

# INOSSIDABILE

Edited and published by Centro Inox



## Summary

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

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#### A STAINLESS STEEL BANISTER GLITTERS UNDER THE VERSILIA SUNSHINE (Una ringhiera inox brilla al sole della Versilia)

A large terrace of about 224 sq. m overlooks the bathing establishment "Belmare" of Lido di Camaiore, a renowned seaside resort on the shores of Versilia (the northern Tuscan coast), in the province of Lucca. The banister that bonds the terrace was studied and planned by Paolo Lazzerini in cooperation with the owners of the bathing establishment who also took care of assembling and installing it. The banister is made of austenitic EN 1.4401 (AISI 316) stainless steel, which includes also a percentage of molybdenum. This kind of steel is capable to resist the corrosive attacks of saltiness, and remains beautiful, bright, polished, reliable and safe over time as if it were new, with no need to be repainted or other maintenance operations. The standards supporting the banister are polished and have been laser-cut, and then drilled with bored and flared holes. The handrail has 48.3 mm diameter, 2 mm thickness, and is fastened to the standards through rivets. Between the standards, cross tubes of 16 mm diameter and 1.8 mm thickness form a safety grid. The banister has a total height of 1.05 m. Tubes and handrails were supplied in 6 m length and were cut to measure on the spot and then connected between two standards and fastened through grains. Finishing parts, fittings, tube ends and connection coatings were rounded off and worked by lathe. All visible parts are made of EN 1.4401 (AISI 316) stainless steel with polished finishing. All tubes, standards, finishing parts, fittings, caps, screw heads - except for handrails, which were supplied already polished - were polished by hand.

**Customer:** Stabilimento Balneare Belmare - Viale S. Bernardini 580 - I-55043 Lido di Camaiore LU, phone/fax +39 0584 617290, info@bagnobelmare.it, www.bagnobelmare.it / **Mechanical part production, finishing and assembly:** Essepi - Via Liguria 24/26 - I-50052 Certaldo FI, phone +39 0571 664336, fax +39 0571 665977, essepisc@libero.it / **Shaped, laser-cut and drilled parts:** L.C.M. Srl - Località Cusona 42 - I-53037 San Gimignano SI, phone +39 0577 951052 / **Part and fitting polishing:** Piemme Snc - Strada di Linari 10 - I-50021 Barberino Val D'Elsa FI, phone +39 055 8078065 / **Tube supply:** Marcegaglia - Divisione Inox - Via Bresciani 16 - I-46040 Gazoldo degli Ippoliti MN, phone +39 0376 6851, fax +39 0376 685625, inox@marcegaglia.com, www.marcegaglia.com / **Handrail and cross tube polishing:** M.A. Centro Inossidabili Spa - Via del Pratignone 25/27 - I-50041 Calenzano FI, phone +39 055 8878043, fax +39 055 8877025, macentroinossidabili@macentroinossidabili.it, www.macentroinossidabili.it

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#### SOMETHING NEW FOR WINE TANKS (Novità per i serbatoi da vino)

**Art, fancy and colours come into the wine cellar**  
The wine tanks belonging to the new "Picturetank" line are made of EN 1.4301 and EN 1.4401 (AISI 304 and 316) stainless steel and have the same technical characteristics as traditional tanks, except for the fact that on their outer polished surface they carry hot-printed pictures chosen by customers. In addition, another product line ("Colour-tank") is available, which allows colouring the wine tanks in colours at customer's choice without damaging the steel. Both product lines can be adapted also to already existing tanks.

#### Wine tanks for the cooperative wine growers' association of Negrar

The cooperative wine growers' association of Negrar, Verona, has succeeded in completing just in time for the new vintage of the "Amarone" a new plant in the position to exploit the available space as much as possible - considering the costs of soil in that area - providing at the same time complete guarantee of safety and comfort, and to meet inexpensiveness, hygiene and cleanliness requirements. Several 6 m high reinforced concrete wine tanks have been built in lengths ranging from 7 to 9 m. These tanks are self-supporting and buried in the ground, and have been lined with 2 and 2.5 mm thick EN 1.4306 (AISI 304L) polished stainless steel plates provided with a certificate of compliance stating that they are made of "L" type first-choice stainless steel with low carbon content.

