

INOSSIDABILE

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Summary

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

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A STAINLESS STEEL SKIN FOR THE NEW MILAN FAIR (Una pelle inossidabile per la nuova Fiera di Milano)

Starting from September 2005 a new important fair pole, called "Fieramilano", has been made operative. The old Trade Fair ("Fieramilanocity"), was no longer sufficient. The towns of Pero and Rho, situated to the North-West of the city, within which the new fairgrounds rest, are situated on the crossroads between the main commercial connections of Northern Italy.

A project arose for the structure which combines the simplicity of the disposition of volumes (parallelepiped-shaped) with avant-garde solutions. Stainless steel could not have been overlooked in choosing the materials for such a highly-qualified construction which, is destined to represent the business card of the commercial aspect of the Italian entrepreneurial class for a long time to come.

Stainless steel was also used for a multitude of different purposes (including the landings of the underground), but the most impressive aspect of the project lies in its numbers. In order to obtain a spectacular mirror effect in which the most striking architectural solutions are reflected, continuous façades with external curtain walls were built using panels of EN 1.4401 (AISI 316) stainless steel sheet, BA finish, 1.5 mm thickness, for a good 12,700 m², as well as ventilated façades, again with external curtain walls using EN 1.4401 (AISI 316) stainless steel sheet, satin finished with 220 grain, 1.5 mm thickness, for a further 4,000 m². The panels are 1 m wide, with heights between 3 and 4 m.

Client: Sistema Sviluppo Fiera

General Contractor: Nuovo Polo Fieristico (NPF) Srl (Astaldi - Pizzarrotti - Vianini)

Architectural project and artistic management: Massimiliano Fuksas, Roma

Architectural and constructional project: Studio Altieri - Via Colleoni 52 - I-36016 Thiene VI, phone +39 0445 375300, fax +39 0445 375375, altieri@studioaltieri.it, www.studioaltieri.it

Structural engineering: Studio Marzullo

Stainless steel clad panels: Permasteelisa SpA - Via Mattei 21/23 - I-31029 Vittorio Veneto TV, phone +39 0438 505000, fax +39 0438 505125, info@permasteelisa.com, www.permasteelisa.com

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THE NEW CASINO IN CAMPIONE D'ITALIA (Il nuovo Casinò di Campione d'Italia)

The town of Campione d'Italia has built a new Municipal Casino to replace the existing one that dates back to 1936. The project, which is valued at 95 million Swiss Francs, arose from the desire to satisfy the needs of the substantial number of users (approximately 400,000 visitors a year) who regularly frequent the game-rooms. Works began in April 1999 and ended in 2004. The futuristic building was designed by Mario Botta, a Ticinese architect of international fame.

Stainless steel was supplied for a series of elements and, in particular, for 3 smoke channels, for 3 flues with outlets 15 metres above the ground and for the handrails on the external stairways.

The flues were made using the "double wall" system: the inner wall in EN 1.4401 (AISI 316) with thickness of 1 mm, and the outer one in EN 1.4301 (AISI 304) with BA glossy finish and thickness of 0.8 mm. In fact the fumes produced by boilers contain wet combusted gases which cool while rising, thus tending to produce acid condensation. It is therefore necessary that the emissions are maintained hot for as long a time as possible, in order to allow them to exit rapidly. It is for this reason that "double-walled" flues are used, with air casing or insulation in rock wool.

The use of EN 1.4401 (AISI 316) stainless steel, which contains molybdenum, is necessary for the inner part in order to achieve greater resistance to corrosion in the presence of aggressive fumes and condensation.

The handrails, made in satin finished EN 1.4301 (AISI 304) stainless steel, are composed of tubular modules with a length of 4400 mm and thickness of 3 mm, complete with pedestals.

Performance of work: Associazione Temporanea di Imprese (ATI) Impregilo SpA e Castelli SpA.

