

INOSSIDABILE

Edited and published by Centro Inox Servizi S.r.l.

Summary

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

COVER/PAGES 3/4

AN ARTIFICIAL PARADISE (Un paradiso artificiale)

The Pearl of Qatar is an artificial island spanning an overall surface of nearly four million square meters. Stainless steel was used to build the understructures. In particular, rebars of EN 1.4436 stainless steel grade of 16, 20, and 25 mm diameter were used. This structure, built between 2007 and 2010, provided for the use of over 2000 tons of these particular stainless steel products. The choice to use this material was driven by its numberless physical and mechanical characteristics, as well as by its capability to withstand the corrosion produced by the action of salty water. As a matter of fact, salty water can attack and create serious problems to the traditional reinforcement bars made of carbon steels (even if protected by different coatings), when the action of corrosive agents penetrates within the concrete.

Stainless steel produced and supplied by: Acciaierie Valbruna S.p.A. – Viale della Scienza 25 – I-36100 Vicenza, phone +39 0444 968211, fax +39 0444 963836, info@valbruna.it, www.acciaierie-valbruna.com

PAGE 5

A STYLISH SUSTAINABLE CHOICE (Una scelta sostenibile e di stile)

The all-Italian innovative “24 Bottles” brand was created in 2013 to rediscover the theme of sustainability. The first collection of EN 1.4301 (AISI 304) stainless steel bottles was designed for the purpose of containing and limiting the use of disposable plastic bottles and glasses. The choice of using stainless steel has allowed to produce bottles that are as light as aluminium canteens, strong but at the same time safer and healthier, since they have no plastic internal lining. In addition to the collection of stainless steel bottles, this manufacturing company proposes a line of original and exclusively “made in Italy” fashion accessories.

Manufacturing company: 24Bottles® è un marchio registrato di DESIGN24 s.a.s. di Melotti & C. – 40139 BOLOGNA – Via delle Fosse Ardeatine, 8 – Sede: 40055 Villanova di Castenaso BO – Via Bruno Tosarelli 284, www.24Bottles.com/
Designer: Luca D’Ambrosio

PAGES 6-7

FROM OUR MEMBERS TUBIFICIO DIVISION OF ACCIAI SPECIALI TERNI

(Divisione Tubificio di Acciai Speciali Terni)
The Tubificio Division of Acciai Speciali Terni is one of world leaders in the production of electro-welded stainless steel tubes. With a plant crossing over an total area of about 45,000 sq. m. (26,000 of which covered), and a 25-year long history, the Division is today one of the main tube and pipe manufacturing companies of the world. The complete integration of the Division with the parent company Acciai Speciali Terni – which supplies the raw materials – is a guarantee of extremely high and absolutely constant quality standards. Thanks to the technological innovation of its production systems and methods, the cooperation with the Centro Sviluppo Materiali, and the resort to control laboratories equipped with state-of-the-art technological instruments, the highest re-

sults can be ensured. **Products** - The manufacturing cycle starts from coils produced by AST, which are sheared into strips of the required width. These strips are then formed and welded in order to obtain welded tubes. The tubes are welded lengthwise by means of a high-frequency induction welding, a gas tungsten arc welding (TIG) without filler material or Laser welding. The external and internal welding shavings are subsequently removed. After having been welded, the tubes are brushed, marked, cut to the required length, and packed. The production lines can weld both series 300 and series 400 stainless steels of several thicknesses and diameters in any length customers require. Mainly focused on the production of tubes for the automotive industry, the Division is also specialized in the production of tubes for decorative, ornamental, and structural applications. **Quality Control** - Quality control and inspections are carried out on line. Concerning structural tubes, they ensure compliance with the strictest tolerances in terms of dimensions, shape, and surface aspect. As regards muffler tubes, in addition to the dimensional controls, further controls are made on weld quality. The final control on the end is a guarantee of cut optimization for customers. **Services** - Product innovation is functional to customers’ requirements and goes in parallel with quality and on-time deliveries. End products, which are directly sent or delivered to a warehouse located near the end customers’ premises, are available basing on their specific requirements. Customers have available over 40 warehouses located all over Europe. Equipped with special structures devoted to tube cutting basing on customers’ requirements, the Tubificio Division offers a complete logistic service capable of meeting any customized requirement. In addition, each customer can personally monitor the production flow, as well as all logistic and managerial aspects through an advanced IT system.

