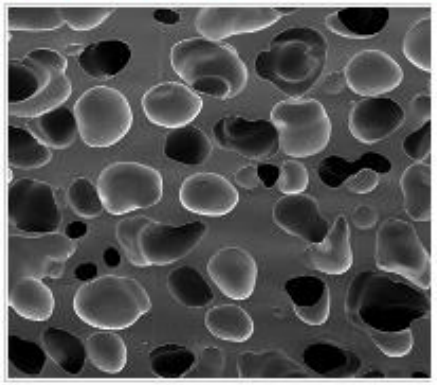
Melt Blenders

Your partner in the plastics processing industry

Mixing Nozzles

Melt Blenders

Foam Extrusion



Melt Coolers

- Founded in 2012 as a spin-off of Sulzer Chemtech
- Subsidiaries in Winterthur, Switzerland and Linden, Germany

Your partner in the plastics processing industry

- More than 30 years experience in plastic processing
- The biggest standard mixer portfolio in the industry
- Complete customized solutions including housings and nozzles
- Fast delivery of standard mixers and mixing nozzles within 5 days

- Local support in most important countries through own sales agents or local reps
- More than 30’000 references worldwide

Leading in static mixing technology

1995 First Mix Nozzle

1997 SMB-H Melt Blender

2007 Mix Tip

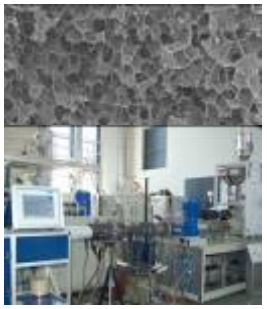
2009 Mix Body for sensitive applications

2013 SMB plus Melt Blender

1975 First Mixer Application Plastics Processing

1996 SMB-R Melt Blender

2004 New LSR Mixing Block



2007 Introduction Foam Extrusion

2010 launch new Mix Nozzle KSM

Application range

Applications

- Injection Molding
- Hot Runner
- LSR
- Extrusion
- XPS
- Physical high density foam extrusion

Polymers

Thermoplastics	LDPE, HDPE, LLDPE, PP, PS, HIPS, etc.
Technical Polymers	POM, PMMA, TPU, PET, PBT, SAN, ABS, PC, LCP, PA, PC/ABS
Filled Polymers	Glass-fibers, mineral fillers, etc.
Foamed polymers	PS, PE, PP, PET, PVC

How it works

- Homogenization of additives as master batch, color, flame retardant, different polymer grades etc.
- Reduction of radial and axial temperature variations
- Equalization of velocity differences across the flow channel

Static mixers in extrusion

Advantages of Promix melt blenders

- Equalization of melt temperature over the whole cross section
- Equal melt velocity in the die inlet
- Excellent distribution of all additives
- Equal wall thickness and better tolerances of extruded products
- Improved cell structure and smother surface in foam extrusion
- Significant saving of masterbatch
- Improved processing of recyclate
- Higher throughput due to optimized processing parameters

Effective temperature homogenization

In an empty pipe polymer melts will form a laminar profile

Promix melt blenders destroy the laminar profile and create a very effective cross mixing resulting in:

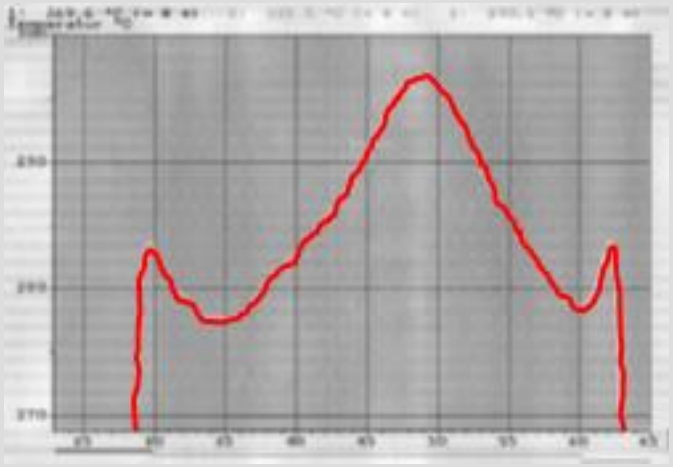
- Equal velocity
- Equal temperature
- Narrow residence time distribution
- Excellent melt homogeneity

