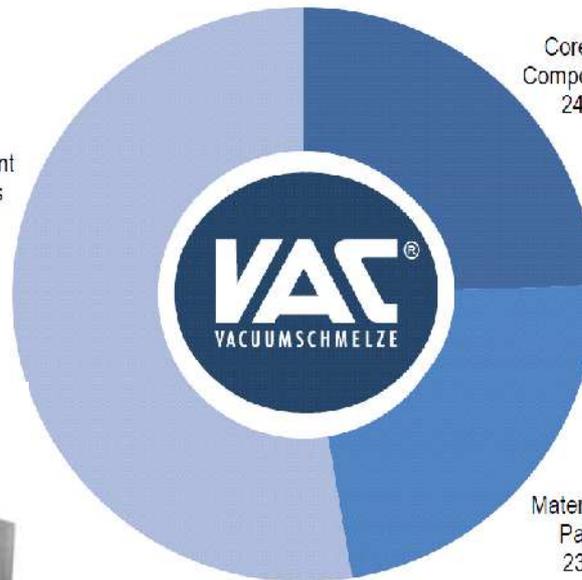


**VACUUMSCHMELZE GmbH & Co. KG** is a leading global manufacturer of advanced magnetic materials and related products.

In 1914, the first vacuum melting furnace laid the foundation for today's **VACUUMSCHMELZE**. Then in 1923, melting alloys in a vacuum went into production on an industrial scale. This initial operation was located in Hanau, Germany and later grew into a company that operates on a worldwide basis:

- With 4000 employees
- In more than **50 countries**
- With annual sales of about approx.  
**490 million Euro**

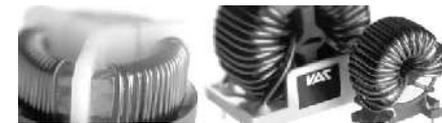
Permanent  
Magnets  
53%



Cores &  
Components  
24%



Materials &  
Parts  
23%



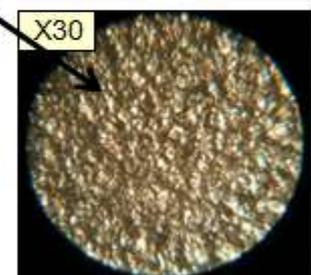
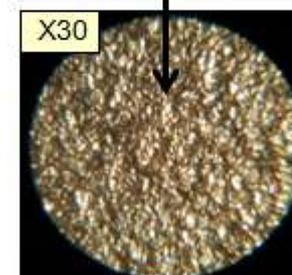
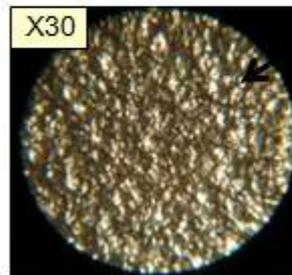
## PARAMETERS

- Rotation speed : **2400 rpm**
- Throwing speed : **77 m/s**
- Efficiency of the wheels : **45 %**
- Abrasive flow : **215 kg/min**
- Line speed : **2 - 3 m/min**
- Working days per week : **5**
- Shifts per day : **1**
- Operators : **1**
- Blasting time in the period : **210 h/month**
- Production per unit of time : **3900 m<sup>2</sup>/month**
- Abrasives consumption per year : **50 t/year**



