

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

THE CONTRIBUTION OF STAINLESS STEEL TO ENVIRONMENTAL PROTECTION: OVERHEAD LINES IN SEWAGE TREATMENT PLANTS (Il contributo dell'inox a salvaguardia dell'ambiente: linee aeree negli impianti di depurazione)

The article presents the use of stainless steel for the construction of overhead lines used in a water purification plant to abate odorous emissions. Contaminants typically present in the air released from wastewater treatment plant stations can be treated using various techniques: the technology opted for this plant is based on the biological treatment of air flows containing high concentrations of reduced sulphur compounds, the main culprits of odorous emissions. The system envisaged consists of a containment basin for the filtering material, inside which the air taken from the environment to be treated is forced to pass and to which it is conveyed by piping. These are made of EN 1.4301 (AISI 304) stainless steel, with a 2R (BA) finish, having different diameters (from DN 80 to DN 1000) and thicknesses (0.6 and 0.8 mm). The pipelines are exclusively above ground and extend for a total length of 325 metres, in addition to various pieces made "ad hoc".

Realization: Acquedotto Pugliese SpA - I-70123 Bari BA - Viale Emanuele Orlando 1, phone: +39 080 5723111, servizi.tecnici@pec.aqp.it, www.aqp.it

PAGE 5

CIP UNIT FOR FOOD PLANT CLEANING (Unità CIP per il lavaggio degli impianti alimentari)

In food plants, it is important to provide appropriate washing cycles for the machinery. For this purpose, special systems can be used, defined by the acronym CIP ("Cleaning-In-Place"), which can wash the inside of a process equipment without the need to remove or disassemble its components. Generally, the cleaning through CIP units is carried out in two distinct phases: washing and disinfection. The solutions used may have high levels of "aggressiveness" and/or be characterised by very acidic or basic pH values: the corrosion resistance of stain-

less steels must be exploited. The CIP systems, shown in the article, consist of various components, including pumps, tanks and heat exchangers.

Tailor-made to the customer's needs, the CIP systems are made entirely of EN 1.4301 (AISI 304) or EN 1.4401 (AISI 316) stainless steels.

Manufacturer: Sordi Srl - I-26836 Montanaso Lombardo LO - Via Gorini 9, phone: +39 0371 48621, info@sordi.com, www.sordi.com

PAGES 6/7

FROM OUR MEMBERS ACCIAIERIE VALBRUNA (Acciaierie Valbruna)

Founded in 1925, Acciaierie Valbruna SpA is a private company that offers 300,000 tonnes per year of stainless steels and nickel alloys in long products to the global market. With 70% of production destined for the foreign market, the Valbruna Group is strongly internationalised.

Production takes place in four vertically integrated plants, located in Italy (Vicenza and Bolzano), in the USA and in Canada. The pursuit of production optimisation drives the company to constantly invest in technological upgrading, as in the recent case of the steel plant in Welland (Canada).

For the *aerospace market*, Valbruna produces AEROVAL® stainless and special steels. For the *automotive sector*, Valbruna is IATF 16949 certified and produces a wide range of stainless steels (including MAGIVAL® steels), as well as nickel alloys and Fe-Si alloys, suitable for the manufacture of various components in this field.

In the *energy sector*, Valbruna supplies stainless steels and nickel alloys for the manufacture of components for power plants and nuclear power stations. In the *chemical and petrochemical fields*, numerous types of stainless steel and nickel alloys are used in this type of plant due to their high mechanical and corrosion resistance properties.

For *medical applications*, BIOVAL® identifies the line of special steels characterised by high biocompatibility, corrosion resistance, and excellent micro-purity standards. In the *naval sector*, the use of MARINOX® products allows designers to reduce the diameter of the axles, thus using supports and sealing parts of smaller

size and weight.

For *machining operations*, the latest innovation introduced by Valbruna is MAXIVAL EVO®, a premium product line with improved machinability. For *public and private construction applications*, Valbruna offers a wide range of products, including REVAL® stainless steel reinforcing bars.

This visit, albeit virtual, of the company cannot end without remembering its founder since 1957, Nicola Amenduni, who one year after his death continues to be an example of generosity, enterprise and farsightedness.