Effective temperature homogenization

Diagram scanner

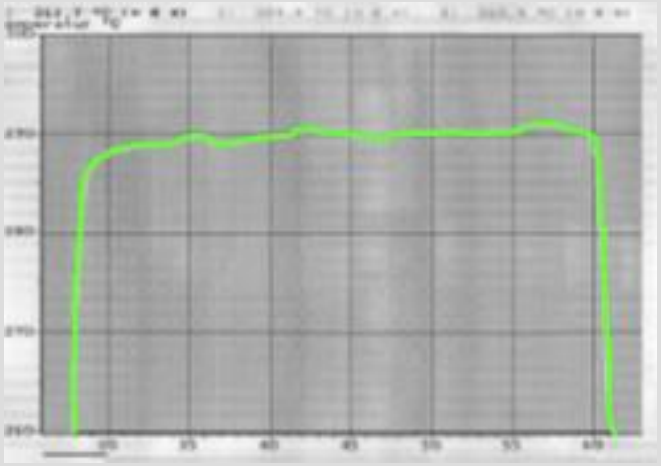
Line scanner

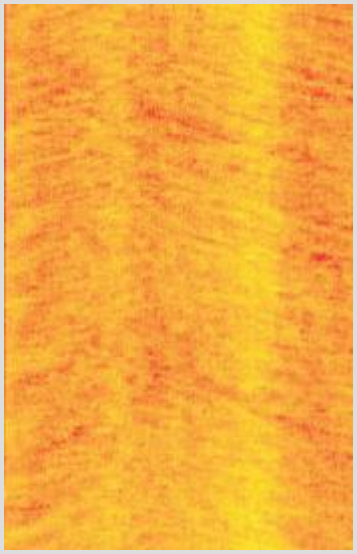
Temperature [°C]



Temperature distribution **WITHOUT** static mixer

Temperature [°C]