The system includes a structure of pre-welded steel panels, which are assembled in the concrete tank when it is still open. This special lining makes the concrete tanks 100% suitable for food and drink stuffs, ensures complete impermeability, makes maintenance and cleaning operations easier, and by means of connected thermal plates allows the wine being properly conditioned. The wine tank is closed by a self-supporting concrete roof lined with stainless steel like a sandwich panel. The highly-specialized and skilled personnel of the wine growers' association of Negrar has carried out all the subsequent welding and connection stages through stainless steel shells shaped as bent tiles with rounded-off edges and corners. All wine tanks have been built using exclusively first-choice BA steel.

**Tank manufacture:** Albrigi Srl - Via Tessare 6/A - I-37023 Stallavena VR, phone +39 045 907411, fax +39 045 907427, info@albrigi.it, www.albrigi.it / **Stainless steel sheet supply:** Thyssenkrupp Acciai Speciali Terni - Viale B. Brin 218 - I-05100 Terni, wwwacciaiterni.it - **Marketing:** Dr. F. Ricci Feliziani, phone +39 0744 490275, fax +39 0744 490879, fabrizio.ricci-feliziani@thyssenkrupp.com - **Mill Representative:** Dr. Ing. S. Grimozzi, phone +39 0744 490860, stefano.grimozzi@thyssenkrupp.com

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#### FROM OUR MEMBERS ACCIAIERIE VALBRUNA

The history of Acciaierie Valbruna began in 1925 in Vicenza, when Ernesto Gresele decided to extend his activity as a metal dealer to the production on his own account of agricultural equipment made by recovering and recycling out-of-use parts. The production of special steels began in 1939, and from then on, Valbruna has become an important reference point in the international steel and iron industry. The development of the company is based on two major guidelines: pursuit of quality by investing considerable resources in research and product optimization, and growth in line with market trends by identifying customers' present and future requirements, by committing itself to reach greater operational flexibility, and by opening itself to internationalization. The entrepreneurial philosophy of the Valbruna Group aims at providing the company as much as possible with large financial independence levels through considerable investments devoted to process and product innovation and to the extension of the distribution network. Valbruna, with the purpose of consolidating the Group's presence in areas which offer interesting development potentials, over the last few years established a branch in Dubai (Valbruna Gulf), and took over from a private holding the company Inox Staal in Denmark. The direct presence of Valbruna in the global scenario has gradually strengthened itself over time. The United States of America have always been one of the major markets of Valbruna. In 2004 Valbruna took over the company Slater Steels, now named Valbruna Slater Stainless, which is the production factory of the Valbruna Stainless Inc. division. In the meantime this division has further consolidated and extended its presence on the market by taking over in turn the company First Metals, a distributor of stainless steel long parts located in the territory through four warehouses (in Houston, Dallas, Atlanta and Chicago). The Far East area is instead served by Valbruna Asia, with office and warehouse facilities based in Hong Kong and Shenzhen, China, and by Valbruna Stainless Sdn based in Kuala Lumpur, Malaysia. Product quality has always been strictly connected with the After-sale and Technical Assistance Services, which by Valbruna are intended as a real partnership with customers.

#### Future developments and prospects

Valbruna has always played a leading role in terms of advanced production processes and technologies in the position to ensure the highest quality standards, whether on traditional stainless steels or, in recent years, on special stainless steels. At the beginning of the Third Millennium, new technological goals have been set and the Valbruna Group is prepared to put at consumers' disposal its long experience for effectively and efficiently responding to some basic human requirements, such as food, energy, constructions, transports, health safeguard and environmental protection and preservation. All corporate efforts will be therefore aimed at ensuring further growth opportunities to the Group, through the enlargement of its structure and its extreme verticalization, and the globalization

of its market presence.

#### Products and applications

Products are available as ingots, billets, wire rod, wire, forged hot-rolled and cold-finished bars - drawn, peeled/rolled and ground, with round, hexagonal, flat, square and angular profiles. Valbruna is present on the market also with some different trademarks, which characterize products with special application properties.

