

CrushGrind Wood Instructions

Most kitchenware shops are now offering salt and pepper mills utilising ceramic mechanisms. The reason for this is that they are durable, adjustable and much more efficient than similar products. The CrushGrind[®] mechanisms that we sell are available as a shaftless version (CrushGrind Wood) and a 195mm version with a shaft (CrushGrind Shaft).

The shaft can be reduced in length for a shorter mill if required. CrushGrind[®] are like no other grinders, their unique ceramic mechanism allows you to grind almost anything, including salt, pepper, coffee, herbs and spices. The mechanisms are fully adjustable from fine to coarse with 14 settings in total and the ceramic parts are guaranteed for 25 years. No glues or screws are necessary for making the mills and a special recess tool from Crown is available for shaping the inside of the blank for insertion of the mechanism.



CrushGrind Wood Instructions

Congratulations on your choice of this high quality ceramic peppermill mechanism which should give you many years of useful service. The following tips and guidance should assist in the process of making a mill to be proud of.

Preparing your blank

The length of blank required for the production of this mill will be quite flexible due to the design of the mechanism. It will however need to be long enough to accommodate the mechanism plus some capacity for containing the peppercorns or salt.

A section of approximately 65mm square would be a good starting point for the main body of the mill and the first part of the process is to mount this between centres and turn down to a cylinder slightly undercutting the end grain sections at each end.

Measure 70mm from one end of the timber and cut a tenon 5mm long to fit the jaws of your chuck. Part off this section of 75mm long which will become the lower part of the mill.

Boring the mill blanks

Holding this part in your woodturning chuck by the tenon, bore a hole 45mm diameter by 19mm deep in the bottom of the mill body. A Forstner bit held in a tailstock chuck would be a suitable method for this.

Change the bit to a 38mm size and continue boring to about $\frac{3}{4}$ of the timber length.

Turn the timber end for end and holding securely in a chuck, bore in from the other end to meet up with the previous hole. This completes the boring of the lower section of the mill.

Mount the other section of timber between centres and turn a tenon at the top end for mounting in a chuck. If your design includes the use of a stopper at the top for refilling with peppercorns you will need to part off this section allowing sufficient length for a tenon which will accommodate the silicone sealing ring (952588). An additional tenon will then have to be turned for mounting the central part of the mill.

If your design does not require a stopper at the top, the mill can be refilled by unscrewing the knob at the bottom of the mechanism, removing the ceramic centre section and the spring allowing access to the central part of the mill.

For mills without a stopper, the produced tenon should be held in the jaws of a chuck and a 25mm hole bored to a sufficient depth to accommodate the top part of the mechanism plus a chamber for peppercorns.

Using tailstock support, turn a tenon on the bottom of this section 14.8mm long and 38mm diameter to fit into the hole at the top of the bottom section of the mill. Aim for a snug fit that allows the parts to rotate using the bottom section as a guide.

With a suitable side cutting scraper, produce a recess 5 x 5mm at 14.8mm in from the end of the timber. This locates the catchers at the top of the mechanism during assembly of the mill.

If you are producing a design that incorporates a stopper for refilling, then the central section of the mill will need to have the 25mm hole bored through from both ends and a stopper produced with a tenon to fit into the top of it. A suitable recess should be turned to accommodate a sealing ring midway along the stopper tenon.

Finishing your mill

The design for the exterior of the mill is entirely up to you, and for remounting the sections of the mill on the lathe for finishing, you will need to make up some stepped blocks using timber off cuts to fit into the ends of the sections to be turned.

Shape the mill as required and sand and finish to your satisfaction.

Final Assembly

When you are satisfied with the design and finish of your mill, you will need to assemble the components. A careful check of dimensions should be made before assembly of the mill takes place **N.B When producing a CrushGrind mill, the utmost care and attention should be paid to the dimensions given as this will ensure the assembly goes smoothly and you will have a mill that will last for many years.**

Make up a cylindrical block of wood 44mm diameter by 25mm long and produce a recess in one end big enough to accommodate the knob at the bottom of the mechanism. This is used to press the mechanism up into the lower section of the mill.

A suitable block will be needed for the top end but the size and shape will be determined by the design of your mill. A bench drill can be used for pressing the

CrushGrind Wood Instructions

components together or you could mount between centres and use the tailstock quill for pressing the mechanism into place.

