

Issue No. 12/2007 (398)

ISSN 1478 - 1824

Stainless Steel Focus

Published by: Stainless Steel Focus Ltd, Aby House, Lineside, Amber Hill, Boston PE20 3RA, UK. Tel: 01205 290844 Fax: 01205 290847



Cover story
Acciaierie Valbruna S.p.A.:
A global supplier of stainless,
nickel alloy and titanium
long products p.20

Centravis: Combining the best
of two worlds p.30

THE journal for the
stainless steel specialist

Trademark products for specific applications



Acciaierie Valbruna

A global supplier of stainless, nickel alloy and titanium long products

Valbruna can already look back on a long and successful history. Its origins date back to 1925 in Vicenza when Ernesto Gresele decided to expand his metal trading activities by commencing the manufacture of new products from the recovery and reutilisation of disused or discarded items. At the end of the thirties, a steelworks and a rolling mill for bars came on stream alongside the ironworks. After suffering a major setback in 1944 when the works was totally destroyed by aerial bombardment, production recommenced in the postwar period, with a crucial turning point in the 1950s when Nicola Amenduni married Maria, the daughter of the founder Eng. Gresele. It is the sons from this marriage that form the management team of today's Acciaierie Valbruna. Production of specialty low alloyed steels was abandoned at the end of the 1950s, and attention was turned increasingly to high alloy steels, stainless steels, high speed steels and specialty alloys.

With increasing demand for stainless steel and the requirement for modern production facilities, Valbruna commenced construction of a brand new plant in the seventies. Revolutionary at the time was the decision taken to use, among the first companies in the world, the continuous casting process for the production of stainless steel - a decision which again proved to be a decisive turning point. At the same time, considerable emphasis was placed on the development of the sales network, with fully fledged Valbruna branches set up in Turin, Milan, Brescia, Bologna, Ancona and Parma to service the domestic market.

The company also began to look towards potential export markets, and Valbruna sales companies were established abroad, first in Europe, and subsequently in other strategically important markets such as the United States, the Far East, Central America and Australia. Today around three quarters of Valbruna's production is destined for export.

Valbruna's main plant is the new works established in Vicenza which was brought into production in 1974. It specialises in stainless steel production and alloys. Steelmaking facilities include a 10-tonne and two 50-tonne electric arc furnaces; 10-tonne and 50-tonne AOD converters; and a four-strand continuous billet caster.

Production plants in Italy (Vicenza and Bolzano) and the USA (Fort Wayne, IN)

For larger sized products and special grades, as well as for feedstock for forgings, ingot casting facilities are available. An ESR furnace is also available for the production of steels where a high degree of micro-cleanliness and micro-segregation is required, for example, for use in demanding applications such as the nuclear and aerospace industries.

In 1989, a new universal automatic rolling mill, comprising a 6-stand cogging mill; a 20-stand line, and two monoblocks, went into full production. This fully automatic line

came part of the Valbruna group in 1995, and specialises in round and hexagonal bars in stainless steel and alloys.

In 2004, the Valbruna group also acquired a major US competitor Slater Steels. Renamed Valbruna Slater Stainless Inc, this company produces at its Fort Wayne, Indiana plant, stainless steel and nickel alloy round bars in a wide variety of sizes, grades, finishes and heat treatments that find application in the most diverse industries.

In addition to these three main production plants, Valbruna owns a number of downstream operations. BHH Mikrohuta, founded in 1998, produces drawn products, stainless steel bars and wire, and cold rolled stainless steel strip. The company headquarters



can produce the whole range of Valbruna products including round bars, hexagons, flat bars, squares, and angles, as well as wire and wire rod sections. Billets and round ribbed bars are also supplied by the company.

A full range of equipment is available for heat treatment and cold finishing, and the production of wire is assured by an extensive range of multiple wire drawing machines.

As well as its main Vicenza plant, Valbruna also operates a plant in Bolzano, which be-

are located in Dabrowa Gornicza, Poland. Nuova Steelcom, based in Ostiglia (Mantua), specialises in the production of stainless steel pipe fittings and connectors intended for the plant engineering and construction industry, the petroleum, food, chemical and pharmaceutical industries, as well as for plants for water purification, for livestock and the fitting out of ships. Nuova Steelcom exports around 60% of its production, in particular to France, Germany, Great Britain, the Scandinavian countries, Switzerland and Belgium.

