
HERO ME COMMUNITY EDITION OFFICIAL DESIGN COMPENDIUM

Guidelines to follow when designing parts for the Hero Me Gen 7 platform

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Note from Dekatater:

Hello Hero! Welcome to the rule-book you should follow when designing parts compatible with the Hero Me Gen 7 Print-head! Designing new parts for the Hero Me to add compatibility for your own parts or others' is a great way to level up your CAD design familiarity. Most Hero Me parts are surprisingly simple, so don't think you'll need lots of experience in CAD to get started. If you get stuck, the rest of the community is always one message away in [#modeling-discussion](#)! Good luck, these rules are what your parts submitted to the Hero Me Community Discord are subject to adhere to!

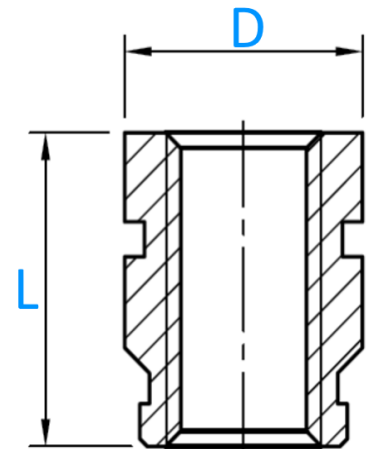


*All dimensions are metric, and in millimeters. I've color coded this to the best of my ability, so pay attention to colors of letters as they correspond with values in example images.

1 THREADED INSERTS AND BOLTS

Threaded Inserts

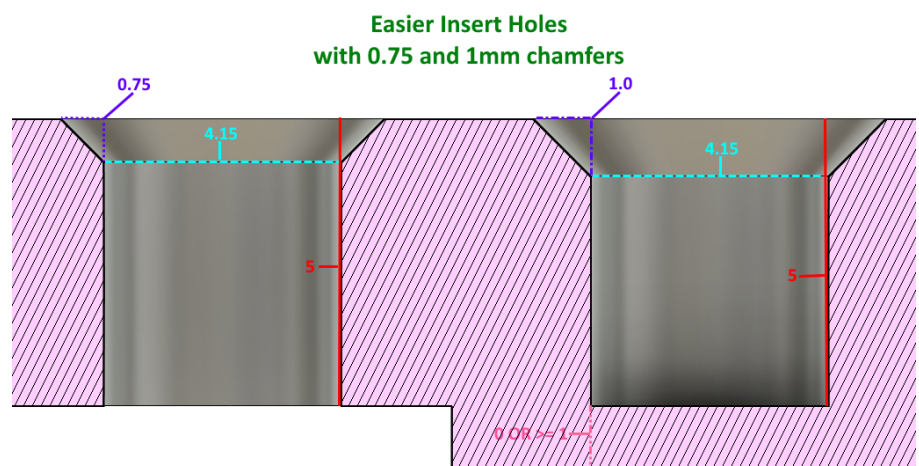
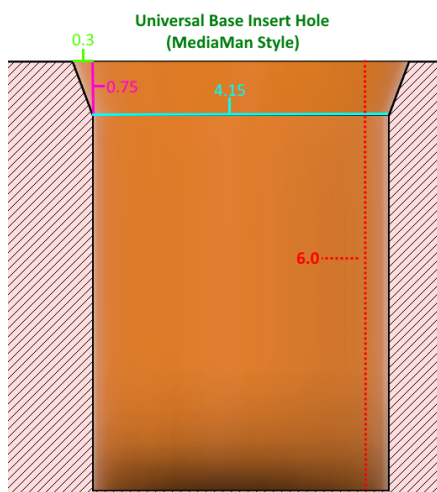
The Heat Set Inserts required for the Hero Me are M3 threaded with a total Length being 4mm and the total Diameter being 4.6mm



When making holes for heat set inserts, the Diameter needs to be smaller than that of the insert, as the plastic will have to melt around the insert and into its locking threads. The Hero Me uses a hole Diameter of 4.15mm. The Length should at least be the same as the insert. Any parts that use inserts have to be at least 5mm thick to accommodate the insert.

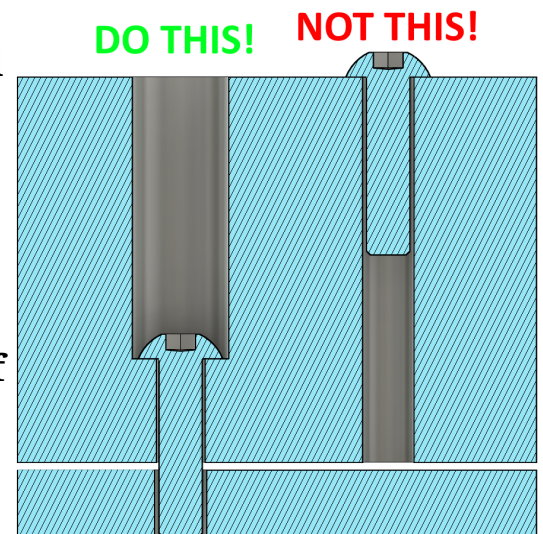
A chamfer on the edge of the hole will help you align the insert before applying heat. An equal-distance chamfer Width of 0.75mm to 1mm seems adequate. MediaMan made the Universal Base holes with two-way chamfers, going Inward 0.75mm and Outward 0.3mm, but that isn't entirely necessary.

