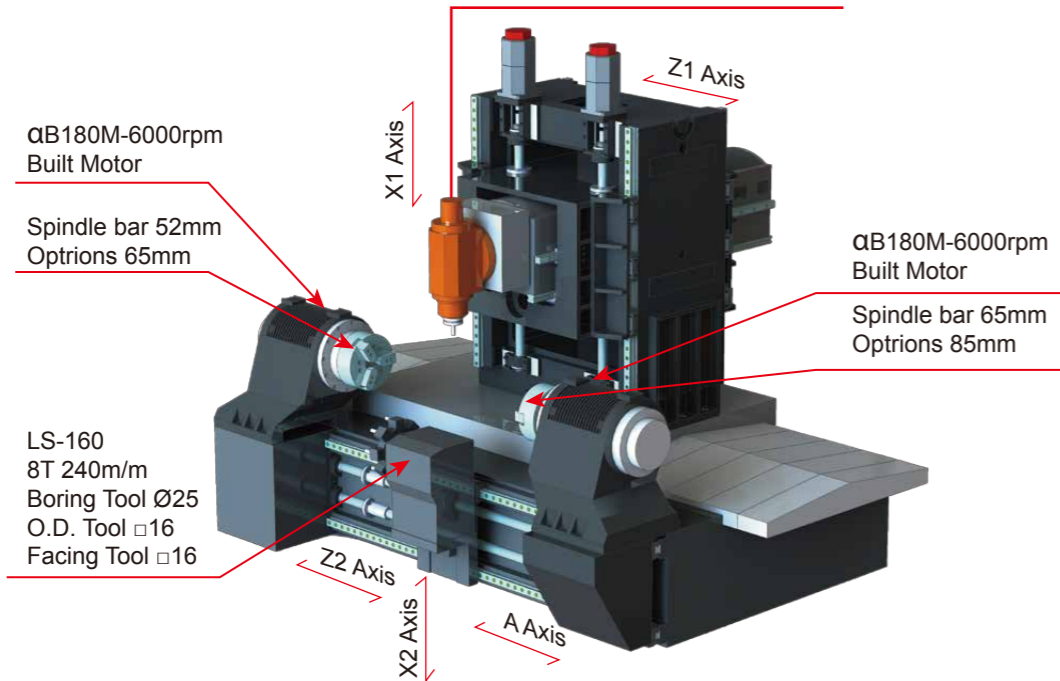


GMTC-168

FANUC 112M/HSK-A63/13000rpm
 FANUC 160LL/HSK-A100/10000rpm
 B AXIS:±120°



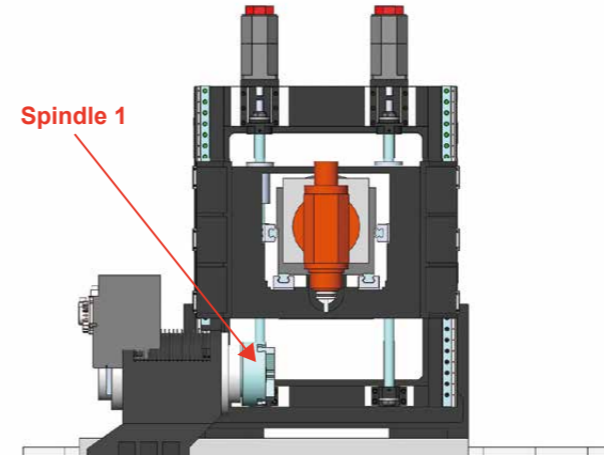
Machine Structure Designed and Refined by FEM Analysis

The most important benefit provided by integrated mill turn centers is the process integration. A wide range of machining variations can be performed, from raw material to completion, with one setup, dramatically improving productivity.

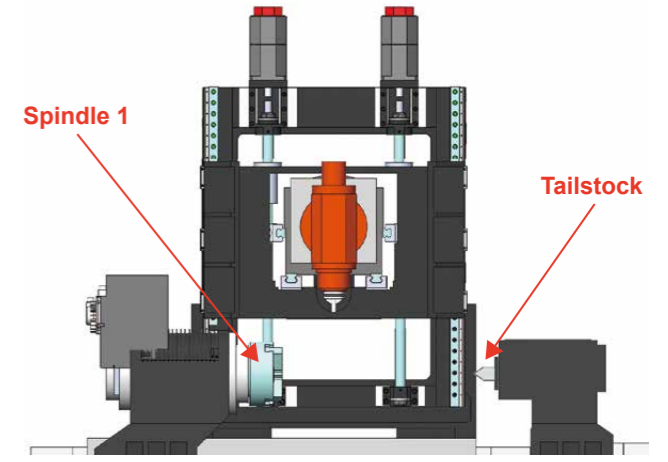
Milling	O.D. milling	O.D. hole machining	Ball-end milling	Angular machining (deburr) B-axis -100° B-axis +100°
Spindle 2	Cut-off 700mm	Face cutting	Angular machining (deburr) B-axis ±100°	End face hole machining and tapping
Turning	O.D. cutting	Drilling B-axis 90°	I.D. cutting B-axis 90°	I.D. threading B-axis 90°
Turret 2 machining example	Od machining using the center	Hobbing using the tool spindle and turret 2	Face milling using the center	Drilling using a hydraulic steady rest

