



QUALITY
ASSURANCE



ADVANCED
TECHNOLOGY



EXPERIENCED
TEAM



CUSTOMER
SATISFACTION



The Art Of Steel Making

MELTING & CASTING COMPLEX

Producer of Alloy Steel Billet
and Supplier of Alloy & Industrial Steel Wire Rod





INTRODUCTION

Vian Steel Melting & Casting Production Complex is one of the major privately owned steelmaking facilities in western Iran. Located in Hamedan Province, approximately 240 kilometers southwest of Tehran, the Complex has been developed with 100% private-sector investment and has an annual production capacity of 500,000 tons of structural, quality, and alloy steel billets, positioning Vian Steel among the country's notable producers of industrial and specialty steels.

The plant has been designed and equipped as an integrated steelmaking facility, with its principal design and equipment supplied by SIEMENS. The production line incorporates advanced technologies and modern process-control systems to ensure operational reliability, consistent product quality, and efficient steelmaking and continuous casting operations. With its modern equipment and integrated production infrastructure, Vian Steel represents one of Iran's well-equipped private-sector steel production facilities.

PRODUCTION FACILITIES & EQUIPMENT

The production, support, and service facilities of Vian Steel are developed across an area of more than 300,000 square meters, providing the infrastructure required for integrated steel production and plant operations.

The Complex comprises the melting and continuous casting unit; raw material processing and storage units; laboratories; dust collection and air purification units; air separation and storage unit, including oxygen and nitrogen production compressors; water treatment and wastewater treatment units; administrative and financial units; restaurant; changing rooms; spare parts and material warehouses; workshop halls; machinery maintenance facilities; complete site development; fire station; healthcare center; and guesthouse.

The main steelmaking equipment includes a 70-ton Electric Arc Furnace (EAF) and Ladle Furnace (LF) supplied by Fuchs, Germany, forming the core of the melting and secondary metallurgy operations.

Continuous casting is carried out through a four-strand continuous casting machine supplied by POMINI, Italy subsequently upgraded by INTECO and equipped with closed casting equipment and an electromagnetic stirrer, supporting controlled casting conditions and consistent billet quality.

The plant's supporting utilities and infrastructure include a water treatment plant supplied by Water Technic, Germany, and an air separation plant supplied by SIAD, Italy. The electrical and power-control infrastructure includes a TES, Italy transformer together with an Endoks SVC, while material-handling operations are supported by ALMICH, Italy cranes.

The Complex is further equipped with dedicated dust collection systems and a comprehensive laboratory equipped with German and Italian equipment, together with other advanced production, utility, maintenance, and support equipment required for reliable and continuous steelmaking operations.



PRODUCTION PROCESS

The metallic charge, consisting of various types of scrap and Direct Reduced Iron (DRI), is transferred to the Electric Arc Furnace after preparation and processing by the material handling equipment. During the melting operation, various raw materials and fluxes are transferred to the furnace through a fully automated weighing and material handling system. Once the melt is ready, it is tapped through the EBT into a preheated ladle.

Subsequently, secondary metallurgy is carried out in the LF unit, including temperature adjustment and homogenization, chemical analysis adjustment, and impurity removal in accordance with the required standard and steel grade.

The bottom-pouring ladle containing the molten steel is then transferred to the continuous casting station for casting.



The line is equipped with a radioactive mold level control system, a mold electromagnetic stirring system, and SEN and SES tundish-to-mold nozzles. It is designed so that, throughout all stages of casting, the molten steel is transferred to the molds without direct contact with atmospheric oxygen, minimizing the absorption of oxygen and other gases present in the air. This process plays an effective role in producing clean, homogeneous steels free from non-metallic inclusions.

QUALITY CONTROL AND LABORATORY

Precision Testing for
Reliable Steel

At Vian Steel, quality is not just a goal—it's a commitment. Our advanced laboratory and strict quality control systems ensure that every product meets international standards and customer expectations



ADVANCED TESTING EQUIPMENT

State-of-the-art instruments
for accurate analysis



ACCURATE ANALYSIS

Precise testing for chemical
and physical properties



CONSISTENT QUALITY

Ensuring uniformity
in every batch



INTERNATIONAL STANDARDS

Compliance with recognized
global standards



We are equipped with comprehensive laboratory and testing facilities to monitor and analyze raw materials, production processes, and final products.

Our laboratory performs chemical composition analysis, mechanical property testing, microstructure examination, and other critical tests to guarantee the highest level of product performance and reliability.

Through continuous monitoring and improvement, we maintain full traceability and deliver steel products with the quality you can trust.



