

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

"LIVING" STREET FURNITURE FOR REDISCOVERING OUR CITY

("Vivere" l'arredo urbano per riscoprire la propria città)
Thinking about street furniture means first of all thinking about the quality and usability of public and private spaces, and evaluating, before any intervention or operation, all pre-existing and consolidated reactions and environmental balances so as to develop a harmonious structural project capable to encompass the typical behaviours, the needs and the culture of a place. The city of Monza is a significant, tangible example of a "people-friendly" urban landscape. The street furniture we present consists in a line of coordinated products made of stainless steel, insofar as this material proves to be modern, elegant and durable. This line of products is designed according to the strictest rules of ergonomics and functionality, which however leave the doors open to creative solutions and personalization. All elements are made of EN 1.4301 (AISI 304), or on demand, of EN 1.4401 (AISI 316) stainless steel. The litter baskets, for example, which have a 30 lt capacity and are provided with a cover that protects them from rain, are made of 30 mm bent tubular with a 170 mm radius, to which a drawn plate bottom is welded. The baskets are anchored to the cover post by means a movable locking ring. The curved bench, with the back placed in the inner concave side, is made of a central frame formed by 90 mm tubes welded to the three supports of the back, which in turn is made of a custom-built laser-cut shaped plate to which 22 mm diameter tubes are fastened. The ends of these tubes are provided with stainless steel rounded-off caps which form the back and the seat of the bench. The double bench had been made in 200 cm length with a natural non-reflective surface. The line includes also a modular bicycle rack, which solves effectively and with style the problem of parking the "two wheels".

Monza line: Stainless Products Srl - Via delle Industrie 9 - I-20040 Cambiago MI, ph. +39 02 959499640, fax +39 02 959499641, products@stainlessproducts.it, www.stainlessproducts.it

PAGE 5

STAINLESS STEEL AND SPECIAL FINISHES: A WINNING UNION FOR AN EVER-EXPANDING MARKET (Inox e finiture speciali: un connubio vincente per un mercato in forte espansione)

The fruit and vegetable market concerning ready-for-use products, that is to say, fresh, precooked, washed, dried out, cut, sliced and packed fruit and vegetables is continuously expanding and developing. Producers have to combine the problems related to the contact with food with the need to easily handle and manage packed products. We present in this article a multi-head weigher of the latest generation, for the construction of which special attention was paid to materials, which prove essential to ensure the equipment great strength and the highest hygienic and sanitization standards. The groundbreaking design of the frame, made of EN 1.4301 (AISI 304) stainless steel tubes and sheets, makes all cleaning operations easier, and ensures easy access to all removable parts, such as the slides and the outlet cone. The central body of the equipment consists in a satin-finish AISI 304 stainless steel monobloc welded through tubes to the frame, so as to form a single solid structure suitable to be used in any environment. All the parts which come into contact with food are made of AISI 304 stainless steel, or, in case of particular requirements in, EN 1.4404 (AISI 316L) which fully conform to the provisions of the Ministerial Decree of March 21, 1973. As soon as the different parts of the weigher are manufactured, they are either electro-polished or coated with a non-stick material, as for example Teflon, in the case of fatty products like grated cheese. The parts which come directly into contact with food may vary depending on whether their surface finish is smooth or corrugated. In the second case, depending on processed food, different kind of sheets can be used, and the type of finish is of paramount importance in optimizing the production performances of this machine.

Manufacturer: Comek Srl - Via 1° Maggio 40 - I-25013 Carpenedolo BS, ph. +39 030 9698647, fax +39 030 9983242, info@comek.it, www.comek.it / **Marketing:** Opepsi Stefano Srl - Via Donatello 30 - I-20131 Milano, ph. +39 02 23951349, fax +39 02 23951395, info@opepsi.it, www.opepsi.it

PAGES 6-7

FROM OUR MEMBERS

APERAM: OUR PASSION, FLEXIBILITY AND TALENT CAN CHANGE THE WORLD

(Aperam: la nostra passione, agilità ed ingegno hanno il potere di cambiare il mondo)

Aperam is the new global actor in the stainless steel market resulting from the spin-off of the stainless steel division of Arcelormittal - With a staff of about 9,800 persons and a total production capacity of 2.5 Mt of stainless steel flat rolled products focusing on six plants based in France, Belgium and Brazil, Aperam has become a market leader in the production of special stainless steels, electrical steels and nickel alloys. The company is currently marketing its products in more than 30 foreign countries. The project to make of the stainless steel division of ArcelorMittal an independent organization results from the wish of this division to acquire greater visibility and to pursue, as an independent company, its own growth strategy in the world emerging markets through high added value products. Furthermore the company's capacity to make use of biomasses in its production cycle represents for Aperam an important distinguishing element in terms of environmental sustainability. Aperam structure is divided into three divisions: The **Stainless & Electrical Steel** division gathers the steel-milling and rolling process activities for the production of stainless steels (Belgium, France and Brazil), as well as the production of electrical steels (focusing in Brazil). Aperam supplies the widest range of stainless steels in the world and is a leader in the production of ferritic steels and BA finish products.

