

DCM 2400 Series

Double column, Bridge Type, CNC Machining Center





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DCM 3224mm Series



Features:

- Fanuc 18i Controls
- 6,000 rpm With 2 Range Gearbox
- 50 taper , 24.8 hp~35 hp Spindle
- Spindle Oil Cooler
- X axis Travels: 125", 165", 204", 244"
- Y axis Travel: 94" (2400mm)
- Z axis Travels: 36" or 43"option
- ATC: 32 Tool, Swing arm type (40 Tools Optional)
- High Table Load Capacities
- High Rapids
- Roller Guide Ways: X,Y axis
- Box way: Z axis
- Full Enclosure with Coolant system
- Auto Lube System with safety alarms
- Rigid tapping
- Screw type chip conveyer
- Link type chip conveyer
- Heat Exchanger for Electric Panel
- Working lamps
- Leveling kits
- Manuals

Spindle has Cylindrical Double Row Bearings as well as P4 class Angular Contact Bearings (ID/OD)100mm/150mm. This provides ultra high spindle rigidity, able to resist dynamic radial forces over 34,000 Pounds.

Gear Box has 2 Range, Auto Shift with 4 to 1 Ratio. Allows 6,000 RPM spindle to produce over 690 Foot Pounds of Torque in the Low range.

Features	Standard	Option	Remarks
Full Splash Guard	●		
Cooling System & Tank	●		
Spindle oil Cooler	●		
Automatic Lubrication System	●		
Fluorescent	●		2 pcs
Spindel air blow system	●		
Spindle air blast (M code)	●		
Air Blast Through Spindle Side		●	
Operation Manual & Electrical	●		
Leveling Bolts and Blocks	●		
Adjusting Tools And Box	●		
Remote Manual Pulse Generator	●		
Heat Exchanger In Control Box	●		
Automatic Power off	●		
Operation Cycle Finish/Alarm lights	●		
RS-232 Interface	●	●	
CNC Rotary Table			
DNC Software	●		
Coolant Through Spindle Device			300psi
Coolant Gun and Air Socket	●		
Manual 90 angular head		●	
Multi angular milling head		●	
Programmable Coolant Nozzle	●		
Closed Loop Linear System		●	
Twin Screw/link chip conveyer	●		
Auto tool length measurement			
Rigid tapping	●		
Link Type Chip Conveyer	●		
#50 Taper, 6000rpm Gear	●		
#50 6000rpm/8000rpm pully head			32T
#50 Chain type ATC	●		40T/60T
#50 Chain type ATC		●	
Foot switch tool clamping/unclamping	●		
Twin hydraulic counter weight cylinder	●		


Machine Specifications

MODEL	DCM-3224	DCM-4224	DCM-5224	DCM-6224
Travel				
X axis travel	125.9"	165.3"	204.7"	244.0"
Y axis travel	94.4"	94.4"	94.4"	94.4"
Z axis travel	36.2"(43.3"opt.)	36.2"(43.3"opt.)	36.2"(43.3"opt.)	36.2"(43.3"opt.)
Spindle nose to table	7.87"~44.09" (7.87~51.18"opt.)	7.87"~44.09" (7.87~51.18"opt.)	7.87"~44.09" (7.87~51.18"opt.)	7.87"~44.09" (7.87~51.18"opt.)
Distance from spindle centerline	18.7"	18.7"	18.7"	18.7"
Door Width	94.4"	94.4"	94.4"	94.4"
Spindle				
Spindle speed	50~6000 RPM	50~6000 RPM	50~6000 RPM	50~6000 RPM
Spindle Motor HP With Hi-Low 4 to 1 Gearbox	34.8hp/29.5hp Alpha 22/7000i Hi-Low Gearbox	34.8hp/29.5hp Alpha 22/7000i Hi-Low Gearbox	34.8hp/29.5hp Alpha 22/7000i Hi-Low Gearbox	34.8hp/29.5hp Alpha 22/7000i Hi-Low Gearbox
Spindle Bearings	2 each NTN-60162 each NTN-52081 each NTN-6308	2 each NTN-60162 each NTN-52081 each NTN-6308	2 each NTN-60162 each NTN-52081 each NTN-6308	2 each NTN-60162 each NTN-52081 each NTN-6308
Taper size	CT or BT-50	CT or BT-50	CT or BT-50	CT or BT-50
Table				
Working area	125.9" x 82.6"	165.3" x 82.6"	204.7" x 82.6"	244" x 82.6"
Max. loading	22,000 lbs	26,400 lbs	33,000 lbs	37,400 lbs
T-Slots (No. x Width x Pitch)	10 each x .866" x 7.874"	10 each x .866" x 7.874"	10 each x .866" x 7.874"	10 each x .866" x 7.874"
Feed rates				
Rapids on X / Y/ Z axis	472ipm X, 590ipm Y, 472ipm Z	472ipm X, 590ipm Y, 472ipm Z	393ipm X, 590ipm Y, 472ipm Z	314ipm X, 590ipm Y, 472ipm Z
Max. cutting feedrate	236 ipm	236 ipm	236 ipm	236 ipm
Axis motors				
Axis motors	X 7.9hp Alpha 40/3000iYZ 6.4hp Alpha 30/3000i	X 7.9hp Alpha 40/3000iYZ 6.4hp Alpha 30/3000i	X 7.9hp Alpha 40/3000iYZ 6.4hp Alpha 30/3000i	X 7.9hp Alpha 40/3000iYZ 6.4hp Alpha 30/3000i
Automatic Tool Changer				
ATC Capacity and Type	32 tools , (40 & 60 Opt)Arm Type with Chain Magazine	32 tools , (40 & 60 Opt)Arm Type with Chain Magazine	32 tools , (40 & 60 Opt)Arm Type with Chain Magazine	32 tools , (40 & 60 Opt)Arm Type with Chain Magazine
Max. Diameter, Length and Weight	5" diameter x 11.8" 33 Pounds	5" diameter x 11.8" 33 Pounds	5" diameter x 11.8" 33 Pounds	5" diameter x 11.8" 33 Pounds
Tool Change Time	8 seconds	8 seconds	8 seconds	8 seconds

