

COFFEEGRIND®

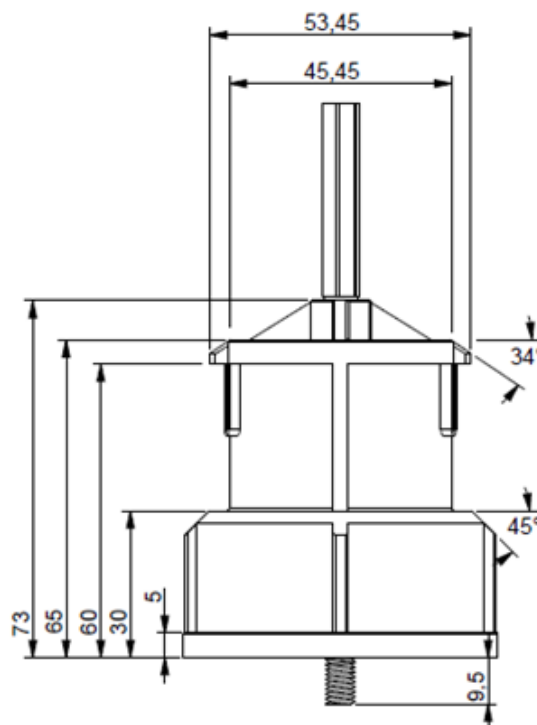
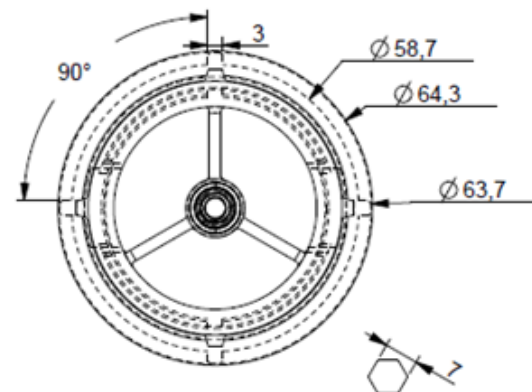
Technical specs & Guidelines

