

# CL-SERIES-5 AXIS

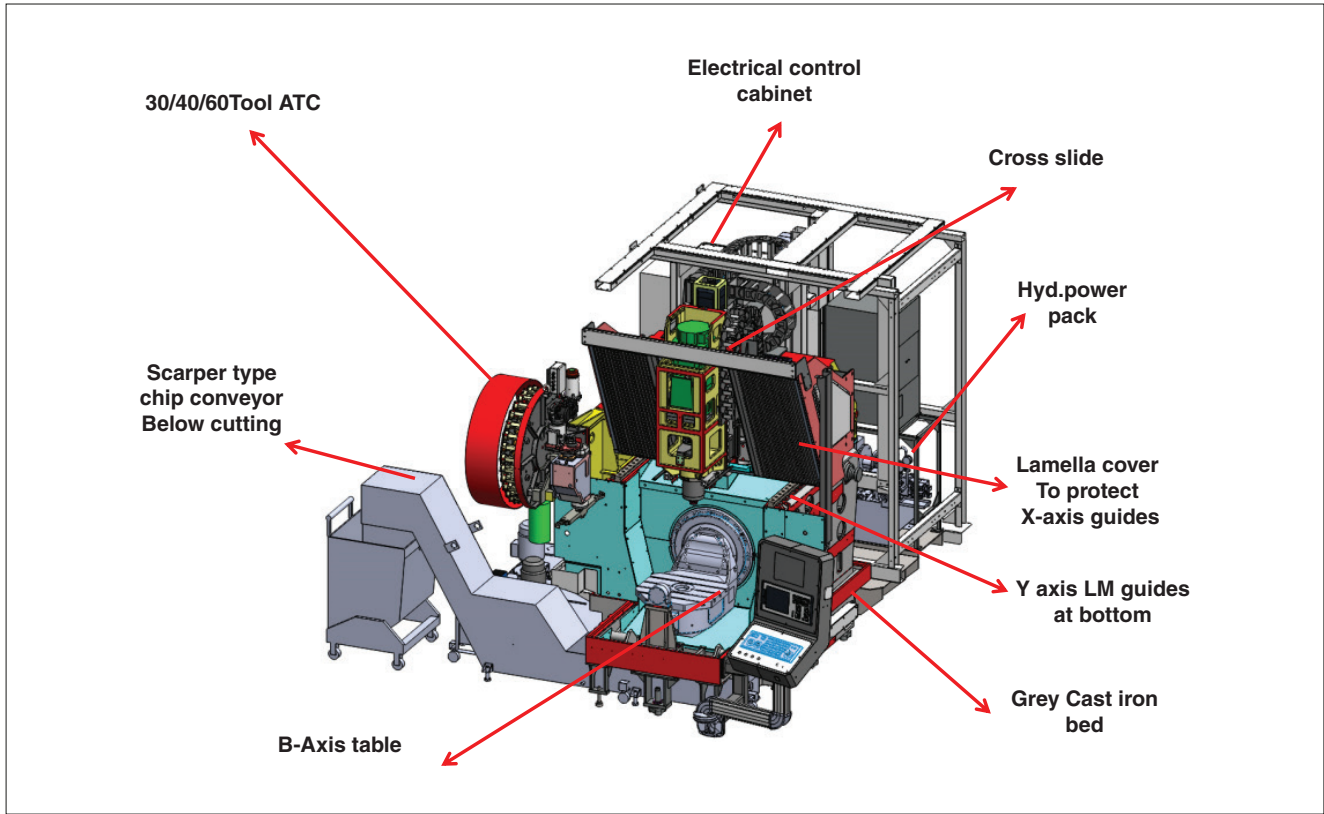
STATE OF ART VERTICAL MACHINING CENTERS-5 AXIS(OR 4+1)