ACCIAIERIE VALBRUNA SpA - I-36100 Vicenza VI - Viale della Scienza 25, phone: +39 0444 968211, fax: +39 0444 963836, www.valbruna-stainless-steel.com

PAGES 8/9

IMPORTANT REGULATORY NEWS FOR THE FOOD SECTOR

(Importanti novità a livello normativo per il settore alimentare)

The fourteenth update of the Italian Ministerial Decree of 21 March 1973, which has regulated the FCMs (Food Contact Materials) sector in Italy since then, was published with the Decree No. 208 of 25 November 2022. This Decree updated the section containing the "positive list" of the stainless steels suitable for food use.

There are also two important novelties, again food-related, at European regulatory level: the publication of a new standard, EN 10374, in 2021, and the revision of EN 10357, in 2022. The two standards specify dimensions, tolerances, materials, internal and external surface characteristics, and marking of, respectively, stainless steel welded fittings and stainless steel longitudinally fusion welded tubes, for the food and chemical industries.

The two standards are closely related to each other, with the aim of providing a "standardised and harmonised" product package to all those companies that produce and use such products in the food and chemical sectors.

The work was carried out by CEN/TC459/SC10/WG11. The working group, having an Italian secretariat managed by UNSIDER (the Italian Body for the Standardization of the Iron and Steel Industry, federated to UNI), was coordinated by Eng. Viganò (Centro Inox).

Photos of food processing plant, pot and wa-

ter bottle provided by: Centrale del Latte di Vicenza / Zani Serafino Srl - I-25066 Lumezzane Gazzolo BS - Via Zanagnolo 17/b, phone: +39 030 871861, info@serafinozani.it, www.serafinozani.it / 24Bottles Società Benefit Srl - I-40055 Villanova di Castenaso BO - Via Arturo Toscanini 9, phone: +39 051 0330500, info@24bottles.com, www.24bottles.com

PAGES 10/11

**ASEPTICITY IN FILLING MACHINES
(Asetticità nelle macchine di riempimento)**

An important step in food production is the sterilisation after packaging. In some cases, however, it is preferred to proceed by filling the previously treated food in an aseptic environment, thus eliminating the need for further sterilisation.

This is the case with the innovative aseptic filling machine shown in the article, which is intended for the “bag-in-box” market. This aseptic filler is designed for a wide range of liquid and bulk products. The special system for transporting the pre-sterilised bags inside the aseptic zone allows both the sterilisation tunnel and the filling head to be kept completely closed and isolated from the outside environment. This ensures the highest degree of sterility with low consumption of sterile air, chemicals and/or steam.

The components in direct contact with the food are made of EN 1.4401 or EN 1.4404 (AISI 316 / AISI 316L) stainless steel, while the remaining part is made of EN 1.4301 (AISI 304) stainless steel.

Manufacturer: FBR-ELPO SpA - I-43125 Parma PR - Via A. Da Brescia 12/A, phone: +39 0521 267511, news@fbr-elpo.it, www.fbr-elpo.it

PAGES 12/13

FOOD: STORAGE, TRANSPORT AND DOSING OF RAW MATERIALS

(Alimenti: stoccaggio, trasporto e dosaggio delle materie prime)

In the article, some applications of a company that is absolutely at the forefront in the manufacture and installation of raw material storage, transport and dosing systems, are proposed. The attention of this company is paid to adopt technologies aimed at preserving the properties of foodstuffs and, at the same time, reducing energy consumption and using environmentally friendly materials, in the name of a circular economy.

The first application example concerns silos designed to contain powders and granular products. They have a very smooth inner surface with very low surface roughness values to prevent the formation of residues. These components are ideal for various products, such as flour and sugar. An average of around 7 tonnes of stainless steel, either EN 1.4301 (AISI 304) or EN 1.4401 (AISI 316), is used to make these silos with a capacity of 95 m³.

The “path” the product takes involves the transportation through pipes, again made of stainless steel, to the dosing point, where there are hoppers with the possible presence of fermenters and other technologies necessary for the process. These components are also made of stainless steel (AISI 304 or AISI 316).