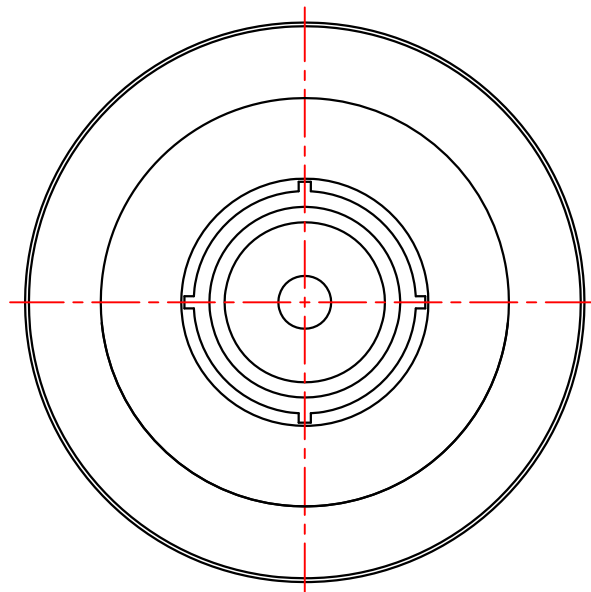
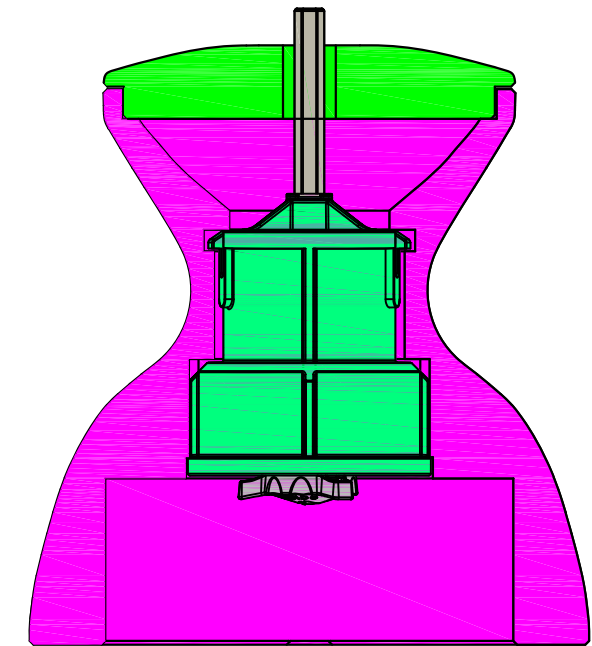
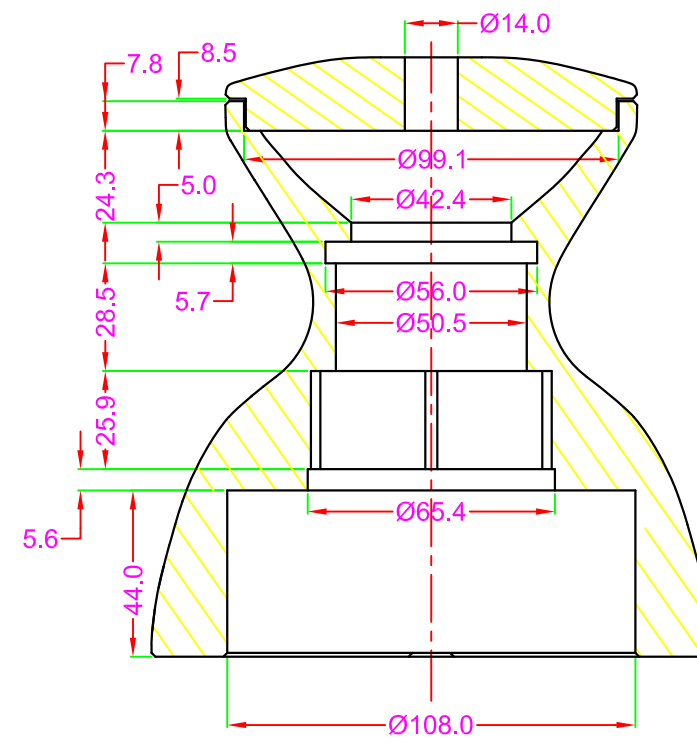
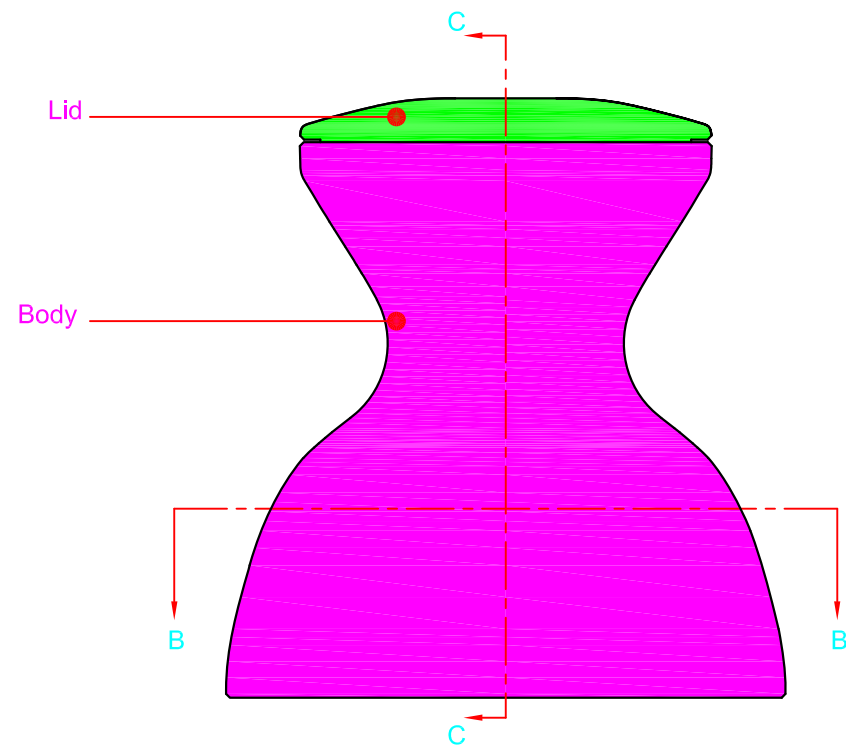
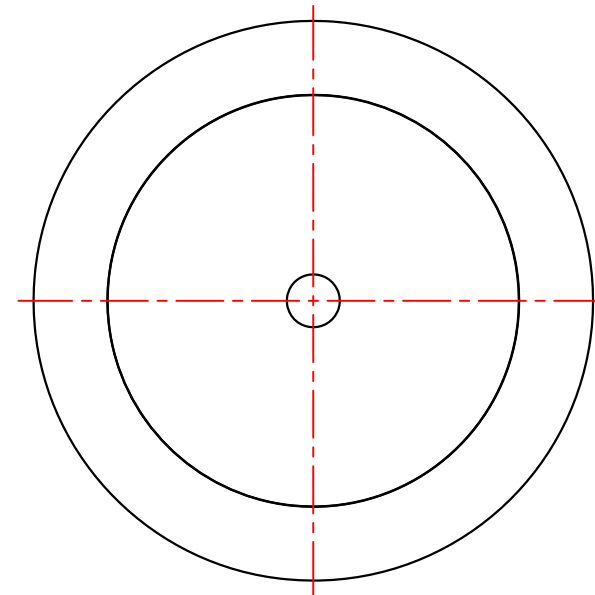
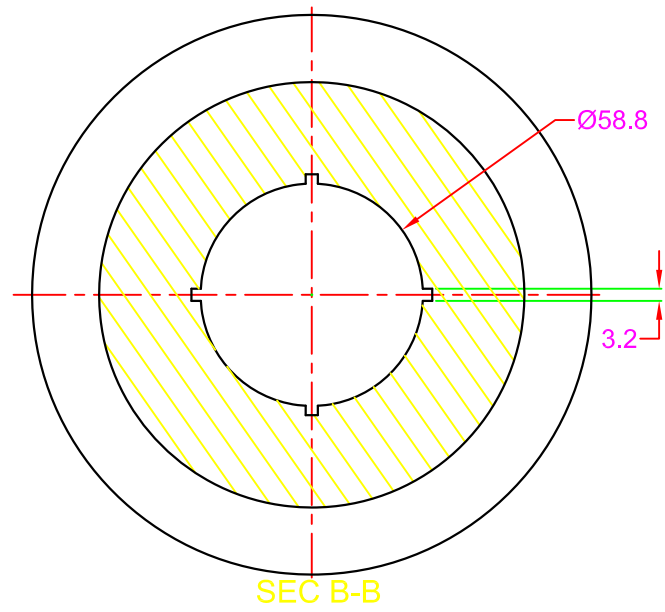




