INOSSIDABILE

Edited and published by Centro Inox

Summary

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

minimize the deposit of foreign substances on the inner walls of the vessels coming into contact with wine. Among the different winemaking operations, this improved finish proves particularly effective during decanting and tartar precipitation, as these processes may affect the integrity of the tank surfaces due to the presence of foreign agents, especially potassium bitartrate, which build up on the tank surfaces and slow down the winemaking process.
InoxWine™ finish: ThyssenKrupp Acciai Speciali Terni SpA – Viale B. Brin, 218 – I-05100 Terni, www.acciaiterni.it – *Marketing*: Dr. F. Ricci Feliziani, phone +39 0744 490275, fax +39 0744 490879, fabrizio.ricci-feliziani@thyssenkrupp.com

STAINLESS STEEL: A DIRECT LINE WITH ENERGY SAVING
(Acciaio inox: un filo diretto col risparmio energetico)
The building system schematically described by the pictures is based on a set of modular panels, formed by two electrically-welded galvanized steel grids enclosing an interposed expanded polystyrene core, which are interconnected by connectors. These panels are then completed by a layer of concrete plaster. Further to the enforcement of Law Decree 192/2007, which has established the maximum thermal transmission levels for the opaque vertical walls of buildings, the use of stainless steel in the construction of the electrically welded grids has been introduced. The stainless steel used for this application is an austenitic steel with a 17-19.5% chromium and an 8-10.5% nickel content, which, because of its low thermal conductivity, allows attaining the thermal transmission levels required by the energy-saving laws and regulations currently in force. This particular solution is supplemented with a range of additional building elements for the construction of floors, covers, partition walls and stairs.
Panel production: EMMEDUE S.p.A. – Via Toniolo 39/b Z.I. Bellocchi – I-61032 Fano PU, phone +39 0721 855650/1, fax +39 0721 854030, info@mdue.it, www.mdue.it / ***Stainless steel wire supply for connectors:*** Arvic Metalli S.r.l. – Via Bizet, 36/N – I-20092 Cinisello Balsamo MI, phone +39 02 99785190, fax +39 02 99785189, info@arvicmetalli.it, www.arvicmetalli.it / ***Stainless steel wire production:*** Cogne Acciai Speciali S.p.A – Via Paravera 16 – I-11100 Aosta, phone +39 0165 3021, fax +39 0165 43779, info@cogne.com, www.cogne.com

441LI: A WINNING ALTERNATIVE IN PUMP PRODUCTION
(441LI: un'alternativa vincente nella produzione di pompe)
The replacement of 304 with 441LI stainless steel has been successfully tested also by some of the major manufacturers of the pump industry. Pumps have been manufactured using both AISI 304 and 441LI stainless steels, and in particular:
- The elements with greater deep-drawing levels, have been manufactured with EN 1.4301 (AISI 304), as this material is better suited for cold forming;
- The elements with a simpler structure have been instead manufactured with EN 1.4509 (441LI) stainless steel supplied by ThyssenKrupp Acciai Speciali Terni.
Particular attention is required during the welding stage: protection gases cannot be used, since they may lead to the structure embrittlement, and the utmost care must be placed also in the pressing and forming stage. Before deciding whether ferritic steel could be effectively used in pump manufacture, it was necessary to test the two kinds of stainless steel (AISI 304 and 441LI). The corrosion-resistance tests were carried out on the welded parts of the pump, as the corrosion process usually starts from the weld seam. All responses to corrosion tests carried out with clean water have been identical up to 50 ppm chloride content. Between 50 and 250 ppm, austenitic steel has proved to be slightly more effective. From an aesthetical point of view, at the beginning, 441LI has shown a greyer colouring compared to the austenitic stainless steel one, but after a polishing process, this aesthetic difference has been completely removed. Therefore, in many cases, 441LI can represent an excellent and effective alternative to austenitic steel in several market applications.
Pump production: Vertical S.p.A. – Via Asolo, 7 – I-36031 Dueville VI, phone +39 0444 360366, fax +39 0444 360363 / ***Stainless steel supplied by:*** ThyssenKrupp Acciai Speciali Terni SpA – Viale B. Brin 218 – I-05100 Terni, www.acciaiterni.it – *Marketing:* Dr. F. Ricci Feliziani, phone +39 0744 490275, fax +39 0744 490879, fabrizio.ricci-feliziani@thyssenkrupp.com