1	2	3
7,94	9,62	9,165
48,6	48,6	53,68
61,1	58,8	61,82

Ra  
Rz  
Rmax  
Pc

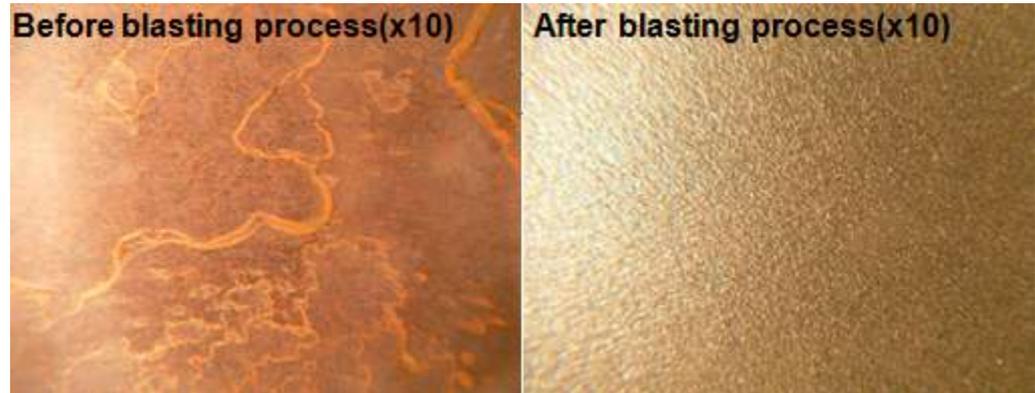




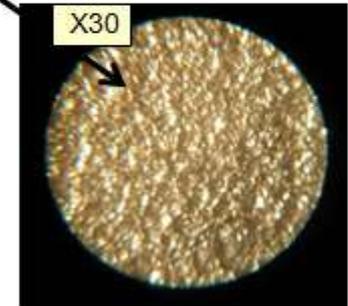
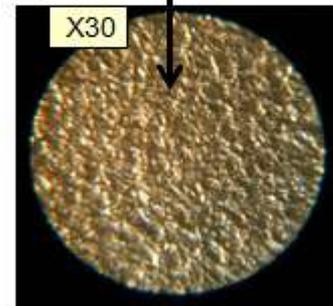
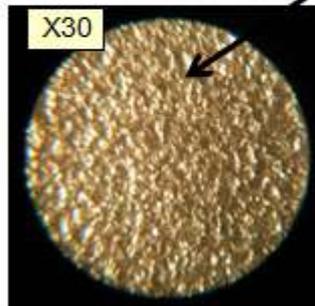
## PARAMETERS

- Rotation speed : **2400 rpm**
  - Throwing speed : **77 m/s**
  - Efficiency of the wheels : **45 %**
  - Abrasive flow : **215 kg/min**
- We increased descaling efficiency and decrease the roughness with SM 140 vs S330 used before:**

- Lower process costs
- Higher productivity (line speed up to 50%)
- Improved surface appearance
- Lower, regular and better-controlled roughness



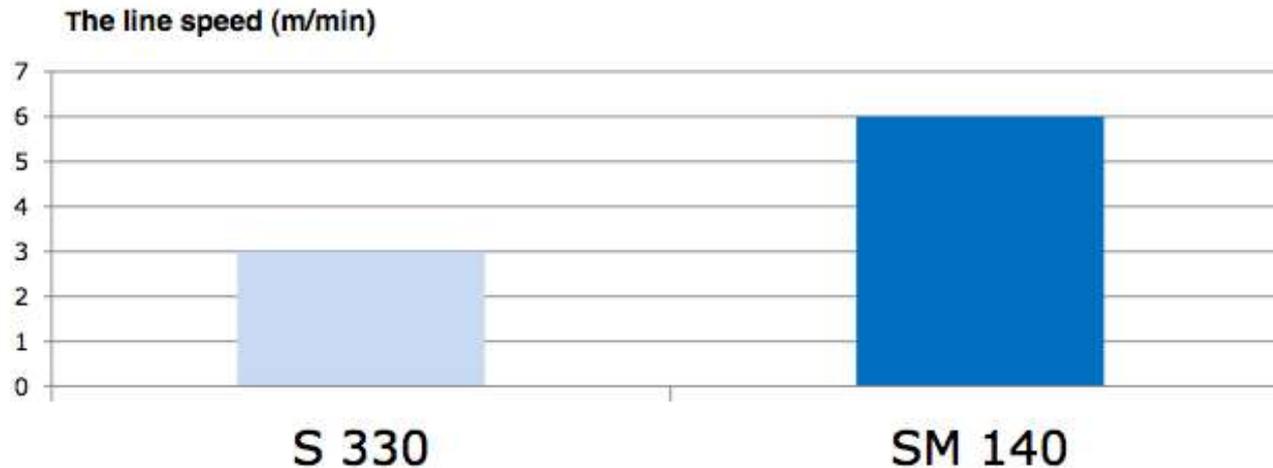
1	2	3	M	
7,03	5,66	5,37	<b>6,019</b>	Ra
32,1	33,8	32,88	<b>32,923</b>	Rz
39,8	40,4	41,74	<b>40,674</b>	Rmax



