BRISTLE BLASTING POWERTOOLS

PREPARATION FROM SCRATCH

II 2G c IIA T4 X

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® 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, MontiPower® has 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 powertools of MontiPower® are a phenomenal breakthrough when it comes to ‘blasting without grit’. The Bristle Blasting process provides the foundation for 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.

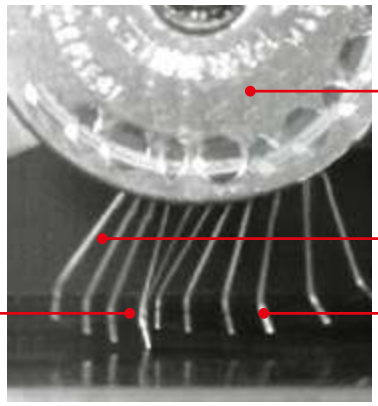
PROCESS ADVANTAGES / BENEFITS

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^2/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



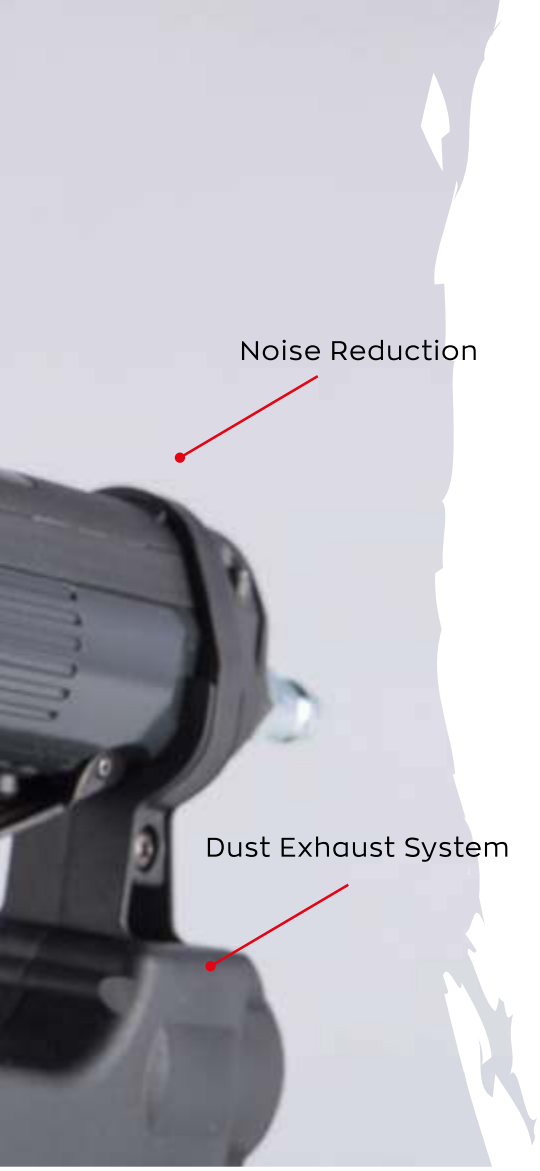
BRISTLE BLASTER®
PNEUMATIC

DEMONSTRATED PERFORMANCE IN CORROSION REMOVAL

API 5L Piping

- Bristle Blaster®
- Near- white / White metal
- 1.1 m^2/hr

- 83 µm Rz (3.3 mil)



BRISTLE BLASTER®
ELECTRIC

BRISTLE BLASTER®
CORDLESS

BRISTLE BLASTER®
DOUBLE

BRISTLE BLASTER®
AXIAL

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
- 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
- Restores corroded and pitted surfaces to near-white metal or white metal appearance
- Improves integrity of treated surface; generates compressive residual stress 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
Free Speed (± 5%)	3,200 rpm
Vibration	2.8 m/sec²
Sound pressure level	83 dB(A)

BRISTLE BLASTER® PNEUMATIC

SUITED FOR USE
WITH 23MM OR 11 MM BELTS

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

II 2G c IIA T4 X

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^3/min
Free Speed (± 5%)	3,500 rpm
Threaded air inlet	Rp 1/4“
Required hose diameter (interior)	9.5 mm | 3/8“
Vibration	2 m/sec^2
Sound pressure level	83 dB(A)

BRISTLE BLASTER® CORDLESS

USE FOR
SPOT REPAIR

CAS CORDLESS ALLIANCE SYSTEM

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. 2,200 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 0.5m² 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
Free Speed (± 5%)	2,300 rpm
Vibration	4 m/sec²

BRISTLE BLASTER® DOUBLE

USE FOR
FLAT SURFACES

DOUBLE THE POWER!

