

# INOSSIDABILE

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## Summary

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

### COVER/PAGE 3

#### NEW MARK FOR STAINLESS STEEL (Un nuovo marchio per l'acciaio inossidabile)

Centro Inox has created a new mark which can be used by all producers of items made entirely in stainless steel or in which in any case more stainless steel is used than other materials.

The initiative arose from the following needs: 1) to distinguish stainless steel clearly from other materials; 2) to make sure that end users can immediately recognise a material which is a byword for durability and hygiene 3) to make known the presence of stainless steel in emerging fields.

The sole purpose of the mark is to identify the nature of the material without any reference to its quality level. It is not therefore a mark of quality and does not represent any kind of guarantee as regards any performance shortcomings arising, for example, from inappropriate maintenance or cleaning, machining, installation or choice of type of stainless steel according to use.

The Regulation states that the mark can be accompanied only by wording containing the declaration that it has been issued by Centro Inox, that it is stainless steel and that it is a hygienic, non-toxic, strong, recyclable material etc.

The mark has been registered in Italy and is therefore protected throughout the country, while the registration process has also started for its protection to be enjoyed throughout the EC.

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#### A LONG STORY OF IRON, FIRE AND SKILFUL HANDS

##### (Una lunga storia di ferro, di fuoco e di mani sapienti)

As early as 1400, the small town of Scarperia, near Florence, was famous for the quality and strength of its knives. These knives were once an essential tool for farm workers, shepherds, carters etc. and were kept until death. The steel used today is no longer carbon steel but instead AISI 420 stainless steel, a material with a good degree of corrosion resistance, machinability, cutting capacity and enduring sharpness. Hardening is performed by heat treatment in static electric furnaces.

l Production: Coltellerie Berti - Via della Resistenza 12 - I-50038 Scarperia FI - phone 055.8469903 fax 055.8468014 - info@coltellerieberti.it

#### STAINLESS STEEL: NEW BATHROOM HYGIENE

##### (Inox: la nuova igiene del bagno)

In the shower cubicles shown here there are no points of contact between the shower tray and the cubicle which is wall-mounted, thus preventing soap, scale and silicone residues from accumulating. The water flows totally inside the tray without leaking or stagnating, for greater cleanliness and hygiene. The use of EN 1.4301 (AISI 304) stainless steel, with polish or satin finish, confers extreme

structural solidity and contributes to creating a pure design, without any concessions to mere decoration. Finally it should be stressed how for all the components of the shower (pipe, controls etc.) the choice fell on stainless steel.

l Production: Calibe - Via S. Apollinare 687 I-40050 Castello di Serravalle BO phone 051.6705383, fax 051.6705377 info@calibe.it, www.calibe.it

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#### FROM OUR MEMBERS ACCIAIERIE VALBRUNA (Dalle associate: Acciaierie Valbruna)

Specialisation, verticalisation, flexibility and fast decision-making are the distinctive features of Acciaierie Valbruna which, set up in 1925, is today world leader in the production of stainless steel and titanium and nickel alloys.

Production of special steels started in 1939, with ongoing renewal of systems and technologies and maintaining of the philosophy that quality has to come before the quantity of finished products.

Today the Valbruna group, with two production plants, one in Vicenza and one in Bolzano, is among the main industrial complexes in the industry, thanks to a vast and strategic distribution system: 6 warehouses in Italy, 20 in Europe and 14 outside Europe, with a vast network of agents.

Definition and management of the corporate quality system, guaranteed by certification according to UNI EN ISO 9001: 2000, obtained in July 2002, involves the organisation of all corporate procedures.

For this reason quality controls on Valbruna products are scrupulous and strict throughout the production cycle, starting with furnace charge and the various production phases via monitoring of the process parameters to the drawing and grinding department where dimensional checks and non-destructive tests are carried out using ultrasounds and induced currents.

Valbruna's production range is extensive and highly diversified: blooms and billets for forges, wire rod (rounds, squares, hexagons), with marked verticalisation on drawn wire and small diameter bars, supplied as drawn or ground.

Round, peeled and ground, drawn hexagonal, square and flat bars represent one of the company's strong points on the European and world markets.

