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# How to Mold This 'Impossible' Part

New low-pressure injection molding process “breaks the rules” and solves difficult molding problems.



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First of all, it breaks a cardinal rule of injection molding: Flow from thick to thin, right? Well, this polypropylene part has a thick sprue that feeds two long, thin filaments, which feed into thick tunnel gates and relatively thick-wall, box-shaped parts (only one of which is shown here). Thick-to-(very) thin-to-thick again. Shouldn't be done. Looks like it shouldn't be possible.

And those filaments—talk about a flow-length to thickness (L/T) ratio! The filaments are 3 in. long × 0.030 in. diam. That's a 100:1 L/T ratio.

So why do this at all? It's a demonstration part handed out by [iMFLUX](#), the six-year-old subsidiary of Procter & Gamble that developed a molding process that uses constant low pressure to overcome many of the drawbacks of conventional injection molding. The result is said to be higher part quality, with lower molded-in stresses, and faster cycles—not to mention savings from lower injection and clamp pressures.

This part demonstrates the degree of control engineered into the iMFLUX process to ensure *constant* low-pressure filling. Any hesitation in flow through those long, thin filaments would cause instant freeze-off.

Got you interested yet? Learn about the latest developments in this novel process and what molders, machine suppliers, and consultants are saying about it in a feature in the upcoming September issue, written by Gene Altonen, chief technology officer of iMFLUX. In the meantime, you can read [an article](#) he wrote for us last year, introducing the process.

