

# BRISTLE BLASTING POWERTOOLS

PREPARATION  
FROM  
SCRATCH



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# ABSOLUTELY GRÜNDLICH

QUALITY MADE IN GERMANY SINCE 1987

 **MONTIPOWER**  
Surface Preparation Technologies  
Part of Monti Group

# BLASTING WITHOUT GRIT

DISCOVER THE POWER OF OUR SPECIALIZED POWERTOOLS. INNOVATIVE SURFACE PREPARATION SOLUTIONS TO ACHIEVE BLASTING QUALITY WITHOUT GRIT. WHETHER ONSHORE OR OFFSHORE, WHETHER REMOVING, CLEANING OR PROFILING, MONTIPOWER'S INNOVATIVE BLASTING TECHNOLOGY ENSURES THE BEST POSSIBLE BOND. THE WORLD'S BEST COATINGS AND SEALANTS DESERVE THE BEST SURFACE PREPARATION. ABSOLUTELY GRÜNDLICH STANDS FOR A THOROUGH AND SUSTAINABLE LONG-TERM PROTECTION OF YOUR ASSETS. MONTIPOWER®, PREPARATION FROM SCRATCH!



Bristle blaster® on an offshore platform

## MONTIPOWER'S INNOVATION

The patented Bristle Blaster® is the first hand-held brush belt system in the world that produces a quality of surface roughness comparable to that achieved by 'grit blasting'. The Bristle Blasting process is an innovation that both removes corrosion and generates an anchor profile by using a specially designed rotary bristle belts. This belt consists of wire bristle tips that are bent forward and dynamically tuned to a hand-held powertool which operates at approximately 2,500 rpm.

VS.



Conventional grit blasting

## GROUNDBREAKING AND CUTTING-EDGE

Bristle Blaster® is the world's only hand-held powertool that can achieve sandblasting results. The patented technology removes corrosion and coatings quickly and thoroughly. At the same time, it creates surface preparation grades comparable with Sa2½ (SSPC-SP 10/ NACE No. 2) to Sa3 (SSPC-SP 5/NACE No. 1) with roughness levels of up to 120 µm (4.72 mil) Rz.



- ▶ Bristle Blasting is a surface preparation process that uses a specially designed rotary bristle belt for achieving both corrosion removal and an anchor profile.
- ▶ The rotating bristles are DYNAMICALLY TUNED to the powertool which results in impact and immediate retraction of the bristle tips from the corroded surface.
- ▶ The bristle tips strike the corroded surface with kinetic energy that is equivalent to grit blast media generating a texture and visual cleanliness that mimics the grit blasting process.
- ▶ Bristle Blasting simplifies the surface preparation operation and reduces costs through the elimination of expensive equipment, media and extensive environmental and safety measures.

From industrial to marine, from automotive to infrastructure, we have solutions for all kinds of surfaces across many different sectors. Partnering with MontiPower® lets you solve complex challenges, every day.

- ▶ WIND / RENEWABLE ENERGY
- ▶ INDUSTRIAL
- ▶ AUTOMOTIVE
- ▶ MARINE

- ▶ BRIDGES, RAIL, PORT & HIGHWAYS
- ▶ STAINLESS STEEL
- ▶ WELDING

## MECHANICAL PRINCIPLES

Bristle tips are designed to strike the corroded surface with kinetic energy that is equivalent to conventional blasting processes that use grit blast media. Immediately after the bristle tips strike the corroded steel surface, they retract (i.e., “rebound”) from the surface, which results in both corrosion removal and a 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 conventional grit blasting processes. The different power tools of MontiPower® are a phenomenal breakthrough when it comes to ‘blasting without grit’. The Bristle Blasting process forms the basis of a new surface preparation product ranges.

## COMMON APPLICATIONS

Although the Bristle Blasting process is ideally suited for spot repair applications, it can also be readily applied to larger surface areas where the use of other metal cleaning processes may be prohibitive. The process provides an efficient means for the removal of corrosion, mill scale, defunct protective coatings, and for post-weld cleaning operations. These applications frequently arise in a wide range of fabricating and infrastructure-support operations, such as onshore/offshore well drilling installations, bridge refurbishment, the fabrication and repair of naval/marine vessels and industrial maintenance applications.



