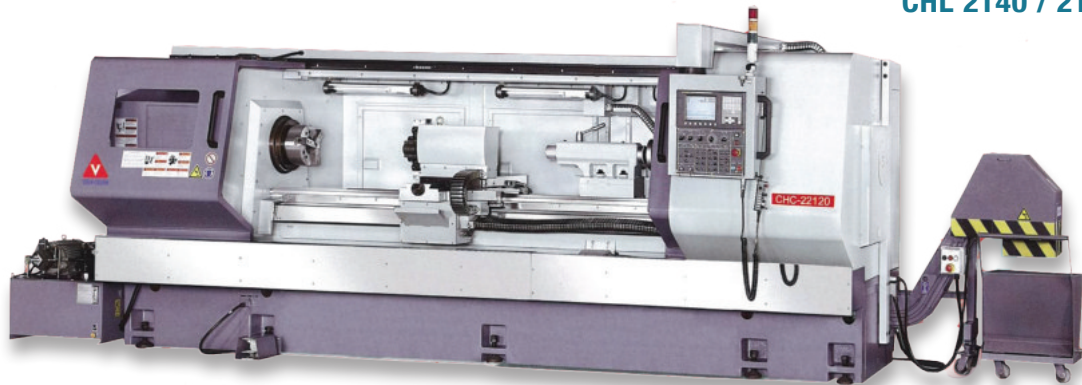


CNC Lathes



CHL 2140 / 2160 / 2180 / 2120



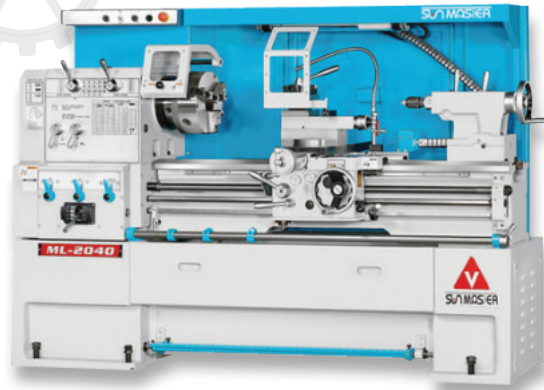
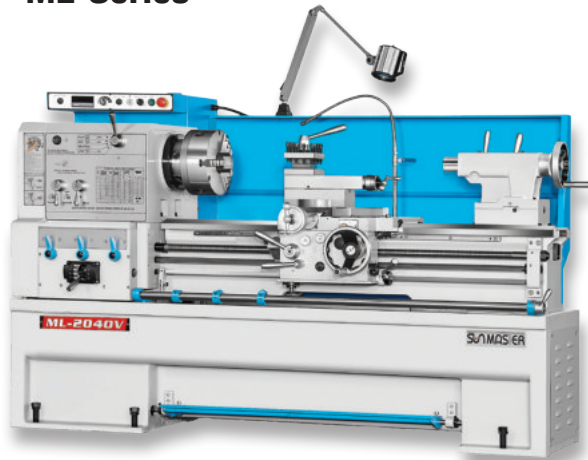
CHC 2240 / 2260 / 2280 / 22120

