#### **INOSSIDABILE 196**

#### June 2014 Quarterly



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For more detailed information please contact directly the names indicated at the end of each notification

#### **COVER/PAGES 3/4**

# BUSES: NEW "DRESSES" ON NEW STRUCTURES

#### (Autobus: nuovi "vestiti" su nuove strutture)

A new range of buses, called "Citymood", was recently launched in the market. It consists of a line of 10.5, 12, and 18 mt. long, 2,550 mm. wide, diesel-driven or methane-fuelled (CNG) vehicles, equipped with Euro 6 engines. Using the same equipment and design, the frame of this line of buses can be made either of carbon steel or EN.1.4403 stainless steel. The production with this ferritic steel grade meets a specific market requirement for car frames "for life". The use of stainless steel in the production of the frame, represents indeed an improvement in terms of durability, safety, and dynamic comfort, as well as in terms of fuel consumption and carrying capacity. In addition, stainless steel allows to considerably limit the usual metal protection and coating cycles.

This new range of buses is produced in compliance with Euro 6, the latest regulation concerning diesel and gas engine emissions enforced by the European Commission.

**Production and project:** BredaMenarinibus S.p.A. – Via San Donato 190 – I-40127 Bologna, phone +39 051 6372111, fax +39 051 501830, bredamenarinibus@bredamenarinibus.it, www. bredamenarinibus.it

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#### QUALITY AND PRECISION ENSURED BY STAINLESS STEEL BOTTLING MACHINES (Qualità e precisione garantite dalle macchine imbottigliatrici in acciaio inossidabile)

The company mentioned in this article recently introduced a great innovation: an electro-pneumatic filling valve, which is the first one that can be used both for sparkling and still wines. Stainless steel represents more than 50% of the total value of each built-in unit produced in the plants of the manufacturing company. This material was chosen due to its unique characteristics of strength, reliability, performance, gloss and hygiene, and also to comply with the current regulations in force for food. As regards the parts that come directly into contact with the bottled fluids, the choice fell on EN 1.4401 (AISI 316) stainless steel, due to its characteristics of absolute reliability. The flat surfaces of the plant (support platform and paneling) are made of EN 1.4301 (AISI 304) either hot-rolled or cold-rolled (depending on thickness) stainless steel sheets, while the rounded parts are made of EN 1.4301 and EN 1.4305 (AISI 303).

**Production and project:** GAI – Fraz. Cappelli 33 b – I-12040 Ceresole Alba CN, phone +39 0172 574416, fax +39 0172 574088, gai@gai-it.com, www.gai-it.com

*Stainless steel produced by:* Aperam Stainless Services & Solutions Italy S.r.l. – Divisione Massalengo – Loc. Priora – I-26815 Massalengo LO, phone +39 0371 49041, fax +39 0371 490475, www.aperam.com PAGES 6-7

#### FROM OUR MEMBERS RODACCIAI RODACCIAI AND NOVACCIAI: SYNERGY AND MARKET LEADERSHIP

### (Rodacciai e Novacciai: sinergia e leadership sul mercato)

If Rodacciai is traditionally known for its production of drawn, peeled and ground bars, and its production of free-cutting and special carbon steels, thanks to the recent entry (2012) of the company Novacciai S.p.A., based in Piedmont, the core business of the Group has been now integrated and completed by the production of cold-rolled alloy and stainless steels, especially in large formats. Novacciai provides the Group with an added value that can be summarized into three main elements: extension of the production range of peeled and ground bars upgraded from 100 up to 200 mm. diameter; greater presence of alloy steels (which represent a strategic product in the development of Rodacciai), and increase in foreign market shares. The production lines include coil-to-bar and bar-to-bar peeling machines, centreless grinders, coilers, bar-to-bar drawing plants, chamferers, and automatic cutting equipment; all these lines are equipped with state-ofthe-art product monitoring and control systems. One of the most tangible results of the synergy between Rodacciai and Novacciai consists in the opening of new market outlets in foreign countries (as, for example, in the Far East), which require large size bars with extremely sophisticated surface finishing. **RODACCIAI S.p.A.** 

*Head Office:* Via G. Leopardi 1 – Bosisio Parini LC, phone +39 031 878311, fax +39 031 878312, info@rodacciai.com