QUALITY
YOU CAN TRUST



TESTED.
VERIFIED.
DELIVERED.



YOUR PARTNER
IN QUALITY

OUR LABORATORY CAPABILITIES

- ▶ Chemical Composition Analysis (OES)
- ▶ Mechanical Testing (Tensile, Hardness, Bend)
- ▶ Metallographic Analysis
- ▶ Wet Chemical Analysis
- ▶ Carbon-Sulfur (CS) Analysis
- ▶ Hydrogen & Oxygen Determination
- ▶ Non-Destructive Testing
- ▶ Dimensional Inspection
- ▶ Environmental Monitoring



SEMI-FINISHED PRODUCTS



Vian Steel Melting & Casting Complex, utilizing advanced technologies, state-of-the-art equipment, and quality control systems throughout all stages of production, from raw material selection to the final product, is capable of producing a wide range of steel billets in structural, low-carbon medium-carbon, high-carbon, and alloy steel grades in accordance with international standards and customers' specific requirements.



Vian Steel products include various billets in carbon low-alloy and high-alloy steel grades, in dimensions ranging from 100×100 to 160×160 mm. These products are used in various industries including construction, automotive, industrial machinery, electrode manufacturing, wire industries, bolt and nut manufacturing, spring manufacturing, and toolmaking. With consistent quality desirable mechanical properties, suitability for heat treatment, and the capability to be produced according to the chemical analysis and technical specifications requested by customers, these products meet the requirements of both domestic and international markets.



Relying on its specialized workforce, compliance with environmental requirements, continuous process improvement and technological development, the Complex continuously strives to enhance quality, increase productivity, expand its product portfolio, and improve customer satisfaction, establishing itself as one of the reliable producers of quality and alloy steels in the country.

The table on the next page presents the main product families, available steel grades, typical applications, and the relevant international standards.

SEMI-FINISHED PRODUCTS

STEEL BILLETS

Product Category		Steel Grades	Typical Applications	International Standards
	Structural Steels	ST35P, RSt34-2, S235JR	Reinforcing bars, wire rods angles, channels beams and structural sections	EN 10025; DIN 17100; ASTM A36; JIS G3101
	Low Carbon Steels	SAE1006,1008,1010	Wire rod, wire drawing mesh, nails, cold heading	SAE J403; ASTM A510; ASTM A29; EN10016
	Medium Carbon Steels	SAE1020,1030, SAE1018	Bolts, nuts, pins, shafts forgings, machinery parts	SAE J403; ASTM A29; EN10083
	High Carbon & Spring Steels	C42D2,CK45,C48D2 C68D2,C42D2,C72D2 C82D2	Spring wire industrial springs shafts, pins	EN10270; ASTM A228; ASTM A229; DIN17223
	Welding Wire Steels	SWRY11,SWRY21,SG2,SG3,S2, S2Mo, S2MoTiB, 12Mn8, 11MnSi16, 80SNi1, ER100S-G	Welding electrodes welding wire and filler wire	AWS A5.18; AWS A5.28; EN ISO14341; JIS G3505
	Chromium Alloy Steels	15Cr3,17Cr3,34Cr4 37Cr4,41Cr4	Shafts, pins, bolts wear-resistant parts	ASTM A29; SAE J404; EN10083
	Chromium-Molybdenum Steels	16CrMo4, 18CrMo4 25CrMo4,34CrMo4 41CrMo4, 42CrMo4	Heavy-duty shafts, gears high-strength components	ASTM A29; SAE J404; EN10083-3
	Chromium-Vanadium Steels	41CrV4,31CrV3	Industrial tools springs, dies	SAE J404; ASTM A681; EN ISO683
	High Strength Structural Steels	S255JR, J2355	Structural parts for corrosive environments	EN10025; ASTM A572

WIRE ROD

PREMIUM QUALITY FOR DIVERSE APPLICATIONS

Our Wire Rods are produced using state-of-the-art technology and strict quality control to ensure excellent mechanical properties consistent dimensions, and high surface quality.

These products are widely used in the manufacturing of welding electrodes, welding wires, fasteners, springs, wire meshes, and various industrial applications.

