

# INOSSIDABILE

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## Summary

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

### COVER/PAGES 3/4

#### A WINERY THAT LOOKS TO THE FUTURE WHILE RESPECTING NATURE (Una cantina che guarda al futuro rispettando la natura)

Among the Valtidone hills, in the westernmost part of the Piacenza, there is a small village that after years of neglect, it has been restored to its former splendour thanks to the work of a family who decided to renovate the buildings and recover the surrounding vineyards. Thanks to a three-storey plant all the production is gravity-based.

The barrique hall is located on the basement floor and is built to maintain a constant temperature of 18 degrees in summer and winter, without needing external conditioning. The plant has been designed to accommodate the natural airflows that come from the valley which allow the humidity regulation for areas dedicated to drying grapes. Alongside these "old peasant secrets" is the use of EN 1.4401 (AISI 316) and EN 1.4301 (AISI 304), stainless steel for all production plants. In the large production room there are 33 stainless steel vats of different sizes, designed to produce and preserve harvests of various vintages and to permit partial bottling. The tanks have been manufactured in full compliance with the legal requirements concerning materials and objects in contact with foodstuffs. Both EN 1.4301 and EN 1.4401 steel are on the "positive list" of materials suitable for contact with food under the Ministerial Decree of March 21, 1973, and its subsequent updates. At European level, tanks comply with EC Regulations 1935/2004 and 2023/2006.

**Farmhouse:** Santa Giustina Srl - Loc. Santa Giustina - Arcello - I-29010 Pianello Val Tidone PC, phone +39 0523 994612, fax +39 0523 998059, info@santagiustina.com, www.santagiustina.com

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#### PARIS PHILHARMONIC (La Filarmonica di Parigi)

In January 2015, the Paris Philharmonic was inaugurated and is located in the capital's north-east -19th administrative district. The heart of the building, the "Tourbillon", which houses the foyer is constructed of interwoven EN 1.4404 (AISI 316L) stainless steel sheets with a polished finish with a bright effect. The creation of this curved wall starts from a deconstruction of two different "layers" the external cladding and an internal waterproof wall which are defined by distinctive geometric principles. With an area of almost 7000 m<sup>2</sup>, the external cladding is composed of a set of stainless steel scales assembled according to a free geometric shape determined by architectural research. It is characterised by an amalgam of elements including double convex curvatures, hollows and flattened points. The 1.5 mm stainless steel sheets are fixed using a three-dimensional structure that associates the flat sheets of the frames with curved tubes. In addition to its aesthetic appearance, its low roughness helps to limit dust and pollution residues. The proximity of the aggressive atmosphere of the Boulevard Périphérique motivated the choice of an austenitic stainless steel structure.

**316L Uginox Bright finish stainless steel manufactured by:** Aperam Stainless Europe -

www.aperam.com / Aperam Stainless Services & Solutions Italy S.r.l. - Divisione Massalengo - Loc. Priora - I-26815 Massalengo LO, phone +39 0371 49041, fax +39 0371 490475, leonardo.frosali@aperam.com, www.aperam.com **Photos:** ©William Beaucardet / **Architect:** Ateliers Jean Nouvel / Metra & Associés / **Technical development of façade coatings:** HDA

