size(LxWxH)	mm	5210 x 3825 x 2840	5210 x 3825 x 2840
Net Weight	kg	7,400	7,700

MODEL	A	B	C	D	E	F
400/500	870	2165	3145	3475	4330	2390~2840

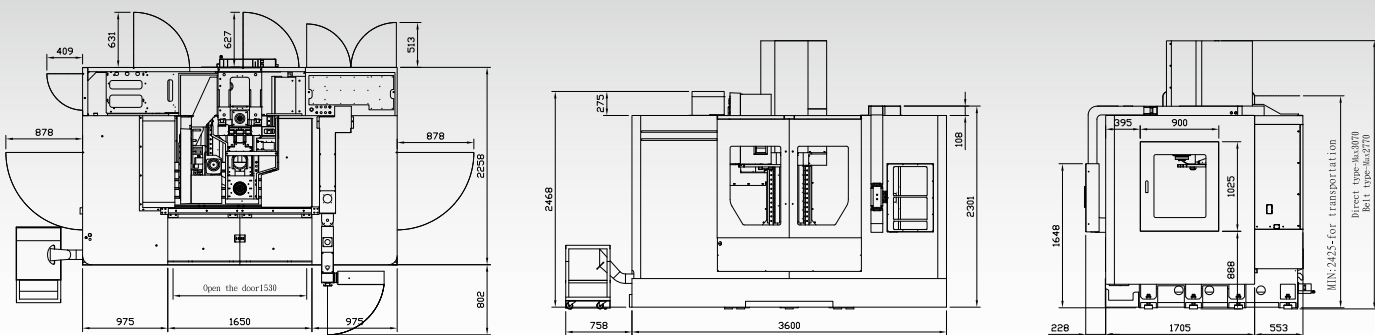
Standard Equipment

Heidenhain iTNC 640
DDS 12,000rpm
ISO-40
Arm Type 30 tools
Spindle Tool Change Air Blow
Spindle Temperature Compensation
Linear Scale on X/Y/Z axes
Tilting axis Encoder
Full Enclosure Splash Guard
Rigid Tapping
Leveling Bolts & Blocks
Chip Conveyor
Tri-color Indicator Lamp
Working Light
Tool Box
Positioning Accuracy 0.008mm
Repeating Accuracy ±0.005mm

Optional Equipment

Siemens 828D
Fanuc Oi-MF
DDS 15,000rpm
CAT / DIN / HSK-A63
Arm Type 40 tools
Rapid Travel 48/48/48m/min
Coolant Through Spindle(CTS)
Rotary axis Encoder
Automatic Tool Length Measurement System
Automatic Workpiece Measurement System
Auto Door

LUX-650.720 Machine/Exterior Size Specification



LUX-650. 720 Specification

Model	Unit	LUX-650	LUX-720
CNC Control System	-	Heidenhain iTNC 640	Heidenhain iTNC 640
5 axis Travel			
X axis Travel	mm	620	720
Y axis Travel	mm	520	600
Z axis Travel	mm	460	520
B axis Travel(Tilting)	degree	'-50° ~+110°	'-50° ~+110°
C axis Travel(Rotary)	degree	360°	360°
Distance from Spindle Center to Table	mm	200~660	150~670
Spindle			
Spindle Speed	rpm	DDS 12,000	DDS 12,000
Spindle Nose	ISO	#40	#40
Spindle Motor(Cont./30min)	kw	14	14
Table			
Table Size	mm	Ø650	Ø720
T Slot(Width x No. x Pitch)	mm	14 x 5 x 100	14 x 5 x 100
Max. Table Capacity	kg	300	300
Rapid Travel			
Rapid Travel(X/Y/Z)	m/min	48 / 48 / 48	48 / 48 / 48
Rapid Travel(B/C)	rpm	12.5 / 25	110 / 170
Cutting Speed Rate	m/min	1-20	1-20
X/Y/Z Feed Motor	kw	7.2/5.0/7.2B	7.2/5.0/7.2B
Tool Magazine			
Tool Change Type	-	Arm	Arm
Tool Capacity	set	32	32
Max. Tool Weight	kg	7	7
Max. Tool Length Distance	mm	250	250
Max. Tool Diameter	mm	Ø75 / Ø127	Ø75 / Ø127
Tool Change Time(T-T)	sec	4	4
Tool Change Time(C-C)	sec	9	9
Accuracy			
Positioning Accuracy	mm	±0.01	±0.01
Repeating Accuracy	mm	±0.005	±0.005
Others			
Compress Air Supply	kg/cm²	6	6
Machine Size(LxWxH)	mm	4186 x 4250 x 2930	4300 x 4250 x 3060
Net Weight	kg	10,000	11,000

