

LCP ANTIRUST RUST PREVENTIVE SPRAYING SYSTEM



THE SOLUTION TO TUBE CORROSION







ABOUT DIETRONIC



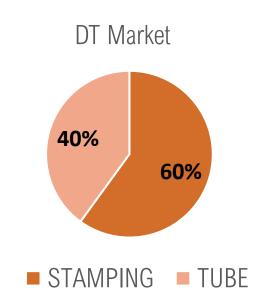
- +18 years experience
- >700 machines produced







- Founded in 2003
- Specialized in automatic spray lubrication systems for stamping industry
- Developed the Antirust spray machines for tube manufacturing industry



THE ISSUE







Storing pipes & profiles without sufficient Rust Prevention Oil (RPO) will result in rust formation and consequently huge claims for the poor quality of the end products that could be rejected from end customers.





With DT ANTIRUST

You can accurately apply a layer of Rust Prevention Oil (RPO) to the surface of the pipe/tube/profile inline, covering the whole surface homogeneously and applying the same oil quantity constantly (g/m²) and proportionally to the line speed

THE COMPLETE TUBE SOLUTION



PIPE MILL LINE

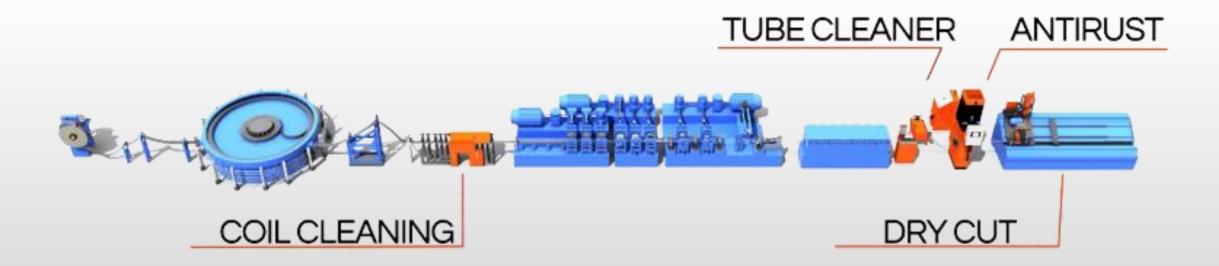
ENTRY SECTION

MILL SECTION

TUBE CLEANING

ANTIRUST SYSTEM

CUTOFF SECTION



Complete 3D video on Youtube!

THE COMPLETE TUBE SOLUTION





Coil Brush Cleaner





Air

Knife

Saw Blade Lube Unit



Tube
Washing
System

Antirust Spray Machine

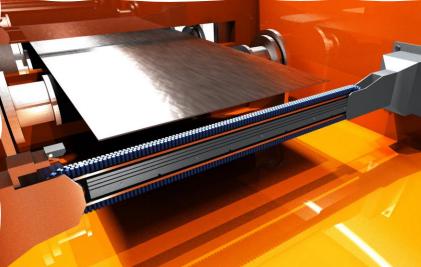




For a complete treatment: COIL BRUSH CLEANING DEVICE

The **Coil Cleaning system** is meant to improve even more the quality of the end product, by cleaning the coil before the forming section, thanks to the use of a **lower roller** with rotating brushes. In this way, it is possible to eliminate those marks and dirt particles that, particularly during forming, might otherwise remain imprinted on the tube surface and couldn't be removed anymore, damaging as well the rollers employed in the process.









