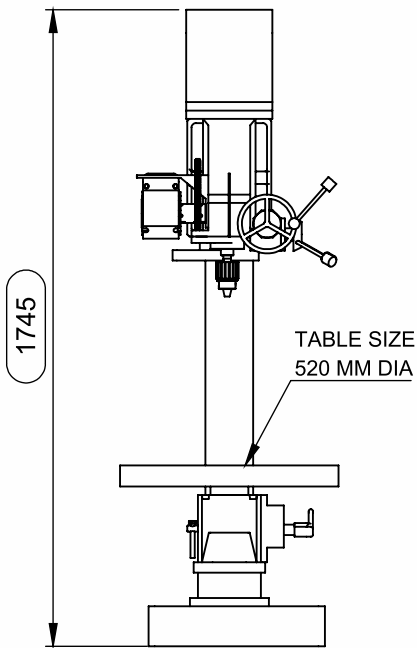


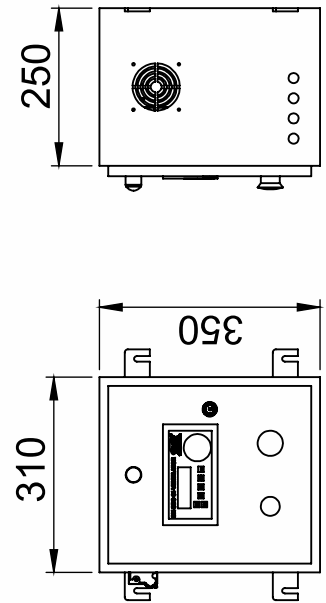
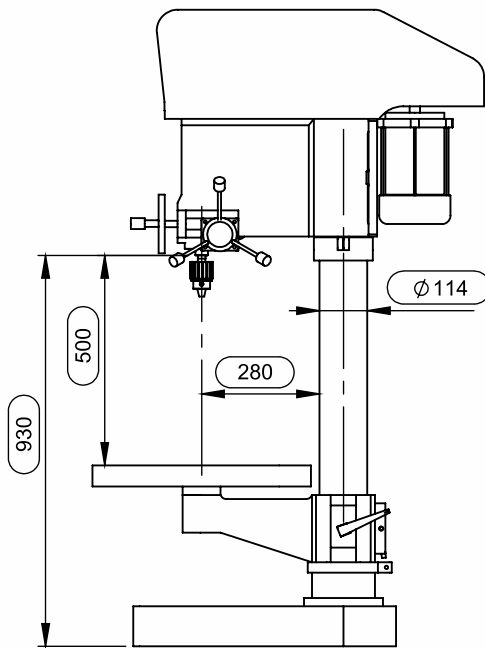


**SPECIFICATION SHEET**  
**Bholanath**

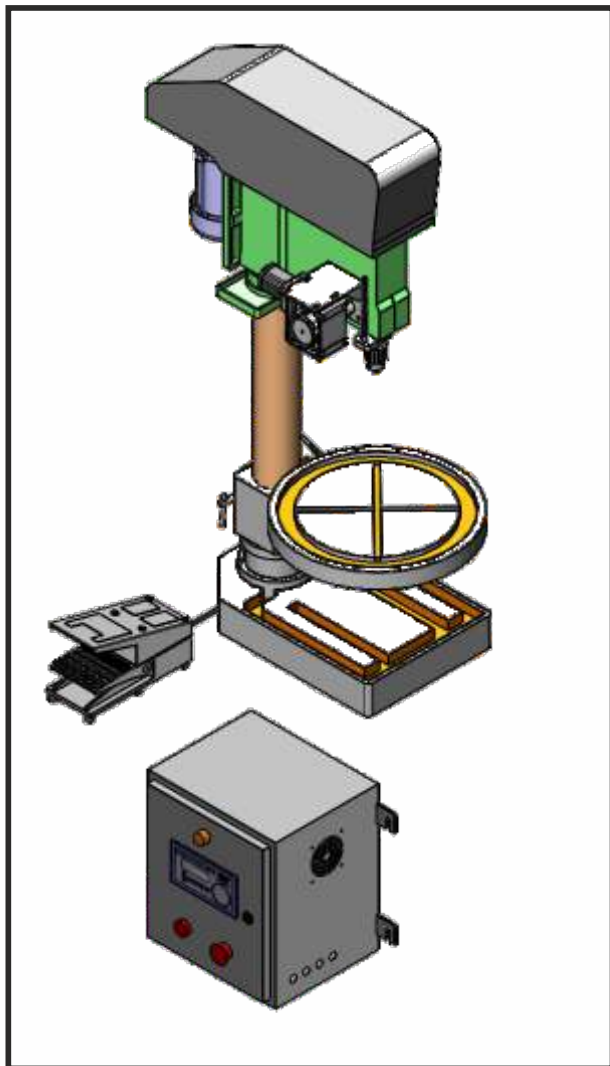
**Drill Machine Automation**  
**BH-DMA-05**



