

# MONTI



## BRISTLE BLASTER®

Industrial



# THE KEY FEATURES OF BRISTLE BLASTING

## What is the Bristle Blasting process?

Bristle Blasting is a new process that uses a specially designed rotary bristle tool for achieving both corrosion removal and an anchor profile.

## How does the tool perform blasting operations?

The bristle tips are designed to strike the corroded surface with kinetic energy that is equivalent to standard processes that use grit blast media. Immediately after the bristle tips strike the surface, they retract ("rebound") from the surface, which results in both corrosion removal and micro-indentation that exposes fresh surface.

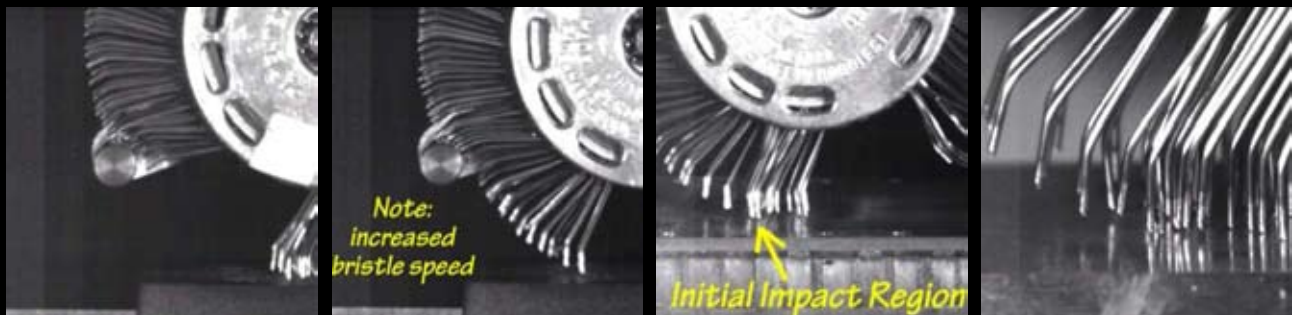
Consequently, surfaces that have been treated by Bristle Blasting have a texture and visual cleanliness that mimics those obtained by traditional grit blasting processes.



Watch the high-speed video  
with your Smartphone  
(youtube)

Sequences from the high-speed-video,  
recorded with a frame rate of 30,000 frames/sec  
Hub speed: 2,500 rpm  
Impact duration: 0,0003 sec

Find the video here:  
<http://www.monti.de/flash/highspeedmovie.html>

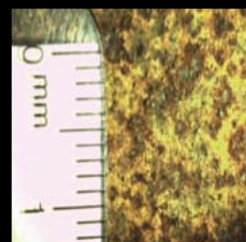


The bristles are obstructed (creating a tension), accelerated (released from the Accelerator Bar), impact the surface, and retract from the surface

## Advantages:

- visual cleanliness as achieved by grit blasting (near white metal or SSPC-SP 10 or SA 2.5)
- roughness capability from 40-120  $\mu\text{m}$   $R_z$  (1.6-4.7 mils)
- hand held power tool, easy to operate and to transport (weight of Bristle Blaster<sup>®</sup> Pneumatic approx. 1.2 kg / 2.6 lbs)
- no complex equipment, machinery or work preparation required – only compressed air or electric power supply
- ATEX approved for the use in Zone 1 – potentially explosive atmospheres (for Bristle Blaster<sup>®</sup> Pneumatic)
- grit free process – no additional waste production
- no need for housing installations, no reprocessing or disposal of grit media needed
- ideal for spot-repair and touch-up jobs

Corroded surface before and after treatment by Bristle Blaster<sup>®</sup>

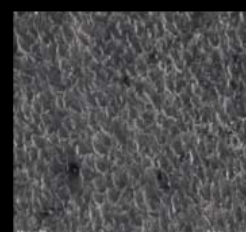


Corroded  
Surface

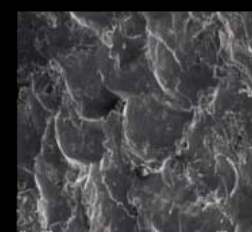


Bristle Blasted  
Surface

Scanning electron micrograph of bristle blast surface



20 x



100 x

Bristle Blasted Surface



### Bristle Blaster® Pneumatic

Technical data	
Weight:	1.2 kg / 2.6 lbs
Air pressure connection thread:	1/4 " PT
Required hose diameter:	3/8 " ID (9.5 mm)
Rotational speed:	3500 RPM
Required flow pressure:	6.2 bar / 90 psi
Average air consumption:	17.5 CFM (500 l/min)
Vibration (EN ISO 8662-1; 8662-4):	2 m/sec <sup>2</sup>
Sound pressure level (DIN 45635-21; ISO 3744):	83 dB