For a complete treatment: TUBE CLEANER UNIT

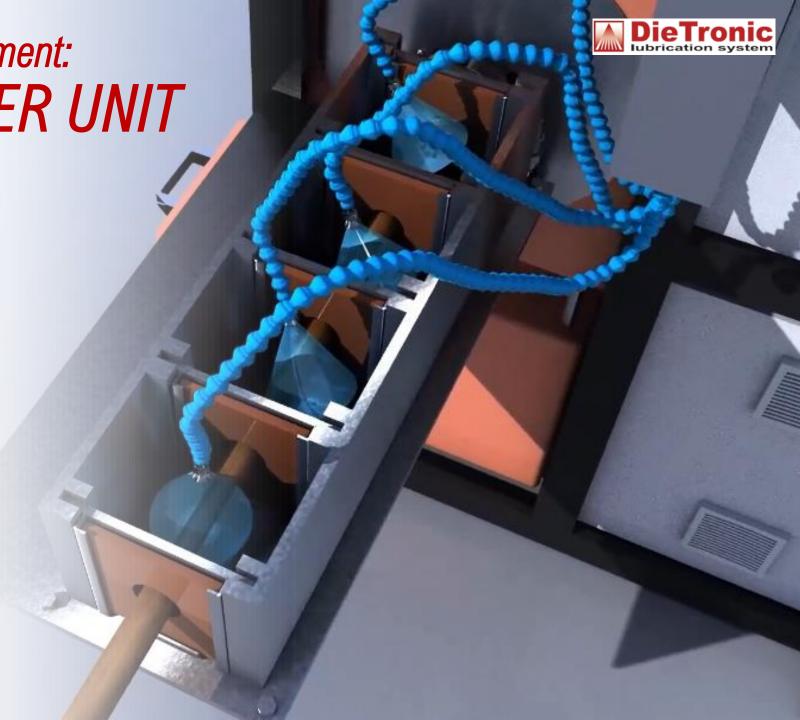
The **Tube Cleaner System** allows a deep pre-cleaning, especially important for very dirty tubes for example in the automotive field, by using solvents or water-based products at a controlled 40° temperature.



For a complete treatment: TUBE CLEANER UNIT

The system can be adapted to tubes of different shapes and dimensions, and it is made up of three main components:

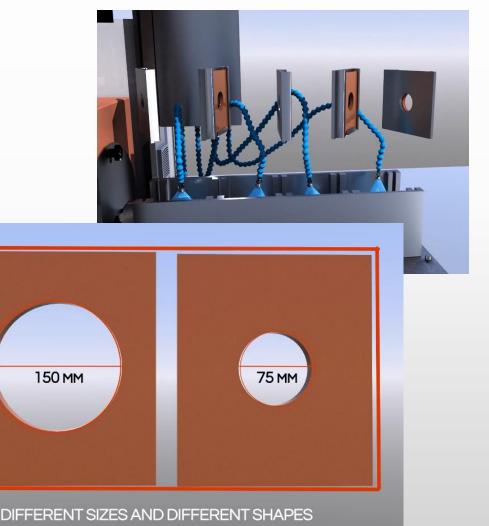
- a touch-screen control cabinet, from which is possible to control all the main cleaning parameters;
- a 40 lt tank;
- a tray with 5 cleaning stages.





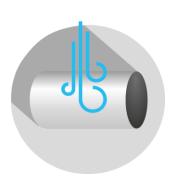
For a complete treatment: TUBE CLEANER UNIT



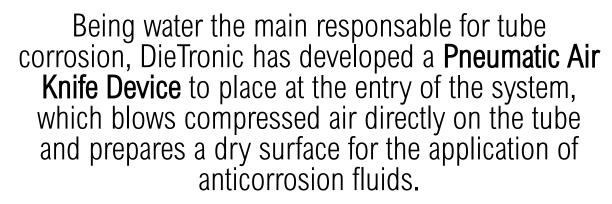


The tray is provided with molds of different sizes, that have a central hole, through which the pipe can run and on which 4 canalizations dispense the cleaning oil. This allows to easily replace the molds according to the tubes that need to be cleaned. Furthermore, two other holes, one for cleaning and maintenance and another for the automatic drainage allow to recover the dispensed product and the dirtiness coming from the tube.

