

HGH Surface Finish Technology

HGH Lapp - MicroBlasting



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Technik



Lappstrahl-
technik



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Reinigung



Verbrauchs-
material

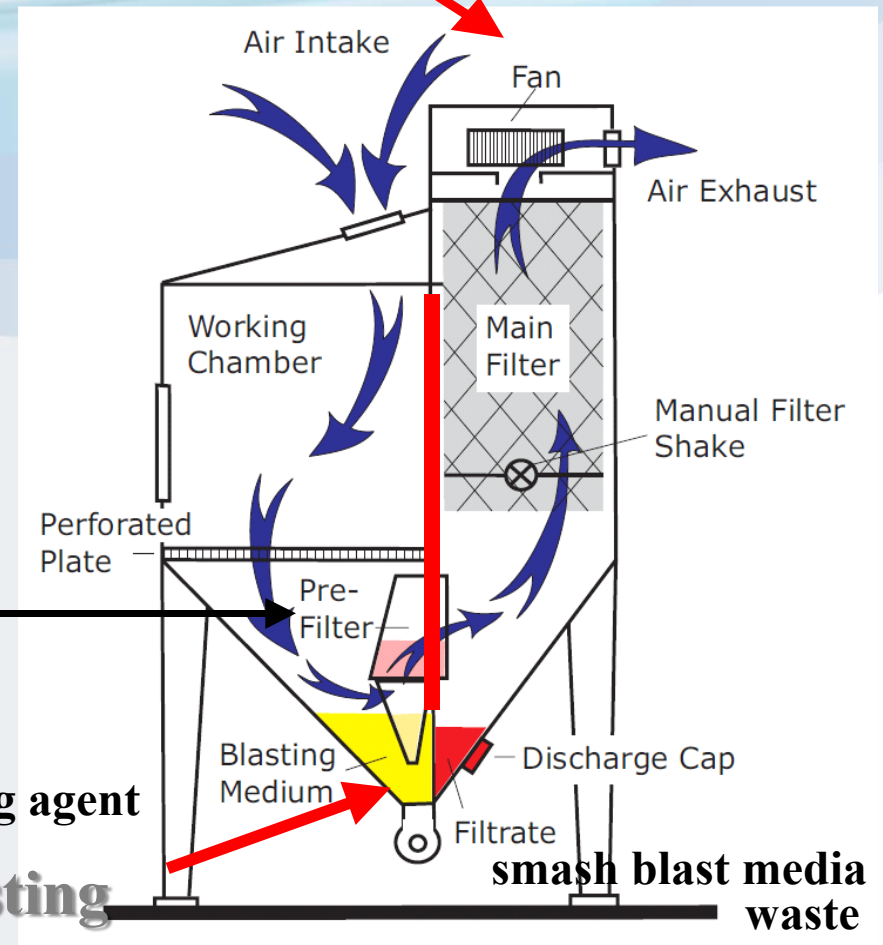
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Working principle of HGH Lapp Blasting unit

