

MEC - SPE PARMA: MARCH 2016 17-18-19



After several years from the latest Condroil participation to MecSpe, here we are with a small booth



WIRE - TUBE DUSSELDORF: APRIL 2016 4-8



As it has been in the latest 20 years, CONDOROIL exhibited at Duesseldorf Trade Show from 4 to 8 of April, this time with two booths: one at WIRE and one at TUBE.

At TUBE CONDOROIL STAINLESS exhibited mainly plants and visitors had the opportunity to see some models realized with 3D printing.



Some of the exhibited plants at Tube:

- Electrolytic plants for stainless steel pickling
- Acid recovery and regeneration technologies
- Purification and treatment plants for lubricants
- Degreasers purification and regeneration plants
- Technologies for metal recovery from spent solutions
- Water treatment and recycle processes

At WIRE:

- *CONDORCOAT* Passivating agents and pretreatment products prior to paint, also nanotechnological one.
- *CONDORFOS* Chemicals for phosphatizing processes
- *CONDORHIBIT* Protective inhibitors and fluid agents
- *CROMCOAT* Passivating agent with trivalent and hexavalent chromium
- *CONDORINE* Alkaline, acids and neutral degreasers
- *CONDORLUBE* Lubricants for cold forming and metals working, among them a wide range of polymeric products
- *CONDORITE* Pickling products for all metals
- *DESCALINOX* Specific pickling products for stainless steel
- *CONDORCOAT PC* coloured and transparent permanent coating

We remind you that CONDOROIL is always open to start cooperation with foreign partners for trading his products.



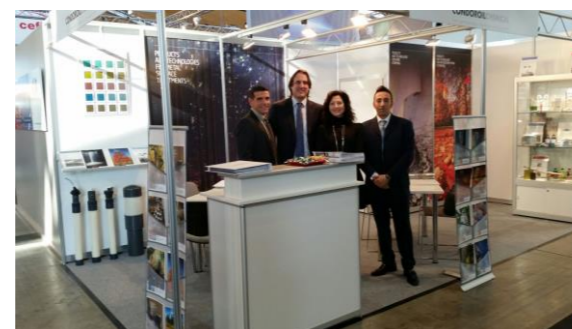
PAINTEXPO - KARLSRUHE: APRIL 2016 19-22



This is the first time CONDOROIL joined the trade show PAINTEXPO, mainly dedicated to industrial painting

We decided to re-invest in research and development in this field very important for CONDOROIL and today we are present on all Italian market and also in East Europe with a pool of technicians, sales people and retailers.

During the show we exhibited our new designed range of paint strippers for metal and for wood which complements our already exhibiting range of products



CONDOROIL News

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ELECTROLYTIC PICKLING OF STAINLESS STEEL

The electrolytic pickling of stainless steel allows the user to achieve very important advantages of productivity, versatility, reduction of the environmental impact (a list of advantages is reported in a specific document that you can require to marketing@condoroil.it).

This pushed Condroil to extensively invest in research and development of pickling units for the most various geometries, as better highlighted below:

TUNNEL FOR IN LINE TREATMENT

This unit has seen its first production in year 2000 at Marcegaglia pipe factory in Forlì, where are pickled, directly on the production profiling, pipes with diameters up to 273 mm.

Since that date, many other units have been realized and the applications range from pickling and / or electro-polishing of tubes to in line treatments of bars, profiles and wire rods.



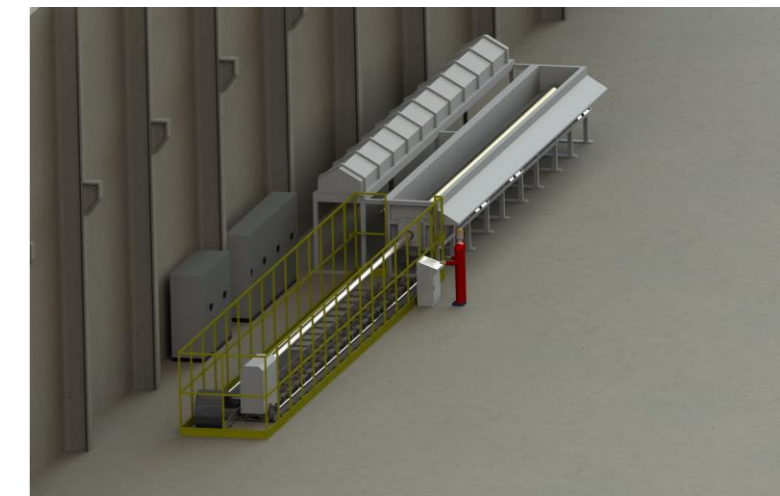
ELECTRODE FLUXED RAMPS:

October 2015 it has been filed a patent which involves the use of special fluxed electrode ramps. This type of unit is designed to process in continuous sheets, coils, bars and profiles.

PICKLING PLANT FOR TUBES WITH BIG DIAMETERS:

For the realization of movement necessary to the treatment of large diameter pipes, it was started a collaboration with company Somo, manufacturer of bending presses for forming of large diameter pipes.

The study has thus led, in February 2016, to filing of a joint patent on the internal and external pickling of pipes with diameter between 150 and 1200 mm.