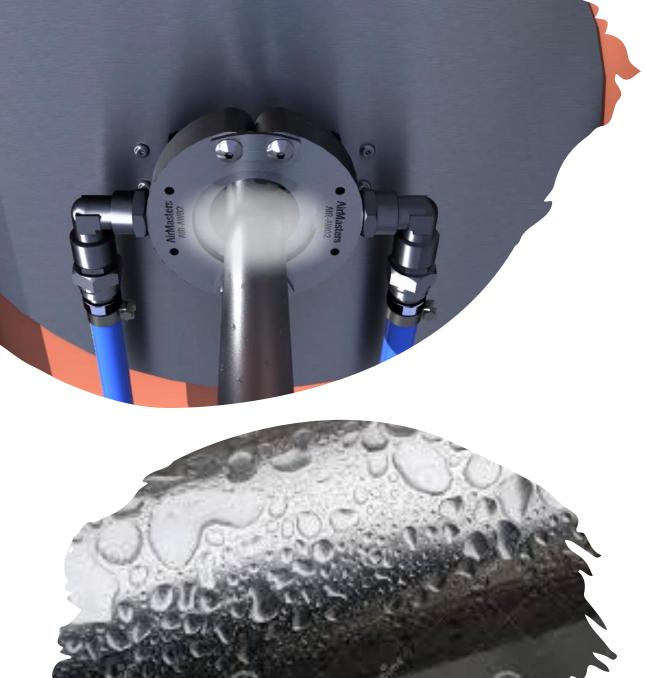




DRYING UNIT: AIR KNIFE



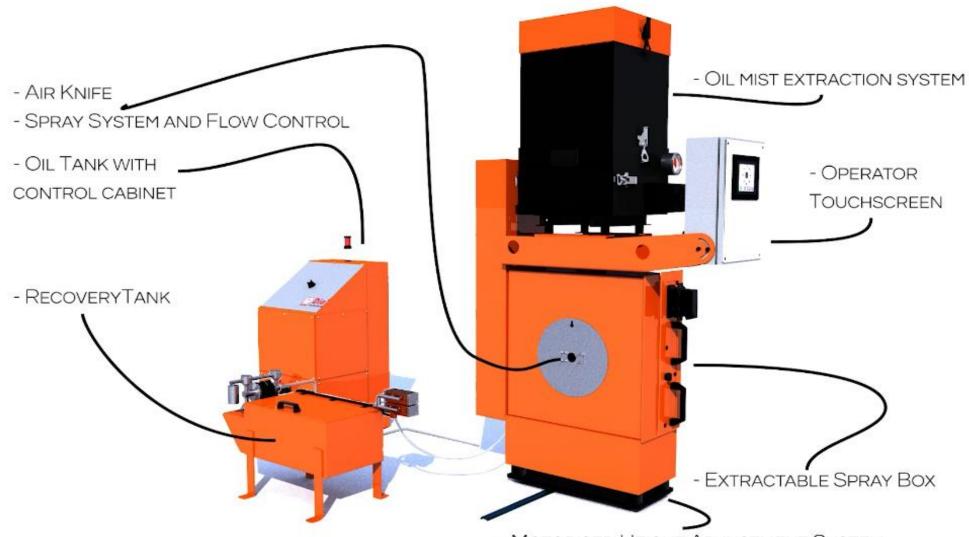
In this way, the performance of the anticorrosion product is enhanced and also the consumption is reduced.





SPRAYING UNIT



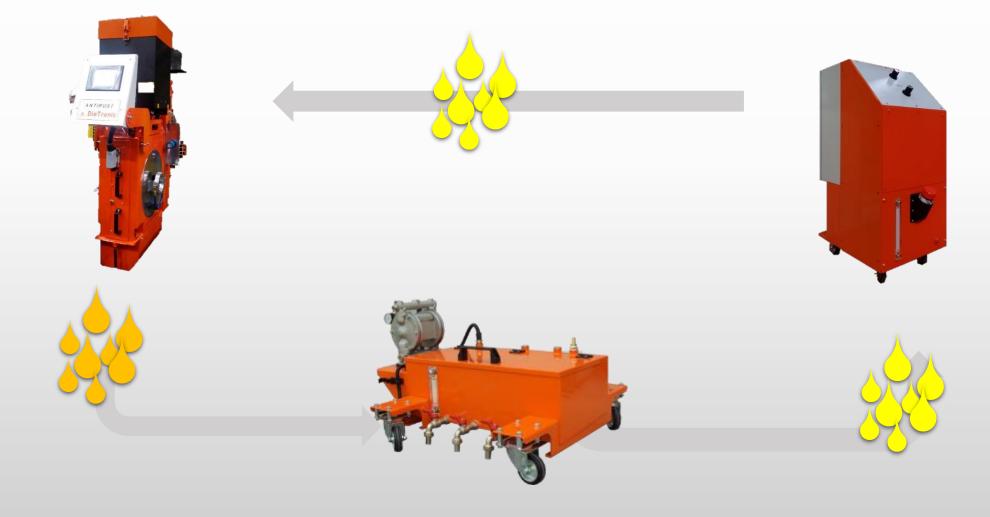


- MOTORISED HEIGHT ADJUSTMENT SYSTEM



REDUCE CONSUMPTION WHILE INCREASING PROTECTION







DIETRONIC OIL RECOVERY SYSTEM

Through the *Oil Mist Extraction System*, the oversprayed oil is removed, purified, filtered and returned to the oil tank. This produces an oil free environment and helps comply with several health standards.

