Whether you call the Davis-Standard pelletor a “pelletizer,” a “granulator” or “cutter,” our Universal Underwater, Water and Air Ring pelletizing systems offer everything you need to produce high-quality, uniform pellets day after day and year after year.

The Davis-Standard Advantage: Versatility
Selecting the best and proper equipment to meet your virgin resin production, compounding, or scrap reclaim processing needs is an important factor to your profitability. To this end, Davis-Standard offers many optional solutions to conventional, micro or macro pellet production by utilizing our unique vertical shaft design. This design assures perfect cutting knife to die plate alignment, regardless of thermal or mechanical variation of the feed equipment.

Features
See Proven Quality and Reliability
- Technology
- Reliability
- Flexibility
- Value

Davis-Standard’s pelletizing equipment produces billions of pounds of “high quality” pellets yearly in proven process applications for thermoplastic virgin resins, elastomerics, hot melts, compounding, reclaim and more.

Whether 100 lbs (45 kg) / hour or 120,000 (54,545 kg) / hour, we offer flexible, value-added equipment solutions.

Select from: Underwater, Water Ring or Air Ring systems to produce micro, normal or macro pellets.

New, debottlenecking and retrofitting technology is available.

Worldwide technical and spare parts support available 24/7.

Contact us today for more information.
TURN PELLETS INTO PROFIT WITH D-S

Optional Feed Devices: The Davis-Standard Pelletor® may be fed by Davis-Standard or other single screw extruders, twin screw extruders, gear pumps or other pumping type devices. These pumping devices can be provided by Davis-Standard for total process systems.

Flexibility of Cutting Methods: Our Universal pelletizer can be run using underwater, water ring, air ring or multiple methods of pellet quenching. This equipment is offered in a variety of model sizes to handle from low to very high production rates.

Horizontal Die Plate Orientation: The Davis-Standard Pelletor® has the ability to orient the die plate in an upward or downward extrusion direction. This allows the system to operate with very low viscosity materials - broad viscosity range processes - or processes that require cleanability or easy purging.

Multiple Body Styles: Available body styles allow you to enhance flow distribution behind the die plate, offer full cleanability or provide maximum distribution with multifeed port designs.

Customized to Meet Your Process Specifications: The die plate is fully customized from your process rheology for number of orifices and hole pattern to meet your process needs. Multiple types of materials of construction may be utilized.

Superior Performance: You can startup with the quench water before, during or following the product flow (hot/cold or wet/dry). Standard designs also allow continuous or interruptible batch type operations, without multiple restarts or hole freeze-off. Variable equipment component location, low energy consumption, low quench water to resin ratio and other features further maximize performance.
PELLETIZING SYSTEMS

HERE’S WHY DAVIS-STANDARD PELLETORS® ARE PRODUCING BILLIONS OF POUNDS (OR KILOGRAMS) OF MATERIAL EVERY YEAR

Knife Adjustment: Axial movement of the cutter shaft and knives is accomplished by rotating the bearing assembly in a precision thread system either manually or by an automatic closed loop using a probe with microprocessor feedback to a servo motor.

Alignment: Initial knife to die place alignment is easily adjusted and maintained. Proximity of the sleeve bearing to the cutter hub provides accurate alignment of the knives to the die plate, ensuring pellet uniformity.

Die Plates: Heated or non-heated dies are insulated to eliminate hole freeze-off. Steam, oil or resistance heating methods are available.

Knife and Hub Assembly: Swept back design promotes pellet cutting and conveying. Quench water is introduced through the hub to increase pellet cooling efficiency. The assembly is easily and quickly replaceable.

The pelletizer shaft is supported by precision upper and lower bearings, providing the best possible knife to die alignment.

Motor mount design allows use of a multitude of drive systems.

Sliding coupling allows knife adjustment without movement of drive motor.

Centratable roller bearing allows fast and easy set-up of pelletizer shaft alignment.

Support brackets for either overhead or floor mounting.

