

MTA IN THE WORLD Head quarters



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Contents 内容

MTA WORLD Corporate News

MTA China - An increasingly structured site MTA 中国 - 结构日益优化的分公司 MTA Brasil - Always more customer-oriented

04

08

MTA Brasil - Always more customer-oriented MTA 巴西 - 日趋以客户为导向

An innovative line assembles the MegaCompact fuses 装配 MegaCompact 保险丝的创新产线

PRODUCT TIME

Cover Story 10

Electromechanical unit for Dacia Duster - The partnership with Renault is renewed 适用于 Dacia Duster 的机电单元 - 与雷诺延续合作关系

Case Studies 11

MAN Latin America - A new electromechanical unit for VW Delivery 曼恩拉丁美洲公司 - 适用于 VW Delivery 的全新机电单元

IDEAL - The custom dashboard for AGCO Corporation's new line of combine harvesters IDEAL - 适用于爱科新系列联合收割机的定制 仪表盘

Revo Plus - A dashboard with customized software for Zetor Tractors Revo Plus - 带定制软件的仪表盘,适用于 Zetor 拖拉机

Revo Plus for MST Group 适用于MST集团的Revo Plus仪表盘

Tech Insider 15

The "Smart" dashboard «Smart» 仪表盘

MTA Core, Speedy Creator, Studio and Gate -New software developments MTA Core, Speedy Creator, Studio 和 Gate -新软件开发

LAST NEWS

Business Report 18

EDITORIAL

主编



This 19th issue of our journal offers an important overview of the investments that MTA is making in various Italian and foreign sites to increase production capacity and quality, as well as to improve our time to market. You will therefore read news about MTA Brasil and China, in addition to developments in electronics and in the production of fuses.

Turning to products, you will find interesting case studies dealing with OEMs of the auto, truck and off-highway sectors: a new electromechanical unit for Dacia Duster, renewing the partnership with Renault, and one developed for MAN Latin America, in addition to dashboards for Zetor, MST, and AGCO. Besides to custom electronic and electromechanical components made with some OEMs according to specific needs, our Research & Development department offers the market components developed in-house for different types of vehicles and for those looking for an off-the-shelf product.

Enjoy!

本期第 19 期杂志将主要介绍 MTA 在意大利及各个海外工厂进行的多项投资,这些投资旨在提升产能和产品质量并加快产品面世时间。因此,除了电子产品和保险丝生产开发外,您还将阅读到关于 MTA 巴西和 MTA 中国的资讯。

关于产品,您将阅读涉及汽车、卡车和越野行业主机厂的有趣案例研究:适用于 Dacia Duster 的全新机电单元(使我们与雷诺的合作伙伴关系迈上新台阶),以及专为曼恩拉丁美洲公司开发的机电单元,此外还有适用于 Zetor、MST 和爱科的板载仪表盘。除了根据特定需求而与一些主机厂合作制作的定制电子和机电组件外,我们的研发部门还为不同类型车辆和寻求现货供应产品的客户提供内部研发的市场组件。

祝您阅读愉快!

Maria Vittoria Falchetti mv.falchetti@mta.it

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MTA China An increasingly structured site

MTA 中国 结构日益优化的分公司







Our site in China is constantly growing, founded just four years ago as a sales office and quickly transformed into a production center for electromechanical components for important OEMs. Despite 2017, after 15 unstoppable years of double-digit increases, annual sales of new vehicles have grown "only" 3% in the country; we are still talking about 30 million registrations! A definitely interesting market for OE, which our company is managing in an increasingly strategic way.

For the two-year period 2018-2019 we have planned significant investments in MTA China with the dual objective of consolidating the well-established relationships with global OEMs, and also approaching local manufacturers, increasingly structured and determined to broaden their horizons beyond the national borders. How? Proposing our current portfolio and, at the same time, designing and producing dedicated products.

The construction of a laboratory here serves precisely this purpose, given that already in its first phase of implementation the structure will be able to validate the locally produced parts, accelerating their development. The second phase of the laboratory, scheduled for 2019, involves the purchase of control instruments for projects developed directly in China, supported also by a new R&D center. New developments also in production, where, next to the building used for the assembly of electromechanical products, a large area for molding plastic components will be inaugurated, which at maximum capacity will have about 20 presses between 200 t and 500 t each, ensuring a time-to-market that is even more effective.

