



HIGHLIGHT OF THE MONTH

MontiPower[®], Preparation from Scratch!

Alessia Venturi **ipcm**[®]

In the coating world many people who are involved with sales and customer services do not really have a clue of the importance of proper surface preparation for a successful and durable coating result. Surface preparation is usually underestimated. Nonetheless, in the metal industry a truth is well known: rust is the biggest enemy of metals. It forms where metal reacts with oxygen and moisture. A salty environment, high temperatures or the presence of chemicals, accelerate and intensify the rusting process.

Rust is a form of corrosion. Corrosion includes the loss of metals, but also any adverse effect on materials as a result of environmental conditions.

The removal of contaminants such as oil, grease, or salts, imperfections, rust and mill scale, plus creating a roughness profile, is called 'surface preparation'. Surface preparation is defined as "the cleaning or treating of the metal surface prior to the application of a surface coating".

Proper surface preparation ensures the best possible bond between the surface to be coated and the coating to be applied.

MontiPower[®] of the Monti Group, with its proven MBX[®] and Bristle Blaster[®] Powertools & Machine Equipment to remove mill scale, rust, old coating, contaminants and profile a substrate, is all about the power of innovation for clean and safe surface preparation without a big hassle.

These advanced technology with handheld, semi-automatic or automatic machines is designed to visibly clean and create roughness profiles without any loose abrasives and without the creation of paint or rust dust.



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The world of Monti Group goes far beyond surface preparation, though. With the brands MontIPower®, Corronation®, MTest and Allter, the educational program Corrosion Alliance®, and the inspection, training, and project management service company Inspex360, Monti Group is all about the power of a perfect surface preparation in the broadest sense from cleaning to preparation, from coating to testing/inspection down to education and training.

“We want to offer every customer the cleanest solution for surface preparation first, for an optimal coating performance then and for an accurate testing and inspection after some time” Drs. J. F. Doddema, Chief Executive Officer & Partner of the Monti Group begins. “We do not talk about a product, we talk about surface preparation as a concept and a process. We put our heart and soul into achieving this. We pursue this mission with a belief that there should be no disagreement or confusion about proper surface preparation in relation to coating quality for long term protection. Our vision is to create reliable cleaning, removal and anchor profiling solutions for various substrates. This improves the long-term protective coating and sealant performances of the asset. At the same time, we want to maintain our leading position in the market and impress users with unique innovative, fast, safe, environmentally and user-friendly solutions which go beyond the requirements of our clients”.



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Frits Doddema with the MontIPower's team.

MONTI Werkzeuge GmbH: Inspired by Ferdinand Porsche

As a car lover, and as a Porsche racing driver, Werner Montabaur was inspired by perfection and performance. When Werner Montabaur, inventive genius, founding father and the man who lent his name to the company, first came into contact with the field of surface preparation back in the 80s, he very quickly realized that the tools available were far from capable of providing the result actually desired.

This discovery almost immediately gave rise to the idea of developing his own technology. This led him to establish MONTI-Werkzeuge GmbH in Bonn in 1987.

Just 12 months after the company was founded, the 43mm brush belt system, known as 'MontiPower' is launched and the innovative solution for blasting without grit got immediate success.

In 2018 the company renamed to MontiPower® after the name of its successful technology. Today MontiPower® is part of the Monti Group, that comprises the following companies: MONTI-Werkzeuge GmbH (Germany), MontiPower B.V. (The Netherlands), MontiPower Americas Inc. (Virginia, USA), MTEST, (Texas, USA), MontiPower Brasil (Macaé), Alltersteel, ActiVet® Petcare, Decapower® and Corronation®. Monti Group is majority owned by Preservation Holding AS from Norway,

which is a Norvestor company. "MontiPower® today is a globally renowned manufacturer of rotary bristle blasting technology and special surface preparation equipment used for surface cleaning, coating & millscale removal, and anchor profiles" Frits Doddema states. "Our patented technologies and innovative solutions are used to prepare metal surfaces prior the application of protective coatings and sealants without the need for abrasive materials and without creating waste. The rust/paint particles can easily be collected. The used belts can be resharpened for a longer life and recycled. Monti's powertools enable high performance surface preparation technologies that maximize the long-term protection of assets in various industries, amongst others in maintenance of bridges, windmills, pipelines, refineries, trains, planes and cars.

