



ISAT

semi-auto

 **cassiole**



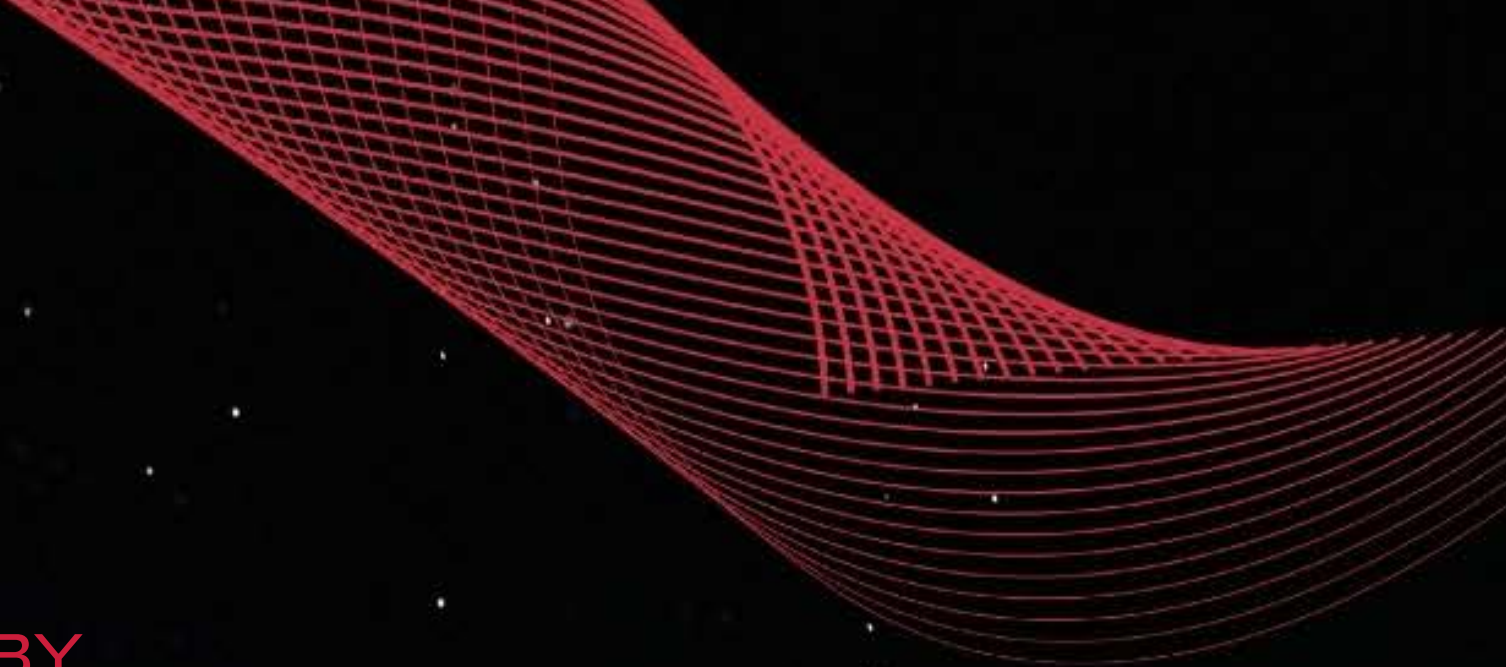
VISION

Powered by Natural Intelligence

At Cassioli, we look to the future by valuing what makes us unique: people's natural intelligence, the ability to understand contexts, collaborate, solve complex problems, and make effective decisions. In this journey, artificial intelligence does not replace human ingenuity but supports and enhances it: it is an advanced tool at the service of expertise and strategic vision. By integrating AI and technological know-how, we design and implement tailor-made, reliable, and results-oriented solutions, with the goal of improving processes and generating lasting value for customers and stakeholders.

MISSION

Cassioli believes in the importance of continuous research and innovation. We create high-quality products capable of working in synergy with one another to create integrated and efficient systems, with attention to every single detail. Thanks to our entirely in-house know-how and personalized service, we provide complete systems including the electronic control systems responsible for managing different segments: from material handling to the storage of raw materials, semi-finished, and finished products; from the handling of materials and objects in production processes to the preparation of orders and shipments. All this, with competitive costs and high-performance customized solutions.

An abstract graphic in the top right corner consisting of a grid of thin red lines that curve and flow downwards and to the right, creating a sense of motion and depth against the dark background.

POWERED BY

NATURAL
INTELLIGENCE

ISAT SEMI-AUTO

 cassioli

ISAT

INTENSIVE STORAGE WITH PALLET SHUTTLE

ISAT pallet shuttles by Cassioli are specifically designed for high density pallet storage. ISAT allows storage of a large quantity of pallets, with a depth of over to 40 metres from the loading front, enabling optimisation of warehouse space and offering the possibility of storing pallets with different depths sizes in the same channel.

