Enaex & Tersainox
"World Class Strategic Partners"...

The Dry Coolers, one of the Flagship Products of JORD International, Company that we Represent in Chile...

Tersainox, an Example of those Who Know....

Equipment for the Dairy Industry...

Stainless Steel Road Tankers with Australian DNA
TERSAINOX a global stainless steel specialist and road transport equipment designer and manufacturer, have teamed up with Holmwood Highgate the largest manufacturer of aluminium road tankers in Australia, combining their design capabilities to deliver superior performance vehicles, that are lightweight and virtually immune to metal fatigue, stress cracking and corrosion and are specially design for the Australian roads conditions.

Tersainox builds only stainless steel equipment and has a long track record in the fabrication of mobile manufacturing units for the delivery of mining explosives and road tankers for Chemicals, liquids, wine, milk, foodstuff, live fish and bulk dry cargo. Holmwood Highgate provides the key elements of design, compliance, manufacturing and fitment of the sub-assemblies to ensure that the finish product is in line with the expectations of the Australian Market.

The result is a perfect match, where the customer gets the optimal solution for his needs, high level of workmanship and quality, superior performance, safe, more durable, with more payload at a very competitive price.

Stainless steel can offer greater choices of materials selection for tankers, in the correct application it can be stronger, lighter and safer than other types of tanker. Due to its excellent resistance to corrosion, this material requires less maintenance and offers a longer service life minimised lifecycle cost and a higher resale value in the second hand market.

Our Road Tankers are conceived in close co-operation with the customer.

Using a personalized approach, we ensure that every vehicle that we build is costumed-tailored for the intended purpose. The process of designing a road tankers starts with understanding the customer needs, we work with our clients, to determine the best grade of material, accessories and the best configuration for the intended application.

The tank capacity, the number of compartments, the possible insulation or heating, are determined in cooperation with the customer, to the exact specifications of the goods to be transported. All this aspects are taken into consideration in order to ensure and optimal relation between capacity and weight.

We can build road tankers in one of the most comprehensive ranges of high corrosion resistance grades of stainless steel, from the traditional 304 and 316 to the more special grades such is LDX 2101, Duplex 2205 and 3cr12 and we are constantly looking for the best material for your application.

A thorough preparatory technical study and the application of the latest 3D modelling software and programs for design and production and Finite Element Analysis, should lead to the most appropriate transport unit for each customer.
Wether is a rigid mounted tanker, self-supporting tanks, a semi-trailer, a dog trailer or a B-Double, our innovative team of designer and engineers make sure that each equipment is design to the minimum thickness required by regulatory bodies, reducing the cost of stainless steel, reduce tank tare weight, increase performance and lowering operation costs. We work with the regulatory bodies to ensure that our equipment are design, manufactured and service according with the requirement of the Australian Standards AS 2809 and AS1210 and the Australian Design Rules for the transportation of dangerous goods, foodstuff and dry bulk cargo.

We use the latest technology and manufacturing techniques to ensure structural integrity of the road tanker. We adhere to a stringent quality assurance framework. A great part of our production process is carried out manually. As a matter of fact, the craftsmanship of the employees has always been one of the pillars of our success and our QC team and top management are involved in inspecting each major stage gate of the tanker, design, build and test phase.

Testing includes hydrostatic testing & air testing, pipe testing and volume calibration. All material is certified and certificates are presented to the customer on completion of the tanker.

Our dedicated team of experts will guide you every step of the way to ensure that you are getting the most from your road tankers’ design, providing you with world class stainless steel equipment, technical knowhow and support, so we build tanks for you that are lighter, stronger and easier to clean and maintain.

**The Use of Duplex Stainless Steel in Road Tankers More Strength Less Material.**

Austenitic grades have long been the industry standard, austenitic structures promote ductility, good weldability and possibilities for a wide range of service temperatures. We offer equipment in the full range of standard austenitic grades for example 304 and 316. Of course, corrosion resistance must also be assured for when the road tankers are transporting hazardous or corrosive chemicals such as acids and also when operating at sea.

As an example, Duplex grades of stainless steel, such as LDX 2101, very often surpass austenitic steels and create a competitive advantage for the end user. In some applications, the superior strengths of Duplex allows for reduction in wall thickness and total weight, which results in a more cost-efficient solutions. LDX 2101 makes and even stronger and lighter road tanker owing to its high mechanical strength, typical of all duplex grades. The high strength allows considerable reductions in material thickness and, as a result, in weight.

The weight savings of using LDX 2101 has resulted in 30%, over barrels from conventional steel adding to that the cost of maintenance over the life cycle of the equipment, the savings are significant. LDX 2101 is ideal for use in road tankers, it meets the high fatigue performance requirements set of by the design codes for pressure equipment, thus helping enhance safety on roads.- In Europe LDX2101 is widely used to make road tankers for bitumen.