Temperature distribution **WITH** static mixer

Product Portfolio Extrusion

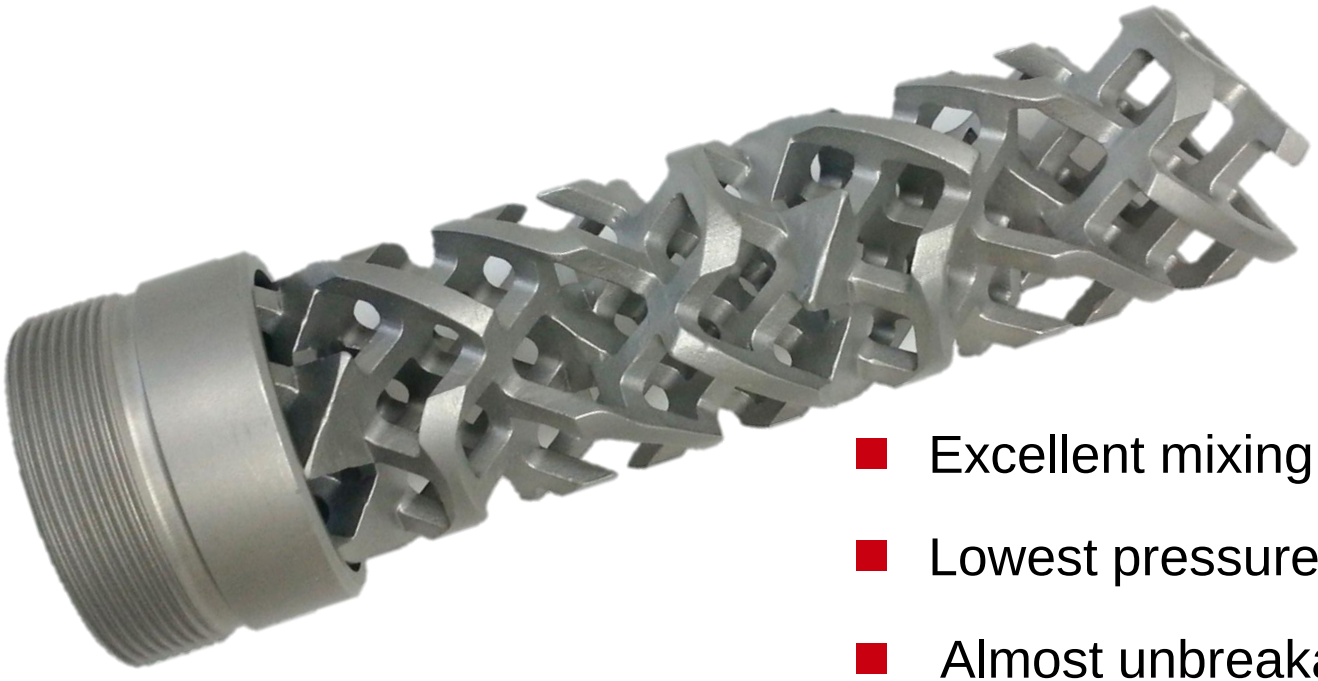
Product		Range												Application
	SMB-H	17	22	30	40	50								Standard solution; for high shear mixing and smaller DN
	SMB-R				40	50	65	80	100	125	150	175	200	For bigger DN and applications with limited allowable pressure drop
	SMB plus				40	50	65	80	100	125				New flow optimized generation, excellent mixing performance, min. pressure drop
	SMB-E					50	65							Eco product line for standard applications
	Polyguard				40		65	80						For PVC and rubber applications
	Housings	Various sizes												Customized housings for any melt blender type acc. to customer specification

Product Portfolio Extrusion

Product		Range												Application
	Breaker plate				40	50	65	80	100	125				Accessory for SMB-R, protection against cold slug
	Dismantling adapter				40	50	65	80	100	125				Accessory for SMB-R, ensures smooth dismantling of melt blender

