Surface Roughness

The values listed below are only to be considered as general guidelines. The roughness is dependent on various factors. These are for example:

- surface finish of the material used
- thickness of the material used
- condition of the abrasive belt
- type of abrasive belt (cloth/paper)
- feed rate
- abrasive pressure

R_a and R_{max} are given below.
R_a is the arithmetic average value of all deviations of the roughness profile from the centre line within the total measuring section.
R_{max} is the maximum roughness depth of five measured roughness depths.

Grit size (also duplex)	**R_a**	**R_{max}**
36	6.0µm	
40	5.5µm	
50	5.3µm	
60	4.0 µm	
80	3.4 µm	
100	2.7 µm	5.4 µm
120	2.0 µm	4.7 µm
150	1.4 µm	4.8 µm
180	1.0 µm	3.8 µm
220-240	0.9 µm	3.2 µm
280-320	0.4 µm	2.0 µm
400	0.3 µm	1.9 µm
brushed	0.2 µm	0.7 µm

The surface roughness of the stainless-steel sheet is only of minor importance for the appearance of the finish.
As a rule, the stainless-steel strips and sheets supplied to the customer are not optimized for roughness depth but for the appearance of the finish.
The following factors are decisive for this:

- grinding width (width of the grooves)
- grinding gap (distance between the grooves)
- grinding length (length of the individual grooves)
- grinding motion (oscillating or unidirectional)

If the customer requires a specific surface roughness, this can be specified in the order.