



Specialist in filling all kinds of liquids and solids

From stand-alone to turn-key systems

Tailor-made machines for specific needs

Robust and quality engineering

From idea to production

Providing service plans for reliable operation



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Filling systems

Amtra has a wide product range of filling systems suitable for all type of liquids and chemicals with high and low viscosities applicable in the petrochemical, food and beverage industry. The filling systems are of food grade construction in either top fill or bottom up fill configurations. The installation can be delivered with or without ATEX certificate for the chemical industries. The level of automation for the filling systems varies from semi-automatic filling to fully automatic filling depending on product volume and safety regulations. The filling systems can be extended with handling solutions like automatic palletising, automatic labelling and inkjet lettering, drum and pallet transportation and warehousing.



Fully automatic drum filling system



Lance positioning on bung-holes



Seal clinching system

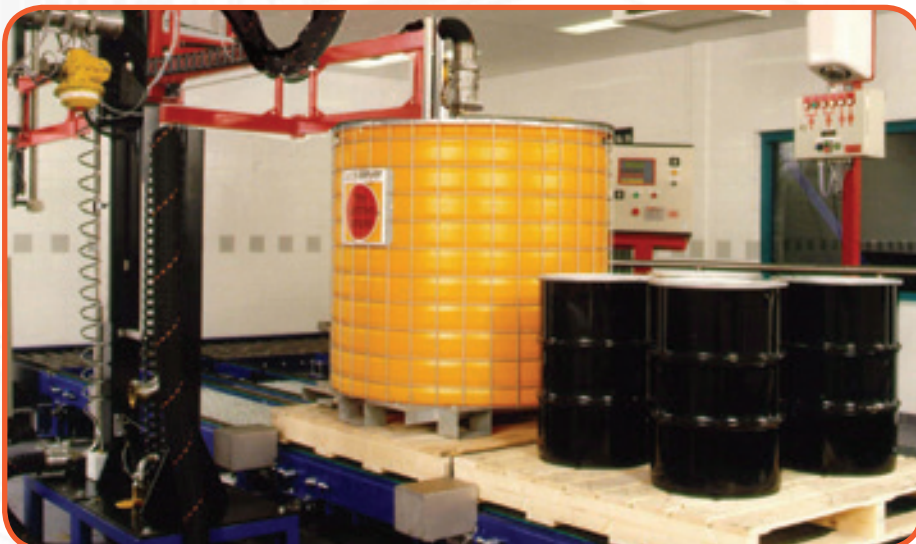


Seal buffer system





Fully automatic pallet filling system



Semi-automatic pallet filling system



Standard drum filling system



Fully automatic IBC filling system

Pumping systems

Over the years Amtra has gained invaluable knowledge and experiences in the engineering and implementation of turn-key pumping and control systems for a wide range of applications throughout the chemical, food, pharmaceutical and other related industries. Whether the fluids are of a low or a high viscosity, explosive, aggressive, abrasive or corrosive, Amtra can provide the customer with a broad range of custom designed systems, with or without ATEX certificate, suitable for your application.



Rotary lobe pump



Nitrogen generators

In industries where combustible, flammable, or explosive materials are processed, stored, or generated a nitrogen blanketing is a common practice. Blanketing helps protect the plant personnel, products and plant assets by reducing the oxygen contact in the vapour space of a drum or IBC container, making it inert. This eliminates the possibility of fire or explosions, decreasing evaporation and protects the product carrier with structural corrosion damage caused by air and moisture. It also prevents air, moisture, or other contaminations from entering the vapour space and causing product degradation. Due to extensive cooperation with well-established partners Amtra is able to fully integrate the nitrogen installation, piping and appendages with the filling system to achieve the most effective efficient solution.



Nitrogen generator



Nitrogen and compressed air installation



Nitrogen membrane generator

Transportation and handling systems

In order to realize turn-key projects of any size Amtra supplies a variety of conveyors as well as a diverse range of transportation and handling systems for the feed to and from the main machinery. Some examples of these are roller and chain conveyors, in-liners, line dividers, shunters, turning units, push-over units, stacking and de-stacking systems etcetera. Based on the type of products to be handled Amtra will provide its customers with the most efficient and cost effective logistical solution for your automation project.



Driven roller conveyor



Driven turning table unit for pallets and drums



Belt conveyors



belt conveyor for small packages



Chain conveyors for pallets



Belt conveyors with continuous elevator



Loading and unloading systems

To improve the productivity and ergonomics for employees at your loading docks, Amtra supplies telescope conveyors for the unloading and loading of loose-loaded goods. The cantilevered construction extends from the platform into the inside of the vehicle. Due to the telescopic movement of the conveyor the gap between the drop-off or take-away point is bridged and therefore minimizes the need for operators to carry the products manually. As the conveyor does much of the work, your employees can remain fresh, performing optimally throughout the shift. Depending on the shape and dimensions of the product, the loading and unloading of the products can also be automated even further by means of a robot positioned on the telescope conveyor. The telescope conveyor is connected to the internal handling system for further processes such as filling, palletising, storage or repacking.