The **Services & Solutions** division gathers all the activities related to direct sales of stainless steel products, product distribution through service centres, and processing activities. The Aperam network includes 18 service centres and 12 processing plants. As well as being the most integrated network in Europe, the company is currently the only fully-integrated one existing in South America. From the point of view of product offer, Aperam can supply the widest range of stainless steels in the form of welded tubeshin strips and flat bars.

The **Alloys & Specialities** segment deals with the market of nickel alloys and special stainless steels, in all formats (flat and long products) and in a wide range of nuances. In this area, Aperam holds globally a leading position in several specific applications for different markets, such as the petrochemical, automotive, aero-space and electrical engineering industries.

Aperam in Italy - The head office of the Italian branch of Aperam, which markets stainless steel products, is based in Milan, while its two Service Centres are located at Massalengo, in the province of Lodi, and at Podenzano, in the province of Piacenza.

The company currently employs in Italy a staff totalling about 230 persons, divided into the premises of Milan, Massalengo, Podenzano, and in the branches of Vicenza and Rome. The company organization is currently developing in three departments: Direct Sales, Service Centre Department of Massalengo, and Service Centre Department of Podenzano.

Excellence in Quality and Service for Our Customers - The range of stainless steels offered by Aperam in Italy is capable to fully meet any corrosion resistance and workability requirement from customers who work in different markets, as for example, kitchen appliances, automotive industry, building industry, urban furniture, etc.

Safety and Quality System - The culture of safety is a pivotal issue for Aperam, which pays the utmost attention in pursuing the "zero accident" goal in order to ensure its whole personnel the highest safety and protection levels. Deeply rooted in the culture of Aperam are also the care for the environment, for customers' requirements, for organizational effectiveness and process reliability. In Italy, all this is guaranteed by an integrated quality system, which fully meets UNI EN ISO 9001, OHSAS 18001, and ISO 14000 standards.

Aperam Stainless Services & Solutions Italy Srl - Viale Brenta 27/29 - I-20139 Milano, ph. +39 02 566041, fax +39 02 56604257, www.aperam.com

PAGES 8-9

EN 10204 - "TYPES OF INSPECTION DOCUMENTS" (EN 10204 - "Tipi di documenti di controllo")

The documents enclosed with metal products circulating on the market play, in many respects, a very important role. They represent, in fact, an essential part of the traceability process, that is to say, the process that allows reconstructing the whole history of a product "from the cradle to the grave". **Inspection documents** are the papers through which the supplier guarantees that supplied products fully comply with the technical requirements specified by the customer's order. The EN 10204 standard issued in October 2004 deals with these requirements as stated in the scope at paragraph 1.1 "This document specifies the different types of inspection documents supplied to the purchaser, in accordance with the requirements of the order, for the delivery of all metallic products e.g. plates, sheets, bars, forgings, castings, whatever their method of production."

The EN 10204 standard introduces the different types of inspection documents, or certificates, referring to metallic products, as follows:

Declaration of compliance with the order "type 2.1". Document in which the manufacturer declares that the products supplied are in compliance with the requirements of the order, without inclusion of test results.

Test report "type 2.2". Document in which the manufacturer declares that the products supplied are in compliance with the requirements of the order and in which he supplies test results based on non-specific inspection.

Inspection certificate "type 3.1". Document issued by the manufacturer in which he declares that the products supplied are in compliance with the requirements of the order and in which he supplies test results. The test unit and the tests to be carried out are defined by the product specification, the official regulation and corresponding rules and/or the order.

Inspection certificate "type 3.2". Document prepared by both the manufacturer's authorized inspection representative, independent of the manufacturing department and either the purchaser's authorized inspection representative or the inspector designated by the official regulations and in which they declare that the products supplied are in compliance with the requirements of the order and in which test results are supplied.

Furthermore, this specification clearly establishes the contents of each document (for example, manufacturer's name, reference standard, signature of the person in charge, etc.)