Valbruna has four registered trademarks: MAXIVAL<sup>®</sup>, high machinability steels, MAGIVAL<sup>®</sup>, steels for solenoid valves, REVAL<sup>®</sup>, improved adhesion bars for concrete, used in restoring works of art and new public and private buildings (bridges, roads, viaducts, tunnels, ports, quays, civil and industrial buildings) and finally MARINOX<sup>®</sup>, steels for propeller shafts.

Nickel alloy and titanium are also produced for orthopaedic prostheses, engine connecting rods, sports articles etc., and nickel alloys for hot mechanical applications, resistance to corrosion and welding.

l Acciaierie Valbruna - Vicenza Plant: Viale della Scienza 25, I-36100 Vicenza VI, phone 0444.968211, fax 0444.963836 - Bolzano Plant: Via A. Volta 4, I-39100 Bolzano BZ, phone 0471.924111, fax 0471.935419, info@valbruna.it, www acciaierie-valbruna.com

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#### PED DIRECTIVE NO. 97/23 FOR PRESSURE EQUIPMENT (La direttiva 97/23 in materia di attrezzature a pressione)

European directive 97/23, better known as PED (Pressure Equipment Directive), was passed by the European Parliament in May 1997 and became compulsory from 29 May 2002 for all member states of the European Union. The directive lays down, together with the directives on simple pressure vessels (87/404/EC), portable pressure equipment (99/36/EC) and aerosol dispensers (75/324/EC), a set of adequate laws, at a European level, for equipment which is pressurised.

The directive comes from the EC programme to eliminate technical barriers to trade and was drawn up according to the "New Approach to Technical Harmonisation and Standards". Its aim is therefore to allow free trade and the coming into service of pressure equipment on the EC market.

The PED lays down flexible regulatory conditions which do not impose any detailed technical solution, involves above all producers of pressurised tanks, heat exchangers, steam generators, boilers etc., and is part of a set of technical directives designed to harmonise the European market involving various industrial sectors.

##### Material requirements

Material requirements for use according to PED are described. In particular, the table gives the harmonised EN standards relating to stainless steel.

*Part of this article was taken from "U&C - Unificazione e Certificazione" Special November/December 2001*

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#### INNOVATIVE SOLUTIONS FOR TREATING USED OILY EMULSIONS (Soluzioni innovative per il trattamento delle emulsioni oleose esauste)

Effluent from mechanical machining, rolling mills, washing of metal surfaces and maritime operations represent a problem for industry since, even if generally diluted, they cannot normally be treated with biological systems or chemical treatments and disposal is very expensive.

**Tangential filtration** is a physical separation process which, by using semipermeable membranes, enables the regeneration and recycling of several process solutions.

**Treatment of used oily emulsions.** The emulsion is taken from the storage tank and, after oil separation and safety filtration, is transferred to the ultrafiltration membrane section where oil-water separation takes place.

**Degreasing baths treatment.** This solution allows a considerable reduction in the costs of disposal of exhausted baths and above all recycling of around



40% of degreasing chemical products. The various size systems are assembled on skids and the whole assembly is in EN 1.4301 (AISI 304) or EN 1.4401 (AISI 316) stainless steel throughout.

I Production: Verind SpA - Via Papa Giovanni XXIII 25/29 - I-20090 Rodano MI  
phone 02.95320.974. fax 02.95320.914  
ultrafiltrazione@verind.it, www.verind.it

### WALKIRYE: AN ALL-STAINLESS STEEL BOAT. A DREAM COME TRUE

(Walkirye: una barca tutta inox per realizzare un sogno)

A dream which is also a hope and an experiment – that of allowing a young boy (Niky), suffering from a severe form of allergic asthma, to live in an environment (marine) which enables him to breathe normally, reducing daily drug dosage. Thus the Frascisco family built for themselves, in their garden at home, a 20-metre ocean sailing boat with two 24-metre twin masts, using EN 1.4306 (AISI 304L) stainless steel for the interiors and EN 1.4404 (AISI 316L) stainless steel for the hull (later painted) for a total of 15 tonnes.

