



CL Series Laboratory **Pellet Mill**



- Small Batch Processing
- Process Evaluation
- Laboratory Testing

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THE WORLD'S LARGEST MANUFACTURER

More and more industries are discovering the advantages of pelleting. As the world's largest manufacturer of pellet mills, CPM leads the way in specialized pellet mill and dies to make pelleting an easy and economical way to enhance product value and manageability. CPM manufactures a complete line of pellet mills with output capacities of up to 70 tons per hour, depending on the material being pelleted.

Here are a few of the benefits of pelleting:

- Densities product
- Recovers scrap for processing
- Reclaims or minimizes fines
- Cuts disposal costs
- Improves processing efficiency
- Improves flow characteristics
- Prevent & product separation
- Increases particle size
- Binds dissimilar materials
- Eliminates dust

CL Series Laboratory Pellet Mill



In the laboratory

Series CL pellet mill provide a versatile, practical answer to pelleting research and development. The mills allow you to conduct experimental work in your own laboratory with your own personnel. Models can control key pelleting variables to facilitate the evaluation of moisture, particle size, etc. Pellet sizes range from 1 mm to 1/2" diameter, in lengths of approximately 2 to 2 1/2 times diameter. Large mills can produce pellets up to 1 1/2" diameter, round or square.

Tests involving critical and expensive materials can be conducted with small quantities, yet yield indicative results. Quantities processed may be as small as 1,000 grams.

In the factory

Manufacturers use Series CL pellet mills to effectively solve pelleting problems offline without costly interruption of production unit operations. Some may produce pellets in small batches ranging from a few pounds to 1,000 pounds or more—employing several CL units as basic production tools. Others may employ one or more CL units to pellet products in batches too small for full-size pellet mills.

Methods of densification

Various methods of densification and particle size upgrading, including agglomeration, briquetting and extrusion, exist. However, pelleting is often preferred because it produces a high-density, durable product, even from lightweight, low-density products such as ground paper. Additionally, pellet mills cost less to purchase and operate.



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Pelleting by die and roller

Pelleting utilizes compaction and extrusion to produce pellets ranging in size from 1 mm to 1 1/2" in diameter, depending upon the pellet mill model and die size. In the process, a loose material is compressed into a durable pellet of increased bulk density in a variety of sizes. Prepared material from the supply hopper is fed continuously in a controlled, even stream to the pelleting cavity. Rotation of the die in contact with the rollers causes the rollers to turn. The material carried by the rotation of the die is compressed between the die and the roll and forced through holes in the die. As pellets are extruded, a knife shears the pellets in lengths of up to 2 1/2 times diameter.



Easy to assemble and clean

Compact, portable and no larger than an office desk, durable and trouble-free Series CL pellet mills are easy to use. They have a basic design and consist of easily dismantled and reassembled components. All stainless steel contact parts are easily disassembled and cleaned to maintain sanitary environment requirements. If required, the die can be purged at the end of the run with a compatible aseptic mix. Your operators can quickly learn this task from your CPM representative, who will assist them during the initial setup. Your CPM sales representative will also be available when needed to maintain the best possible service from your Series CL pellet mills.

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Have you experienced The CPM Advantage?

We don't disappear when the deal is done. Our team of experts sticks there with you. You get all of us—local representatives, application experts, product engineers, and responsive technical support—365 days a year.

With CPM, you get so much more. We're your complete process partners because we offer a product line to meet the demands of virtually every application in the processing industries. You can depend on our equipment and expertise to help you grind, crush, crumble, break, flake, hull, hammer, shred, condition, pellet, and cool just about anything. We help you maximize efficiency to meet the demands of high-quality pellets, production rates, and flexibility.

This relentless focus on our customers, paired with systems built to last, is a winning combination that we like to call The CPM Advantage. Your success is our success.

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CPM Lab Pellet Mill Control Panel

The following touch-screen control panels are used to operate the pellet mill:

Manual Control Screen 1:

Auger: start/stop/jog

Pellet Mill (master): start/stop/jog

Manual Control Screen 2:

VFD feeder: start/stop/jog

Conditioner start/stop/jog

(+) increases speed, (-) decreases speed

Automatic Operation Screen:

Enter desired load and feeder speed for automatic adjustment or feeder speed to motor load amps

Configuration Screen:

General machine settings

Alarm Log Screen:

Shows alarm messages and time of occurrence



Let CPM help you decide

More than 500 process companies have drawn on CPM's pelleting technology and experience to help decide the best process for them. CPM maintains a facility incorporating a laboratory and production-size mills, and has conducted tests on more than 3,000 different products.

As part of your decision-making process, arrange through your CPM representative to ship your materials to us. We will give you a complete test report and samples of your pelleted material for examination. All arrangements and reports will be kept confidential. The cost is nominal.

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Advantages

- Representatives in principal cities.
- Well-staffed with qualified sales, engineering and service. personnel and well-stocked with dies, parts and accessories.
- Prompt efficient processing of all customer service requirements.
- Company policy is one of continuous improvement of our products. We therefore reserve the right to change specifications without notice..

MODELS AND DESCRIPTIONS

| Specifications | Model CL Type 3 Laboratory Pellet Mill | Model CL Type 5 Laboratory Pellet Mill |
|----------------------------|---|---|
| Dimensions Shipping | 45.5"(L) x 34.25" (H) x 63"(W) | 59.5"(L) x 34.25" (H) x 83"(W) |
| Weight (crated) | 1,000 lbs. | 1,000 lbs. |
| Main drive motor | 5 HP 1,800 RPM | 5 HP 1,800 RPM |
| Feeder drive | 1/4 HP 1.800 RPM gear head motor | 1/4 HP 1.800 RPM gear head motor |
| Feeder screw | Constant speed, variable pitch | Constant speed, variable pitch |
| Feeder hopper | .9514 cu. ft | .9514 cu. ft |
| Feeder control | Variable vibrating, electrically driven | Variable vibrating, electrically driven |
| Conditioner | N/A | Adjustable mixer picks |
| Conditioner drive | N/A | Variable speed 3/4 HP |
| Die speeds | Replaceable sheaves for 4 die speeds | Replaceable sheaves for 4 die speeds |
| Construction | 302-304 stainless steel contact parts with wear parts of hardenable 400 series stainless or hard chrome plated | 302-304 stainless steel contact parts with wear parts of hardenable 400 series stainless or hard chrome plated |
| Electrical | Standard for NEMA 12 operating conditions 3-phase, 60 Hz, 230-460 volt current (<i>electrical for special current characteristics available on request</i>) | Standard for NEMA 12 operating conditions 3-phase, 60 Hz, 230-460 volt current (<i>electrical for special current characteristics available on request</i>) |



From the food you eat to the fuels you require, CPM plays an important role in building a better world. Our experienced team and family of trusted brands are working together to make our planet a better place to live.

CONTACT@ONECPM.COM
ONECPM.COM