INTELLIGENCE MACHINERY

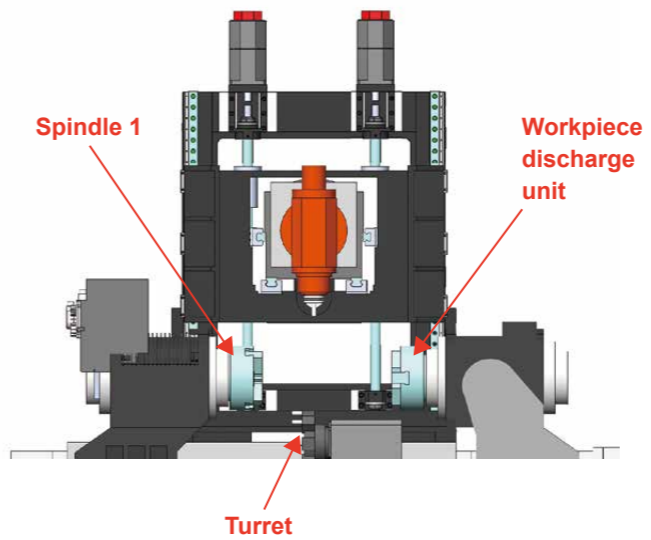
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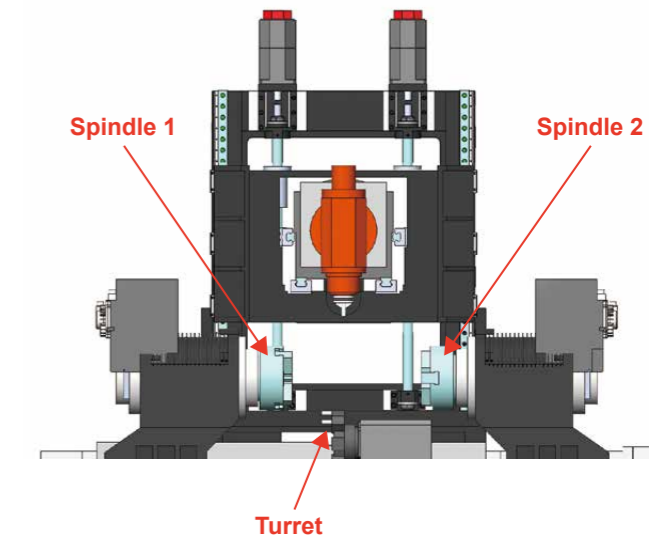
U



L LA LAN



D DA DAN



Variations:

Specifications	F	U	L	LA	LAN	D	DA	DAN
Spindle 1	●	●	●	●	●	●	●	●
Tailstock	○	●	○	○	○	○	○	○
Workpiece discharge unit	○	○	●	●	●	○	○	○
Spindle 2	○	○	○	○	○	●	●	●
Turret	○	○	○	●	●	○	●	●
Turret(Milling)	○	○	○	○	●	○	○	●