Electronically controlled motor

cyclone separator

healthy blasting agent



Separation of virgin and spent blasting medium



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Filter unit



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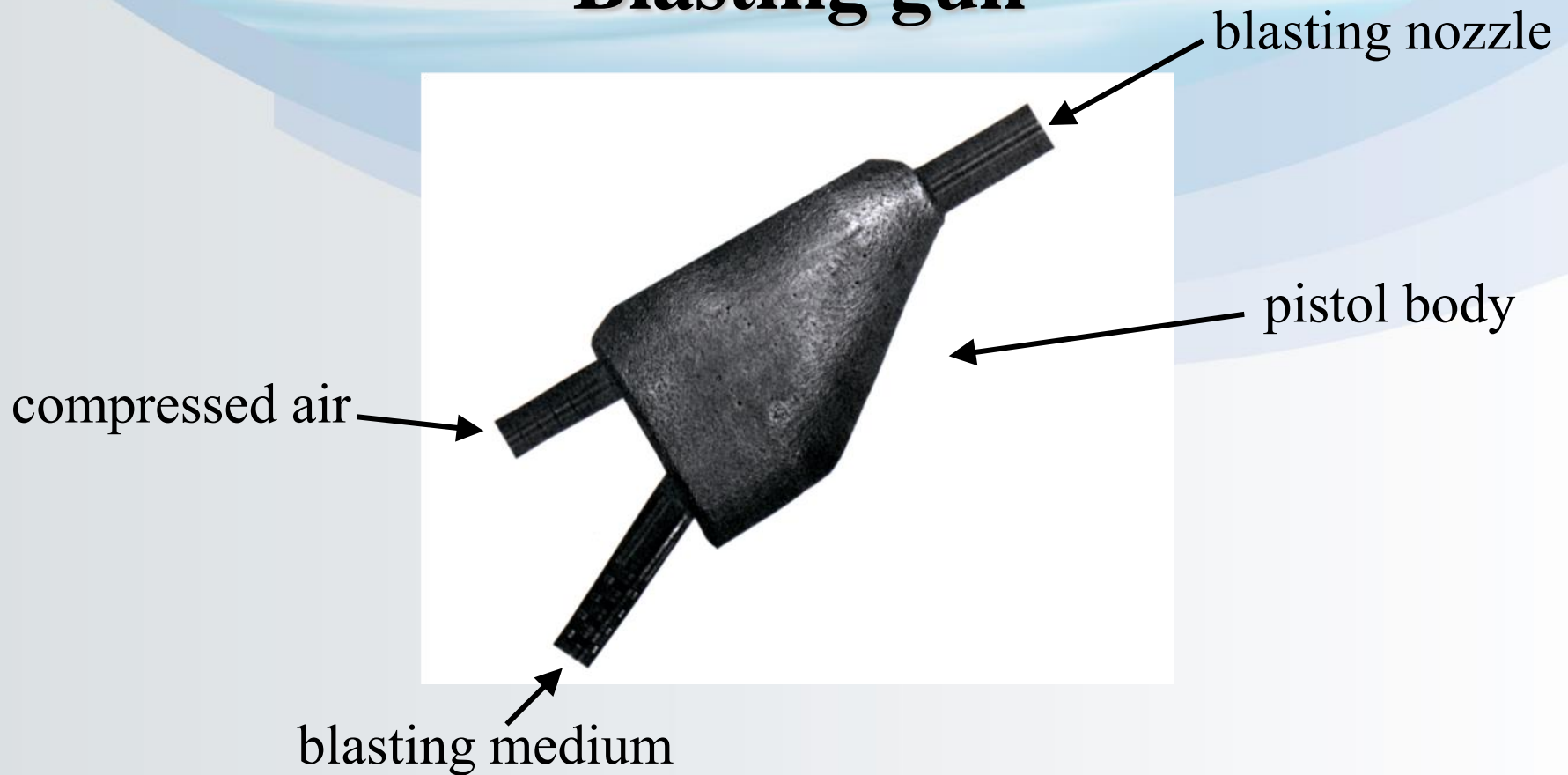
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Blasting gun



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The Procedure:

- Cleaning and improving surface finish
- Micro blasting with pin point accuracy
- Accurately defined micro blasting medium
- Using the 2-stage process



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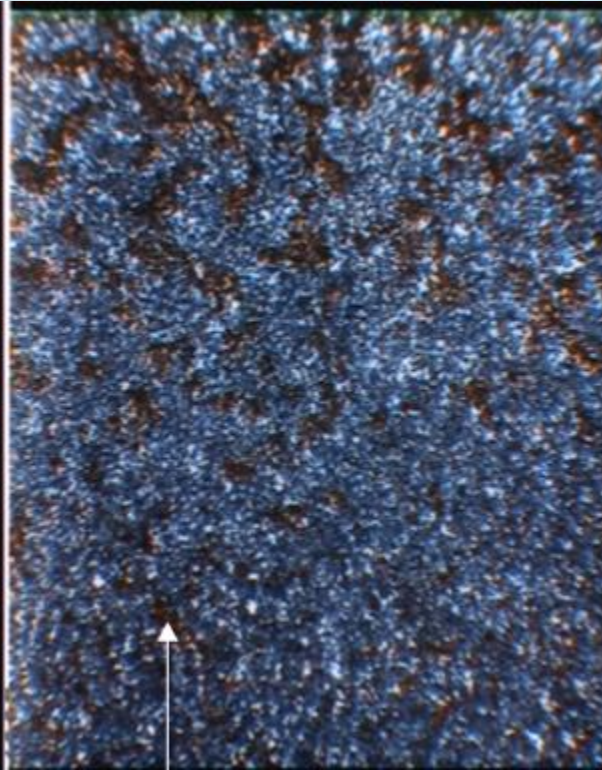