我们的中国分部于四年前成立, 当时仅仅作为销售办事处, 现已不断壮大, 迅速转型为机电组件生产中心,为重要 主机厂提供产品。经过 15 年势不可挡的两位数增长之后,尽管去年中国新车的年销售量"仅"增长 3%,但仍 有 3000 万的登记量! 中国绝对是一个引人关注的 OE 市场,为此,我们公 司正以越来越具战略性的方式进行管理。

对于 2018 至 2019 的两年期,我们计划对 MTA 中国进行大幅投资,着重 达成两个目标: 巩固与全球 OEM 的稳定关系, 同时与结构日益优化并决心 将业务扩大到国外的当地生产商进行接洽。如何实现目标? 推荐我们目前的 产品组合,同时设计并生产专用产品。

为此,我们专门在此建造了实验室,实验室已经进入第一个实施阶段,将 负责验证当地生产的配件,从而加速配件开发。实验室的第二阶段预定于 2019 年完成, 涉及为在中国直接开发的项目购买控制仪器, 同时全新的研 发中心也会为此提供支持。生产部门也将进行新的开发,在用于组装机电产 品的车间旁边,将启动大型塑料组件成型加工区,在最大产能水平下,该区 域将配备 20 台 200 吨至 500 吨之间的注塑机,以确保更加有效的产品上



MTA Brasil Always more customer-oriented

MTA 巴西 日趋以客户为导向











Twenty-three years after its founding, MTA Brasil - the group's first foreign site out of the existing 8 - has presented itself to the market with a significant growth in production capacity, a renewed look and a considerable increase in turnover.

This site, certified ISO 14001 and IATF 16949, was recently equipped with a molding department: 7 presses between 80 and 300 tons, in production 7 days a week, 24 hours a day are already operational, and others will follow in the near future. Four teams of specialized professionals alternate in the department where there also is a process quality technician.

The possibility of molding in the plant will offer significant advantages to the customer thanks to the increase in production capacity and an improvement in the time-to-market.

With this in mind, we have increased our storage capacity thanks to an agreement with an important local logistics operator that has made an organized and structured external warehouse available to us, making it possible to deliver goods directly to the customer.

In parallel, in recent years great attention has been paid to the modernization of the production department, where components are assembled for some of the most important vehicle manufacturers in the Latin American market, which see in MTA Brasil a well-established and reliable partner.

We would like to remind you that in this location there is a metrological laboratory for the control of incoming materials of suppliers and outgoing products for customers, along with a modern Research and Development department where highly skilled staff support OEMs with new products and technologies.

MTA Brasil's turnover increased significantly in 2017 compared to the previous year, confirming the choices and investments made, so much so that a further double-digit increase is forecasted for 2018.



MTA 巴西是集团现有 8 家工厂中的首家海外工厂, 在其成立 23 年后 的今天,它向市场展现出了新的活力,其生产能力显著提高,工厂面 貌焕然一新, 营业额也大幅增长。

该工厂已经过 ISO 14001 和 IATF 16949 认证,最近还增设了模具注 塑部门: 可进行全天候生产的 7 台 80 吨至 300 吨注塑机已投入运 行,其他注塑机也将在近期陆续装配。四个专业人员团队将轮流值勤 该部门,同时还将配备一名流程质量技术人员。 凭借生产能力的提升和产品上市时间的缩短,工厂的成型潜力将为客

户带来显著优势。

出于这种考虑,我们已与本地一家重要的物流运营商签订协议,让其 为我们提供井然有序、结构合理的外部仓库,以此提升我们的仓储能 力,从而向客户直接供货。

与此同时,我们最近几年非常重视生产部门的现代化改造,生产部门 主要为拉美市场的一些最为重要的汽车制造商装配组件,而这些制造 商也将 MTA 巴西视为成熟可靠的合作伙伴。

值得注意的是,我们在这一地区设有计量实验室,用于控制供应商提供的进料和向客户发送的出厂产品,另外还设有一个现代化的研发部 门, 高级技能人员将在这里为 主机厂提供新产品和新技术支持。