Promix SMB plus melt blender

The new flow optimized melt blender generation

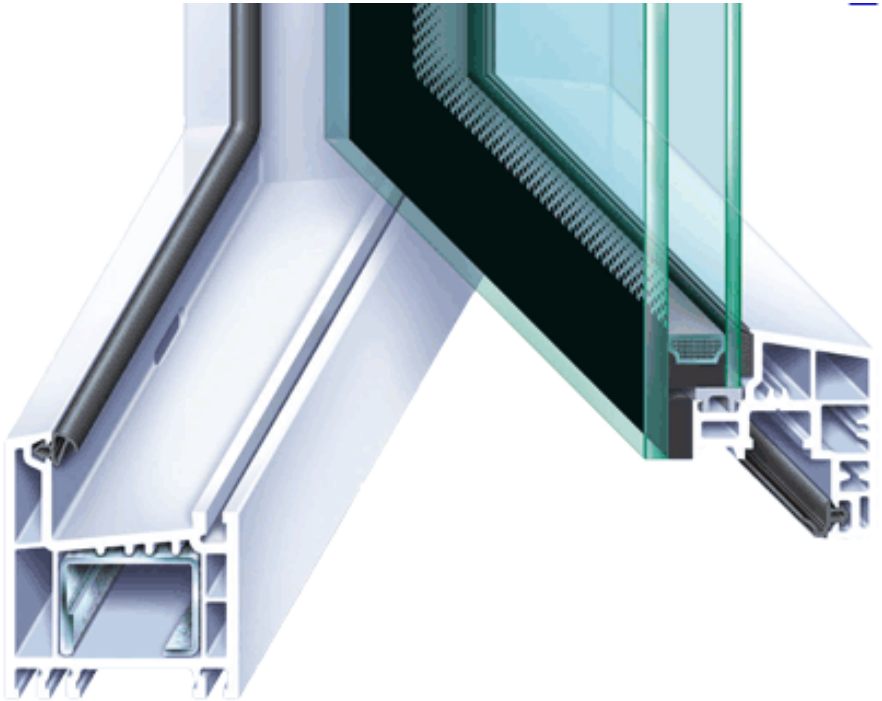


- Excellent mixing
- Lowest pressure drop
- Almost unbreakable
- Outstanding self cleaning behavior

SMB plus melt blenders including housings are available from DN40 up to DN125

Polyguard – first mixer solution for rigid PVC

Polyguard is the first and only mixer solution for rigid PVC, rubber and WPC on the market



Your advantages

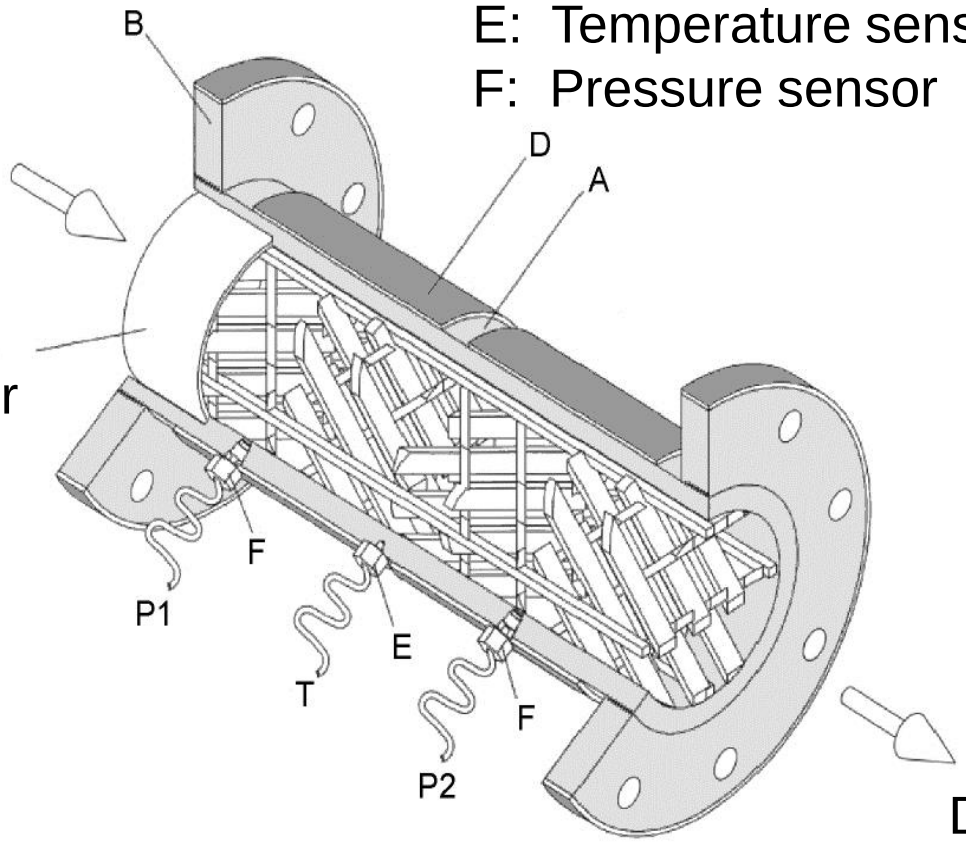
- Improved color appearance, avoidance of flow lines
- Better distribution of fillers and additives result in improved material strength
- Steady high product quality and reduced warpage
- Improved smoother inside surface of pipes