### PAGES 6-7

#### FROM OUR MEMBERS RODASTEEL CORPORATION AG

Dynamism, flexibility and market orientation are the keywords that characterise the presence of RodaSteel Corporation AG in the international steel industry. The Group relies on the historic plants of Rodacciai SpA (www.rodacciai.com) in Bosisio Parini and Sironè - Lecco province and the Spanish steelworks of Olarra Aceros Inoxidables S.A. (www.olarra.com). It integrates steelmaking with the sector of cold processing; focusing on alloy steel, stainless steel and Nickel-based alloys in the O&G, welding, automotive and mechanics sectors. Rodacciai SpA has installed new systems for drawing, peeling, quenched and tempered bars. It has also expanded its finished product warehouse of about 1500 square metres so that it could introduce a new barcode traceability system for its products. Olarra Aceros Inoxidables S.A. installed a new peeling and control line for stainless steel products for the automotive market. This innovation path towards product and processes of excellence has resulted in the creation of registered brands including RodaFIT®, RodaAlloy® and Rodinox®. RodaFIT® (www.rodafit.net) is a unique production process that allows the supply of products that meet the Zero Defects requirement. A premium quality that Rodacciai can obtain and certify. RodaAlloy® includes under a single brand name all RodaSteel AG Group's nickel-based alloy welding sector products. Rodinox® (www.rodinox.net) is a complete range of products for reinforced concrete. Available in bars and coils and in all the most important stainless steel types, it is the solution when the environment is aggressive. The use of Rodinox® enhance durability on the concrete structures, making it possible to calculate the duration of the reinforcement for all the life of the artefact moreover, designing with Rodinox® does not require special modification of the criteria comparing to the usual carbon rebar. Rodinox® can be processed in the same way as carbon steel bars, with the only caution of avoid contamination of stainless surface by using clean machines.

**RODASTEEL Corporation AG** - Chiasso CH, info@rodasteel.ch

**RODACCIAI Spa** - Bosisio Parini LC, phone +39 031 878111, info@rodacciai.com

**OLARRA ACEROS INOXIDABLES S.A.** - Loiu (Bizkaia), España, aiosa@olarra.com

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#### PAINTING CYCLES ON STAINLESS STEEL COMPONENTS

Testing conducted by Centro Inox and PPG Italia Sales & Services Srl

(Cicli di verniciatura su componenti inox. Sperimentazione condotta da Centro Inox e PPG Italia Sales & Services Srl)

Selemix® is the PPG Brand which includes the range dedicated to the industrial sector. It is a multi-purpose system made up of high quality concentrated colour bases and different types of binders for any industrial need. Selemix has two product ranges to meet different customer needs: Selemix Aqua is a water-based painting system while Selemix System is solvent-based which allows a high aesthetic definition and colourimetric quality.

PPG has tested the main cycles at accredited external laboratories based on the international standard ISO 12944-6, which deals with protecting steel structures from corrosion by using a painting system. In collaboration with Centro Inox and Aperam (Member of Centro Inox - Aperam provided sampling with different degrees of finishes) PPG has developed and defined two different painting cycles for the steel treatment. The objective was to define, identify and suggest the best painting processes for stainless steel according to the user's needs. The identified Selemix cycles were tested and evaluated, on an AISI 304 stainless steel to evaluate the humidity chamber resistance (results in Tab. A - Fig. 1), immersion in water (results in Table B - Fig. 1), salt spray test up to 1000 hours (results in Table C - Fig. 2), and accidental contact with the most common chemicals (results in Table D). Below is a description of the painting process conducted:

#### Preparation (for both cycles)

1. Wash the surface thoroughly with **Selemix Aqua 6-810 - 1.968.1000 Waterborne Degreaser**, clean and dry thoroughly with clean cotton cloths. Repeat the operation until the cotton cloths have no more traces of contaminants.
2. Carefully sand the surfaces with Scotch-Brite® Red.
3. Wash the surface thoroughly with **Selemix Aqua 6-810 - 1.968.1000 Waterborne Degreaser**, clean and dry thoroughly with clean cotton cloths. Repeat the operation until the cotton cloths have no more traces of contaminants. Proceed with painting no later than two hours after preparation.

**Selemix Aqua cycle** - Apply directly the two component, waterborne, polyurethane, single stage topcoat 8-110 - 1.781.1000 (90-100 gloss) and/or the direct topcoat water-based 8-111 - 1.781.1100 (10-20 gloss). These water-based topcoats are the optimal solution for those looking for a high-performance product (high adhesion, anticorrosive, high chemical, scratch and light resistance) while safeguarding the environment and the health of the user due to the reduced Volatile Organic Compounds emissions. 8-110/1 are highly innovative products that make it possible to improve the efficiency and productivity of the user who wants to cut inventory stock and speed up the timing of application and guarantee general economic savings.