**MAXIVAL™** - A stainless steel product range that can be easily worked and processed by chip-removal machines.

**MAGIVAL™** - A trademark characterizing ferritic and highly machinable stainless steels developed in particular for magnetic applications, which require high magnetic permeability and low coercive strength.

**MARINOX™** - A trademark characterizing the family of austenitic, precipitation-hardening and duplex stainless steels used in the manufacture of propeller shafts for ships.

**REVAL™** - This registered trademark refers to far improved-adhesion bar for reinforced concrete (rebar), made of austenitic stainless steel, intended for the building industry and architectural works.

**BIOVAL™** - A selected steel, titanium and titanium-alloy range for applications in the area of medical instruments and equipment.

**AEROVAL™** - A group of steels and nickel alloys for applications in the aerospace industry.

A new identification trademark will be soon added for the family of stainless steels, nickel alloys and titanium developed for the "Power Generation" industry.

**Acciaierie Valbruna SpA** - Viale della Scienza, 25 - I-36100 Vicenza, phone +39 0444 968211, fax +39 0444 963836, info@valbruna.it - www acciaierie-valbruna.com

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#### STAINLESS STEEL AND GLASS DUCTILE STRUCTURES: TENSEGRITY GLASS BEAMS

#### (Strutture duntili in acciaio inox e vetro: le Travi Vitree Tensegrity)

This article illustrates the constructional concept and the static functioning principle of a new typology of beams manufactured with glass panels connected one another through stainless steel elements. The basic concept consists in forestalling and guiding the glass fracture by breaking it up into triangular modular elements, which at a later stage are joined one another by applying a prestress exercised by properly positioned pre-tensioned stainless steel cables. The "Tensile Integrity" principle is therefore at the basis of this family of special beams, which have been called "Travi Vitree Tensegrity" (Tensegrity Glass Beams), or in short TVT. Through this peculiar technology, planned and patented by its first inventor for the University of Pisa, glass is prevalently submitted to compression and the final collapse of the structure depends on the steel yield, that is to say, on its ductility. Structural glass and stainless steel in this clear architectural structure are indissolubly connected and almost all structures of this kind have been planned by assembling these two different materials. All ancillary parts, such routels, studs, tie-rods, support systems for the sheets of glass, for architectural and durability reasons are almost exclusively made of stainless steel.

The first prototype (TVT  $\alpha$ ) of this family of beams was submitted to numerical simulations and to load tests performed at the Laboratory of the Department of Structural Engineering of the University of Pisa, while the second prototype (TVT  $\beta$ ) has already been built and is currently being submitted to tests and FEM analyses.

**Authors:** Prof. Ing. M. Froli, Dr. Ing. L. Lani - Department of Structural Engineering, University of Pisa

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#### "MADE IN..." A MARKING FOR ORIGINS (“Made in...” un marchio per le origini)

At present, the European Community has no legislation on the use of origin marking ("made in") for industrial products. The current situation puts the EC at a disadvantage vis-à-vis its trade partners who require origin marking for imports. It deprives EC producers of origin-sensitive consumer goods to realise benefits associated with producing within the European Community, and an opportunity is missed to more effectively prevent false or misleading origin claims. That being so the EIFI Stainless Steel Group Members decided to self-regulate and manage the origin



marking by defining and adopting the following regulation: "MADE IN..." of the EIFI Stainless Steel Group. A passage of the article "Made in... - Legislation on the Use of Origin Marking", in "Italian Fasteners" n° 42, April 2008, published by U.P.I.V.E.B. (Unione Produttori Italiani Viteria e Bulloneria).

#### BEWARE OF FALSE JOINT-VENTURES!!! (Attenzione alle false joint venture !!!)

Within the institutional activities of the Association Centro Inox, it has been reported that in the last few months some alleged members of Chinese governmental structures have got in touch with several Italian companies with the purpose of establishing joint ventures with similar partner companies based in China and operating in the same industrial area. Since an assessment of these proposals revealed that most of them are groundless, Centro Inox is now at the disposal of all interested Italian processing companies for providing them with detailed information on the truthfulness and reliability of such proposals.