The Monti Group is located in the Netherlands with 2 plants. One in Spijk, Eemshaven, and one in Oldenzaal. In Germany, in Hennef, we manufacture our bristle belts and tools for surface preparation. We serve also retail under the Decapower brand. Outside the North America (Manassas and Houston), Brazil (Macaé), and Abu Dhabi (UAE) Monti operates globally through a network of trained distributors and resellers. MontiPower® exports to more than 70 countries".



The MontiPower® technology is designed to visibly clean and create roughness profiles without any loose abrasives and without the creation of paint or rust dust.

Main feature of the MontiPower® Powertools & Equipment

The superior method for surface preparation involves removing rust, flash rust, mill scale without loose abrasives or other cleaning methods by bristle tips. Each second, more than 10,000 tips strike the surface and create simultaneously a clean surface similar to cleanliness grades ISO 8501-1 Sa,2,5 with a profile > 50 micron. It is not a blast and it is not a smearing, and or burnishing brush. This approach is for applicators very safe, and easy to apply. The applicator can see for himself what he or she is doing. The rule of thumb is 1 m², per person, per hour, per 23mm belt.

Using MontiPower® Powertools & Machine Equipment is considered more comfortable than conventional loose abrasive spot blasting due to the following:

- Low risk of injury to the operator due to no usage of pressures
- Ergonomic design of equipment
- Nature of bristles without burnishing or smearing
- Low RPM, high torque
- No disposal of loose abrasive blast media as belts can be recycled or resharpened
- Will not cut through ropes (if rope access equipment is used)
- Low noise and vibration levels
- Easy to operate for applicator for almost any surface, and wear eye glasses as the minimum PPE requirement.

“At MontiPower® we develop surface preparation solutions prior to coating application that provide optimal cleanliness and profile without creating waste or leaving detrimental residue for coating adhesion behind” Doddema explains.

“This is not only our philosophy on site and during operation, it is also true for the manufacturing of our bristles. Our bristles are manufactured from A to Z in closed cycle work cells, meeting the highest standards. Each belt is individually checked at each cycle of the production process, leaving no loose ends”.

Today’s industry requirements

In line with increasingly adopted circularity principles throughout end-markets, surface preparation technologies will continue to extend the useful lifetime of assets in the respective industries. Anticorrosion and sealant providers are increasingly adopting powertools that allow a safe surface preparation in the field, compared to some conventional blasting technologies.

The regulatory environment influencing the surface preparation industry is shaped by WEEE and RoHS regulations. The RoHS, for instance, restricts the use of Chromium VI compounds in all electrical and electronic products. Chromium VI is also in some cases a component of paints and protective for adhesion improvement. Paint



Bristle Blaster Subsea.



Bristle Blaster Cordless.



Vinyl Zapper.



Cleantech Prepper on pipe.

containing Chromate VI is a health and safety topic in the case of paint and/or coating removal. That is why special HEPA filters are applied and connected to all Monti devices.

Long-term vision for a sustainable industry

Sustainability is one of the most important and pressing themes of our age. Environmental, Social and Governance (ESG) are the three central factors in measuring the sustainability and ethical impact of a company. "Powertool providers should ensure quality and safety throughout the supply chain. In addition, companies should focus on optimizing material efficiency and adequate handling of (hazardous) wastes in line with regulations" Doddema declares.

"The industry will need to shift towards circular business models, thereby minimising waste streams. The industry should have standards that promote innovation, promoting the adoption of technologies that have inherent safety and environmental benefits. In addition, low-carbon technologies should be adopted to align with global climate goals (e.g. 1.5 degree Paris agreement)".

"Within Monti Group we have defined a selection of projects that contribute to fulfilling our sustainability ambitions. Monti plays a key role in enabling the extension of the useful life of assets in our end-markets. Meanwhile, we are committed to drive improvements in own operations" Doddema goes on.

