The proprietary Xaloy Fusion™ screw allows you to increase production and improve product quality in many process applications. Its design is the combination of proven barrier screw technology and a low shear metering section that provides chaotic mixing, reduced melt temperatures and improved throughputs.

**Which materials?**
The Xaloy Fusion™ screw has already proven to deliver benefits in processing:
- HDPE
- LDPE
- LLDPE
- MDPE
- PET
- PLA
- PP

**Which processes?**
The Xaloy Fusion™ screw is available for the following processes:
- Blown Film
- Sheet Extrusion
- Blow Molding
- Profile
- Pipe

For other process applications, consult us for a screw design recommendation.

**How it works; Using our proven barrier design technology**
- Separation of melted polymer from unmelted resin protects the melt from additional shear
- Recombination of melt streams for homogenization in a short metering section
- Final melting is completed by means of second barrier section designed for multi-cycle chaotic mixing

**Diameters available:** 1.5” to 10” (3.81 cm to 25.4 cm)

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**Output Pressure (bar)**

**Throughput Rate (kg/h)**

**Throughput Rate and Melt Temperature (°C)**

**Melt temperatures at the 125 RPM data points**

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**Nordson**
**Power Efficiency Performance Benefits**

Our worldwide presence includes sales and service offices located in the United States, Europe, Thailand, Japan, China and India and a global network of agents geographically positioned to serve customers throughout the world.

**Output and Power Efficiency on 3.5” (88.9mm) x 24:1 L/D**

(90% LDPE and 10% LLDPE)

<table>
<thead>
<tr>
<th>Output/Rate (lb/hr/hp)</th>
<th>Screw Speed (rpm)</th>
<th>Rate Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>162</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>327</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>493</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>673</td>
<td>120</td>
<td></td>
</tr>
</tbody>
</table>

*Note: This profile typically will produce a 410-420 (210-215°C) melt against a 3500 psi head pressure.*

**Power Efficiency Comparison**

![Graph showing power efficiency comparison]

**Temperature Profile**

(for processing a .35MI HDPE)

Temperature profile and zone temperatures for optimal process performance.

Nordson recommends a “hump” type barrel zone temperature profile be used to optimize the performance of the Fusion™ Screw. Make sure that you request the best temperature profile from your Nordson representative for your resin and process.

*Note: This profile typically will produce a 410-420 (210-215°C) melt against a 3500 psi head pressure.*