Series: CL400 | CL500 | CL600



# CL-SERIES-5 AXIS

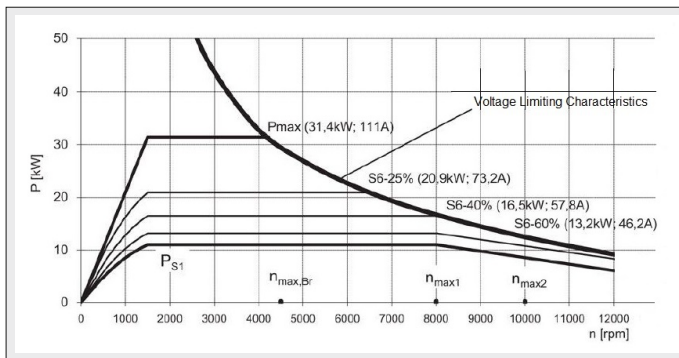
## CL-500 MACHINE DETAILS



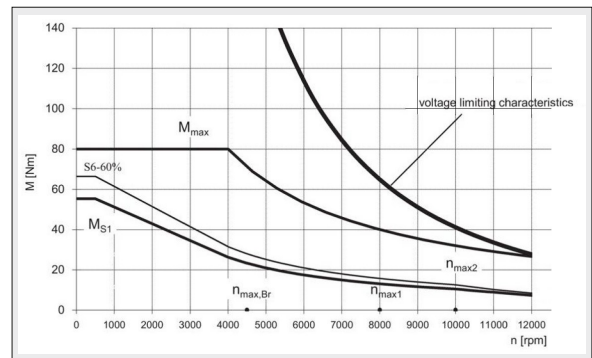
## CL500/600 SIEMENS SPINDLE MOTOR CHARACTERSTICS