MACHINE SPECIFICATION

MODEL		CHL-2140	CHL-2160	CHL-2180	CHL-2120	CHC-2240	CHC-2260	CHC-2280	CHC-22120	
Capacity	No. of control axis	2 axis				2 axis				
	Swing over bed	Ø533mm (20.98")				Ø550mm (21.653")				
	STD. D1-8 distance between centers	845mm(33.27")	1345mm(52.95")	1845mm(72.64")	2845mm(112.0")	870mm(34.25")	1370mm(53.93")	1870mm(73.62")	2870mm(113.0")	
	4 way tool post	620mm(24.41")	1120mm(44.09")	1620mm(63.78")	2620mm(103.1")	680mm(26.77")	1180mm(46.45")	1680mm(66.14")	2680mm(105.5")	
	STD. D1-8 Max. working length	530mm(20.87")	1030mm(40.55")	1530mm(60.24")	2530mm(99.61")	590mm(23.22")	1090mm(42.91")	1590mm(62.60")	2590mm(102.0")	
	Hyd. P8 turret	490mm(19.29")	990mm(38.98")	1490mm(58.66")	2490mm(98.03")	550mm(21.65")	1050mm(41.33")	1550mm(61.02")	2550mm(100.4")	
Headstock and Main Spindle	Hyd. VDI disc	490mm(19.29")	990mm(38.98")	1490mm(58.66")	2490mm(98.03")	550mm(21.65")	1050mm(41.33")	1550mm(61.02")	2550mm(100.4")	
	Max. working diameter	Ø305mm (12")				Ø325mm (12.8")				
	width of bed	345mm (13.58")				345mm (13.58")				
	Spindle nose, internal taper	STD. D1-8 OPT. A2-8, Ø85mm Taper 1/19.18				ASA A2-8, Ø97mm Taper 1/20				
	Spindle center sleeve	Ø85mm Taper 1/19.18 x MT.No.5								
	Spindle bore	Ø80 mm (3.149")				Ø91mm(3.582") / Ø78mm(3.07")				
Cross Slide (X-axis) and Carriage (Z-axis)	Spindle speed : Gear steps /Range	M code automatic 4 steps/	M41 20-60 R.P.M M42 61-200 R.P.M M43 201-670 R.P.M M44 671-2000 R.P.M	Infinitely variable		35-3500 R.P.M Infinitely variable				
	Cross slide travel (X-axis) STD.	300 mm (11.8")				300mm(11.8")				
	Longitudinal travel (Z-axis) STD.	720 mm (28.3")	1220 mm (48.0")	1720 mm (67.7")	2720 mm (107.1")	780mm(30.7")	1280mm (50.4")	1780mm(70.1")	2780mm(109.4")	
	AC servomotor (X-axis)	1.3 kW 8.34 N.m ~ FANUC B12 / 3000is				1.8kW 11 N.m ~ FANUC S12 / 3000is				
	AC servomotor (Z-axis)	2.9 kW 18.6 N.m ~ FANUC B22 / 2000is				2.5kW 20 N.m ~ FANUC S22 / 2000is				
	Dia. of ball screw (X-axis)	Ø25 mm (0.98") P5 C5				Ø25mm(0.98") P5 C5				
Turret	Dia. of ball screw (Z-axis)	Ø50 mm (1.97") P10 C5		Ø63 mm (2.48") P10 C5		Ø50mm(1.97") P10 C5		Ø63mm (2.48") P10 C5		
	Rapid traverse speed (X-axis)	7.5 m/min (295 ipm)				7.5m/min (295 ipm)				
	Rapid traverse speed (Z-axis)	10 m/min (394 ipm)				10m/min (394 ipm)				
	Tool station	STD. Manual 4 way tool post		OPT. Hyd. VDI. V8 or Hydraulic P8		STD. Manual 4 way tool post		OPT. Hyd. VDI.V8 or Hydraulic P8		
	Size of external turning tool	□25 mm		□25 mm		□25 mm		□25 mm		
	Boring bar diameter	Ø40 mm (1.575")		Ø32 mm (1.26")		Ø40mm(1.575")		Ø32mm(1.26")		
Tailstock	Quill diameter	Ø85 mm (3.346")				Ø85mm(3.346")				
	Quill travel	178 mm (7")				178mm(7")				
	Taper of center	MT.No.5				MT.No.5				
Motor	Main spindle	continuous rated	AC 9kW (12 HP) Wide range heavy duty FANUC AC spindle motor				AC 9 kw (12HP) Wide range heavy duty Fanuc AC spindle motor			
		(30 min. rated)	AC 11kW (15 HP) MODEL B11P18/6000				AC 11kw (15HP) MODEL slip18/6000			
	Hydraulic oil pump	OPT. 0.75 kW (1HP) OPT. 1.5 kW (2HP)				STD. 0.75kW (1 HP) OPT. 1.5kW (2 HP)				
	Forced lubrication for headstock	1/4 HP								
	Automatic gears shift	60 W								
Tank Capacity	Coolant pump	1/6 HP				1/6HP				
	Hydraulic tank	STD. 25 Litre (5.5 gal.) OPT. 40 Litre (8.8 gal.)				STD. 25 Litre (5.5 gal.) OPT. 40 Litre (8.8 gal.)				
Measurements	Coolant tank	60L(13.2 gal.)	120L(26.4 gal.)	180L(39.6 gal.)	240L(52.8 gal.)	60L(13.2 gal.)	120L(26.4 gal.)	180L(39.6 gal.)	240L(52.8 gal.)	
	Weight (Net / Gross) Approx.	4,050kgs / 4,450kgs	4,400kgs / 4,900kgs	4,800kgs / 5,400kgs	5,300kgs / 6,000kgs	4,050kgs / 4,450kgs	4,400kgs / 4,900kgs	4,800kgs / 5,400kgs	5,300kgs / 6,000kgs	
	Packing sizes	Length 3200 mm (126")	3700 mm (145.7")	4200 mm (165.4")	5200 mm (204.7")	3200 mm (126")	3700 mm (145.7")	4200 mm (165.4")	5200 mm (204.7")	
	Width x Height	Width 2300 mm (90.6") x Height 2240 mm (88.2")				Width 2300 mm (90.6") x Height 2230 mm (87.8")				

High Speed Precision Lathe

Ø 80 MM SPINDLE BORE
ML Series



ML 1740/1760/1780
2040/2060/2080

ML -1740V/1760V/1780V
-2040V/2060V/2080V

SAFETY FEATURES

Nylon safety gears in end train.
Shear pin in leadscrew.



