

Technical Sheet

Horizontal & Vertical Knee-type Milling Machine with Universal Head
Model: MU-three axes servo motors series



(Pictures are shown for illustration purpose. The real machine may vary with pictures.)

1. Machine: Horizontal & Vertical Knee-type Milling Machine with Universal Head
Model: MU-46S

2. Features

- ★ **Servo motors drive for X, Y, Z three axes**
- ★ **Handwheel** can be equipped for easy tool setting and smoothly axis moving
- ★ **Robust & rugged machine body** made of high grade casting assuring superb stability and long lasting life.
- ★ **Fine elaborate workmanship** with great care and **neat appearance** with perfect paint finish.
- ★ Precision-ground guideways with hardened surface for long-term accuracy and wear-resistance.
- ★ preloaded ball screw with zero backlash for easy and precise feeds
- ★ simultaneous axis movement




- ★ Turcite-B coated guides
- ★ dovetail guide on X, Y axis
- ★ square guides on Z axis
- ★ swivelling control panel, fully equipped with all operating controls
- ★ automatic lubrication
- ★ spindle brakes
- ★ equipment according to CE
- ★ Large work area of **460x1235mm** and up to **800 kg table load capacity**.
- ★ Vertical universal head **rotates 360°** for versatile cutting performance.
- ★ High speed vertical universal head **firmly fixed on ram** for robust & heavy cutting performance.
- ★ **Separate button for rapid traverse** of axes, aside automatic feeding, for easier operation and less idle time.
- ★ **Modular design with wide options** for diverse needs: 2-axis DRO unit, 3-axis DRO unit, table guards, spindle guards, indexing dividing heads, various clamping kits, vices, tool holders, etc.



3. Specifications

Items	Unit	MU-46S
Table size	mm	460 x 1235
T-slots (number x width x pitch)	mm	5 x 18 x 80
Max. table load	kg	800
Table rotation		No
Travels (X/Y/Z axes)	mm	900 / 650 / 450
Vertical spindle taper		7:24 ISO No.40
Vertical spindle speed	rpm	30-2050 / 27 steps
Swivel angel of vertical spindle head	degree	360°
Distance between vertical spindle end and table top	mm	32 – 482
Feed rates (X/Y/Z axes)	mm/min	(infinite) 10-1000 / 10-1000 / 6-640
Rapid traverse (X/Y/Z axes)	mm/min	2200 / 2200 / 1100
Power of main motor	HP	7
Power of feed AC servo motor X/Y/Z	N.m	15/15/18
Machine dimensions (L x W x H, approximate)	mm	1835 x 2362 x 2090
Machine weight (approximate)	kg	4000











Note: Specifications may vary when optional items are ordered. Consult before ordering.


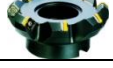


4. Accessories

No.	Items	Illustrative Photos	Quantity
1	Draw bar	For vertical and horizontal spindle	2 pieces
2	Spanner		1 set
3	Coolant system		1 set
4	Work lamp		1 set

No.	Items	Illustrative Photos	Quantity
5	Oil gun		1 piece
6	Operation manual in English		1 copy

5. Options

No.	Items	Illustrative Photos	Unit Price
1	Schneider electrical parts in the cabinet, with CE		Upon request
2	2/3-axis DRO unit		Upon request
3	3-axis DRO unit with panel		Upon request
4	Table splash guard, with safety switch		Upon request
5	Machine vice, 200/250mm open width		Upon request
6	Tilting vice, 160/200mm open width		Upon request
7	Clamping kit, M16 thread, 58-pc		Upon request
8	Collet chuck, NT 40 and collet set, ER-32, 8-pc, 4/5/6/8/10/12/14/16mm		Upon request
9	Boring head set, NT 40, 50mm head dia., 10-125mm boring diameter, with 8-pc boring bar set		Upon request
10	Face mill arbor, NT 40/50, 27mm arbor diameter		Upon request
11	Face mill arbor, NT 50, 32/40mm arbor diameter		Upon request

No.	Items	Illustrative Photos	Unit Price
12	Face mill, 45°, 80mm diameter, 27/32mm locking hole, 5 inserts		Upon request
13	Face mill, 45°, 100mm diameter, 32mm locking hole, 5 inserts		Upon request
14	Face mill, 45°, 125/160mm diameter, 40mm locking hole, 6 inserts		Upon request
15	Drill chuck arbor, NT 40 - B22		Upon request
16	Drill chuck, B22, 5-20mm		Upon request
17	Universal dividing head with 3-jaw chuck, 125/160mm center height		Upon request
18	Rotary table, 200/250mm diameter		Upon request
19	Rotary table, vertical and horizontal type, 160/200mm diameter		Upon request