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#### PANELLING OF THE MOTORWAY CONNECTION VIADUCT LEADING TO THE NEW FAIR OF MILAN

(Rivestimento del viadotto autostradale di raccordo con la nuova Fiera di Milano)

For the new exhibition pole of Milano/Rho, a connecting road between the motorways Milano-Laghi and Milano-Torino has been specially built, with a junction for making the access by car to the exhibition ground easier. Both sides of the viaduct have been panelled with a triple/fourfold sail of 0.8 mm thick EN 1.4301 (AISI 304) stainless steel sheet with satinized finishing. This project has required a three-dimensional planning for shaping the stainless steel lining panels; the creation of a self-bearing underlying structure for supporting and lining up the different rows of bent panels; the manufacture of modular and adjustable elements for the underlying structure to be adapted to the different lengths of the supports and to the variable cross sections of the viaduct; the construction and numbering of all the lining panels. The weight of the stainless steel used for this work totals 120,000 kg.

**Customer:** Grassetto Costruzioni Generali, Tortona AL / **Executive project:** Baccelliere Luciano, Genova, lubacce@libero.it / **Steel sheet processing:** Metaltek Srl Impianti Industriali - Via Romagna 8 - I-56035 Perignano PI, phone +39 0587 616204, fax +39 0587 617470, contact@metaltek.it, www.technomec.it / **Installation:** S.P.A.I. Srl - Via M. Gatti 5, I-25040 Timoline di Cortefranca BS, phone +39 030 9884295-6, fax +39 030 9884688, info@spaisrl.it, www.spaisrl.it

#### WHEN STAINLESS STEEL REFLECTS THE IMAGE OF OUR WELLNESS

(Quando l'inox riflette l'immagine del proprio benessere)

This equipment has been developed as a complete gym appliance for mild physical exercise, and it allows controlling and correcting our movements keeping an eye also on our figure, thanks to its reflecting polished finishing. The appliance can be obviously used also at the gym, but its reduced size and elegant design make it an ideal solution for home use, which does not clash with our home furniture. The panel consists of a rigid structural support and, in the front side, of micro-polished, 1.6 mm thick AISI EN 1.4301 (AISI 304) stainless steel plates. All tubular parts are made of micro-polished AISI 304 as well. The total weight of the equipment is 280 kg. This is a multi-purpose appliance, which is also suitable for rehabilitation, and allows performing up to 200 different exercises in less than one square metre and in total quietness and privacy.

**Design:** Arch. Antonio Citterio - **Assistent:** Toan Nguyen / **Kinesis Vision production:** Technogym SpA - Via G. Perticari 20 - I-47035 Gambettola FC, phone +39 0547 56047, fax +39 0547 650505, informazioni@technogym.com, www.technogym.com - **Project Leader:** Simone Casagrande - **Product Marketing:** Ivan Faedi / **Stainless steel tube supply:** Marcegaglia - Divisione Inox - Via Bresciani 16 - I-46040 Gazooldo degli Ippoliti MN, phone +39 0376 6851, fax +39 0376 685625, inox@marcegaglia.com, www.marcegaglia.com

#### ONFALÓS: BEYOND THE BARBECUE (Onfalós, oltre il barbecue)

The peculiar name of this new cooking equipment is derived from ancient Greek and recalls the home fireplace. It is an innovative equipment that can be whether used in the open, like a traditional barbecue, or at home, and in all seasons of the year. The equipment is gas-fed and does neither produce smoke nor release excessive heat in the environment. The round cooking plate is made of S355 steel, plated with hard chromium 12 to 15 mm thick layer, depending on models. The firebox and the chimney have been concealed and housed in an elegant truncated-cone structure, thereby preventing the risk of free flames. The solution chosen for equipping the chimney with the necessary openings consists in a sequence of small holes drilled in the edge that frames the cooking plate. The cylindrical body, which is completely made of 4 mm thick EN 1.4301 (AISI 304) stainless steel, supports the cooking plate, contains a juice- and liquid-collecting tray and a liquid gas cylinder. In the movable version, the equipment can be

easily moved by means of three special pivoting wheels. The set of fittings, which includes scraper, pliers, slice and cover/tray, is made of AISI 304 stainless steel with a sand-blasted finishing.

