

INOSSIDABILE

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Summary

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

COVER/PAGES 3/4

THE SOUL OF THE CITY (L'anima della città)

"L'Anima della Città" (*The Soul of the City*) is a sculptural project offered to the city of Cremona: an 8 m high stainless steel violin positioned in the area overlooking the square of the railway station of Cremona, which was unveiled on October 8, 2016. A permanent installation made of a material - stainless steel - which combines undisputed characteristics of strength and durability with an extremely high aesthetic value and environmental sustainability. This monument has been entirely made of EN 1.4401 (AISI 316) stainless steel, Oro Lucido and Super Mirror. The internal structure is formed by elements obtained from 30 mm thick stainless steel plates, cut to the required shape through a submerged plasma cutting process. The soundboard is lined by electro-coloured sheets, which in turn have been shaped and fastened to the substructure, from which the other elements of this work depart. These elements have been made of micro-welded and subsequently formed and hand-polished parts. The electro-colouring process chemically increases the thickness of the chromium oxide layer, which transfers to stainless steel its corrosion resistance. In addition, electro-coloured stainless steels have a considerable durability over time even if they are exposed to adverse environmental conditions. This work is capable to detect visitors' presence through some sensors located in the neighbouring areas, and diffuse a melody through loudspeakers installed inside the sculpture. **Manufacturing, construction, electro-colouring, and installation:** Steel Color Spa - Via per Pieve Terzagni 15 - I-26033 Pescarolo ed Uniti CR, phone +39 0372 834311, fax +39 0372 834015, www.steelcolor.com / **Project:** Arch. Giorgio Palù / **Pictures:** Mattia Aquila

PAGE 5

AN ALL-ITALIAN TASTE TRADITION (Una tradizione dal gusto tutto italiano)

The domestic ovens described in this article have been made of stainless steel. In particular, the oven is formed by a combustion chamber entirely made of 441 (EN 1.4509) stainless steel sheets, and by a cooktop made of refractory tiles. The stainless steel used in the combustion chamber has the function to "reflect" and transfer the heat to the food, and control the combustion keeping the hygienic conditions required for cooking. The traditional refractory dome has been replaced by an insulated stainless steel dome, which allows reaching high temperatures in a short time (350 °C in 15 minutes). The oven has an external satin finish, while the combustion chamber has a polished finish.

Manufacturing company: Alfa Refrattari Srl - Via Osteria della Fontana 63 - I-03012 Anagni FR, phone +39 0755 7821, www.alfapizza.it

PAGES 6-7

FROM OUR MEMBERS ACCIAIERIE VALBRUNA

Acciaierie Valbruna, established in 1925, is a private company with a workforce of about 2,500 persons and a total yearly production of 200,000 tons

of special steels. The production cycles, focused on stainless steels, nickel and titanium alloys, are carried out in three production plants: Vicenza and Bolzano in Italy, Fort Wayne - IN in the United States. Valbruna offers a wide and diversified range of over 700 types of special steels, i.e. austenitic, martensitic, ferritic, precipitation-hardening, duplex and superduplex stainless steels, nickel-copper, nickel-chromium, iron-nickel-chromium alloys, titanium and related alloys. The **product range** includes: blooms and billets (hot rolled and forged), ingots (round, square, polygonal with 8 and 16 sides), ESR & VAR remelted ingots, round bars (hot rolled, cold drawn, peeled, peeled and rolled, ground, forged), rebar, hexagonal bars (hot rolled and cold drawn), flat bars (hot rolled, cold drawn and forged), square bars (hot rolled, cold drawn and forged), angles (hot rolled), wire rod (hot rolled), and wire (cold drawn). In addition, Valbruna offers chrome-plated stainless steel bars and threaded stainless steel bars. For specific applications, as those developed for the automotive industry, the naval industry (**Marinox®** and **Aquashaff®**), for the building and construction industry (**Reval®**), the aerospace industry (**Aeroval®**), the energy industry, the chemical and petro-chemical industry, and the medical industry (**BIOVAL®**), Valbruna is in a position to develop "customized" products capable to meet all particular customers' requirements. The **Maxival®** brand identifies a group of steels offering high productivity levels in mechanical chip removal processes, associated with mechanical characteristics and a corrosion resistance that are substantially the same as those of other products obtained through traditional processes. The **Magival®** brand identifies a group of ferritic stainless steels with a high workability level, which have been developed for magnetic applications requiring high magnetic permeability, low coercive force, and excellent workability. In addition, Valbruna can offer **Iron-Silicon alloys**, which are generally used for applications requiring greater levels of electrical resistivity and extremely high permeability, as well as a lower coercive force than carbon steels and Magival® stainless steels. Valbruna ensures a widespread commercial presence and a continuous feedback to customers. The definition and management of the Corporate Quality System, ensured by the ISO 9001, AS 9100, ISO/TS 16949 certification, involves the organization of all corporate processes. In 2015 Acciaierie Valbruna has received the ISO 14001 (Environmental management systems) approval for Bolzano and Vicenza plants.

