



Dr. Prepper

ACADEMY

BRISTLE BLASTER® For Field Welds

Welcome to the tenth edition of Dr. Prepper. The white paper - in this case RED PAPER - from MontiPower® full of nice to know - and need to know - facts about the most optimal surface preparation since 1987. Like Dr. Prepper's motto: the best coatings in the world deserve the best preparation in the world. Dr. Prepper invites specialists, special guests of other professionals in the world of surface preparation for sealants and coatings to talk about surface preparation.

This time we will delve into the capabilities of the Bristle Blaster® for surface preparation for field welds.

No. 10
Paper edition

WHO WORKS WITH TSA?



TSA stands for:
Thermal Spray Aluminium

1. TSA CONTRACTORS **- BENELUX**

PCC - site work | tanks, heat exchangers and towers ESSO

CTB - new construction | Towers and heat exchangers

DCS | New piping, coats pipe lengths before shipping to site

MOPP | new heat exchangers

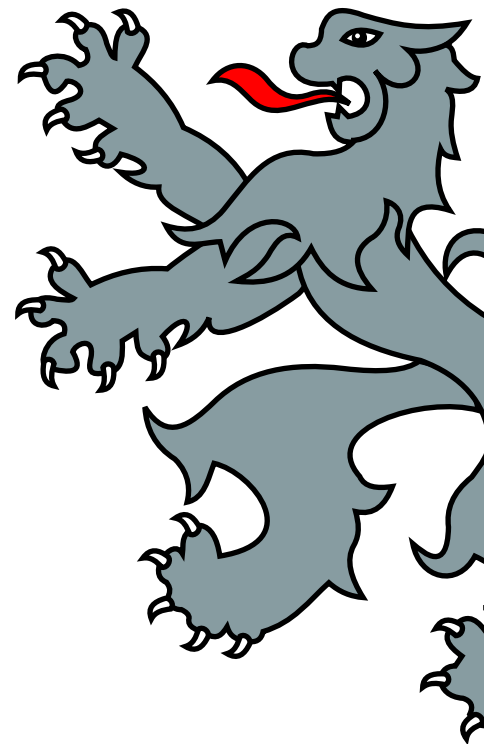
Brabant Groep/Billfinger | Site new piping, RR HUP and RAP PxD

IRIS - Belgium | Prefab and site TSA towers ESSO

Aludra | New vessels

Xervon - Germany | New towers, ESSO

Arese (Italy) Milan to Venice area | New equipment SPT



FIELD WELDS

2. THE IMPORTANCE OF SURFACE PREPARATION

A TSA needs good sharp-anchor angular surface profile otherwise TSA will spall-off immediately after application.

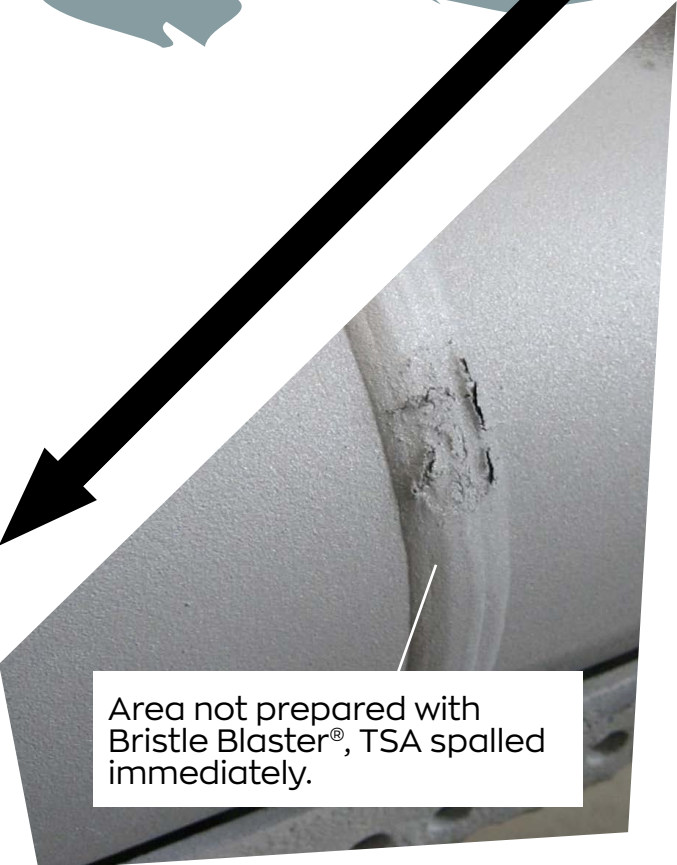
B Abrasive blasting is required for achieving best coating performance. Particular for coating systems with inorganic zinc (IOZ) primers. Conventional abrasive blasting in field operations increases cost of TSA coatings on pipeline field joints.

