

BRISTLE BLASTER®

THE KEYFEATURES 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.

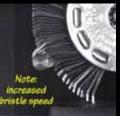
How does the tool perform blasting operations?

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.

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







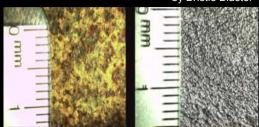


Sequences from the high-speed-video, recorded with a frame rate of 30,000 frames/sec
Hub speed: 2,500 rpm
Impact duration: 0.0003 sec

Advantages

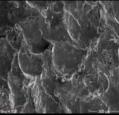
- visual cleanliness as achieved by grit blasting (near white metal or SSPC-SP 10 or SA 2.5)
- roughness capability from 40-120 µm Rz (1.6-4.7 mils)
- hand held power tool, easy to operate and to transport (weight of Bristle Blaster® Pneumatic approx. 1.2 kg / 2.6 lbs)
- no complex equipment, machinery 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



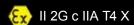


Bristle Blaster® Pneumatic

Technical data:	
Weight:	1.1 kg 2.4 lbs
Air pressure connection thread:	Rp 1/4"
Required hose diameter:	9.5 mm 3/8"
Rotational speed:	3500 min ⁻¹
Required flow pressure:	6.2 bar 90 psi
Average air consumption:	0.5 m³/min
Vibration:	2 m/sec ²
Sound pressure level:	83 dB(A)

Bristle Blaster® Electric

Technical data:	
Weight:	2.2 kg 4.8 lbs
Output:	700 W
Voltage:	230 V (±10 %)
	120 V (±10 %)
Rotational speed:	3200 min ⁻¹
Vibration:	2.8 m/sec ²
Sound pressure level:	83 dB(A)



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

PERFORMANCE OF THE BRISTLE BLASTER® TECHNOLOGIE

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 Rz (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 Integritiy of Treated Surface

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



Bristle Blaster® Set Pneumatic:

consisting of:

- drive unit Bristle Blaster® Pneumatic with air cooling, noise reduction, dust exhaust, special gear reduction
- 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



Bristle Blaster® Set Electric:

consisting of:

- drive unit Bristle Blaster® 230V resp. 120V with special gear reduction
- Adaptor System for 23mm-belts
- Accelerator Bar for 23mm-belts
 10 Bristle Blaster Belts, 23mm
 packed in a blow mould case
- 230V Art.No. SE-677-BMC 120V Art.No. SE-667-BMC

As Set for stainless steel or aluminum surface preparation: incl. stainless steel Belts and stainless steel Accelerator Bar

> 230V Art.No. SE-678-BMC 120V SE-668-BMC Art.No.









Bristle Blaster® Belts, carbon spring steel

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

ring color: red

23 mm width: Art.No. BB-033-10 11 mm width: Art.No. BB-034-10

(10 pack)

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: for 11mm-belts:

Art.No. AS-009 Art.No. AS-012



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



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



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

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