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Pictorial Surface Standards



eroded surface



**Glass Bead-blasted
surface with
significantly
contaminated surface**



**HGH Lapp blasted
surface free of all
contaminants**



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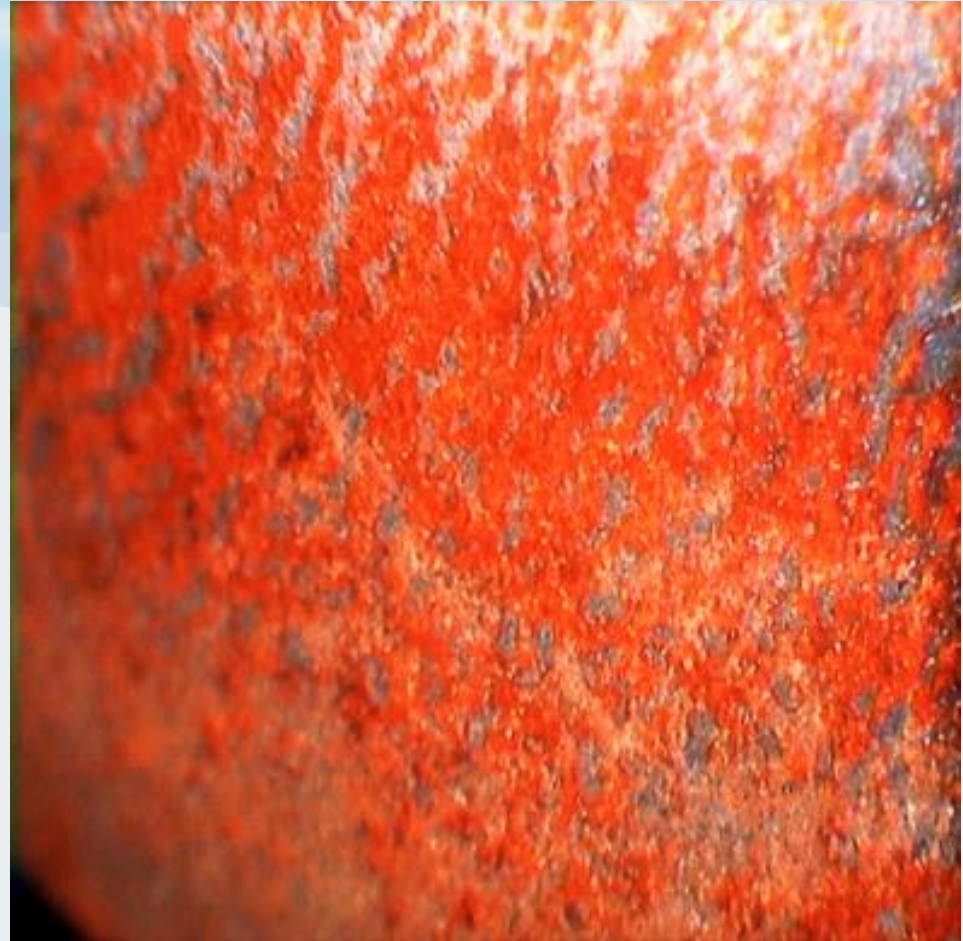
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Eroded Surface

The eroded surface.

The purpose is to improve the surface finish both physically and aesthetically. The recast layer is removed without damaging the surface form or the sharp edges.