## PROCESS ADVANTAGES/BENEFITS

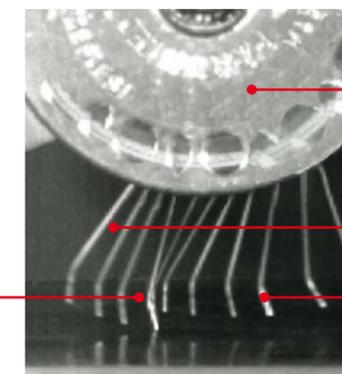
The primary advantages of the Bristle Blasting process lie in its simplicity and in its economic benefits. The tool itself is driven by a light-weight motor that can utilize either a standard electric power source or compressed air. Safety precautions taken by the operator are the same as those which apply to ordinary hand-held powertools namely: wearing work gloves, suitable work-clothing and appropriate face/eye protection. The tool has excellent portability and eliminates the need for complex equipment, work-suits, breathing apparatus and grit-recovery systems that are commonly required for ordinary abrasive blasting processes. In addition, the Bristle Blasting process is eco-friendly in that it does not use or generate hazardous waste, thereby ‘greening’ industry’s approach to corrosion removal and surface preparation of steel components.

## TOOL PERFORMANCE AND LIFE

Independent third party laboratory testing has indicated that the Bristle Blaster® can perform on a par with traditional grit blasting processes. Corroded and pitted steel surfaces can be restored to a near-white or white metal appearance after treatment. In addition, an anchor profile that ranges from 2.6 to 3.3 mil (65 – 85 µm Rz) is routinely obtained on standard API 5L steel, which is commonly used for petroleum piping applications. Testing has also shown that corroded surfaces can be thoroughly treated at a rate of 1.1 m<sup>2</sup>/hr per operator per single belt, which is well within the life of a single Bristle Blaster belt. Finally, the Bristle Blasting process simultaneously generates a compressive residual stress along the treated surface which, in turn, can increase the ability of steel to resist cracking, fatigue and stress corrosion.

## HIGH-SPEED PHOTOGRAPHY OF SINGLE BRISTLE ILLUSTRATING THE APPROACH, IMPACT AND RETRACTION OF BRISTLE TIP FROM A STEEL SURFACE

BRISTLE TIP CONTACT/IMPACT



HUB

INCOMING BRISTLE TIP

BRISTLE TIP REBOUNDING/ RETRACTION (AFTER IMPACT)

BRISTLE BLASTER®  
PNEUMATIC



BRISTLE BLASTER®  
ELECTRIC



BRISTLE BLASTER®  
CORDLESS



BRISTLE BLASTER®  
DOUBLE

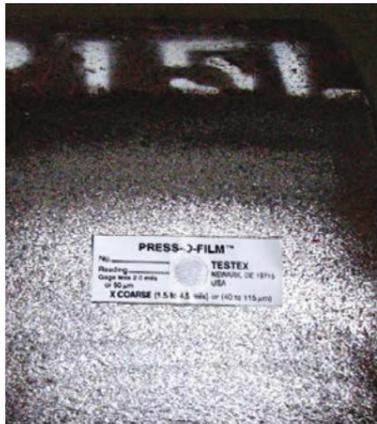


BRISTLE BLASTER®  
AXIAL

**DEMONSTRATED PERFORMANCE IN CORROSION REMOVAL**



API 5L Piping



- Bristle Blaster®
- Near- white/White metal
- 1.1 m<sup>2</sup>/hr



• 83 µm Rz (3.3 mil)

THE BRISTLE BLASTER®  
**ADVANTAGE**

THE BRISTLE BLASTER® OFFERS DISTINCT ADVANTAGES OVER CONVENTIONAL SURFACE PREPARATION METHODS AND WILL YIELD SUPERIOR RESULTS - WITH FAR LESS TIME AND EFFORT.

- Removes corrosion, coatings, mill scale and other contaminants
  - without removing healthy material
  - without grinding or polishing
- Generates anchor profiles ranging from 2.5 to 3.3mil (65 - 85 µm Rz) including on weld seams, edges, around bolts and on surface irregularities
- Restores corroded and pitted surfaces to near-white metal or white metal appearance
- Improves integrity of treated surface - generates compressive residual stress
- Cleans and profiles quickly and economically using safe and durable Bristle Blaster® Belts - eliminating the need for costly abrasive blast equipment
- Suitable for spot repairs as well as larger areas where other processes are prohibitive - does not use/produce hazardous material
- for crack growth resistance, improved fatigue life and improved corrosion resistance

# BRISTLE BLASTER® ELECTRIC



**AVAILABLE IN**  
230V / 50HZ &  
120V / 60HZ

Bristle Blasting technology simultaneously removes corrosion and generates anchor profile.

The Bristle Blaster® Electric is available in 230V / 50Hz and 120V / 60Hz with steel and stainless steel belts for non-ferrous substrates.