● : Standard features ○ : Not applicable

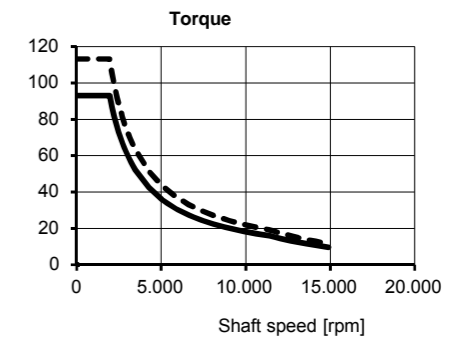
SPECIFICATION & FEATURES FOR MILL-TURN MULTI-FUNCTION MACHINING CENTER

DESCRIPTION	GMTC-168	GMTC-268	GMTC-368	
TRAVEL				
X1-axis (mm/in)	380 / 15	660 / 26	800 / 31	
Y-axis (mm/in)	300 / 12	500 / 20	600 / 24	
Z1-axis (mm/in)	1200 / 47	2200 / 87	3200 / 126	
X2-axis (mm/in)	160 / 6	160 / 6	160 / 6	
A & Z2 - axis (mm/in)	700 / 28	1700 / 67	2700 / 106	
Spindle nose to C-axis center	120~500	120~780	120~920	
Ball Screw for X1, X2, Y, Z2, A axes(dia/Pitch)	40 / 12	40 / 12	40 / 12	
Ball Screw(dia/Pitch Z1)	50 (12)	50 (12)	63 (12)	
WORKING RANGE				
Swing over cross slide(mm/in)	460 / 18	635 / 25	760 / 30	
Max dia of work piece (mm/in)	460 / 18	635 / 25	760 / 30	
Max turning length of work piece (mm/in) (A- axis)	715 / 28	1730 / 68	2720 / 107	
FEEDRATE				
Cutting feed rate(mm/min)	1~10,000(Depend on the controller)	1~10,000(Depend on the controller)	1~10,000(Depend on the controller)	
Rapid traverse (m/min)X1/Y/Z1/X2/Z2/A(Axis)	30/30/20/30/30/30	30/30/20/30/30/30	30/30/20/30/30/30	
TURNING SPINDLE MOTOR (FANUC)				
Spindle 1. Built-in spindle motor (spindle bar 52mm)(OP: 65mm)(A2-6)	αB180M-6000 11/15Kw	αB180M-6000 11/15Kw	αB180M-6000 11/15Kw	
Spindle 2. Built-in spindle motor (spindle bar 65mm)(OP: 85mm)(A2-6)	αB180M-6000 11/15Kw	αB180M-6000 11/15Kw	αB180M-6000 11/15Kw	
TURNING SPINDLE MOTOR (ATE)				
Spindle 1. Built-in spindle motor (spindle bar 52mm)(OP: 65mm)(A2-6)	AC 300/240/8 15KW	AC 300/240/8 15KW	AC 300/240/8 15KW	
Spindle 2. Built-in spindle motor (spindle bar 65mm)(OP: 85mm)(A2-6)	AC 300/240/8 15KW	AC 300/240/8 15KW	AC 300/240/8 15KW	
Bar feeding system	OP	OP	OP	
SERVO MOTOR (FANUC/SIEMENS/HEIDENHAIN)				
X1 axis Spindle (Kw/N-m) Y axis Spindle (Kw/N-m)	F	α30i 5.5 / 30	α30i 5.5 / 30	α30i 5.5 / 30
	S	1FK7101 4.87/27	1FK7101 4.87/27	1FK7101 4.87/27
	H	QSY190C 7.2/28	QSY190C 7.2/28	QSY190C 7.2/28
Z1-axis Spindle (Kw/N-m)	F	α30i 5.5 / 30 W/B	α30i 5.5 / 30 W/B	α30i 5.5 / 30 W/B
	S	1FK7101 4.87/27 W/B	1FK7101 4.87/27 W/B	1FK7101 4.87/27 W/B
	H	QSY190C 7.2/28 W/B	QSY190C 7.2/28 W/B	QSY190C 7.2/28 W/B
X2-axis Motor (Kw/N-m) B-axis for Turret 2 (Kw/N-m)	F	α12 2.5 / 12 W/B	α12 2.5 / 12 W/B	α12 2.5 / 12 W/B
	S	1FK7063 2.29/11 W/B	1FK7063 2.29/11 W/B	1FK7063 2.29/11 W/B
	H	QSY155B 2.9/13 W/B	QSY155B 2.9/13 W/B	QSY155B 2.9/13 W/B
Z2-axis Motor (Kw/N-m) A-axis for Turret 2 (Kw/N-m)	F	α12 2.5 / 12	α12 2.5 / 12	α12 2.5 / 12
	S	1FK7063 2.29/11	1FK7063 2.29/11	1FK7063 2.29/11
	H	QSY155B 2.9/13	QSY155B 2.9/13	QSY155B 2.9/13
DIVIDING CAPACITY				
B-axis spindle dividing (degree)	-120~+120	-120~+120	-120~+120	
Spindle 1 + 2 dividing (degree)	360	360	360	
SPINDLE				
Spindle (Main milling spindle) (RPM) FANUC Bil 112M	(Taper size:HSK-A63) / 13000	(Taper size:HSK-A63) / 13000	(Taper size:HSK-A63) / 13000	
OP: ATE AC/180/150/8 (HSK-A63)/15000(19Kw/93Nm)	OP	OP	OP	
OP: FANUC Bil 160LL (HSK-A100)/10000(25~30Kw/238Nm)	NA	NA	OP	
OP: ATE DC/160/200/8 (HSK-A100)/10000(26Kw/124Nm)	NA	NA	OP	
Main Spindle (Kw/Nm)	15~18.5 Kw / 64 Nm	15~18.5 Kw / 64 Nm	15~18.5 Kw / 64 Nm	
Encoder	FANUC RCN8380F	FANUC RCN8380F	FANUC RCN8380F	
ATC				
Capacity-standard access. (pcs)	standard:24(Arm) / OP:32/40/60(Tools)	standard:24(Arm) / OP:32/40/60(Tools)	standard:24(Arm) / OP:32/40/60(Tools)	
Tool selection	Bi-directional & min.path	Bi-directional & min.path	Bi-directional & min.path	
Max Tool Diameter W/adjacent tool (mm/in)	∅78 / ∅3	∅78 / ∅3	∅78 / ∅3	
Max Tool Diameter (mm/in)	∅135 / ∅5	∅135 / ∅5	∅135 / ∅5	
Maximum tool weight (kg/lbs)	20/44	20/44	20/44	
Air Power required (kgs/cm ²)	6	6	6	
Tool Shank	HSK-A63	HSK-A63	HSK-A63	
Spindle 1&2. turning built-in spindle (RPM)	6000	6000	6000	
· Hydraulic Turret · LS-160 · 8T 240m/m · Boring Tool ∅25 · O.D. Tool □16 · Facing Tool □16				
Machine dimension (cm)	350*228*238	470*270*238	600*400*260	
Machine weight (Kg)	12000	19000	28500	
Package Weight (Kg)	13000	21000	30500	

