

The PCM-1 uses one of six standard diameter PCM-W cannellure wheels to fit the range of calibers from .224 to .510-inches. The wheels have a key that slips over the vertical shaft on top of the tool. A rotating plate carries the bullets around, while spacers fit between the plate and the wheel to position the cannellure vertically on the bullet. The spacers are .027 and .048 inches thick, making it possible to stack them in various combinations to achieve any practical position for the cannellure ring. One PCM-W wheel is included in the price of the tool. To select the proper size wheel for a given caliber of bullet, refer to the chart. Wheels are stamped with an identification letter from A to F, which specifies the range of calibers as shown:

Caliber	Code	Wheel Diam., Inches
.224 to .257	A	2.100
.258 to .308	B	2.014
.309 to .358	C	1.900
.359 to .412	D	1.815
.413 to .458	E	1.710
.459 to .512	F	1.615
.512 to .600	G	1.515
.600 to .690	H	1.415
.690 to .800	I	1.315
.800 to .900	J	1.215
.900 to 1.00	K	1.115

Special back plates also required for these larger calibers.

Standard cannellure width is .050-inches with a vertical serration. The raised portion of the wheel, which impresses the cannellure, is offset from the center of the wheel, so you can turn the wheel over providing different cannellure positions, in addition to the spacers.

Wheels are held in place by a collar, which is clamped to the shaft by a single set-screw, which MUST be clamped against the flat of the shaft, never on the round surface or the keyway slot. Rubber feet under the case provide for air flow out the bottom of the case: do not remove them.

May be shipped by UPS (70-lb).

CORBIN

PCM-1 Power Cannellure Machine

Cannellure 100 bullets/minute
Weight: approx. 70-lbs.
Power: 110-120 volts 60 Hz.
Motor: 1/4-HP Gear drive.
Forced air cooling: 100 CFM.

Rust resistant, baked-in powder-coated grey finish on both the steel frame and the heavy gauge steel cover.

Built-in 5-amp circuit breaker and switch with bright pilot lamp, for secure continuous heavy duty operation in a production line or on the bullet-maker's bench.

Massive thrust bearing adsorbs the powerful forces that roll precision cannellure rings (serration grooves) into copper, aluminum, lead, gilding metal, brass, or even mild steel bullet jackets. A set of precision spacer disks provides cannellure height settings that cannot vibrate out of adjustment. The PCM-1 comes with a set of spacers, Allen wrenches to adjust the depth and lock the back plate into position for the bullet diameter, a universal 224 to 475 caliber back plate for cannellure rolling (optional knurling back plate is available), and one diameter of cannellure rolling wheel (PCM-W) which covers a certain range of calibers (see chart) within the back plate adjustment range. Custom wheels can be made to order for multiple grooves, special widths and angles. Simply feed bullets in one side of the channel, and they come out the other side evenly cannellured.