TUBIFICIO DIVISION

HEAD OFFICE - I-05100 Terni - Strada di Sabbione, 91 / A, phone +39 0744 8081, fax +39 0744 812902, www.tubiterni.it

Sales: phone +39 0744 808223-226-278-271

Technical Assistance: phone +39 0744 808246 – 285 - 242, massimo.ciommei@acciaiterni.it

PAGES 8-9

THE NEW E.U. CUSTOMS CODE AND PRODUCTS ORIGIN. SUBSTANTIAL CHANGES (Il nuovo Codice Doganale dell’UE e l’origine dei prodotti: cambiamenti... sostanziali)

On May 1st, 2016, the EU Regulation 952/2013, i.e. the new European Union Customs Code (UCC), has come into force. With the enforcement of the UCC, the old Community Customs Code (CCC) was repealed, i.e. Regulation (EEC) 2913/1992 and associated application directions in compliance with Regulation (EEC) 2454/1993. The UCC has been included within a context that joins the EU Delegated Regulation (DR) 2015/2446 and the Implementing Regulation 2015/2447 (IR). DR and IR apply and integrate some basic aspects of the UCC operating conditions, such as product origin, since they were merely “announced” in it. Preferential agreements (i.e. Free Trade Agreements, FTA) have proliferated all over the world also due to the negotiations started between the Member Countries of the World Trade Organization (WTO), which aim at price-related reductions between member countries (or groups of countries) mutually granted

basing on the preferential origin achieved by products. The preferential origin is ruled in each FTA agreement within specific protocols. This privileged status goes along with the indissoluble need to issue accompanying documents and papers certifying the preferential origin for exporting these products (which in the case of EU are, typically, EUR.1 and EUR-MED), or in the case of Authorized Exporters, the usual “Declaration on the Invoice”. The non-preferential origin attribution had already been established by Art. 23 and 24, CCC, and in its annexes. Today, Art. 59-68, CCC, specifically deal with origin, and the RD regulates the attribution of non-preferential origin concerning some kinds of products. The great novelty consists in the inclusion of the iron and steel industry (Chapters 72 and 73) in the related annexe. Consequently the attribution of non-preferential origin of stainless steel products is now strictly regulated. Concerning the legally binding standards aimed at determining the non-preferential origin of stainless steel products as established in Chapters 72 and 73 of the RD, the CTH (Change of tariff heading) rule, according to which a product acquires the origin of the country in which a substantial process has been carried out, becomes effective, on condition that all non-original materials are classified with a custom item that should be different from the product resulting from the process. Finally another alert concerning specifically the stainless steel industry should be placed on the use of raw materials subject to anti-dumping duties. The origin of the product for customs purposes would not coincide with the application of fair trade policies, and would obviously involve repercussions concerning duties.

Contacts: Alessandro Di Simone - R&D Coordinator
Easyfrontier - disimone@easyfrontier.it

PAGES 10-11

A GREENHOUSE HANGING BETWEEN THE PARK AND THE CITY

(Una serra sospesa tra parco e città)

Conceived as a little greenhouse plunged in the green and shaded by a scenographic curtain, the new restaurant placed on the roof of the building of the Triennale (Palazzo dell’Arte) overlooking the Park Sempione, offers a spectacular view of both the Sforza Castle and the entire skyline of Milan. Climbing the steps to the terrace of Palazzo dell’Arte, you are welcomed by an aromatic vegetable garden, behind which there is the glass pavilion of the restaurant (33x5 m) placed rearward the historical gates of the façade. The pavilion can be opened on its four sides through a sliding system on the two longer sides and a shifting system on the two shorter sides. The structures and understructures of the pavilion are made of carbon steel and EN 1.4404 (AISI 316L) stainless steel. About 13 tons of stainless steel have been used for this purpose. 10 and 15 mm thick plates obtained by laser cut from hot-rolled steel sheets have been used for the structure. For the sliding and shifting doors 5 mm thick plates obtained through laser cut from cold-rolled 2B finish steel sheets have been used. In addition, TIG welds have been used in some areas. The matt finish of the surfaces in view has been obtained through several phases of a special orbital polishing process.

Architectural project developed by: Paolo Brescia, Tommaso Principi e Andrea Casetto - OBR, in cooperation with Maddalena D’Alfonso. OBR Open Building Research Srl – Via Ciovasso 4 – I-20121

Milano, phone +39 02 84268200, italy@obr.eu / **Structural project:** Buro Happold e Milan Ingegneria – Via Thon di Revel 21– I-20159 Milano, www.buromilano.com / **Engineering of the structure and its mobile parts:** Capoferri Serramenti S.p.a.– Via Cividini 20 – I-24060 Adrara San Martino BG, phone +39 035 934074, info@capoferri.it, www.capoferri.it / **Made by:** Capoferri Serramenti S.p.a. / **Customer:** Triennale di Milano / **Photographs:** Michele Nastasi

PAGE 12

A NEW CONCEPT OF FLUE

(Un condotto fumario di nuova concezione)

“Coniblock” is a stiff single-wall flue with an exclusive self-locking connection without gasket and hose clamp, capable of dry and wet running even in over-pressure conditions. It guarantees better smoke tightness even at high temperatures and allows saving 60% of the necessary installation time. The flue is made of EN 1.4404 (AISI 316L) stainless steel, in thickness ranging from 0.4 to 0.6 mm. The length of the flue ranges from 250 mm to 3000 mm, and the diameter from 60 to 200 mm.