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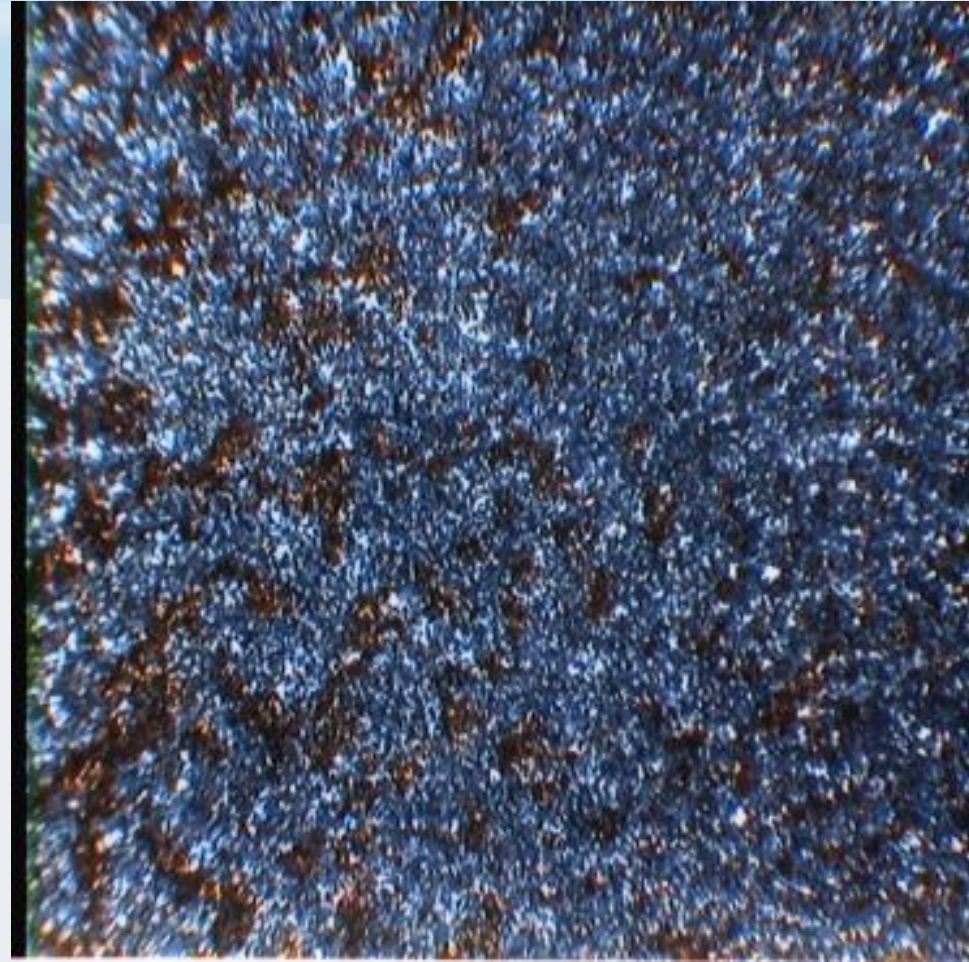


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Glass bead Blasting

This example shows the true negative effects of glass bead micro blasting. The Recast layer is slightly polished but not removed. All impurities are compressed in to the surface. The result is an increase in cold welding, Sharp cornerers are rounded resutling in expensive rework.



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HGH Micro Blasted Surface Finish

The Results

The first step: the recast leayer is removed, all impurities are removed and the surface finish is greatly improved. Sharp corners and edges remain.

The second step: the surface is then compressed resulting in better demolding and longer cutting life of punches and dies.