**Selemix System cycle** - Apply the high thickness epoxy primer 0440 - 2.704.0440 - followed by the acrylic topcoat 7-110 - 1.771.1000 using a wet-on-wet mode. The 2.704.0440 primer of the Selemix System range guarantees a high adhesion and verticality performance which are fundamental characteristics for those seeking high anticorrosive performance. The 7-110 acrylic topcoat is the ideal finish for customers looking for an exceptional appearance. This high-gloss enamel has unique characteristics that give it a high resistance to chemical and atmospheric agents.



The tests using the epoxy primer and the acrylic paint have always been carried out under the same conditions as the Selemix Aqua cycle, and the results were practically identical. The above cycles satisfy the users' needs to paint AISI 304 stainless steel.

**For further information:** [www.selemix.com](http://www.selemix.com) / **Thanks for carrying-out the tests go to:** PPG - [www.ppg.com](http://www.ppg.com) / **Thanks for supplying stainless steel samples:** Aperam Stainless Services & Solutions Italy Srl - [www.aperam.com](http://www.aperam.com) / **Laser cut and preparation of the samples:** MCA Srl - Lavorazioni Lamiera - [daniela.magistrali@mca-sumirago.com](mailto:daniela.magistrali@mca-sumirago.com) - [www.mca-sumirago.com](http://www.mca-sumirago.com)

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## STAINLESS STEEL DURABILITY

**L'inossidabile durabilità dell'acciaio inox**

Typical of most industrial construction, this 1963 shed, restored more than a decade ago, looks much younger thanks to stainless steel's unparalleled durability. The 2006 restoration work involved cleaning of the west façade which was shielded by sun breakers made of micro-perforated EN 1.4401 (AISI 316) stainless steel sheets. The project included the creation of a new corporate identity and logo. The company logo placed on a 9-m diameter EN 1.4401 (AISI 316) stainless steel disk painted red, dominates the entrance and unequivocally and explicitly identifies the Treviglio (BG) company, its main entrance and provides shelter. Even after all these years, everything appears new and does not require any maintenance work. Time has not left its mark; on the contrary, the company retains its own identity while having a modern character.

**Customer:** BK Italia - Treviglio BG / **Architectural project:** Dante O. Benini & Partners | Architects, **Principal in charge:** Dante O. Benini - Luca Gonzo, [info@dantebeniniarchitects.com](mailto:info@dantebeniniarchitects.com), [www.dantebeniniarchitects.com](http://www.dantebeniniarchitects.com) / **Lighting:** Dante O. Benini & Partners Architects / iGuzzini / **Photos:** Beppe Raso, [beppe@bepperaso.com](mailto:beppe@bepperaso.com), [www.bepperaso.com](http://www.bepperaso.com) / **AISI 316 UGITOP Stainless steel manufactured by:** Aperam Stainless Services & Solutions Italy S.r.l. - Divisione Massalengo - Loc. Priora - I-26815 Massalengo LO, phone +39 0371 49041, fax +39 0371 490475, [leonardo.frosali@aperam.com](mailto:leonardo.frosali@aperam.com), [www.aperam.com](http://www.aperam.com)

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**"MADE IN ITALY" NEEDLES FOR DIAGNOSTICS AND INTERVENTIONAL MEDICINE****(Aghi per diagnostica ed interventistica "Made in Italy")**

Since 1993 this manufacturing company, with its headquarters in Valtellina, has produced state-of-the-art medical needles for human tissue biopsy, diagnostics and interventional medicine. The production of a needle starts from a welded tube EN 1.4301 (AISI 304) stainless steel, or from a wire and continues with additional phases of moulding plastic parts, assembly, packaging and finally sterilisation. These are products requiring high precision machining, laser cutting and 12-axis computerised systems, with cutting spots up to 50 µm and cutting tolerances up to one-thousandth of a millimetre.