Ability to mate to all types of feed sources.

Unique design of the die plate and Pelletor® body provides uniform internal heating and assures pellet uniformity.

Horizontal die plate simplifies purging and facilitates rapid knife changes.

The centrifugal water flow pattern through the hub, sweeps the die face, eliminating pellet agglomeration and clogging.

Our exclusive vertical knife shaft with positive bearing support at the die further assures perfect alignment regardless of thermal variations.

Our exclusive vertical swept-back, self-sharpening knives extend knife life, prevent pellet agglomeration and protect the die face.

Body insulation conserves energy.

Accurate process instrumentation controls even the most difficult materials.

Knife adjustments can be made “on-the-fly” without tools.
PELLETIZING SYSTEMS

UNDERWATER PELLETIZING ADVANTAGES
• Excellent pellet uniformity
• Low quench water to resin ratio
• Quiet operation (<85 DBA)
• Vertical shaft up or down mounting
• Low viscosity product capability
• Efficient pellet quenching with water circulation through the knife hub
• Allows cold starts and interrupted product flow without die hole freeze-off
• Minimal operator attention
• Low space requirements
• Easy startup
• Low operating cost

WATER OR AIR RING ADVANTAGES
• Low energy consumption with low cost nonheated dies
• Quiet operation (<85 DBA)
• Vertical shaft down mounting
• Low profile knife hub
• Allows cold starts and interrupted product flow without die hole freeze-off
• Low operator attention
• Low space requirements
• Easy and fast startup
• Low operating cost

THE DAVIS-STANDARD FAMILY OF PELLETIZING MACHINE SOLUTIONS

<table>
<thead>
<tr>
<th>Model Size</th>
<th>Maximum Number of Die Holes</th>
<th>Typical Drive Power</th>
<th>Nominal Throughput Rates (Per Hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>40</td>
<td>10 HP</td>
<td>7.5 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1,200 lbs 545 kg</td>
</tr>
<tr>
<td>1</td>
<td>105 / 151</td>
<td>10 HP</td>
<td>7.5 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3,150 lbs 1,430 kg</td>
</tr>
<tr>
<td>2</td>
<td>204</td>
<td>15 HP</td>
<td>11.2 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6,120 lbs 2,774 kg</td>
</tr>
<tr>
<td>2X</td>
<td>240</td>
<td>15 HP</td>
<td>11.2 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7,200 lbs 3,273 kg</td>
</tr>
<tr>
<td>3</td>
<td>270</td>
<td>20 HP</td>
<td>15 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8,100 lbs 3,680 kg</td>
</tr>
<tr>
<td>3X</td>
<td>372</td>
<td>20 HP</td>
<td>15 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>11,160 lbs 5,059 kg</td>
</tr>
<tr>
<td>3.5</td>
<td>270</td>
<td>20 HP</td>
<td>15 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8,100 lbs 3,680 kg</td>
</tr>
<tr>
<td>6</td>
<td>714</td>
<td>50 HP</td>
<td>37 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>21,420 lbs 9,710 kg</td>
</tr>
<tr>
<td>6X</td>
<td>840</td>
<td>75 HP</td>
<td>56 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25,200 lbs 11,424 kg</td>
</tr>
<tr>
<td>8</td>
<td>992</td>
<td>100 HP</td>
<td>75 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>29,760 lbs 13,520 kg</td>
</tr>
<tr>
<td>8X</td>
<td>1352</td>
<td>100 HP</td>
<td>93 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40,560 lbs 18,387 kg</td>
</tr>
<tr>
<td>10</td>
<td>1880</td>
<td>125 HP</td>
<td>112 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>56,400 lbs 25,568 kg</td>
</tr>
<tr>
<td>10X</td>
<td>2320</td>
<td>150 HP</td>
<td>150 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>69,600 lbs 31,552 kg</td>
</tr>
<tr>
<td>12</td>
<td>2368</td>
<td>200 HP</td>
<td>200 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>71,040 lbs 32,920 kg</td>
</tr>
<tr>
<td>12X</td>
<td>2784</td>
<td>200 HP</td>
<td>200 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>83,520 lbs 37,964 kg</td>
</tr>
<tr>
<td>14</td>
<td>2920</td>
<td>250 HP</td>
<td>250 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>87,600 lbs 39,820 kg</td>
</tr>
<tr>
<td>14X</td>
<td>3600</td>
<td>250 HP</td>
<td>250 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>108,000 lbs 49,090 kg</td>
</tr>
<tr>
<td>16</td>
<td>4200</td>
<td>300 HP</td>
<td>300 KW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>126,000 lbs 57,273 kg</td>
</tr>
</tbody>
</table>

