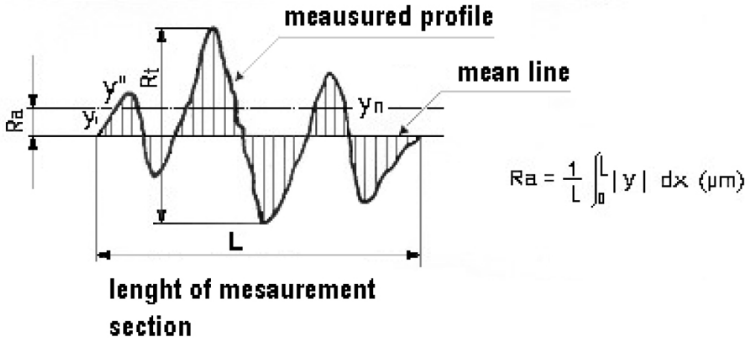
GRUPPO LUCEFIN Lovin' Steel

ROUGHNESS

ROUGHNESS CONVERSION TABLE								
Ra µm ISO 468 e 4287	AA µinch USA ASA B.46.1	Centre Line Average CLA µinch GB BS 1134	**Rt** µm Germany	**Rz** µm JIS mean of 10 points	**Ry** µm max height	UEFCO	ISO 1302	MCC
0.006	0.25						N01	
0.012	0.5			0.05	0.05		N0	
0.025	1		0.25	0.1	0.1		N1	
0.05	2		0.5	0.2	0.2		N2	
0.1	4	4	0.8	0.4	0.4		N3	f5
0.2	8	8	1.6	0.8	0.8	fP	N4	
0.4	16	16	2.5	1.6	1.6	fP	N5	f4
0.8	32	32	4	3.2	3.2	fG	N6	f3
1.6	63	63	8	6.3	6.3	fF	N7	f2
3.2	125	125	16	12.5	12.5	fO	N8	f1
6.3	250	250	25	25	25	fO	N9	f
12.5	500	500	50	50	50	fR	N10	
25	1000	1000	100	100	100	fT	N11	
50	2000			200	200		N12	
100	4000			400	400		N13	
200	8000						N14	

SYMBOLS AND LEVEL OF FINISHING			
Ra µm	AA- CLA µinch	Conventional symbols	Surface description
0.025 0.05	1 2	▼▼▼▼ ▼▼▼▼	Superfinishing Burnishing diamond paste
0.1 0.2	4 8	▼▼▼▼	Lapped, high level of finish, perfectly smooth Lapped for seal joints
0.4 0.8	16 32	▼▼▼	Ground, electric spark machining Extra fine for machine tools, finish to the papers
1.6 3.2	63 125	▼▼	Very smooth for machine tools Smooth for machine tools
6.3 12.5	250 500	▼	Medium for machine tools Coarse for machine tools
25	1000	~	Raw material
50	2000	~	Raw material



$$Ra = \frac{1}{L}\int_0^L |y|\, dx \ (\mu m)$$

- Roughness is the series of micro-geometrical errors present on a surface prepared with any machining process.
- Roughness is measured on the surface in a transversal direction to the main grooves.
- The mean arithmetical value "**Ra**" in µm is assumed for the roughness measurement.
- **Rt** = maximum value of roughness or height from the lowest point to highest point
- **Rz** = average roughness in 10 points