# Data collection procedure

Surfaces of two metal plates are repeatedly sanded using increasingly rougher grains. The sanding is performed using an orbital sander. Images are recorded and the surface roughness is measured Ra after each sanding iteration. The roughness is measured using a standard needle-based roughness measure device which measures over 6mm. For each iteration 3 measurements are taken on different spots on the surface, always in the same direction.

The sanding grain sizes used are: p500, p400, p240, p180, p120, P80, p40

Before the recording process starts each plate is prepped/roughened up using p240.

One plate is made of stainless steel. The other plate is made of aluminum.

## Data

P500

ALU: 0.337, 0.311, 0.316,

STEEL: 0.228, 0.231, 0.262

P400

ALU: 0.607, 0.510, 0.590

STEEL: 0.271, 0.286, 0.273

P240

ALU: 0.765, 0.915, 0.830

STEEL: 0.430, 0.407, 0.530

P180

ALU: 1.020 , 1.310, 1.120

STEEL: 0.457, 0.510, 0.492

P120

ALU: 0.990, 1.125, 1.330

STEEL: 0.425, 0.435, 0.420

P80

ALU: 1.580 , 1.930, 1.530, 1.730

STEEL: 0.525, 0.637, 0.580, 0.635

P40

ALU: 2.190, 2.440, 2.240

STEEL: 0.755, 0.725, 0.695