**Drill machine**



**Control Panel**

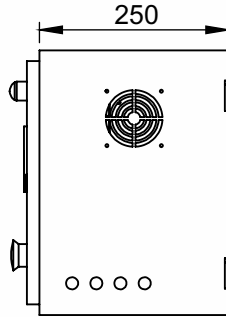
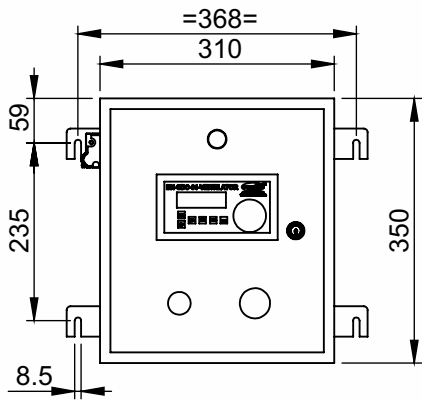


**Technical Data**

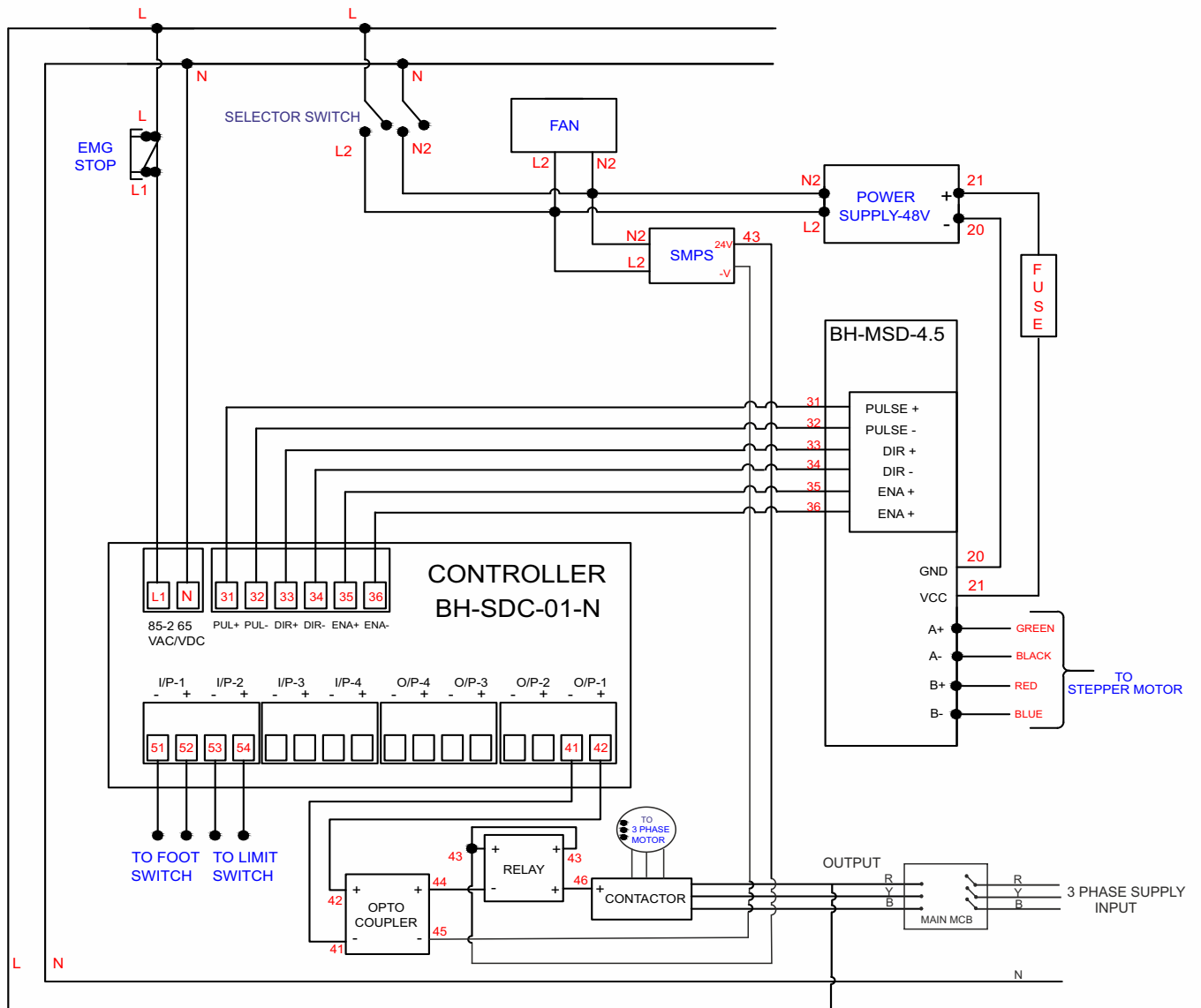
*TECHNICAL SPECIFICATION*

SR NO.	DESCRIPTION	CAPACITY & SIZE
1	DRILLING CAPACITY IN STEEL	40 MM
2	SPINDLE TRAVEL MAXIMUM	170 MM
3	SPINDLE TAPER	SOLID
4	NO OF SPINDLE SPEED	08
5	COLUMN DIAMETER	114 MM
6	MAX DISTANCE BETWEEN SPINDLE CENTRE TO COLUME FACE	280 MM
7	MAX DISTANCE BETWEEN SPINDLE NOSE TO WORKING TABLE	500 MM
8	MAX DISTANCE BETWEEN SPINDLE NOSE TO BASE PATE	930 MM
9	WORKING TABLE SIZE	520 MM DIA
10	ELECTRIC MOTOR	1.5 HP
11	MOTOR RPM	1440
12	SIZE OF BASE PLATE	460X315
13	OVERALL HEIGHT OF MACHINE WITH GUARD	1745 MM
14	V-BELT SECTION	B-58
16	Feed rate of Z Axis (Rapid)	40 mm/sec
17	Drilling feed rate	3mm/sec
18	Controller Input / Output	2 Input /3 Output
19	Power consumption	1200W

# Mechanical Dimension for Control Panel



# Circuit Diagram for control panel.



# Program for Z axis Drilling Machines (Drill size 40mm & Drill Depth 10mm)

## Input Configuration

Press M1 and select configuration  $\xrightarrow{\text{Enter}}$  Select input  $\xrightarrow{\text{Enter}}$

M1 Move:- Linear $\xrightarrow{\text{Enter}}$	M1 Time:- Second $\xrightarrow{\text{Enter}}$
M1 Micro step:- 002 $\xrightarrow{\text{Enter}}$	M1 Linear speed unit } $\xrightarrow{\text{Enter}}$