C Flame spray TSA is not an issue in field. Noise and handling similar to welding.



D For painting, epoxy-phenolic and IOZ, field construction accepts no conventional power tool or wire brush surface preparation. Poor surface preparation is the main reason for premature CUI failures of field welds.

E Conventional power tools do not create an angular surface profile on pipeline field joints.

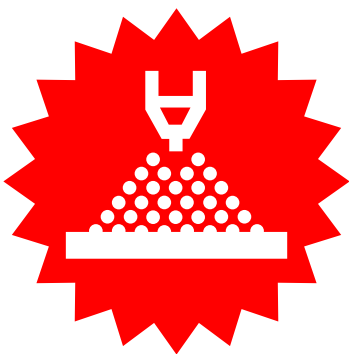
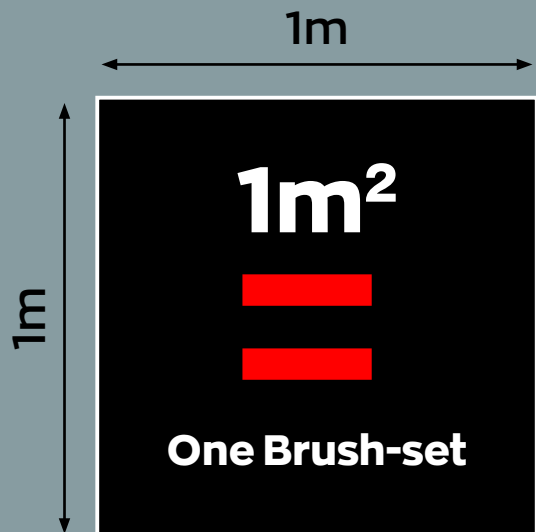


Area not prepared with Bristle Blaster®, TSA spalled immediately.

A close-up photograph of a pipeline field joint. The surface is covered in a grey, textured coating (TSA). A significant portion of this coating has chipped away, revealing a smooth, metallic surface underneath. A white arrow points from the text box to this area of spalling.

3. REASONS TO USE THE BRISTLE BLASTER®


- ▶ MontiPower® has modified the Bristle Blaster® to create a precise angular surface profile of at least 50 microns on mild CS, low alloy, and SS* materials.
- ▶ Experience the power of efficiency! This cost-effective and rapid solution works like a dream, eliminating the need for grit blasting on new field welds. **With one Brush-set, you can effortlessly prepare 1m².** Operator training ensures seamless operation and maximum results.

