

达尔梦迪(北京)机械设备有限公司

EVERY SURFACE REQUIRES OUR BEST

卓越的表面处理工艺



The best of technology for the best of quality

最先进的技术缔造最完美的品质

"THERE IS NOTHING **DEEPER THAN WHAT APPEARS** ON THE SURFACE."

The product surface gives the first impression, strikes the observer and influences his judgment from the beginning. The external perfection becomes the mirror of the overall quality of the product.

Since more than sixty years we work with passion and competence to obtain the best harmony of lines, shapes and colours in every surface, engineering and manufacturing innovative plants and complete lines, installed all over the world.

Washing, coating, impregnation: industrial treatments integrated in the productive process, often invisible to the final user but of primary importance for functionality and aesthetic quality.

Automation and technology development allow us to offer modular solutions with a full portfolio of options that satisfies any need.

Our Customers appreciate above all our capability to develop tailor made, and often co-designed, surface treatment plants that are innovative, reliable, advanced, ready to satisfy all the new requirements of the market.

1949

The beginnings: on American license, Rotofinish introduces in Italy the mass deburring and cleaning processes.

1965

The first water-based spray degreasing plant to remove cleaning paste is realized, eliminating the use of solvent.

1985

The Equipment Division becomes independent and Tecnofirma S.p.A. is born.

1992

Tecnofirma is awarded with the UNI EN ISO 9001 Quality Certification, first company in Italy in the Plant and Machinery for Surface Treatment field.

2002

Tecnofirma manufactures the first Flow coating plants for painting car headlights and reflectors with IR/UV polymeriza-

经美国相关部门准,Rotofi-nish将整体去毛刺和清洁工 艺引入意大利。

首创水性喷雾脱脂设备,取代 传统溶剂清洗膏清除技术。

设备领域正式独立, 催生 Tecnofirma S.p.A.

Tecnofirma 通过了 UNI EN ISO 9001 质量认证,是意大 利首家通过该认证的表面处理 机器设备行业的公司。

Tecnofirma 创造了首台采用 红外/紫外聚合法喷涂汽车前 灯和后视镜的流型涂膜设备



卓越的表面处理工艺

产品的第一印象源于表面,可以打动人心,甚至从一开 始就影响着客户的决定。

完美的表面可以反映产品的整体品质。在过去的六十多年间,我们凭着热情和能力实现了表面线条、形状和颜色的完美融合,凭借优秀的设计和制造工艺,让我们的新型设备和完备的生产线遍布全球。

清洗,喷涂,浸漆是融于生产过程的流程工艺,虽不为 用户所见,却对产品的功能和外观起到至关重要的作用。

我们利用自动化流程和先进的技术,为客户提供模块化的解决方案和多样化的选择,全面满足客户各方面的需求。

我们的产品广受客户的青睐和追捧,因为我们有开发定制方案的实力,与客户携手参与设计过程,为客户带来创新、可靠、技术先进的表面处理设备,切实满足市场的所有新要求。

2003

The first impregnation machines for electric motors are launched on the market.

Diamond (Beijing)
Machinery Equipment
Co. Ltd opens in Beijing.
Main goal of the company
is to extend the made in
Italy technology in the
Far East.

2013

Tecnofirma develops a new technology for trickling process, expressly designed for Hairpin stator impregnation (patented technology). <u> 2021</u>

Tecnofirma Deutschland GmbH is born: the company of the TT Group founded to meet the needs of the German market. 2022

Tecnofirma America Inc. opens with the target to expand TT Group's presence in North America, serving the US, Canada and Mexico.

首台电动机浸漆设备投入市场。

达尔梦迪(北京)机械设备有限公司在北京成立,主要目标 是将意大利制造技术拓展到远东地区。 Tecnofirma研发新技术用于滴漆工艺,专为扁线定子浸渍设计(专利技术)

Tecnofirm德国公司: TT集团成立用于满足德国市场 的需求。

Tecnofirmm美国公司成立: 使TT集团扩展到北美,主要服务于美国、加拿大和墨西哥。



solutions that we propose are often obtained cooperating with Customers' designers, for a really tailor made result.

Customer care

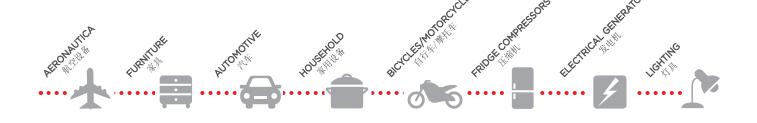
Taking care of the customer means, for us, paying attention to details: not only spare parts, assistance, maintenance and development, but also kindness, precision, fast reaction, competence, effectiveness and empathy.