A **pre-filtration system** holds better pollutants and helps preserving also the other filters.





DIETRONIC OIL RECOVERY SYSTEM





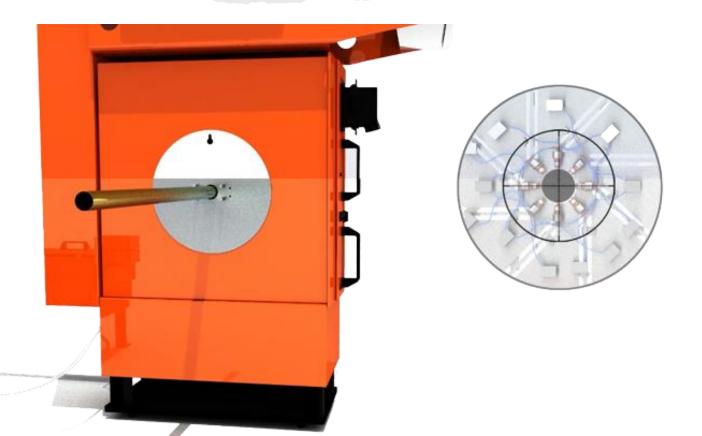


The *Recovery Filtering Unit* collects the unused fluid from the Suction System and the Spray Chamber. Three filters separate the emulsion fluid from the protection fluid that, once filtered, is brought automatically to the main tank, ready to be reused.



MOTORIZED HEIGHT ADJUSTMENT SYSTEM





The Antirust system can be equipped with a special **MOTORIZED CENTERING SYSTEM**, which allows an adjustment (of +/-100 mm) through the operator panel, to centre the middle of the pipe with the spray box.

The adjustment aims at granting the correct distance between nozzles and lubrication area.



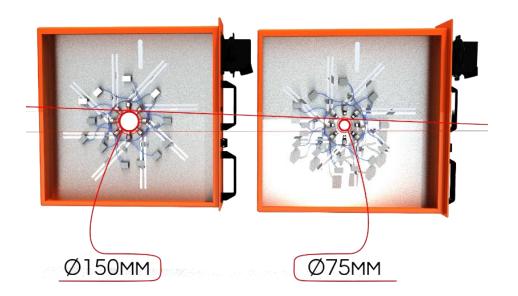
EXTRACTABLE SPRAY BOXES

The nozzles are housed in a **REMOVABLE SPRAY BOX**, which can be easily extracted for maintenance purposes.

The spray boxes are available in different sizes and, in case of application on very different tubes or profiles dimensions, it is possible to use multiple spray boxes on the same line.