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STAINLESS STEEL AND MINERAL WATER - For all its products, Sanpellegrino continues to rely on stainless steel
(Inox e acqua minerale - Per il proprio prodotto la Sanpellegrino continua a puntare sull'acciaio inossidabile)
Sanpellegrino S.p.A. commits itself to preserve the original characteristics of its products up to the moment in which they are drunk. Since the very beginning of the process, water is picked up by means of stainless steel pipes and equipment, which comes directly into contact with the source, and then is carried straight to the bottling plant (again through stainless steel pipes) where packing operations are carried out, subject to preliminary storage into tanks. Mineral water must consequently keep its natural characteristics unchanged. Therefore, it has to come into contact only with absolutely inert materials from a chemical, chemical-physical, bacteriologic and organoleptic point of view. Due to its intrinsic properties, stainless steel perfectly meets all these requirements. In particular, from a hygienic point of view, in the case of water pipes, the T.I.G. welding system allows achieving a perfectly smooth and continuous inner surface, thereby minimizing any risk of stagnation of foreign bodies and particles, as well as any residual of chemical products used for the sanitization processes. Pipes are laid down into prefabricated concrete conduits and this solution represents today one of the most effective confinement techniques to avoid any potential corrosion onset. In the event that pipes are directly buried in the soil, it is advisable to use pipe bars pre-coated with a PEAD sheath or, as an alternative, with plastic material ones.
Planning and project management: C.d.I. Consulenze di Ingegneria – Dr. Ing. Riccardo Savarino – Via Vignazza 17 – I-27100 Pavia, phone +39 0382 303296 / ***Project execution:*** Nord Inox di Sosio Daniele & C. S.n.c. – Via Ponti 94 – I-23038 Semogo Valdidentro SO, phone +39 0342 927091 / ***Water pipe supply:*** Ilta Inox S.p.A – Strada Statale 45bis Km 13 – Robecco D'Oglio CR, phone +39 0372 9801, fax +39 0372 921538, sales@ilta.arvedi.it, www.arvedi.it/ilta

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STAINLESS STEEL WINS OUT THE CHALLENGE OF HISTORY
(L'inox vince la sfida della storia)
On August 20, 1465, in the former countryside round Milan, Johannes de Braschis built a watermill on a spring called Sant'Agnese. This watermill, located in a spot that today is part of the metropolitan area of Milan, belonged in 18th century to the family Visconti di Modrone and continued to work uninterruptedly until 1960. Historical memories are a too precious heritage for running the risk to get lost, particularly for the new generations. Hence, the idea to recover and revalue the past and bring the plant back to its original correct operating conditions, but paying particular attention to the use of modern materials. The mill vanes, still working and cyclically immersed into the water, were exposed to the risk of giving way, also because the effort to contrast the water thrust is expanded by the considerable lever arm represented by the length of the blades. Therefore, an EN 1.4301 (AISI 304) stainless steel rod with 9 mm diameter and M10 threading has been used for manufacturing the tie-rods connecting the wheel vanes, in order to exploit all the flexibility and wear-resistance properties of this type of steel. The thread placed on one end, by means of a hole through the oak wood blade, allows the tie-rod to be firmly tightened to the following one by means of an eye. The function of these tie-rods, two for each vane and 38 in total, is to keep the single blades integral to the wheel-hub and keep a suitable distance to allow the wheel staying balanced, but first of all, to ensure a homogeneous distribution of the water-thrust on the whole wheel. The different parts have been planned and designed keeping their original shape, which has been drawn from some samples of the past centuries that had remained buried into the bottom of the spring. A dynamic, and at the same time, a static function that AISI 304 is able to effectively perform reaching a perfect compromise of efficiency, aesthetical properties and rational harmony. This consolidation and strengthening intervention has proved absolutely successful with minimum impact on the existing structures and long life guarantee over time.
Customer: Famiglia Villa – Via Antonio Mosca 118 – I-20152 Milano / ***Planning:*** Ing. Marco Rossetti – Milano, marcorossetti@libero.it / ***Material supplied by:*** Trafileria Eure Inox S.r.l.– Via L. Da Vinci 2/4 – I-20068 Peschiera Borromeo MI, info@eureinox.it, www.eureinox.it / ***Working and machining operations:*** OMP di Prati Massimo & C. S.n.c. – Via Antonio Mosca 118 – I-20152 Milano, phone +39 02 4563625, ompdiprati@virgilio.it

