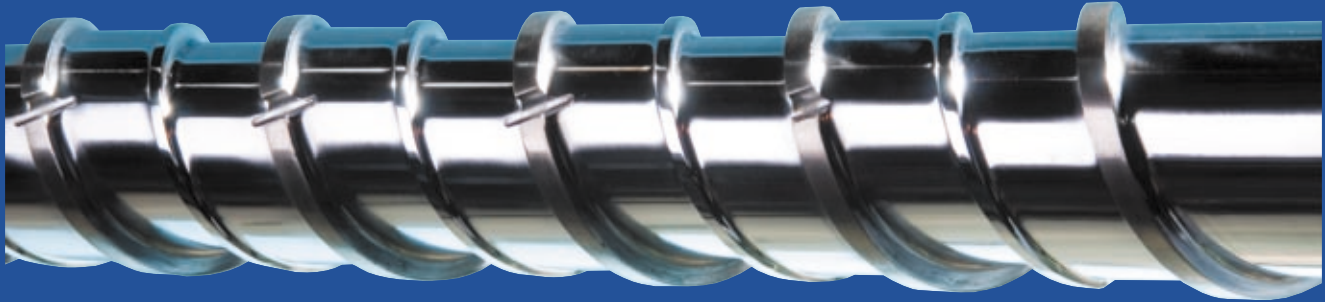


Fusion™ II Screw

Superior Mixing, High Productivity

Increase Production
Improve Product Quality
Lower Melt Temperature
Lower Drive Motor Load

U.S. patent no. 7,014,353



The Xaloy Fusion™ II Screw

Which Materials?

The Xaloy® Fusion™ II screw has already proven to deliver benefits in processing:

ABS	PP
HDPE	LDPE
LLDPE	MDPE
PET	PLA

Which Processes?

The Xaloy® Fusion™ II screw is available for the following processes:

- Injection Molding
- Blown Film
- Sheet Extrusion
- Blow Molding
- Profile
- Pipe

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

The Xaloy® Fusion™ II screw delivers enhanced chaotic mixing while retaining the productivity benefits of faster plastication and lower melt temperature provided by the original Fusion™ screw. Like the original Fusion™ screw, the Fusion™ II has two barrier zones. The first melts and meters the material forward to a homogenizing transition zone. This zone is followed by a second barrier zone with an undulating root profile providing intensive, chaotic mixing. The key difference between the Fusion™ II screw and earlier models is that primary flights in the second barrier zone have grooves. The new design is covered by U.S. patent no. 7,014,353, and has also been applied for international protection throughout the world, in Asia, Europe and South America.

The grooves in the flights allow materials in adjacent melt channels to mix together, thus enhancing the intensive, chaotic mixing action produced by the screw's undulating root profile.

This further improves the dispersion of color and additives in the melt and enhances melt homogeneity.

The Fusion™ II delivers the same productivity benefits as the earlier design. In injection molding, extrusion and blow molding, the Fusion™ II can deliver increases in plasticating rate of 15 percent and melt temperature reductions of up to 10°C compared with standard mixing screws.

www.xaloy.com

XALOY®

every pellet knows our name™

EXTRUSION

1291 19th Street Lane NW
Hickory, NC 28601
Tel: 828-326-9888
Toll-free: 800-457-7550
Fax: 828-326-8882

INJECTION

102 Xaloy Way
Pulaski, VA 24301
Tel: 540-980-7560
Toll-free: 800-816-7711
Fax: 540-980-5670

EUROPE

Xaloy Europe GmbH
Richard-Wagner-Str. 21
D-74172 Neckarsulm
Germany
Tel: +49 (0) 7132-99935-0
Fax: +49 (0) 7132-99935-99

ASIA

Xaloy (Asia) Thailand, Ltd.
700/446 Moo7 Amatanakorn Ind. Estate
T.Don Hua Roh, A.Muang, Chonburi
Chonburi 20000
Tel: +66 (38) 717 084
Fax: +66 (38) 454 377