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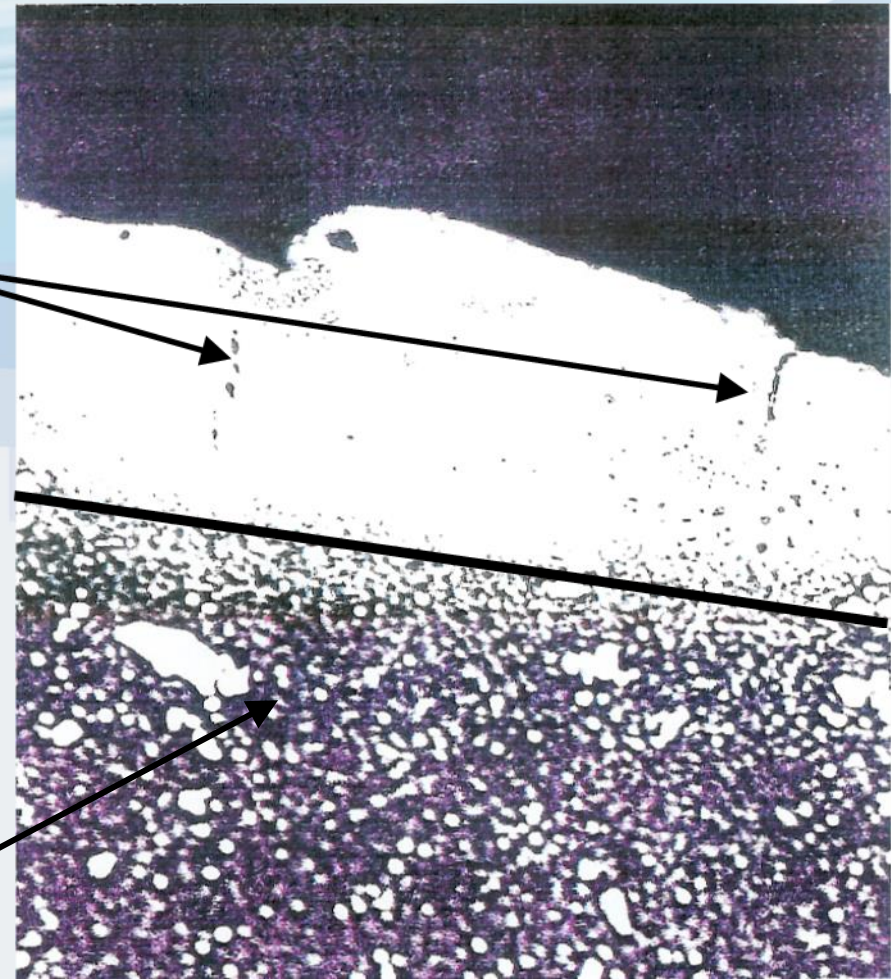
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**Recast layer (white layer)
with hairline crack
and cavity (blow hole)**

**Removal of the white
layer after Lapp Blasting**

Substrate material



Magnification- 1000 times

Surface image with the white layer



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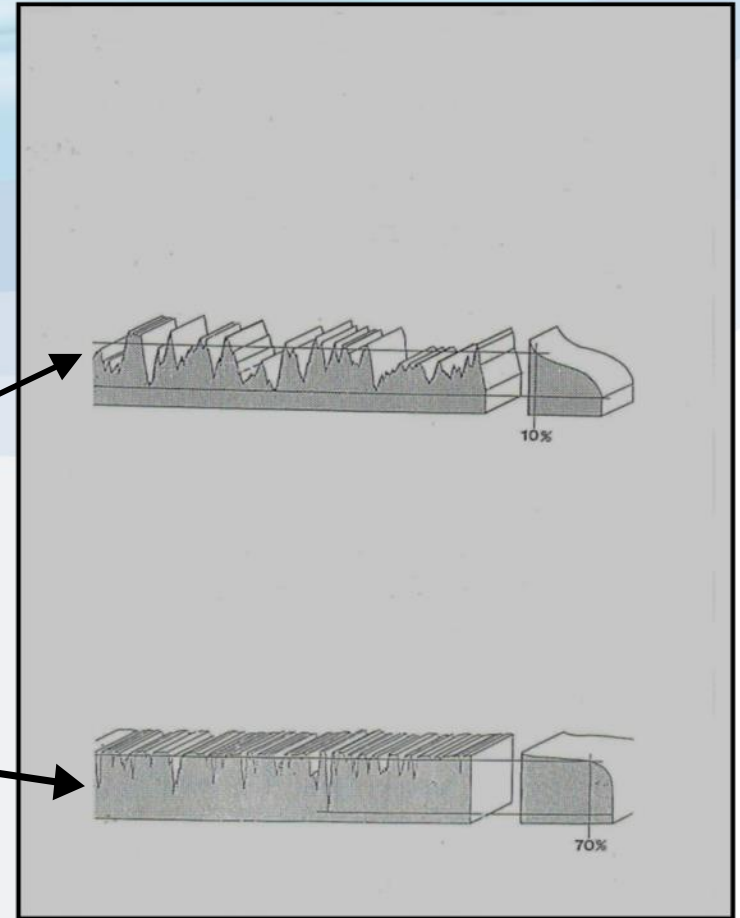
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Surface compared after blasting the contact area ratio increased significantly