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ADVANCED MODULAR COURSE "STAINLESS STEELS" – 7th Edition
(Corso modulare avanzato: "Gli acciai inossidabili")
Organized by AIM (Italian Metallurgy Association) in cooperation with Centro Inox
Milan, FAST Building, Piazzale R. Morandi 2
1st Module: metallurgy, characteristics, corrosion, stainless steel production and market, 11-12-18-19-25-26 February 2009
2nd Module: machining, installation, selection and design criteria, stainless steel applications, 3-4-10-11-17-18 June 2009
The detailed program of the second module classes will be presented on issue 175 of Inossidabile (March 2009).
Director and coordinator: Prof. Gabriele Di Caprio.
The official language is Italian.
For information and registration:
Associazione Italiana di Metallurgia (AIM)
Piazzale R. Morandi 2 – I-20121 Milan
Phone +39 02 76397770 – Fax +39 02 76020551
aim@aimnet.it – www.aimnet.it

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PROCEEDINGS OF THE CONFERENCE: STAINLESS STEEL SERIES 300: IS THERE ANOTHER ALTERNATIVE?
– A comparison among series 300, 400 and 200 stainless steels –
(Atti del convegno: "Inox serie 300: esiste un'alternativa? Inossidabili della serie 300, 400 e 200 a confronto")
The proceedings of the conference organised by Centro Inox on 5 November 2008 in Milan are now available (in Italian only) under the followings titles: 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. Pedeferri - Politecnico di Milano), **Performed test programme: Corrosion tests, materials and purposes** (G. Stella, G. Rivolta - RTM Breda), **Test results** (M. Boniardi, S. Cincera - Politecnico di Milano) / ***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. Alboni), **Elica S.p.A.** (R. Del Basso).
For additional information: Centro Inox – Piazza Velasca 10 – I-20122 Milan, phone +39 02 86450559 / 69, fax +39 02 860986, eventi@centroinox.it, www.centroinox.it

ALUMOTIVE 2009: THE 4th EDITION OF THE GREAT EVENT ON TRASPORTS
(Alumotive 2009: la IV edizione del grande evento sui trasporti)
The 4th edition of Alumotive, the International Exhibition of Components, Sub-Contracting and Innovative Solutions in Aluminium, Metals and Technological Materials for the Transport Industry, will be held from April 2 to 4, at the Garda Exhibition Centre of Montichiari, Brescia. The exhibition will be joined by a rich programme of highly specialized meetings. Centro Inox will take actively part in this event and will be present with its own stand. For additional information: www.alumotive.it.

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FURNISHING TILES
(Piastrelle d'arredo)
"Inoxtile" is a stainless steel EN 1.4301 (AISI 304) tile with a porcelain stoneware support, which allows meeting in an elegant and refined manner particular aesthetical and furnishing requirements. These tiles can be supplied in different formats and sizes in a wide range of finishing options, from smooth and polished tiles to differently decorated ones. The main characteristics of these products consist in that they are very resistant to wear and tear, can be easily cleaned thereby ensuring maximum hygiene, and have antistatic properties.
Pict. 1 – Kitchen furniture stainless steel top, which joins sink and stove top in the same assembly. Stainless steel is also used for the refined back panelling.
Pict. 2 – Floor with smooth stainless steel tiles.
Pict. 3 – For daily stainless steel cleaning, you only need to wash the surface with water and soap, rinse it well with clear water, and then dry it well with a soft cloth. It is advisable never to use abrasive cloths or towels, or detergents with a chloride basis.
Kitchen top and tile production: Artinox Spa – Via F. Fabbri 39 – Z.I. Campidui – I-31015 Conegliano TV, phone +39 0438 4531, fax +39 0438 453200, commerciale@artinox.com, www.artinox.com

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