Note: Die Plate orifice hole size has a great impact on output of any given type of polymer produced on a given machine size. The above chart is based on 30 lbs (13.6 kgs) per hour per hole. Consult our experts for exact processing recommendations.
PELLETIZING SYSTEMS

DAVIS-STANDARD HAS WHATEVER SIZE AND CONFIGURATION YOU NEED

Model 0.5: Inverted Pelletizer
- Maximum number of die holes: 40
- Typical Drive Power: 10HP (7.5 KW)

Model 1: Underwater Pelletizing System
- Maximum number of die holes: 105
- Typical Drive Power: 10HP (7.5 KW)

Model 1: Water Ring Pelletizing System
- Maximum number of die holes: 151
- Typical Drive Power: 10HP (7.5 KW)

Model 3.5: Underwater Pelletizer
- Maximum number of die holes: 270
- Typical Drive Power: 20HP (15 KW)

Model 6X: Underwater Pelletizer
- Maximum number of die holes: 840
- Typical Drive Power: 75HP (56 KW)

Model 8X: Underwater Pelletizer
- Maximum number of die holes: 1352
- Typical Drive Power: 100HP (75 KW)

Model 10X: Inverted Underwater Pelletizer
- Maximum number of die holes: 2320
- Typical Drive Power: 150HP (112 KW)
OPTIONAL SYSTEM COMPONENTS THAT MAKE A DIFFERENCE

Centrifugal Pellet Dryers and Water Recirculation Systems:

A conventional impact pellet dryer mounts to a unitized, temperature-controlled, closed loop system.

The Black Clawson highly cleanable and easily maintainable impact pellet dryer mounts to a unitized temperature-controlled, closed loop system.

Davis-Standard Operator Interfaces and Control Systems:

Available with optional alarm annunciators, microprocessor based temperature controls, automatic startup modules, automatic knife to die place adjustment, or mini Digital Control Systems (DCS).

Davis-Standard Has Both Hot Oil and Steam Heating Systems Available:
YOU NAME IT, WE’LL PELLETIZE IT

Davis-Standard Pelletors® Can Process Many Types of Materials Such As:

- Low, Medium, High & Linear Low Density Polyethylenes
- Co-Polymers EVA, EMA, EMAA, EAA, etc.
- Impact and Crystal Polystyrene
- Polypropylene
- Thermo Plastic Elastomers SBR, SIS, SBS, etc.
- EPDM
- Polyamide (Nylon)
- ABS
- SAN
- Polyester
- Nylon
- Elastomers
- Wax Blend
- Filled Polymers
- Cross Linkable Polymers
- Hot Melt Adhesives
- Polybutylene
- Polycarbonates
- Gun Powder
- Food
- And Others

PUT OUR PELLETOR® TO THE TEST

See for yourself how Davis-Standard can help you turn better pellets into bigger profits at our multimillion dollar Research and Technical Center in Fulton, New York, USA. The Universal Pelletor® can be demonstrated as an underwater downward or upward extrusion and/or as a Water or Air Ring Pelletizer in the laboratory. You can also evaluate process conditions, sizing criteria and product quality - and see why Davis-Standard equipment is the best choice for your success. Contact us at www.davis-standard.com for a laboratory trial today.