TEYMASA®

Industrial and operational logistics

Thank you for placing your confidence in us.

1979 — 2009

30 Years

Filling machines for 0.5 to 5 litres.
S, P, STAV / PTAV models

Filling machines for 20 to 200 litres.
PS models

Filling machines for 20 to 200 litres.
PA models

Handling.
Moving loads of any kind

Automatic drum storage.
SAT-1-5-7 models

Filling on pallets.
PST models

Palleting drums.
PB and PBC models

Miscellaneous palletisation.
RP, HB and Anthropomorphic models

TEYMASA, AN EXPERT COLLABORATOR TO OPTIMISE YOUR PRODUCTION

A TEAM backed by its REFERENCES, with EXPERIENCE in:
PROJECTING
MANUFACTURING
INSTALLING
TECHNICAL SERVICE

PRODUCT RANGE

PRESENTATION

An expert partner to optimise your production

TEYMASA is a company with **30 years** experience, which specialises in studying and producing automatic volumetric and weight control filling installations and systems for handling and palleting different loads.

Since 1979, we have been offering clients a general solution to their projects and taking care of turnkey installations. Our experience in the filling and handling sectors enables us to propose complete installations in collaboration with manufacturers of peripheral equipment. **TEYMASA** has a technical office in charge of defining and designing, according to the needs of the client, the appropriate materials and their rational implementation.

Reference sheets, by machine model, by client, by country and by seniority, are available.

More than 30 years ago, when we started out designing and constructing filling and storage equipment, we saw several possibilities for being "different": to make machines that did not run the danger of becoming obsolete, we needed them to be adaptable to a variety of jobs.

To "grow with our client", we needed to have an adaptability and modular functionality focused on future automatic operations.

In addition, we had to respect the special needs of specific clients.

However, we were clear at all times that the main beneficiaries of automation should be people.

After all these years, we still construct filling and storage equipment and, quite probably because of some of the reasons mentioned above, we have managed to get where we are today.

Jaume Taulats -General Manager-
jtaulats@teymasa.com

The manufacture of equipment entails the need for it to be useful in the long-term for those who buy it from us. I am responsible for ensuring the robust nature of the machines and accessories that we construct at **TEYMASA**.

We are aware of the adverse atmosphere in many of the industries that use our material and we know how to adapt our construction processes in consequence.

In our manufacturing, it is essential to incorporate new technologies; to do this, we have introduced a system of continuous improvement. This includes the ongoing training of our staff.

Many of our clients are in far-off countries and we need to be able to offer them good maintenance. To do so, we install a "modem" for distance technical service and we optimise it using components from ubiquitous multinationals (using their own products rather than ours).

Javier P. Baquer -Technical Manager-
jpbaquer@teymasa.com

Our sales department does not only provide information about what we manufacture in all the markets where we operate today, (**TEYMASA** exports more than half its output).

We must also ensure that we offer the market products that resolve the needs of our clients from a technical point of view and are suited to their industrial atmosphere.
We do this by discussing with future buyers all the aspects of the industrial function they need.

Therefore, we need to be aware of the new needs of the sectors in which our usual clients operate and we thus remain in frequent contact with the industry.

One of the department's constant concerns is the follow-up with the client from the sale to the delivery, to ensure the synchronisation of data and the reception of product samples and to deal with any queries that may arise.

José Mª. Romeo -Commercial Manager-
jromeo@teymasa.com

REFERENCES

An expert partner to optimise your production

Competitive advantages:

- Strict compliance with EC certified standards and directives on machine safety.
- Equipment conceived in modules so that it can be introduced in various phases. With an initial configuration, in the future new modules can be added that allow production to be increased according to the demands of growth or adaptations in production.
- Very easy to handle.
- Very easy to change the format and/or product, in record times and with minimum adjustments to the equipment required.
- The machine is planned so that in the future, most new containers that are designed can be adapted to the machine.
- **Optional: products in classified areas, subject to the ATEX Directive**

“S” AND “P” MODELS

Filling machines for 0.5 to 5

Description:

The **“S”** machines are a family of automatic machines for volumetric filling.

The **“P”** machines are a family of automatic machines for weight control filling.

The basic machine is made up of a chassis that supports the different modules that are incorporated into the machine depending on the needs of the client. The modules are as follows:

- Container transport module.
- Filling module.
- Capping module.