**Company:** M.D.L. Srl - Via Tavani 1/a - I-23014 Delebio SO, phone +39 0342 682130, [info@mdlsl.com](mailto:info@mdlsl.com), [www.mdslsl.com](http://www.mdslsl.com) / **Stainless steel supplied by:** Tecnofar SpA - Via al Piano, 54 A-Zona Industriale - I-23020 Gordona SO, phone +39 0342 684115, [info@tecnofar.it](mailto:info@tecnofar.it), [www.tecnofar.it](http://www.tecnofar.it)

## A STAINLESS STEEL CHAIN

**(Anelli inox per una catena "inossidabile")**

One of the few Italian companies who make the chains described here. They are destined for zootechny plants. These chains are customisable according to customer needs. The minimum size tolerance helps the application of plastic disks which are needed to distribute the feed. This material's durability and mechanical resistance dictate the stainless steel choice. The steel used for these chains is EN 1.4404 (AISI

316L). The types normally used are EN 1.4306 (AISI 304L) when protection against atmospheric agents is required and AISI 316L for aggressive high-acid or saline environments. The production process of the stainless steel chains ends by polishing to give a shiny appearance to the finished product.

**Producer:** Catenificio Rigamonti - Via del Commercio 6 - I-5039 Travagliato BS, phone +39 030 661010, [info@catenificioorigamonti.com](mailto:info@catenificioorigamonti.com), [www.catenificioorigamonti.com](http://www.catenificioorigamonti.com) / **Stainless steel supplied by:** Acciaierie Valbruna, [www.valbruna-stainless-steel.com](http://www.valbruna-stainless-steel.com) - Ugitech Italia, [www.ugitech.com](http://www.ugitech.com)

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## A 4-1 EXHAUST SYSTEM

**(Un sistema di scarico 4 in 1)**

The official Formula SAE team of the "Tor Vergata" University of Rome has contacted our Association, to help construct their prototype exhaust system. The component was used on the Honda CBR 600 RR engine. The material chosen was EN 1.4306 (AISI 304L) stainless steel because it has an excellent resistance to corrosion during the component's high operating temperature. The diameters and thicknesses used were the following:

- AISI 304L tube D = 35mm, t = 1mm with a length of about 2000 mm.
- AISI 304L tube D = 50mm, t = 1mm with a length of about 500 mm.

A TIG welding method was used for the material's assembly. The tubes were fluxed with argon to prevent oxidation and to avoid irregularities in the welded joint and to minimise the cracking points. AISI 308L stainless steel was chosen as filler material in the joints of the tube ends while AISI 309L stainless steel was used in the joints between the tube ends and the flange (carbon steel flanges).

**Scuderia:** Scuderia Tor Vergata - [stvmotorsport@gmail.com](mailto:stvmotorsport@gmail.com), <http://scuderiatorvergata.it/> / **Stainless steel supplied by:** Marcegaglia Specialties SpA - Via Bresciani 16 - I-46040 Gazoldo degli Ippoliti MN, phone +39 0376 6851, [www.marcegaglia.com](http://www.marcegaglia.com)

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## STAINLESS STEEL: THE ELEGANCE OF MINIMALISM

**(Acciaio inox: l'eleganza del minimalismo)**

Unmistakable for its design and style, the "Baby" radiator finds its strength in stainless steel's purity and the aesthetic sobriety of its lines making it an element of eternal furnishing. Made entirely of EN 1.4301 (AISI 304), stainless steel with polished, satin or a gold finish, it is available in different sizes and can be accessorised with shelves, coat stand and mirror. The producer of these products has purchased the "INOX" trademark which identifies products made of stainless steel, allowing them to be recognised by the end user.