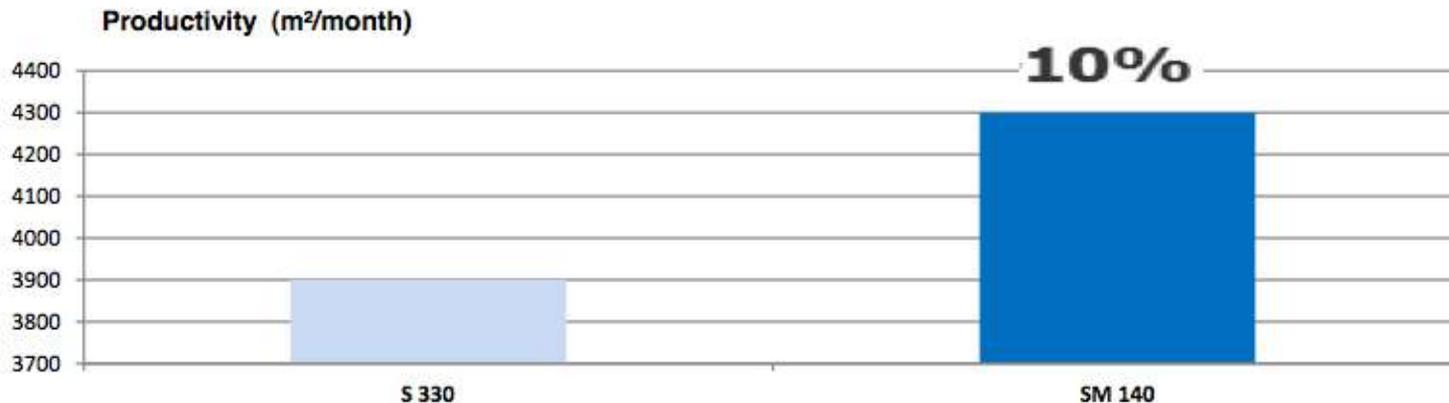
- **Line speed :**

- *Line speed with previous abrasive S 330 : 2 - 3 m/min max.*

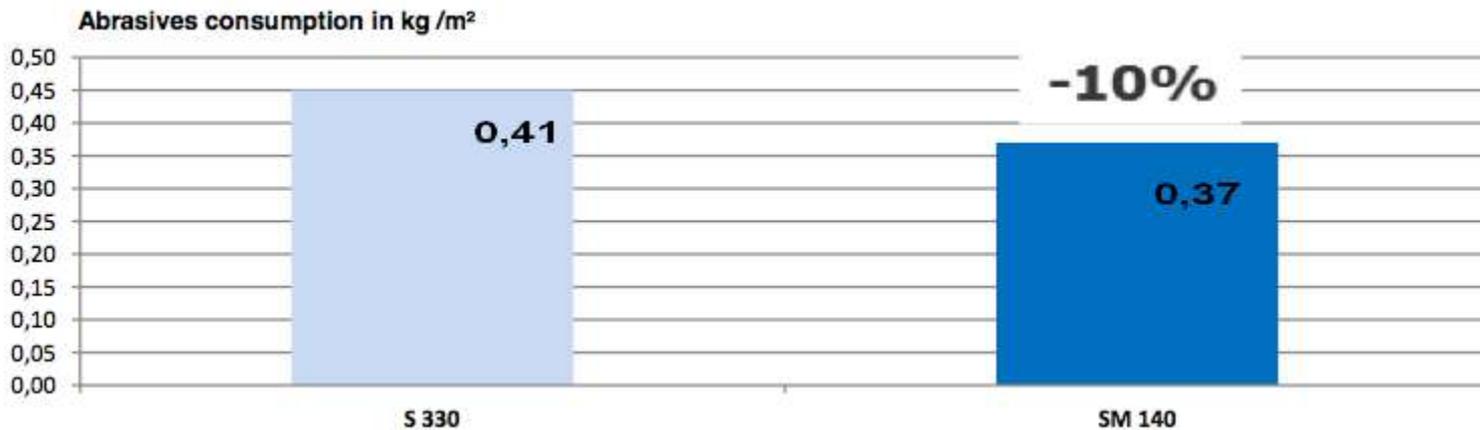
- *Line speed **STAINIUM** : 3 to 8 m/min*



