

Stainless Steel
Pipelines & Fittings



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Company Overview

American Pacific Manufactures Inc. Rhinox Pipes and Press fittings are trusted and quality solutions for an integrated piping system. Engineered in Washington USA, we have more than 40 years of industry experience in design and production. Today, Rhinox products are used all over the world.



Sustainability Goals





People

STUDY THE WORD SUSTAINABILITY

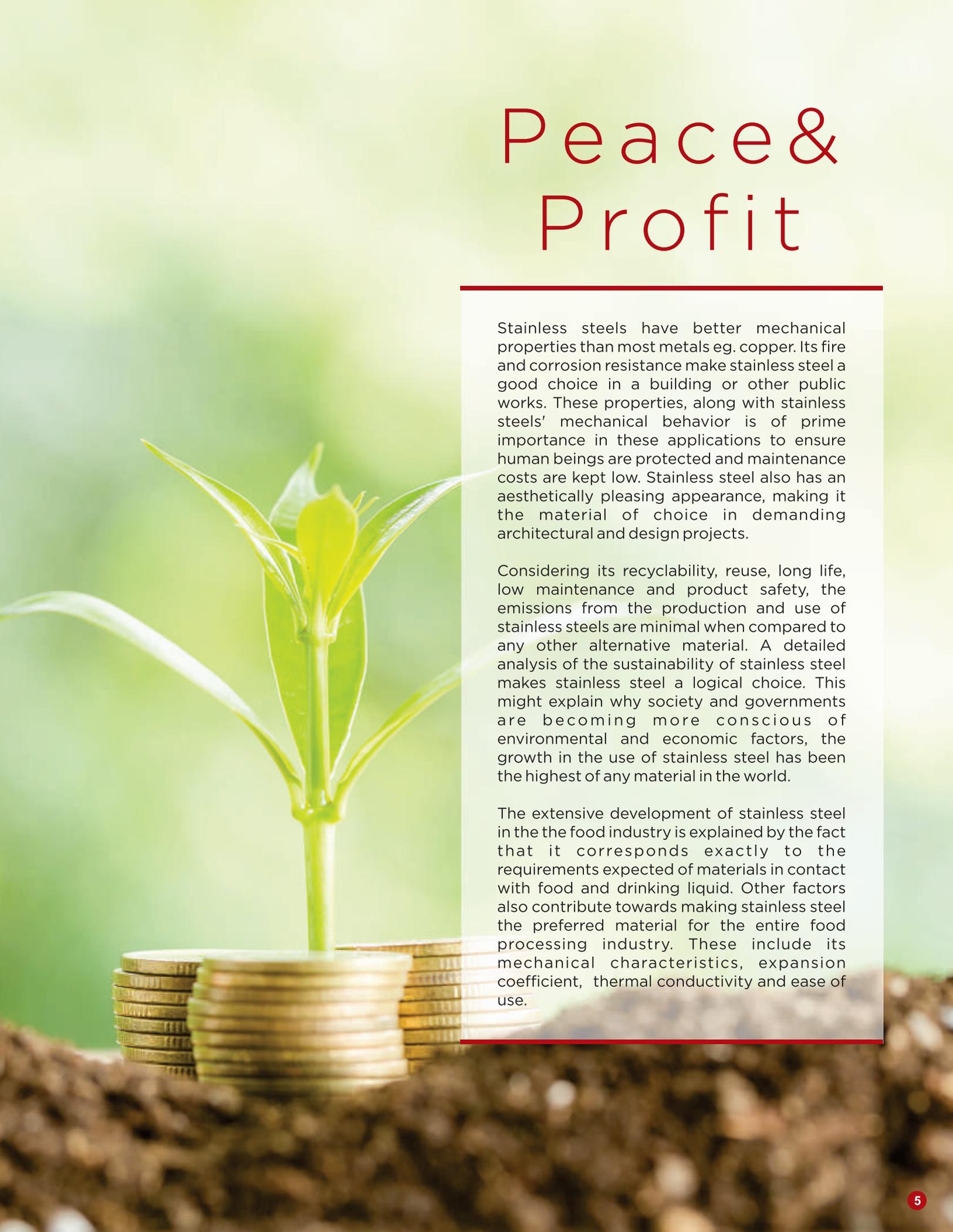
Stainless steel double seals press-fit piping system, in its use or in its production stage, respects the human being, especially in terms of health and safety. The system is fully made of sustainable materials & do not harm the people working to produce it, or the people who handle it during its use, recycling and ultimate disposal. If the correct grade of stainless is selected for an application, the steel remains inert and harmless to the people who handle it and the environment. These characteristics have made stainless steel the primary material in medical, food processing, household, and catering applications.