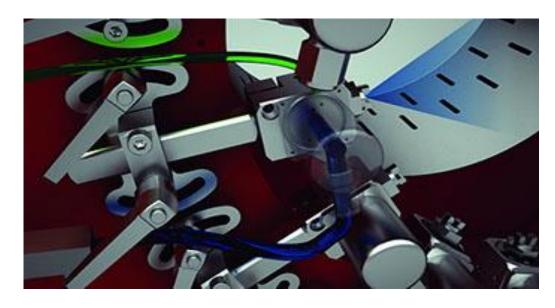






FLOW CONTROL





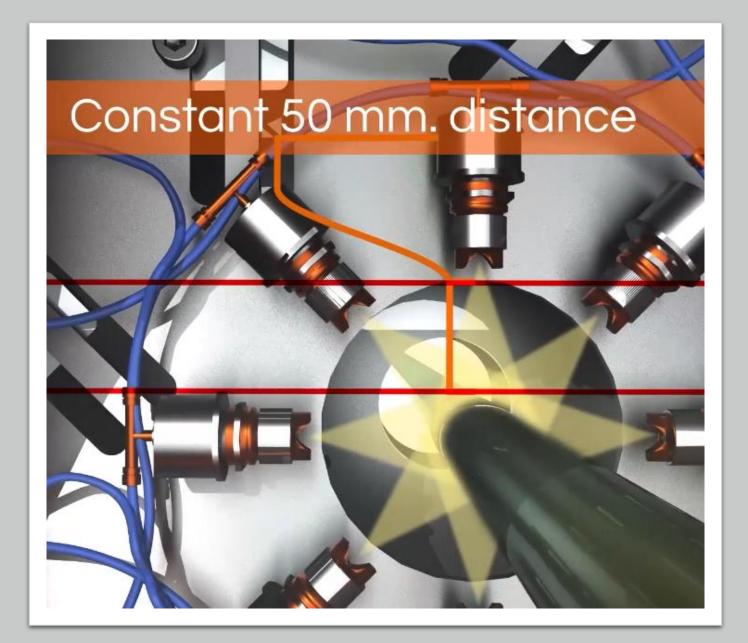


A further function available through the operator panel is the possibility to activate/deactivate, for each single nozzle, the flow sensors to check the correct functionality.

When the flow is not detected, the flow sensor integrated within each nozzle will display an alarm signal on the touch panel.

In this way, it is possible to monitor the correct operation of each individual channel.







With DieTronic Antirust system is possible to adjust the nozzles position, maintaining their distance from the lubrication point constant (50 mm).

This adjustment is essential to ensure the best lubrication coverage and to optimize the amount of oil to apply.









USER-FRIENDLY OPERATOR INTERFACE

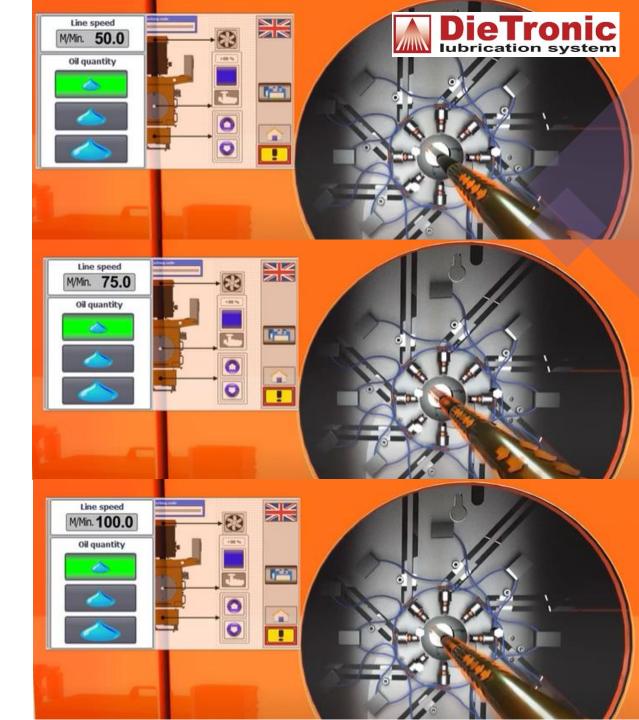
The management of all the parameters of the lubrication machine is fulfilled thanks to a programmable system (PLC) and a 5" touch screen operator interface which controls:

- Quantity of Lubricant applied in g/m²
- Selection of valves on/off
- Monitor line Speed
- Monitor Fluid Levels
- Suction System Management
- Motorized Height Adjustment System Management



PROPORTIONAL OIL QUANTITY ADJUSTMENT

In case the process line slows down or speeds up, the Antirust System is able to detect the speed variation and to adjust the correct RPO quantity automatically and proportionally, to avoid useless wastes.