"The first project we realized was to be CO₂ neutral by June 2021. We

rolled-out and energy & carbon strategy by procuring from the installed rooftop solar PV and offsetting remain indirect emissions through an offsetting programme. Another important project is the MontiPower® League, our circularity program for our users and clients to collect used belts and machines. Last but not least we believe in our Young Talent recruitment project in collaboration with technical universities".

A comprehensive platform of products, knowledge and service for surface preparation and corrosion awareness

Beside being a world leader in the field of asset rehab and repair solutions, the Monti Group has created a comprehensive platform of companies that provides technology, services and education.

"Our focus is on helping applicators, engineers, asset owners, contractors and inspectors to extend the lifetime of critical infrastructural assets through a correct surface preparation, coating and testing program. We want to educate our own staff, our clients and anybody who is interested in tools & coatings. That is why, beside manufacturing surface preparation and coating technologies, we primarily provide a practical education about the process and the steps that brings the team to a perfect coating result" Frits Doddema explains.

"Under the brand Corronation® we have created a United Corrosion Prevention Group that is unique in its scope and knowledge of all aspects of industrial corrosion prevention. With a rich history and

broad-ranging experience, Corronation® aims for a sustainable, superior and comprehensive approach based on innovative, environmentally friendly integrated solutions. Corronation® believes that corrosion prevention has five key elements: Cleaning, Preparation, Coating, Testing and Education. By mastering each of these elements and working with excellent, proven brands, Corronation® offers uniquely comprehensive value that is easily accessible while holding innovation and sustainability in high regard”.

“For educational master classes and solutions, we have the Corrosion Alliance (www.corrosionalliance.com), a collaborate initiative to share practical knowledge about corrosion and prevention products and services. We provide a platform to learn about corrosion from working practices and with masterclasses given by experts from the field”. The platform of Monti Group is completed by Alter, a brand distributed by Corronation®. Team members like Sander Hofstee, Cor Prins, Martin Durcik, Nathan Knight have many years of experience in the field of thermal spray aluminium, construction of sandblasting equipment,

coating contracting and development plus sales of so-called visco-elastic coatings, shrinkable sleeves, pipeline tapes and cathodic protection systems for pipelines. Their mission and battle to combat corrosion remains the same.

Within the Group, InSpex360 is a Consulting, Coating & Corrosion Inspection, NDT Inspection, Training and Education, Audits, and more. InSpex360 program and project management services range from the support of individual painting projects to providing a one-stop-shop to handle all aspects of an entire national painting program. InSpex360's nationwide staff of highly-trained coatings inspectors provide Quality Control (QC) paint inspectors to supplement contractors' in-house QC staff and on projects that mandate retaining the services of a qualified inspector employed by an independent inspection firm and/or a firm. To complete the offer, MTest is the e-commerce of Monti Group, where end users and applicators can find everything they need for sustainable, chemical-free surface preparation, coating and testing tools. 

FLAME SPRAY INDUSTRY 4.0



Portable Flame Spray Coating Equipment 4.0

ATLANTIS SEMI-AUTO 4.0

The only universal portable powder coating equipment, now also in a 4.0 version

Portable unit for applying thermoplastic powder coatings with **dual mode of use - flame spray and flock spray, in the semi-automatic version**, including:

FLOCK-SPRAY EQUIPMENT: for electrostatic spraying in the manual mode, fitted with fluidized bed tank and electrostatic gun.

FLAME SPRAY SYSTEM, SEMI-AUTOMATIC, equipped with **Flame Spray Application Gun** with automatic flame ignition device, available in several versions according to the coating purpose (metal, concrete and other porous substrates) and in various sizes / types.

HARDWARE 4.0

Electrical panel with interconnection electronic card and modem

SOFTWARE 4.0

Software & designated App
Digital infrastructure

- **ibixconnect.ibix.it domain**
- **Data saving on the Cloud**
- **Data integration with the management software of the user**

4.0: The Fourth Industrial Revolution in the Anti-Corrosion Coating Field

- **Use and Analysis of the collected data**
- **Interaction between man and machine**
- **Improvement of the transition from digital data to real operation**

Watch the video



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