**Design:** Atelier Bellini, Milano / **Production:** Smartech Italia SpA - Via A. Volta 11 - I-33082 Azzano Decimo PN, phone +39 0434 423111, fax +39 0434 423191, info@smartechitalia.com, www.smartechitalia.com

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#### PIZZA AND STAINLESS STEEL: QUALITY "MADE IN ITALY"

(Pizza e acciaio inox: il "made in Italy" di qualità)

Since 1986, a company located in Montemurlo (Prato) manufactures a range of 500 items in which stainless steel plays the leading role: peels for putting the pizza into the oven, cutting-wheels, special tools and fittings, as well as service trolleys for restaurants, kitchens and laboratories. High strength, easy cleaning and maintenance, hygiene, possibility to obtain elegant and flexible shapes but also sharp blades, if necessary: these are the advantages of using stainless steel. In a period full of great tensions and deep and sudden changes like the one in which we live, the market tries to react by offering less expensive products running the risk of not even knowing their origin, their characteristics and their quality manufacturing levels. The Italian stainless steel manufacturers and processing companies, which are used to work seriously and correctly in full compliance with the strictest standards and quality levels, are now obliged to explain their customers that even though their products are not the most inexpensive ones available on the market, they are in all respects made of certified and unchanging quality steel. It is a very difficult task made of communication and trust, which requires a lot of patience, but it works, and in the professional catering and restaurant industry the guarantee of reliable tools and objects has the utmost importance. Therefore, no doubts that the value and force of Italian products, which accompanies our food and our cuisine all over the world, must always begin from quality materials and reliable services.

**Production of pizza tools and fittings:** Gi.Metal Srl - Via Popolesco 58 - I-59013 Montemurlo PO, phone +39 0574 791641, fax +39 0574 682902, inform@gimetal.it, www.gimetal.it / **Stainless steel sheet supply:** Terminox SpA - Via Petrosa 15 - I-50019 Sesto Fiorentino FI, phone +39 055 4491212, fax +39 055 4491231, info@terminox.com, www.terminox.it - **Marketing:** Dr. F. Ricci Feliziani - ThyssenKrupp Acciai Speciali Terni SpA - Viale B. Brin 218 - I-05100 Terni, phone +39 0744 490275, fax +39 0744 490879, fabrizio.ricci-feliziani@thyssenkrupp.com, www.acciaitermi.it

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#### National Seminar STAINLESS STEEL FOR STRUCTURAL ELEMENTS OF LAND TRANSPORT VEHICLES: GUIDELINES FOR FUTURE DEVELOPMENTS

(L'acciaio inox per componenti strutturali dei veicoli per il trasporto terrestre: linee guida per lo sviluppo futuro)  
Rome, October 2, 2008

CSM - Centro Sviluppo Materiali S.p.A.

This seminar has the object to present a handbook dealing with stainless steel applications for structural elements of the land transport vehicle industry, and focused in particular on buses and trains. The handbook was devised for the purpose of circulating the results of two ECSC (European Coal and Steel Community) projects: "Stainless steel in bus construction" and "Development of lightweight train and metro cars by using ultra light strength stainless steel", and is included in the INSAPTRANS project ("Innovative Stainless steel Applications in TRANSPORT vehicles") of Euro Inox, the European association for the development of stainless steels based in Brussels. The handbook is aimed at stressing the effects of choosing stainless steel, its production and design methods, the LCC (Life Cycle Cost) of the product and its environmental impact. In Autumn 2008, similar seminars have been planned also in Germany, Finland, France, Poland, and Spain. For additional information: Ing. L. Rizzo - Centro Sviluppo Materiali, phone +39 06 5055292 - fax +39 06 5055452, www.c-s-m.it, l.rizzo@c-s-m.it

#### STAINLESS STEEL SERIES 300: IS THERE ANOTHER ALTERNATIVE?

- A comparison among series 300, 400 and 200 stainless steels -

(Inox serie 300: esiste un'alternativa? Inossidabili della serie 300, 400 e 200 a confronto)