Telescope belt conveyor



Telescope conveyor connected with internal handling



Telescope belt conveyor with lifting aid



Telescope belt conveyor

Palletising and de-palletising systems

Amtra's palletising and de-palletising systems delivers customized solutions for the food, bulk and chemical industry. The palletising and de-palletising systems offers the possibility of creating basically every desired layer and stack arrangements on the pallet for palletising units such as bags, drums and container layers. The type of palletising or de-palletising system depends on the product, required capacity, stacking patterns, pallet formats and stability of the product. Based on these figures Amtra is able to configure the most optimal and efficient solution for your application. Furthermore, these systems can be integrated with an in line pallet strapping or wrapping unit.



Pallet de-stacking system



Layer palletising system for sacks



Robot palletising system for drums

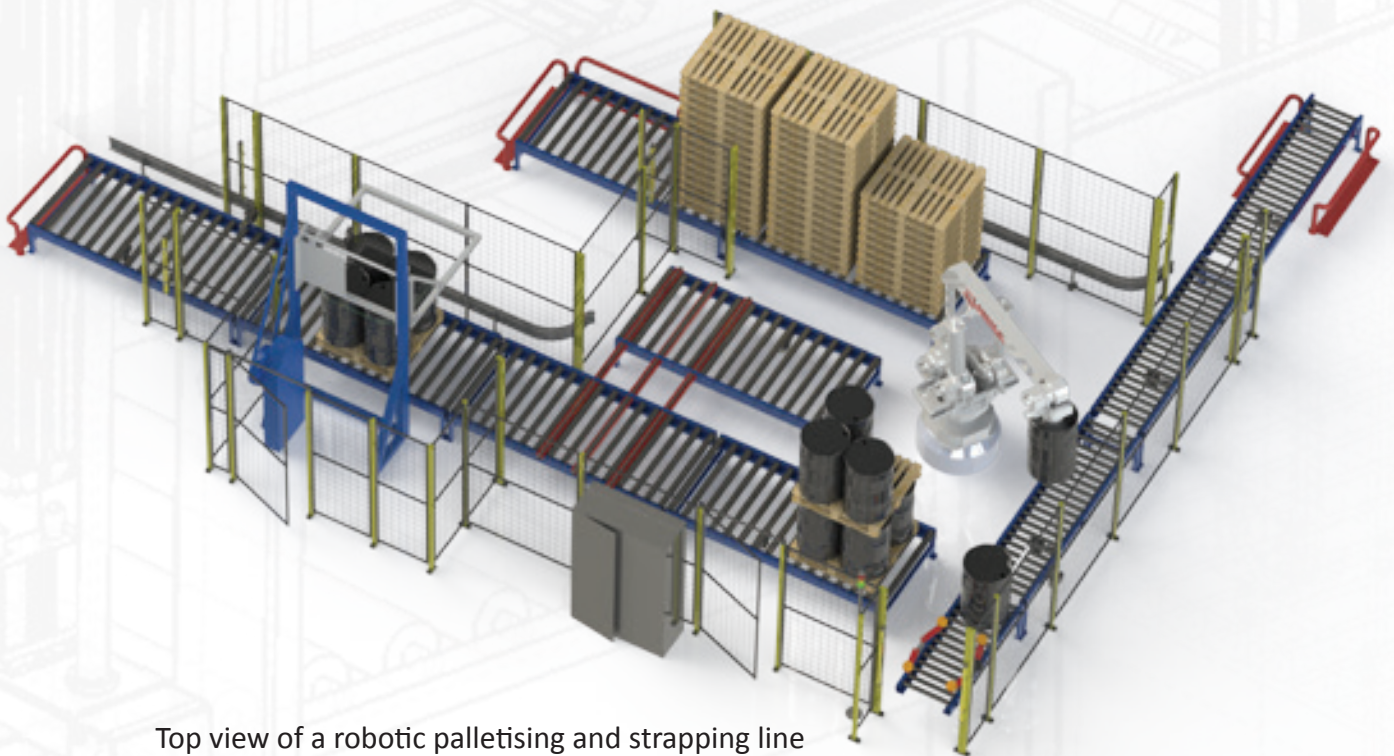


Palletising system for drums



Robotic technology

Industrial robots are used for the handling of a great variety of products for multi-task and/or precise processes that are hard to realize by means of conventional machines. An important part of the robot is the design of the pick-up tool. The pick-up tool will enable several kinds of products to be handled, to enhance the installation's efficiency and flexibility while reducing investment. For example the robot can be implemented for a multi-task job to palletize and/or de-palletize drums by collecting of the drums and precise positioning of the drums on the pallet or conveyor.