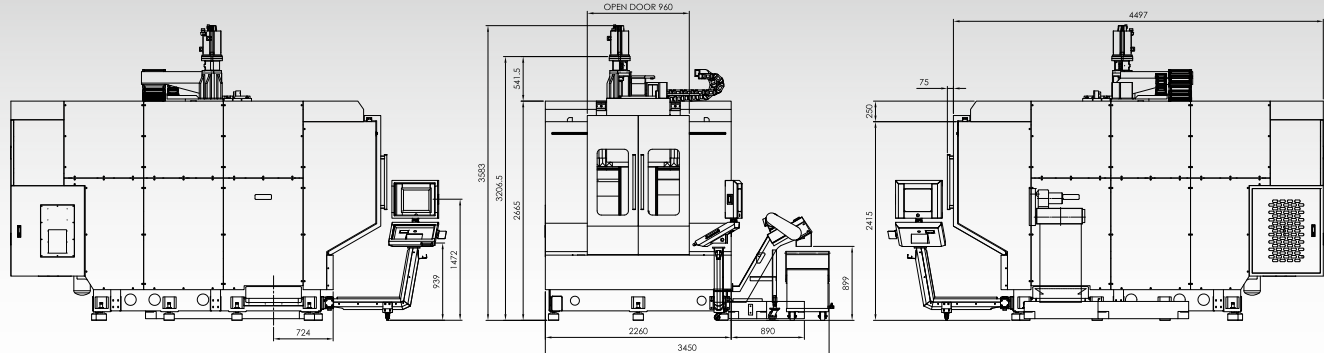
Standard Equipment

Heidenhain iTNC 640
DDS 12,000rpm
ISO-40
Arm Type 32 tools
Spindle Oil Cooler
Spindle Temperature Compensation
Linear Scale on X/Y/Z axes
Full Enclosure Splash Guard
Rigid Tapping
Linear Scale on X/Y/Z axes
B/C axis Encoder
Grease Lubrication
Heat Exchanger
Chip Conveyor
Leveling Bolts & Blocks
Tri-color Indicator Lamp
Working Light
Tool Box
Positioning Accuracy ±0.01mm
Repeating Accuracy ±0.005mm

Optional Equipment

Siemens 840D
DDS 15,000/18,000rpm
HSK-A63
Arm Type 48/54/60 tools
Distance from Spindle Center to Table
150~610mm(LUX-650)
Coolant Through Spindle(CTS)
Oil Mist Collector
Automatic Tool Length Measurement System(Blum/Renishaw)
Automatic Workpiece Measurement System
CE Normative
Auto Door

LUX-800 Machine/Exterior Size Specification



LUX-800 Specification

Model	Unit	LUX-800
CNC Control System	-	Heidenhain iTNC 640
5 axis Travel		
X axis Travel	mm	800
Y axis Travel	mm	920
Z axis Travel	mm	650
A axis Travel(Tilting)	degree	+120° ~ -120°
C axis Travel(Rotary)	degree	360°
Distance from Spindle Center to Table	mm	100~750
Spindle		
Spindle Speed	rpm	DDS 12,000
Spindle Nose	ISO	40
Spindle Motor(Cont./30min)	kw	18
Table		
Table Size	mm	Ø800
T Slot(Width x No. x Pitch)	mm	14 x 5 x 125
Max. Table Capacity	kg	1,200
Rapid Travel		
Rapid Travel(X/Y/Z)	m/min	36 / 36 / 36
Rapid Travel(A/C)	rpm	60 / 90
Cutting Speed Rate	m/min	1-20
X/Y/Z Feed Motor	kw	7.2/5.0/7.2B
Tool Magazine		
Tool Change Type	-	Arm
Tool Capacity	set	32
Max. Tool Weight	kg	7
Max. Tool Length Distance	mm	300
Max. Tool Diameter	mm	Ø75 / Ø125
Tool Change Time(T-T)	sec	4
Tool Change Time(C-C)	sec	9
Accuracy		
Positioning Accuracy	mm	±0.01
Repeating Accuracy	mm	±0.005
Others		
Compress Air Supply	kg/cm²	4~6
Machine Size(LxWxH)	mm	4330 x 6289 x 3583
Net Weight	kg	21,000

