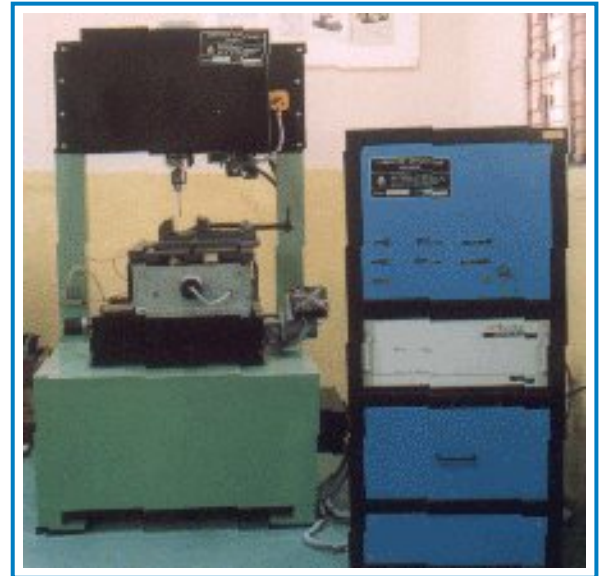




HYTECH EDU. EQUIP. PVT. LTD

CNC DRILLING MACHINE



DESCRIPTION :

The MTD -270 Drilling Machine is equipped with Industrial simultaneous 3 axis point to point CNC Controller. CNC-D3 is most suitable for Hytech education and training requirement.

CNC Drilling Machine is 100% indigenous in design and development manufactured by using mostly indigenously available components.

Machine is having capacity with Drilling upto 6 mm on Mild Steel and upto 8 mm on Cast Iron material .

1.0 TABLE

- 1.1 Length X Width : 500 X 250 mm. (approx)
- 1.2 Clamping Area : 450 X 200 mm. (approx)
- 1.3 T Slots : 10 mm slot width,

2.0 AXES TRAVEL

- 2.1 Longitudinal traverse : 250 mm
- 2.2 Cross traverse : 250 mm
- 2.3 Vertical traverse : 150 mm

3.0 SPINDLE

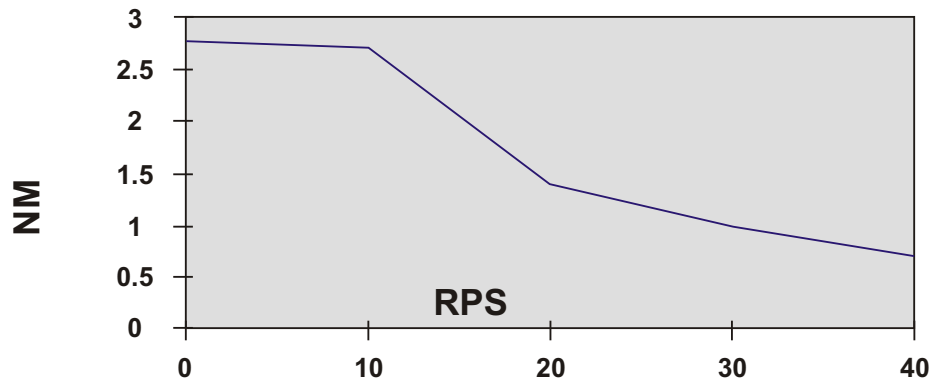
- 3.1 Spindle Speed : 200 TO 1500 rpm
- 3.2 Spindle Power : 1 HP DC Motor

4.0 CNC SYSTEM

- 4.1 Axes Control : 3 axis (X,Y & Z simultaneously)
- 4.2 Least Count : 0.015 mm
- 4.3 Accuracies
 - a) Resolution : 0.015 mm
 - b) Repeatability : 0.050 mm
 - c) Positioning : 0.050 mm for any measuring length
- 4.4 Rapid Traverse Rate : 300 mm/min
- 4.5 Feed Rate : 1 - 300 mm/min (X,Y axis)
- 4.6 Interpolation : LINEAR Interpolation
- 4.7 Command Type : Absolute and Incremental
- 4.8 Data Entry : Keyboard
- 4.9 Backlash Compensation : Upto 2 mm on each axis
- 4.10 Axis Drive : DC stepper motor for all the axes
- 4.11 Program Memory : 800 MB

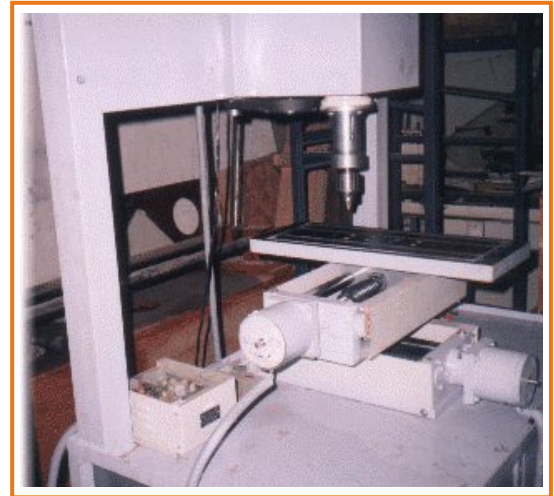
- 4.12 Programming : G Codes (Preparatory function)
M Codes (Miscellaneous function)
S Codes (Spindle Speed in RPM)
X Code (For X axis movement)
Y Code (For Y axis movement)
Z Code (For X axis movement)
- 4.13 Canned Cycle : Drilling , Peck drilling,
- 4.14 Co-ordinates of : ISO code Programming, Point to point movement
- 4.15 Electrical Power : 230 V, 50 Hz.

