

LOW PRESSURE

STRUCTURAL FOAM /
STRUCTURAL WEB SERIES



LOW-PRESSURE, MULTI-NOZZLE
SYSTEMS FOR LARGE STRUCTURAL
PLASTIC PARTS

LOW PRESSURE STRUCTURAL FOAM / STRUCTURAL WEB SERIES



If you want to make large structural plastic parts you need Milacron's LP technology. Our unique structural foam and web processes, coupled with the industry's most advanced molding system delivers reliable, flexible, economical production of large parts. Since the introduction of our LP-SF over four decades ago, we've continued to innovate and make the industry's best molding systems even better – with incredible precision control for process and part optimization.



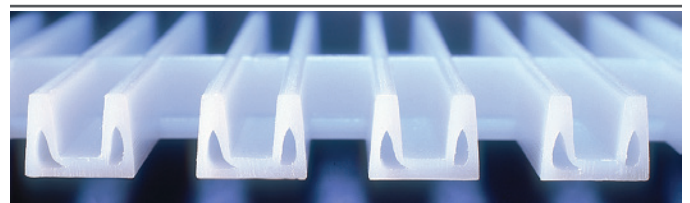
The Structural Foam Process



A foaming agent is mixed with the melt and short-shot through a modular multiple nozzle system into a mold/s. The injection pressure and expanding gas/polymer cellular mixture act to fill the mold. Key benefits include:

- Mold cavity pressures are 10-20x less than conventional injection molding
- 15-30% reduction in part weight
- Ability to mold large parts with a high rigidity
- Reduced part stress and warpage
- Multiple parts can be molded in a single cycle
- Low cavity pressure permits use of lower cost aluminum molds

The Structural Web Process



Structural web parts are solid with hollow channels and hollow thick sections packed out by internal injection of low pressure N2 gas. The LP-SW process produces an improved surface finish and color uniformity. Key benefits include:

- Smooth, uniform surface finish
- Reduced cycle times for very large parts
- 15-30% part weight reduction over solid parts
- High stiffness-to-weight ratio
- Thicker parts and tubular shapes without sink marks

THE LEADER IN STRUCTURAL FOAM / WEB TECHNOLOGY



Advanced Control Systems



Using a closed-loop PC-based control system, LP machines can deliver an exact shot size and duration to each nozzle – advancing the art of molding to a science. Once a “recipe” is optimized, it can easily be stored and re-loaded later for fast changeover.

Tremendous Capacity



Today's LP systems are capable of easily molding multi-part assemblies in a single cycle. Or, you can mold several of the same large part simultaneously. Either way, a USF can streamline your production operation.

Large Shot Size, High Output



The LP is available with either single or twin extruders to meet your processing needs. Shot sizes up to 400 lbs. (180 kg) enable high production throughput of up to 5,000 lbs/hr (2,300 kg/hr). Accumulators enable efficient energy use and materials availability when needed. Variable speed AC Vector drives with heavy-duty gear reducer ensure energy-efficient operation.

Large, Rugged Clamp Design



LP systems feature a heavy-duty infinitely adjustable design and a very large platen to accommodate large parts, family molds, and multi-part production. Platens up to 110"x200" (2,800 x 5,080mm) are available with up to 280 injection nozzle locations. Clamping forces to 2,500 tons are available to meet the most rigorous demands.



*Structural Foam/Web
is a very green process
with the capability to run
recycled resin, long parts
life, and easy recycling.*

APPLICATIONS

- Material handling bulk bins
 - Pallets
 - Tool boxes
 - Building products
 - Pool panels and ladders
 - Mop buckets and utility cans
 - Tote bins
 - Storage sheds and shelving
- ...and many more

BIG PARTS, BIG MACHINES, WE DELIVER ON BIG IDEAS

Today's manufacturer needs more than just machinery, they need productivity, innovation, and efficiency. For over four decades, that's what Milacron has delivered in LPIM Technology. From our development of Structural Foam molding technology for lightweight, rigid parts, and Structural Web technology that allows molding of large cosmetic parts, we remain at the forefront of innovation.

The Milacron team knows the big picture of processing. That's why we deliver with cutting edge machine systems with auxiliary equipment & robots, exceptional aftermarket support, and the know-how to bring your ideas to life – quickly, profitably, and with a global perspective.



4165 Half Acre Rd.,
Batavia OH 45103
513.536.2000
info@milacron.com | www.milacron.com
©2018 Milacron LLC. All Rights Reserved.
Publication: T2.XXXX.A.04.18