

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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