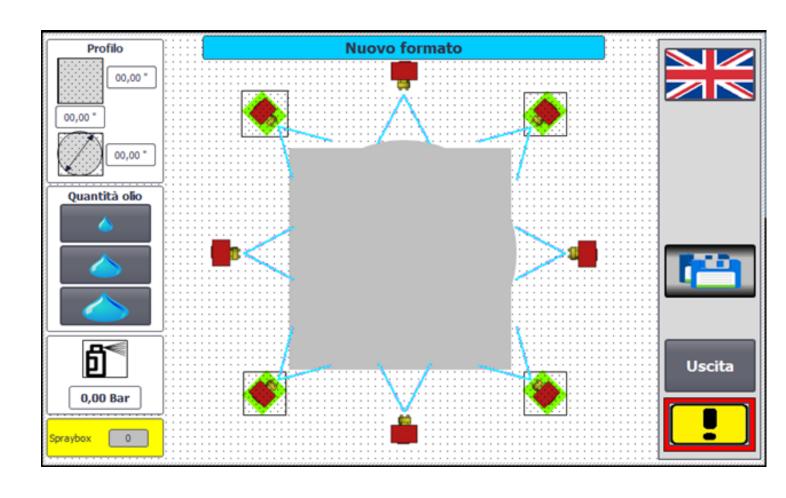


PARAMETER CONFIGURATION



PAGE FOR THE NOZZLES SELECTION AND PROFILE DIMENSION

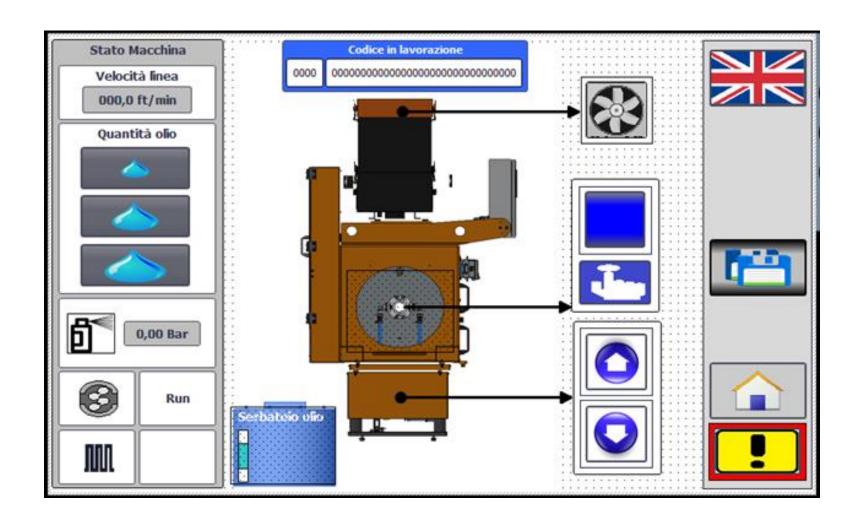
By accessing to this page, the individual nozzles can be activated/deactivated, and the profile dimensions determined. It's also possible set the desired quantity of RPO, choosing among three different oil levels (low, medium, high). The system will automatically deliver the correct quantity proportionally to the variation of the line speed.







MACHINE CONFIGURATION PAGE













ANTIRUST MINI	ANTIRUST BABY	ANTIRUST 04-08	ANTIRUST 12	ANTIRUST 1000	
For Wires and Cables	For Reduced dimensions	 For tubes and profiles max. 90 mm (04) and 210 mm (08) 	 For tubes and profiles max. dia. 270 mm 	For tubes and profiles max.400 mm	
4 Nozzles	4 Nozzles	4 or 8 Nozzles	12 Nozzles	16 Nozzles	
Fixed position of the nozzles	 Manual adjustment of the nozzles 	 Manual adjustment of the nozzles 	 Manual adjustment of the nozzles 	 Automatic adjustment of the nozzles 	
Flow control	Flow Control	Flow Control	Flow Control	Flow Control	
Control Panel on the Tank	Suction system	Suction system	Suction system	Suction system	
	Separated Recovery System	 Separated Recovery System 	Separated Recovery System	Separated Recovery System	
	Height Adjustment (Optional)	Height Adjustment (Optional)	Height Adjustment (Optional)	Height Adjustment (Optional)	