Technical data

Maximum torque	4.7 Nm
Suggested length of hand lever	130 mm
Working principle	Grinding
Maximum RPM	180 rpm
Output: min (turkish coffee)/max (Coarse french press) at 180 rpm.	Min 54g/min, Max 200g/min
Materials	Ceramic (Grinder) PP (Housing), Stainless steel (Shaft) FDA aproved
Weight	197 gram





SEC C-C



Method of operation

The grinder mechanism can either be used in a manually driven grinder or a motorized grinder.

The crown is fixed to the side wall of the grinder housing and the cone is fixed to the center axel which is connected to either a motor or a hand lever. By rotating the center axel the cone rotates and grinds.

To set the coarseness level of the grinder an adjusting wheel is located in the bottom of the grinder.

The adjusting wheel is turning around a thread with a pitch of 1mm pr. Turn. The wheel has a ratchet mechanism that allows 35 possible settings pr. turn giving it a resolution in the axial direction of 1/35mm pr. click.



Disassembling and cleaning

The grinder is disassembled simply by unscrewing the wheel. By doing so, the cone and crown can be removed.

The crown may need some force or a push from the top and out to release its loose press-fit in the housing.



Size of container

A rule of thumb is to use 7gram of coffee pr. 1.5 dl water (one cup) in a French press or 7 gram of coffee for a single shot espresso.

Depending on the type of bean and roast we have attained volumes between 2.3 and 3.2 ml pr. gram coffee beans.

The volume increases by about 10% when the coffee has been ground.

For example a large French press is 12 cups. If that is your target you need to make room for at least 3dl of coffee beans above the grinder and at least 3.3dl below the grinder. This is the functional minimum.

Considerations towards "ease of use" may lead to a larger container for the ground beans.

$$Volume_{example} = 7\text{gram} \times 12 \times 3,2\text{mL}/\text{gram} = 268,8\text{mL} \approx 2,7\text{dL}$$



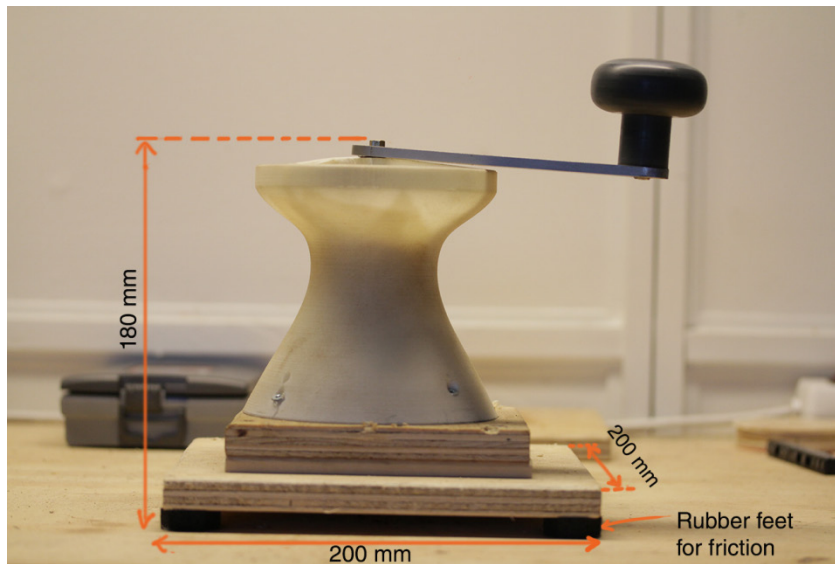
Ergonomics

These notes are to be regarded as guidelines for minimum measurements in regards to function.