ACCIAIERIE VALBRUNA S.P.A. - Viale della Scienza 25 - I-36100 Vicenza - phone +39 0444 968211, fax +39 0444 963836, www.acciaierie-valbruna.com

PAGES 8-9

CUSTOM DUTIES AND ANTI-DUMPING MEASURES: THE SITUATION IN EUROPE (Dazi e antidumping: la situazione europea)

In the event organized by Centro Inox, in collaboration with Federacciai, on October, 27, we have taken the opportunity to clarify the concept of dumping and present the updated framework of trade defense instruments currently in force both on imports in the EU and on its exports. Focusing on the stainless steel products and the European market, in 2015 Algeria has been the main market (net exports) of EU exports, followed by USA, while the main competitor

(net imports) on European market was India, followed by China (**Pict. 1**). The anti-dumping is one of three trade defense instruments provided by the World Trade Organisation (WTO), in particular: 1) **Sheer Anti-Dumping measures**, i.e. regulations that have been introduced in order to re-establish fair trade rules in case of exports at lower prices than those listed in the domestic market. 2) **Anti-subsidy measures**: an instrument aimed at establishing fair trade rules in presence of state subsidies. 3) **Protection measures**: introduced in case of a sudden heavy increase in imports. These measures are usually introduced to make a plurality of countries benefit from them (i.e. "erga omnes"). It should be noted that EU has not introduced protection measures. **DUMPING** - According to art. 2.1 ADA (Agreement on Implementation of Article VI of the GATT), a product is to be considered as being dumped, i.e. introduced into the commerce of another country at less than its normal value, if the export price of the product exported from one country to another is less than the comparable price, in the ordinary course of trade, for the like product when destined for consumption in the exporting country (**Pict. 2**).

The EU law in this connection, inspired by Regulation 1225/2009, is based on the four following main principles: 1) **The dumping margin**, which indicates the amount the normal value of which exceeds the export price. 2) **The prejudice** in terms of the damage caused to the existing communitarian industry or in the creation of it. 3) **The causality connection** in which the prejudice is evaluated basing on the "imports volume" subject to dumping and on their effect on the prices of similar products made in the EU, as well as the "incidence" (or impact) of these imports on the EU industry. 4) **The interest of EU** to be intended in terms of manufacturing industry, users, and end consumers. According to Regulation 1225/2009 the anti-dumping procedures can last up to 15 months and consists of two phases (**Pict. 3**): provisional and final. Both in the preliminary phase and in the final phase of the anti-dumping duties shall be determined according to the application of the Lesser Duty Rule: the DUTY is defined as the MINIMUM between the margin of dumping and the margin of injury supported by the European industry. If we consider for example CHINA, we can make reference to the diagram in **Pict. 4**. The anti-dumping and anti-subsidy procedures carried out by the EU (28) are 39 in total, 11 of which concern iron and steel products (4 concerning stainless steel). The details are shown in the table in **Pict. 5**. The final measures in force in the EU (28) are 18 in total, 4 of which refer to stainless steel, as reported in the table of **Pict. 6**. Finally, the procedures opened by third countries on EU exports are reported in **Pict. 7**.

Excerpt from the report made by Daniela Floro (Ufficio Studi Federacciai) during the conference "Problems and items related to import and export of stainless steel mill's finished products" - Milan, October 27, 2016, organized by Centro Inox with the support of Federacciai.

PAGES 10-11

QUALITY AND FUNCTIONALITY IN TOTAL RELAX (Qualità e funzionalità in completo relax)

A magnificent terrace overlooking the sea was sub-



mitted to complete restyling in the sign of stainless steel. In the place in which a typical wooden arbour had been located, an EN 1.4301 (AISI 304) stainless steel gazebo was installed, which covers a surface of about 40 sq. m. In particular, 150x150x3 mm stainless steel hollow section and 5 mm thick laser-cut stainless steel sheets were used.