### STAR CONFIGURATION

Power vs Speed

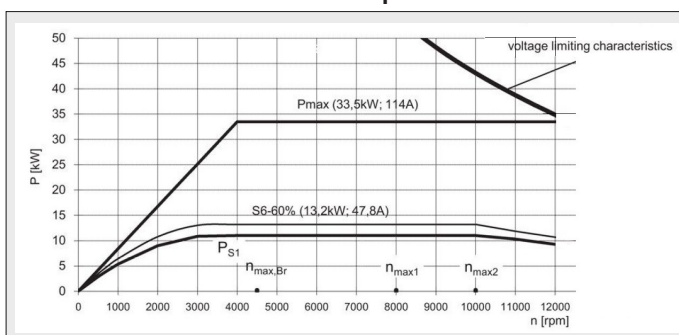


Torque vs Speed

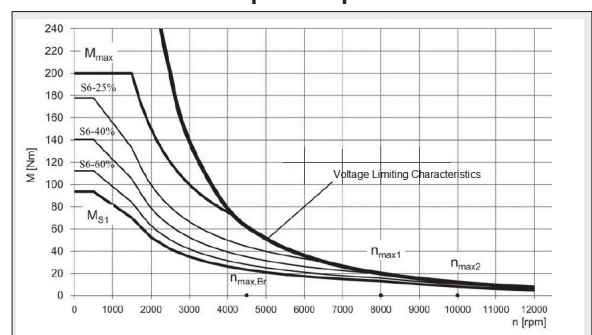


### DELTA CONFIGURATION

Power vs Speed



Torque vs Speed



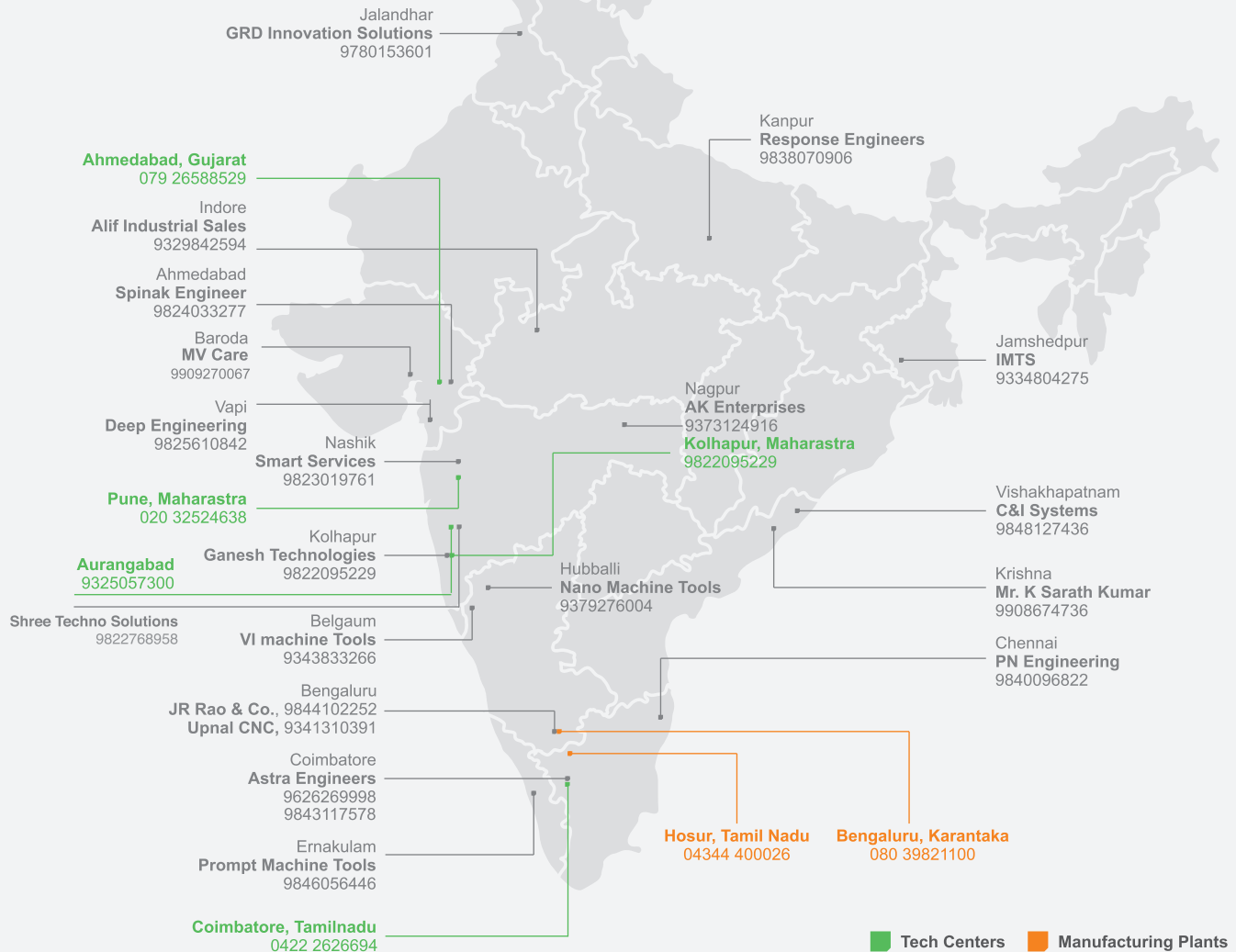
# Technical specifications

Description	Unit	CL 400	CL 500	CL 600
<b>Table</b>				
Table size	mm	ø 450	ø 600	ø 680
Job size (max.) Dia x ht	mm x mm	ø 400 x 400	ø 600 x 500	ø 650 x 500
Maximum safe load on table	kg	200	350	500
Distance from table top to spindle face	mm	200-600	100-600	100-600
Distance table top to floor	mm	800	800	800
<b>Traverse</b>				
X/Y/Z axes	mm	500/ 400/ 400	700/ 520/ 500	800/ 600/ 500
A axis	degree	-110°+110°	-110°+110°	-110°+110°
C axis	degree	360°	360°	360°
<b>Axis drive</b>				
Feed rates X/ Y/ Z	m/ min	20	20	20
Rapidate X/ Y/ Z	m/ min	50	40	40
B axis	rpm	25	25	25
C axis	rpm	100	25	25
Acceleration	m/s <sup>2</sup>	5	5	5
Rotary table	deg	360 continuous	360 continuous	360 continuous
<b>Spindle</b>				
Type	type	In-line Spindle	In-line Spindle	In-line Spindle
Power continuous (S1/S6-40%)_Siemens	kW	5.5/7.5 (Fanuc/Mitsubhishi)	11/16.5 (Siemens)	11 /16.5
Maximum torque (S1 /S6-40%)	NM	35/48	70/105	70/105
Speed(Optional)	RPM	12000	10000 (12000)	10000 (12000)
Optional motors make		Siemens	Fanuc/Mitsubhishi	Fanuc/Mitsubhishi
Tool interface(Optional)		HSK A50/BT30	HSK A 63(BT40)	HSK A 63/BT40
<b>Automatic Tool Changer</b>				
No of Tools - Std(Optional)	No	20	30 (40 & 60)	30 (40 & 60)
Maximum tool dia with all pockets full	No	80	75	75
Maximum tool dia with adjacent pockets empty	mm	140	125	125
Maximum tool length	mm	250	250	250
Tool weight	kg	3	8	8
Tool change time tool to tool	sec	2.5	3.2	3.2
<b>Automatic Tool Changer</b>				
<b>Linear axes</b>				
Positioning A	mm	0.008	0.008	0.008
Repeatability R	mm	0.005	0.005	0.005
<b>B axis - Tilting table</b>				
Positioning A	arc sec	10	10	10
Repeatability R	arc sec	4	4	4
<b>C axis - Rotary Table</b>				
Positioning A	arc sec	8	8	8
Repeatability R	arc sec	4	4	4
<b>CNC System</b>				