The Bristle Blaster® Double uses two 23 mm belts.

Productivity rate of approx. 3m²/hr.

Includes an 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
Free 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 11 mm 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^3/min
Free 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^2
Sound pressure level	84 dB(A)

QUALITY
MADE IN
GERMANY
SINCE
1987

SETS, BELTS & ACCESSORIES

BRISTLE BLASTER® PNEUMATIC SET

SP-647-BMC Steel
SP-649-BMC Stainless steel

- Drive Unit Bristle Blaster® Pneumatic including Air Cooling System and Noise Reduction
- Adaptor System, 23 mm and 11 mm
- Accelerator Bars, 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 Case

BRISTLE BLASTER® ELECTRIC SET

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

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

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

BRISTLE BLASTER® ELECTRIC - DOUBLE SET

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

- Drive Unit Bristle Blaster® 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 for 2x 23 mm-belts
- 6 Bristle Blaster® Belts, steel, 23 mm
- Packed in a solid PE-tool case with extra space to store other protective gear

BRISTLE BLASTER® AXIAL SET

SDB-601-BMC

- Drive Unit Bristle Blaster® Axial (grey) including Air Pressure Regulator, 360° Swivel Connector
- Accelerator Bar, 11 mm
- Adaptor System, 11 mm
- 10 Bristle Blaster® Belts, steel, 11 mm
- Packed in a Blow Mould Case

CAS CORDLESS ALLIANCE SYSTEM

Suitable for all Cordless Alliance System batteries.

BRISTLE BLASTER® CORDLESS SET

SB-601-BMC Without battery and charger

- Drive Unit Bristle Blaster® Cordless incl. Safety Switch, Anti-Vibration-Handle
- Accelerator Bar, 23 mm
- Adaptor System, 23 mm
- 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

AS-012 for 11 mm belts
AS-009 for 23 mm belts

ADAPTOR SYSTEM - DOUBLE

AS-016

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

ACCELERATOR BAR

ZU-060-05	Steel	23 mm, 5 pc
ZU-061-05	Steel	11 mm, 5 pc
ZU-062-05	Stainless steel	23 mm, 5 pc
ZU-063-05	Stainless steel	11 mm, 5 pc

ACCELERATOR BAR - DOUBLE

For use with Bristle Blaster® Electric Double for two 23 mm belts

ZU-068-05	Steel	5 pc

ACCELERATOR BAR - AXIAL

For use with Bristle Blaster® Axial for one 11 mm belt

ZU-064-02	Steel	2 pc
ZU-065-02	Stainless steel	2 pc

BRISTLE BLASTER® BELT, STEEL, 23 MM

BB-033

BRISTLE BLASTER® BELT, STEEL, 11 MM

BB-034

BRISTLE BLASTER® BELT, STAINLESS STEEL, 23 MM

BB-102

BRISTLE BLASTER® BELT, STAINLESS STEEL, 11 MM

BB-103

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

BB-098R Axial only

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

BB-099L Axial only

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

BB-108R Axial only

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

BB-109L Axial only

PREPARATION FROM SCRATCH

MONTIPOWER
Surface Preparation Technologies
Part of Monti Group

MontiPower - Part of Monti Group
MONTI - Werkzeuge GmbH
Reisertstr. 21 | 53773 Hennef | Germany
T +49 (0) 2242 9090 630
info@montipower.com
www.montipower.com

MontiPower Americas
7677 Coppermine Drive
Manassas VA 20109
T +1 703 396 8777

Distributed by:

AB: (587) 758-8367 info@stone-tucker.com
ON: (905) 688-5800 www.stone-tucker.com

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