

# Xaloy® Quantum™ Plasticizing Screw

The Xaloy Quantum™ plasticizing screw is an ultra-high performance barrier screw, targeted to recovery limited, injection molding applications utilizing polyolefin resins. The innovative barrier screw design of the Xaloy Quantum™ plasticizing system ensures a mass balance throughout the screw that compensates for the conversion between feedstock bulk density and resin melt density, thereby controlling shear rates and shear stresses throughout the melting process.

## Which materials?

The Xaloy Quantum™ screw has already proven to deliver benefits in processing:

- Polyethylene
- Polypropylene

## Which processes?

The Xaloy Quantum™ screw is available for the following processes:

- Injection Molding

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



## Features and Benefits

### Rating

When compared to a conventional barrier screw with similar geometry, the Xaloy Quantum™ screw delivers 10-15% faster recovery rates at lower melt temperatures.

### Applications

- Recovery limited injection molding processes utilizing polyolefin resins. Example: High volume, high speed production of thin-wall packaging

### Advantages

- Highest plasticating rates for polyolefins
- Lower melt temperatures

### Features

- Mass balance screw design

### Benefits

- Optimized plasticizing efficiency of unmelted material
- Improved melt quality in high speed applications
- Decreased percentage of scrap produced
- Yields a rapid return on investment

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Printed in USA  
8/2016

