

# Milling Machine Component Definitions

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## **Motor**

Drives the spindle using electric power.

## **Motor Switch**

Turns the motor on or off.

## **Variable Speed Control**

Adjusts the spindle speed while the machine is running.

## **Tool Head**

Houses the spindle and other components, adjustable for angular operations.

## **Quill Feed Rate Selector**

Controls the rate at which the quill feeds down.

## **Quill Feed Handwheel**

Manually advances or retracts the quill for drilling operations.

## **Quill Feed Hand Lever**

Lever used to manually feed the quill during drilling.

## **Quill**

The sliding component that houses the spindle, moves vertically.

## **Spindle**

Rotating shaft that holds and drives the cutting tool.

## **Digital Readout**

Displays the current position of machine axes for precision machining.

## **Ram**

Horizontal arm that supports the tool head and allows in/out movement.

## **Ram Locks**

Locks the ram in place once adjusted.

## **Ram Adjust Handle**

Used to slide the ram in or out to adjust position.

## **Table**

Flat surface where workpieces are secured for machining.

### **Table Locks**

Locks the table in place along the X and Y axes.

### **Table Stop Dogs**

Mechanical stops to limit table travel distance.

### **Table Traverse Crank Handle**

Moves the table left and right (X-axis travel).

### **Table Power Feed**

Mechanism to automatically move the table for consistent feed rate.

### **Saddle**

Supports the table and allows Y-axis travel (in and out).

### **Saddle Traverse Crank**

Moves the saddle forward and backward (Y-axis).

### **Knee**

Supports the saddle and table, moves up/down (Z-axis).

### **Vertical Knee Traverse Crank**

Raises or lowers the knee to change tool-to-workpiece height.

### **Column**

Main vertical support structure for the entire machine.

### **Base**

Bottom-most support structure that stabilizes the machine.