Here's a couple cross-sectional views of both options



Bolt Holes

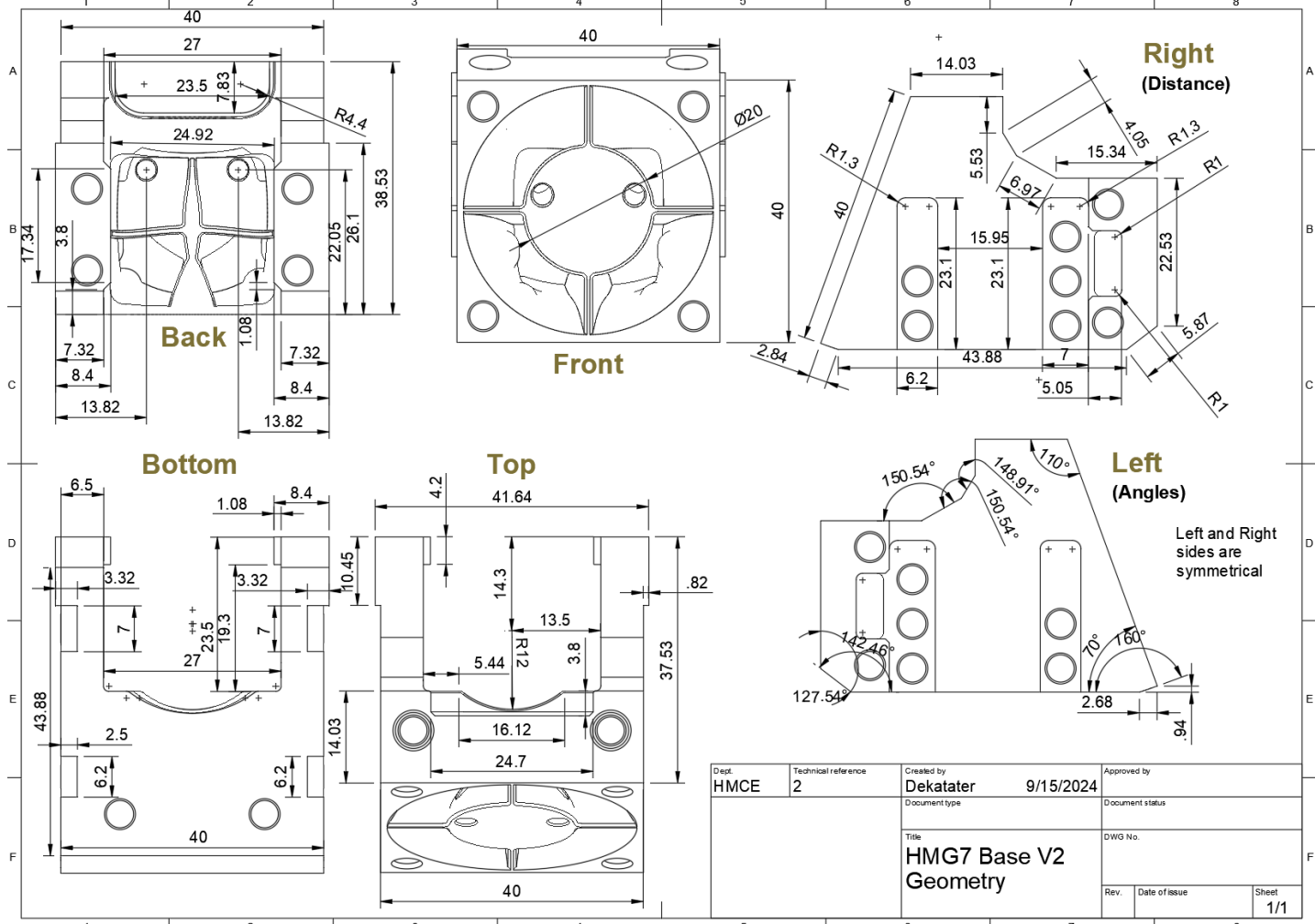
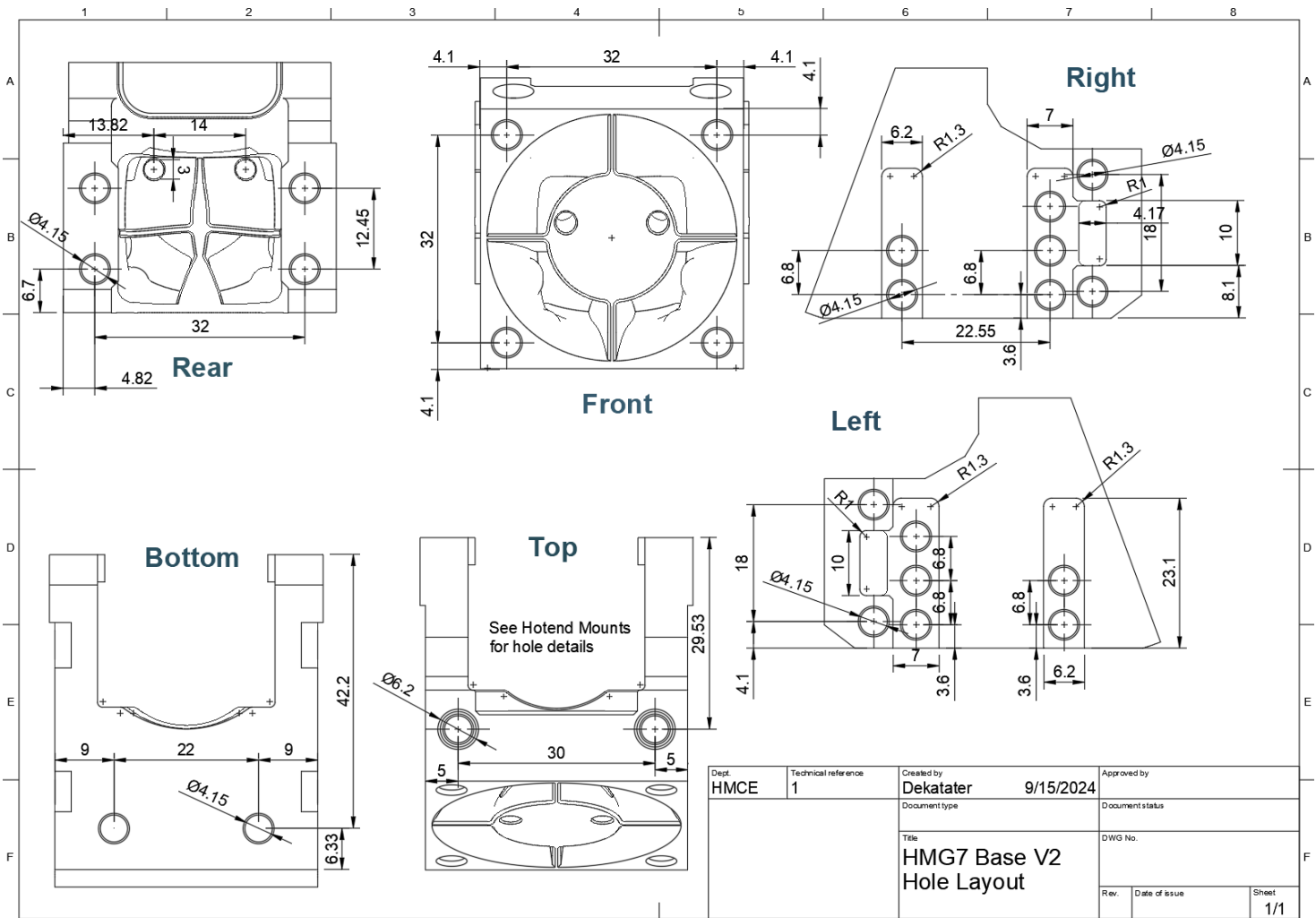
Every bolt on the Hero Me is M3, so every hole that a bolt/screw passes through should be 3.3 - 3.5mm in diameter. If you find yourself making an exceptionally thick part, take into consideration the screw length. Most assorted M3 bolt kits don't include lengths over 25mm (sometimes 20mm) so avoid requiring screws that long or longer, if at all possible. This can be done by adding a deep opening for the screw head to pass through. A diameter of 6.5mm will suffice for the screw head. Here's an example:



2 UNIVERSAL BASE SCHEMATICS

Overview

The Universal Base has insert holes and important geometry on all 6 sides, so I've made two schematic drawings. The first will outline the holes for every threaded insert and the spacing between each hole and the walls of the base. These values are most important when making new parts. The second will go over the geometry of the base, which will be useful when your parts need to account for other parts or follow the base's geometry.



3 HOTEND MOUNTS AND DIRECT DRIVES

Pegs

Hotend Mounts and Direct Drive Adapters have mounting pegs which the screws will pass through and lock everything into place. The Hotend Mount pegs are slightly different than that of a Direct Drive mount. The Male interface needs to be slightly undersized to allow the peg to seat all the way. Provided values are linear distances, start with a round extrusion of the total width and use two-way chamfers to replicate the angles.

