Davis-Standard’s NRM Extrusion® brand is backed by years of design expertise and knowledge to meet the most demanding elastomer application requirements. Our advanced microprocessor-based process control systems, superior screw design, and NRM Extrusion manufactured transmissions result in a semi-custom line of extruders designed to increase productivity and profitability.

**At A Glance**

**Cold Feed Extruders**
- 2 ½ inch (65mm), 3 ½ inch (90mm), 4 ½ inch (115mm), and 6 inch (150mm)
- 12:1, 17:1, 20:1 L/D ratios
- Available in vented and non-vented models

**Pin Barrel Extruders**
- 3 ½ inch (90mm), 4 ½ inch (115mm), 6 inch (150mm), 8 inch (200mm), and 10 inch (250mm)
- 14:1, 16:1, 18:1 L/D ratios
### MACHINE DESIGN PARAMETERS*

<table>
<thead>
<tr>
<th>Extruder Size</th>
<th>2 ½ inch (65mm)</th>
<th>3 ½ inch (90mm)</th>
<th>4 ½ inch (115mm)</th>
<th>6 inch (150mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Vented</td>
<td>Vented</td>
<td>Non-Vented</td>
<td>Vented</td>
</tr>
<tr>
<td>L/D**</td>
<td>12:1</td>
<td>17:1</td>
<td>17:1</td>
<td>17:1</td>
</tr>
<tr>
<td>Extrusion Rate*** lbs./hr (kg/hr)</td>
<td>100-300 (45-125)</td>
<td>120-360 (55-165)</td>
<td>70-200 (30-90)</td>
<td>400-800 (180-360)</td>
</tr>
<tr>
<td>Drive HP</td>
<td>25</td>
<td>30</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Length</td>
<td>61 in.</td>
<td>73 in.</td>
<td>73 in.</td>
<td>95 in.</td>
</tr>
<tr>
<td>Weight</td>
<td>5,000 lbs.</td>
<td>5,700 lbs.</td>
<td>5,700 lbs.</td>
<td>8,300 lbs.</td>
</tr>
<tr>
<td>Weight</td>
<td>2268 kg</td>
<td>2586 kg</td>
<td>2586 kg</td>
<td>3765 kg</td>
</tr>
<tr>
<td>Approximate Weight</td>
<td>5,300 lbs.</td>
<td>6,000 lbs.</td>
<td>6,000 lbs.</td>
<td>8,000 lbs.</td>
</tr>
<tr>
<td>Approximate Weight</td>
<td>5,700 lbs.</td>
<td>6,700 lbs.</td>
<td>6,700 lbs.</td>
<td>9,000 lbs.</td>
</tr>
<tr>
<td>Approximate Weight</td>
<td>5,700 lbs.</td>
<td>6,700 lbs.</td>
<td>6,700 lbs.</td>
<td>9,000 lbs.</td>
</tr>
<tr>
<td>Approximate Weight</td>
<td>8,300 lbs.</td>
<td>9,000 lbs.</td>
<td>9,000 lbs.</td>
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<tr>
<td>Approximate Weight</td>
<td>3765 kg</td>
<td>4080 kg</td>
<td>4080 kg</td>
<td>6035 kg</td>
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<tr>
<td>Approximate Weight</td>
<td>2268 kg</td>
<td>2586 kg</td>
<td>2586 kg</td>
<td>3765 kg</td>
</tr>
</tbody>
</table>

* 4:1 L/D hot feed extruders also available.

** Other L/Ds available.

*** Typical outputs referenced (consult with Davis-Standard, LLC NRM Extrusion representative prior to machine sizing). Output rates depend on compound, stock temperature limitations, screw design and back pressure application.

### OPERATING PRESSURE
- 10,000 psi maximum
- Rupture disc overpressure protection at front flange: 8,500 psi nominal
- (Standard Gear Ratios) Nominal 25:1 gear ratio/screw speed range 3 to 72 RPM
- Other gear ratios optionally available

### FEED SECTION
- Power feed roll, standard
- NRM Extrusion patented spiral undercut or offset spiral undercut

### STANDARD DRIVE
- Drive on the 2 ½-inch extruder is located behind the transmission
- AC motor is mounted on the sub-base under the extruder barrel for 3 ½-inch, 4 ½-inch and 6-inch models
- Solid-state power conversion
- 100:1 speed range achieved via armature and field control at .1 percent regulation by sensorless vector control

### AUTOMATIC TEMPERATURE CONTROL
- Four or five zones vertically stacked to minimize floor space requirements

### STANDARD VOLTAGE
- 460 volt, 60 Hz

### FEEDSCREW
- Machined from alloy steel and heat treated
- Hollow bored for heating
- Standard with flame hardened flight lands
- Hard surface flight lands optional

### EXTRUDER BASE
- All welded steel base
- Transmission, cylinder support, and drive motor mounted on base

### CYLINDER SUPPORT
- Rugged, fabricated steel section accommodates thermal expansion while maintaining alignment and support of die head

### DRIVE TRANSMISSION
- Features heavy duty radial and thrust bearings
- Heat treated helical gears totally enclosed in a fabricated or cast housing
- Positive lubrication provided
- Thrust bearing equipped with full flow lubrication

### CYLINDER BASE
- Alloy steel cylinder liner with centrifugally cast bimetallic lining precision honed to final bore diameter
- 10,000 psi working pressure with 8,500 psi rupture disc and pressure gauge tap and plug in front flange
- Separate baffled heating/cooling chambers between inner and outer shell
- Heating/cooling chambers and high flow velocity design create efficient heat transfer

### FRONT END ARRANGEMENT OPTIONS
- Plain Flange
- Swing Bolt Type
- Kwik-Clamp

### OTHER FEATURES
- Double reduction helical gears for transmitting power from drive to screw
- Heavyweight cylinder support minimizes deflection and enables use of heavy die heads
- Power feed roll is standard
- Quick-change hinged heads (optional)
- Barrel is internally baffeled for optimum temperature control
- Replaceable barrel liners