#### **PAGES 8-9**

#### ADVANCED THEORETICAL-PRACTICAL COURSE ON CORROSION – SECOND EDITION

#### (Corso teorico-pratico avanzato sulla corrosione -Seconda edizione)

On February 12, 13, 19, and 20, 2014, in partnership with PoliLaPP - Laboratorio di Corrosione dei Materiali "Pietro Pedeferri" - Politecnico di Milano - Dipartimento di Chimica, Materiali e Ingegneria Chimica "G. Natta" (the laboratory on material corrosion of the department of Chemistry, Material and Chemical Engineering of the Polytechnic Institute of Milan), the second edition of the course on corrosion was successfully held. The formula of this course is something absolutely new in this field. First of all, this course is exclusively focused on stainless steels and on the alloys that are strictly related to them (as, for example, nickel alloys). Secondly, because the course is based also on an intense practical laboratory activity, which usually is quite often overlooked by theoretical courses. In addition, the synergy developed by combining theoretical lessons with practical laboratory tests, succeeded in further increasing the interest aroused among all participants (technicians, engineers), who had the opportunity to immediately put the learned theoretical concepts into practice, and become therefore more involved. Thanks to his/ her direct involvement, each participant had the opportunity to better bear all notions in mind. At the end of the course, all participants received, along with a certificate of attendance, a set of specific technical papers. Through this innovative formula, "education", in the sense of "making culture", becomes a winning element at all levels for the technical staff, for the personnel in charge of sales and marketing, and for all those who deal with quality issues.

#### **PAGES 10 – 11**

#### 470LI STAINLESS STEEL: AN EXCELLENT PARTNER FOR HEAT-EXCHANGER TUBES (L'acciaio inox 470LI ottimo alleato dei tubi per scambiatori di calore)

This company can boast thirty years of experience in the production of high-performance welded tubes. The company is a qualified supplier of several market segments, such as the petrochemical, heat exchanger, automotive, pharmaceutical, and food industries. Among the different materials used to produce tubes, the company makes also use of stainless steel. In a recent project, the company produced TIG welded, 52x1.2 mm Ø, 470LI stainless steel tubes for the production of air-to-air heat exchangers to be used in industrial furnaces. The 470LI superferritic grade combines the typical excellent thermal conductivity of superferritic stainless steels with very high corrosion resistance properties, which can be compared, and in many cases can even exceed, those of a 316L austenitic stainless steel grade. In addition, this material ensures more stable prices, since its chemical composition does not include any material of a volatile market value, among which nickel.

*Manufacturing company:* Nuova HPT – Via Giovanni Boselli 7 – I-29015 Castel San Giovanni PC, phone +39 0523 849610, fax +39 0523 842696, info@nuovahpt.it, www.nuovahpt.it

*Stainless steel produced by:* Acciai Speciali Terni S.p.A. – Viale B. Brin, 218 – I-05100 Terni TR, phone +39 0744 490282, fax +39 0744 490907, marketing.ast@acciaiterni.it, www.acciaiterni.it

#### SAFER ROOFS AND ATTICS BY USING STAINLESS STEEL FLUES AND CHIMNEYS (Tetti e solai più sicuri con le canne fumarie in acciaio inossidabile)

Basing on the latest statistical data, the use of illfitting flues and chimneys is the main cause of 70% of the 10,000 fires that occur in the roofs every year in Italy. The company mentioned in this article studied a specific and safe solution, which prevents fires from spreading to flammable materials: the "G zero no ventilation" roof/attic interspace module. This product consists in an inner and an outer wall, both walls made of EN 1.4301 (AISI 304) stainless steel, an insulating element including three ceramic fibre pads, and two AISI 304 sealing plates. The structure is completed by double-wall chimney elements, formed by an EN 1.4404 (AISI 316 L) inner element, and an AISI 304 outer element, as well as by a mineral wool insulating element.

