DieTronic
lubrication system

Entry Section | Mill Section | **Dietronic Section** | Cutoff Section

- Spray Application of Protective Systems Pipes and Profiles
- Cleaning Systems
- Lubrication Systems Cutting Blades
- Protective Spray System Application on Sheet

ANTIRUST spray systems for the application of antirust protective oil

LCP ANTIRUST 04
for line from 5 to 90 mm

LCP ANTIRUST 08
for line from 100 to 200 mm

LCP ANTIRUST 12
for line from 200 to 400 mm

ANTIRUST

In the production of welded tubes and profiles, the problem, such as for sheet metal, has been to apply a protective film of lubricant in a precise and controlled way on round tubes and both regular and irregular profiles.

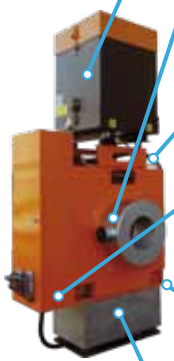
The protection of the finished product guarantees a long life against oxidation even in the case of transport with large changes in temperature and outdoor storage.
The application of these protective lubricants requires management and control of the uniformity of application over the entire surface.
For this reason Dietronic has, since 2004, been developing the product line called LCP Antirust spraying machines capable of applying a protective film of lubricant in g/m2 with a speed of advance of the tube of up to 200 m/min.

Each machine is composed of a robust carpentry in which the nozzle box is inserted, consisting of 4, 8, 12 sprayers depending on the machine model. The ability to remove the nozzle box from the fixed structure in line, as well as to facilitate maintenance operations, allows you to use multiple spray boxes on the same line with nozzle positions optimized for the section and product profile in addition to the interchangeable use of multiple types of lubricants of different natures.

MACHINE SPEED (m/min)

PROTECTIVE OIL (g/m2)

Proportionality
An innovative and unique system in the world, with the ability to implement and maintain a constant amount of lubricant defined in g/m2 at different line speeds. Process obtained by detecting the line speed through an encoder and a software for calculation and management of the speed of the brushless motor of the volumetric pump.



Suction System
A suction system with 3 filtration degrees to avoid any kind of environmental contamination.

Blowing Motor System
The generation of air volume is through a motorized pump whose speed is controlled by an inverter in order to adjust the volume of air in function of the amount of emulsion oil present on the tube or profile.

Rapid connector for the removal of the spray box
Box can be pulled out. The spray box can be changed in less than 1 minute

Flow Control
Through flow sensors at low flow rates you can monitor the actual movement of the liquid through every single spray nozzle in the amount set on the touch screen.

Fluid Recovery System
The system allows you to retrieve the minimum amount of product buildup at the bottom of the Spraying Chamber.
Through 3 decanting tubs the antirust oil is separated from the emulsion oil to be filtered and returned automatically to the main tank of the lubricant.

Up and Down System
Permits finding position with respect to the tube or profile.
The system is equipped with a motor and allows adjustment +/-100 mm.
Positioning is done via the machine's touch panel.

5 Inch Touch Screen
The management of all the parameters of the lubrication machine is entrusted to a programmable logic system and a 5 inch touch screen operator interface such as:
Quantity of Lubricant Applied in g/m2
Activation of the Nozzles
Suction System Management
Up und Down System
Blowing Motor System
In addition, the system is equipped with a monitoring system of all parameters and diagnostic reporting with video touch signalling of any possible anomaly.

Automatic re-filling tank
Allows the automatic tank refill of the lubricant through the management of minimum and maximum levels. General power must be supplied by the customer through a centralized system or a tank containing the lubricant.

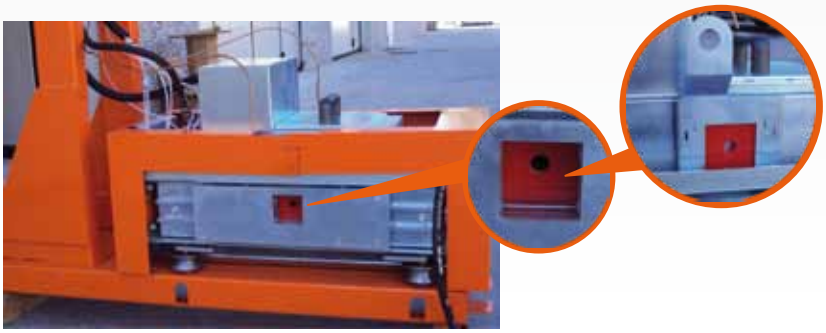
Heating System
Allows you to maintain a controlled temperature of the lubricant tank to prevent changes of fluidity of lubricant at low ambient temperatures.