Milan, November 5, 2008

Via Massaua 6 - Conference Hall - Centro Servizi di Banca Popolare di Milano

8.45-16.00 h

How many times have you lately heard about alternative stainless steels to traditional AISI 304 and 316 steels? In several application fields, the rise in price, but above all, the extreme volatility of "traditional stainless steels" prices have produced in general a great deal of confusion in the processing companies, especially in the case of products in which raw material costs play an important role. Within this scenario different alternatives have emerged. Centro

Inox, the Italian association for stainless steel development, wants to clearly express its opinion on this subject in order to support both manufacturers and market in making the wisest decisions depending on required applications. A set of corrosion tests aimed at providing an effective contribution in this area have been planned in partnership with RTM Breda and the Politecnico di Milano. The conference will be focused on these issues according to a programme we are presenting here in advance. The conference will be divided into two sessions: a technical-scientific session, in which the results will be discussed, and an application session, in which some processing companies belonging to different areas will present their experiences on the use of "new materials".

The official language of the meeting is Italian.

#### Programme:

Participants' registration

Welcome address and opening of the meeting - (E. Amenduni - President of Centro Inox)

#### TECHNICAL-SCIENTIFIC SESSION

Introductory notes on corrosion, performed tests and results

A general survey of the Italian market: the reasons for change (P. Viganò - Centro Inox)

Corrosion: General aspects (P. Pedferri - Politecnico di Milano)

Coffee break

Performed test programme: Corrosion tests, materials and purposes (G. Stella, G. Rivolta - RTM Breda)

Test results (M. Boniardi, S. Cincera - Politecnico di Milano)

Debate

Buffet lunch

#### APPLICATION SESSION

From theory to practice: Users' experience

Developments in regulations on food (V. Boneschi - Centro Inox);

- Merloni TermoSanitari S.p.A. (A. Mancini) - Università

Politecnica delle Marche (R. Fratesi);

- Vertical S.p.A. (A. Cogo - R. Fornasa);

- N&W Global Vending S.p.A. (T. Rota);

- Facilitas S.r.l. (A. Albioni);

- Elica S.p.A. (R. Del Basso).

Debate

Chairman of the debate: F. Capelli (Managing Director of Centro Inox)

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#### MYRTHA, THE ITALIAN SWIMMING-POOL FOR THE BEIJING 2008 OLYMPIC GAMES

(Myrtha: la piscina italiana per le Olimpiadi di Pechino)

Located at the Olympic Sports Center, the Ying Dong Natatorium has been recently renovated to host the water polo and swimming competitions included in the modern pentathlon events of the 2008 Olympic Games.

The natatorium has today a capacity of 6,000 seats and a floor area of 44,935 square meters.

The refurbishment project was entrusted to an Italian company, holder of a patented system called RenovAction®, which can ensure complete waterproofing without requiring any destructive intervention of the existing structure. The walls of the existing swimming-pool have been covered with modular panels consisting of thick EN 1.4301 (AISI 304) stainless steel slabs, with a special hard heat-resistant PVC layer permanently laminated to the steel by means of a unique hot-calendering process to ensure perfect waterproofing and long-lasting maintenance-free life-time. The vertical panels have been bolted together and to an upper and lower structural profile. The overflow gutter is constructed with the same material as the wall panels (Myrtha Inox) and is able to absorb the waves created by swimmers, thereby avoiding the formation of water turbulences. The floor is lined with a special non-slippery reinforced PVC carpet, laid on the concrete floor.

The new swimming pools built with Myrtha Technology have in addition a self-supporting stainless steel structure consisting of strong and elastic buttresses designed and constructed to resist both the pressure of water and that of the natural ground (e.g. seismic areas or unstable soils).

Myrtha e RenovAction® Technology: Piscine Castiglione - Divisione di A&T Europe SpA - Via Solferino 27 - I-46043 Castiglione delle Stiviere MN, phone +39 0376 94261, fax +39 0376 631482, info@piscinecastiglione.it, www.piscinecastiglione.it, www.myrthapools.com

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