The ISAT system works in semi-automatic mode, using a remote control directly managed by the operator. Operating conditions can be checked in real time from the remote control display. The LED signal lights help the operator to locate the exact position of the shuttle in the warehouse.

*“
INNOVATION
BORN
FROM A SOLID
EXPERIENCE
”*

ISAT: STANDARD DIMENSIONS

Model	Pallets size	Isat size	Max capacity
ISAT 0812	800 x 1.200 mm	D 884 x L 955 x H 178 mm	1.500
ISAT 1012	1.000* x 1.200 mm	D 1084 x L 955 x H 178 mm	1.500 kg
ISAT 1112	1.100* x 1.200 mm	D 1184 x L 955 x H 178 mm	1.500 kg
ISAT 1212	1.200* x 1.200 mm	D 1284 x L 955 x H 178 mm	1.500 kg
NEW! ISAT 1210	1.200* x 1.000 mm	D 1310 x L 830 x H 178 mm	1.500 kg
NEW! ISAT 4840	48" x 40"	D 1310 x L 830 x H 178 mm	1.500 kg

*It is possible to manage pallets of different sizes in the same channel



PALLET SHUTTLE BENEFITS

MAXIMUM STORAGE CAPACITY IN A REDUCED SPACE

HIGH OPERATING SPEED

OPTIMISATION OF SPACES AND REDUCED WAREHOUSE MANAGEMENT COSTS

LOWER RISK OF ACCIDENTS AND DAMAGED GOODS

MAXIMUM ADAPTABILITY TO EXISTENT DRIVE-IN STRUCTURES

POSSIBILITY OF OPERATION IN LIFO AND FIFO CONDITIONS

CAPABLE OF HANDLING DIFFERENT SIZES OF PALLETS

POSSIBILITY OF STORING DIFFERENT LOADS IN THE SAME LANE

WORKING CAPACITY EVEN IN ENVIRONMENTS UP TO -30°C *

*see page 15-16 for Special ISAT Cold Temperature



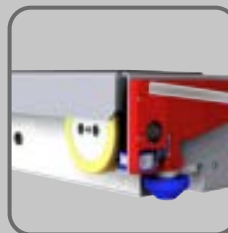
ISAT

OVERVIEW

Possibility to control up to a maximum of 8 satellites with one remote control



REMOTE CONTROL



AWDS
(ALL WHEEL DRIVE SYSTEM)
TECHNOLOGY



QR CODE
READER *



CONTROL PANEL EQUIPPED
WITH FRONT OPTICAL SENSOR
AND EMERGENCY BUTTON



TRANSPORT
PACKAGING



FALL PREVENTION MAGNETS*

*Optional



LiFePO₄ 42V 27Ah
REMOVABLE BATTERY



With the dedicated mobile application (available for android and iOS devices) it is possible to unlock/lock the battery to allow air freight transport and monitor the battery status in real time

PLC
ON BOARD



WI-FI
COMMUNICATION *

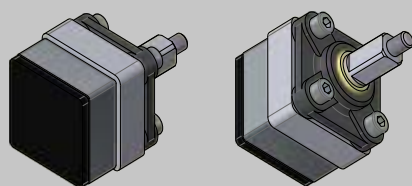


Ability to be integrated with the customer's WMS

VIRTUAL BUMPER



MAGNETIC KIT
FOR ISAT RETRIEVAL*



CUSTOMISATION
(STICKERS AND PAINT)*



ISAT

TECHNICAL CHARACTERISTICS

ISAT MAXIMUM SPEED (EMPTY)	up to 1.22 m/s
ISAT MAXIMUM SPEED (LOADED)	up to 0.62 m/s
ISAT WEIGHT (WITHOUT BATTERY)	250 kg
DRIVE WHEELS	4
DATA COMMUNICATION	WI-FI
OPERATING TEMPERATURE	from 0°C to 45°C or from -30°C to 0°C *
MAXIMUM LOAD CAPACITY	1500 kg (upon request up to 2000 kg)
WORKING AUTONOMY	up to 10 hours**
BATTERY RECHARGE TIME	up to 2 hours 30 min
NUMBER OF RECHARGE CYCLES	1200 cycles (LiFePO ₄ 42V 27Ah)
RECHARGE VOLTAGE AND FREQUENCY	230 V (50/60 Hz) - 110 V (60Hz)
BATTERY WEIGHT	16.5 kg
RECHARGE TYPE	removable battery



*see page 15-16 for Special ISAT Cold Temperature

** depending on working mode and environment

STANDARD EQUIPMENT

ISAT BATTERY CHARGER (230V-50/60Hz or 110V-60Hz)