The complete boat has a displacement of 35 tonnes and overall length of 26 metres. The use of stainless steel enabled a considerable saving in weight. The thicknesses of the plating are smaller compared to those required by the classification body regulations: 5 mm for the keel, 3.5 mm for the bottom, 3 mm for the side and deck. The choice of stainless steel arose from considerations of structural homogeneity, easy maintenance and safety.

I Designed by: Ing. Aldo Gatti - Via Luca Signorelli 17 - I-20154 Milano - phone 02.313659, fax 02.312710

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### STAINLESS STEEL EXHAUST SYSTEMS FOR THE HONDA HORNET CB 600 (Sistemi di scarico inox per moto Honda Hornet CB 600)

At the new Verlicchi Casoli plant in Abruzzo the production line for the exhaust system of the best-selling large motorbike in Europe, the Honda Hornet CB 600, has come into operation.

This is a structure made in EN 1.4301 (AISI 304) stainless steel throughout and whose components are produced individually by modern technologies.

The pipes are bent by CNC processes ensuring precisions of  $\pm 0.1$  degrees, MIG welding of the assembly is automatic and final polishing is also fully automated. Such a complex shape configuration must also include, for each important phase of the process, a manual check on special templates.

I Production: Verlicchi Nino e Figli SpA - Via Casteldebolo 4 - I-40069 Zola Predosa BO  
phone 051.6176011, fax 051.6176072  
info@verlicchi.it, www.verlicchi.it

### ELECTRONIC HAND WASHERS (Lavamani elettronici)

For food industry premises, catering, hospitals and public places in general, current laws lay down the use of easy-care materials which can be thoroughly cleaned and disinfected, with automatic tap operation. Fig. 1 – Wall-mounted hand washer, suitable for large kitchens, food and chemicals industry and hospitals. The basin, free from sharp corners and edges, is in 1.5 mm thick EN 1.4301 (AISI 304) stainless steel. The electronic tap has an anti-overflow device. Fig. 2 – Wall-mounted hand washer with sterilizer for cutting tools, specifically for food processing units.

I Manufacture: SOEMA - Zona Industriale Squartabue - I-62019 Recanati MC  
phone 071.7506061, fax 071.7506063

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### LONG LIFE IDEA FOR EMERGENCY HOUSING

(Una proposta long life per l'abitabilità d'emergenza)

This small house solves numerous problems from among those which arise in the case of fast intervention in areas hit by natural disasters. It is easy to transport and install and offers very large living spaces. It also has features of fire resistance and resistance to atmospheric attack.

For most of the external façades VERNEST® stainless steel was used, an AISI 430 type, 0.5 mm thick and metallic grey in colour.

The qualities of VERNEST® can be summed up as: A) excellent mechanical strength and plastic behaviour; B) physical features which allow large panels to be produced; C) sound barrier properties; D) machinability on traditional machines; E) fire resistance much higher than aluminium and carbon steel.

I Property and design: Centro Sviluppo Materiali SpA, via di Castel Romano 100, I-00128 Roma. Reference: Ing. Francesco Fattorini, phone 06.5055778, fax 06.5055452, f.fattorini@c-s-m.it

I Production and installation: Shelbox Srl, via della Città 200, I-50052 Certaldo FI, phone 0571.62711, fax 0571.650063, info@shelbox.it

I Material (VERNEST®):

ThyssenKrupp Acciai Speciali Terni S.p.A. – I-05100 Terni TR, viale B. Brin 218. Sales: Dr. D. Vella, tel. 0744.809230, fax 0744.811220, dvella@csinox.it. Marketing: Dr.ssa V. Fontana, tel. 0744.490867, fax 0744.490946, marketing@acciaiterni.it; www.acciaiterni.it.

### NEWS

#### STRUCTURAL USES OF STAINLESS STEEL IN BUILDING AND INFRASTRUCTURES

(Impieghi strutturali dell'acciaio inossidabile nell'edilizia e nelle infrastrutture)

Tuesday 4 November 2003, 9 a.m., at Fondazione dell'Ordine degli Ingegneri, Corso Venezia 16, Milan

The meeting-debate was organised together with Centro Inox to draw the attention of structural engineers to how and why stainless steel has become an alternative structural material to carbon steel.