2017年, MTA 巴西的营业额相比前一年大幅增长, 基于所做的选择 和投资,该工厂预计将在 2018 年进一步实现两位数增长。

An innovative line assembles the MegaCompact fuses

装配 MegaCompact 保险丝的创新产线

A new automated machine for assembling MegaCompact, our exclusive range of bolt-down fuses with currents between 80 A and 300 A (plus a "custom" version called CAL.5), is now active at the Codogno facility. It is a production line of the latest generation designed by our technical department, whose distinguishing features are the assembly speed, the traceability of the piece with laser marking and the high number of quality controls carried out by cameras in every production phase, like checking the colors and markings using OCR analysis (Optical Character Recognition) and the integrity of the shell.

Two checks are planned for the soldering operation. The first guarantees that the quantity of solder dispensed in the working area is always in compliance with the project specifications, which can vary from amperage to amperage, and that these differences are respected down to the milligram. To obtain this result, we carry out a continuous dimensional check of the solder entering the soldering station. The second check is performed by a camera and verifies that the solder is present and contained within the design limits.

The whole process is totally automatic, allowing the operator to work on the fuse only after it has been "validated" by the machine.

用于组装我们专有螺栓固定式保险丝系列 MegaCompact (电流在80A至 300 A 之间, 提供"定制"版本 CAL.5)的全新自动化机器现已在科多尼奥 工厂投入使用。这是由我们技术部门设计的最新一代生产线,其装配速度十 分突出,可通过激光打标追溯产品,能够在生产的各个阶段通过摄像头实现 大量质量控制,如通过 OCR 分析(光学字符辨识)检查颜色和标记以及外

焊接操作安排有两道检查。第一道检查确保分配给工作区的焊料量始终与项 目规格一致,而规格会随安培数不同而产生差异,这些差异预计会精确到毫 克级。为达成这种级别的结果,我们会对进入焊台的焊料进行持续的尺寸校 核。第二道检查由摄像头完成,以验证焊料处于设计限制范围内

整个过程完全自动化,操作员可以仅在保险丝经过机器"验证"后再操作。



The automatic assembly rotary table has four feeding systems for the components of the fuse: the two half-shells, the rivets and the

自动装配旋转台设有四个保险丝组件进料系 统:两个半壳、铆钉和刀片。

Independent mobile console with touchscreen and panel for line settings.