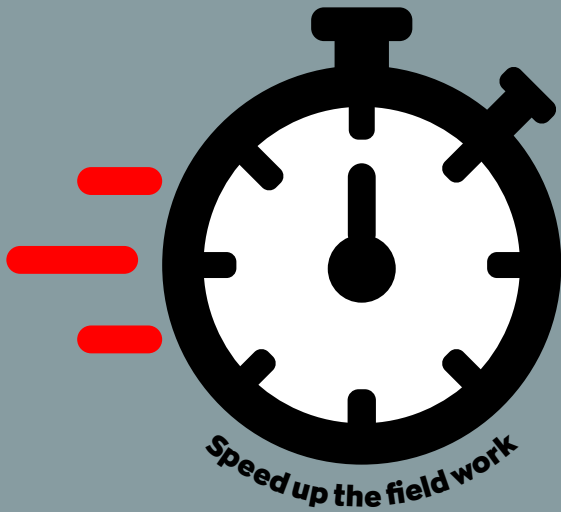


Prefab pipe spools are abrasive blasted and shop **TSA coated to 10 - 25 mm from weld bevel.**



After welding Bristle Blaster® tool is used to prepare surface and can immediately coated with TSA.

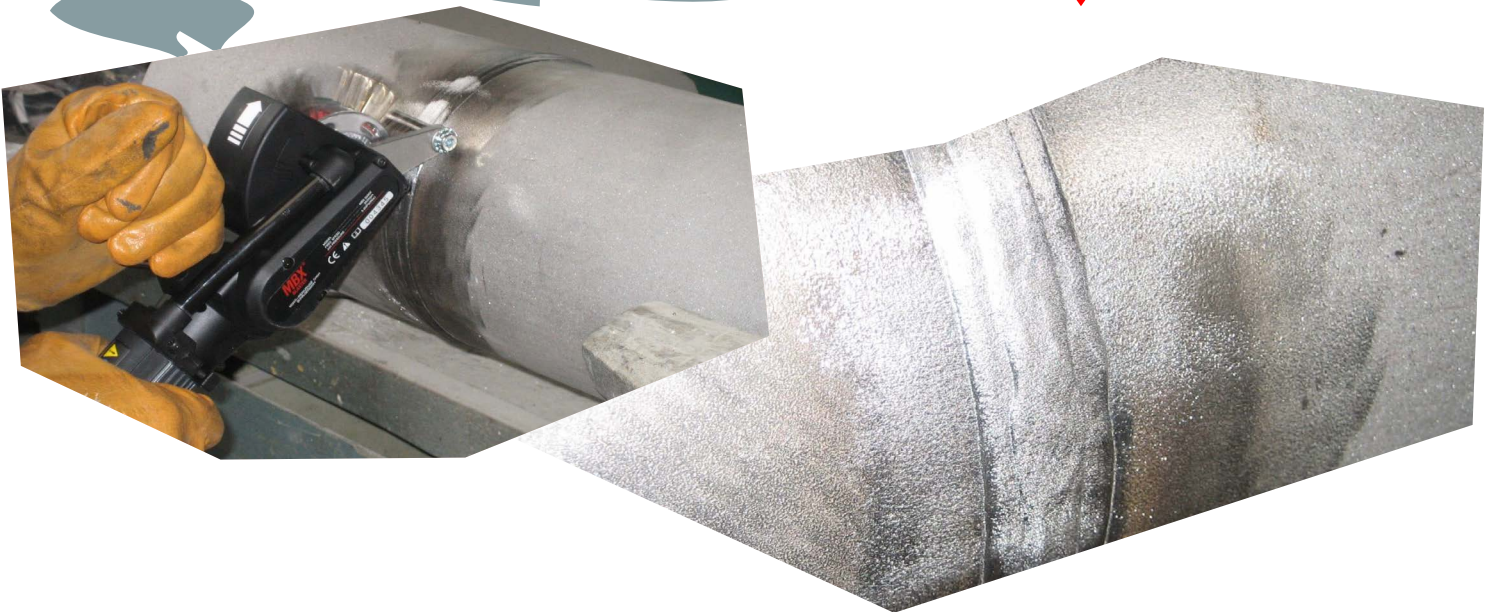
 **CS** = Carbon Steel
SS = Stainless Steel



The combination of Bristle Blaster® and TSA flame coating speeds up field work. Piping can be hydrotested and insulated hours after completion of welding.

