

Design, calculations and manufacturing of **Storage Systems** 

### SATELLITE CART

Esnova

The **Strength** of simplicity



PRODUCTION PLANT · 46.600 M<sup>2</sup>

We have a background of more than **50 years** of knowledge in the design and manufacturing of Storage Systems. We have consolidated and strengthened our position based on the humility and freshness of a young and specialized team, which added to our latest generation technologies, makes ESNOVA enjoy the trust and confidence of our worldwide customers.



WE EXPORT TO OVER THAN 30 COUNTRIES



**EXPERIENCE** We have a large group of professionals with a long career in the logistics sector.

## Design, calculations and manufacturing of **Storage Systems**

We can give you an efficient and direct response. We count with a large variety of references in stock for delivery in a few days and we adapt to special requirements for any type of business and storage. From the lightest shelving to the most sophisticated automatic storages.

We always offer efficient storages by studying each case and adapting the best solution for it:

- · Optimize the available space.
- Increase storage capacity.
- Make the square metre of storage more profitable.
- · Provide a more logical order for easy location and greater protection against damages and losses.
- More security for staff and facilities.
- · Generate higher productivity in operations and resources.
- Offer a better service to our customers.





#### SOLUTIONS

Industrial racking/shelving to store all types of products. Light, medium and heavy loads, palletised loads, big loads...

Standard Pallet Racking, Drive-in Racking, Cantilever, Rack-clad storage systems and automatic systems, Long Span racking, Boltless shelving (Riveto), Multi-tier shelving, mezzanines, metallic containers. All of them formed a great range of storage solutions which, together with our experienced team, will solve your storage problems with quality, safety and lower cost.



#### Technology

Our machinery at your service. We are equipped with the most flexible and advanced production systems for the design and manufacture of parts, components and competitive metal products.

#### Lab Tests

We have a Testing Laboratory where the performance of all different components of each system is verified by testing loads, resistance, buckling ...



#### Innovation

Innovate to improve, both in **new products** and in the optimization of existing products.

### Quality

Esnova sets as a priority the quality standards in each and every one of the processes it develops.

- Certificate in the quality management system (ISO 9001).
- Certificate in the environmental management system (ISO 14001).
- Certificate in the occupational health and safety management system (OHSAS 18001).
- UNE EN 1090 Certificate of CE Marking.
- Member of the European Federation of Maintenance FEM/AEM.



TÜVRheinland CERTIFIED

## SATELLITE CART

## AUTOMATED DEEP LOAD STORAGE SYSTEM.

The main feature of our Satellite Cart System is to facilitate and streamline the loading and unloading of goods, without the need for forklifts to access the storage channels.

The satellite cart runs on rails, independently selecting the entry and exit pallets by means of a remote control, which allows a more efficient warehouse management.

The forklift deposits the loads from the outside of the rack onto the satellite cart and this moves the pallet to the nearest available position.



#### **OPERATION, THE 4 STAGES**

When we have semi-automatic facilities operated by satellite carts, it should be noted that the operators are only involved in the handling of the pallet trucks and in activating the operation of the satellite cart.

The satellite cart moves independently once inside the metal shelves.

Within the storage process operated by satellite cart, we distinguish 4 stages:



The satellite cart is placed on the lane where you want to operate using a forklift.



In stage 3, in order for the satellite cart to start loading operations the operator has to give the order via remote control.

The satellite cart raises the pallet on itself and starts to move horizontally until it reaches the first available location to deposit the load.

The movements of the loads are controlled by different really precise sensors.



The pallet is then placed at the rail entrance using a forklift truck, supported by the load profiles.



In the last stage, the satellite cart repeats the movement from the beginning of the lane to pick up the next pallet, repeating this movement successively until it is full.

The satellite cart is removed before the last location is occupied and will repeat the process in the next lane where it is necessary to operate for the storage of the loads.

Several satellite carts can also be used in the same warehouse.

For the offload process, the same would be done but in reverse order.

