

HOW TO USE A ROTARY TABLE ON A LATHE

If you find yourself limited to just a lathe, it is possible to do milling operations, even down to using a rotary table. By fitting a HAFCO Vertical Mill Slide to the lathe, milling operations can be carried out. It should be noted that this method of milling may have limitations, but in most cases most milling tasks can be carried out.

To prepare the lathe for milling with a rotary table follow the steps below.

Fig.1

Step 1:

Remove the toolpost from the saddle of the lathe. The top of the cross slide may have T-Slots. If this is the case then fitting the HAFCO Vertical Mill Slide will be easy. If there is no T-Slots then drill and tap holes to secure the slide. (NOTE! Be sure not to drill where the dovetail slide ways are. It may be necessary not to use the slots in the slide provided but instead you may have to drill new holes.) (Fig.1)

The HAFCO Vertical Mill Slide should fit most lathes but if you need to check make sure that the centre of the table can line up with the centre of the lathe

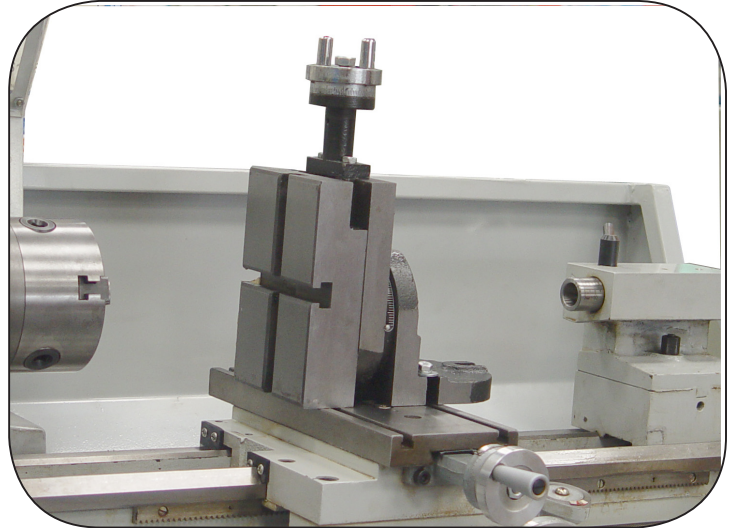


Fig.2

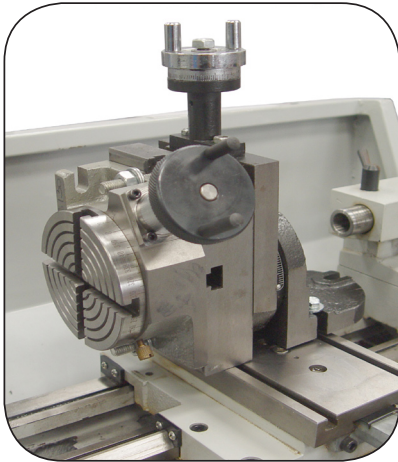
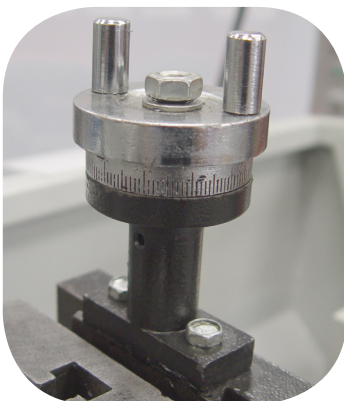


Fig.3



Step 2:

Clamp a 3" Toolmaster Rotary Table to the HAFCO Vertical Mill Slide using the T-slots in the vertical slide table. Make sure that the rotary table handle is positioned to the top and facing the handle of the cross slide (Fig.2)

Adjustments can now be made with vertical travel through the vertical slide handle (Fig.3), Horizontal movement by the cross slide handle (Fig.4) and rotary movement through the rotary table handle (Fig.5)

Fig.4

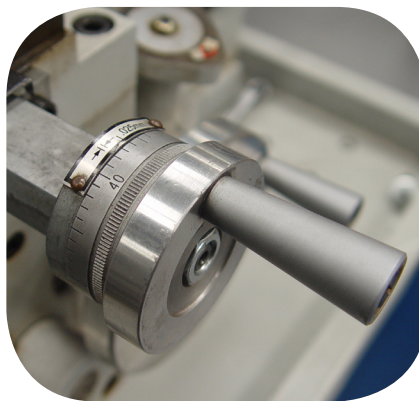
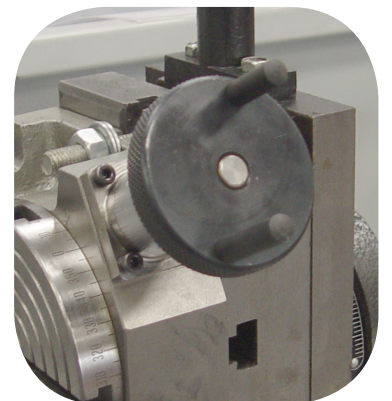