1. Machine: Horizontal & Vertical Knee-type Milling Machine with Universal Head
Model: MU-50S

2. Features

- ★ **Servo motors drive for X, Y, Z three axes**
- ★ **Handwheel** can be equipped for easy tool setting and smoothly axis moving
- ★ **Robust & rugged machine body** made of high grade casting assuring superb stability and long lasting life.
- ★ **Fine elaborate workmanship** with great care and **neat appearance** with perfect paint finish.
- ★ Precision-ground guideways with hardened surface for long-term accuracy and wear-resistance.
- ★ preloaded ball screw with zero backlash for easy and precise feeds
- ★ simultaneous axis movement
- ★ Turcite-B coated guides
- ★ dovetail guide on X axis
- ★ square guides on Y, Z axes
- ★ swivelling control panel, fully equipped with all operating controls
- ★ automatic lubrication
- ★ spindle brakes
- ★ equipment according to CE
- ★ Large work area of **500x1600mm, opt. 500x2000mm** and up to **1800 kg table load capacity**.
- ★ Vertical universal head **rotates 360°** for versatile cutting performance.




- ★ High speed vertical universal head **firmly fixed on ram** for robust & heavy cutting performance.
- ★ **Separate button for rapid traverse** of axes, aside automatic feeding, for easier operation and less idle time.
- ★ **Compulsory lubrication** of horizontal milling spindle transmission gears for smooth running.
- ★ **Modular design with wide options** for diverse needs: 2-axis DRO unit, 3-axis DRO unit, table guards, spindle guards, indexing dividing heads, various clamping kits, vices, tool holders, etc.

3. Specifications













Items	Unit	MU-50S
Table size	mm	Standard: 500 x 1600 Option: 500x2000
T-slots (number x width x pitch)	mm	5 x 18 x 80
Max. table load	kg	1800
Table rotation		No
Travels (X/Y/Z axes)	mm	1200 (1500--opt.) / 700 / 500
Vertical spindle taper		7:24 ISO No.50
Vertical spindle speed	rpm	30-2050 / 27 steps
Swivel angel of vertical spindle head	degree	360°
Distance between vertical spindle end and table top	mm	25– 525
Feed rates (X/Y/Z axes)	mm/min	(infinite) 10-1000 / 10-1000 /5-500
Rapid traverse (X/Y/Z axes)	mm/min	2200 / 2200 / 1100
Power of main motor	HP	10
Power of feed servo motor	N.m	X/Y/Z 15/15/18Nm
Machine dimensions (L x W x H, approximate)	mm	2475 /2986 (2000 table length) x 2260 x 2180
Machine weight (approximate)	kg	5000 / 5500 (2000mm table length)

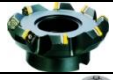




Note: Specifications may vary when optional items are ordered. Consult before ordering.

4. Accessories

No.	Items	Illustrative Photos	Quantity
1	ISO50 end milling tool shank Dia. 27mm		1 piece
2	Draw bar		1 piece
3	Spanner		1 set
4	Coolant system		1 set
5	Work lamp		1 set
6	Oil gun		1 piece
7	Operation manual in English		1 copy

5. Options

No.	Items	Illustrative Photos	Unit Price
1	Worktable length 2000mm with 1500mm X axis travel		Upon request
3	Schneider electrical parts in the cabinet, with CE		Upon request
5	2/3-axis DRO unit		Upon request
6	3-axis DRO unit with panel		Upon request
7	Table splash guard, with safety switch		Upon request
8	Machine vice, 200/250mm open width		Upon request
9	Tilting vice, 160/200mm open width		Upon request
10	Clamping kit, M16 thread, 58-pc		Upon request
11	Collet chuck, NT 50 and collet set, ER-40, 8-pc, 3-26mm		Upon request
12	Boring head set, NT 50, 83mm head dia., 8-280mm boring diameter, with 8-pc boring bar set. Taiwan Stanny		Upon request
13	Face mill arbor, NT 50, 27mm arbor diameter		Upon request
14	Face mill arbor, NT 50, 32/40mm arbor diameter		Upon request
15	Face mill, 45°, 80mm diameter, 27/32mm locking hole, 5 inserts		Upon request
16	Face mill, 45°, 100mm diameter, 32mm locking hole, 5 inserts		Upon request

No.	Items	Illustrative Photos	Unit Price
17	Face mill, 45°, 125/160mm diameter, 40mm locking hole, 6 inserts		Upon request
18	Drill chuck, B22, 5-20mm		Upon request
19	Universal dividing head with 3-jaw chuck, 125/160mm center height		Upon request
20	Rotary table, 200/250mm diameter		Upon request
21	Rotary table, vertical and horizontal type, 160/200mm diameter		Upon request