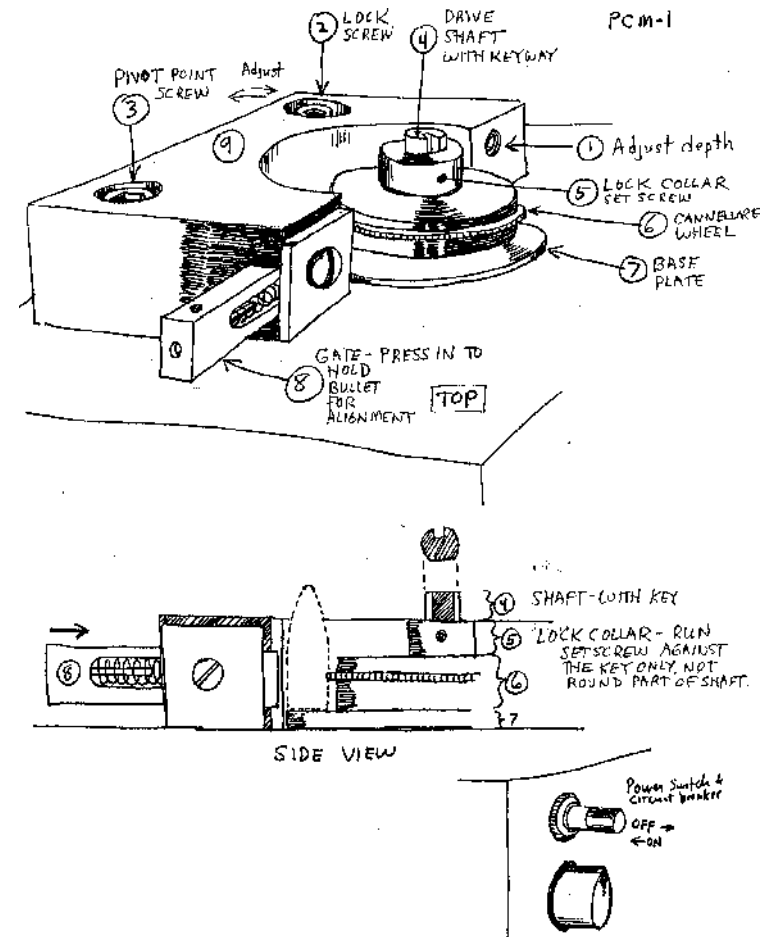
The PCM-1 rolls precise cannellure in bullets, and other straight-sided cylinders, made of copper, brass, aluminum or mild steel tubing with walls up to .050-inches thick. It is not recommended for rolling cannellure in solid rod, and is not warranted for such use. Solid copper, brass, aluminum or steel bullets, or other designs having the same resistance to compression, may cause damage to the main thrust bearing or motor, or produce accelerated wear.

Bullets are fed into the left-hand side of the rotating disk, and caught and rotated into and through the channel between the back plate and the wheel, and emerge from the opposite side of the channel. The width of the channel is set by a small movement of the back plate. It can be made to rotate about the left-side mounting bolt in a precise manner, by loosening the right-side mounting bolt slightly and adjusting a set-screw in the front of the back plate. The set-screw bears against a pin and move the plate precisely to adjust for the correct bullet diameter and depth of cannellure desired.

A spring-loaded gate device on the left-hand side of the back plate is provided to assist you in aligning long bullets, so they are not knocked over when feeding into the channel. Push the gate closed (compressing the spring) and push a bullet against it, in position to be taken into the channel. Gently release the spring pressure and the bullet will be taken vertically into the channel.

A number of automatic feeder designs have been built by Corbin clients to feed their PCM-1 tools, such as vibratory bowl and drop tube feeders. These are limited to specific lengths, weights, shapes or calibers, and often cost many times what the PCM-1 does. Even by hand feeding the tool, it is possible to achieve up to 100 pieces per minute: mounting the tool at a slight angle so the bullets tend to slide toward the channel, yet not fall over, is one simple method of rapid feeding. More than one bullet can go through the channel at once, provided that the bullets do not touch each other and interfere with rotation.

To quickly set the channel width, place an un-cannellured bullet at the output side of the channel, so it acts as a gauge between the back plate and the wheel. Set the back plate so the bullet just fits. Then adjust to the desired cannellure depth from this position.



Note: if a bullet tends to stick, skid without turning, or is deeply marked on one side and lightly on the other, it usually is caused by trying to adjust the tool so the back plate is too close to the wheel, or by using a wheel that is at the very edge of its range for the depth being attempted. Using the next size of wheel may be the solution, or simply using less depth. It is common for bullet makers to believe that a .040 or deeper cannellure is necessary, when in fact as little as .010 inch depth provides sufficient crimp space with far less deformation of the bullet. Custom designs with too much area under the combination of grooves, or with insufficient serrations on the wheel (or no serrations) may or may not turn the bullet. Some adjustment to a custom design may be required in order to get better results.