Flue and handrails: Afinox Srl - Architectural project ia Toscanini 14, 20010 Arluno (Milano) - Dott. Barzaghi, tel. 02.90376066, fax 02.90376090 - afinoxsrl@afinox.191.it

Stainless steel sheets supplied by: Thyssenkrupp Acciai Speciali Terni SpA - Viale B.Brin 218 - I-05100 Terni TR - Sales: Bruno Garbarino, phone +39 335 6521189, bruno.garbarino@thyssenkrupp.com - Marketing: Dr.ssa V. Fontana, phone +39 0744 490867, fax +39 0744 490879, valeria.fontana@thyssenkrupp.com, www.acciaiterni.it

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FROM OUR MEMBERS

ARINOX SPA - ARVEDI GROUP

Italian technology for ultra-thin precision strips (Dalle Associate: Arinox SpA - Gruppo Arvedi. La tecnologia italiana dei nastri inox extrasottili di precisione)

Arinox is a company within the Arvedi Group, founded in 1990 for the production and marketing of thin and ultra-thin precision stainless steel strips with BA or cold temper-rolled finishes for cold-rolling. The company, with its 195 employees, produces 16,000 tonnes per annum, equivalent to 12% of the European market, and is the only Italian producer of ultra-thin precision strips which exports over 60% of its output, mainly to Germany, France and Great Britain.

Arinox SpA is equipped with systems for cold-rerolling, which make it possible to produce extremely thin stainless steel strips with thicknesses ranging from 0.05 to 1.50 mm and widths from 2.5 to 650 mm. The machinery in the Arinox plant includes: 1 cold-rolling mill (20 rollers) - 1 cold-rolling mill (6 rollers) - 2 BA hydrogen atmosphere furnaces - 1 tension leveller - 4 longitudinal slitters - 1 edge-dressing line (rounded, deburred edges) - 1 flattening machine for cutting-to-length (sheets, strips) - 1 SUT[®] passivating line - 1 automatic packing line - 1 surface dressing line for strips destined for particularly deep pressing.

Arinox's output is divided into 3 main categories:

- Ultra-thin strip (0.05 - 0.35 mm)
- Precision strip (0.35 - 1.50 mm)
- Cold temper-rolled strip for cold-rolling (0.10 - 1.00 mm)

Types of stainless steel: Austenitic and ferritic.

Surface finishes: 2R (BA) with varying degrees of reflectivity - 2R (BA) + SUT[®] - 2H (crude / temper-rolled) with Rm up to 2000 Mpa.

Surface Ultracleaning Equipment SUT[®]: this technology is used by Arinox to completely eliminate the first superficial strata of material containing impurities of extreme hardness left by the Bright Annealing treatment. Thanks to this process, end users are able to obtain extremely deep pressings and create applications with extremely low degrees of tool wear.

Sectors of application: medical equipment, petrochemical and foodstuff sectors, white goods, safety equipment, telecommunications, graphics, etc. More specifically: automotive industry (gaskets for engine heads, exhaust manifolds, accessories, thermal protection devices, joints and air-bag parts); industrial systems (filters for fluids, expansion compensators for piping, springs, etc.); small metal parts (for electronic instruments, electrical equipment for industrial systems and merchant and military ships, for household appliances, etc.); various (components for PC's, crown caps for bottled drinks, soles for accident-prevention

footwear, buttons for clothing in denim); water and gas (flexible pipes).

Arinox was awarded ISO 9002 certification for its quality control system and the W0/TRD 100 TÜV for its products. It has also obtained European Directive 97/23/EC (PED) certification.

Arinox SpA - Via Gramsci 41/A - I-16039 Sestri Levante GE, phone +39 0185 366.1 - fax +39 0185 366.320, sales@arinox.arvedi.it, www.arvedi.it

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THE NEW EN 10088 STANDARDS (Le nuove norme EN 10088)

The new EN 10088-1-2-3 standards, which update the first version (April 1995), were published last June 2005.

The standard EN 10088-1 "Stainless steels - Part 1: List of stainless steels" includes the chemical compositions and the physical characteristics of a variety of new types of stainless steels. Moreover, many of the materials considered in the standard EN 10095 "Heat resisting steels and nickel alloys" and EN 10302 "Creep resisting steel and nickel alloys" have also been included therein.

The standard EN 10088-2 "Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes" discusses flat products in corrosion-resistant steel, strips and sheets/plates. The standard EN 10088-3 "Stainless steels - Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes" deals with so-called "long products" and, differently to the previous version, also discusses wire and cold-finished (bright) products.

As well as the chemical compositions, both parts also indicate the respective mechanical characteristics (which have undergone several changes compared to the previous versions), surface finishes and heat treatments.