Details	
Length	400 mm
Height (incl. handle)	180 mm
Width	100 mm
Weight	2.2 kg   4.9 lbs
Output	700 W
Idle speed (± 5%)	3,200 rpm
Vibration	2.8 m/sec <sup>2</sup>
Sound pressure level	83 dB(A)

# BRISTLE BLASTER® PNEUMATIC



**SUITED  
FOR USE**  
WITH 23MM OR  
11MM BELTS

The Bristle Blaster® Pneumatic is ATEX-approved and includes Dustcontrol.



Details	
Length	350 mm
Height (incl. handle)	160 mm
Width	70 mm
Weight	1.5 kg   3.3 lbs
Required flow pressure	6.2 bar   90 psi
Average air consumption	17.5 cfm   0.5 m <sup>3</sup> /min
Idle speed (± 5%)	3,500 rpm
Threaded air inlet	Rp 1/4"
Required hose diameter (interior)	9.5 mm   3/8"
Vibration	2 m/sec <sup>2</sup>
Sound pressure level	83 dB(A)

# BRISTLE BLASTER® CORDLESS



USE FOR  
**SPOT  
REPAIR**



The new cordless technology for the Bristle Blaster® includes a safety switch an anti-vibration handle and a new robust fronthead.

Adjustable accelerator bar to fit difficult to reach objects. 2200 rpm for single belt operation.

As part of the Cordless Alliance System, battery packs and chargers from different manufacturers can be used interchangeably.

We recommend using the 18V/8.0 Ah battery pack, which should last up to 0.5m<sup>2</sup> per fully charged battery.

Details	
Length (without battery)	420 mm
Height (incl. handle)	160 mm
Width	80 mm
Weight (without battery)	2.2 kg   4.9 lbs
Battery Voltage	18 V
Max. output	700 Watt
Max. torque	0.7 Nm
Idle speed (± 5%)	2,300 rpm
Vibration	2 m/sec <sup>2</sup>

# BRISTLE BLASTER® DOUBLE



USE FOR  
**FLAT  
SURFACES**

## DOUBLE THE POWER!

The Bristle Blaster® Double uses two 23mm belts.

Productivity rate of approx. 3m<sup>2</sup>/hr.

Includes anti-vibration handle, safety switch and loop to attach a safety hook.

Additional internal thread for alternative handle position.

Details	
Length (without cable)	430 mm
Height (incl handle)	240 mm
Width (incl. protection cover)	100 mm
Weight	2.9 kg / 6.4 lbs
Max Output	910 Watt
Idle speed (± 5%)	2,300 rpm

# BRISTLE BLASTER® AXIAL

SPECIALIST FOR  
ANGLES &  
FILLET  
WELDS



The Bristle Blaster® Axial with its patented Accelerator Bar is specially designed to remove corrosion in areas that are difficult to reach. It is a perfect complement to the well-proven Bristle Blaster® systems.

The patented Accelerator Bar ensures a significantly higher and continuous performance of the Bristle Blaster® Axial Belts.

Operates with 11mm belts only, but includes right and left-sided belts for hard to reach angles.

Details	
Length	300 mm
Width	125 mm
Weight	1.1 kg   2.4 lbs
Required flow pressure	6.2 bar   90 psi
Average air consumption	14.2 cfm   0.4 m <sup>3</sup> /min
Idle speed (± 5%)	2,700 rpm
Threaded air inlet	G 1/4"
Required hose diameter (interior)	9.5 mm   3/8"
Vibration	1.45 m/sec <sup>2</sup>
Sound pressure level	84 dB(A)



QUALITY  
MADE IN  
GERMANY  
SINCE  
1987

# SETS, BELTS & ACCESSORIES



## BRISTLE BLASTER® PNEUMATIC SET

<b>SP-647-BMC</b>	Steel
<b>SP-649-BMC</b>	Stainless steel

- Drive Unit Bristle Blaster® Pneumatic including Air Pressure Regulator and Noise Reduction
- Adaptor System 23 mm and 11 mm
- Accelerator Bars Steel, 23 mm and 11 mm
- 5 Bristle Blaster® Belts, 23 mm
- 5 Bristle Blaster® Belts, 11 mm
- Air Pressure Regulators 23 mm and 11 mm
- Dust Exhaust Attachment
- Packed in a Blow Mould Storage Case