MODEL CHART



ANTIRUST	ANTIRUST	ANTIRUST	ANTIRUST	ANTIRUST	ANTIRUST
Mini	Baby	04	08	12	1000
Min. 2 mm	Min. 8 mm	Min. 8 mm	Min. 21 mm	Min. 51 mm	Min. 102 mm
Max. 10 mm	Max. 38 mm	Max.90 mm	Max. 210 mm	Max. 270 mm	Max. 406 mm
/	Min. 8 mm	Min. 8 mm	Min. 15 mm	Min. 34 mm	Min. 72 mm
	Max. 38 mm	Max. 64 mm	Max. 162 mm	Max.192 mm	Max. 287 mm
/	Min. 8 mm	Min. 8 mm	Min. 15 mm	Min. 34 mm	Min. 72 mm
	Max. 38 mm	Max. 64 mm	Max. 170 mm	Max.192 mm	Max. 287 mm
	Mini Min. 2 mm	Min. 2 mm Min. 8 mm Max. 10 mm Min. 8 mm	Min. 2 mm Min. 8 mm Min. 8 mm Max. 10 mm Max. 38 mm Min. 8 mm Max.90 mm / Min. 8 mm Min. 8 mm Max. 64 mm / Min. 8 mm Min. 8 mm	Mini Baby 04 08 Min. 2 mm Min. 8 mm Min. 8 mm Min. 21 mm Max. 10 mm Max. 38 mm Max. 90 mm Max. 210 mm / Min. 8 mm Min. 8 mm Min. 15 mm / Min. 8 mm Min. 8 mm Min. 15 mm	Mini Baby 04 08 12 Min. 2 mm Min. 8 mm Min. 8 mm Min. 21 mm Min. 51 mm Max. 10 mm Max. 38 mm Max. 90 mm Min. 15 mm Min. 34 mm / Min. 8 mm Min. 8 mm Min. 15 mm Min. 34 mm / Min. 8 mm Min. 8 mm Min. 15 mm Min. 34 mm

- > ANTIRUST 04 Additional box required (BOX70) for Ext. D. 38 mm max Side of square or rectangular 27 mm max.
- > ANTIRUST 08 Additional box required (BOX180) for Ext. D. 76,5 mm max Side of square or rectangular 54 max.
- > ANTIRUST 12 Ask for additional box required.



ANTIRUST 04 OR 08 – ONE FRAME SOLUTION



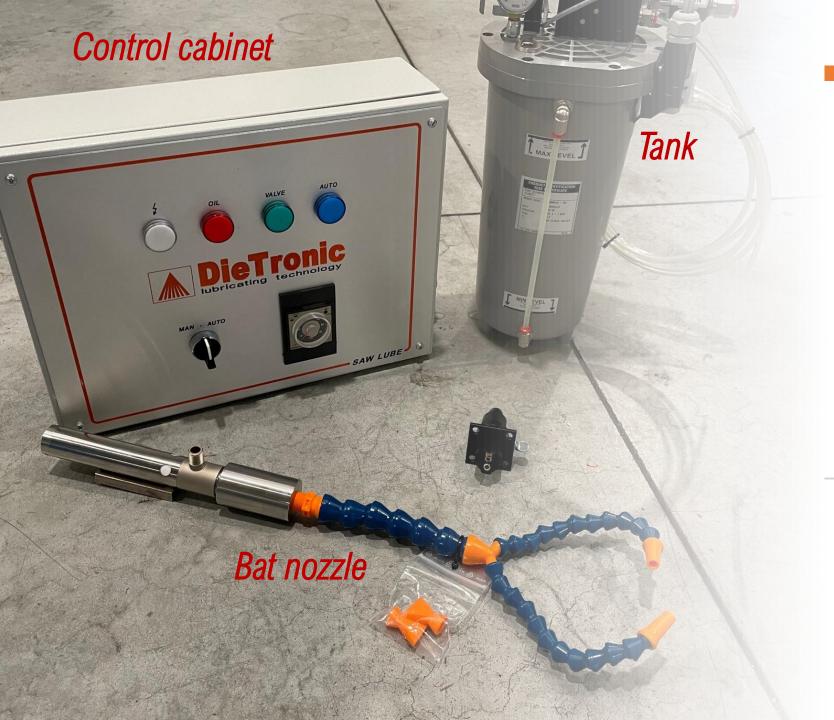


- Easy to install and to integrate in the line
- Simple maintenance with quick spraybox exchange

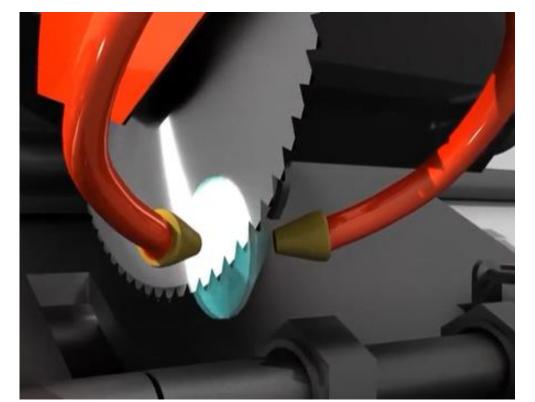
The one frame solution allows to access all the machine's components from one place.