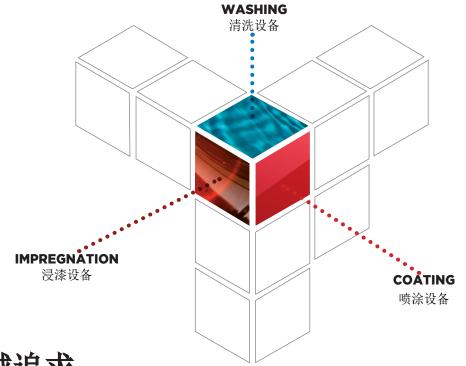
Respect for the environment

"Ecological" technologies, reducing environmental impact to a minimum level and protecting users' health: from the beginning, these are the key features of our awareness and engineering, in every field.

Health and Safety of workers

We pay attention to the health and safety of those who work on our machines starting from the design phase, where we identify and eliminate any potential risky situations. From the construction to the assembly, installation, maintenance and daily use: all personnel active in every phase is properly trained and equipped with personal protective devices (PPE).





卓越追求 始终不渝

我们的优势和主要目标是对品质的追求:

在全体员工的共同努力下,确保提供高品质产品和服务,不仅能满足客户的要求,更要超越客户的期望,力求成为世界顶级品质的标杆。

研发

我们的研发部门不断地开发先进的技术和创新的解 决方案,我们常与客户的设计师通力协作,设计解决 方案,为客户提供真正的个性化产品。

关怀客户

对我们来说,关怀客户意味着注重细节:不仅是对 备件品质、协助服务和维护与开发环节的重视,还包 括对方案的精确度、反应的速度、能力的提升、效率 的提升、同理心以及服务的态度等等。

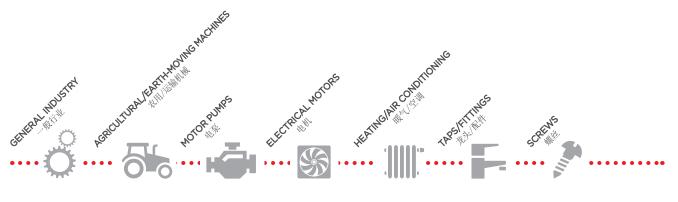
尊重环境

我们坚持采用"生态"技术,将环境影响降至最低,保障用户的健康:自设立之初,我们在每个领域中都将生态技术作为我们的意识和设计工作的重点。



工人的健康与安全

从设计阶段开始,我们就注意保护操作人员的健康与安全,及时发现并消除任何潜在的风险因素。从建造、组装、安装、维护到日常使用,我们对每一个环节的所有操作人员都进行充足的培训,并确保所有人员都穿戴个人防护装备(PPE)





Robotized washing machine 自动化清洗设备

STRENGTH AND GENTLING

For the best result, washing and surface treatment mix the energy of processes and the cure for the single piece, with a wide range of effective and proven solutions.

Besides the modular standard options, Tecnofirma develops innovative washing plants, tailor made and designed considering Customers' needs. This allows us to fully satisfy their expectations in the best possible way.

Multi Wash Hydrokinetic Plants Standard - Extreme - Big Parts

Recirculated Positioned Washing SAT - SAT LIN - Step by step ratchet type

Washing tunnel Belt conveyor - Overhead conveyor - Pallet chain conveyor - Free roller washer

Robotized plants Solution with central handling robot - Solution with robot controlled nozzle

Ultrasonic Dip Washing Lift & Carry Drums with Screw Boothplants

Surface Conversion Treatment Special Washing for trains and trucks



A standard hydrokinetic washing machine 标准的流体动力清洗设备



Hydrokinetic washing plant for big parts 大型工件的流体动力清洗设备



Ultrasonic machine 超声波清洗设备





Robotized booth 自动化工位式清洗设备

Washing tunnel 通道式清洗设备



重洗 与轻洗

为达到最佳效果,我们将清洗和表面处理与流程相结合,对单件进行处理, 提供个性化的有效而可靠的解决方案。除了模块化的标准方案,我们还开发出 创新的清洗设备,满足客户的个性化需求。

我们永远以最佳方案回应客户的期望,满足客户的需求。

多工位流体动力清洗机 标准 - 极致 - 大件

再循环定位清洗机 SAT - SAT LIN - 分步齿轮式连接

清洗通道 带式输送 - 高空输送 - 货板链条输送 - 自由旋转清洗机

机器人清洗机 采用集中控制机器人 - 采用机器人操控喷嘴

超声波浸入式清洗 升降和运载清洗设备 鼓式清洗机 工位式清洗

表面处理 火车和卡车的特殊清洗



Recirculated positioned washing 循环定位清洗设备



Rotating table washing machine 旋转工作台清洗设备







Cataphoresis line for automotive components 汽车部件电泳线

LOOK AND RESISTANCE

Due to control requirements always tougher, coating must assure a perfect appearance without waiving piece solidity and reliability. Thanks to experience and continuous applied research, Tecnofirma solutions become always more functional and with high performance. We are the ideal partner in the world of colour, quality and design.