Meanwhile, Ugivis is one of the leading companies producing stainless steel drawn wire and fasteners, in both standard formats and according to customer drawings or requirements. This company was acquired by the Valbruna group in 2003, with the intention of

particularly severe. Refractory steels, precipitation hardening steels, nickel-copper, nickel-chrome and ferro-nickel-chrome alloys, as well as titanium and titanium alloys, also form part of the Valbruna product range.



Product forms include ingots, billets, wire rod, wire, forged bars, hot rolled and cold finished bars, drawn products, peeled and reeled and ground, round, hexagonal, flat, square and angle sections.

Stainless steel and beyond - nickel alloys and titanium

As well as being a market leader in the area of stainless steel long products, Valbruna has developed nickel alloy products

equipping it technically to be able to compete as a leader in the most demanding industries (automotive, household appliances etc), where strong demand for stainless steel and special alloys was being experienced. With a new production unit in France, a new plant for the production of threaded bars, and a fully automatic warehouse, Ugivis is now also in a position to meet growing demand from extra-European markets.

that have become standards for a range of industrial applications. Today, the company produces a wide range of nickel alloys in the form of billets, wire rod and bars, and is an effective and reliable partner for production units that operate in the oil, chemical, petrochemical, nuclear, iron and steel, shipbuilding, automotive and energy industries.

Comprehensive range of products

Acciaierie Valbruna today offers a wide and differentiated product range that includes over 700 grades of specialty steels. In addition to the three "classic" groups of stainless steels - austenitic, ferritic, and martensitic, Valbruna has developed special expertise in the area of Duplex steels, which are particularly resistant to stress corrosion cracking, and are recommended when conditions of use are par-

Valbruna has also placed considerable emphasis on developing its expertise and technology in the area of titanium - a material which due to its properties of lightness, mechanical resistance, antimagnetism, low thermal expansion, and high resistance to corrosion and erosion is destined to play an increasingly important role in the future.

With a large variety of grades, Acciaierie Valbruna decided to focus its attention on a specific selection of products from the commercially pure highly corrosion resistant grades to the α - β titanium alloys.

Among the grades the company produces and trades can be found, for example, the



Ti6Al4V extra low interstitial version suitable for its biocompatibility with a wide range of medical applications.

Titanium and titanium alloys are available from Acciaierie Valbruna as centreless ground, peeled and cold drawn round, cold drawn square and hexagonal, hot rolled flat bars, and machined wire rod.

A range of products for specific applications - Reval[®], Magival[®], Marinox[®], Maxival[®], Aeroval[®], Bioval[®]

following most common types: Ti gr2 with its high corrosion and erosion resistance, good cold formability and excellent weldability; Ti gr4, another commercially pure grade with the additional advantage of improved mechanical properties; Ti gr5 (Ti6Al4V) the most widely used because of its outstanding combination of strength, toughness and corrosion resistance, and the modified

Valbruna is present on the market also with a number of registered trademark products designed for specific application requirements. The company's Reval product range, for example, refers to austenitic stainless steel bars for concrete reinforcement, with improved adherence, intended for the construction of buildings, architecture and, in general, for restoration to safeguard the artistic heritage.

ACCIAIERIE VALBRUNA

ACCIAIERIE VALBRUNA
Head Office and Works
Viale della Libertà, 25
38100 Vicenza ITALIA
Tel. +39 0444 508311
Fax +39 0444 903938
www.acciaierievalbruna.it
e-mail: info@valbruna.it

Stainless Steel
Nickel Alloys
Titanium

A Stainless Steel World

Bars
Wire Rod
Wire
Billets
Rebars



Reval[®], the company says, is an ideal solution to problems of deterioration in reinforced concrete, for the safety of structures, and to guarantee quality in the choices to be made during design and construction.

Reval[®] reinforcement has mechanical properties that conform to the strictest standards and guarantees an unequalled durability with regard to corrosion resistance, thereby providing a long design life for the structure.

In the area of ferritic stainless steels, Valbruna offers its Magival[®] product range which has been developed for its machinability properties, and specifically for magnetic applications that re-

quire a high degree of magnetic permeability and a low coercive force.

Sophisticated production processes ensure the production of alloys with a ferritic structure that is highly sensitive to variations in a magnetic field, and which obviate the need for costly heat treatment by the user after machining.