Standard Equipment

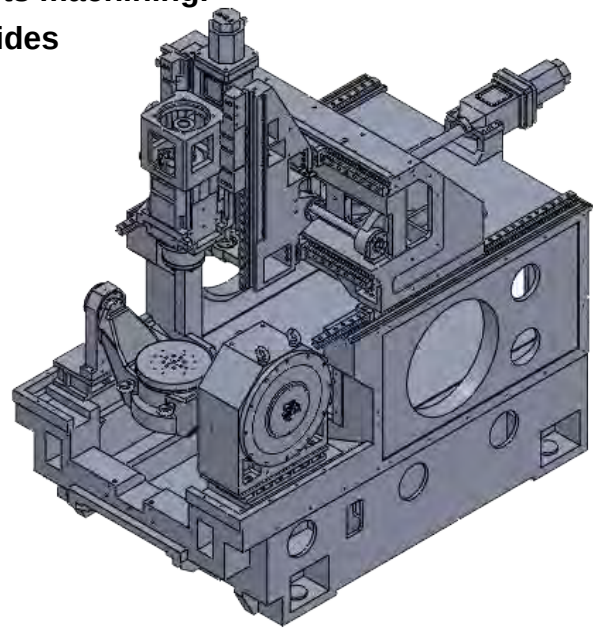
Heidenhain iTNC 640
DDS 12,000rpm
ISO-40
Arm Type 32 tools
Spindle Oil Cooler
Spindle Temperature Compensation
Linear Scale on X/Y/Z axes
Full Enclosure Splash Guard
Rigid Tapping
A/C axis Encoder
Grease Lubrication
Heat Exchanger
Chip Conveyor
Leveling Bolts & Blocks
Tri-color Indicator Lamp
Working Light
Tool Box
Positioning Accuracy ±0.01mm
Repeating Accuracy ±0.005mm

Optional Equipment

Siemens 840D
DDS 15,000/18,000/20,000rpm
ISO-50 / HSK-A63 / HSK-A100
Arm Type 40/60/64/80/120 tools
Rapid Travel 48/48/48m/min
Oil Mist Collector
Automatic Tool Length Measurement System(Blum/Renishaw)
Automatic Workpiece Measurement System
CE Normative

Provide more choices

Ultimate solution for sophisticated parts machining.
The integrated rotary/tilting table provides
accuracy, stability and flexibility.



BTC-550AX

Model	Unit	BTC-550AX
CNC Control System	-	Siemens 840D
5 axis Travel		
X axis Travel	mm	550
Y axis Travel	mm	400
Z axis Travel	mm	380
A axis Travel(Tilting)	degree	+30°~ -120°
C axis Travel(Rotary)	degree	360°
Distance from Spindle Center to Table	mm	15~395
Spindle		
Spindle Speed	rpm	DDS 12,000
Spindle Nose	BT	#30
Spindle Motor(Cont./30min)	kw	3.7 / 5.5
Table		
Table Size	mm	Ø255
T Slot(Width x No. x Pitch)	mm	12 x 4 x 90°
Max. Table Capacity	kg	200 / 100
Rapid Travel		
Rapid Travel(X/Y/Z)	m/min	48 / 48 / 48
Rapid Travel(A/C)	min-1	16.6 / 25
Cutting Speed Rate	m/min	1-20
X/Y/Z Feed Motor	kw	2.2 / 3.5 / 3
Tool Magazine		
Tool Change Type	-	Turret (Servo)
Tool Capacity	pcs	16
Max. Tool Weight	kg	3
Max. Tool Length Distance	mm	250
Max. Tool Diameter	mm	Ø80 / Ø120
Tool Change Time(T-T)	sec	2.5
Tool Change Time(C-C)	sec	3.5
Accuracy		
Positioning Accuracy	mm	±0.01
Repeating Accuracy	mm	±0.005
Others		
Compress Air Supply	kg/cm ²	5~7
Machine Size(LxWxH)	mm	3672 x 1750 x 2900
Net Weight	kg	4,870

BTC-550AX

- ◎ Servo driven five axes rotary table is dynamically accurate and reliable.
- ◎ Flexible and wide tilting range offers the maximum Z axis distance for cutting application.

Standard Equipment

Siemens 840D
DDS 12,000rpm
Turret(Servo) Type 16 tools
BT-30
Spindle Tool Change Air Blow
Automatic Lubrication System
Side Flush System
Separate Hand Wheel (MPG)
Heat Exchanger
Full Chip Enclosure
Tri-color Indicator Lamp
Tool Box
Leveling Bolts & Blocks
Link Type Chip Conveyor

