

BAB 6

KESIMPULAN dan SARAN

Bab ini berisi kesimpulan dari penelitian yang dilakukan dan saran untuk penelitian selanjutnya.

6.1. Kesimpulan

Penelitian tentang penerapan pendekatan kombinasi metode Taguchi – RSM untuk mengoptimalkan kondisi parameter pemotongan pada manufaktur *insole* dianggap berhasil. Parameter pemotongan yang optimal pada penelitian ini adalah pada kondisi *spindle speed* 12500 rpm; *step over* 0,15 mm; *feed rate* 850 mm/min; dan *toolpath strategy Raster 90* dengan menggunakan jenis material material X. Kondisi optimal tersebut berhasil mendapatkan nilai *R_a* sebesar 5,328 μm .

Optimasi menggunakan pendekatan kombinasi metode Taguchi – RSM lebih baik dibanding pendekatan metode Taguchi. Optimasi menggunakan pendekatan kombinasi metode Taguchi – RSM berhasil mendapatkan nilai *R_a* dan *absolute error* yang lebih rendah dibanding pendekatan metode Taguchi.

6.2. Saran

Perlu dilakukan penelitian lebih lanjut menggunakan teknik optimasi lain sehingga bisa didapatkan kondisi pemotongan yang lebih optimal.

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LAMPIRAN

Lampiran 1. Foto *Machining* pada Mesin CNC Roland Modela MDX – 40R



Lampiran 2. Pengukuran Nilai R_a dengan Surface Roughness Tester Marh MarSurf PS1



Lampiran 3. Hasil Pengambilan Data untuk *Confirmatory Experiment* Hasil Optimasi Metode Taguchi



Lampiran 4. Hasil Pengambilan Data untuk *Confirmatory Experiment* Hasil Optimasi Metode Taguchi – RSM