HEAVY DUTY SPINDLE

- Proven design on same models but with big spindle bore (80 mm) offering more efficient, durable operation.
- Spindle is made from forged alloy steel, hardened, ground & heat treated for dynamical balance.
- The spindle is supported at three points by high precision taper roller and ball bearings keeping rigidity and accuracy.



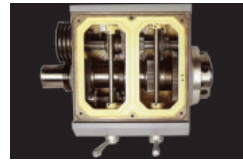
CARRIAGE & SLIDE

- Anti-Float design backlash eliminator fitted in cross slide nut.
- Safety clutch at feed shaft.
- One shot lubrication in carriage & top slide.
- Dual dials supply inch system screw.
- Metric dial supply metric system only.



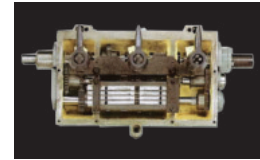
APRON

- R/H or L/H wheel available upon request.
- Integrated automatic control for longitudinal, cross, forward and reverse feed.



HEADSTOCK

- Housing is vibration resistance, deflection-free.
- Gears are hardened & MAAG or REISHAUER ground.



GEAR BOX

Universal gear box allows inch or metric dial. Turing M.P., D.P. threads without gear change.



MACHINE SPECIFICATION

MODEL	ML-1740	ML-1760	ML-1780	ML-2040	ML-2060	ML-2080	ML-1740V	ML-1760V	ML-1780V	ML-2040V	ML-2060V	ML-2080V			
Capacity	Height of centers		216 mm (8.5")		254 mm (10")		216 mm (8.5")		254 mm (10")						
	Swing over bed		Ø432 mm (17")		Ø508 mm (20")		Ø432 mm (17")		Ø508 mm (20")						
	Swing in gap		Ø622 mm (24.48")		Ø698 mm (27.48")		Ø622 mm (24.48")		Ø698 mm (27.48")						
	Swing over cross slide		Ø277 mm (10.9")		Ø353 mm (13.89")		Ø277 mm (10.9")		Ø353 mm (13.89")						
	Distance between centers		1000 mm (40")	1500 mm (60")	2200 mm (86.5")	1000 mm (40")	1500 mm (60")	2200 mm (86.5")	1000 mm (40")	1500 mm (60")	2200 mm (86.5")	1000 mm (40")	1500 mm (60")	2200 mm (86.5")	
Width of bed		305 mm (12")													
Gap width in front of faceplate		195 mm (7.67")													
Spindle nose, internal taper		D1-6, Ø85 mm Taper 1/19.18													
Spindle center sleeve		Ø85 mm Taper 1/19.18 x MT. No.5													
Spindle bore		Ø80 mm (3.149")													
Headstock and Main Spindle	Spindle speed:		12 steps / 36-1800 R.P.M.				3 steps /		L 30-125 R.P.M.						
	Gear steps / Range		A	36	50	70	105			M 125-450 R.P.M.					
		B	130	180	250	380			H 450-2200 R.P.M. Infinitely variable						
		C	620	900	1200	1800									
Carriage	Cross slide travel		235 mm (9.25")		272 mm (10.7")		235 mm (9.25")		272 mm (10.7")						
	Top slide travel		156 mm (6.1")												
Threads and Feeds	Whitworth threads: Kinds / Range		45 Kinds / 2-72 T.P.I.												
	Metric threads: Kinds / Range		39 Kinds / 0.2-14 mm												
	D.P. threads: Kinds / Range		21 Kinds / 8-44 D.P.												
	M.P. threads: Kinds / Range		18 Kinds / 0.3-3.5 M.P.												
	Longitudinal feed		0.04-1.0 mm (0.0015"-0.04")												
Cross feed		0.02-0.5 mm (0.00075"-0.02")													
Tailstock	Quill diameter		Ø59 mm (2.322")												
	Quill travel		127 mm (5")												
	Taper of center		MT.No.4												
Motor	Main spindle		7.5HP						AC 5.5 kw (7.5HP), Inverter						
	Forced lubrication for HD		1/4 HP												
	Coolant pump		1/8HP												
Measurement	Weight (Net /Gross) approx.		1700kgs / 2000kgs	1850kgs / 2150kgs	2375kgs / 2550kgs	1750kgs / 2050kgs	1900kgs / 2200kgs	2425kgs / 2600kgs	1700kgs / 2000kgs	1850kgs / 2150kgs	2375kgs / 2550kgs	1750kgs / 2050kgs	1900kgs / 2200kgs	2425kgs / 2600kgs	
	Packing sizes	Length		2400 mm (94.5")	2900 mm (114.2")	3700 mm (145.7")	2400 mm (94.5")	2900 mm (114.2")	3700 mm (145.7")	2400 mm (94.5")	2900 mm (114.2")	3700 mm (145.7")	2400 mm (94.5")	2900 mm (114.2")	3700 mm (145.7")
		WidthxHeight		Width 1155mm (45.5") x Height 1745mm (68.7")											