**Production and project:** Expo Inox S.p.A. – Viale Artigianato 6 – I-27020 Borgo San Siro PV, phone +39 0382 87237, fax +39 0382 87330, www. expoinox.com

#### **PAGES 12-13**

# SUNBREAKING BLADES FOR A STAINLESS STEEL PALACE

#### (Pale frangisole per un palazzo inossidabile)

For the new headquarters of Telecom in Morocco a system of motorized perforated sunbreaking blades made of EN 1.4404 (AISI 316 L) stainless steel has been used. This great architectural work is formed by glass walls, which combine two different layers: a first internal "skin" of continuous frames formed by 12,000 AISI 316 L stainless steel perforated sunbreakers, and a second external "skin" formed by glass plates coupled by structural stainless steel frames. The perforated stainless steel plates, which are submitted to a cold-punching process, ensure a considerable reduction of sun radiations in the internal environment of the building, as well as very good brightness and enlightenment levels. Thanks to its physical and mechanical characteristics, and namely its high formability and resistance to corrosion, stainless steel was chosen as an effective alternative to other materials traditionally used for the production of sunbreaking blades. This choice is even more relevant, if we consider that this project has been conceived in the light of a Life Cycle Cost (LCC) approach. Another important characteristic consists in the considerable and attractive aesthetic impact of the building.

*Manufacturing company:* Gatti Precorvi S.r.l. – Via Lombardia 1 – I-24030 Medolago BG, phone +39 035 4993311, fax +39 035 4993402, info@ gattiprecorvi.com, www.gattiprecorvi.com - www. gattiprecorviengineering.com

Stainless steel produced by: Acciai Speciali Terni S.p.A. – Viale B. Brin, 218 – I-05100 Terni TR, phone +39 0744 490282, fax +39 0744 490907, marketing.ast@acciaiterni.it, www.acciaiterni.it Main contractor: Simco Tecnocovering S.r.l., Noventa di Piave VE

#### A "TAILOR MADE" PIZZA OVEN (Un forno-pizza "su misura")

For one of his customers, a designer based in Florence manufactured a stainless steel pizza oven combined with a barbecue built on a bell-shaped fire-resistant concrete base. The stainless steel parts of the oven, the tubes, the pickled sheets, and the rods, are all made of EN 1.4301 (AISI 304), and can be easily dismantled. All welds were made through TIG welding processes. In addition, the customer required a white marble shelf and two little arches made of serene stone. The pizza oven with barbecue has all the typical characteristics of stainless steel: high resistance to corrosion and hygienic properties, which are imperative when we have to do with food. **Production and project:** Alessandro Pecchioli, Firenze, alessandropecchioli@yahoo.it

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#### FOR MEMBER AND AFFILIATED COMPANIES AGREEMENT BETWEEN CENTRO INOX AND IIS

#### (Convenzione Centro Inox/IIS)

An agreement was recently signed between our Association and IIS Progress, a member of Istituto Italiano della Saldatura, Genoa, for the purpose of granting special discounts on IIS fees to the members of Centro Inox and the affiliated companies of Centro Inox Servizi.

For additional information: www.centroinox.it - www.iis.it

# AGREEMENT BETWEEN CENTRO INOX AND SIDERWEB

#### (Convenzione Centro Inox/Siderweb)

Centro Inox/Centro Inox Servizi and Siderweb, in the light of their respective experience and competence, lately signed an agreement aimed at making available to the members of Centro Inox and the affiliated companies of Centro Inox Servizi the products and services offered by Siderweb SpA. *For additional information:* www.centroinox.it - www.siderweb.com

13<sup>TH</sup> INTERNATIONAL STAINLESS AND SPECIAL STEEL SUMMIT, SEPTEMBER 2÷4 2014, HOTEL INTERCONTINENTAL, ISTANBUL

(13<sup>TH</sup> International Stainless and Special Steel Summit, 2÷4 settembre 2014, Hotel Intercontinental, Istanbul)

The "13th International Stainless Steel Summit" will be held in Istanbul on next September 2-4, 2014. This conference is organized by Metal Bulletin Events and SMR – Steel & Metals Market Research. Centro Inox will grant its support to this event.

*For additional information:* www.metalbulletin. com/Events

#### DUPLEX SEMINAR & SUMMIT 2014, SEPTEMBER 24 -25, 2014, STRESA (VB) (Duplex Seminar & Summit 2014, 24 -25

#### settembre 2014, Stresa VB)

The Duplex Seminar & Summit will be held at Stresa (VB), at the Congress Palace on next September 24-25, 2014. This event, which is organized by Stainless Steel World, will be also sponsored by Centro Inox.

*For additional information:* www.stainless-steel-world.net/duplex2014

#### APCE

(APCE – Associazione per la Protezione dalle Corrosioni Elettrolitiche)

We wish to communicate the next events organized by APCE.