MINIMUM QUANTITY LUBRICATION





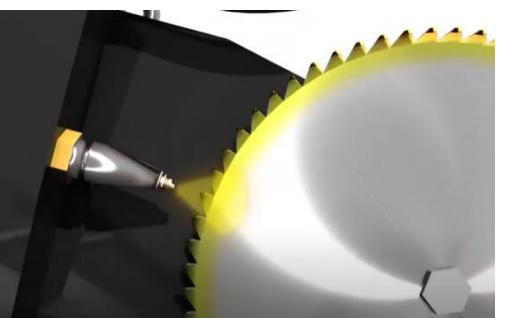


MINIMUM QUANTITY LUBRICATION

Combination of:

- cold gun, composed by two cooling nozzles to refrigerate the saw blade;
- bat nozzle to spray pure oil (not coolant) in minimum quantities directly into the cutting zone.

To eliminate the usage of water after the application of anticorrosive fluids on the tube, granting a more effective tube protection, enhancing the RPO performance and extending the saw blade life.





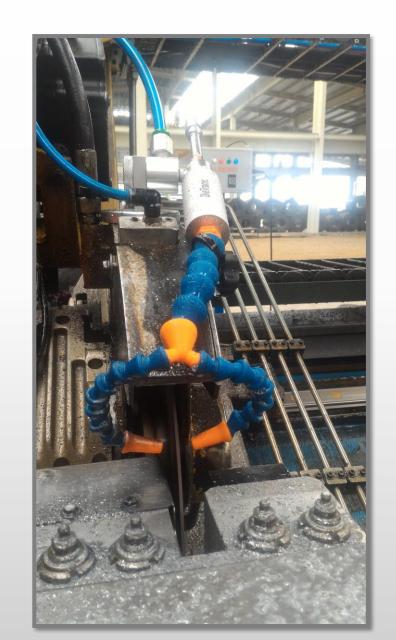
MINIMUM QUANTITY LUBRICATION



ADVANTAGES:



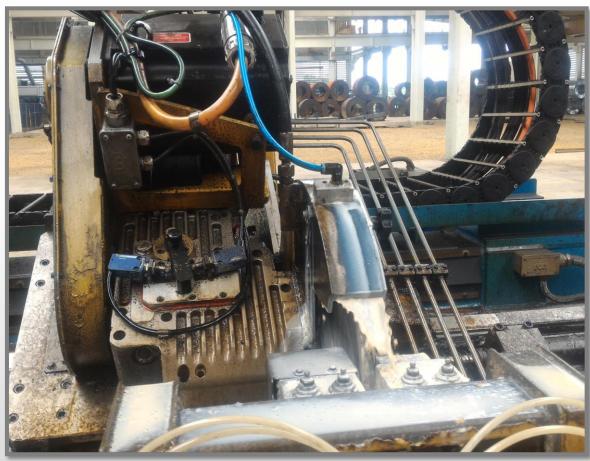
- NO MORE WATER ON THE PROTECTED TUBE
- REFRIGERATION OF SAW BLADE BY COOL LUBE (UNTIL -25°C)
- BETTER PERFORMANCE OF THE RUST PREVENTATIVE FLUID
- SAW BLADE LIFE IMPROVED
- VERY LOW CONTROLLED VOLUME ON THE SAW BLADE WITHOUT ANY CONTAMINATION OF THE COOLANT





MINIMUM QUANTITY LUBRICATION







BEFORE

AFTER

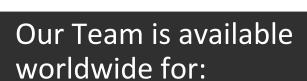
VIDEO – Antirust and MQL system





LOCAL TECHNICAL SUPPORT WORLDWIDE





- Technical Support
- Periodical Maintenance Programs
- Possibility of remote assistance (h24)
- Spare Parts Stock, completely available in
- ✓ Italy
- ✓ US
- ✓ China
- ✓ Brazil



REFERENCES - Italy

MARCEGAGLIA



















REFERENCES - Northern and Central Europe











































REFERENCES — Southern Europe and Middle-east











































REFERENCES - North America



























REFERENCES - Central and South America



























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THANK YOU FOR YOUR ATTENTION