In this connection, it is useful to remind that many product specifications "interface" with the EN 10204 standard, as they precisely report the certificate contents. Of the utmost importance are, in particular, the specifications concerning the stage in which inspection documents are transmitted by an intermediary. "An intermediary shall only pass on either an original or a copy of the inspection documents provided by the manufacturer without any alteration. This documentation shall be accompanied by suitable means of identification of the product, in order to ensure the traceability between the product and the documentation. Copying of the original document is permitted, provided that: traceability procedures are operated; the original document is available on request. When producing copies it is permissible to replace the information on the original delivered quantity by the actual delivered partial quantity".

Finally, concerning validation, the current version of EN 10204 in force does no longer include any reference to signature, but only and generically, to the name and position of the person in charge, since the transmission and filing of certificates both in electronic and paper format is now admitted.

PAGES 10-11

PRESERVING AND DISPLAYING FOOD IN PERFECT HYGIENIC CONDITIONS: STAINLESS STEEL REFRIGERATED EQUIPMENT

(Conservare ed esporre gli alimenti in condizioni di massima igiene: attrezzature refrigerate in acciaio inox)

In design, planning and production of refrigerated equipment for professional use, stainless plays a primary role because it is capable to meet several important requirements, especially those concerning hygiene and easy cleaning. The hygienic properties of stainless steel are a result of the high corrosion

resistance degree of this material. The inertia towards the substances with which stainless steel comes into contact makes it the ideal material for food preservation and display. Since no chemical reaction is measured between stainless steel and food, this material remains undamaged over time, and the food cannot be contaminated by metal components or corrosion products. Surface compactness without porosity, the possibility to almost completely remove bacteria and bacterial retention during cleaning cycles, complete the list of the most outstanding characteristics which make stainless steel a highly hygienic material suitable for any application in the area of refrigeration. Fully conscious of the properties of stainless steel, a company of Ascoli Piceno is completely relying on this material for the production of refrigerated equipment for professional use. The offer of refrigeration solutions ranges from appliances and equipment for traditional restaurants to those especially developed for the catering industry, from pastries and confectionery to pizza, from bakery to ice cream. These special appliances, an expression of the constant attention paid by this company to the changing trends of the modern catering industry, are characterized by a stainless steel structure, which makes cleaning operation easier and ensures excellent hygiene levels. The choice of the most appropriate stainless steel grade and surface finish for each specific application is an essential prerequisite. In this case, EN 1.4301 (AISI 304) austenitic stainless steel is used in general for this purpose, as this material is characterized by inertia to food products, and tolerates the detergents used to keep the plant clean. Anti-fingerprint stainless steel, too, is now being successfully used also in this area, because, thanks to a special organic coating, it is capable to minimize the "fingerprint" effect on the surface, thereby enhancing the possibilities to easily cleaning the structure. The achievements and the ever-growing use of stainless steel in the area of refrigeration, and in general in the catering industry, go along with the gradual replacement of traditional austenitic steels with alternative stainless steels, such as the new ferritic steels. Through the use of these new ferritic steels, manufacturers and users try to compensate for the problems resulting from nickel volatility, and at the same time, they can rely on performances similar to those provided by austenitic steels, both from a technical and an aesthetic point of view.

Manufacturer: SAGI S.p.A. - Z. I. Campolungo 79/81 - I-63100 Ascoli Piceno, ph. +39 0736 22601, fax +39 0736 226065, marketing@sagispa.it, g.vesperini@sagispa.it, www.sagispa.it / *Stainless steel produced by:* ThyssenKrupp Acciai Speciali Terni - Viale B. Brin 218 - I-05100 Terni, ph. +39 0744 490282, fax +39 0744 490879, marketing.ast@thyssenkrupp.com, www.acciaiatermi.it

INNOVATION AND TECHNOLOGY: PIPE JOINTS

(Innovazione e tecnologia: i giunti di connessione e riparazione)
The joints described in this article have been developed for the head-to-head connection and repair of seamless stiff tubes and pipes, and belong to a highly innovative line of products. Through these joints, which are supplied ready to be assembled, pipes can be easily jointed in a short time. Their complete tightness is ensured also in presence of minor misalignment, angular divergence and axial thrust. Any hammering, vibration and noise is completely absorbed. These joints are reusable, and, thanks to their compact design, they are light, handy and can be easily assembled and dismantled also in a narrow space. Made of EN 1.4301 and EN 1.4401 (AISI 304 and 316) stainless steel for 26.9 to 2,000 mm diameter tubes and pipes, these joints are provided with a EPDM or NBR patented double lip seal, suitable for applications under pressure up to 70 bar (suction or vacuum).
Production: Norma Italia S.p.A. - Via dell'Artigianato 16/18 - Z.I. Loc. Bolina - I-25085 Gavardo BS, ph. +39 0365 31141, fax +39 0365 373420, info.it@normagroup.com, www.normagroup.com