Specifications are subject to change without notice


Machine Specifications

MODELS	DCM-3224	DCM-4224	DCM-5224	DCM-6224
Ball Screws				
X axis Ball Screw	3.14" diameterR80-20E1-FDVE-4757-5386-0.008 Hiwin	3.14" diameterR80-20E1-FDVE-4757-5386-0.008 Hiwin	3.14" diameterR80-20E1-FDVE-4757-5386-0.008 Hiwin	3.14" diameterR80-20E1-FDVE-4757-5386-0.008 Hiwin
Y axis Ball Screw	2.48" diameterR63-20E1-FDVE-3244-3776-0.008 Hiwin	2.48" diameterR63-20E1-FDVE-3244-3776-0.008 Hiwin	2.48" diameterR63-20E1-FDVE-3244-3776-0.008 Hiwin	2.48" diameterR63-20E1-FDVE-3244-3776-0.008 Hiwin
Y axis Ball Screw	1.96" diameterR50-10B2-FDV-1621-2085-0.008 Hiwin	1.96" diameterR50-10B2-FDV-1621-2085-0.008 Hiwin	1.96" diameterR50-10B2-FDV-1621-2085-0.008 Hiwin	1.96" diameterR50-10B2-FDV-1621-2085-0.008 Hiwin
Support Bearings for Ball Screws				
X axis Thrust Bearings	8 each, 2.36"ID x 4.72"OD 60TAC120BSUC	8 each, 2.36"ID x 4.72"OD 60TAC120BSUC	8 each, 2.36"ID x 4.72"OD 60TAC120BSUC	8 each, 2.36"ID x 4.72"OD 60TAC120BSUC
Y axis Thrust Bearings	8 each, 1.96" ID x 3.93" OD BST50x100-1BP4	8 each, 1.96" ID x 3.93" OD BST50x100-1BP4	8 each, 1.96" ID x 3.93" OD BST50x100-1BP4	8 each, 1.96" ID x 3.93" OD BST50x100-1BP4
Y axis Thrust Bearings	5 each, 1.96" ID x 3.93" OD BST50x100-1BP4	5 each, 1.96" ID x 3.93" OD BST50x100-1BP4	5 each, 1.96" ID x 3.93" OD BST50x100-1BP4	5 each, 1.96" ID x 3.93" OD BST50x100-1BP4
Axis Ways				
X Axis Linear Roller Guide Way	16 each, 5.5" Bearing BlocksHiwin RGW55CC	16 each, 5.5" Bearing BlocksHiwin RGW55CC	16 each, 5.5" Bearing BlocksHiwin RGW55CC	16 each, 5.5" Bearing BlocksHiwin RGW55CC
X Axis Linear Roller Guide Way	5 each, 5.5" Bearing Blocks Hiwin RGH55CA Box Way	5 each, 5.5" Bearing Blocks Hiwin RGH55CA Box Way	5 each, 5.5" Bearing Blocks Hiwin RGH55CA Box Way	5 each, 5.5" Bearing Blocks Hiwin RGH55CA Box Way
Z Axis Box Way	Box Way	Box Way	Box Way	Box Way
Miscellaneous Specifications				
Main Coolant System	.6 hp Grundfos MTH2-30/3A 3phase. 250 gallons	.6 hp Grundfos MTH2-30/3A 3phase. 250 gallons	.6 hp Grundfos MTH2-30/3A 3phase. 250 gallons	.6 hp Grundfos MTH2-30/3A 3phase. 250 gallons
High Pressure, Coolant Through Spindle System	Hi-pressure 4hp Grundfos CRK260/26 For CTS..7 hp Grundfos MTH4-20/2A for circulation.75 gallons 300psi	Hi-pressure 4hp Grundfos CRK260/26 For CTS..7 hp Grundfos MTH4-20/2A for circulation.75 gallons 300psi	Hi-pressure 4hp Grundfos CRK260/26 For CTS..7 hp Grundfos MTH4-20/2A for circulation.75 gallons 300psi	Hi-pressure 4hp Grundfos CRK260/26For CTS..7 hp Grundfos MTH4-20/2A for circulation.75 gallons 300psi
Hydraulic Unit	5hp Tantung FBB/PT	5hp Tantung FBB/PT	5hp Tantung FBB/PT	5hp Tantung FBB/PT
Chip Augers	2 each ½ hp	2 each ½ hp	2 each ½ hp	2 each ½ hp
Chip Conveyor	1/4hp gear motor Betake	1/4hp gear motor Betake	1/4hp gear motor Betake	1/4hp gear motor Betake
Air source required	85 psi	85 psi	85 psi	85 psi
Machine weight (Net/Gross)	70,400 lbs/ 74,8000 lbs	79,200 lbs/83, 600 lbs	90,200 lbs/ 94,600 lbs	100,100 lbs/ 104,500 lbs
Power source required (KVA.)	50 KVA	50 KVA	50 KVA	50 KVA
Floor space (L x W x H)	428" x 217" x 193"	546" x 217" x 193"	650" x 217" x 193"	709" x 217" x 193"