Programme:

#### Welcome and coordination

Luciano Fassina, Chairman of the Fondazione dell'Ordine degli Ingegneri

#### Stainless steel as a structural material

Fausto Capelli, Managing Director Centro Inox  
Design manual for structural stainless steel published by Euro Inox, Brussels

Massimo Barteri, Centro Sviluppo Materiali  
Stainless steel bar in reinforced concrete. Legislative aspects.

Prof. Alberto Franchi, Politecnico di Milano

#### When stainless steel is more economical than carbon steel

Luciano Fassina, Consultant, Nickel Development Institute

#### Fire resistance and antiseismic features of stainless steel

Vittorio Boneschi, Centro Inox

Followed by a **round table and debate**. The official language will be Italian.

**Participation in the meeting-debate is open to everyone and free of charge, and requires booking** at the Foundation Secretary's Office - phone 02.796214 - fax 02.794916  
fondazione@ordineingegneri.milano.it

**STAINLESS STEEL IN BUILDING Features and examples of application (L'acciaio inossidabile nelle costruzioni).**

### Proprietà ed esempi applicativi)

Wednesday 26 November 2003, 8.30 a.m. – Library of ThyssenKrupp Acciai Speciali Terni, viale B. Brin 218, Terni

Stainless steel is assuming an increasingly prominent place in building, both civil and industrial, thanks also to its high mechanical properties which, in some cases, can be much better than those of traditional materials and which allow reduced framework thicknesses.

Programme:

#### 1<sup>st</sup> Session: properties

##### Resistance to corrosion in various areas

Prof. Pietro Pedeferra – Lecturer in Materials Protection and Corrosion, "Giulio Natta" Department of Chemical Engineering, Materials and Chemistry – Politecnico di Milano

##### The mechanical properties of a "modern" steel for reinforced concrete buildings. Design laws and regulations.

Prof. Alberto Franchi – Lecturer in Building Science, Department of Structural Engineering, Politecnico di Milano

##### Fire resistance and antiseismic features

Alessandro Segala - Centro Sviluppo Materiali, Rome

Debate

Lunch

#### 2<sup>nd</sup> Session: examples of application

##### Stainless steel for architecture: versatility and durability

Dante O. Benini - Dante O. Benini & Partners, Architects, Milan, London

##### The experience of Italian technology worldwide

Marzio Perin, Olindo De Luca - Permasteelisa Spa, Vittorio Veneto TV

##### Stainless steel in infrastructures: examples of use in tunnels

Francesco Ruocco - ANAS, Naples division

Debate

**Participation at the meeting is open to everyone and free of charge.** The official language will be Italian.

**Please register within 20/11/03 at:**

Centro Inox – Piazza Velasca 10 – I-20122 Milan – phone 02.86450559/69 – fax 02.860986  
eventi@centroinox.it – www.centroinox.it

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### NEW SHINE FOR WALLS AND FLOORS: STRENGTH AND FLAIR

(Nuovi riflessi per pareti e pavimenti: la fantasia e la forza)

Polish and satin finish, patterned and coloured tiles provide a covering for floors and walls, combining a modern and elegant aesthetic with the functionality of surfaces which are indeformable, resistant to abrasion and therefore also to acts of vandalism, and are easy to clean and sanitise.

This is a new idea consisting of the combination of porcelain stoneware and EN 1.4301 (AISI 304) and 1.4401 (AISI 316) stainless steel, which has led to a reliable, easy application product: the tiles are glued using standard glues for stoneware.

The illustrations show some examples of application of stainless steel tiles both in public places and the home: in a bar; combined with natural stone, on the wall of a bathroom, on a floor and in a cinema.

I Production: Bluestein - Via Lecco 457 - I-24030 Pontida BG - phone 035.4385404, fax 035.4385598 info@bluestein.it, www.bluestein.it

### CENTRO INOX

The Italian Stainless Steel Development Association

Piazza Velasca, 10 - 20122 Milano - Italy  
Telephone 02.86.45.05.59 - 02.86.45.05.69  
Fax 02.86.09.86

E-mail: centinox@tin.it - www.centroinox.it