独立的移动控制台,带触屏和 生产线设置面板









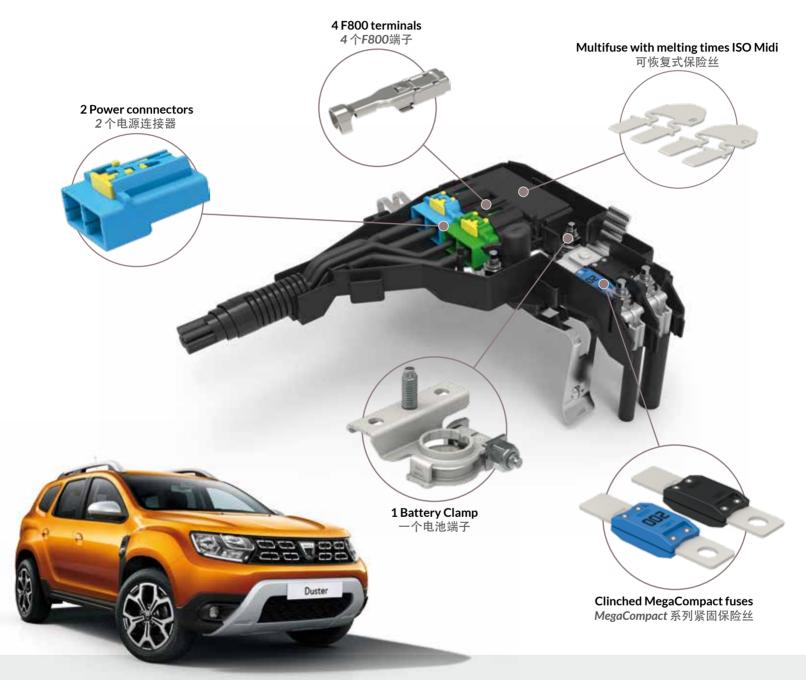
Soldering the blades . 焊接刀片

Electromechanical unit for Dacia Duster

The partnership with Renault is renewed

适用于 Dacia Duster 的机电单元

与雷诺延续合作关系



October 2017 in MTA Slovakia saw the start of production of a new electromechanical unit for the Dacia Duster, the completely renewed SUV on the market since the beginning of this year. The unit, called BFT HJD (from the project's codename), is the first to be mass produced with clinched fuses of the MegaCompact range (an MTA exclusive) and renews the long partnership between our company and Renault, active for more than 15 years.

BFT is mounted directly on the battery and is equipped with a horizontal battery terminal, also produced by us. Its cover is made with a Jump Start plug to allow easy access, in case the battery needs recharging.

The supply is completed by two new 2-way power connectors with lowered hook, mechanically polarized, and four F800 terminals.

2017 年 10 月,MTA 斯洛伐克开始为 Dacia Duster 生产全新的机电单元,Dacia Duster 是去年年初面市的一款全新 SUV。该单元名为 BFT HJD(源自该项目的代号),是首款批量生产并带有 MegaCompact 系列(MTA 专有)紧箝保险丝的单元。此举使我们公司与雷诺之间长达 15 年以上的合作关系迈上了新台阶。

BFT 直接安装在电池上,并配备同样由我们生产的水平电池端子。外罩配备跳线跨接起动插头,可在电池需要充电时为电池操作提供方便。 另外该单元还配有两个全新低钩型、机械极化双向电源连接器和四个 F800端子。

MAN Latin America A new electromechanical unit for VW Delivery

曼恩拉丁美洲公司 适用于 VW Delivery 的全新机电单元



The new Delivery family, produced by MAN Latin America, was launched last year with totally new vehicles, a line consisting of six light trucks produced in Brazil, two of which - weighing 3.5 and 4 tons - target an absolutely new market niche for the brand.

For this important project, MAN Latin America decided to rely on MTA Brasil for the supply of an electromechanical unit for power distribution and protection of the main services. Mounted directly on the battery, it is equipped with MegaVal and MidiVal bolt down fuses and made in five different configurations, depending on the tonnage and the engine configurations it is installed on. Given the possible use of the vehicles in environments subject to dust and splashing water, a sealing gasket has been placed between the unit and the cover to guarantee IP6K5 degree of protection. The supply is completed with an interface bracket with sectioning connections, which allows the connection of the wiring from the engine compartment to the passenger compartment.

曼恩拉丁美洲公司生产的新款 Delivery 系列携全新车型于去年发布,该系 列以曼恩品牌的全新市场定位为目标,包含六款在巴西生产的轻型卡车,其 中两款分别重 3.5 吨和 4 吨。

对于这一重要项目,曼恩拉丁美洲公司决定由 MTA 巴西供应用于配电和保 护主要功能的机电单元。该机电单元直接安装于电池上,配备 MegaVal 和 MidiVal 螺栓固定式保险丝,根据吨位和安装对象的引擎配置提供五种不同 的配置。鉴于车辆可能会在灰尘弥漫、水花四溅的环境中使用,该单元和外 罩之间特别安装了密封垫,以保证 IP6K5 的防护等级。该单元采用接口支 架进行分段连接,可以实现从引擎室到车厢的布线连接。



IDEAL

The custom dashboard for AGCO Corporation's new line of combine harvesters

IDEAL

适用于爱科新系列联合收割机的定制仪表盘

The new IDEAL combines of the Fendt®, Massey Ferguson® and Challenger® brands - all belonging to the American AGCO Corporation - will use a custom dashboard developed by our electronics division. The dashboard is a 3.5" TFT backlit with white LED light, and features an anti-reflection treatment that ensures maximum visibility under direct light. The dashboard has a compact size (115.6 x 115.6 x 47 mm) which makes it perfect for integration into the vehicle's armrest, and has an IP67 degree of protection suitable for use in agriculture. It is pre-loaded with a basic software developed specifically for AGCO Corporation, then implemented by the Manufacturer itself according to the different operations required for these sophisticated machines.