STAINLESS STEEL FILTERS FOR THE AUTOMOTIVE INDUSTRY

(Filtri inox per il settore auto)

The typical characteristics of stainless steel which refer especially to the mechanical resistance properties of this material, as well as its inalterability over time, are often put to use also in the automotive industry for the construction of engine, structural elements, and trimmings. We present in this article an example concerning an important part of the engine, the air filter. These air filters ("Tecnifilter®"), are completely made in Italy, and the filtering element, made of stainless steel, consists of micro-texture sheets, for the production of which EN 1.4301 (AISI 304) and EN 1.4306 (AISI 304L) stainless steel is used. This new filter concept undoubtedly ensures several major advantages, such complete mechanical tightness, high resistance to air flows, unchanging performances in the filtering part, which allow achieving high and constant efficiency levels over time, higher overall performances compared to those of traditional filters, and in addition, can be easily cleaned.

Planning, design, production and patent: Colombo Angelo Snc - Via Statale 6 - I-22045 Lambrugo CO, ph. +39 031 607309, fax +39 031 608248, info@colomboangelo.it, www.colomboangelo.it

WHEN THE FLOOR IS MADE OF STAINLESS STEEL

(Quando il pavimento è inox)

Thanks to its properties of strength, durability, wear and corrosion resistance, and beauty, stainless steel is the material chosen for the line of interior floorings to be used in home and professional environments, as well as in public spaces. The system we describe is a "easy to lay" system, because it does not need to be fixed and represents an optimal solution for all application is which no watertight sealing is required. The tiles fit together forming a continuous surface, which is kept adherent to the underlying floor screed by the weight itself of the tiles. These tiles are made of EN 1.4301 (AISI 304) stainless steel sheet, or in other types of stainless steel depending on the surrounding environment and on specific installation requirements. The tiles can be supplied either in BA or 2B finish, in 1 mm thickness, and are Wave® shaped lengthwise. Their reduced thickness allows installing them also on pre-existing floors. These tiles are available also in several colours and are highly resistant to foot traffic and even to cigarette burns.

Wave Steels: I.S.A. S.r.l. - Viale Luraghi snc - I-20020 Arese MI, ph. +39 02 93454996, fax +39 02 93454913, info@wave-steels.it, www.wave-steels.it

OUR MAIL IS EVEN MORE PROTECTED THANKS TO SUPER-FERRITIC 470LI STEEL

(La nostra posta è ancora più al sicuro con l'acciaio superferritico 470LI)

Even if we are living in the age of Internet and multi-media, the postal service still continues to be very important. If an outdoor mailbox has to be installed, stainless steel is the most suitable material to be used because it is completely weather-proof and durable over time.

After the coming of the latest generation of steels, such as the super-ferritic stainless steels, one of the major manufacturers of mailboxes has undertaken the way to innovation, and is now using the new super-ferritic 470LI stainless steel, which has a corrosion resistance degree comparable to the one provided by traditional EN 1.4401 (AISI 316) steel. Through the use of 470LI, this company has now completely replaced one of the austenitic steels most commonly used in the production of mailboxes, namely EN 1.4301 (AISI 304). The advantages brought by the replacement of 304 with 470LI consist in the possibility to obtain better chemical-physical performances, and at the same time, a price released from possible fluctuations in the market of raw materials, such as Nickel.

Production: ALUBOX S.r.l. - Via Boaria 5 - I-40065 Pianoro BO, ph. +39 051 743565, fax +39 051 744010, alubox@alubox.it, www.alubox.it / *Stainless steel produced by:* ThyssenKrupp Acciai Speciali Terni S.p.A. - Viale B. Brin 218 - I-05100 Terni, ph. +39 0744 490282, fax +39 0744 490879, marketing.ast@thyssenkrupp.com, presaletecnico.ast@thyssenkrupp.com, www.acciaiatermi.it / *and distributed by:* Terminox S.p.A. - filiale di Padova - Viale Veneto 34/36 - I-35020 Villatora di Saonara PD, ph. +39 049 8798301, fax +39 049 640678, info.terminox@thyssenkrupp.com, www.terminox.it

7th EUROPEAN STAINLESS STEEL CONFERENCE - SCIENCE AND MARKET

The 7th European Stainless Steel Conference - Science and Market, which will be held on 21-23 September 2011 in Como (Italy), is organized by AIM - Associazione Italiana di Metallurgia, in cooperation with Centro Inox and Politecnico di Milano - Polo Regionale di Como. Through this event, AIM intends to match and improve the positive and successful experience of the previous

European Stainless Steel Conferences, started by AIM in 1993 with the first meeting held in Florence (Italy). The Conference aims at gathering and sharing information on all the most important aspects of stainless steels production technology, such as hot and cold rolling, heat treatment and so on, with delegates who have both an academic and an industrial background. These developments will be linked to existing and potential applications and to other market-related factors, in order to set orientations to guide future developments. This event, which succeeds in bringing together stainless steel manufacturers and users, will allow comparing users' present and future needs with manufacturers' ability to satisfy these demands now or in the future.