The ancillary equipment, such as mounting brackets, supports, etc. are also made of AISI 304 stainless steel. For the night lighting, the choice fell on recessed LED lamps with polished AISI 316 stainless steel external trims. An open-air lunch area was created next to the gazebo, in which a real open kitchen completely made of AISI 304 stainless steel and provided with sink, cooktop, and barbecue was installed. The bearing structure consists of 60x60x3 mm panels. The external panels, too, are made of 1.5 mm thick AISI 304. As regards the stainless steel finish, the choice fell on a Scotch-Brite, subsequently electro-polished. The salty atmosphere of the spot required the use of a material capable of ensuring high durability over time in aggressive environments, reduced maintenance costs, and an appearance of great aesthetical impact.

Manufacturing company: Ocim Srl – Eng. Roberto Brambilla – www.ocim.net / **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, leonardo.frosali@aperam.com, www.aperam.com

A STATE-OF-THE-ART ANTIBACTERIAL COATING

(Un rivestimento antibatterico di ultima generazione) ABACO is an antibacterial coating that combines the advantages of strength, durability and beauty of PVD (Physical Vapour Deposition) with an assured nanotechnology providing exceptional antibacterial properties. It is able not only to completely inhibit the growth of bacteria but also to eliminate them, guaranteeing a durable and perfectly hygienic surface. ABACO has therefore not only a bacteriostatic effect, but it is also bactericidal. The bacterial efficiency, certified by precise lab test, is due to the nano inclusions present in the complex architecture of the multilayer coating, which destroys the bacterial cell membrane by blocking its nutrition, thus stopping the cell division cycle. The antibacterial action continues throughout the active life of the object. This antibacterial coating can be applied on a wide range of stainless steel products, such as gastronomic containers, lids, baking pans, trays, sink bowls, basins and accessories for ice-cream shops and much more.

ABACO® coating: Mori 2A Srl – Via Pieve 2 – I-25080 Nuvolento BS, phone +39 030 6897395, fax +39 030 6897381, www.mori2a.com

PAGES 12-13

AN “INDUSTRIAL” DESIGN ARCHITECTURAL SOLUTION WITH A HIGH-TECH LOOK

(Una soluzione architettonica dal design “industriale” ma dall’aspetto high-tech)

CSK, “Centrum Spotkania Kultur” – Intercultural Encounter Centre is a multi-functional building in Lublin, Poland, provided with theatres, museums and exhibition halls, as well as several public meeting areas, and is the headquarter of the culture institution. This project originates from the idea of restoring a former theatre, the construction of which had begun in the 1960s but was never completed. The project of the casing involved the construction of a façade with a wire structure and glasses placed in scales. The façade covers an overall surface of about 900 sq. m. The anchors for the glass scales and the struts of the trusses are all made of EN 1.4305 (AISI 303), and have a total weight of about 7,000 kg divided into bars and plates, laser-cut and machined. The round-section tie rods in bars are made of AISI 303 stainless steel. In particular, 160 bars with 8 mm diameter and about 1 m length were used, along with 790 bars with 10 mm diameter and about 0.9 m length, and 330

bars with 12 mm diameter and about 1.5 m length. The wire tie rods are all made of EN 1.4301 (AISI 304). In particular, 330 tie rods with 8 mm diameter and about 3.4 m length, 170 tie rods with 10 mm diameter and about 10.3 length were used. The horizontal connections between the trusses, placed in the three central rows of struts, are made of round profile tie rods with the insertion of suitable St. Andrew’s crosses every six vertical trusses. All the glass supports, the strut elements and the tie rods were submitted to surface shot peening treatment.

Architectural project: Boleslaw Stelmach - Stelmach & Partners – ul. Ks. Jerzego Popiełuszki 28 – 20-052 Lublin, Poland, info@spba.com.pl, www.spba.com.pl / **Structural and construction project, production of the façade system:** Lilli Systems – Zona Industriale Collevaio 100 – I-06030 Giano dell’Umbria PG, info@lillisystems.com, www.lillisystems.com / **Tie rods supplier:** Garelli Srl – Via alle Vecchie Fornaci 8 – I-16154 Genova, info@garelli-inox.it, www.garelli-inox.it / **Facades installation:** Buma Factory – ul. Wadowicka 6 entrance 11 – 30-415 Cracovia, Poland, bumafactory@buma.com.pl - www.bumafactory.com.pl / **Photographs:** Maja cislo – Warsaw, Poland

PAGE 14

“GABRIELE DI CAPRIO” MEDAL (Medaglia “Gabriele Di Caprio”)

The 36th edition of the National Convention of Associazione Italiana di Metallurgia (AIM), took place, with the support of Centro Inox, in the premises of the University of Parma on September 21-23, 2016. During the opening day, several awards were given, among which the Stainless Steel Medal established in memory of Prof. Gabriele Di Caprio. The winners of this award were Renato Nemfardi, Eure Inox, and Giancarlo Stringhini, member of the Board of Arinox and Itta Inox (Arvedi Group), and member of the Board of Centro Inox as Treasurer, for having distinguished themselves for their professionalism and competence in the area of stainless steels.