Installation principle

A: Temperature measurement connection
B: Flange
D: Heating tape
E: Temperature sensor
F: Pressure sensor

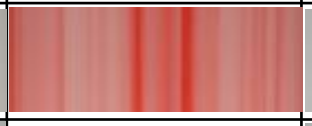
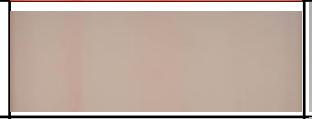
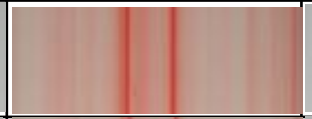
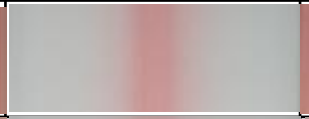
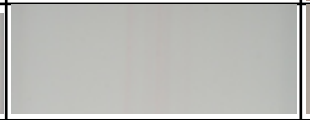
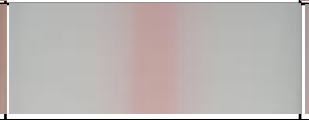
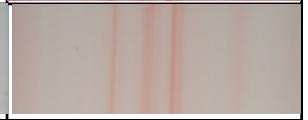
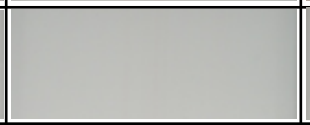
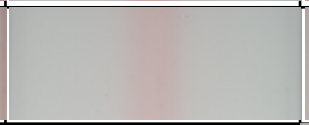
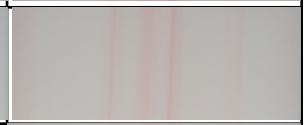
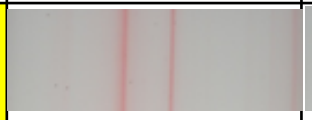
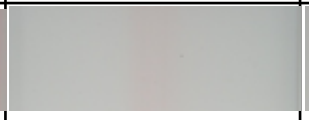
Extruder