Example of the definition of a machine module **2STAV-1**:

The **2**: indicates the number of filling stations, from 1 to 8 stations.
The **S**: indicates that it is a volumetric filling machine. It would be P for weight control filling machines.
The **T**: indicates that the machine has a container conveyor belt.
The **A**: indicates that the container feed system is **Step-by-Step**.
The **V**: shows that it has automatic capping equipment.
The **1**: shows the number of different caps that can be used, from 1 to 3.

Model “2S”

“S” model

4-STAV linear dispenser - capper

8-STA linear dispenser

Rotating capper

Module to incorporate the containers onto the step-by-step feed line.

Filling module with 4 filling stations.

Screwing module with 4 heads.

Optional for Classified Areas.

Standard additional equipment:

- Accumulation table / Depalleting of containers.
- Container labelling.
- Box shaper.
- Boxing.
- Palleting and bundling.

PS-30 AND PS-200 MODELS

Filling machines for 10 to 200 litres

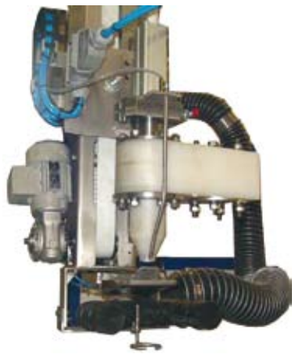
Description:

The PS range is a family of machines for in-line filling and for the weight control of filling machines for 10 to 200 litres.
PS-30 model, for containers up to 30 litres.
PS-200 model, for containers up to 200 litres.

Simple equipment, easily introduced and with great adaptability to changes of format. The basic module consists of:

- Semi-automatic functioning.
- Electronic scales with automatic taring.
- Manual orientation of the orifice.
- The filling pipe is attached to the machine by means of a fast connection, so that it can be easily dismounted for cleaning.
- Tube support plate, with adjustable height to adapt to different models of container.

For corrosive products, PVDF pipes.



For frequent changes of product, two pipes in the machine.

Long telescopic motorised pipes with pipe position control to control the descent of the product to a maximum of 250 mm, as per UNE 109 standard and to avoid generating static electricity.

PS-200

PS-200

PS-200

PS-30

Optional for Classified Areas.

Standard additional equipment:

- Capping and sealing equipment.
- Palleting equipment.
- Labelling.
- Platform for the operator.
- Aspiration of gases.
- Recipient for collecting drips.
- Electrical continuity control of the container in automatic mode to eliminate static electricity in
- classified areas.

PA-30 AND PA-30-TA MODELS

Filling machines for 5 to 60 litres

Description:

Automatic equipment for filling containers by weight for containers of 5 to 60 litres. The equipment is constructed on a basic chassis which can include the different modules. The modules of which the machine is made up are as follows:

- Container transport module.
- Filling module.
- Capping module.

This piece of equipment usually works with two in-line filling stations, although we can adapt to the following conditions:

- More in-line filling stations.
- With specialisation of the pipes to the input of the product with the aim of eliminating any possibility of contamination and to allow for an almost instant change of product.
- Diverse systems of in-line capping.
- With automatic centring of containers with an eccentric orifice.
- With automatic positioning of handles.
- With option for the addition of N2 before and/or after filling.

Optional for Classified Areas.

PA-30 weight control filling machine.

Filling operation.

PA-30-TA
Automatic filling machine for 5 to 60 litres.

Accumulation table for containers.

Standard additional equipment:

- Accumulation table / Depalleting of containers.
- Container labelling.
- Box shaper.
- Boxing.
- Palleting and bundling.

Centring area for 2” filling orifices.

Filling area.

Capping and evacuation area.

PA-200, PA-200-TA AND PA-200-TA-MV MODELS

Filling machines for 20 to 200 litres

Description:

PA-200: In-line filling with manual capping.

The PA-200 model is an automatic weight control filling machine with step-by-step feed. In the standardised version, it is made up of an input conveyor belt, step-by-step filling machine with centring, several filling points (usually 2), manual capping area and output conveyor belt. Suitable for filling containers of 20 to 220 litres.

Production: depending on the number of filling stations, the product and its input conditions at the filling point. To be defined for each project.