Fig.5



Depending on what you want to do will govern the next step you take. If your work piece needs to be machined concentric to the cutter then the rotary table needs to be set up on the centre with the cutter. The cutter can be held in the chuck or you can remove the chuck and use the taper in the head stock to hold a collet or a collet chuck. The next page deals with the setup.

To setup the rotary table so that it is on center with the lathe center line first use a dead centre in the headstock taper to line the head up so that it is close to where you want it to be. This will make the final setup much easier.

With the dead centre placed in the headstock taper locate the tip of the dead centre in the small chamfered bore in the middle of the rotary table. Fig.6

If greater accuracy is required a dial indicator can be mounted on the face of the chuck. Fig.7

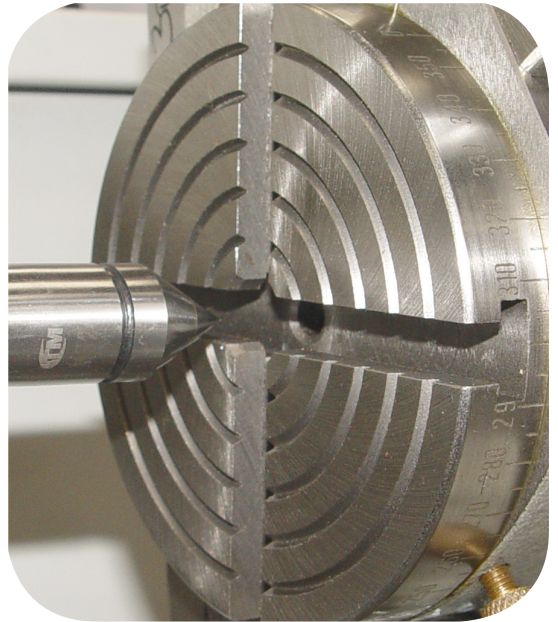


Fig.6

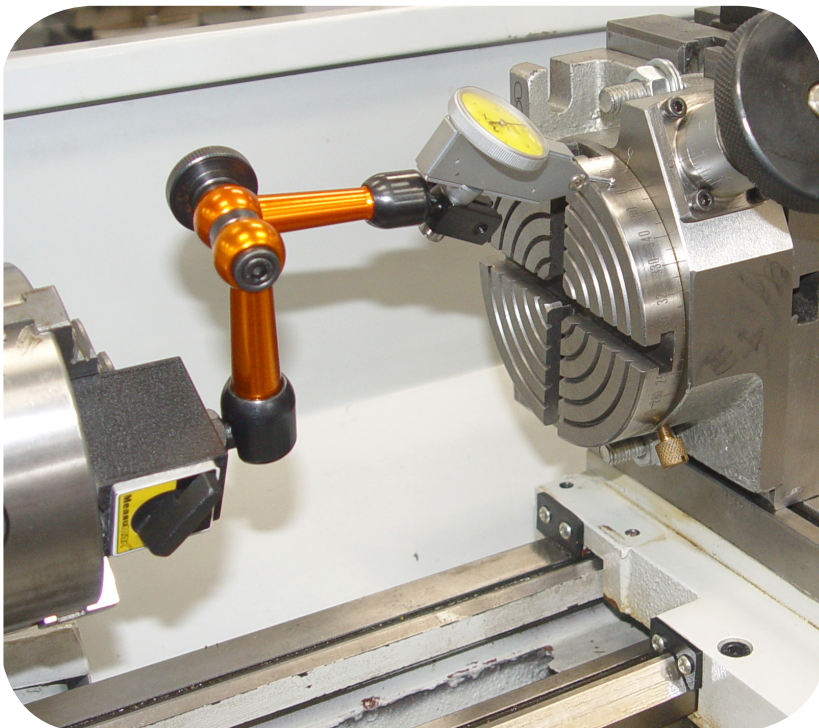


Fig.7

Parts used

Vertical Milling Slide HAFCO Code L277

Magnetic Base MEASUMAX 38-430

Dial Test Indicator MEASUMAX 34-217