The Bristle Blaster® proves to be highly effective in surface preparation, including conventional (IOZ-primer) coated field welds.

**ADHESION
IS SUFFICIENT,
5 - 6 MPa* AND
NO SPALLING**

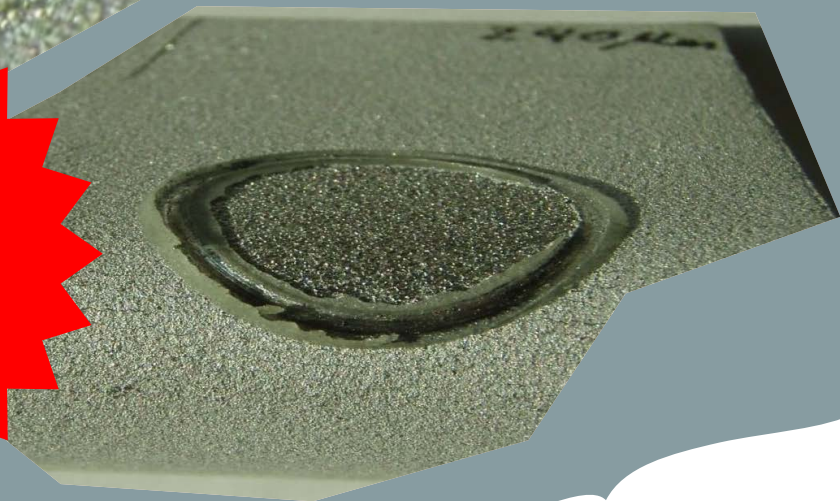
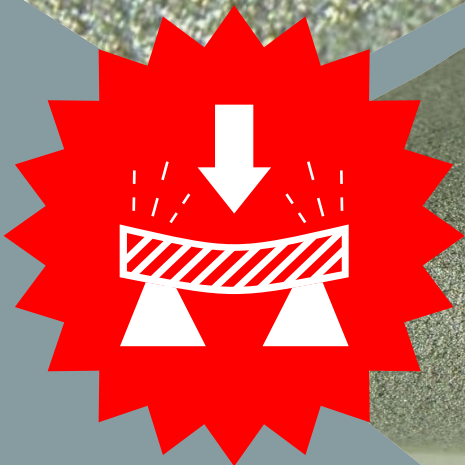
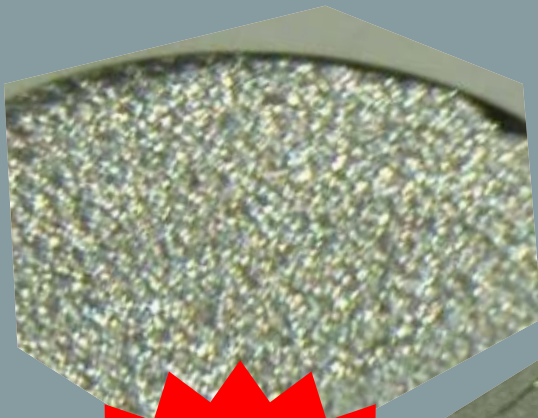


This measured cohesive value is below the expected 9Mpa for fresh applied TSA on loose abrasive blasted steel. The clients accepts and approves this value in Mpa for small spot repair and 150 micron thickness spot TSA application in the field.

Adhesion and bend test

4.5 MPa conform ISO 2063

- ▶ Strong adhesion is vital across various applications, including coatings, adhesives, paints, and other materials, to ensure optimal performance and durability. In contrast, weak adhesion can lead to delamination, peeling, or detachment, causing reduced effectiveness or product failure.



WE BELIEVE IN THE POWER OF INNOVATION

By preparing optimal surfaces, we make coatings work better. Montipower® has been innovating original surface preparation machinery, quality made in Germany, since 1987.

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