### Bristle Blaster® Electric

Technical data	
Weight:	2.3 kg / 5.1 lbs
Output:	550 W
Voltage: Electric 230V	230 V (±10 %)
Electric 120V	120 V (±10 %)
Rotational speed:	3200 RPM
Vibration (EN ISO 8662-1; 8662-4):	2.8 m/sec <sup>2</sup>
Sound pressure level (DIN 45635-21; ISO 3744):	82 dB

**Ex** II 2G c IIA T4 X

Bristle Blaster® Pneumatic was approved by ATEX for the use in Zone 1 – potentially explosive atmospheres

## PERFORMANCE OF THE BRISTLE BLASTER® TECHNOLOGY

### Corrosion, Mill Scale, and Coating Removal

Restores surface to near white metal visual standard (or SA 2.5, NACE 2 or SSP-SP-10)

### Surface Texture / Anchor Profile

Roughness capability from 40-120 µm R<sub>z</sub> (1.6-4.7 mils) – depending on treated material. Also on weld seams

### Eco-friendly

„Green“ surface treatment, does not use or produce hazardous materials

### Improved Integrity of Treated Surfaces

Generates compressive residual stress along the treated surface for crack growth resistance, improved fatigue life, and improved corrosion resistance

### Negligible Heat Generation

Surface free of thermal damage/heat marking

### Simple/Economical

Eliminates the need for complex and costly abrasive blast equipment



**Set Bristle Blaster® Industrial Pneumatic**

consisting of:

- drive unit Bristle Blaster® Pneumatic with air cooling, noise reduction, dust exhaust, special gear reduction
- MBX® Adaptor Systems for 23mm- and 11mm-belts
- Accelerator Bars for 23mm- and 11mm-belts
- Air Pressure Regulators for 23mm- and 11mm-belts, with couplings and nipples
- 5 Bristle Blaster® Belts, 23 mm
- 5 Bristle Blaster® Belts, 11 mm
- packed in a blow mould case

**Art.No. SP-647-BMC**

As Set for stainless steel or aluminum surface preparation:

incl. stainless steel Belts and stainless steel Accelerator Bars **Art.No. SP-649-BMC**



**Set Bristle Blaster® Industrial Electric**

consisting of:

- drive unit Bristle Blaster® 230V resp. 120V with special gear reduction
- MBX® Adaptor System 23mm
- Accelerator Bar for 23mm-belts
- 10 Bristle Blaster® Belts, 23mm
- packed in a blow mould case

230V  
120V

**Art.No. SE-677-BMC**  
**Art.No. SE-667-BMC**

As Set for stainless steel or aluminum surface preparation:

incl. stainless steel Belts and stainless steel Accelerator Bar

230V  
120V

**Art.No. SE-678-BMC**  
**Art.No. SE-668-BMC**



Bristle Blaster® Belts, carbon spring steel

bristles: 0.7 mm carbon spring steel, angled, ground tips

ring color: red

23 mm width:

11 mm width:

(10 pack)

**Art.No. BB-033-10**

**Art.No. BB-034-10**



Bristle Blaster® Belts, stainless steel

bristles: 0.7 mm stainless steel, angled, ground tips

ring color: white

23 mm width:

11 mm width:

(10 pack)

**Art.No. BB-102-10**

**Art.No. BB-103-10**



MBX® Adaptor Systems  
for 23mm-belts: **Art.No. AS-009**  
for 11mm-belts: **Art.No. AS-012**



Quick Add®  
for 23mm-belts **AS-015-23**  
for 11mm-belts **AS-015-11**



Swivel Connector  
for air supply  
**Art.No. ZU-073**



Air Pressure Regulators  
for 23mm-belts **ZU-071**  
for 11mm-belts **ZU-070**

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