Before blasting

After blasting



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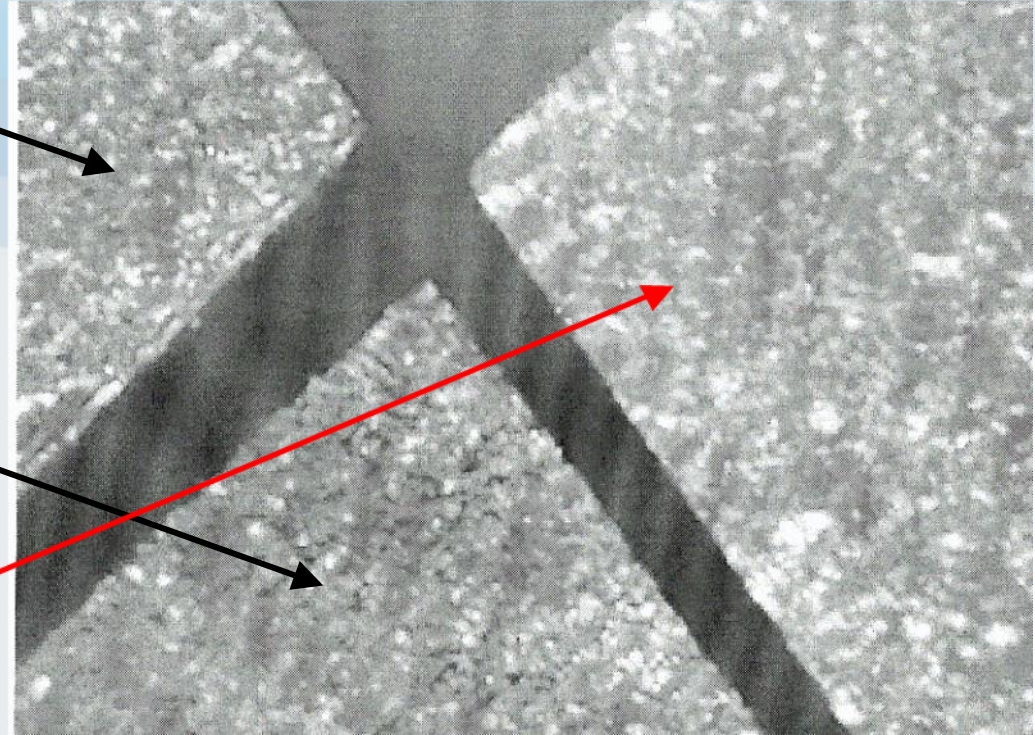
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After Lapp Blasting sharp corners and edges will not be damaged

Lapp blast in 2 steps

eroded

Blasted with
Glass beads



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Measurement protocol after 2 cuts

Eroded

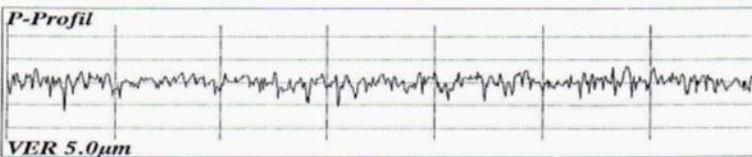
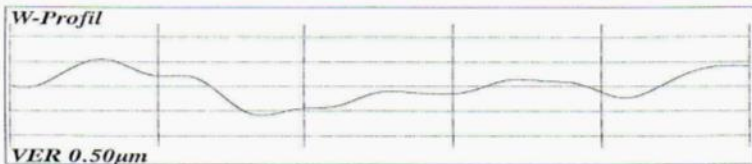
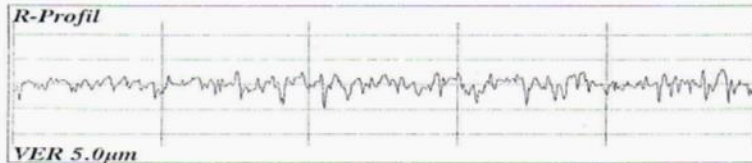
Lapp Blasted two stepped operation