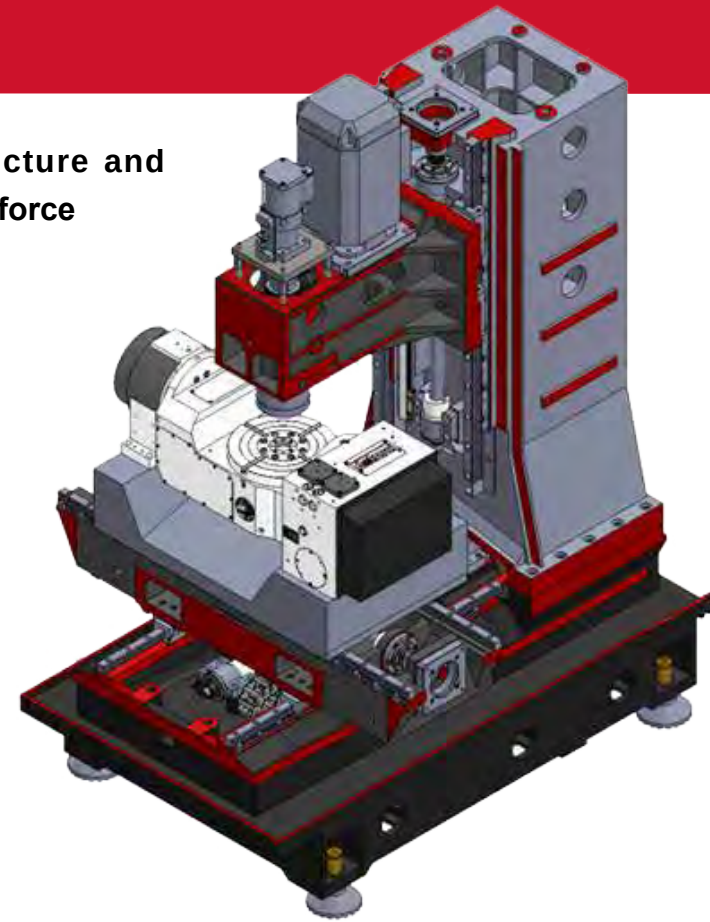
Optional Equipment

Mitsubishi M80
Siemens 828D
Fanuc Oi-MF
DDS 10,000/15,000rpm
Built-in 24,000rpm
BT-40 / HSK-A63
Turret(Servo) Type 20 tools
Coolant Through Spindle(CTS)
Spindle Oil Cooler
Linear Scale on X/Y/Z axes
Rapid Travel 60/60/60m/min
Grease Lubrication
Automatic Tool Length Measurement System

Delta structure with large column structure and
smooth basic flow design, it stable cutting force
and high conductivity to provide user a
stable processing accuracy.

LUV-320

Model	Unit	LUV-320
CNC Control System	-	Mitsubishi M80
5 axis Travel		
X axis Travel	mm	800
Y axis Travel	mm	500
Z axis Travel	mm	520
A axis Travel(Tilting)	degree	+30°~ -120°
C axis Travel(Rotary)	degree	360°
Distance from Spindle Center to Table	mm	35~555
Spindle		
Spindle Speed	rpm	Belt 8,000
Spindle Nose	BT	#40
Spindle Motor(Cont./30min)	kw	11 / 15
Table		
Table Size	mm	Ø320
T Slot	mm	12H7
Max. Table Capacity	kg	H:200 / T:100
Rapid Travel		
Rapid Travel(X/Y/Z)	m/min	48 / 48 / 48
Rapid Travel(A/C)	min-1	16.6 / 25.0
Cutting Speed Rate	m/min	1-20
X/Y/Z Feed Motor	kw	2 / 2 / 3.5
Tool Magazine		
Tool Change Type	-	Arm
Tool Capacity	pcs	24
Max. Tool Weight	kg	7
Max. Tool Length Distance	mm	250
Max. Tool Diameter	mm	Ø75 / Ø150
Tool Change Time(T-T)	sec	2.3
Tool Change Time(C-C)	sec	3.5
Accuracy		
Positioning Accuracy	mm	±0.01
Repeating Accuracy	mm	±0.005
Others		
Compress Air Supply	kg/cm ²	5~7
Machine Size(LxWxH)	mm	4250 x 3050 x 2970
Net Weight	kg	6,100



LUV-320

- ◎ Stable structure.
- ◎ High rigid frame design with stable base.