Manufacturing company: Meniflex s.r.l. unipersonale – Via Apollo XI, 25/27 – I-37059 Santa Maria di Zevio VR, phone +39 045 6050132, fax +39 045 6050195, info@meniflex.com, www.meniflex.com

THE COLOUR OF ART

(Il colore dell'arte)

Coloured stainless steel has played for decades a primary role in these monumental works by Master Estuardo Maldonado (Pintag, Ecuador). Since 1972, the artist makes use for his works of electro-coloured EN 1.4301 (AISI 304) stainless steel plates. This choice was made possible thanks to the cooperation of an Italian company, which was able to develop the required electro-colouring technology, and from the very beginning supported the artist's work. The peculiarity of this colouring technique consists in changing the surface aspect of the stainless steel plate without using paints, thus ensuring great advantages in terms of material resistance. Coloured stainless steel has allowed the artist to create works full of brightness capable of resisting to corrosion phenomena and jumps in temperature.

Works: Estuardo Maldonado - Bi-Coa / **Electro-colouring process:** Steel Color S.p.A – Via per Pieve Terzagni 15 – I-26033 Pescarolo ed Uniti CR, phone +39 0372 834311, fax +39 0372 834015, www.steelcolor.com

PAGE 13

EMOTION HAS A STAINLESS SOUND

(L'emozione ha un sound inossidabile)

This project is the brainchild of a young Italian designer who thought to resort to the hydroforming technology, which consists in forming the metal through the push exerted by a fluid brought to a very high pressure, in order to create a high quality product in the area of “after-market” motorbike exhaust pipes. For this purpose, five years ago a cooperation agreement was established between a well-known company producing special exhaust pipes for motorbikes and an Italian company specialized in metal processing and forming. Today, the range of products includes three different lines: “Hydroform”, “Evoxtrème”, “Hydro3”. Recently the range has expanded and includes the “GP07”. In addition to its guaranteed and well-known aesthetic characteristics, stainless steel allows manufacturers combining the need to supply a long-lasting product, capable of resisting to the corrosive action of exhaust smokes and condensation, with superior characteristics of mechanical performance - weight being equal - in comparison with other materials as, for example, carbon steel or aluminium. The external visible parts, as well as the inner elements that are more exposed to the action of exhaust gases, are all made of stainless steel. To make the hydroformed exhaust pipes, deep-formed EN 1.4301 (AISI 304) austenitic stainless steel strips are exclusively used. These strips are 1 mm thick and their width varies depending on the exhaust pipe

type (the average diameter ranging between 40 and 60 mm). 1 mm thick burnished steel plate is used to produce the burnished “Evoxtrème” model. The exhaust pipes can be supplied with the following finishing options: satinized, with a final brushing cycle to give a Scotch Brite-like aesthetic effect; ceramic coated, in order to provide the metal surface with a homogeneous matt black coating; burnished. Welds are exclusively made through TIG process with or without filler material, but always with backing gas, using pure argon.

Concept design: HPCorse – Via San Vitale 69 – Bologna, commerciale@hpcorse.com, www.hpcorse.com / **Design, planning and manufacture:** Steelform Srl – Via Max Piccini 16 – I-33061 Rivignano Teor UD, www.steelformitalia.it

PAGE 14

DESIGN MANUAL FOR STRUCTURAL STAINLESS STEEL

The “The Design Manual for Structural Stainless Steel”, prepared to guide engineers and experts in planning and designing steel structures in general, and not exclusively stainless steel ones, is divided into two parts: “Recommendations” and “Design Examples”. The “Recommendations” in Part 1, have been formulated basing on the theory of limit states, and when needed, in compliance with the Eurocodes. The “Design Examples” in Part 2, show the practical use of the regulations specified in Part 1. The manual is available in Italian language.

For information: CENTRO INOX SERVIZI SRL – Phone +39 02 86450559 – 02 86450569 – Fax +39 02 86983932 – centroinoxservizi@centroinox.it

THE METALLOGRAPHY OF STAINLESS STEELS

(La metallografia degli acciai inossidabili)

Thursday, November 17, 2016 – 9.00 a.m.