This piece of equipment usually works with two in-line stations, although we can adapt to the following conditions:

- More in-line stations.
- With specialisation of the pipes to the input of the product with the aim of eliminating any possibility of contamination and to allow an almost instant change of product.
- Diverse systems of in-line capping.
- With automatic centring of containers with an eccentric orifice.
- With option for the addition of N2 before and/or after filling.

PA-200-TA: In-line filling with automatic uncapping and capping.

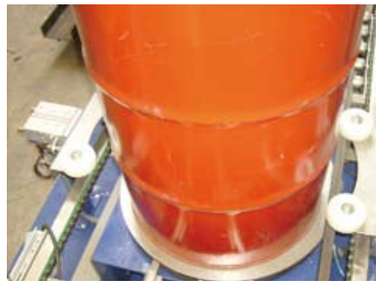
The PA-200 TA model is an automatic weight control filling machine with fully automatic step-by-step feed. The 200-litre drums are automatically uncapped, filled, capped and sealed.

PA-200-TA-MV: In-line filling with automatic uncapping and capping and adaptation to multiple containers.

In the PA-200-TA-MV model, these functions are carried out on containers of 20 to 200 litres.

PA-200: In-line filling with manual capping.

Centring the drum.



PA-200-TA: In-line filling with automatic uncapping and capping.

Filling pipe.

PA-200-TA-MV: In-line filling with automatic uncapping and capping and adaptation to multiple containers.

Screwing head.

PS-100, PST-1000 AND PST-1001 MODELS

Filling on pallet

Description:

Available in three models:

PS-1000: Filling equipment with manual positioning of the filling machine axes, without input and output conveyor belts. Simple filling, easy to introduce, high adaptability to changes of format and low cost.

PST-1000: Filling equipment with manual positioning of the filling machine axes, with input and output conveyor belts and capping and sealing unit.

PST-1001: Filling equipment with positioning of the filling machine axes by coordinates "X", "Y" and "Z".

- With CPM (control through memorisation) of the filling points.
- With SEP system (supervision of weight control filling machine) for real-time control of filling. Based on the introduction of PROFIBUS DP, it permits considerable improvement of safety conditions when filling, as it avoids filling a drum with a product inside it; confusion by the operator on programming a weight different to the real capacity of the drum, whether too much or too little; product spills; the tube rising with the real level of product inside the drum; being able to choose from raising with the tube submerged or slightly above the product; stopping the filling if there is an abnormal increase in weight and stopping the filling if there is no increase in weight as this could be due to incorrect weighing.
- Available with Artificial Vision camera for searching for filling orifices on the top of the drums.
- With the possibility of incorporating an automatic capping/uncapping system.
- With the possibility of working with up to 5 tubes in the machine permanently connected to the product.
- With the possibility of incorporating automatic change of pipes.
- With the possibility of incorporating the addition of N2 before and/or after filling.
- With the possibility of incorporating an automatic earthing system for drums of inflammable products covered by the ATEX Directive.

Optional for Classified Areas.

PS-1000: Semi-automatic filling on pallet.
Manual introduction and extraction of pallet.
Manual positioning of axes.

PST-1000: Semi-automatic filling on pallet.
Automatic introduction and extraction of pallet.
Manual positioning of axes.

PST-1001: Automatic filling on pallet. Automatic introduction and extraction of pallet. Positioning of axes using CTM –Control Through Memorisation - with AV -Artificial Vision- option for searching for orifices.

PB-60, PB-100 AND PBC-200 MODELS

Palleting drums

Description:

Available in three models:

PB-60: Palleting drums in a single level using a retractable spatula system and with manual introduction/ extraction of pallets (forklift truck).

- Palleting designed for loads of a single level. Thanks to its simplicity, this is the drum-to-pallet loader you should not be without after all the drum, canister or drum filling machines.
- Composed of a chassis in mecano-welded steel, motorised conveyor belt with rollers, drum distributor and a mobile spatula of dead rollers.
- The palleting process is automated even though the pallets must be inserted and extracted from the line in a unitary way.

