CORBIN Core Moulds

This package contains one CM-4a

Diameter: _____

The Corbin Core Mould make soft lead cores for production of lead or jacketed bullets. It is used with a standard ladle and open top melting pot or lead pot, and is mounted at the edge of a bench, or fastened to a short piece of wood which is held in a vise, so it can be easily put away when it has cooled.

Corbin CM-4a Core Moulds do not require separate handles. They are complete units, which produce four adjustable weights (lengths) of finished bullet cores. A rest plate at the bottom of two threaded rods lets you set the displacement or volume of all the cavities at once, and also ejects the lead cores when you press upward on the bottom of this plate with the sprue cutter open.

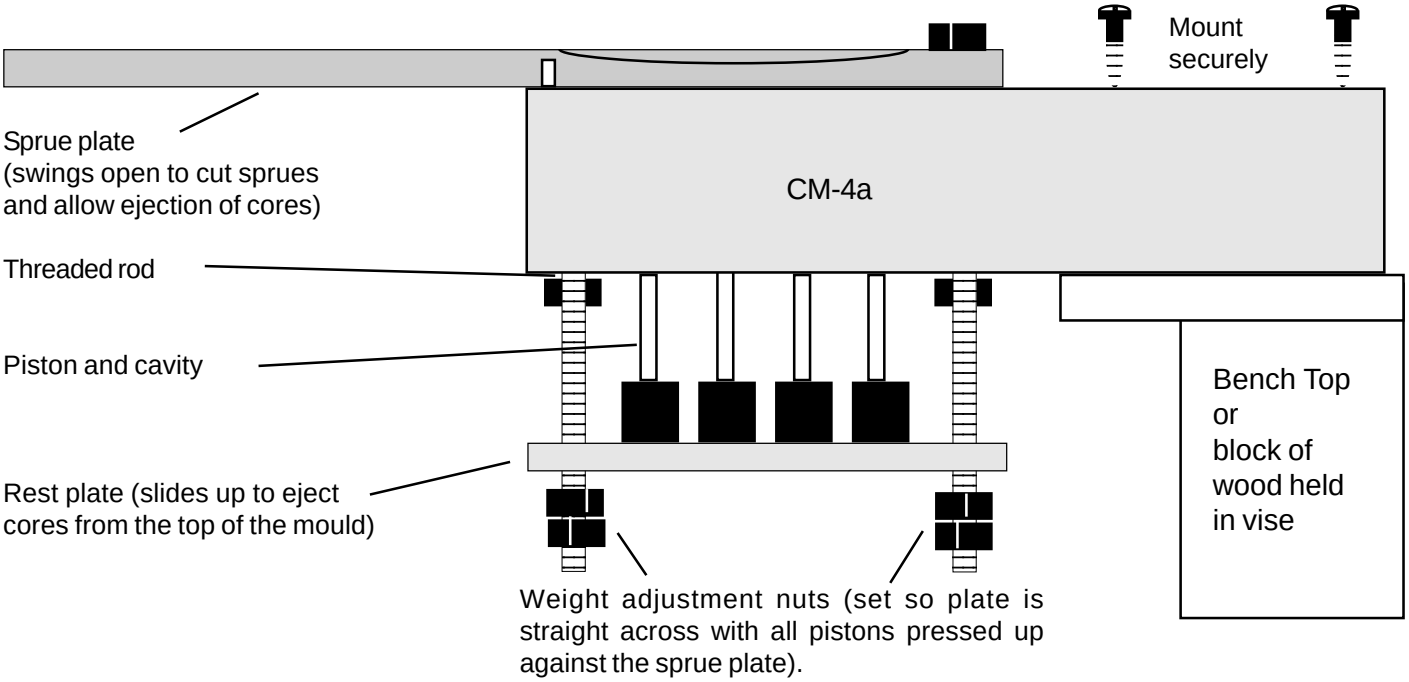
CAUTION: WEAR APPROPRIATE HEAT-RESISTANT GL:OVES and EYE PROTECTION (goggles or side-shielded glasses, or a face shield) when using the core mould. Hot lead can explode from the pot violently if any moisture is allowed to drop into the pot. Even a moth falling in to the pot has been known to blow the entire content of the pot into the air in a violent explosion. Never put your face near or over the top of the lead pot at any time! Do not eat, drink or smoke when working with hot lead. Lead fumes and vapors are toxic and can be adsorbed into the body, causing lead poisoning. Wash your hands after handling lead before eating or smoking.