Venue: AQM – Via Edison 18 – 25020 Provaglio d'Iseo BS

Presentation of the one-day seminar organized by AQM (Centro Servizi Tecnici alle Imprese) and Centro Inox: the purpose of this meeting is to launch a one-day seminar focused on an in-depth study of THE METALLOGRAPHY OF STAINLESS STEELS. This seminar intends to offer some basic notions on the different metallographic structure of the austenitic/ferritic/martensitic and duplex stainless steel families. The theoretical part of the seminar includes also an overview of the micro-structural anomalies that can occur in consequence of processes and treatments (i.e. heat treatments, welding, and mechanical processes). During the second part of the seminar, all participants will have the opportunity to closely examine, at the AQM labs, some pre-constituted samples aimed at serving as an example of the concepts exposed during the theoretical part of the course.

For all information concerning application, registration procedures, participation fees, etc.:

CENTRO INOX – Phone +39 02 86450559 – 02 86450569 – eventi@centroinox.it, www.centroinox.it

CORROSION: STAINLESS STEELS AND SUPER-ALLOYS ADVANCED THEORETICAL AND PRACTICAL COURSE

Milan – November, 23 - 24 - 30 and December, 1, 2016
(Corrosione: acciai inossidabili e superleghe. Corso teorico-pratico avanzato)

Considering the successful outcome of the previous editions, Centro Inox and the Polytechnic of Milan – Laboratorio di Corrosione dei Materiali (Material Corrosion Lab) “Pietro Pedeferrì” – Dipartimento di Chimica, Materiali e Ingegneria Chimica “G. Natta”, decided to organize the fourth edition of this course. The course is divided into four days consecrated to examining in depth the phenomenon of corrosion on stainless steel and super-alloy grades, in the light of the most recent developments obtained in this area. Enough time will be left to participants for discussions, questions, and exchange of opinions. The theoretical lessons, aimed at studying in depth these topics, will be supported and supplemented by practical laboratory activities. Official language: Italian

For additional information: CENTRO INOX SERVIZI SRL – phone +39 02 86450559/69 – eventi@centroinox.it, www.centroinox.it

PAGE 15

PROBLEMS AND ITEMS RELATED TO IMPORT-EXPORT OF STAINLESS STEEL MILLS FINISHED PRODUCTS

(Problematiche import-export dei prodotti siderurgici inox)

Università degli Studi di Milano – Palazzo Greppi – Sala Napoleonica – Via Sant'Antonio 10 Milan, Thursday October 27, 2016 – 9.00 a.m.

Agenda of the one-day seminar organized by Centro Inox with the support of Federacciai:

Participants' registration

Welcome address to the participants and introduction to the seminar –

Riccardo Guidetti, Università degli Studi di Milano / Fausto Capelli, Centro Inox / Flavio Bregant, Federacciai
The European Regulation on generalized preferences and its application by the Italian Administrative and Judicial Authorities – Fausto Capelli, Collegio Europeo/Università di Parma

Preferential and non-preferential origin of goods – Agenzia delle Dogane e dei Monopoli

Discussions – Coffee break

Preferential and non-preferential origin tests – Agenzia delle Dogane e dei Monopoli

Discussions – Lunch break

2.00 p.m. – Continuation

A general overview of the current situation concerning antidumping duties – Daniela Floro, Federacciai

The regulation concerning radiometric controls on scrap and metal semi-finished products – Alfredo Schweiger, Federacciai

Discussions – End of the seminar

Official language: Italian

For additional information and registration applications: CENTRO INOX – Phone +39 02 86450559 / 02 86450569 – Fax +39 02 86983932, eventi@centroinox.it – www.centroinox.it

PAGE 16

STAINLESS STEEL IS “GREEN”

(L'acciaio inox è “green”)

The Putter is one of the 14 golf clubs that are included in the bag of all golfers, and is one of the most frequently used clubs. In average, it is about 100 cm long, and consists of a stainless steel head, a conical shaft, and a grip made of leather or synthetic materials. The Putter is the club that generates the greatest precision on relatively reduced distances (and is exclusively used on the golf course part called “green”). It is made of EN 1.4305 (AISI 303) stainless steel, from round-section bars of 80-100 mm diameter or from bars from which semi-finished blocks of 100 – 80 – 40 mm size are produced. The average weight of these semi-finished blocks ranges between 2 and 4 kg to obtain a finished part weighing about 350 g. Inserts of AISI 304 (or other materials), usually TIG welded, can be requested in order to improve the club aspect and performance. The choice to use AISI 303 depends above all on the better workability of this material on CNC machines, compared to other grades of stainless steel.
Manufacturing company: Bputtersgolf – Via Matilde Serao 109 – I-47521 Cesena FC, www.bputters.com

CENTRO INOX

The Italian Stainless Steel Development Association

Via Rugabella, 1 - 20122 Milano - Italy

Telephone +39 02 86450559 - +39 02 86450569

Fax +39 02 86983932

redazione.inossidabile@centroinox.it

www.centroinox.it

The subscription to the quarterly INOSSIDABILE, outside Italy, is free of charge.