## BRISTLE BLASTER® ELECTRIC SET

<b>SE-677-BMC</b>	Steel	230V / 50Hz
<b>SE-667-BMC</b>	Steel	120V / 60Hz
<b>SE-678-BMC</b>	Stainless steel	230V / 50Hz
<b>SE-668-BMC</b>	Stainless steel	120V / 60Hz

- Drive Unit Bristle Blaster® Electric
- Adaptor System 23 mm
- Accelerator Bar, 23 mm
- 10 Bristle Blaster® Belts 23 mm
- Packed in a Blow Mould Storage Case

<b>SE-670-BMC</b>	Steel	230V / 50Hz
<b>SE-660-BMC</b>	Steel	120V / 60Hz

- As above, but incl. 5 Bristle Blaster® Belts 23 mm and 5 Bristle Blaster® Belts 11mm



## BRISTLE BLASTER® ELECTRIC - DOUBLE SET

<b>SE-1000-W-BMC</b>	230V / 50/60Hz
<b>SE-1100-W-BMC</b>	120V / 50/60Hz

- Bristle Blaster® drive unit electric, 900W incl. Safety switch, Protection Cover, loop to attach a safety hook, extra internal thread for alternative handle position
- Anti-vibration-handle
- 2 Adaptor Systems with Connector piece and screw
- Accelerator Bar, steel, for 2x 23mm-belts
- 6 Bristle Blaster® Belts, steel, 23 mm
- Packed in a solid PE tool case with extra space to store other protective gear

## ACCELERATOR BAR

ITEM NO.	MATERIAL	WIDTH
<b>ZU-060</b>	Steel	23 mm belts
<b>ZU-061</b>	Steel	11 mm belts
<b>ZU-062</b>	Stainless steel	23 mm belts
<b>ZU-063</b>	Stainless steel	11 mm belts

## ACCELERATOR BAR - DOUBLE

For use with Bristle Blaster® Electric double

ITEM NO.	MATERIAL	APPLICATION
<b>ZU-068</b>	Steel	For two 23 mm belts

## ACCELERATOR BAR - AXIAL

For use with Bristle Blaster® Axial

ITEM NO.	MATERIAL
<b>ZU-064</b>	Steel
<b>ZU-065</b>	Stainless steel



BRISTLE BLASTER® BELT, STEEL, 23 MM

ITEM NO. BB-033



BRISTLE BLASTER® BELT, STEEL, 11 MM

ITEM NO. BB-034



BRISTLE BLASTER® BELT, STAINLESS STEEL, 23 MM

ITEM NO. BB-102



BRISTLE BLASTER® BELT, STAINLESS STEEL, 11 MM

ITEM NO. BB-103



BRISTLE BLASTER® AXIAL BELT, STEEL, 11 MM, RIGHT

ITEM NO. BB-098R *Axial only*



## BRISTLE BLASTER® AXIAL SET

**SDB-601-BMC**

- Drive unit Bristle Blaster® Axial (grey) including Air pressure regulator, 360° swivel connector
- Accelerator Bar
- Adaptor System 11mm
- 10 Bristle Blaster® Belts 11mm, steel
- Packed in a blow mould storage case



## BRISTLE BLASTER® CORDLESS SET

**SB-601-BMC** Without battery and charger

- Drive Unit Bristle Blaster® Cordless drive unit incl. Safety switch, Anti-vibration-handle
- Accelerator Bar, steel, for 23mm Belts
- 1 Adaptor System
- 5 Bristle Blaster® Belts, steel, 23 mm
- Packed in solid PE-tool case

**SB-600-BMC** on request\*

- As above, including:
- 1 Battery LIHD 18 V, 5.5 Ah
  - 1 Battery Fast Charger

\* subject to transportability due to shipping limitations (dangerous goods transport regulations may apply)



## ADAPTOR SYSTEM

ITEM NO.	WIDTH (MM)	APPLICATION
<b>AS-012</b>	11	11 mm belts
<b>AS-009</b>	23	23 mm belts

## ADAPTOR SYSTEM - DOUBLE

For machine Bristle Blaster® - Double. Consisting of 2 Monti Adaptor Systems for 23mm-Bristle Blaster® Belts, Connector piece and screw

ITEM NO. **AS-016**



BRISTLE BLASTER® AXIAL BELT, STEEL, 11 MM, LEFT

ITEM NO. BB-099L *Axial only*



BRISTLE BLASTER® AXIAL BELT, STAINLESS STEEL, 11 MM, RIGHT

ITEM NO. BB-108R *Axial only*



BRISTLE BLASTER® AXIAL BELT, STAINLESS STEEL, 11 MM, LEFT

ITEM NO. BB-109L *Axial only*



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