Thanks to the ability to shift the main monitor to the right of the operator, the dashboard allows increased visibility of the field and the cutter bar. In addition, it allows for monitoring the combine's main functions like feed rates, fuel levels, grain tank level, grain discharge speed, rotor speed and performance parameters.

全新 IDEAL 联合 Fendt®、Massey Ferguson® 和 Challenger® 品牌(均属于 爱科),将采用由我们电子部门开发的定制仪表盘。该仪表盘配备带有白色 LED 灯的 3.5 英寸 TFT 背光屏, 经过防反射处理, 可确保在直射光线下最 大程度地获得可见度。该仪表盘尺寸紧凑 (115.6 x 115.6 x 47 mm),可与车 辆扶手完美集成,具有 IP67 防护等级,适用于农业应用。仪表盘预载有专 为爱科开发的基础软件,然后由制造商自行根据这些精密机器所需的不同操 作来具体实施。凭借将主监控器转向操作员右侧的功能,该仪表盘可提升对 现场和刀杆的可视性。此外,它还可以监控联合收割机的主要功能,如:进 料速度、燃油液位、粮箱位、卸粮速度、转子速度和性能参数。



Revo Plus

A dashboard with customized software for Zetor Tractors

Revo Plus

带定制软件的仪表盘,适用于 Zetor 拖拉机



Zetor, a tractor manufacturer with over 70 years of experience, has decided to avail of the expertise of MTA by adopting one of our dashboards for its new generation of tractors Proxima and Forterra.

The Czech manufacturer has selected Revo Plus, MTA's top-of-the-line dashboard, included in the company's off-the-shelf electronic products developed in MTA Studio® - our proprietary software development environment, which allows us to make simple and quick customizations. This software has made it possible for our electronics department to develop a product tailored to the specific needs of modern Zetor machines, with a graphic layout that reflects the manufacturer's image.

Revo Plus is a complete dashboard that combines the modern look of a striking 4.3" color TFT display with several indicator lights and the more traditional analog gauges. Beside the TFT, the dashboard features an analog RPM gauge and two analog gauges, showing water temperature and fuel level. In addition, the TFT has a fixed menu displaying basic information about machine function, and a scrolling menu. The product comes complete with 32 indicator lights (turn signals, headlights, various warning lights, etc.) and 1 CAN line. Revo Plus also stands out for its high protection rating, which makes it perfect for agricultural work: IP67 for the front side and IP65 for the rear.

Zetor 是一家拥有 70 多年经验的拖拉机制造商,近期决定采用 MTA 的专业技术,将我们的一款仪表盘应用于其新一代的拖拉机 Proxima 和 Forterra。该捷克制造商已选用 MTA 的顶级仪表盘 Revo Plus,该仪表盘包含在由MTA Studio® 开发的现货供应电子产品系列中。 MTA Studio® 是我们的专有软件开发环境,可帮助我们实现简单快速的定制。凭借该软件,我们的电子部门可以针对现代 Zetor 机器的特定需求开发定制产品,提供体现制造商形象的图形布局。

Revo Plus 是一款完整的仪表盘,将外观现代出众的 4.3 英寸彩色 TFT 显示屏、多个指示灯和更为传统的模拟测量计完美结合。除了 TFT 外,仪表盘还配备一个模拟 RPM 测量计和两个用以显示水温和燃油液位的模拟测量计。此外,TFT 屏设有可显示关于机器功能基本信息的固定菜单和滚动菜单。该产品配备 32 个指示灯(转向灯、头灯、各种警示灯等)和 1 根 CAN 线。Revo Plus 的防护等级同样出类拔萃,因而成为农业工作的完美之选:前部 IP67,后部 IP65。

Revo Plus for MST Group

适用于MST集团的Revo Plus仪表盘

Our MTA Studio® software for the personalization of displays, dashboards and control units and the presence of dedicated customer support have conquered the attention of the important Turkish MST group operating in the industrial, agricultural and construction sectors. In fact, we were able to win an important order for the supply of our Revo Plus dashboard for a backhoe loader, thanks to the exceptional configurability of this electronic device and the ability to support the customer with an on-site technical sales team.