Pretreatment Continuous cycle - In tanks - Multi-process booth - Phosphating - Nanotechnology

Liquid Spray Dry booths - Water curtain booths - Clean Room technology
UV curing - Special treatments for plastic - Lenses and reflectors for cars

Powder Coating Electrophoresis Continuous cycle - Tank-based



Anaphoresis line for aluminium radiators 铝散热器电泳线



Liquid painting line for plastic components 塑料部件液体喷涂线



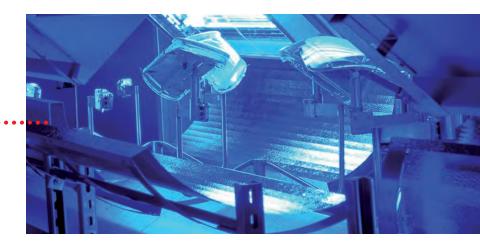
Powder coating line 粉末喷涂线



Liquid painting line for body tractor 汽车驱动器液体烤漆线

Liquid painting line for automotive bumpers 汽车保险杠液体烤漆线

Clean room plant with UV curing 紫外线固化无尘车间



外观 与耐受性

因需求严苛,喷涂必须在确保外观完美的同时,不影响工件的坚固性和可靠性。经过日积月累的应用研究,Tecnofirma的方案在功能和外观上总是越来越完美。

我们因色彩、品质和设计闻名世界, 是您最佳的合作伙伴。

预处理 连续周期 - 设备内 - 多工艺工位 - 磷化处理 - 纳米技术 液体喷雾 烘干室 - 水幕房 - 无尘技术 紫外线固化 - 针对塑料制品特殊处理 - 汽车的镜头和后视镜 粉末涂层 电泳 连续周期 - 设备内



Liquid painting line by robots 机器人喷涂线



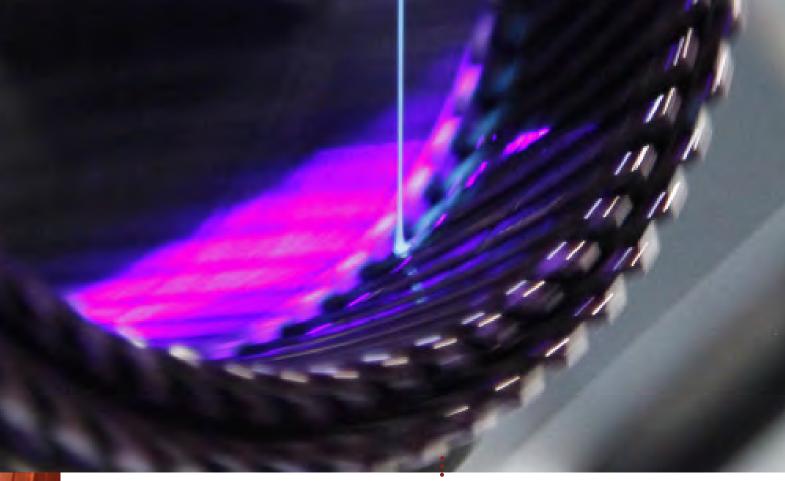
Hardcoating line for polycarbonate lenses of automotive headlights

汽车的前视镜聚碳酸酯镜头硬膜涂装线



Basecoating line for reflectors of automotive headlights

汽车的后视镜底漆喷涂线



Trickling impregnation under UV light紫外灯下的滴漆

DURATION AND PROTECTION

Optimizing the performances of electrical motors by increasing insulation value: with a proper impregnation of windings the working life increases considerably.

Tecnofirma studies the most suitable impregnation process for each single Customer to achieve the best result, contributing just from the beginning to improve motor quality and resistance.

Thanks to our research laboratory, the solutions proposed to each Customer can be validated.

Camelot Line Ring Line U Line Modular Concept Pilot Line Trickling Pilot Line Powder

Technologies: Dipping, Roll dip, Trickling, Powder Coating



Hot dipping impregnation line 热沉浸线



Ring impregnation high productions 量产的环型线



for

line

U Line equipment for hairpin impregnation high productions

量产的U型线--扁线定子的浸渍



- Roll dip impregnation for rotors
- * 转子滚浸线



- Powder Coating for hairpin stator
- 扁线定子涂敷

Hairpin quality inspection with UV light

扁线用紫外灯质量检测



耐久性 与保护

提高绝缘性优化电机性能:通过对绕组进行充分浸漆,其使用寿命显著提高。 Tecnofirma 针对每一个客户,研发最适合的浸漆流程,以取得最佳效果。从 最初阶段开始,改善电机的质量和耐受性。

我们的研究实验室,保证了给每一个客户的方案的可靠性。

Camelot线 环型线 U型线 模块化设备

滴漆实验机 涂敷实验机

技术: 沉浸、滚浸、定位定量滴漆 、涂敷







Modular machine for low-medium-high productions

模块化设备-- 适合低-中-高产能

Impregnation line for low productions 低产能的浸渍线 Powder coating machine for medium productions

productions 中等产能的涂敷设备

ITALY

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GERMANY

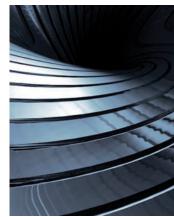
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