*For additional information:* APCE, phone +39 049 8209111, info@apce.it, www.apce.it

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#### STAINLESS STEEL SURFACE FINISHING. AESTHETIC PROPERTIES AND FUNCTIONALITY

Università degli Studi di Milano, Palazzo Greppi -Sala Napoleonica, Via Sant'Antonio 10, Milan **October 29, 2014** – Time: 9.00 a.m. ÷ 5.30 p.m.

(Le finiture superficiali degli inox. Estetica e funzionalità - Università degli Studi di Milano, Palazzo Greppi - Sala Napoleonica, Via Sant'Antonio 10, Milano - 29 ottobre 2014 – orario: 9.00 ÷ 17.30)

In the multi-faceted application field of stainless steels, which covers now a variety of industrial sectors (food industry, architecture and infrastructures, transport, etc.), an essential role is played by the parameters related to surface finishing. Among the most important aspects of these materials, it is necessary to mention not only their resistance to corrosion and durability, as well as their physical and mechanical characteristics and workability, but also their aesthetic properties and values, which succeed in "expressing" themselves especially in some specific areas, such as architecture and design. However, concerning some particular applications, we can note that more and more frequently, surface finishing becomes an essential parameter also from a functional point of view. Surface finishing has, actually, a considerable influence, in particular environments and climates, on triggering and bringing bout localized or general corrosion phenomena. In order to outline a complete picture capable to provide up-to-date technical and scientific information on these two apparently different but closely related aspects, the seminar intends to consider the most typical technical aspects related to the performance of these materials once they are installed, starting from an overview of some architectural applications, which show the great versatility of stainless steels from an aesthetic point of view. The seminar is focused both on the different kinds of standards finishing options complying with the European regulations, and nonstandard ones, which are increasingly used in the areas of design and building industry. Great attention will be paid to the post-processing and machining treatments (i.e. pickling, passivation, and electropolishing) that are necessary to install stainless steel elements in the best conditions. *The following issues will be closely examined: Stainless steel in architectural applications - Connection between surface finishing and resistance to corrosion -Air-pollution corrosion - Revision of EN 10088-*

2 European standard - Stainless steel colouring - Pickling, passivation and electro-polishing processes - Stainless steel sheet micro-perforation for aesthetical purposes. The final agenda of the seminar will be published on the September issue of "Inossidabile", and on our website.

## During the event there will be some exhibition stands of companies in the sector

*For additional information:* Centro Inox – Phone +39 02 86450559 – + 39 02 86450569, fax + 39 02 860986 – eventi@centroinox.it - www.centroinox.it

#### CONFERENCE ON WELDING AND PRACTICAL SECTION – MILAN, NOVEMBER 12, 2014

#### (Convegno sulla saldatura con parte pratica – Milano, 12 novembre 2014)

In partnership with Istituto Italiano della Saldatura, Centro Inox will organize a conference focused on stainless steel welding processes. On November 19 and 26, as a follow up of the conference, some practical tests will be performed at the laboratories of IIS in Genoa.

For additional information: www.centroinox.it - www.iis.it

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# THE ART OF RECYCLING A COMPLETELY RECYCLABLE MATERIAL

# (L'arte di riciclare un materiale completamente riciclabile)

Among the main characteristics of stainless steels, we can include their complete recyclability. Stainless steels do not produce any environmental pollution at the end their lifecycle, and are destined to become scrap metal. A company based in the province of Brescia, developed the idea to recycle the waste and the surplus resulting from stainless steel production processes, and opened a special division called "Inoxeart". In this division, the processing waste of EN 1.4301 (AISI 304) stainless steel is reused to create minimalistic objects characterized by a clean, smooth and essential design inspiring to the simplest geometrical shapes. These objects are ennobled by the typical characteristics of the material they originate from: solidity and robustness, along with resistance to corrosion, and particularly, corrosion produced by atmospheric agents. These objects enclose functionality, strength, and cost effectiveness within the stainless steel recycling chain, and therefore, respect for the environment that surrounds them.

*Manufacturing company:* Inoxeart – Divisione di Inoxea s.r.l. – Via Conicchio 18 – I-25136 Brescia – phone +39 030 2003577, fax +39 030 2006207, info@inoxeart.com, www.inoxeart.com

#### **CENTRO INOX**

The Italian Stainless Steel Development Association



Piazza Velasca, 10 - 20122 Milano - Italy Telephone +39 02 86450559 - +39 02 86450569 Fax +39 02 860986

redazione.inossidabile@centroinox.it www.centroinox.it

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