M1 Pitch:- 5mm $\xrightarrow{\text{Enter}}$ (As per Drilling Machine)	speed : mm/sec } $\xrightarrow{\text{Enter}}$
M1 Max Length:- 1000mm $\xrightarrow{\text{Enter}}$	No of Limit SW: 4 $\xrightarrow{\text{Enter}}$
M1 Speed:- RPM $\xrightarrow{\text{Enter}}$	Jog mode: No $\xrightarrow{\text{Enter}}$
M1 Step unit:- step $\xrightarrow{\text{Enter}}$	

## Output Configuration

Press M1 and select configure  $\xrightarrow{\text{Enter}}$  Select system  $\xrightarrow{\text{Enter}}$

Set parameter }  $\xrightarrow{\text{Enter}}$   
Mode :- Auto

Program:- New  $\xrightarrow{\text{Enter}}$

Select Program no :- 1  $\xrightarrow{\text{Enter}}$

C001 M1 ON  $\xrightarrow{\text{Enter}}$

M Dir :- CCW  $\xrightarrow{\text{Enter}}$

M1 Distance:- 500mm  $\xrightarrow{\text{Enter}}$

M1 Speed:- 10mm/sec  $\xrightarrow{\text{Enter}}$

M1 Acc:- 0.2sec  $\xrightarrow{\text{Enter}}$

M1 Dec:- 0.2sec  $\xrightarrow{\text{Enter}}$

M1 Start at :- SW  $\xrightarrow{\text{Enter}}$

M1 Start at SW :- S1  $\xrightarrow{\text{Enter}}$

M1 Start at SW :- S1H  $\xrightarrow{\text{Enter}}$

M1 Stop at SW  $\xrightarrow{\text{Enter}}$

M1 Stop at SW:- S2  $\xrightarrow{\text{Enter}}$

M1 Stop at SW:- S2 H  $\xrightarrow{\text{Enter}}$

C001 at start : OP1  $\xrightarrow{\text{Enter}}$  OP2  $\xrightarrow{\text{Enter}}$  OP3  $\xrightarrow{\text{Enter}}$  OP4  $\xrightarrow{\text{Enter}}$