A substantial novelty of the group of EN 10088 standards is that it will shortly be integrated with two additional parts currently being drafted: prEN 10088-4 "Stainless steels - Part 4: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for construction purposes" and prEN 10088-5 "Stainless steels - Part 5: Technical delivery conditions for bars, rods, wire, sections and bright products of corrosion resisting steels for construction purposes", which will define the specifications of flat and long stainless steel products for buildings, in accordance with the essential requisites established by the CPD (Construction Products Directive).

THE ROHS EUROPEAN DIRECTIVE (La Direttiva Europea RoHS)

The 2002/95/EC Directive dated January 27th 2003 known as RoHS, which regards the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment, will enter into effect as from the 1st of July 2006 and, from that date on, the Member States of the European Union will have to take measures to ensure that any new electrical and electronic equipment placed on the market does not contain lead, mercury, cadmium, hexavalent chrome, polybrominated biphenyl (Pbb) or polybrominated ether biphenyl (Pbde). As far as stainless steels are concerned, the chrome that they contain is at its trivalent state, whereas no other substances are present.

MATERIALS AND OBJECTS DESTINED TO ENTER INTO CONTACT WITH FOODSTUFF PRODUCTS - THE EC 1935/2004 REGULATION

(Materiali e oggetti destinati a venire a contatto con i prodotti alimentari. Il regolamento CE n. 1935/2004)

The EC Regulation no. 1935/2004 was published in the European Union Official Gazette dated 13.11.2004 no.



338, repealing EEC Directive 80/590 dated 19.6.1980 and EEC Directive 89/109 dated 21.12.1988, which had been implemented in Italy through Law by Decree no. 108 dated 25.01.1992.

Under Article 6 "Specific national measures", this regulation establishes that "in the absence of specific measures as per Article 5, this regulation does not prevent Member States from maintaining or adopting national measures, provided they comply with the standards of the Treaty". For Italy, this means that the Ministerial Decree dated 21.3.1973 and subsequent amendments (concerning hygiene regulations for packaging, containers, utensils destined to enter into contact with foodstuff substances or with substances for personal use), which indicates 31 types of stainless steel in the "positive list" of materials, remains valid.

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RELAX?...STAINLESS STEEL! (Relax? ... inox!)

Even in our free time, if we demand safety, strength and a long life from our furnishings and accessories, as well as aesthetics and well-being, we cannot but rely on our stainless steel friend to provide us with the right solutions to surround ourselves with refined elegance and pleasure.

All the products presented here are made by coupling EN 1.4401 (AISI 316) stainless steel with other fine materials and, therefore, are capable of withstanding sudden temperature changes and adverse climatic conditions without undergoing damage.

Top - Sun-beds and table with satin finished structure (SG1 collection).

Left - The portable shower from the "Screw" collection works by simply connecting a hose-pipe used for watering the garden.

Bottom - The "Chaise longue" foldable modern-day rocking chair in satin finished stainless steel (Loop collection). The sturdy hammock is supported by a round satin finished tubular structure (SG1 collection).

Design: Stefano Gallizioli (SG1); Danny Venlet (Screw); Gaia Wright (Loop)

Production: Coro Srl - Via Cavallotti 53 - I-20052 Monza - MI, phone +39 039 2726260, fax +39 039 2727409, info@coroitalia.com, www.coroitalia.com

FITNESS AND THERAPY: BETTER IN WATER AND WITH STAINLESS STEEL

(Fitness e terapia: meglio in acqua e con l'inox)

"Aqagym" immediately encountered the favour of the public, in fact, it also takes advantage of the beneficial action produced by the resistance of water for both physical and therapeutic exercising.

That is how the range of "Hydrobikes" came about, made in EN 1.4401 (AISI 316) stainless steel, which guarantee safety thanks to their strength and resistance to corrosion, even under conditions of prolonged immersion in the chlorine water of swimming pools or the salt water of seas.

Figures from the left - "Hydrobike" is the first model on which hydrospin was studied. "Hydrocyclette" provides specific programs for the functional recovery of the knee and hip. By simulating the running movement, "Hydrorunner" provides athletic training. "Hydrorecline" is a horizontal bicycle which makes it possible to pedal with one's body immersed in 70-120 cm of water and which is also a useful aid in physiotherapy for the elderly.

Produzione: H3Oz Srl - Via Cremona 28 - I-46100 Mantova MN, phone and fax +39 0376 225533, info@h3oz.com, www.h3oz.com

MORE AND MORE STAINLESS STEEL FOR TAPS (Sempre più acciaio inossidabile per i rubinetti)

Stainless steel taps and fittings have convinced and conquered a multitude of consumers and, today, have become a sector which can be considered to be undergoing true expansion.

