

SERIES CL  
LABORATORY  
PELLET MILLS

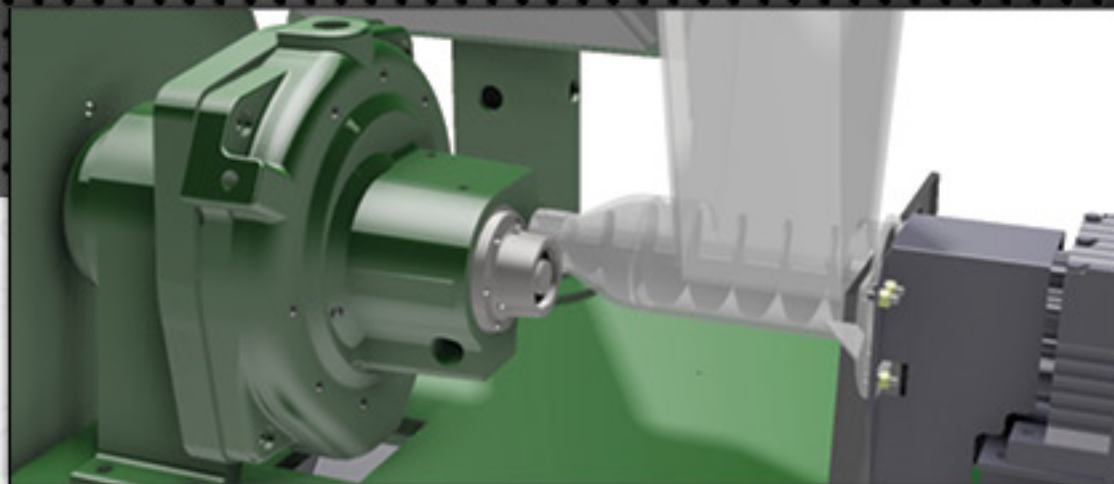


**CALIFORNIA  
PELLET MILL**

*Your Partner in Productivity*

- ▶ **SMALL BATCH PROCESSING**
- ▶ **PROCESS EVALUATION**
- ▶ **LABORATORY TESTING**





Low density fluffing material feeder screw

### 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 mills 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:

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

### IN THE LABORATORY

Series CL pellet mills 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.



### 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.

### LET CPM HELP YOU DECIDE

More than 500 process companies have drawn upon 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.

### THE CPM ADVANTAGE

CPM provides the best in equipment, dies, parts and service that combine to represent the lowest-cost solution to our customers. CPM offers you the best value package. Your CPM representative is a professional with thorough knowledge of your local conditions and processing methods. They will help you obtain maximum efficiency from your pelleting process.



### 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 of feeder speed to motor load amps

#### Configuration Screen:

General machine settings

#### Alarm Log Screen:

Shows alarm messages and time of occurrence



SPECIFICATIONS	MODEL CL TYPE 3 LABORATORY PELLET MILL	MODEL CL TYPE 5 LABORATORY PELLET MILL
Dimensions	45.5"(L) x 34.25"(H) x 63"(W)	59.5"(L) x 34.25"(H) x 83"(W)
Shipping 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 (electrical for special current characteristics available on request)	Standard for NEMA 12 operating conditions, 3-phase, 60 Hz, 230-460 volt current (electrical for special current characteristics available on request)

*Type 5 feeder can be used on an interchangeable basis with Type 3 feeder*

*Type 3 feeder can be used on an interchangeable basis with Type 5 feeder*

*Type 5 feeder is adaptable to use of steam as pelleting aid to duplicate full-scale animal feed pelleting.*

## WORLDWIDE SERVICE

- ▶ 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.



## CALIFORNIA PELLET MILL

*Your Partner in Productivity*

California Pellet Mill Co.  
1114 E. Wabash Avenue  
Crawfordsville, IN 47933-USA  
765-362-2600 Phone  
765-362-7551 Fax  
800-428-0846 Toll-Free

Roskamp Champion  
2975 Airline Circle  
Waterloo, IA 50703-USA  
319-232-8444 Phone  
319-236-0481 Fax  
800-366-2563 Toll-Free

CPM/Europe BV  
Distelweg 89  
1031 HD Amsterdam  
The Netherlands  
31 20 494 61 11 Phone  
31 20 636 42 94 Fax

CPM/Pacific Private Ltd.  
21 Gul Drive  
Singapore 629470  
Republic of Singapore  
65 6 265 07 01 Phone  
65 6 268 64 28 Fax

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