

MONTI



BRISTLE BLASTER®

BLASTING WITHOUT GRIT.

Heavy Industry



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.

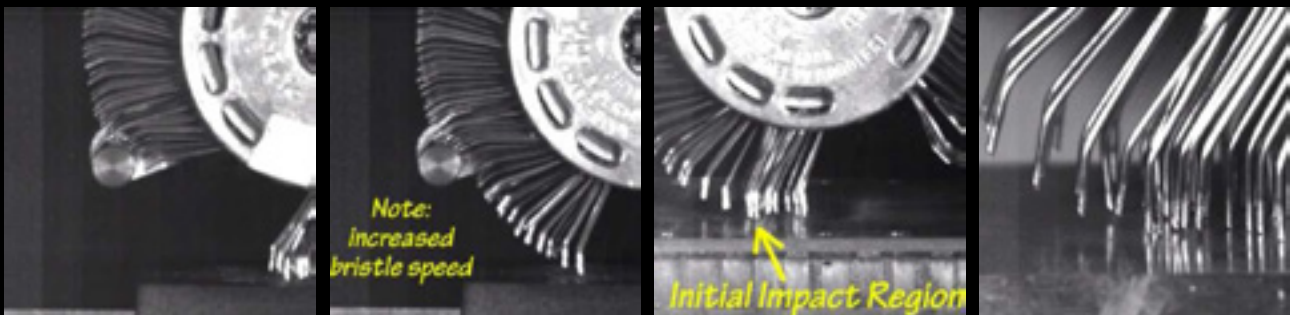
Consequently, surfaces that have been treated by Bristle Blasting have a texture and visual cleanliness that mimics those obtained by traditional grit blasting processes.



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>

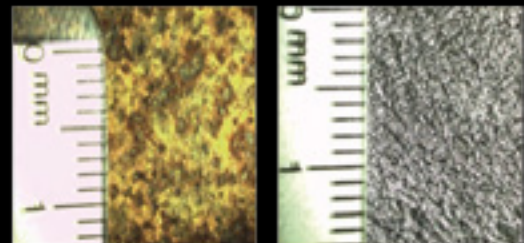


The bristles are obstructed (creating a tension), accelerated (released from the Accelerator Bar), impact the surface, and retract from the surface

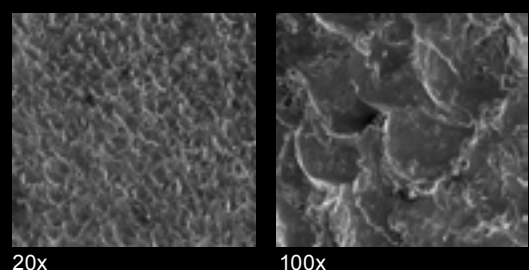
Advantages:

- visual cleanliness as achieved by grit blasting (near white metal or SSPC-SP 10 or SA 2.5)
- roughness capability from 40-120 μm R_z (1.6-4.7 mils)
- hand held power tool, easy to operate and to transport (weight of Bristle Blaster[®] 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[®] 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[®]



Scanning electron micrograph of bristle blast surface



20x

100x



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 ²
Sound pressure level (DIN 45635-21; ISO 3744):	83 dB



Bristle Blaster® Pneumatic is approved according ATEX norm II 2G c IIA T4 X for the use in Zone 1



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 ²
Sound pressure level (DIN 45635-21; ISO 3744):	82 dB

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_z (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



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

MONTI

MONTI – Werkzeuge GmbH
Head Office / Manufacturer
Reisertstr. 21
53773 Hennef, Germany
Phone: +49 2242 9090 630
Fax: +49 2242 9090 699
E-Mail: info@monti.de
www.monti.de

MONTI Tools Inc.
North American Corporate Office
10690 Shadow Wood Drive, Suite 113
Houston, TX 77043 USA
Phone: +1 832 623 7970
Fax: +1 832 623 7972
info@monti-tools.com
www.monti-tools.com



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