Promix
Melt blender
SMB-R



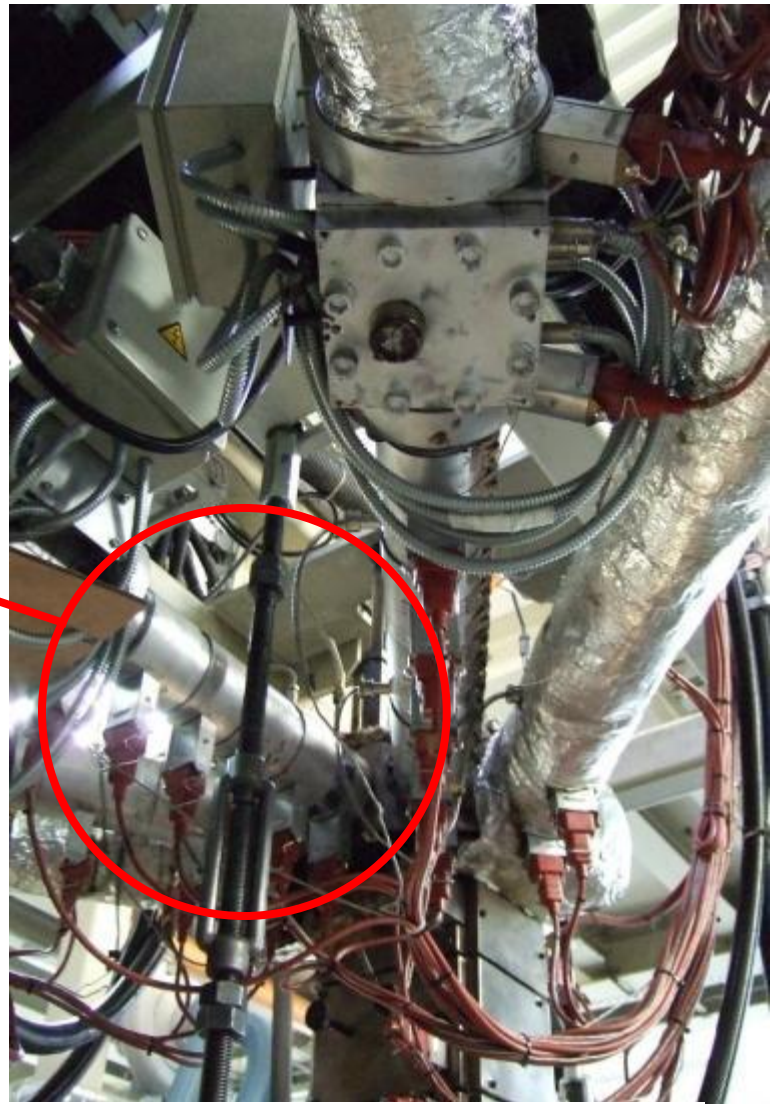
Die

Self cleaning performance Promix melt blender

Purging time	Extruder	Promix mixer	Helical mixer	Empty pipe	Extruder + Promix mixer
1 min.					
2 min.					
3 min.					
4 min.					
5 min.					
6 min.					
7 min.		100% clean after 6 min. = 6 times the mixer volume			
8 min.	clean after 7 min.		. . .		
20 min.				clean after 12 min.	clean after 9 min.