Planet

The emission footprints of the material, especially those related to carbon, water, and air are minimized. Reuse and recyclability are at high levels. The material has low maintenance costs and long life, both key indicators that the impact of the material on the planet is at the lowest levels possible. The electric arc furnace (EAF), the main process used to make stainless steel, is extremely efficient. EAF process has a low impact on the environment in terms of both CO₂ and other emissions. The EAF is also extremely efficient at processing scrap stainless, ensuring that new stainless steel has an average recycled content of more than 60%. Stainless steels are easily recycled to produce more stainless steels and this process can be carried on indefinitely. It is estimated that about 80% of stainless steels are recycled at the end of their life. As stainless steel has a high intrinsic value, it is collected and recycled without any economic incentives from the public purse.

Peace & Profit



Stainless steels have better mechanical properties than most metals eg. copper. Its fire and corrosion resistance make stainless steel a good choice in a building or other public works. These properties, along with stainless steels' mechanical behavior is of prime importance in these applications to ensure human beings are protected and maintenance costs are kept low. Stainless steel also has an aesthetically pleasing appearance, making it the material of choice in demanding architectural and design projects.

Considering its recyclability, reuse, long life, low maintenance and product safety, the emissions from the production and use of stainless steels are minimal when compared to any other alternative material. A detailed analysis of the sustainability of stainless steel makes stainless steel a logical choice. This might explain why society and governments are becoming more conscious of environmental and economic factors, the growth in the use of stainless steel has been the highest of any material in the world.

The extensive development of stainless steel in the the food industry is explained by the fact that it corresponds exactly to the requirements expected of materials in contact with food and drinking liquid. Other factors also contribute towards making stainless steel the preferred material for the entire food processing industry. These include its mechanical characteristics, expansion coefficient, thermal conductivity and ease of use.



Chemical and Biological Neutrality

studies have found that stainless steel has no adverse effects on health. it is used widely for several purposes such as drinking water, food, health, and human hygiene. Stainless steel is a stable homogeneous alloy composed mainly of iron, chromium (13 to 30%) and nickel (0 to 25%).

Cleaning and disinfection

Cleaning can be done easily for elimination of both visible and invisible diseases that adheres to the external surface of stainless-steel pipes. Full bacteriological cleanliness is also attainable after internal surfaces are disinfected to a level that is compatible with satisfactory hygiene practice and prevents contamination of water.

Durability and Corrosion Resistance

Stainless steels' exceptional resistance to corrosion has enabled the dairy industry to develop widely and rapidly. Stainless steel behaves quite neutrally and does not alter the taste of water. Unlike carbon steels, stainless steels have a natural resistance to corrosion. Due to the use of chromium as an alloying element, stainless steels form a resilient, self-repairing oxide layer, which protects the metal

beneath from corrosion. This layer is thin and transparent, enhancing the natural appearance of the metal. This also means that the material can be exposed to the elements without the need for other coatings being applied. In addition to these aspects, stainless steel is a sustainable material in the environmental sense of the word; it is normally made with 60% recycled content, which provides savings in the form of lower energy costs and reduced CO₂.



Development



Rhinox is one of the market leaders in its industry with a focus on top performance when it comes to product quality, reliability, innovation and overall business performance.

As we care about the environment and future of our planet, such performance shall also be the a benchmark for our activities in the area of sustainability and corporate social responsibility. For already some years we at Rhinox have committed ourselves to sustainability, which plays an important aspect in our daily business life, our production processes and the products and services we offer. Careful use of raw materials,

reduction of energy consumption, lowering the quantity of waste material, as well as increased recycling are only a few examples of the long list of targets to which the Rhinox dedicates itself. In selected projects, dedicated teams are working on solutions to achieve the high, but necessary targets set by our Management.

