



Cast handle



Matchplate with FDM insert

# Sand Casting at Melron

Melron Corporation is a manufacturer of window and door hardware. In the past, Melron had engaged a subcontractor to machine matchplates from aluminum and the matchplates often required design changes. This was costly and time consuming, so they looked for alternative methods to aid them in this process.

They soon purchased a Stratasys 3D Printer using FDM® Technology of their own and began producing matchplates that combined pre-fabricated aluminum blanks with FDM inserts. The cost of producing matchplates is now 60% less than CNC machining and lead times have been reduced by 50% or more.

<b>System</b>	Fortus® 400mc (handle and pattern section)
<b>Material</b>	ABS-M30™ (handle and pattern section)
<b>Build Time</b>	1.05 min (handle) 5 hours, 55 mins (pattern section)
<b>Material Used</b>	1.1 in³ (18.0 cm³) (handle), 9.9 in³ (162.2 cm³) (pattern section)
<b>Support Material Used</b>	0.2 in³ (3.3 cm³) (handle), 2.3 in³ (37.7 cm³) (pattern section)