**Made by:** Cordivari Design - Zona Industriale Pagliare - I-64020 Morro D'Oro TE, [info@cordivari.it](mailto:info@cordivari.it), [www.cordivari.design.it](http://www.cordivari.design.it) / **Designer:** Mariano Moroni / **Stainless steel trademark granted by:** Centro Inox, [www.centroinox.it/it/marchio](http://www.centroinox.it/it/marchio)

## WHO DOES WHAT - GUIDELINES

**(Chi fa che cosa - alcuni orientamenti)**

To make stainless steel more efficient and to provide the end user with the most dedicated and fast tools, Centro Inox is "building", a section dedicated to "WHO DOES WHAT - Guidelines" on its institutional website. This will include "Manufacturers and Suppliers" of complementary materials that involve the stainless steel sector. The area is divided into "fields" and will create a virtual showcase which will provide the member companies with the visibility to promote their products and services.

**For information:** [www.centroinox.it](http://www.centroinox.it)

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## THE ITALIAN INSTITUTE OF WELDING - THE GROUP

**(Istituto Italiano della Saldatura - Il Gruppo)**

Centro Inox wishes to remind about its synergy with the IIS Group, with which it cooperates for the organisation of technical events and targeted services for companies operating in the welded products market through-out the various industrial sectors.

The IIS Group consists of: Istituto Italiano della Saldatura - Ente Morale, IIS CERT, IIS PROGRESS and IIS SERVICE. The IIS Group provides training, qualification and certification of personnel, certification of welding/manufacturing processes and business management systems. This enables participants to achieve the requirements to meet the obligations imposed by the latest European Welded Product Directives and obtain the necessary qualifications and the certification to optimise the production process.

Since IIS Group has the necessary knowledge, skills and accreditations (engineering consultancy, weldability issues. It offers national and international consulting services, technical assistance, laboratory, diagnostics, controls and engineering.

**For further information:** [www.iis.it](http://www.iis.it)

## 2ND CONFERENCE &amp; EXPO 2018

**"A European Corrosion Prevention event." -****From the industry to the industry****"Magazzini del Cotone" - Genoa, 27 - 29 May 2018****The NACE Milano Italia Section and NACE****European Area are organising the 2018 Conference****& Expo which offers a unique opportunity. The****conference allows the latest information, news and****guidelines to be shared to provide innovative and****sustainable solutions and to face the challenges of****corrosion prevention and related issues.****MAIN TOPICS: Coating Technology, Oil & Gas****Pipelines, Upstream Oil & Gas, Cathodic Protection,****Corrosion Resistant Alloys & Welding, Failure****Case Studies, Corrosion Inhibitors, Microbiological****Corrosion. Centro Inox will be the event's media partner.****For further information and details:**

[www.NACEItalia.it/GENOA2018](http://www.NACEItalia.it/GENOA2018)

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## ACQUA, ACQUA, ACQUA

**(Acqua, acqua, acqua)**

Casa Hollywood is a magnificent building located at the edge of the historic Turin centre. In 2016, the *Acqua, acqua, acqua* installation was housed on the sixth floor. The work consists of nine elements.

Long-stemmed water lily pads resting on the water surface, create a vertical rhythm which can interrupt the wide extension of the glass window.

This overlooks the royal gardens and the amazing buildings surrounding the window. Aesthetic reasons determined the use of stainless steel. By using heat sources, such as the continuous wire welding and plasma processes, different shades of colour from blue to brown and various shades of violet are obtained. The stainless steel used was EN 1.4301 (AISI 304). Sheets with a thickness of 0.8 mm and tubes with different diameters ranging from 25 to 33 mm and a thickness of 1.5 mm were used.

**Artist:** Luisa Valentini, [luisavalentini13@gmail.com](mailto:luisavalentini13@gmail.com), [www.luisavalentini.it](http://www.luisavalentini.it) / **Customer:** Marco

Malvicini / **Architect:** Roberto Bongiovanni - Studio

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