Manufacturer: CEPI SpA - I-47122 Forlì FC - Via Selva 18 Z.I. La Selva, phone: +39 0543 940514, cepi@cepisilos.com, www.cepisilos.com

PAGE 14

**ALSO IN THE SOUTH, GREAT ATTENTION TO STAINLESS STEEL IN THE INTEGRATED DRINKING WATER CYCLE
(Anche al sud grande attenzione all’inox nel ciclo integrato dell’acqua potabile)**

The dissemination activity carried out by Centro Inox in the integrated drinking water cycle sector has also extended to southern Italy. This time, Centro Inox confronted AQP, the Apulian aqueduct.

The meeting took place on 19 January at AQP’s headquarters in the city of Bari. There was considerable interest in the meeting, which was attended by technicians responsible for both the design of new plants and personnel dedicated to the maintenance of existing plants.

MADE IN STEEL 2023

(Made in Steel 2023)

Fieramilano Rho, Milan - 9÷11 May 2023

The 10th edition of Made in Steel, the leading Conference & Exhibition in Southern Europe dedicated to global iron and steel industry, organised by siderweb - the steel community, will be held from Tuesday 9 to Thursday 11 May 2023. In pavilions 22 and 24 of the Fieramilano Rho exhibition centre, the main players in the steel supply chain will meet to do business and to discuss the key issues for the future of the steel industry. Centro Inox will be present at the stand G56 - Pad. 22.

For further information:

Made in Steel Srl - phone: +39 030 2548520 - info@madeinsteel.it - www.madeinsteel.it

BASICS OF STAINLESS STEELS AND THEIR HOT DEFORMATION PROPERTIES

(Nozioni di base sugli acciai inossidabili e loro attitudine alla deformazione a caldo)

Pozzo d’Adda (Milan, Italy) - 21 and 28

June 2023

The metallic materials testing laboratory S.M.T. has planned a series of technical courses related to the world of steelmaking. Within the scope of the topics that will be covered, stainless steel could not, of course, be missing; hence, Centro Inox has provided its cooperation, sponsoring this initiative.

The course will cover a variety of topics including metallurgy and regulations but also steel products, corrosion and metallography. There will also be an opportunity to visit the S.M.T. laboratory.

For further information:

S.M.T. Srl - phone: +39 02 90967142 - info@smtsrl.com - www.smtsrl.com

PAGE 15

**THE NATIONAL WELDING DAYS - GNS 12
(Giornate Nazionali di Saldatura - GNS 12)**

Genoa (Italy) - 24÷25 May 2023

The twelfth edition of the National Welding Days, organised by IIS - Istituto Italiano di Saldatura (Italian Institute of Welding), will be held on 24 and 25 May 2023 at the Congress Centre of the Porto Antico in Genoa.

Centro Inox will be present with a stand.

For further information: <https://gns.iis.it>

INTERNATIONAL STAINLESS & SPECIAL STEEL CONFERENCE 2023

(International Stainless & Special Steel Conference 2023)

Zurich (Switzerland) - 12÷14 September 2023

The Circle Convention Center, located at Zurich Airport (Switzerland), will host the International Stainless & Special Steel Conference 2023, organised by SMR EVENTS.

The global stainless and special steels industry will gather, from 12 to 14 September 2023, to discuss the current state of the global stainless and special steels industry and all relevant issues that will affect business in the near future.

For further information:

<https://www.smr-events.com/event-details/stainless-special-steel-conference-2023.html>

PAGE 16

**WHEN RECYCLING BECOMES ART
(Quando il riciclo si fa arte)**

An innovative project is presented in the article, conducted by a company that works and markets stainless steel, which recovers industrial processing waste to create furnishing accessories: it is an elegant and linear “coffee table” made of stainless steel and glass. The sheet metal with large holes, on which the glass top rests, is one of the many scraps resulting from laser cutting. Even the “legs” of the table, made up of angle bars, comes from scraps of custom-cut commercial steel products. The stainless steel used is EN 1.4301 (AISI 304).

Realization: InnoxArt a project of InnoxArt Srl - I-25136 Brescia BS - Via Conicchio 18, phone: +39 030 2003577, info@innoxart.com, www.innoxart.com

CENTRO INOX

The Italian Stainless Steel Development Association



Via Rugabella, 1 - 20122 Milano - Italy

Telephone +39 02 86450559 - +39 02 86450569

Fax +39 02 86983932

redazione.inossidabile@centroinox.it

www.centroinox.it

The subscription to the quarterly **INOSSIDABILE**, outside Italy, is free of charge.