REMOTE CONTROL WITH RECHARGING STATION AND SPARE BATTERIES

WI-FI DATA COMMUNICATION

USER MANUAL AND REMOTE CONTROL WITH CUSTOMIZABLE LANGUAGE

PACKAGING ON WOODEN CRATE

DOUBLE SIDE SET-UP OPERATION

OVERHANG PERMITTED ON MOVEMENT SIDE (mm) - MAX 100

DISTANCE BETWEEN TWO PALLETS (mm) - FROM 30 TO 300



STANDARD FUNCTIONS

DISTANCE SETTING BETWEEN PALLETS

INVENTORY

SINGLE STORING/SINGLE RETRIEVING

CONTINUOUS RETRIEVING

COMPACTING TOWARDS AISLE START/END STATION

MISSIONS COUNTER

MANUAL COMMANDS

OPTIONAL EQUIPMENT

LiFePO₄ 42V 27Ah ADDITIONAL BATTERY

ADDITIONAL REMOTE CONTROL WITH CHARGING STATION

INCREASE MAXIMUM LOAD CAPACITY UP TO 2000 kg

EMERGENCY HOOK DEVICE

ISAT SUPPORT STAND

CART FOR ISAT MANUAL TRANSPORT

RECOMMENDED SPARES KIT

KIT FOR USE ON SYSTEMS WITH AUTOMATIC ISAT

OPERATOR CART FOR ACCESS IN LANE



FALL PREVENTION MAGNETS

SAFETY SENSORS FOR OBSTACLE DETECTION

WI-FI ACCESS POINT

INTEGRATION WITH CUSTOMER WMS

CUSTOMIZED WMS

QR READER TO IDENTIFY CHANNEL CODE

CUSTOMIZABLE DECALS AND PAINT

INSTALLATION AND TRAINING



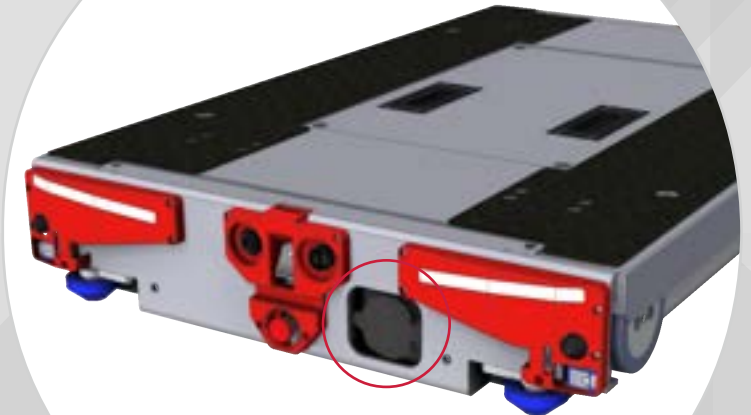
ISAT COLD TEMPERATURE

In particular sectors such as Food and Beverage or Pharma, it becomes essential to have satellites that work at sub-zero temperatures in cold storage rooms or warehouses at freeze temperatures. Continuous research and the use of new technologies have led to Cassioli developing specific satellites for sub-zero temperatures, ideal for frozen products, capable of handling and storing pallets, greatly improving operational efficiency in prohibitive environments.

INTEGRATED CHARGING

The shuttle is equipped with a specific connection allowing recharging to be done without having to remove the battery from the shuttle. By inserting the snap-hook in the socket, the following functions automatically start:

- Battery recharge;
- Maintenance of the power supply in the event of non-use.



+ PLUS

NO NEED TO HAVE A COMPENSATION CHAMBER

In a sub-zero environment the battery life is limited by the fact that it must provide for the heating of the circuitry.

ISAT COLD TEMPERATURE

COLD ISATs are the ideal solution for the management of multi-depth systems, in production plants characterized by a high number of warehouse items and a high flow of deposits and withdrawals, even for highly perishable products.



INDIRECT CHARGING *

The battery is recharged inside a compensation chamber (an environment set at a temperature of -4°C) in which it is possible to recharge the battery, to store it in case of inactivity and to do the ISAT maintenance operations.

Inside the compensation chamber the battery is recharged by removing it from the shuttle, as per the standard ISAT.

 **PLUS**

SUITABLE AREA FOR MAINTENANCE

MINUS 

NEED TO HAVE A COMPENSATION CHAMBER

* *Optional*

GLOBALLY PRESENT LOCALLY INVOLVED

CASSIOLI is an international group, providing plant engineering solutions for industrial handling and automation. With 4 different production plants, offices and commercial partners spread out over the world, Cassioli is divided into 7

divisions: Intralogistics Division; Ceramics Intralogistic Division; Manufacturing Division; Airport Division; Tire Division, Service Division; Paper & Cardboard Division. Whenever it is necessary to transfer or handle finished products, semi-finished

products, component kits or raw materials in a more or less automatic manner, CASSIOLI can provide the transfer or storage systems that are most suitable in terms of operating capacity, cost, safety and ergonomics.

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