JAPAN

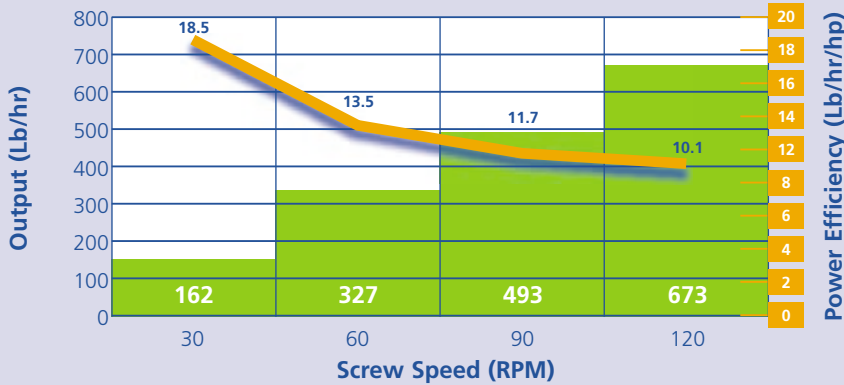
Xaloy Japan Ltd.
74-1 Yamashita-cho, Naka-Ku
Yokohama, 231-0023
Tel: +81-45-661-3508
Fax: +81-45-661-3507

Fusion™ II Screw

U.S. patent no. 7,014,353

Power Efficiency Performance Benefits

Output and Power Efficiency on 3.5" x 24:1 L/D
(90% LDPE and 10% LLDPE)



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.

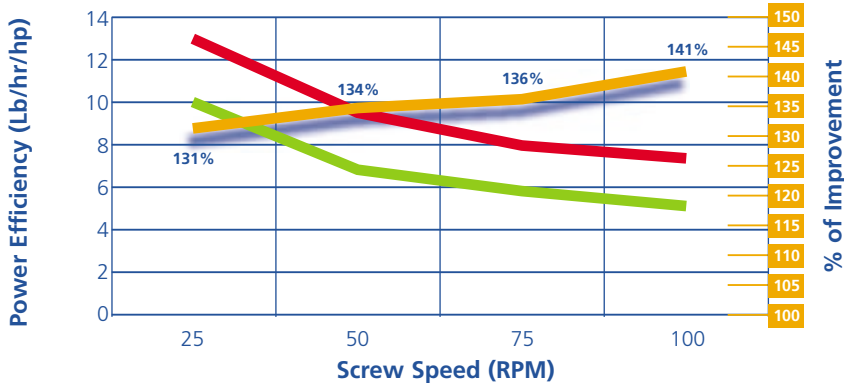
Rate

Typically, .5 to 1.0 MI LD/LLDPE blends require 7 to 8 lb/hr/hp to process effectively.

LB/HR/HP

The Fusion™ II Screw was able to process slightly more than 10 lb/hr/hp due to the efficient use of available HP.

Power Efficiency Comparison



Fusion™ II Screw

The Fusion™ II Screw also features the added benefit of energy cost savings through more efficient use of available horsepower.

Barrier w/UCC

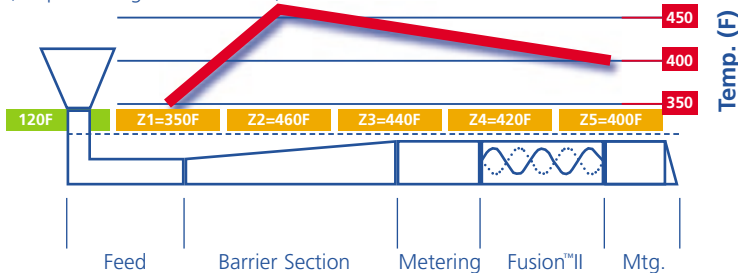
Resulting Overall Benefits

- More lbs/hr/hp
- Controllable melt temperatures
- Reduced energy costs

% of Improvement

Temperature Profile

(for processing a .35MI HDPE)



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

Note: This profile typically will produce a 410-420F Melt against a 3500 PSI headpressure.



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