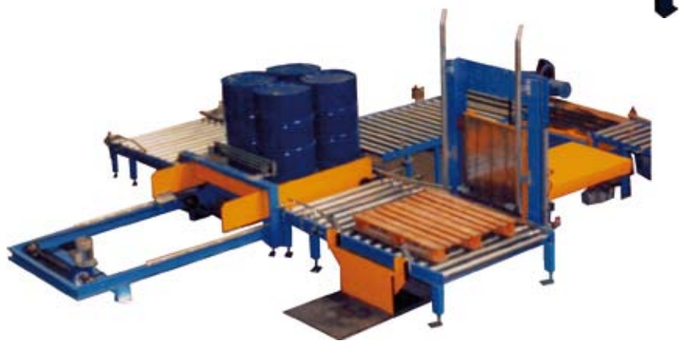
PB-100: Palleting drums in a single level using a retractable spatula system and with automatic input and output of the pallets.

- Palletiser designed for loads of a single level. Fully automatic. All you need do is feed in the piles of empty pallets and unload the loaded pallets.
- Composed of drum input conveyor belt, distributor of stacked empty pallets, resending chains, change of drums to 90º, input, loading and output conveyor belt and forklift truck.
- Equipment with sufficient capacity to deal with the production of different lines at the same time. Calculated production: 320 drums an hour.

PBC-200: Palleting of drums on a single or various levels with containers of different kinds.

- Evolution of the previous model. The PBC-200 model allows not only the palleting of a single level, but it is conceived to pallet on one or several levels.
- PB-100 has an additional palleting portico of 2 axes working on an entire line.
- The support systems for the loads may vary, usually between suction, mechanical pegs or mechanical gripping.

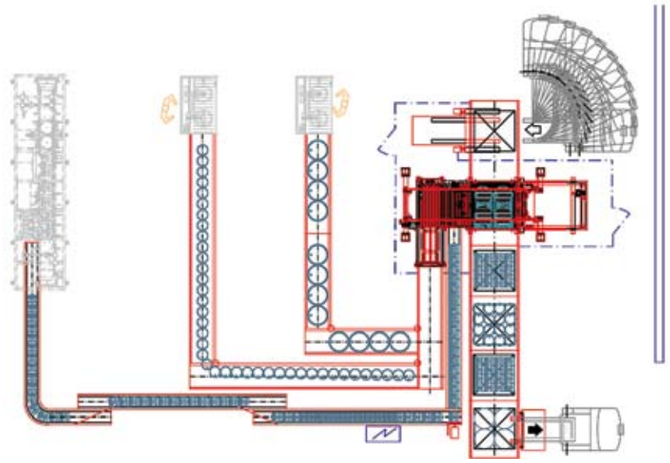
PB-60: Semi-automatic palleting of drums on a single level. Manual introduction and extraction of pallet.



PB-100: Automatic palleting of drums on a single level.

PBC-200: Automatic palleting of drums, kegs, cylinders and tanks at several levels.

Palleting of drums, tanks and cylinders in simultaneous work.



HB-500, HB-100, RP-600 AND ANTHROPOMORPHIC MODELS

Cartesian and anthropomorphic robots. Various palletisers and depalletisers

Robotised system of exchanging heads in stoves.

Description:

In line with the characteristics of robustness, high cadences and capacity to adapt to the diversity of containers and formats, **TEYMASA** builds made-to-measure palletisers for other sectors such as construction materials, animal feed and the food sector, among others.

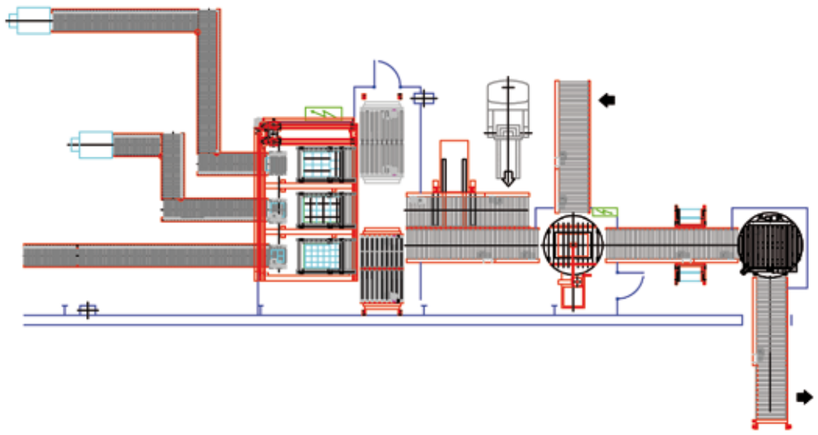
Palletisers for sacks, boxes, bundles and others.