Environmental protection and sustainable products are very important to the group, but we also have a clear & committed Corporate Social Responsibility that is embraced by all our business operations worldwide.

A LEGACY OF SUSTAINABLE PRODUCTS

As the world leader in mechanical piping systems, Rhinox has set the standard for piping efficiencies, engineering expertise and performance reliability, creating a sustainable piping system that lasts the life of the buildings where they are installed. The innovative products designed and manufactured by Rhinox are inherently sustainable and offer design solutions that reduce the impact on our environment:

• Superior sound attenuation benefits

• Seismic capabilities to maintain the piping system integrity during seismic events

• Adaptable products that can be easily retrofitted on any building

• No flame required, therefore, reducing waste and toxic fumes

• More efficient water flow and higher values to increase operating efficiencies



OUR SOLUTIONS

• A safe and secure work environment

• Reduced health risks associated with no-flame joining methods Planet the planet benefits from

• Reduced carbon emissions

• Elimination of hazardous air pollutants and greenhouse gases

• Reduce energy costs

• Reduce labor, maintenance, and operation costs

• Enhance productivity

SUSTAINABILITY TOWARDS STAKE HOLDERS

Rhinox has been an innovator in manufacturing throughout its history - our global lean processes reduce waste and increase efficiency. We manufacture close to the markets we serve to provide superior product delivery, as well as conserve our natural resources and reduce transportation-related pollution.



INSTALLATION PROCESS

During installation and maintenance, mechanical grooved piping systems significantly reduce or eliminate waste, emissions and noise pollution on the job site providing a safer and healthier environment. Grooved systems employ a proven roll grooving process to join piping, valves and other components. Using a simple two-bolt coupling design, pipefitters can make rugged, secure joints quickly and easily using only basic hand tools. And, with a union at every joint, they have maximum flexibility for on-site decision making. All couplings are sealed for optimum integrity with a durable elastomeric gasket designed to withstand years of sustained high compressive and cyclical loads.





Improved operating efficiencies that eliminate & reduce cost:

Mechanical pipe joining systems provide an optimal way to effectively and easily maintain piping systems in structures, thereby is couraging deferred maintenance & thus promoting operating efficiencies and ultimately saving money.

Easy system access leads To efficient and timely maintenance.

For access to a grooved piping system, a maintenance person simply loosens two nuts and bolts. Grooved piping systems also can be installed in wet or dry conditions to speed up the maintenance process.

No-Flame installation Allows for Maintenance in Occupied Spaces.

Mechanical pipe joining systems is a safe alternative to maintain piping systems in specialized areas where flames could potentially create a hazardous environment and there is no disruption to business productivity due to downtime.

Union at Every Joint Maximizes Flexibility.

Conducting maintenance on mechanical systems is more efficient than on welded systems during both scheduled and unscheduled maintenance reducing downtime by an average of 25%.

Reduced Downtime

Retrofit projects can be completed in occupied buildings without having to vacate the space because mechanical grooved piping re-work does not negatively affect indoor air quality or introduce a fire hazard. During expansion projects and retrofits, using grooved piping, existing piping systems are easily re-routed and kept in operation while new systems are put in place, increasing onsite safety and maximizing productivity.





Partners

Pillars of SUSTAINABILITY Rhinox's current approach towards corporate responsibility and sustainability is based on four pillars, which are derived from the triple bottom line (i.e. the environmental, social and financial pillars). These pillars support the achievement of our objectives and provide a framework for our sustainability endeavors. The four pillars are:

Culture

Strongly integrating sustainability into our corporate mindset- To succeed in our journey towards a sustainable future, we will develop a corporate culture of sustainability with the full commitment and engagement of all our employees.



Care

Driving down our environmental impact- Throughout our manufacturing & non-manufacturing facilities, we are committed to minimizing resource utilization and waste, and implementing renewable energy sources.

Customer

Enriching lives through our innovative solutions- Through our innovative and sustainable solutions, we will help to achieve zero carbon emissions while creating comfortable and healthy built environments.



Partner

Engaging stakeholders in our sustainable journey We will collaborate with all our stakeholders to create sustainable communities for future generations. Our four pillars will become the context of how we manage corporate responsibility. From the pillars, we have defined five focus areas for driving our sustainability program further.

Let's Keep Safe;
The Saviour of Lives!





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