Top view of a robotic palletising and strapping line

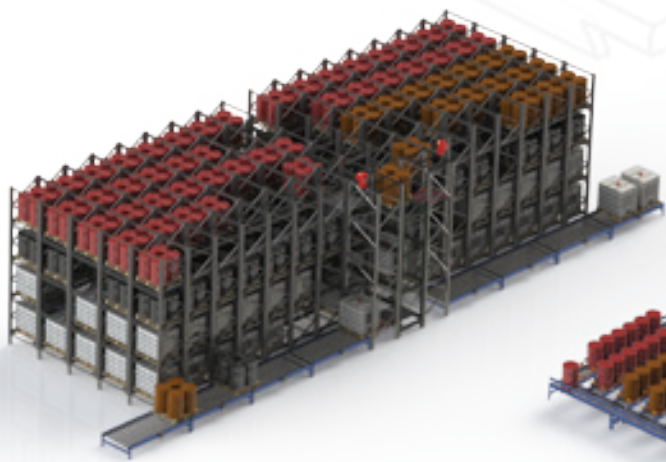


Palletising patterns for drums

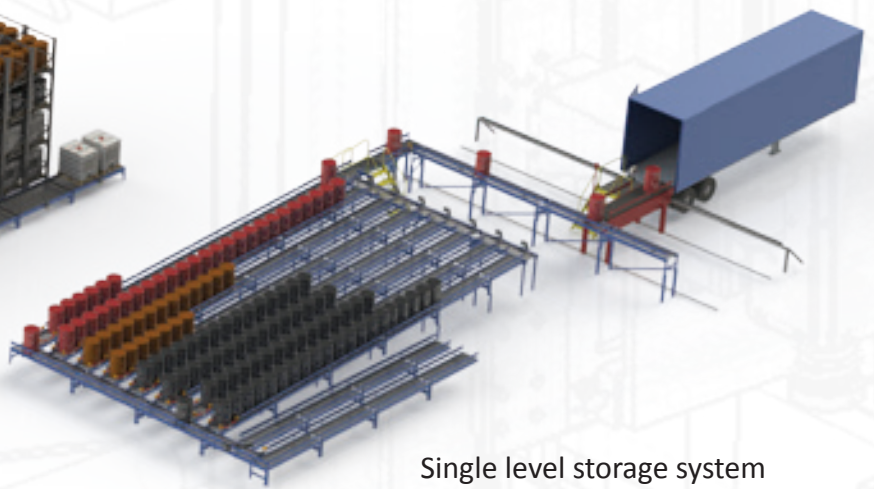
Storage systems

The storage systems for pallets, IBC's, containers, drums and other types of goods delivered by Amtra can be divided in two main types. A single level storage system is designed to store goods on conveyors mounted on the main floor. A shunter or push-over system can be implemented to store separate product batches in designated lanes.

A multi level storage system is used to store goods on several levels. Elevators are being used to transport the goods between levels. Two different drive principles can be used in the storage lanes depending on capacity and type of goods. The first principle is based on driven lanes and the second principle is based on battery-driven satellite shuttles transporting products from a fixed lane position. In both situations the main shunter retrieves the goods and runs between the main aisle and the elevators.



Multi level storage system



Single level storage system



Multi level storage system



Pallet wrapping and strapping machines

Amtra provides both horizontal and vertical pallet strapping machines, with the head on either side or on top of the load. The wrapping machines are provided with a turn table or a rotary arm. Both types of machines can be implemented fully automatic at the end of line handling or semi-automatic as a stand-alone to provide optimum solution for all applications in the industry.



