

CNSI Innovation Workshop

PM-25MV Milling Machine Users Outline

Revised July 2019

This guide may be found online through the Innovation Workshop GauchoSpace page.

Location

The PM-25MV is located in 2448 Elings Hall.

Safety Issues

- Leaving chuck key in
- not closing cover
- hand near tool while spindle on or table moving
- hand getting pinched in vice
- trying to remove too much material
- wearing jewelry or long sleeves
- eye protection for flying chips
- part or tool not being secure
- handling sharp tools with bare hands
- dropping heavy objects

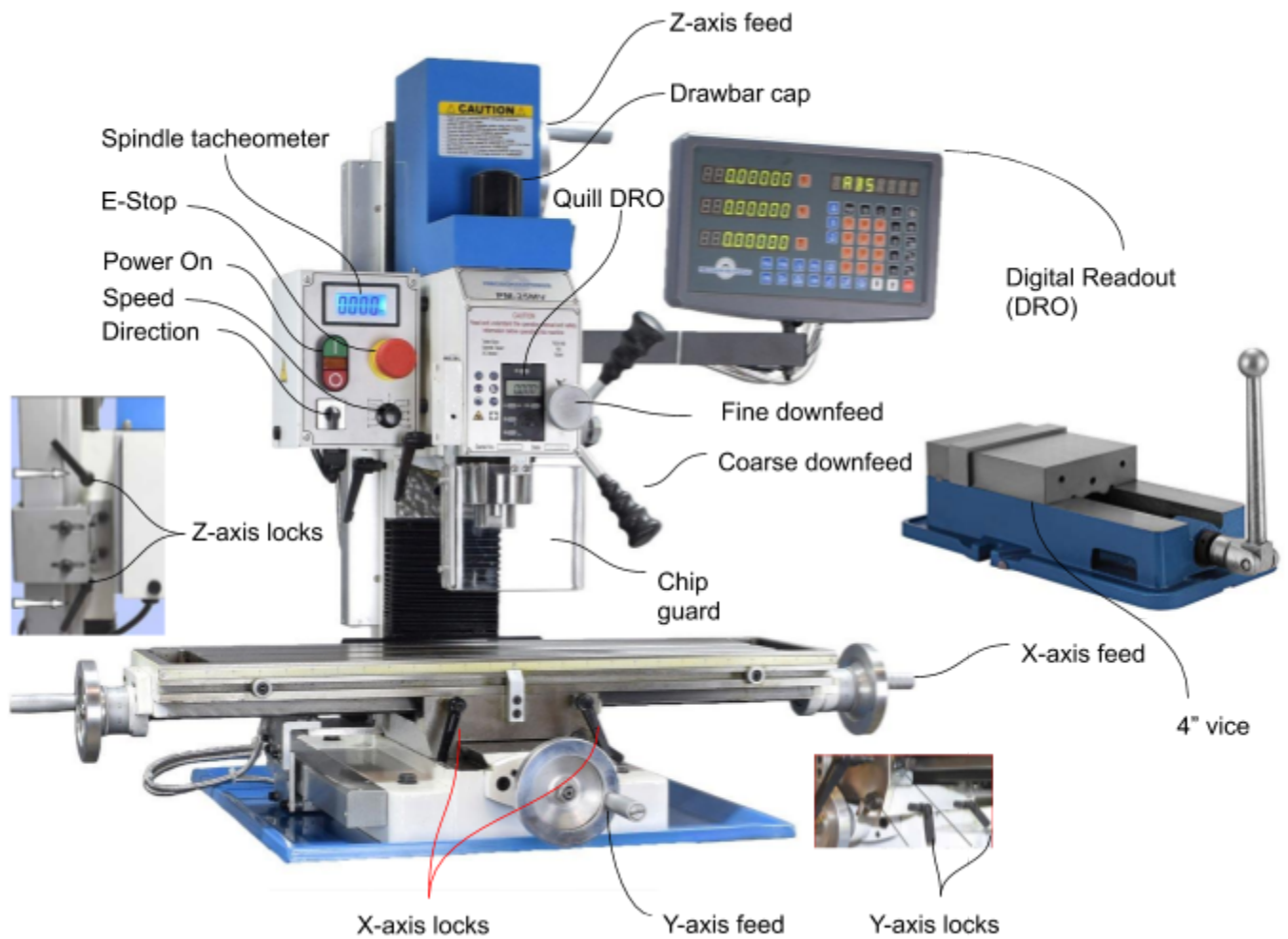
Training

Attend the in-person training and consult the [PM-25MV manual](#) and [PM DRO manual](#). Both documents are found on the Innovation Workshop GauchoSpace page.

Overview

The system consists of the following main components.

- Mill
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- DRO
- Vice
- Collets
- Tooling



User Guide

Sequence of operation:

- Secure part
 - Load part in vice
 - If part can't fit in vice, use hold-downs which are in the "mill supplies cabinet"
 - Use parallels if required
 - Make sure part does not interfere with motion of the table and cannot collide with anything
 - Make sure the area of the part to machine is within reach of the tool
- Locate part
 - Edge find
- Secure tool
 - Find proper R-8 collet
 - *Tool changing procedure*
- Set speed & direction

- Use the knob under the Emergency Stop button to adjust the speed.
 - Use the toggle under the Power On switch to set direction
- Move table
 - make sure that axis is not locked
 - Use the handles to move the table in X and Y axes
- Drilling
 - place drill chuck in collet
 - place drill in drill chuck
 - tighten chuck with chuck key
 - remove chuck key
 - set proper speed
 - position drill over center-drilled hole
 - peck drill, add coolant periodically
- Milling
- Tapping
- Useful DRO commands