Depending on the cadences and the number of simultaneous lines, the diversity of formats and the availability of space, there are several kinds of palletisers.

Types of palletisers:

- Low load. HB-500 model.
- High load. HB-1000 model.
- Robot with Cartesian axes. RP-600 model.
- Anthropomorphic robot.

Palletisers are very often complemented with the handling elements already described, such as revolving tables, conveyor belts, chain changers, elevators, transfer or conveyor carts.



Installation of palleting of boxes working simultaneously for three lines of product.

HB-600: Low load palletisers for boxes, sacks or bundles.

HB-1000: High load palletisers for boxes, sacks or bundles.

ROBOTS: Cartesians and anthropomorphic robots for boxes, sacks or bundles.

SAT-5
Automatic drum storage for different formats

If our clients' objective is to achieve the minimum cost to impact each unit filled, the drum storage unit is the ideal complement to the filling and palleting lines.

Description:

The empty drum storage unit is a regulator in itself between the supply capacity of drums and their consumption. Its main benefit, apart from the labour saved, is that the supplier unloads when he wants without having to wait for help from the plant and the operator consumes when he needs to do so.

The system accepts a range of plastic or metal containers of different sizes as they are supported by their base.

The empty drum storage unit can be adapted to different availabilities of space, with regard to length, width and height.

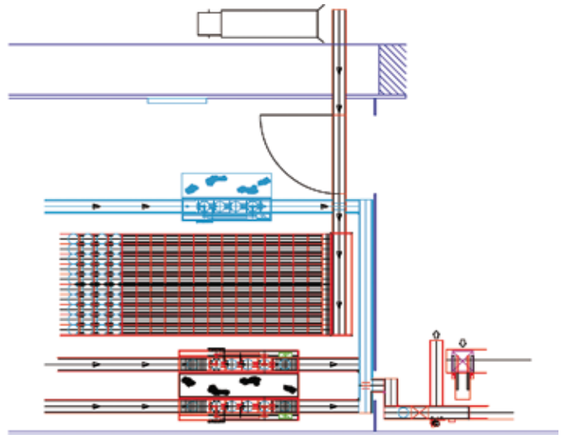
Example of introduction of automatic drum storage with a capacity of 2,000 units/200 litres:
8,765 mm wide x 26,940 mm long x 8,600 mm high. 12 units per row x 27 rows x 6 levels = 1,944 drums.

- The drum reaches the filling machines without bumps or scratches.
- Nobody at the plant handles the drums in the process before the filling/palleting machines.
- FIFO (First In-First Out) is strictly respected.
- Usually, each level corresponds to a type of drum.
- Usually, each level corresponds to the capacity of a lorry.
- Connectable to a higher management system for stock analysis, planning orders, points and breakages.

SAT-6
Automatic storage for empty drums with capacity for 1,944 drums.

SAT-5
Automatic storage for empty drums with capacity for 1,200 drums.

Drum filling plant composed of:
- Drum storage.
- Filling machines.
- Weight control.
- Labelling.
- Palletiser.
- Bundling machine.



Storage platform with METAL and PLASTIC drums.

PALLET LIFTS

Example of the use of made-to-measure lifts: accumulates loads at input, raises pallets loaded with up to 2,000 kg with complete safety and control of functions up to 16 metres high, and delivers them to the pallet reception area where they are sent to the corresponding waste collection treatment.

The installation includes the introduction of all the safety elements in accordance with passive and active safety regulations. We should point out the blockage system of the mobile structure in the case of breakage of the vertical chains, as well as safety through counterweights. Access doors are installed at the entrance and exit to guarantee they cannot be accessed while operating.

Optional for Classified Areas.

Pallet elevator and container turner.

Turning elevator for containers.

Pallet elevator to 16 metres.

Pallet elevator.

Roller conveyor belt.

GENERAL MAINTENANCE

Customized projects

In a factory, there are numerous repetitive movements that can be automated. Some of the most common of these are as follows:

- Pallet conveyors.
- Chain changers.
- Revolving tables.
- Elevators.
- Transfer carts.
- Accumulation tables.
- Chain tablet conveyors.
- Conveyor belts.

Customized projects.

Although we have a long list of equipment that is more or less standard and generally used, we also offer the option of making units to measure. Many of our current standard models started out as made-to-measure items.