We do believe that the qualities of hygiene, atoxicity, undeformability, life, resistance to aggression by detergents and water with a high pH, all of which make these products ideal for household and community use (hospitals, spas, large kitchens, foodstuff industries, etc.) and in line with the domestic and European Community standards regarding drinking water, will certainly determine their long-lasting future success.

The models in the pictures were made by shearing, pressing and drawing sheets of EN 1.4301 (AISI 304) stainless steel. The cuts were made using a 3D laser, the welds in TIG and the micro-junctions by means of welding robot. Operations of turning/milling and surface polishing followed. The production technology used made it possible to obtain taps with high output capacities and extremely low noise levels.

The taps have also been tested and validated by American laboratories in accordance with the ANSI-NSF 61/2001

standards on the quality of water.

Production: Steel & Water, Beccalossi Officine Meccaniche Srl - Via Repubblica 25 - I-25066 Lumezzane BS, phone +39 030 872400, fax +39 030 8970448, info@steelandwater.it, www.steelandwater.it

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STAINLESS STEEL TANKS FOR AQUEDUCTS (Vasche inox per acquedotti)

Pollution may occur in any point of an aqueduct system, but especially in the tank, where water moves slowly. If one considers the coefficients of low bacterial retentivity and high cleanability of stainless steel, it is clear that the use of this material, in contact with water destined for human consumption, is far better than traditional plaster or cement mortar linings.

A system for the construction of collection tanks has been created based on the assembly of prefabricated panels, composed of 2 parallel slabs of concrete with a thickness of 5 cm, connected to each other by means of electro-welded latticework incorporated into the casting. The surface of the slab which will enter into contact with the water is covered with a sheet of EN 1.4301 (AISI 304) stainless steel, 1.5 mm thick.

The panels will then act as "disposable" caissons for the concrete casting between the two parallel slabs. The stainless steel edges, which are wider than the concrete slab, are then welded together, thus obtaining a perfectly sealed wall. The stainless steel lining on the bottom of the tank is accomplished in the same way.

This system makes it possible to achieve a substantial reduction in installation costs.

Project and Management of works: Ing. Riccardo Savarino, C.d.I. - Via Vignazza 17 - I-27100 Pavia PV, phone +39 0382 303296, fax +39 0382 303083, ricsav@venus.it

Stainless steel sheet supply and welding: Della Cagnoletta Srl - Via Gerone 4 - I-23030 Albosaggia SO, phone +39 0342 510190, fax +39 0342 511501, info@dellacagnoletta.com, www.dellacagnoletta.com

Panel manufacture and installation: C.A. Costruzioni Antonioli Srl - 23030 Lovero SO - Via al Ponte 5, phone +39 0342 770060, fax +39 0342 770044, ca_costruzioni@libero.it, www.costruzioniantonioli.com

ITALIAN PIPES FOR A PAPER MILL IN SARAGOZZA

(Tubi italiani per una cartiera a Saragozza)

An important plant producing paper for household use (kitchen rolls, napkins, toilet paper) has been built in Spain, in Saragozza, with the contribution of Italian technology as far as the supply and installation of all the piping is concerned. The plant, which produces paper starting from cellulose, is equipped with approximately 6,000 m of EN 1.4404 (AISI 316L) stainless steel piping, electro-joint and pickled (DIN 17457) with largely varying external diameters ranging from a minimum of 21.3 to a maximum of 609 mm, and with thicknesses between 1.5 and 4 mm.

The elbows, at 90° (R=1,5D), amount to approximately 1,800, with the same diameters and thickness as those above, which also apply for all of the approximately 1,400 connections, including binders and conical reductions.

Piping made by: Di Marco I. & C. Spa - Via Pesciatina 276/278 - I-55010 Lunata LU, phone +39 0583 429400, fax +39 0583.935905, info@dimarcospa.com, www.dimarcospa.com

Electrowelded pipes: Iltta Inox SpA - S.S. 45 bis km 13 - I-26010 Robecco d'Oglio CR, phone +39 0372 9801, fax +39 0372 921538, sales.iltta@arvedi.it, www.arvedi.it/iltta

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ADVANCED MODULAR COURSE "STAINLESS STEELS"

(Corso modulare avanzato "Gli acciai inossidabili")

6th Edition - Milan, Palazzo FAST, Piazzale R. Morandi 2
2nd Module: machining, installation, selection and design criteria, applications of stainless steels June 7-8-14-15-21-22, 2006

Organised by the Italian Association of Metallurgy in collaboration with Centro Inox, under the sponsorship of Assofond and Federacciai.