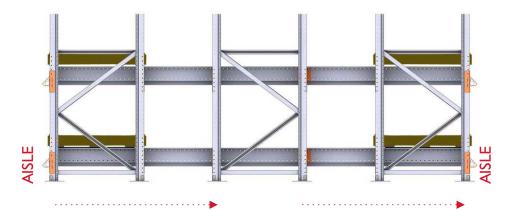


# WHAT OPERATIONS DOES THE SATELLITE SYSTEM ALLOW?

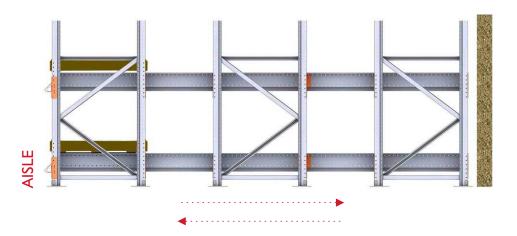
#### **2 DIFFERENT OPTIONS**

The semi-automatic compact storage systems, as mentioned above, allow us to store with **two types of operations**:

FIFO (First In, First Out) With this method, two access corridors are required, one for the entrances and one for the exits. The first pallet to enter is the first to leave.



LIFO (Last In, First Out) With this method, the last pallet to enter is the first to leave, so both loading and unloading are done through the same access.









PRECISION AND SPEED. REDUCTION OF WORKING TIMES COMPARED TO A CONVENTIONAL COMPACT SYSTEM.

HIGH STORAGE DENSITY.



INCREASED SECURITY. PREVENTS FORKLIFT CRASHES AND ACCIDENTAL ENTRAPMENT OF PEOPLE, THANKS TO ITS SENSORS AND REMOTE MANIPULATION.



ALLOWS STORAGE BY ACCUMULATION OF DIFFERENT REFERENCES PER LANE.



COMPATIBLE WITH DIFFERENT TYPES OF PALLETS.



CAN WITHSTAND LOW TEMPERATURES.



EASY HANDLING.

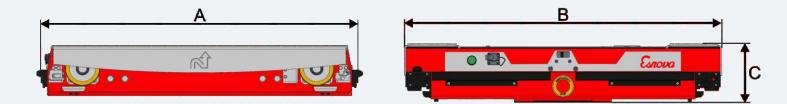






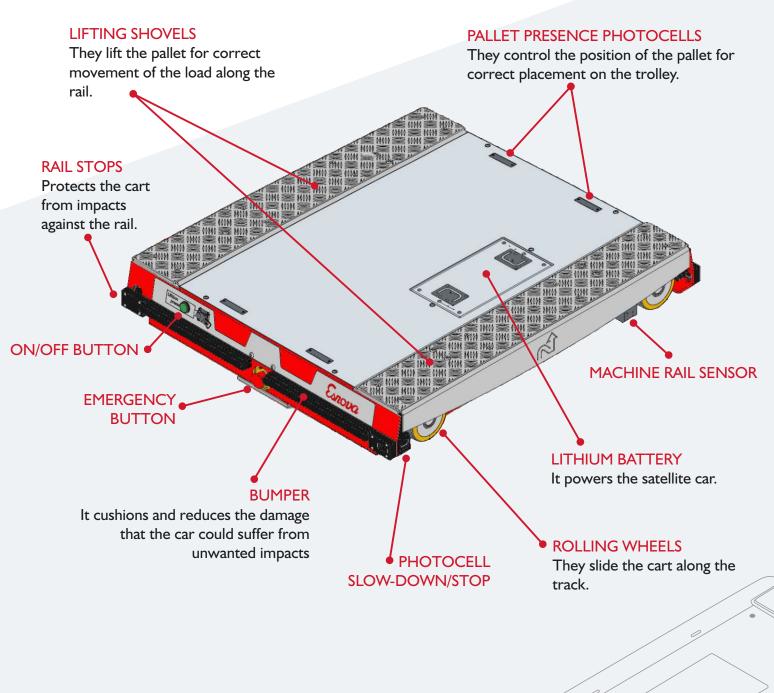
THE SATELLITE CART HAS BEEN SPECIALLY DESIGNED, MANUFACTURED AND COMMERCIALISED FOR THE DEEP STORAGE OF PALLETIZED GOODS TRANSPORTED ON RAILS AND OPERATED BY REMOTE CONTROL.