TEYMASA brings together a team of engineers, project designers, mechanics, electricians and programmers who are able to take on complicated challenges.

Transfer carts for pallets.

Transfer carts for drums.

Transfer carts for pallets.

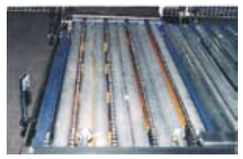
Conveyors and transfer carts for containers 16,000 kg.

Revolving table.

Special cardboard conveyor belts.

Roller conveyor belt.

Pallet feeder to the elevator system.



Pallet distributor and chain changer.

GENERAL MAINTENANCE

Respect for the Environment

The fact that concern for the environment is a growing value is unarguable.

As is the fact that environmental costs are a reality.

In recent years, **TEYMASA** has carried out important projects, the final objective of which was the reduction of waste or the reduction of the cost it generated.

These are always made-to-measure projects that are worthy of a specific study for each case.

Some examples:

Automatic sludge management at the outlet of a water treatment plant.
Ash management at the output of combustion furnaces.
Cleaning metal containers in a closed circuit.
Cleaning 1,000-litre plastic containers.
Management of loads for the correct saturation of filters after the grinding and combustion of the loads.

Turning and cleaning containers.

Sludge management system at the outlet of water treatment plants.

Cleaning cone for reducing the generation of waste in the cleaning process of lines and diverse tubes in machines always connected to the input of the product to prevent spills and stoppages.

Management system of metal containers for internal and external cleaning.

Accumulation system for grouping waste into different families before sending it for grinding and combustion.

COMPLEMENTARY EQUIPMENT FOR MIXING PLANTS

Multi-coupler.

The multi-coupler is an automatic device for coupling pipes destined to ensure the watertight connection and low pressure of a set of pipes.

Function: a vertical axis assembled on rollers, connected in the turning movement to an automatic linear connector, activated pneumatically. A group of adapters with self-sealing openings are available in a radial position. In the case of loss of product, it is recovered by the collector.

Each adapter has a coded identifier. An electric motor controls the movement of the connector to the anchorage point. After positioning, the coupling order is given.

Rotating stove for heating the drums.

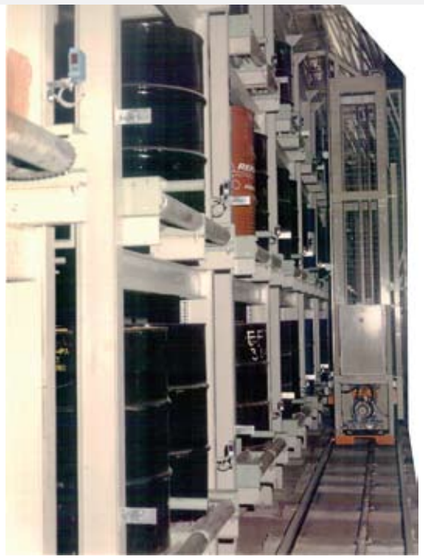
This is manufactured in various models:

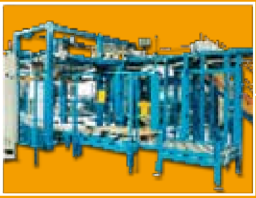
- For 6, 15 or 25 large capacity drums or for containers.
- For installation at floor level or in a ditch.
- To be used with steam, thermal oil or electrical resistances.

Insulated structure.
Control panel.
Approximation rollers.
Table with dead rollers.
Motorised turning of the table.
Atmospheric fan.

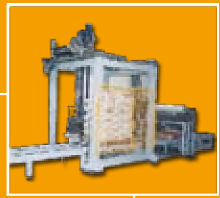
Storage for drums with additives.

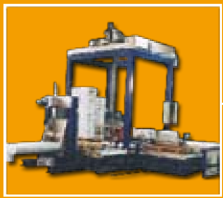
Automatic storage for managing drums full of additives, with capacity for 660 drums.

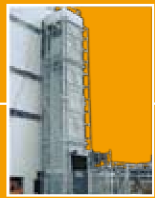






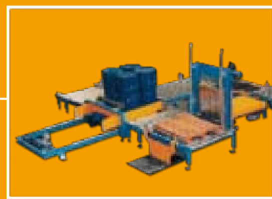



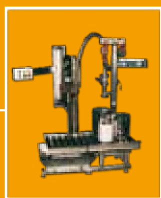










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