In fact, for years now, in addition to the constantly increasing foreign sites to be next to the OEMs where they produce, we have also created technical and commercial offices with skilled people who assist customers locally in many other countries. In the case of MST, the support was on several levels in all phases of product development, starting from the identification of the optimal dashboard for the backhoe loader within our shelf offer. Our staff also followed the client in the graphic design of the dial plate printing and in the configuration of the picture and the telltales. The contribution to the use of the MTA Studio® software tool and the subsequent programming of this device by the MST staff, with hours of dedicated training, was also decisive.

我们的 MTA Studio[®] 软件可实现显示画面、仪表盘和控制单元的个性 化配置, 为客户提供量身定制的支持服务, 该软件已获得涉足工业、 农业和建筑业领域的土耳其 MST 集团的关注。事实上,我们能够为 用于反铲挖土机的 Revo Plus 仪表盘赢得十分重要的供应订单,也有 赖于此电子设备的卓越配置功能以及现场技术销售团队为客户提供支

事实上,除了多年来不断在主机厂的生产地区附近增设海外工厂外, 我们还在很多其他国家/地区创办了技术和商业办事处,配备技能娴 熟的人才为当地客户提供帮助。对于 MST, 我们以在现有产品中为 挖掘机找到最佳仪表盘为起点,为其产品开发的所有阶段提供了多 个层面的支持。我们员工还在表盘印刷的图形设计和图片与指示器 的配置方面遵循客户要求。经过数小时专门培训的 MST 员工对 MTA Studio® 软件工具的使用以及对此设备的后续编程也起到了决定性作





THE REVO PLUS DASHBOARD FOR THE MST BRAND BACKHOE LOADER

适用于 MST 品牌反铲装载机的 Revo Plus仪表盘

4,3" Color TFT

3 analog GAUGES

Production Degree: IP67 front, IP65 rear

2 CAN lines

4.3 英寸 TFT 彩色屏

3 个模拟测量计

防护等级: IP66(前部),

2根 CAN 线

The "Smart" dashboard

«Smart» 仪表盘

A dashboard with square and modern lines, the latest in our range of off-the-shelf electronic products, customizable with MTA Studio® software. Its name is Smart and it is suggested for motorcycle or light vehicles applications. It reminds the latest generation of smartphones with which it can interface via Bluetooth.

Smart is a compact instrument (162 x 97 x 41.3 mm) that stands out for its 4.3" color TFT screen, featuring 10 indicators for turn signals, lights,

Smart's hardware heart is a powerful microcontroller that supports 2.5D graphics which allow it to display images with a certain detail and depth. The Smart TFT features sophisticated production technology that ensures the visibility of the dashboard in every condition of sunlight, even intense. In addition, the TFT cover glass is glued to the display using optical bonding, which prevents the fog effect and the contamination with dust or other dirtiness. Finally, the technical solutions adopted ensure an IP67 degree of protection, confirming its outdoor spirit.

As with all products developed with MTA Studio®, customers have ample space to customize the dashboard, developing software specific to the unique technical peculiarities of the vehicle and aligning the screen-printed graphics of the cover glass and the indicators with the image of the brand.

该仪表盘一款具有现代线条的方形仪表盘,是我们现货供应电子产品系列的最新款,通过 MTA Studio[®] 软件定制而成。产品取名为 Smart,适用于摩托车或轻型车辆应用。Smart 可以通过蓝牙连接最新一代智能手机。 Smart 是一款紧凑型仪器 (162 x 97 x 41.3 mm),配备出众的 4.3 英寸彩色

TFT 屏,10 个转向信号、灯光、燃料等指示灯。
Smart 的硬件核心是其强大的微控制器,支持 2.5D 图形,因此可显示具有一定细节和深度的图像。Smart TFT 采用精密的生产技术,确保仪表板在任何日光条件下的可视性,即使是在强光下也不受影响。此外,TFT 保护玻璃采用光学粘合技术粘合于显示屏,可防止雾化效果和灰尘或其他脏物污染。最大,依 外工作。