Standard Equipment

Mitsubishi M80 / 15" LCD Screen
Belt 8,000rpm
BT-40
Arm Type 24 tools
Spindle Air Curtain
Automatic Lubrication System
Side Flush System
Ball Bearing Linear Guide Ways
Rear Chip Auger

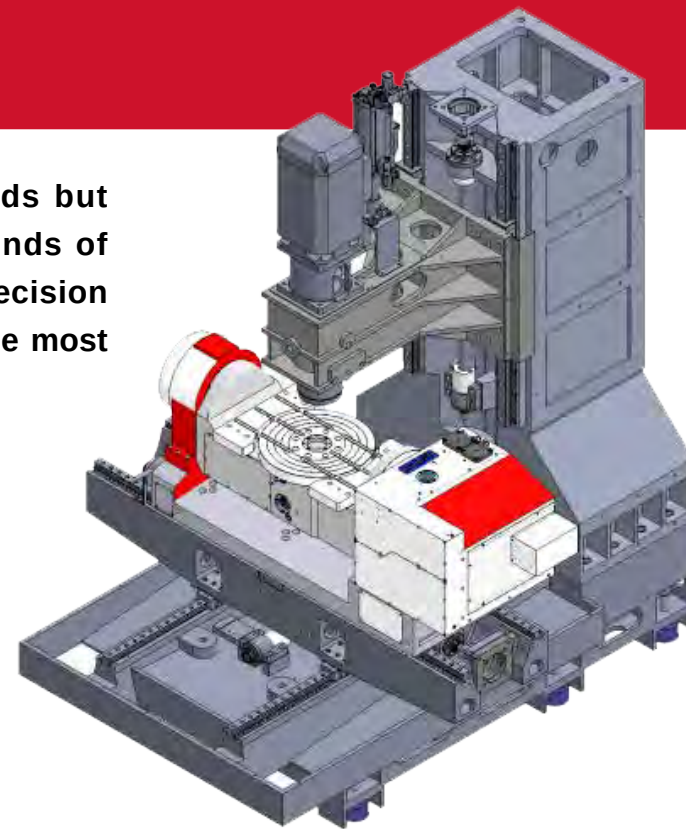
Optional Equipment

Siemens 828D
Fanuc Oi-MF
Belt 10,000rpm
DDS 10,000/12,000/15,000rpm
Spindle Motor 15/18.5kw
Arm Type 30 tools
Rollers Linear Ways
Spindle Oil Cooler
Chip Conveyor
Tool Holder
Tool Storage

Designed for high efficiency, rare kinds but
massive production. Suitable for all kinds of
mechanical/assembly parts, general precision
molds. Get the most productivity with the most
economical investment.

LUV-410

Model	Unit	LUV-410
CNC Control System	-	Mitsubishi M80
5 axis Travel		
X axis Travel	mm	1050
Y axis Travel	mm	600
Z axis Travel	mm	560
A axis Travel(Tilting)	degree	+30°~ -120°
C axis Travel(Rotary)	degree	360°
Distance from Spindle Center to Table	mm	40~600
Spindle		
Spindle Speed	rpm	Belt 8,000
Spindle Nose	BT	#40
Spindle Motor(Cont./30min)	kw	11 / 15
Table		
Table Size	mm	Ø410
T Slot	mm	14H7
Max. Table Capacity	kg	H:200 / T:150
Rapid Travel		
Rapid Travel(X/Y/Z)	m/min	36 / 36 / 36
Rapid Travel(A/C)	min-1	11.1 / 16.6
Cutting Speed Rate	m/min	1-20
X/Y/Z Feed Motor	kw	2 / 2 / 3
Tool Magazine		
Tool Change Type	-	Arm
Tool Capacity	pcs	24
Max. Tool Weight	kg	7
Max. Tool Length Distance	mm	250
Max. Tool Diameter	mm	Ø75 / Ø150
Tool Change Time(T-T)	sec	2.3
Tool Change Time(C-C)	sec	3.5
Accuracy		
Positioning Accuracy	mm	±0.01
Repeating Accuracy	mm	±0.005
Others		
Compress Air Supply	kg/cm ²	5~7
Machine Size(LxWxH)	mm	4398 x 3570 x 2702
Net Weight	kg	6,400



LUV-410

- ◎ Extensively use in all kinds of applications.
- ◎ "A" shaped wide-stance column.

Standard Equipment

Mitsubishi M80 / 15" LCD Screen
Belt 8,000
BT-40
Arm Type 24 tools
Rollers Linear Ways
Spindle Tool Change Air Blow
Side Flush System
Chip Auger
CE Normative

Optional Equipment

Siemens 828D
Fanuc Oi-MF
Belt 10,000rpm
DDS 10,000/12,000/15,000rpm
Arm Type 30/32 tools
Coolant Through Spindle(CTS)
20/40/70 bar
Spindle Oil Cooler
(including oil cooling machine)
Oil Mist Cooling System
4th axis CNC Rotary Table
Automatic Tool Length Measurement System
Link Type Chip Conveyor
Disk Type Oil Skimmer
Transformer