Shows significant improvement of the surface after blasting

B.BRAUN Melsungen AG
Sparte Medical
Abt. Qualitätsprüfung Meßtechnik

Datum: 03.12.96
Prüfer: KT/E Hast
Artikel: Muster
Artikel Nr.:links
Herst.:
Bemerk.:

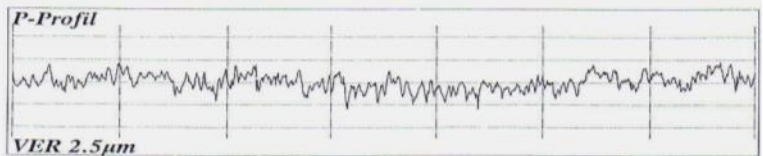
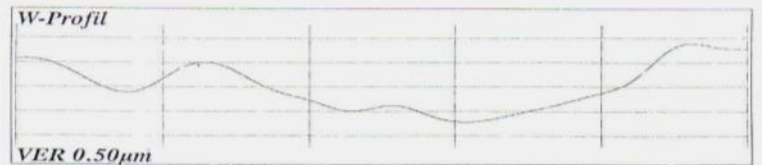
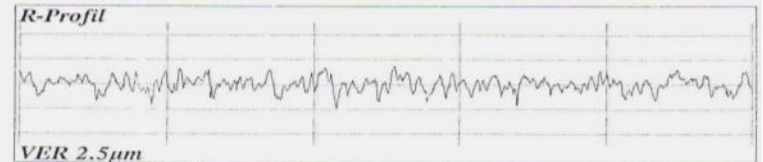
LC	RC	0.80 mm
LT		5.60 mm
Ra		0.981 µm
Rz		6.922 µm
Rmax		7.700 µm



B.BRAUN Melsungen AG
Sparte Medical
Abt. Qualitätsprüfung Meßtechnik

Datum: 03.12.96
Prüfer: KT/E Hast
Artikel: Muster
Artikel Nr.:rechts
Bemerk.:

LC	RC	0.80 mm
LT		5.60 mm
Ra		0.577 µm
Rz		3.907 µm
Rmax		4.800 µm



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Our Products

Lapp & MicroBlasting
Machines
With
Injection and Pressure
Blasting Technology.



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Injection Lapp & Microblasting units DUO

HGH 6040 DUO and HGH 6040 DUO (red)

Working Room:

2x 590 x 400 x 250 mm



HGH 7050 DUO

Working Room:

2x 745 x 500 x 300 mm



The two stage principle for the Mold and Toolmaker



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Injection Lapp & Microblasting units

HGH 6040

Working Room:

590 x 400 x 250 mm

HGH 7050

Working Room:

745 x 500 x 300 mm

HGH 8060

Working Room:

800 x 580 x 310 mm



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Injection and Pressure Blasting units

Injection Blasting:

HGH 1100 I

Working Room:

1.100 x 800 x 740 mm

HGH 1300 I

Working Room:

1.370 x 890 x 810 mm

HGH 1700 I

Working Room:

1.700 x 1.400 x 1.100 mm

Pressure Blasting:

HGH 1100 D

Working Room:

1.100 x 800 x 740 mm

HGH 1300 D

Working Room:

1.370 x 890 x 810 mm

HGH 1700 D

Working Room:

1.700 x 1.400 x 1.100 mm



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Micro Units

MicroLapp 100 and 200 with the pressure blast principle for Precision Micro Blasting of deep ribs and blind holes.



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Many thanks !!!



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