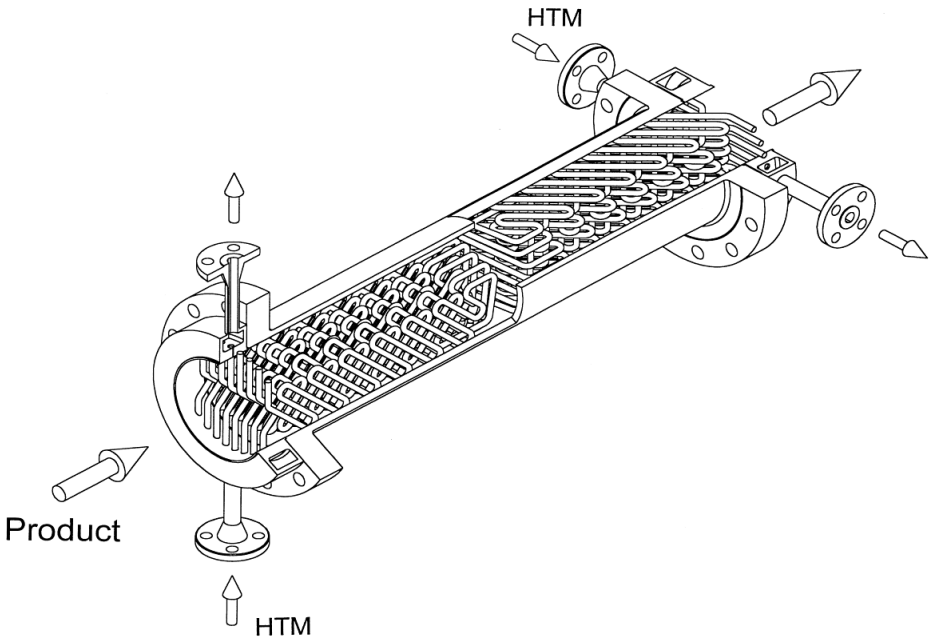
Installation example

Melt Blender SMB-H with housing and adapter flange



Installation in a flat film coextrusion line

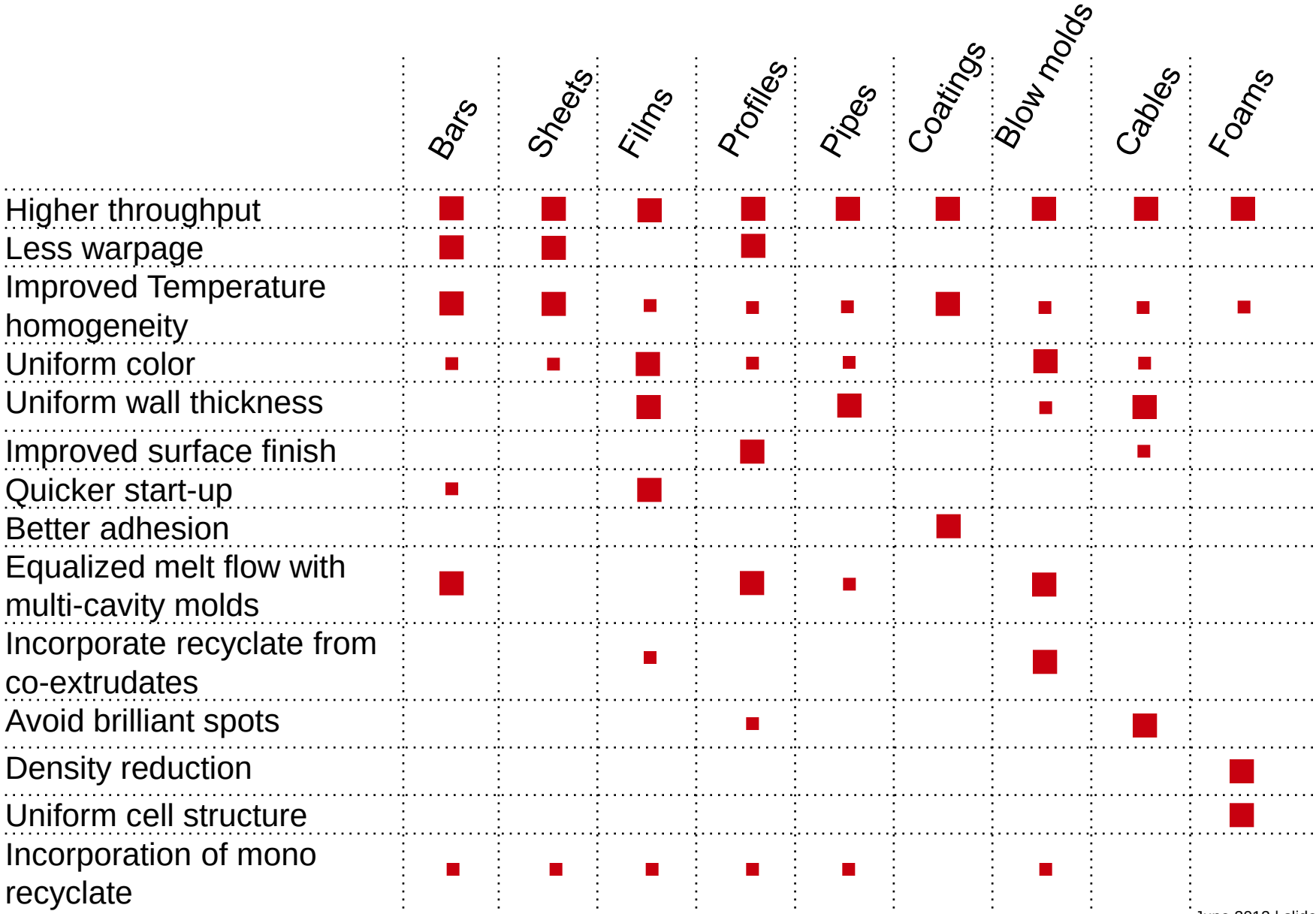
Promix melt cooler PMC



Your advantages

- Very high cooling efficiency and accurate outlet melt temperature control
- No fouling or blockage problems due to a well-mixed single flow
- Narrow residence time distribution
- Short installation length and low pressure drop
- Improved product quality in foam extrusion

Main benefits Promix Static Mixer in Extrusion



References Extrusion

Machine builders