KEY FEATURES



Consistent chemical composition and mechanical properties



Smooth surface and precise dimensions



Excellent drawability and weldability

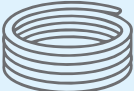
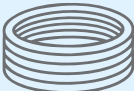
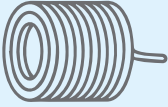


Suitable for a wide range of industrial applications



Manufactured in compliance with international standards

Classification of Grades, Typical Applications and Relevant Standards

Product Category	Steel Grades	Typical Applications	Relevant Standards
 High Carbon Steel Wire Rod	C42D2, C48D2, C62D2, C68D2, C72D2, etc.	Production of drawn steel wires and industrial wire products; steel wire ropes, steel cords and high-strength cables; industrial compression, extension and torsion springs; tire cord and rubber reinforcement wire; high-strength bolts, nuts, nails, rivets and fasteners; industrial wire mesh, fencing wire and steel mesh; industrial chains and wear-resistant components; components used in the automotive, mining, machinery, agricultural and road-construction industries; electrodes and special wire products after heat treatment and drawing.	EN 10016; SAE J403; ASTM A510/A510M; DIN 17223; JIS G3506
 Low & Medium Carbon Steel Wire Rod	SAE 1006, SAE 1008, SAE 1018, SAE 1022, RSt34	Production of industrial wire and wire products; steel mesh, welded wire mesh and concrete reinforcement mesh; tie wire, annealed wire and drawn wire; general-purpose bolts, nuts, nails, rivets and fasteners; welding electrodes and welding wire; cold- and hot-forged components; pressed, bent and deep-drawn components; light steel profiles, tubes and sections; components for the automotive, construction, machinery, household-appliance and industrial-equipment sectors; metal shelving, storage equipment, metal furniture and light structures; light-duty chains, baling wire and general-purpose wire products.	SAE J403; ASTM A510/A510M; EN 10016
 Low Carbon Steel Wire Rod for Welding Electrode and Welding Wire Applications	SWRY11, SG2, SG3, S2, S2Mo, S2MoTiB, 80SNi1, ER100S-G	Production of solid welding wire; welding wire for MIG/MAG (GMAW) processes; wire for submerged arc welding (SAW); covered electrodes for shielded metal arc welding (SMAW); alloy and low-alloy welding wires; special wire rods for the automotive, shipbuilding, pressure-vessel, structural-steel and industrial-machinery sectors; welding consumables for general and specialized applications.	AWS A5 Series; EN ISO 14341; JIS G3505; ASTM A510/A510M



OUR GLOBAL PRESENCE

CONNECTING VIAN TO THE WORLD

Vian Steel is committed to expanding its presence in regional and international markets with high-quality steel products, reliable logistics and customer-focused solutions.



STRATEGIC LOCATION

Located in the west of Iran, at the heart of the country's industrial corridor.



MULTIMODAL ACCESS

Excellent connectivity by road, rail and sea, ensuring efficient and cost-effective shipments.



WIDE EXPORT NETWORK

Supplying steel products to global markets across neighboring countries and beyond.



RELIABLE PARTNER

Driven by quality, reliability and long-term partnerships.

OUR EXPORT MARKETS

- ▶ Iraq
- ▶ Armenia
- ▶ Pakistan
- ▶ Turkey
- ▶ Turkmenistan
- ▶ Persian Gulf
- ▶ Azerbaijan
- ▶ Afghanistan
- ▶ Central Asia



ROAD TRANSPORT

Flexible and efficient delivery across the region.



SEA FREIGHT

Access to major ports for safe and competitive shipping.



RAIL CONNECTIVITY

Sustainable and reliable rail solutions for bulk shipments.



INTERNATIONAL CERTIFICATIONS AND STANDARDS

As part of its commitment to implementing an Integrated Management System (IMS), continuous process improvement enhanced product quality environmental protection, and the health and safety of its employees, Vian Steel Melting & Casting Complex has successfully obtained internationally recognized certifications from TÜV AUSTRIA.

These certifications include:



ISO 9001:2015
Quality Management System



ISO 14001:2015
Environmental Management System



ISO 45001:2018
Occupational Health & Safety
Management System

The implementation of these internationally recognized standards reflects Vian Steel's commitment to manufacturing products in compliance with international requirements, enhancing customer satisfaction, protecting the environment, improving workplace health and safety, and pursuing continuous improvement and sustainable development.

The integration of these management systems with modern technologies, advanced equipment, and rigorous quality control ensures the consistent production of high-quality steel billets capable of competing in both domestic and international markets.

AUXILIARY PLANT UNITS



DEDUSTING PLANT



AIR SEPARATION AND
OXYGEN PRODUCTION PLANT



WATER SUPPLY, TREATMENT
AND RECYCLING PLANT



MAIN 230/33 kV
SUBSTATION



SCRAP SORTING, STOCKPILING
AND TRANSFER TO THE MELTING SHOP



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