Volumetric Pump
Volumetric pump with mechanical seal driven by brushless motor.

LCP CLEANER
for line from 5 to 90 mm

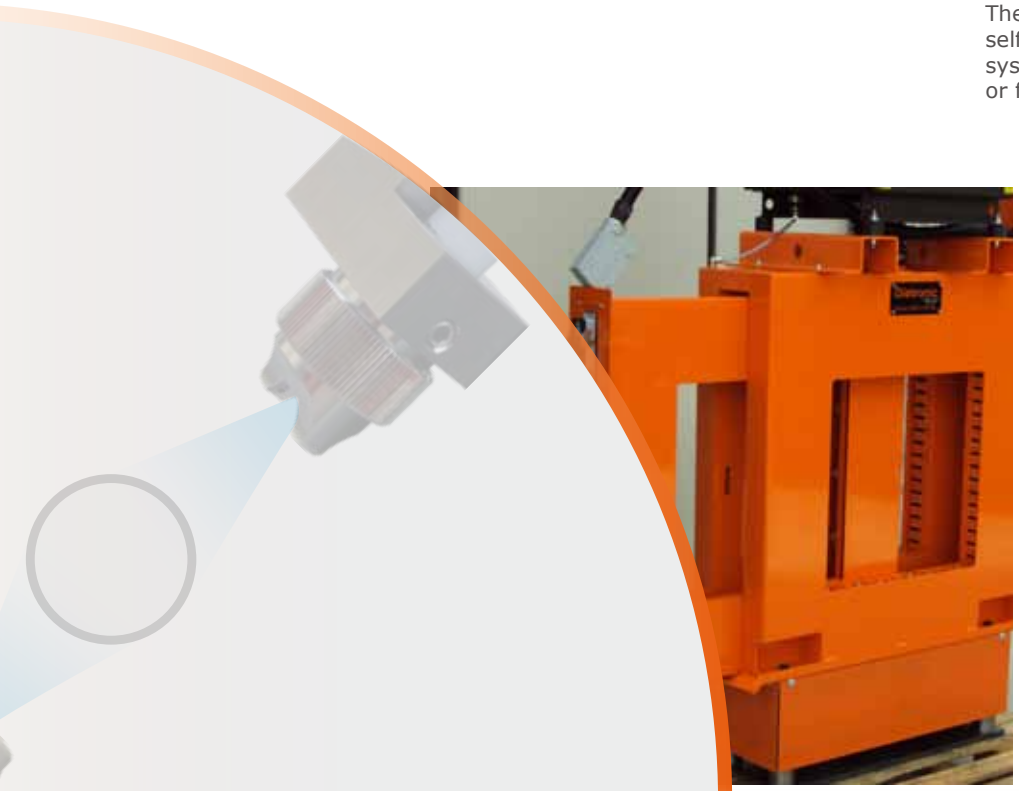
LCP CLEANER

The need for an increasingly higher quality of the finished product in 2009 has brought Dietronic to develop systems for cleaning the pipe or profile, such as the LCP Cleaner cleaning system.
It is a system capable of applying cleaning products in line, even products which act at a controlled temperature, and with the aid of mechanical action, by means of punches in plastic material.



Systems for cleaning of pipes and profiles in a static or dynamic manner, through the use of solvents or water-based temperature-controlled products.
The central part of the system is composed of a static oil tank through which the pipe passes. Perforated plastic seals guarantee that the liquid stays sealed inside the container. The latter also performs a mechanical cleaning action.

The dynamic parts of the system are composed of two units with motorized vertical and horizontal cleaning brushes, moving at a controlled speed.
In the case of using water-based products where the temperature should be controlled, the system can automatically manage the temperature of the degreasing fluid level in the tank.
The cleaning boxes are equipped with a self-centering, pneumatically controlled system, vertical and horizontal, for any shape or form of pipe and profile.