The official language is English.

Organizing Secretariat: Associazione Italiana di Metallurgia - Piazzale Rodolfo Morandi 2 - I-20121 Milan - Italy, ph. +39 02 76021132 or 76397770, fax +39 02 76020551, e-mail aim@aimnet.it

"6TH STEEL TUBE & PIPE CONFERENCE"

MILAN GIVES HOSPITALITY TO AN IMPORTANT EVENT FOCUSED ON THE STAINLESS STEEL TUBE AND PIPE MARKET

("6th Steel Tube & Pipe Conference" - Milano sede per un importante evento dedicato al mercato del tubo di acciaio e acciaio inossidabile)

The "6th Steel Tube & Pipe Conference" will be held in Milan on June 15-17, 2011 at the Radisson Blu Hotel. This event, organized by Metal Bulletin and SMR, provides for two different modules, the second of which exclusively devoted to the major markets dealing with stainless steel tubes and pipes: building industry, architectural design, oil and gas, automotive industry, chemical industry, food industry, heat exchangers and energy. The reports made by personalities of primary importance, will allow outlining the post-recession scenario, which seems very clear for some markets and geographical areas in which a recovery stage seems to be already very strong, while it seems still quite uncertain in other markets in which the crisis has left many uncertainties. The module of the conference focused on stainless steel tubes and pipes, for which a dedicated registration is required, will take place on June 16 afternoon, and during the whole day of June 17.

Centro Inox, which backs this event, will actively participate in this conference, especially in the second module of June 17. The official language of the conference is English.

Detailed information about the conference is available at: www.metallbulletin.com/events/stp

UPDATING OF MINISTERIAL DECREE MARCH 21, 1973: REGULATIONS CONCERNING MATERIALS COMING INTO CONTACT WITH FOOD (Aggiornamento DM 21.3.1973: disciplina relativa ai materiali in contatto con gli alimenti)

The *Official Gazette of the Italian Republic, General Series n° 28, February 4, 2011*, recently published the *Ministerial Decree n° 258, December 21, 2010* "Regulation updating the Ministerial Decree, March 21, 1973, concerning the hygienic rules to be followed for packages, containers, vessels, and tools which come into contact with food or substances for personal use, as far as stainless steels are concerned".

As well as the inclusion in the positive list of four new stainless steel types, another important change has to be underlined, notably: the 0.1 ppm specific migration limit provided for Chrome and Nickel, is now extended also to Manganese. A further responsibility for the manufacturers who make use of stainless steel for the production of components which come into contact with food, who are required to carry out tests certifying the full compliance of their products with the provisions of Ministerial Decree March 21, 1973.

CREATIVITY INTERTWINGING WITH GEOMETRY (La creatività si intreccia con la geometria)

In the area of the new Trade Fair of Milan, located at Rho-Pero, about 10,050 car parking places have been built, divided into ground parking and multi-level parking areas. The two multi-level parking buildings consist of four levels with a structure of prefabricated reinforced concrete formed by about 350, 2,400 mm-wide, panels. More than 21,500 square meters of EN 1.4404 (AISI 316L) stainless steel woven wire mesh shaped into modules through about 700 EN 1.4301 (AISI 304) stainless steel 100x40x4 mm angle bars, have been used to cover and characterize the PM1 and PM2 parking buildings. This stainless steel wire cloth is the typical element of the building front, and acts also as a barrier to prevent the falling of objects. The panels are tightened at the upper end and stretched at the lower end by means of a special comb anchoring system, complete with tension tie-rods and springs. The available kinds of wire cloth have a different wire and rope density, and offer an extraordinary range of transparency and light-reflecting effects, thus creating a harmony of geometries to be used for innovating solutions in the building industry.

Project: arch. Mario Bellini - Mario Bellini Architects Srl - Piazza Arcole 4 - I-20143 Milano, ph. +39 02 5815191, fax +39 02 58113466, info@mariobellini.com, www.mariobellini.com / *Stainless steel wire mesh, series ARCHI-NET®:* Costacurta Spa-VICO - Via Grazioli 30 - I-20161 Milano, ph. +39 02 66202066, fax +39 02 66202099, archi-net@costacurta.it, www.costacurta.it

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