PICKLING PLANT FOR TUBES WITH SMALL DIAMETERS:

The last relevant patent to electrolytic pickling was filed in May 2016. This, in particular, claims the definition of a plant capable of processing internally and externally of small and medium diameter pipes (up to approx. 200 mm). The process is used in both pickling and electropolishing processes as well as in controlled EDM processes that allow to eliminate surface defects that should be evident in the following drawing steps

COOPERATION WITH CNR-ISMAC TOWARDS THE ELIMINATION OF CHROMIUM VI IN COIL COATING

Due to the forthcoming prohibition of Cr(VI), in the last years research in the coil coating industry has been focused in the formulation of chrome free passivatin agents.

CONDOROIL research is well active in this field, in particular for the development of an innovative product that uses a new class of molecules.

In collaboration with **CNR-ISMAC** of Biella (Institute for macromolecular studies of the Italian National Research Center) **CONDOROIL** is conducting a study about macromolecules that provide anti-corrosive properties to metal surfaces. Among them, particular attention is given to polypyrrole (ppy), a conductive polymer with anticorrosive properties. Recent studies have shown anticorrosive properties of electro-deposited films of ppy on metals. This kind of application does not comply with the application techniques used in the coil coating industry. **CONDOROIL** and **CNR** have developed stable dispersions of ppy that permit its application in the common industrial coaters.

Despite the good results in the stabilization of the ppy dispersions, the results as corrosion protection were not as positive. Indeed HDG panels treated with ppy, alone or mixed in an inorganic formulation, showed 100% of corrosion after 24 h of exposure to the neutral salty spray test. The results of the tests shown that ppy properties depend on the synthesis method. Electrodeposited ppy films have a better adherence on the metal surface, giving better corrosion resistance.

The research continued with the formulation of ppy into products for paint pre-treatment, in order to improve paint adhesion. The tests results showed that ppy is inadequate for this application.

A scientific paper on this study is about to be published.

CONDOROIL and **CNR** are now working on the study of other alternative polymers for metal protection.



NEW - PAINT STRIPPER SVA 583 THE HARMLESS PAINT STRIPPER FOR ALUMINIUM WHICH WORKS AT ROOM TEMPERATURE

PAINT STRIPPER SVA 583 is suitable to remove already at room temperature both solvent and powder paints (episodic, polyurethane, polyvinyl resins, etc.) from any metal without using chlorinated solvents.

- NO SOLVENTS HARMFUL BY INHALATION
- LIMITED ODOUR
- NO METHYLENE CHLORIDE, PHENOLS, OR OTHER HARMFUL SOLVENTS
- NON FLAMMABLE
- TO BE USED AT ROOM TEMPERATURE
- EASY REMOVABLE BY WATER
- USE CONTAINERS CAN BE IN COMMON STEEL
- THE TREATED STEEL PIECES DO NOT RUST AFTER CLEANING

ADDITIVE FOR CHEMICAL COPPERING: ADDITIVE MIX CU



New **ADDITIVE MIX CU** is used as additive in solutions of chemical coppering of steel wires and coils.

The product, used at a concentration between 2 % and 3%, allow to control the metal deposit and to increase its adherence on steel surfaces by ensuring the formation of a compact and uniform deposit.

Beside direct economic savings, due to less consumption of copper sulfate, **ADDITIVE MIX CU** increases life of metallization bath reducing cost involved in a periodical renewal.

NEW - PAINT STRIPPER SVA 583 FOR IN LINE PAINT STRIPPING OF HOOKS AND RACKS

The chemical paint stripping of hooks and racks uses a latest generation product, **PAINT STRIPPER SVA583**, free of harmful substances by inhalation, chlorinated solvents, ammines and phenols, at a temperature between 40 and 80° C.

As already known, the in line paint stripping process developed by Condoroil is so called since carried out directly on the painting line where paint removal speed is increased by a mechanical action supplied by ultrasonics of spray ramps.

Besides the paint stripping unit, the plant is equipped with a decantation system, to remove paint pigments and replenish the treatment tank with fresh product, and with a spray rinse tunnel complete with recovery tank.

Note. The rinse section, in case of a tunnel with ultrasonics, can be eliminated by providing a surface seal made with our dewatering product **CONDORLUBE R 103**.

This product can remove the paint stripper at the moment when the hook comes out from the treatment tank. This seal allows to reduce the paint stripper evaporation as well as to have the hook clean and ready.

IN LINE PAINT STRIPPING

1. REDUCED CONSUMPTION OF PAINT STRIPPER
2. REDUCED PERSONNEL
3. NO WEAR OF THE HOOK

You can ask for a short video to marketing@condoroi.it where you can see the process.



PICKLERS TI 70 AND TI 80 SERIES FOR AEROSPACE



Pickling agents TI range are suitable to pickle welded and/or annealed titanium workpieces and nickel alloys.

Their formulation has been designed to avoid the typical problems of hydrogen embrittlement on titanium surfaces.

Indeed, at the normal working conditions products do not etch the basic metal while they limit their action to the oxide dissolution.

Moreover, since basic metal is not etched, even a possible over pickling is definitely avoided.

PICKLER TI 70 has received the certification of a well-known European aircraft manufacturer while **PICKLER TI 80**, being free of fluoboric acid, eliminates problems related to boron in the waste water treatment too.

NEW COOPERATION IN THE TURKISH MARKET: AGATEK - ISTANBUL

Following the distribution agreement signed with Agatek, it has been decided to manufacture locally some products for the metal surface treatment in order to reduce transport costs and to speed deliveries to final customers.

The first two weeks of May we have been very busy training Mrs. Senai Gunes (degree in chemistry) hired by Condoroil and working at Agatek for giving technical assistance to customers and technical support to the laboratory.