Marinox[®], meanwhile, identifies a series of austenitic stainless steels, precipitation hardening and duplex steels intended for the manufacture of propeller shafts in the ship-building industry.

The development of these grades allows the designer to reduce the shaft dimensions and hence use smaller supports and seals. The simultaneous reduction of weight and hydrodynamic resistance results in improved performance and greater efficiency.

A boat with propeller shafts made of high performance stainless steel can thus give greater speeds, coupled with savings in operating costs compared to craft that use conventional shafts.

And then, there is the Maxival[®] range of improved machinability grades, with excellent mechanical and corrosion resistance properties.

As a result of the innovative production process, and the particular chemical balance of alloying elements, Maxival[®] steels feature microinclusions that provide excellent chip forming properties but do not cause abra-



sion or overheating of the tool, and do not cause any mechanical weakening of the steel matrix or any reduction in corrosion resistance.

Aeroval®, the trademark for aerospace special grades and Bioval®, which is a selection of products for medical devices and surgical instruments, round off the company's product range.

The importance of quality

For Valbruna, the company emphasises, quality is "a finishing post that moves continuously onwards". The company's quality assurance system is certified to UNI EN ISO 9001, and product quality is assured by full conformity with the European Standards for stainless steel (UNI-EN 10088), and with the strictest international standards certified by TÜV, Lloyd's Register and Det Norske Veritas. Checks are continuous throughout the whole production cycle, starting from the scrap to be melted, during the various process phases, through the monitoring of the process parameters, right up to the wire drawing and centreless grinding departments, where non-destructive dimensional tests are carried out with the aid of ultrasonic and eddy current tests.

Laboratory facilities are available for chemical analyses using an OE spectrometer or wet analysis; metallographic evaluation by optical and electron microscopes; mechanical properties with hot and cold tensile tests, and creep tests, and magnetic properties with a permeameter.

Care for the environment forms an important part of this focus on quality. The introduction of new products and new process technologies has resulted in significant reductions in power consumption and the impact on the environment. Heavy investment in equipment to reduce emissions, for water treatment, and for the regeneration of products used in the pickling process have eliminated or drastically reduced potentially harmful emissions to the environment.

In Italy, the Valbruna sales network is made up of branches that operate in the main industrial centres of the country: Turin, Milan,

Brescia, Bologna, Ancona and Parma. The company also, however, has long had a strong presence outside Italy. In Europe,

Extensive distribution network

there are sales companies in Denmark, Finland, Sweden, France, Spain, the Netherlands, Germany, Poland, Switzerland, Great Britain and Ireland.

The USA has long been a key market for the company, and subsequent to its acquisition of Slater Steels, Valbruna Stainless Inc has consolidated and extended its presence on this market with the acquisition of stainless steel long product distributor First Metals, with warehouses in Houston, Dallas, Atlanta, Chicago, Los Angeles and Pompton Lake, NJ. Valbruna also has subsidiaries in Canada and Mexico.

With the rapid growth in Asian markets, it is not surprising that Valbruna is also present in this region. Valbruna Asia has offices and warehouses in Hong Kong and Shenzhen in China. The Far East region is also serviced by Valbruna Stainless Sdn in Kuala Lumpur, Malaysia.

The Middle East is also seen as an area with considerable growth potential, and the company has therefore established its Valbruna Gulf subsidiary in Dubai.

Acciaierie Valbruna today has a global presence, ensuring a close proximity to its customers wherever they might be located. It offers a product range which in its diversity is second to none, and which, as well as covering the full range of stainless grades, including products specifically designed for particular enduse applications, extends to nickel alloys and titanium alloys. Acciaierie Valbruna is clearly in a position to meet the requirements of customers in whichever industry they might be operating.

**Interview with
Massimo Amenduni Gresele,
Managing Director,
Acciaierie Valbruna S.p.A.**



Stainless Steel Focus: Mr Amenduni, Acciaierie Valbruna has become a highly successful global business. To what do you attribute this successful development?

Mr Amenduni: A key factor is the continued commitment of the ownership to the business. Among other activities, the steel business for the owners remains the core, and it is their presence, for example, in the mill on an everyday basis, that has helped ensure that the company has gone from strength to strength.

Stainless Steel Focus: What would you say are your company's main strengths today?