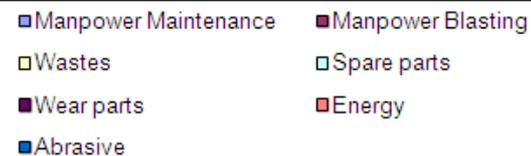
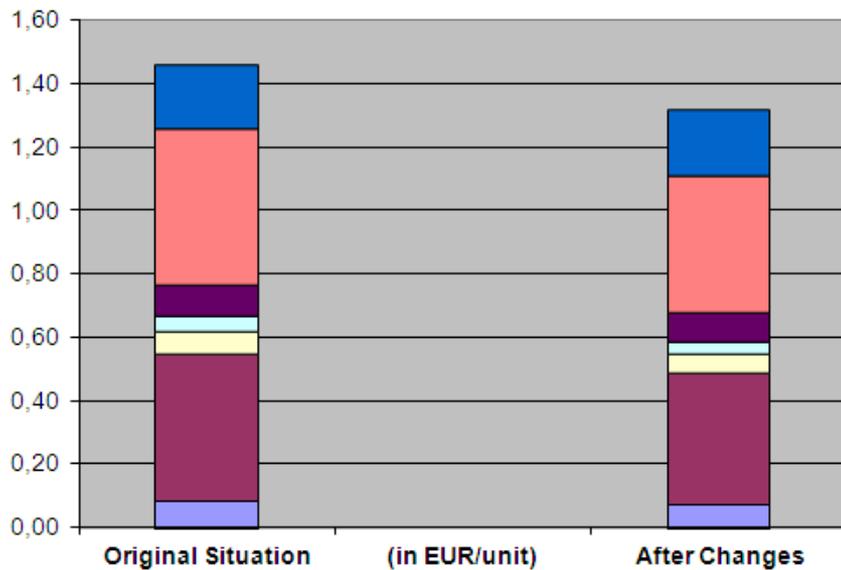
- **Highest productivity for same cleanliness level :**
  - *With previous abrasive S330: 3900 m<sup>2</sup>/month (1,6t abrasive consumption)*
  - *With **STAINIUM** : 4300 m<sup>2</sup>/month (1,3t abrasives consumption for same period)*



- Lower abrasive consumption for same cleanliness level :
  - With previous abrasive S330 : 0,41 kg/m<sup>2</sup>
  - With **STAINIUM** : 0,27-0,37 kg/m<sup>2</sup>



### Marginal Cost



Marginal Cost	Original Situation	(in EUR/unit)	After Changes
Manpower Maintenance	0,09		0,08
Manpower Blasting	0,46		0,41
Wastes	0,07		0,06
Spare parts	0,05		0,04
Wear parts	0,10		0,09
Energy	0,49		0,43
Abrasive	0,20		0,21
<b>TOTAL</b>	<b>1,47</b>		<b>1,32</b>
			<b>-10,2%</b>

This customer measured a considerable difference in terms of **EFFICIENCY – PRODUCTIVITY** and **CONSUMPTION** between **STAINIUM 140** and the abrasives they were using.

- The customer achieved (+10% to +50%) Efficiency (in blasted m<sup>2</sup>/month), A highest productivity because we increased the line speed by 50%.
- The abrasives consumption decreased from 50 to 35t/year for same cleanliness level of Sa2 and same blasting time, by implementing **SM 140**.

For **VACUUMSCHMELZE GmbH & Co. KG**, **STAINIUM** is a **REFERENCE** and the **SOLUTION** for his special application.