TORQUE Vs. RPS FOR STEPPER MOTOR



SALIENT FEATURE OF CONTROLLER :

1. Compact table mounted with industrial grade 'CNC-3D' extremely powerful yet easy to operate CNC Controller.
2. Slide motion through precision Lead screw.
3. Stepless DC Spindle Drive.
4. Sophisticated and powerful yet user friendly software for on-line programming and graphic simulation on PC.
5. Hardened and ground spindle runs on precision antifriction bearing.
6. Comprehensive safety features in Hardware and software
7. Teach mode Facility with predrilled Template.
8. Automatic Reference Point Finding
9. Programmable Offset for (0 , 0) Position.
10. Table Locking facility with Stepper Motor brakes.
11. Powerful Graphics.
12. Easy maintainance with spare card system by layman.
13. Rigid structure for minimum vibrations.
14. Program simulation with its Graphical Display on the Monitor for the Total Machining sequences
15. Absolute as well as Incremental Programming
16. Inch as well as Metric values can be entered.
17. Cartesian as well as POLAR co-ordinate programming.
18. Auto, Jog modes of execution.
19. Canned cycle for drilling.
20. Nested repeat loops. & Nested subroutines.
21. Program label and rewind.
22. Programmable dwell.
23. Programmable feedrates in mm/min. or 300 mm/min.
24. Optional stop provided.
25. Axis limit switches using interlocks for safety
26. Keylock for preventing unauthorized access.
27. Powerful EDIT mode including block insert and block delete.
28. Intelligent INPUT mode automatically inserts anticipated entries.
29. 1.2 GB Battery Backup memory.
30. Several programs may reside in memory simultaneously.
31. I/O card interface built-in.
32. Spindle on/off control using M codes.



33. Self diagnostics at power up.
34. Clear, large uncluttered display shows relevant information.
35. System backlash upto 2 mm is automatically compensated through software.
36. Very powerful and comprehensive facility to check and detect programming errors of all types and with PRO
37. ERROR code explanation chart, guiding programmer to achieve program codes.
38. "Simulation Software" for off-line programming facility and for "2D Tool-Path-Display" and "3D-Job-Display" on IBM PC.
39. Jogging is incremental as well as continuous mode and can be done in all 3 axis simultaneously.
40. Software limits provided.
41. Dry RUN facility available.
42. Direct spindle rpm programming possible.
43. Biopollar chopper drive with overload, overcurrent, overtemp., protection.
44. Total Isolation between power drives & control signal.
45. Drive reset facility provided through software as well as through electronic circuitory
46. Switch mode power supply for electronic circuitory.
47. MIL standard connectors for connecion from control pannel to machine.

SCOPE OF SUPPLY :

1. Drilling Spindle with 1 HP Motor.
2. Stepper motor driven X,Y Table for positioning the Job with respect to Drilling Spindle.
3. Stepper Motor Drive Z-axis motion control of the Tool.
4. Rigid structure to absorb vibration.
5. Controller with Power Drive.
6. Computer Interface card to communicate between controller & Computer (Computer is not Included)
7. Operating software.
8. Operational and Training manual.
9. Variable drive for Spindle motor

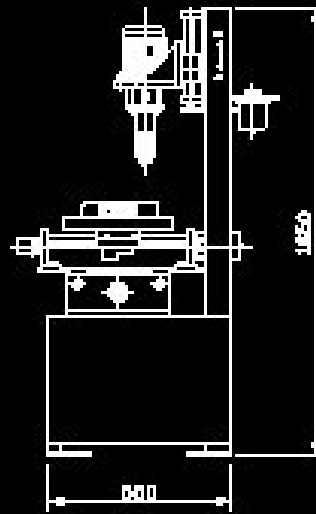
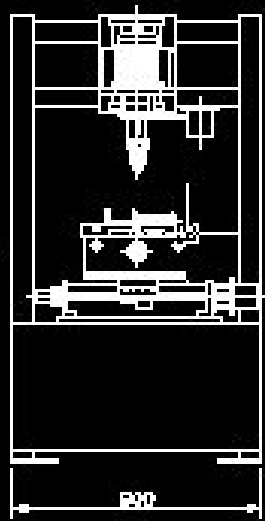
CONCOMITANT ACCESSORIES :

- | | |
|-----------------------|--------|
| 1. Drill chuck | 1 No. |
| 2. Set of Drills | 6 Nos. |
| 3. Clamping Vice | 1 No. |
| 4. Reference Template | |

WHY ONLY HYTECH FOR CNC MACHINE ?

Sr.No.	Why Hytech ?	Other
1.	Not only bench model Trainer, much more rigid. Machine can do small jobs for Industry on Mild Steel, Stainless Steel also . Average Rs. 5,000/-P.M Earning is possible from Job works.	It is only Table Top Trainer. Very low capacity of machine hence not possiblefor MS, SS turning & jobworks for Industry.
2.	Support from Hytech for CAD/CAM training centre in your college. Hytech will provide Training manuals & our Engineers will associate with you for first Training program. Monthly income Rs. 5,000/-P.M each. PAYBACK for both the machine 30 months. Total earning Rs. 5,000/-P.M	----
3.	Two years warranty	One year warranty
4.	After two years warranty, five years plan for service backup.	----
5.	Spare parts available at very reasonable price and Quick delivery .	High spare part cost
6.	Totally indigenously developed software & Hardware , Support service available at any time without hesitation & delay.	Borrowed technology support service is costly & late .

CNC DRILLING TRAINER



HYTECH, PUNE-20

DRG NO: CNS-001
REV: 001
DATE: 10/10/2005

HYTECH, PUNE-20

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