和所有 MTA Studio® 开发的产品一样,客户有充足的空间对仪表盘进行定制,可针对车辆的独特技术特性开发软件,还可使保护玻璃和指示灯的丝网印刷图形符合品牌形象。

THE SMARTPHONE CAN **BE CONNECTED TO** THE DASHBOARD USING **BLUETOOTH LOW ENERGY (BLE)**

Incoming cal

Notifications from social networks, SMS and e-mails

Send turn-by-turn







MTA Core, Speedy Creator, Studio and Gate New software developments

MTA Core, Speedy Creator, Studio 和 Gate 新软件开发

In 2017 the development team of our electronics division completed an important project that led to the creation of a standardized software platform that today we use as a starting point for all control devices, as well as for our displays and dashboards. Its name is MTA Core and it offers us the possibility to quickly and robustly create whatever the customer requests starting from a proven platform, to then be adapted and configured according to the various applications' specific needs. In fact, MTA Core is an embedded software library containing general-purpose logics and functions and an engine that manages all the typical states of an automotive application. In addition, user configuration of MTA Core is possible thanks to MTA Studio®, our software tool developed for the Windows environment that allows the simple customization of dashboards, displays and units even by those who are less expert. MTA Core therefore represents a new way of working that generates positive effects on the timing and quality of software development, effects that have already benefited recent off-the-shelf products of the MTA Studio® range.

In parallel, the electronics division has also adopted the Android Studio development environment, an open source platform used for displays and panels with very complex graphics. In this case a plug-in was created called MTA Speedy Creator, an integrated working environment that facilitates and optimizes the development of advanced interfaces and logics.

The configurability of devices developed with both MTA Studio® and Android Studio has greatly improved thanks to the introduction of the new MTA Gate PC tool, a simple interface for designers, but also for dealers and maintenance technicians for the vehicles our electronic devices are mounted on. This allows software updates and the quick and safe configuration of certain vehicle parameters like language and wheel diameter.

2017 年我们的电子部门开发团队完成了一项重要项目,即创建标准化软件平台,现在该平台已成为所有控制设备和我们车载显示屏和面板的设计起点。该项目名为 MTA Core,它可以帮助我们通过一个经过验证平台快速、稳健地创建客户所要求的一切,然后根据不同应用的特定需求进行调整和配置。事实上,MTA Core 是一个嵌入式软件库,包含通用逻辑和功能以及可管理汽车应用所有典型状态的引擎。此外,MTA Core 的用户配置还可通过MTA Studio®实现,而 MTA Studio 是我们针对 Windows 环境开发的软件工具,借助该工具,不具备专业资质的人员也可完成对面板、显示屏和设备的简单定制。因此,MTA Core代表着一种新的工作方式,可对软件开发的时间和质量产生积极影响,MTA Studio®系列最近的现货供应产品已经从这些影响中受益。

同时,电子部门还采用了 Android Studio 开发环境,该开发环境是一个开源平台,主要用于图形非常复杂的显示屏和面板。在此案例中,还创建了名为 MTA Speedy Creator的插件程序,这是一种集成式工作环境,可促进和优化高级界面和逻辑的开发。

推出全新的 MTA GatePC 工具(一种面向设计师的简单界面,也适用于安装有我们电子设备的车辆的经销商和维修技术人员)后,通过 MTA Studio®和 Android Studio 开发的设备的可配置性得到大幅改善。因此,能够实现软件更新,还支持某些车辆参数(如语言和轮径)的快速安全配置。











MTASTUDIO



MTAGATE





MTA laboratory continues to expand:

new test benches

MTA 实验室持续扩张:

In order to equip our laboratory with the most modern equipment, we have recently introduced new Automatic Test Equipment systems, general purpose benches that incorporate all the instruments for testing the electromechanical units in a single machine. These new systems find their natural use in life test reliability, in tests to failure or in any case in combined environmental tests where, in a single test, the samples are subjected to electrical, climatic and vibrational stresses. Machine control is centralized; there is a single, integrated log and diagnostic file and at any time of the test it is possible to export the data for processing, without interrupting execution.