Prof. Di Caprio’s commemoration through this medal was conceived by Centro Inox and AIM. The medal is made of EN 1.4404 (AISI 316L) stainless steel, drawn from a pencil sketch of the illustrator Ezio Giglioli. Through this sketch a model was first made, while the coinage was made in 2010 by the company Verres SpA, based in Verres (Aosta). The production process of this particular stainless steel medal was described on issue 182 of “Inossidabile”.

MADE IN STEEL

Fieramilano Rho, Milan – May 17 ÷ 19, 2017

From May 17 to 19, 2017, Fiera Milano (Rho, halls 22-24) will host the most important conference & exhibition in Southern Europe focused on the steel supply chain.

In the next edition, too, Made in Steel confirms its formula combining business, information, and knowledge. During the three days of the event, conferences, special events, and seminars will take place making Made in Steel the nerve centre of the international iron and steel culture.

The 2017 edition is entitled “Stronger together”, a reference to the importance a synergic and systematic work has for the future of the companies operating in the steel and iron industry.

Centro Inox will attend also this next edition with its stand and with a meeting that will take place in the morning of May 19, focused on the theme “Stainless steel in the construction and building industry and in architecture”.

Additional information: www.madeinsteel.it

PAGE 15

ESSC & DUPLEX

9th European Stainless Steel Conference – Science and Market & 5th European Duplex Stainless Steel Conference & Exhibition Bergamo, May 25 ÷ 27, 2017

The 6th European Duplex Stainless Steel Conference

& Exhibition will be jointly organized, as a single event, by AIM, (Associazione Italiana di Metallurgia). The Conference will focus on all aspects of development, production technology (hot and cold rolling, heat treatment, etc.) and corrosion of stainless steels and duplex stainless steels and address delegates with both academic and industrial backgrounds.

The event will bring together developers, manufacturers and users of stainless steel from industry and academia and will compare the present and future needs to satisfy these demands now or in the future. Short and medium term perspectives of European stainless steel flat and long products will be widely discussed during the Stainless Steel Market Outlook session. Centro Inox will support the event. The Conference language will be English.

For information: <http://www.aimnet.it/essc2017.htm>

CORROSION AND PROTECTION NATIONAL DAYS

Milan, June 28-29-30, 2017

(Giornate Nazionali Sulla Corrosione e Protezione)

The Corrosion and Protection National Days are coming back to Milan after 20 years. The event will be held on June 28-30, 2017 at the Polytechnic of Milan. Having arrived to the twelfth edition, these Days have proved over time as one of the most important events at a national level, in which the main scientific, technological and productive aspects in the field of material corrosion and protection can be discussed. During the event, the results achieved by the different work and study groups and by a number of companies operating in this area will be released.

This event is organized by AIM, Politecnico di Milano, APCE (Associazione per la Protezione dalle Corrosioni Elettrolitiche, AITIVA (Associazione Italiana Tecnici Industrie Vernici ed Affini), Centro Inox and by Nace Milano Italia Section.

In addition, Centro Inox will participate for a complete session with a meeting focused on stainless steels.

Further details on the event:

www.aimnet.it/gncorr2017.htm

PAGE 16

COMFORT, QUALITY AND HANDINESS IN A PULL-OUT FLEXIBLE HOSE

(Comfort, qualità e praticità in un flessibile pull-out)

“Docciamix” combines comfort and quality of a flexible hose for extractable taps installed in sinks, with the use handiness we are every day looking for in our kitchen. It is equipped with a patented anti-twisting connection, which prevents the flexible hose from twisting and allows it being always extremely manageable. The flexible hose is externally covered with a plait formed by nylon (grey, black or white, depending on customers’ requirements) and EN 1.4301 (AISI 304) stainless steel, or by a plait completely made of nylon. The 14 mm diameter bushings are made of stainless steel as well. The version with the stainless steel combined plait has a 10 bar operating pressure, and an operating temperature ranging from -5 °C to + 70 °C.

Manufacturing company: NPI Italia srl – Via Velleia 19 – I-20900 Monza MB, phone +39 039 204981, fax +39 039 832016, npiitalia@npiigroup.com, www.npiitalia.com

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