C001 at End : OP1  $\xrightarrow{\text{Enter}}$  OP2  $\xrightarrow{\text{Enter}}$  OP3  $\xrightarrow{\text{Enter}}$  OP4  $\xrightarrow{\text{Enter}}$

Present cycle : 001 }  $\xrightarrow{\text{Enter}}$   
Next cycle : C002

C002 type: Run  $\xrightarrow{\text{Enter}}$

C002 M1: ON  $\xrightarrow{\text{Enter}}$

M1 Dir: CW  $\xrightarrow{\text{Enter}}$

M1 Distance: 20mm  $\xrightarrow{\text{Enter}}$  (For Rapid)

M1 speed : 40mm/sec  $\xrightarrow{\text{Enter}}$

M1 Acc : 0.1sec  $\xrightarrow{\text{Enter}}$

M1 Dec : 0.1sec  $\xrightarrow{\text{Enter}}$

M1 start at :- SW  $\xrightarrow{\text{Enter}}$

M1 start at SW:- S1  $\xrightarrow{\text{Enter}}$

M1 start at SW:- S1H  $\xrightarrow{\text{Enter}}$

M1 stop at :- Direct  $\xrightarrow{\text{Enter}}$

C002 at start : OP1  $\xrightarrow{\text{Enter}}$  OP2  $\xrightarrow{\text{Enter}}$  OP3  $\xrightarrow{\text{Enter}}$  OP4  $\xrightarrow{\text{Enter}}$

C002 at End : OP1  $\xrightarrow{\text{Enter}}$  OP2  $\xrightarrow{\text{Enter}}$  OP3  $\xrightarrow{\text{Enter}}$  OP4  $\xrightarrow{\text{Enter}}$

Present cycle : 002 }  $\xrightarrow{\text{Enter}}$   
Next cycle : C003

C003 type: Run  $\xrightarrow{\text{Enter}}$

C003 M1: ON  $\xrightarrow{\text{Enter}}$

M1 Dir: CW  $\xrightarrow{\text{Enter}}$

M1 Distance: 10mm  $\xrightarrow{\text{Enter}}$  (For Drill Depth)

M1 speed : 3mm/sec  $\xrightarrow{\text{Enter}}$

M1 Acc : 0.2sec  $\xrightarrow{\text{Enter}}$

M1 Dec : 0.1sec  $\xrightarrow{\text{Enter}}$

M1 start at :- Direct  $\xrightarrow{\text{Enter}}$

M1 stop at :- Direct  $\xrightarrow{\text{Enter}}$

C003 at start : OP1  $\xrightarrow{\text{Enter}}$  OP2  $\xrightarrow{\text{Enter}}$  OP3  $\xrightarrow{\text{Enter}}$  OP4  $\xrightarrow{\text{Enter}}$

C003 at End : OP1  $\xrightarrow{\text{Enter}}$  OP2  $\xrightarrow{\text{Enter}}$  OP3  $\xrightarrow{\text{Enter}}$  OP4  $\xrightarrow{\text{Enter}}$

Present cycle : 003 }  $\xrightarrow{\text{Enter}}$   
Next cycle : C004

C004 type: Run  $\xrightarrow{\text{Enter}}$

C004 M1: ON  $\xrightarrow{\text{Enter}}$

M1 Dir: CCW  $\xrightarrow{\text{Enter}}$

M1 Distance: 20mm  $\xrightarrow{\text{Enter}}$  (For Drill Depth)

M1 speed : 60mm/sec  $\xrightarrow{\text{Enter}}$

M1 Acc : 0.2sec  $\xrightarrow{\text{Enter}}$

M1 Dec : 0.2sec  $\xrightarrow{\text{Enter}}$

M1 start at :- Direct  $\xrightarrow{\text{Enter}}$

M1 stop at :- Direct  $\xrightarrow{\text{Enter}}$

C004 at start : OP1  $\xrightarrow{\text{Enter}}$  OP2  $\xrightarrow{\text{Enter}}$  OP3  $\xrightarrow{\text{Enter}}$  OP4  $\xrightarrow{\text{Enter}}$

C004 at End : OP1  $\xrightarrow{\text{Enter}}$  OP2  $\xrightarrow{\text{Enter}}$  OP3  $\xrightarrow{\text{Enter}}$  OP4  $\xrightarrow{\text{Enter}}$

Present cycle : 004 }  $\xrightarrow{\text{Enter}}$   
Next cycle : C002

Auto Program No 1 (Completed )