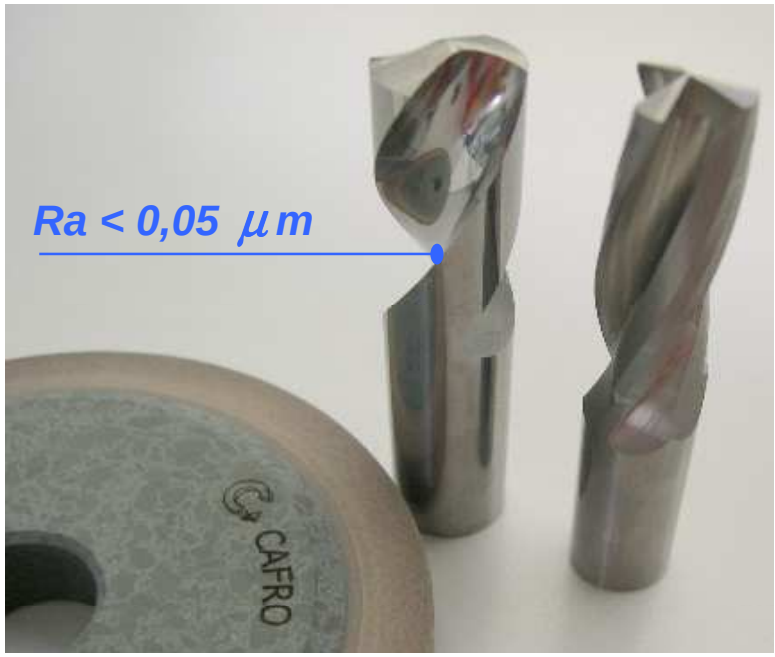
CAFRO "SUPERFIN" wheels for mirror finishing
on solid carbide endmill & drill flutes



Date :	28/09/2007
Wheel	1A1-100-10-6-20
Specific.:	***SUPERFIN***
No. serie :	07-102972-01
Machine :	Walter Helitronic
Coolant:	Neat oil, filtered
Pressure :	6 to 20 bar
Cut speed :	22 m/s
Depth of cut	0,05 mm (max)
Thrufeed:	50 mm/min
Drill:	Ø 8 ÷ 20 mm
Helical angle:	30°
No of teeth:	2
Helic. Length:	40,00 mm

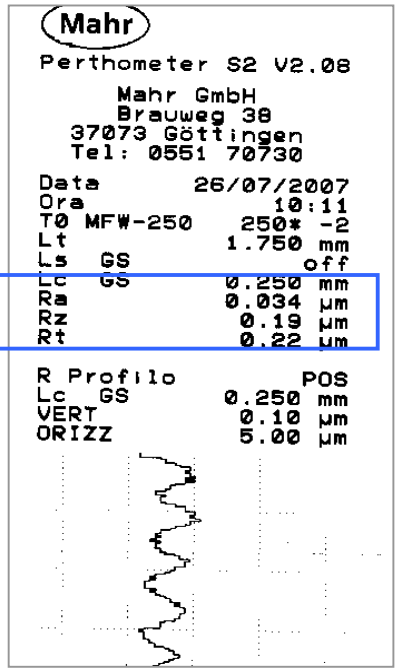
Picture: mirror flute surface left by a ***SUPERFIN*** wheel compared with a standard finishing

Hints :

1) The ***SUPERFIN*** wheel must be used after the fluting made by a CAFRO ***M405*** (*) wheel
2) Geometry of the ***SUPERFIN*** wheel must be the same as the one employed for fluting
3) After production of 100 pcs, every tool flute was kept within a roughness value of ***less than R_a 0,05 µm***
4) machine can work automatically with charger
5) Wheel wear is less than 0,01 mm after 100 pcs Ø 8 mm
6) Depth of cut depends on workpiece Ø.

7) **Roughness check :**

* The roughness measuring at side was taken on the last drills from the mentioned 100 pcs batch
* The result is by far superior to the expectations, forecasting a N2 (swiss standard = Ra ~0,05) value.
* Moreover the carried out tests show that a good performance could be obtained with minor spindle power, or without oil ultra-filtration devices, and with many different carbide grades


Mahr
Perthometer S2 V2.08
Mahr GmbH
Brauweg 38
37073 Göttingen
Tel: 0551 70730

Data		26/07/2007
Ora		10:11
T0 MFW-250		250* -2
Lt		1.750 mm
Ls	GS	off
Lc	GS	0.250 mm
Ra		0.034 µm
Rz		0.19 µm
Rt		0.22 µm

R Profilo		POS
Lc	GS	0.250 mm
VERT		0.10 µm
ORIZZ		5.00 µm

(*) M405

is a special free cutting hybrid bond of CAFRO for high performances fluting - ask for literature or technical advice.