Finally, for maximum safety, for each measured quantity it is possible to set alarm thresholds associated with different actions, from simple warnings to the test engineer to the suspension or complete stoppage of the test.

为给我们的实验室配备最现代的设备,我们最近引入了新的自动测试设备系统,这些通用型测试台会将用于测试机电单元的所有仪器整合到一台单一机器中。这些新系统可提高寿命测试可靠性,还可进行故障前测试或任何综合环境中的测试(即在单一测试中,样品会受到电气、气候和振动压力的影响)。机器控制为集中控制,提供单一、集成日志和诊断文件,在测试的任何阶段,都可以导出数据,以进行处理,而无需不中断操作。最后,为最大程度地保证安全,对于每种测定量,都可以设置与不同操作关联的报警阈值,从面向测试工程师的简单警告到暂停或完全停止测试。





IATF Standard for the whole Group 整个集团采用IATF标准



MTA began the transition process to update its quality system according to the IATF 16949:2016 Standard for all its sites, in January 2018 obtaining the certification for the Italian plant in Rolo (MTA Mexico was the first site of the Group to directly obtain IATF 16949 certification in October 2017). By January 2019, the date scheduled for the Moroccan site, the whole Group will be certified.

IATF is the standard established by the International Automotive Task Force which has redefined the quality management system requirements for automotive organizations. It is based on the structure of ISO9001:2015, now incorporating numerous "customer" requirements, which have been consolidated over the past 15 years of existence of ISO/TS 16949 (implemented in MTA in 2002).

MTA 开启过渡流程,根据 IATF 16949:2016 标准为其所有工厂更新质量系统,其位于罗洛 的意大利工厂已于 2018 年 1 月获得认证(MTA 墨西哥已于 2017 年 10 月直接获得 IATF 16949 认证,成为集团首个获得认证的工厂)。2019年1月是摩洛哥工厂的预定认证日 期,届时整个集团均将获得认证。

IATF 是国际汽车推动小组 (International Automotive Task Force) 建立的标准,该标准重新 定义了汽车企业的质量管理系统要求。该标准基于 ISO9001:2015 结构, 而该结构现在已整 合大量"客户"要求,在 ISO/TS 16949 (2002 年在 MTA 实行)过去存在的 15 年时间里 不断得到巩固。

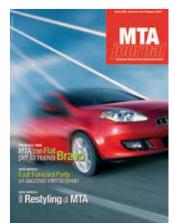
Rolo plant Increasingly performing

罗洛工厂 日益高效

For the Rolo plant, 2018 represents the year of completion of the plan to adapt the SMT lines for assembly of the boards, a distinctive part of our electronics production. During the threeyear period 2016-2018 some latest generation pick & place machines were introduced, the post-reflow optical inspection systems (AOI) updated with the adaptation of all lines to the three-dimensional control standard, new screen printing machines added, the remelting ovens replaced with 12-zone lead-free ovens with very low nitrogen consumption. The technological supremacy achieved with the purchase of the fourth SMT line thus becomes the standard that distinguishes MTA's entire production, for the benefit of even greater quality and reliability of our electronic products.

对于罗洛工厂而言, 2018 是代表完成调整 SMT 产线计划的一年, 该产线可用于实现电路 板组装,是我们电子生产的一个特别部分。在 2016 至 2018 的三年时间里,该工厂引入 了一些最新一代取放机器,在根据三维控制标准调整所有产线后,还对回流光学检测系统 (AOI) 进行了更新,新增丝网印刷机,并以氮消耗量非常低的 12 区无铅烘炉取代重熔炉。 该工厂还购买了第四条 SMT 生产线,实现了卓越的技术优势,使其成为 MTA 整体生产从 行业中脱颖而出的标准,提高了我们电子产品的质量和可靠性。





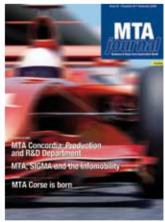




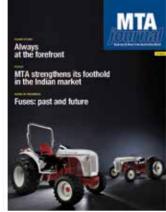










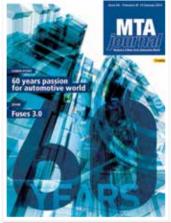






















An automotive success story