HSK-A63

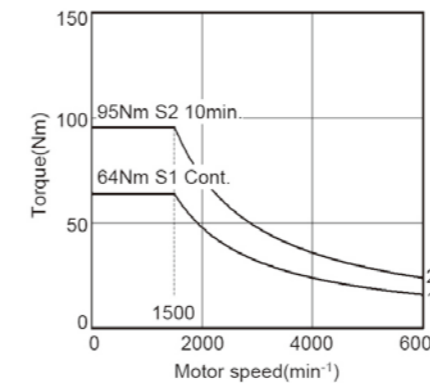


ATE AC/180/150/8

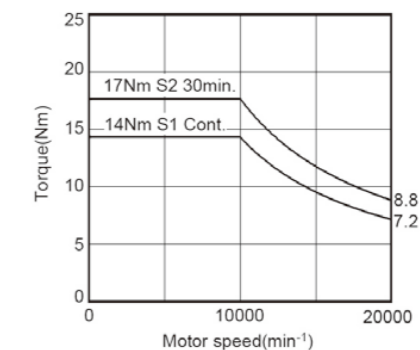


Bil 112M / 2000 (A06B-1673-B100#YNB7) (Option: SIEMENS)

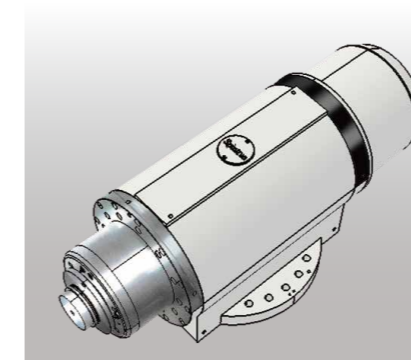
• Low winding



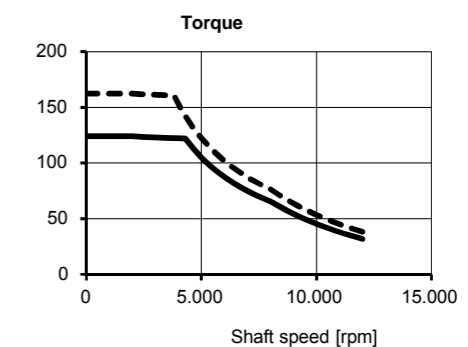
• High winding



HSK-A100

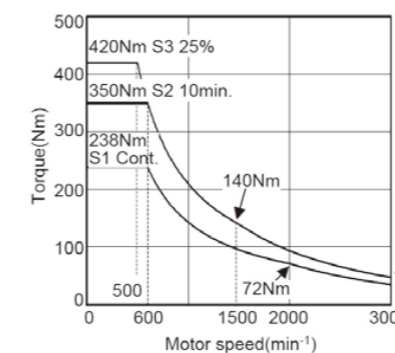


ATE DC/160/200/8



Bil 160LL / 13000 (A06B-1726-B100#ZAB1) (Option: SIEMENS)

• Low winding



• High winding