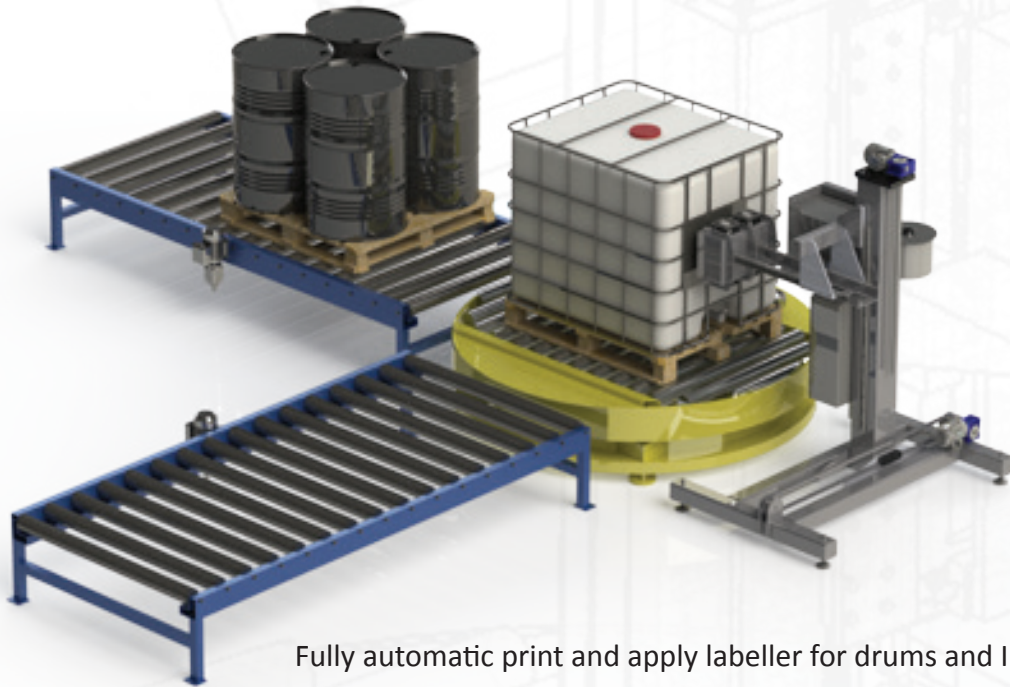
Fully automatic stretch wrap machine



Fully automatic horizontal strapping machine

Labelling and identification

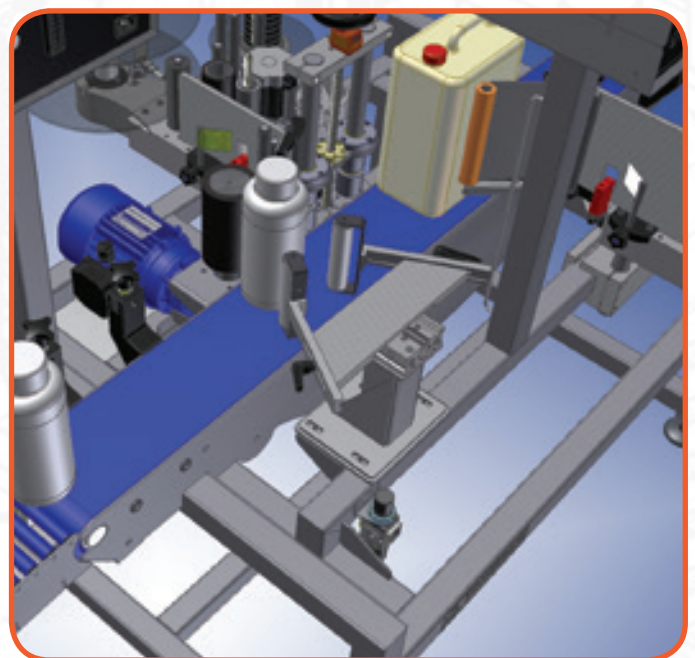
A typical production line will consist of a variety of labelling, print and apply and data capture systems at strategic points for the identification and traceability of the product during internal handling, storage and shipment. Amtra offers a wide range of labelling and identification solutions, covering all application areas from the product to the pallet, to ensure a seamless integration of production processes.



Fully automatic print and apply labeller for drums and IBC's



Accumulation conveyor for small packaging



Print and apply labeller for cans and bottles



Tailor-made machines

When there is no suitable off-the-shelf machine or solution on the market, we shall be happy to work with you on developing various solutions. Amtra has extensive design and manufacture capabilities to build special machines for specific customer needs. Our technological know-how gained over the years from serving a wide range of industries and solutions customized to client's needs make us an attractive partner.



Dragee colour sorting line



Metal detection with incline conveyor



Sorting system with metal detection

About Amtra

Amtra Engineering BV established in 1992 is a flexible organisation active in many segments around the world, predominantly in the food and chemical industry and specialized in filling plants, internal transportation systems and system integration solutions. All our machines are designed and built based on the HACCP concept and in line with the latest EU Machinery Directive.

Amtra has gained invaluable knowledge and experience through the building of many high-tech and efficient logistical solutions. The complete logistical design and choice of the right equipment & materials provides the customers with the most efficient and cost effective logistical solution.

The multidisciplinary team focuses on concept development, mechanical and electrical engineering and software development. The years of experience in the industry have resulted in the fact that a large amount of complex projects have already been completed with great success.

Quality and service are the key factors for Amtra to distinguish herself. In our approach the customer is central. We therefore provide a service that is entirely tailored to the specifications of the customer.

For technical installations, a long life time in combination with reliable and safe operations and an absolute minimum of faults and repairs, are essential. Proper maintenance guarantees an optimal operation of the installation and minimizes the risk of unexpected failures ensuring a longer life time.

Maintenance can be preventive or corrective, depending on the emphasis and level of automation. Amtra can help you with a maintenance plan for your installation to ensure a reliable operation.



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