Improving productivity and product quality in precision machining

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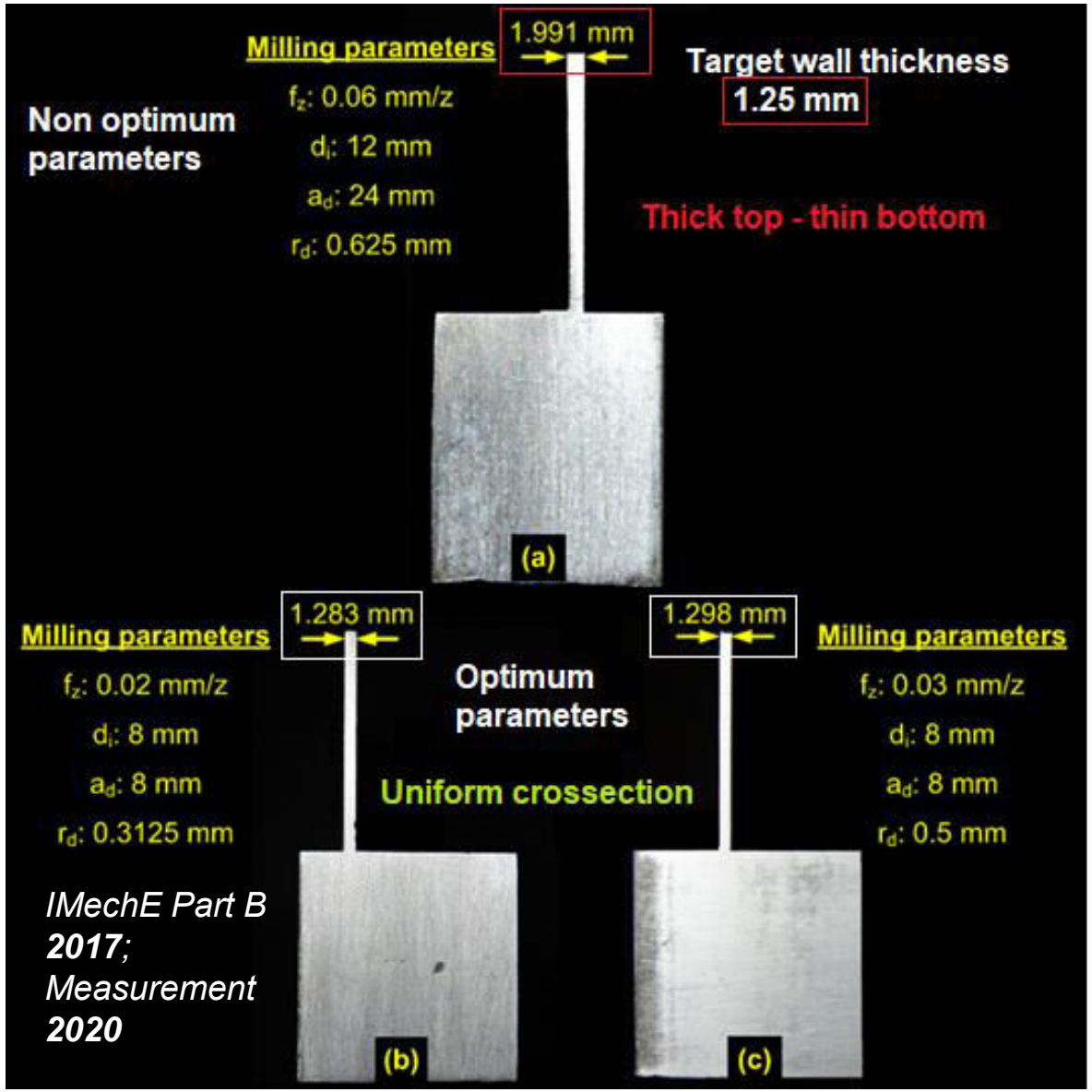

IMechE Part B ***2017***; *Measurement* ***2020***

Thin-wall machining of aerospace alloys
SERB-DST Funded Project (completed)
INR 35.34 Lakhs (2013-2017) **as PI**

f_z = feed (mm per tooth)
d_i = tool diameter (mm)
a_d = axial depth of cut (mm)
r_d = radial depth of cut (mm)

Thickness deviation at top portion was **improved from 59.2% to 2.64 to 3.84%** with optimum levels

Precise machining of a curvilinear ultra-thin-wall part 750 µm

Important deliverables to make the aircrafts and automobiles lighter

On 3-axis CNC milling machine at medium cutting speed in real-life shop floor conditions

Sponsored project
01 completed

Ph.D. students
01 completed
(thin-wall)

M. Tech. projects
03 (thin-wall)

Intl. Journal papers
09 (thin-wall)

Book chapters 02
(thin wall)