



MonoSandWich

TECHNOLOGIE



MONOSANDWICH

The MonoSandWich (MSW) Technology developed by Milacron, is a simpler version of Multi-Component technology. It is designed to significantly reduce the manufacturing costs as compared to conventional sandwich moulding technologies.

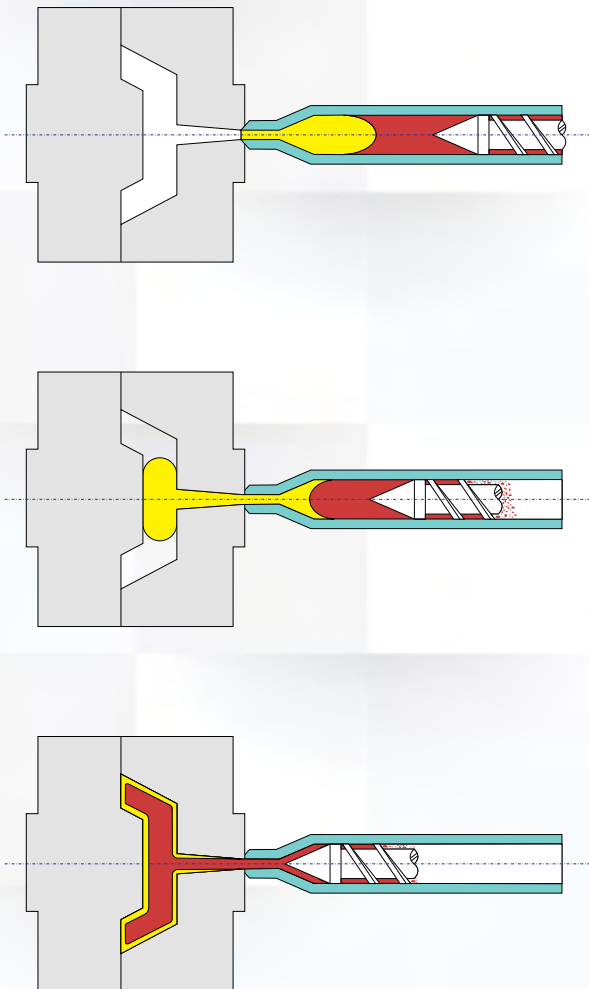
MSW uses only 1 injection stroke thereby eliminating any chances of error arising when switching from skin to core. This also makes changing colors faster than conventional technologies.

It is the combination of skin and core material that gives the parts their special characteristics and offers manufacturers cost reductions along with greater scope for producing functionally complex parts. The MSW technology provides the option of using recycled materials for the core and virgin material for the skin for parts with perfect, unblemished surfaces. For larger parts, this can be particularly economical. Material cost reductions of 30 % are entirely possible here.



How does MSW work?

The highly innovative Extruder coupling device* for MSW technology simplifies the process considerably. As soon as the core material is plasticized, the secondary extruder introduces the skin material directly into the barrel of the injection unit. The correct quantities are thus regulated by the main injection unit's stroke measuring system. The melt components, now situated one behind the other in the injection unit, are injected into the mold cavity just like a normal injection procedure. This allows the core material to continue flowing through the middle of the flow channel while the skin component is deposited evenly on the outer wall of the cavity. It is important that the viscosity of the materials be similar.



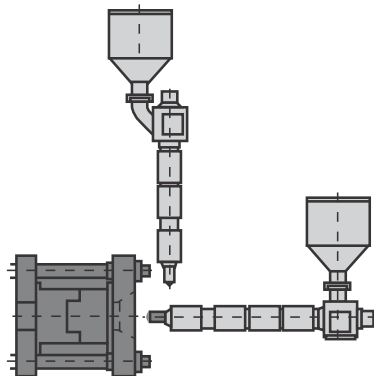
ADVANTAGES

- Machine cost savings
- Material cost savings
- Use of recycled core material (upto 70%)
- Reduce amount of expensive skin material
- Weight reduction
- Strength improvement
- Surface quality improvement
- Functional improvement
- Acoustics improvement
- Simple process
- Use of existing cold runner molds
- Fast material change
- License free system
- Cost effective solution

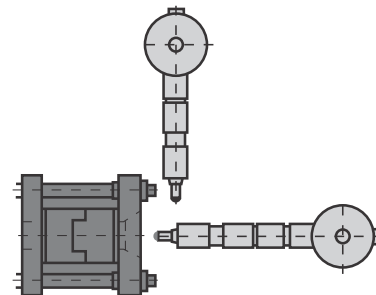
SECONDARY EXTRUDER	SCREW Ø	MAIN INJECTION UNIT											
		300	450	630	970	1540	2290	3470	4880	6610	10100	16000	23000
120 E	30	Ve	Ve										
300 E	40	Ve	Ve	Ve	Ve	Ve							
630 E	50				L	Ve	Ve						
970 E	60				L	L	L						
1540 E	70						L	L					
2290 E	80						L	L	L	L / Ve	L / Ve	L / Ve	L / Ve
3470 E	90								L	L	L	L	L
4880 H	100								L	L	L	L	L
6610 H	>=110									L	L	L	L

E - Electric Extruder
H - Hydraulic Extruder

More Injection Unit Combinations Available on Request.
Please Contact Milacron Experts for More Details.



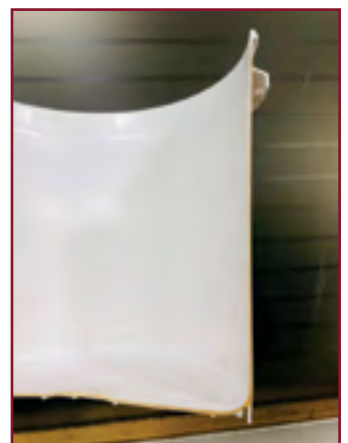
Ve-MSW - Vertical Mounting of
Secondary Extruder



L-MSW - L-Mounting of
Secondary Extruder

Applications

- Stronger core material (such as fiber reinforced) can be given an easy-to-grip 'soft touch' skin.
- Vibration and/or sound absorbing properties.
- Electronic components – an antistatic grade polymer skin and a conventional, non-conductive core.
- Auto industry and consumer goods.



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