BLADE LUBRICATING SYSTEM

BLADE LUBRICATING SYSTEM

The new system of lubrication of the cutting blades allows the use of lubricating products specific for cutting into minimal quantities, avoiding, once covered with the tube and profile of protective lubricant, contaminating it again with the emulsion oil of the line.

Also, the use of a specific oil for cutting allows to significantly lengthen the life span of the blade.
The system is composed of a special spray nozzle in the form of a "V" for the targeted application of the lubricant on the critical points of the blade during cutting.
The same nozzle is equipped with an air nozzle for the removal of shavings from the cutting blade.

The minimum amount of lubricant applied to each cut, is regulated by the speed of rotation of the micrometric metering pump.
The operation of this pump is interfaced with a signal of the cutting unit to allow the application of the lubricant only during the cutting operation.
A control unit with integrated reservoir completes the system.

The lubricant tank consists of a 30l tub, complete with a visible oil level and a minimum signal level beyond that of a filtration system of impurities from 100 micro.

The adjustable parameters in the panel are: the micrometric dosage pump speed by means of a potentiometer, the air atomization of the lubricant and the jet of air for the removal of shavings.





SKIN PASS OILER

Forget the electrostatic lubricator

THE LCP LAMINATION SERIES

The LCP Lamination series are high strength spraying machines which can be inserted in lines where application of lubricants on the protective sheet is required, capable of depositing a film in g/m2 proportionally at speeds of sheet advance of up to 1000 m/min.

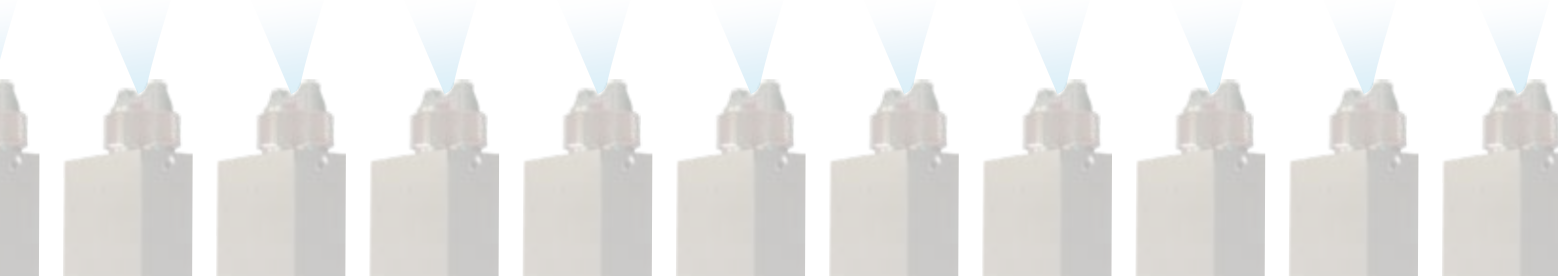
There are models of machines for sheet widths from 400 to 2000 mm.
The machine is composed of a frame in carpentry in which the two extractable spray heads are inserted.

The fixed in line frame provides a system for accompanying the sheet in rubber rollers as well as a pair of guide rollers from the entrance of the sheet.
The extractable spray heads are composed of a series of 200 mm manifolds due to the width of the machine.

Each collector is composed of 4 LVLP (Low volume low pressure) spraying nozzles operated by solenoid valves and fed by multiple dosing pumps whose speed of rotation is managed by brushless motors. Each manifold is equipped with a common duct for air atomization in a beam solenoid valve as well as a system of maintenance of lubricant temperature with a relative control probe.

Extraction of spray heads, as well as enabling easy maintenance has been developed for their interchangeability if using multiple types of lubricants to avoid any kind of contamination between them.
The lubricant tank consists of a 30l volume, complete with a visual oil level and a minimum signal level and filtration system of impurities from 100 micro.

In case of using multiple types of lubricants, the system can be supplied with additional tanks, and in this case, as with the spray heads, the system is completely modular.
All LCP Lamination series machines are equipped with a suction system to avoid any kind of environmental contamination.



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