#### DIMENSIONS



Туре	A (mm.)	B (mm.)	C (mm.)	Pallet Dimensions(mm.)	Weight (Kg)	Working temperatura
SAT.0812.ST.48LTH	884	947	175	1200 x 800	220	0° / 45° C.
SAT.1012.ST.48LTH	1084	947	175	1200 x 1000	230	0° / 45° C.
SAT.1212.ST.48LTH	1304	947	175	1200 x 1200	230	0° / 45° C.
SAT.0812.BZ.48LTH	884	947	175	1200 x 800	220	-1° / -30° C.
SAT.1012.BZ.48LTH	1084	947	175	1200 x 1000	230	-1° / -30° C.
SAT.1212.BZ.48LTH	1304	947	175	1200 x 1200	230	-1° / -30° C.





#### **TECHNICAL DATA**

- ▶ WEIGHT OF THE SATELLITE CART: 220 230 KG.
- ► MAXIMUM LOAD ON THE SATELLITE CART: 1.500 KG.
- ► SATELLITE CART SPEED: 35-70 M/MIN (WITH LOAD-NO LOAD).
- ► LITHIUM BATTERY.
- ► OPERATING TEMPERATURE: 0°C / 45°C, -1°C / -30°C



#### MAINTENANCE SATELLITE

Accessory that allows an operator to move around the storage lane. The operation is totally manual.

Ideal for reaching the position of a satellite car in the event of an unexpected stop of the same, being able to hook it to the maintenance cart for rescue.

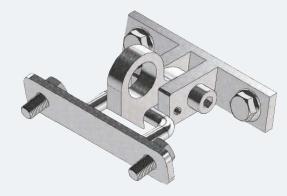


#### **RESCUE HOOK**

Accessory that allows the rescue of a satellite cart within a storage lane.

This accessory is only feasible if there is more than one satellite cart in the installation that can serve as a rescue element.

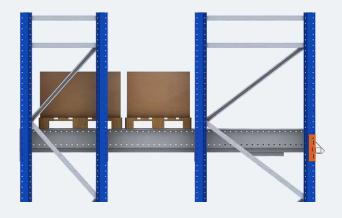
The rescue hook is bolted to the satellite car in charge of towing the stationary/grounded satellite car.



#### MULTIPALLET FUNCTION

Optional pallet recognition function for different depths The satellite cart is able to remove, deposit and organize the storage lanes even if there are different pallet formats.

This function can be used in both FIFO/LIFO storage methods.







#### **REMOTE CONTROL**

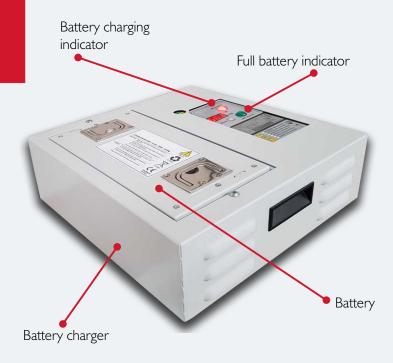
The operation of the satellite car is managed by a remote control that controls all its functionalities.

The radio control has been programmed to be able to carry out operational cycles of loading, unloading and reorganization of the accumulation.

The operator can change the language of use, the accumulation distances and can control the operating status and battery levels of both the radio control and the satellite car.

By its use, the operator can analyze the operating conditions, send manual travel orders and assign automatic missions.

A single control has the possibility of controling a minimum of one to a maximum of four satellite cars in automatic mode.



#### BATTERY CHARGER

The battery is charged by placing it in the battery charger (supplied with the satellite car), making sure that it is placed correctly and that the connectors are properly fitted.

By means of an alarm message, displayed on the radio control screen, the operator is informed that the minimum charge level has been reached, the satellite car will reach the "home" station where the battery must be removed using the specific handles placed on the cover.

Then, with the battery charger turned off, the battery is inserted into the designated compartment and the charger is turned on.



### The **Strength** of simplicity

WE DESIGN AND MANUFACTURE STORAGE SYSTEMS FROM THE MOST BASIC OPTION TO THE MORE SOPHISTICATED ONE.



#### PLEASE ASK FOR OUR CATALOGUES OR DOWNLOAD THEM FROM OUR WEBSITE.

www.gawela.ch



#### **ESNOVA SOFTWARE** WHAREHOUSE MANAGEMENT SOFTWARE

¿HOW TO ORGANIZE A WHAREHOUSE?



20CLCSEN01

This software specially designed to the warehouse management is the perfect IT tool to have a logistic control of your storage space.

#### MULTI-DEVICE SOFTWARE

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