**Marcelo Salas**

**Tersainox Australia**

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This partnership has evolved over time, the mutual contribution to joint projects has generated a positive development in the manufacture of special equipment for transportation and industrial area, achieving total satisfaction of the ENAEX’s requirements.

Our Company:

Tersainox is the largest manufacturer of stainless steel equipment in Chile. Tersainox is the company within the Vapor Industrial Group that specializes in stainless steel. Vapor Industrial Group brings together Vapor Industrial SA, Maestranza Maipú Ltd, Recsol and Metallurgical Company San Francisco (CMSF).

Tersainox is the only factory in Chile 100% dedicated to the production of stainless steel equipment, ensuring contamination-free manufacturing and optimal quality. Our company has also extensive experience in manufacturing equipment for industrial, transport, mining and food industry applications. All manufactured exclusively in "Stainless Steel and special alloys."

With over 15 years of experience in the area, we have acquired a significant technical knowledge in the production processes, as well as in welding, material handling and finishing (polishing) which has been achieved with the support of our professional Area of Production and Engineering. Our technical people has enhanced their knowledge and gained experience in European factories, world leaders in this technology.

Tersainox and Enaex have a business relationship dating more than 12 years, making Tersainox a strategic partner in the development of transportation equipment and industrial equipment.

Industrial equipment manufactured by Tersainox for Enaex from 2010 onwards:

We build the first Mobile Manufacturing Unit in 1998.
Industrial equipment manufactured by Tersainox for Enaex from 2010 onwards:
Enaex currently has more than 40 Tersainox units. Among them we can mention silo tanks for the transportation of nitrate matrix. Silotanks for the transportation of ammonium nitrate and mixer trucks of high tonnage Auger and Quadra.

On September 6, 2010 Tersainox signed a Confidentiality Agreement with Enaex a confidentiality agreement which will protect the "know how" of both companies in the joint development of projects such as the High Tonnage Quadra and Auger.

Our partnership projects us as a strategic partner in the international development that Enaex is undertaking.

Mauricio Tapia C.
Product Manager
Transportation and Logistics Division
Tersainox S.A.
The Dry Coolers, one of the Flagship Products of JORD International, Company that we Represent in Chile.

Jord has 40 years and hundreds of references in over 50 countries by designing and manufacturing air coolers. Jord’s experience covers all industrial applications. The air coolers cooled or condense a variety of industrial fluids, including pressures to 450 bar and temperatures from -60 to 450 °C, the services of toxics, hydrogen services and services of high viscosity freezing point. The manufacturing expertise has been developed for a wide range of steels, including incoloy, Monel, Duplex and Super Duplex.

The longevity of the equipment installed, many of whom has been in operation for decades, is a testimonial to the strength of its design.
The modular design of Jord’s coolers, reduce the assembly costs and transportation.

Cristian Lohse
Sales Executive
Tersainox S.A. Group
The properties of stainless steel are significantly influenced by their chemical composition, which in turn determines the micro structural characteristics of these alloys.

Tersainox during his life has helped with his knowledge and interest in developing solutions, supplying and manufacturing various equipments, demonstrating and answering to different problems, whether is the management of liquid substrates for their processes, treatment, transmission, storage or transport.

Industrial Tanks: Our experience has led us to make the full range of tanks, for which we have qualified welders in different types of stainless steel, the traditional AISI 304L and AISI 316L and 3CR12, DUPLEX STEELS LDX 2101, SAF 2304, 2205, 254 SMO, 904-L, AL6 XN, HASTELLOY.

Our production meets the most demanding international standards and our engineering applies API 650, ASME and Chilean standards.

Some of the equipment we have manufactured for the mining industry are atmospheric storage tanks for different products, pressure vessels, pressure and vacuum reactors, scrubbers, Stand Pipes, Cyclones, among others.

Logistics Solutions

We offer a full line of equipment for transport and storage of hazardous products in liquid, powder or granules, such as: Palletank, Silotank, TankTainer, Semi-Trailer Tanks, Tanks for the Transportation of Sulfuric Acid, Fuel, Nash Cement, Lime, Sugar, Oil, Wine, Milk, Chocolate and Live fish and multimodal equipment.

We have an experienced group of collaborators who can guide you in the best way to find solutions to your needs.
For a major dairy company, Tersainox built in record time process tanks, which have a sophisticated system of agitation, which allows for the mixing and homogenize the different additives.

The tanks must store and maintain certain temperature parameters, which was a fundamental requirement to achieve the maintenance of the product in optimum condition.

These temperatures were achieved by the type of cooling jackets installed. We use preformed jackets, with added polyurethane insulation in the tanks, reaching the temperature ranges that the client requested and needed for the final product.

Remarks by the executive in charge of the project Mr Eric Miranda L.

For our company to work with Tersainox was very pleasant, as we were able to fully meet all our commitments.

Words of production manager of the company.

Eric Miranda Lagos
Commercial Executive
Tersainox S.A. Group