The important part is the angle of the grinder, height and baseplate size.

Some notes are given on the minimum radius of a round baseplate. We recommend that you use the measurements for building your own test setup and make your own assessments in regards to desired stability.

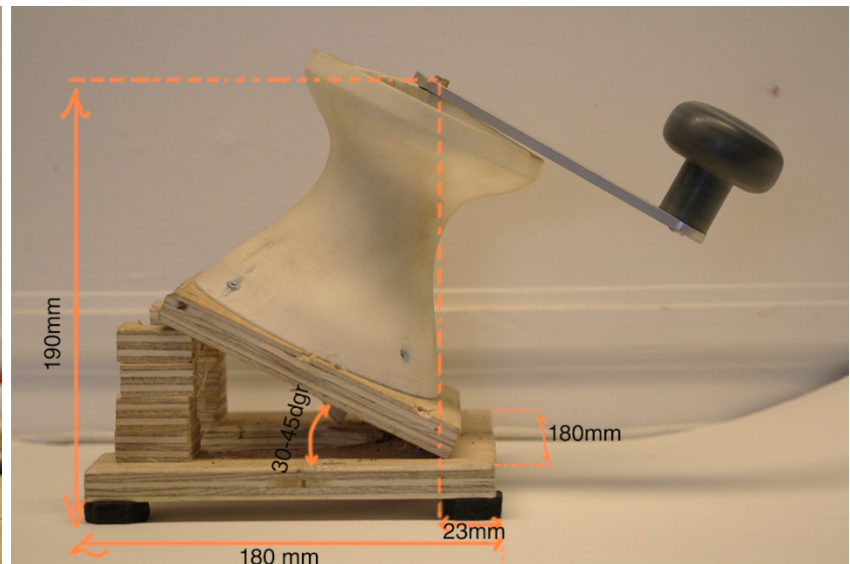
Flat baseplate solution



With an upright standing solution, a square baseplate and a hand lever height of 180mm, the baseplate needs to be at least 200x200mm.

The driving parameters for stability are the distance between the 4 rubber feet (200mm) and the distance from the table plane to the handles contact point with the axel. If you increase the height you also need to increase the baseplate area.

Canted solution 30-45 dgr.



With a canted grinder mechanism it is possible to increase the down-force and thereby create more friction between the rubber feet and the table. Tests have shown that, with a typical table height of about 100cm, stability can be increased by increasing the angle until 45 dgr. After that stability decreases again with typical kitchen table height. With an angle above 30dgr. a baseplate of 180x180m is sufficient for stability.



Ergonomics

General remarks

To start designing we suggest that you take the measurements given for stability and mark them off on either paper or in your 3D program, if you use that. Then start sketching shapes around these cardinal points.

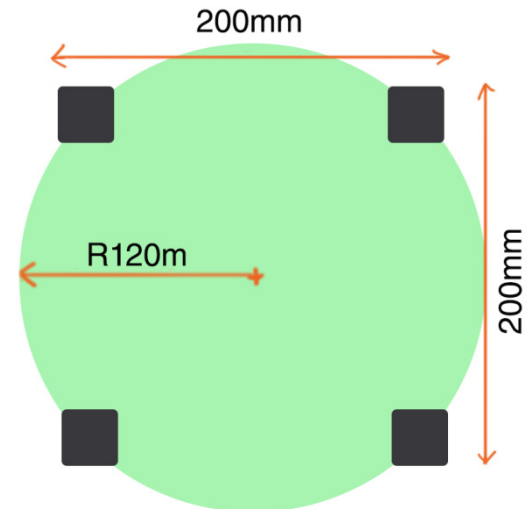
Remember that beans come in from the top and it is preferable only to load the amount of beans you want to grind just now.

This is to avoid beans getting left in the reservoir. 2dcl.of space in the reservoir for beans should be enough for most purposes.

Round baseplate solution

If you are doing a round baseplate you would need a small ring of high friction material eg. rubber or soft silicone.

A radius of at least 120mm would be needed.



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