		Siemens 828D SL / Mitsubhishi M80/Fanuc Oi MF	Siemens 828DSL (std)/ MitsubhishiM80/Fanuc Oi MF	Siemens 828DSL/ Mitsubhishi M80/Fanuc Oi MF
<b>Installation Data</b>				
Basic weight of machine	kg	~ 6000	~ 9000	~ 11000
Machine Width X Depth x Height	mm	~ 1600 x 3500 x 3100 – Without chip conveyor	~ 3700 x 3900 x 3100	~ 4000 x 4200 x 3100
Total connected load	kVA	~35	~ 50	~ 55
Compressed air	bar	5	5	5
Coolant Tank	L	400	400	400
Power supply		415 V ± 10 % AC, 50 ± 2 % Hz, 3 phase	415 V ± 10 % AC, 50 ± 2 % Hz, 3 phase	415 V ± 10 % AC, 50 ± 2 % Hz, 3 phase
Figures within brackets are optional features				

Standard features	
Roller type guide-ways for all linear axes	Rigid tapping & retract Function
Precise ball-screws for all linear axes	Simultaneous 4 axes Linear, circular & helical
Electronic counter-balance for the vertical axis	Interpolation
Automatic centralised lubrication system	Tool life management
AC servo drives for all axes	Machine alarm diagnostics
Air blast for spindle taper cleaning	Energy saving function
Basic coolant system with bed wash & flood	3-tier signal tower lamp
Coolant with scraper type chip conveyor	Machine lamp
AC unit for electrical cabinet	Coolant gun & Pneumatic Gun
Tool magazine - 30 tools (Disk type)	Spindle chiller
Absolute linear scales for all axes	Siemens 828 D SL controller
15" color LCD display	Door safety interlock
Backlash & pitch error compensation	Total machine guard

Optional features
840D SL 5AXIS CNC CONTROL SYSTEM
Coolant through spindle at 20 bar, 16 LPM with HYDROCYCLONE FILTER
Isolation transformer
Coolant chiller
Mist collector
Machine color as per customer
Siemens CAD-CAM package
Standard tool holders
Universal tool pre-setter
Laser system for measure tool offset & tool breakage
CAD model post processor

# Network



## International Network

- Bangladesh
- Bahrain
- China
- France
- Germany
- Iran
- Kuwait
- Netherlands
- Oman
- Poland
- Qatar
- Russia
- Saudi Arabia
- Sri Lanka
- South Africa
- Thailand
- Turkey
- UAE



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