If the mould is for use with jacketed bullets, the core must be a diameter which fits INSIDE the jacket before the bullet is swaged. If the bullet is to be swaged entirely of lead, then the core mould can produce a much larger diameter core, typically within about 0.010 inches smaller than the bullet itself.

Please note that the JACKET WALL THICKNESS at the BASE (inside bottom) of the jacket controls the actual maximum diameter of core that can be used in a jacketed bullet. The general guidelines in the chart can be incorrect if the jacket wall is very thick. To determine proper core diameter, find the thickest part of the bullet jacket and double it, subtract from the final caliber, then subtract at least .005 inches and up to .025 inches. A diameter in that range will fit inside and still allow for expansion as the bullet jacket is processed. Quite often, one mould will work for several calibers.

The minimum diameter is the one which below which the core will fold over or stick out of the die mouth for the weight you wish to use. With heavy weight bullets, the core may be too long to fit inside the die before pressure is applied to it, which means it would fold over and prevent the punch from entering the jacket. In that case, a larger diameter of core, but still below that which just fits into the jacket snugly, will be needed. Core diameters are not absolute: they depend on the jacket wall, the weight range, and the bullet style.

Caliber	Core diam. (jacketed bullet)	Core diam. (lead bullet)
.224	.185	.218
.234	"	"
.257	"	"
.264	.207	.247
.270	"	"
.284	.218	"
.308	.247	"
.318	"	.312
.338	"	"
.357	.312	.340
.375	"	.365
.400	.340	.390
.410	"	"
.429	.365	"
.452	"	.430
.458	"	"
.512	.390	.490
.600	.490	.500



Mount the core mould to your loading bench (or to a piece of 2 by 4 inch lumber held in a vise) so that the pistons hang over the edge, and the sprue cutter can open freely. Check that the rest plate moves up and down without contacting the bench edge.

The rest plate (at the bottom of the mould) slides up and down to eject cores. Two locking nuts on threaded adjustment rods stop the rest plate, so you can set the position of the nuts to control the over-all core length and weight for all cavities at once.

Use pure lead, or lead with up to 3 percent antimony and little or no tin, to prevent soldering to the inside of the cavity. A little Corbin Silver Lube spread on the bottom of the sprue cutter plate and on the top of the mould block will help prevent sticking.

Use a large ladle or dipper to fill the mould, and run the lead temperature higher than you usually would for a bullet mould. Small dippers cool too quickly, so that the lead may solidify as it pours into the cavity and prevent complete filling. Mounting the mould at a slight angle, with a couple of washers under one of the mounting screws, will help let air escape up one side of the cavity as lead runs down the other.

Using gloves, pivot the sprue plate open, and then press up on the rest plate to eject cores. If you move the pistons gently, the cores will rest atop the mould waiting to be picked up or pushed over into a box. If you snap the plate up, by hand with some vigor, the cores will jump out and fall into a box that is placed under the mould.

An interesting variation is to mount the mould using a large door hinge, so that as you swing the sprue plate to expose the top of the cores, you also turn the mould sideways and allow the cores to be pushed out into a box that is off-set from being vertically under the mould. This prevents spilled lead from ruining any cores waiting in the box, as lead would tend to spill down and miss the box. It is wise to put a scrap container made of metal under the mould to catch any spills.

To remove the sprue from the shallow cavity on top of the sprue plate, use a pair of needle nose pliers, and drop the sprue back into the pot. Another way to get the sprue out quickly is to bend a paper clip so one end rests in the sprue area, and the sprue forms around it. Then you can use it like a pick to lift the sprue out and wipe it off against the edge of the lead pot.

Note: do NOT beat on the pistons if they are not ejecting properly! Doing so will destroy the mould. The usual cause is lead with grit and abrasive material that has scored the inside of the cavity, or perhaps the lead has cooled in the cavity (even though it may be too hot to touch). Another cause is use of tin/lead alloys (solder). Clean the cavities or return for service. Pounding on the mould voids the warranty.

Note: Use care not to close the sprue plate when the pistons project from the top of the block. Stariking the pistons with the sprue plate will damage them. Never allow less than twice the piston diameter to seal the cavity, or it may leak at the bottom (avoid extremely long cores that force the piston to rest at the very bottom of the cavity).