Mr. Amenduni: First and foremost, I believe, our product range, which is the widest in the world. We follow the needs of the market. We do not place our emphasis on the normal qualities, but go where the market is, and try to follow our customers' specifications.

Stainless Steel Focus: The USA has clearly been a key market for Acciaierie Valbruna for many years. Is your emphasis now shifting more to Asia?

Mr. Amenduni: Not for the moment, if you mean are we planning to produce in Asia. We have been looking at this region for 10 to 12 years already. Since Valbruna Asia was set up in Hong Kong, it has given the mill a window on Asia. What is different now

is that new producers have been established there. However, their focus is on quantity not quality. Ours is clearly on quality. Until we find the right partner, we have no intention of setting up production facilities in Asia.

Stainless Steel Focus: Stainless production capacity in Asia (India, China) is growing rapidly. How serious is this development for the domestic markets of the traditional European long product producers?

Mr. Amenduni: Certain trends have already become apparent. Indian producers are, for example, masters of low prices, and use all kinds of methods to get into the market. Nevertheless, I think the European mills can defend themselves against this. Unfortunately, the European Commission does not treat the newer producing countries as it should, and as for example is done in the USA, to counteract subsidised producers. In China, we are faced with high duties on imports, while there is no protection against imports in the European Union. Brazil also has high tariffs on imports. So the situation is very serious, and it is possible that end-users will move their production to new countries. We will have to be prepared to follow them.

Stainless Steel Focus: Acciaierie Valbruna has developed a whole range of products for specific enduse applications. Where do you see particularly strong growth potential?

Mr. Amenduni: Our philosophy is to try and eliminate risks by not concentrating on a single area. An important lesson was learnt in the past when nuclear energy was a big issue. Everyone developed their market in this area, and then suddenly the country voted against nuclear. A similar phenomenon was experienced in 2001 in the aerospace sector. The answer is to have a little bit of everything, thus avoiding such potential risks.

Stainless Steel Focus: Are there any specific investments planned at Acciaierie Valbruna that you are able to divulge to our readers?

Mr. Amenduni: We are currently developing our VAR capacity in the USA, with commissioning scheduled for March of next year.



Stainless Steel Focus: Turning now to the market, the stainless steel industry has just been through a period of extremely high and volatile nickel prices. How, in your opinion, has this affected the stainless steel market, and Valbruna?

Mr. Amenduni: Around 70% of the market is in the hands of stockists, and stockists have been adopting a stop-go policy, due to both nickel, and the dollar which also plays a big role for Europe. Another effect was the turning to CrMn grades. These were, however, marketed very badly, with distributors not made aware of where and how these grades could be used. This has led to serious problems in some areas.

Stainless Steel Focus: Have you taken any specific steps in response to the nickel situation - for example, placed more emphasis on ferritic grades, or even considered 200 series grades as a possible solution?

Mr. Amenduni: In some applications yes, and in others definitely not. This follows on from what I just mentioned. Also, there is the issue of machinability.

Stainless Steel Focus: Nickel prices have come down quite considerably since the highs of \$50,000/tonne or more, but have not fallen back to the levels seen only a few years ago. How do you see nickel prices developing in the short/medium term?

Mr. Amenduni: I see nickel at around \$30,000/tonne - perhaps between \$30,000 and \$40,000. I don't see the nickel price going down. Despite all the talk of nickel pig iron. The supply side is tight, and stainless consumption continues to go up.

Stainless Steel Focus: To conclude, could you perhaps sum up in a few words the fundamental philosophy of Acciaierie Valbruna, and how you see the company developing over the next few years.

Mr. Amenduni: It is a big world. And a world where the first thing we need is professional people - to lower costs, and become more competitive, because we all have to face new competitive pressures. And we have to follow, as well as we can, our customers. As I have always told my people "No customers, no company". We have to follow what the

market wants, and so we have to focus on our customers. These are our drivers.

Mr. Amenduni, as Editor of **Stainless Steel Focus**, I would like to take this opportunity to thank you for this frank discussion, which I am sure will be of great interest to all our readers who rely on stainless steel and titanium long products for their businesses.

*Acciaierie Valbruna S.p.A.
Viale della Scienza, 25 - 36100 Vicenza - Italy
Tel: + 39 0444 968211 - Fax: +39 0444 963836
Email: info@valbruna.it
www.valbruna-stainless-steel.com*