The thirty lessons of the second module constitute the natural complement to those of the first module (January/February 2006) and have been programmed to include appropriate references to the basic notions, so as to give any participants who were not able to attend the first module the opportunity to fruitfully follow them.

A debate will take place at the end of each lesson. Again for this second module, an "informer table" held by operators

from the stainless steel sector will be present during the first two days, i.e. June 7th and 8th 2006, operating parallel to the lessons. The course is held in Italian.

For information and registration: Course Secretariat - Associazione Italiana di Metallurgia (AIM) - Piazzale Rodolfo Morandi 2 - I-20121 Milano - phone +39 02 76021132 / 76397770 / 76397763, fax +39 02 76020551, aim@aimnet.it, www.aimnet.it

DESIGN MANUAL FOR STRUCTURAL STAINLESS STEEL - Cold-formed stainless steel in buildings - Presentation of the new edition (Manuale di progettazione per strutture in acciaio inossidabile)

Wednesday, June 21st 2006 - 17.00 hours

Milan - "I Navigli" Cultural Circle - Via De Amicis 17

The aim of the event, promoted by Euro Inox (Brussels), by Centro Sviluppo Materiali (Rome) and by Centro Inox, is that of presenting the new edition of the "Design Manual for Structural Stainless Steel", released by the Steel Construction Institute (Ascot, UK).

The new volume offers the possibility of designing with the use of high-resistance stainless steels, which can be obtained by cold-working and made exploiting an intrinsic characteristic of austenitic stainless steels: that of work hardening to increase resistance.

Program

17.00 Registration - Greeting of participants and introduction

17.30 Overview of the Italian market of stainless steels. The construction and infrastructure sector.

Ing. Fausto Capelli - Managing Director of Centro Inox, Milan

17.45 Interactive and multilingual education: the role of Euro Inox - Ing. Benoit Van Hecke - Technical Director of Euro Inox, Brussels

18.15 Design Manual for Structural Stainless Steel, 3rd Edition - Dr. Massimo Barteri, Ing. Giuliana Zilli - Centro Sviluppo Materiali, Rome

Debate - Aperitif

The event will be held in Italian. Participation is free of charge. Limited seats available. Attendance should be confirmed by telephone, fax or e-mail within June 16th 2006 phone +39 02 86450559 / 69 - fax +39 02 860986 - e-mail: eventi@centroinox.it

A free copy of the Italian version of the new manual will be given to all participants.

For information, please contact Centro Inox.

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IN A PHARMACY, JUST STAINLESS STEEL (In una farmacia solo acciaio inox)

A new pharmacy has been opened in Sanremo, one of the most prestigious bathing centres of the Mediterranean. Two large windows, and an entrance with a "compass" solution, make it possible to achieve maximum visibility displayed goods.

L-shaped tubular stainless steel profiles, with a thickness of 1.5 mm, were used for building the large-span doors and for housings the extremely heavy break-proof windows, so ensuring absolute safety. The finishes were made in press-bent satin finished stainless steel sheet.

The choice of EN 1.4404 (AISI 316L) stainless steel was motivated by its absolute underformability and inalterability in a seaside environment such as Sanremo.

Stainless steel was also used inside the shop, for the stretched cables which support the circular roof and which create a strikingly bold effect.

Client: Farmacia Andreoli, Sanremo

Project: Arch. Daniele Bugo

Building contractor: Sicur Emme, di Castello Federico & C. Snc - Via della Pira 23 - I-35043 Monselice PD, phone +39 0429 780279

Building company: B&B Snc, di Bozza e Bianco, 35023 Bagnoli di Sopra PD - Via L. Pastò 17, phone +39 049 9515340, controsoffittature@libero.it

Tubular profiles: Palladio Trading & Engineering - Via A. Boito 25/31 - I-31048 S. Biagio di Callalta TV, phone +39 0422 7969, fax +39 0422 796969, info@palladiotrading.com, www.palladiotrading.com

Photos: Paolo Belvedere

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