The following saw tool Forstner bits would be suitable for drilling the required holes

502052 Fisch Saw Toothed Forstner Bit 25mm

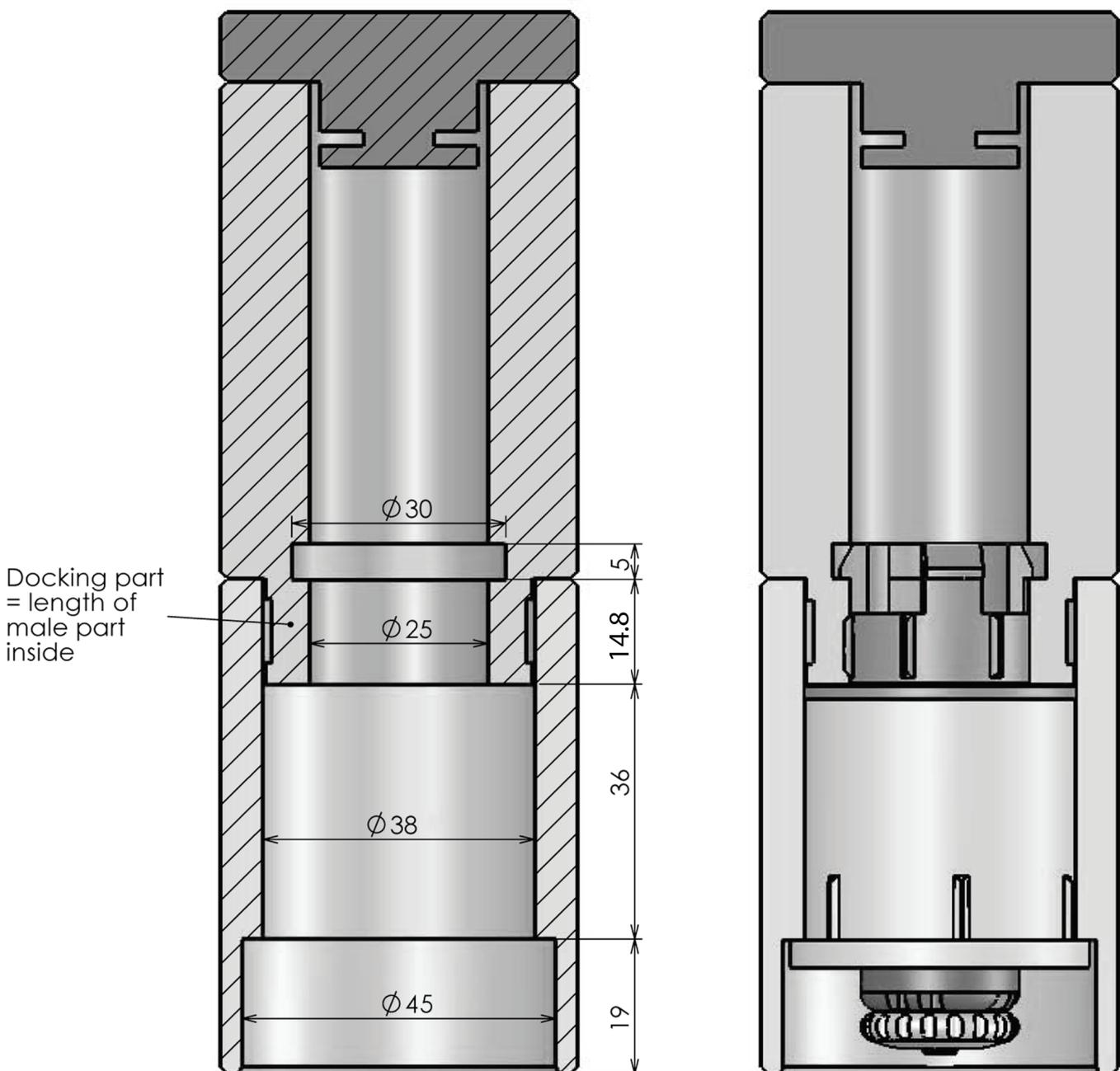
502056 Fisch Saw Toothed Forstner Bit 38mm

502057 Fisch Saw Toothed Forstner Bit 45mm

A Crown side cutting scraper for producing the recess to accommodate the catchers of the mechanism is available (**952594**).

CrushGrind Wood Drawing

Measurements are in (mm)





Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local recycling centre and place into the appropriate recycling bin.