



Orona

# Orona 3G Options

Technological solutions adaptable to your needs

Energy saving

Sustainability

Adaptability

Design

Communication

Orona offers unique solutions to satisfy the users' needs for ecoefficiency, adaptability to the building, control and safety, among other things.

Our main concern is to put the best ecoefficient solutions on the market, to solve problems by innovating in systems that must be flexible and adaptable to their environment, to offer trustworthiness, safety, comfort and improved communications.

To make your choice easier, we have classified the options available according to the following criteria.

# adding value



## ECOEFFICIENCY



Ecoefficiency is one of the premises that underpin the entire development of our vertical transport systems. Orona incorporates the environment variable at every and all stages of the product life cycle (materials, design, manufacture and recyclability). It is the first Ecodesign-certified company in the vertical transport industry worldwide.

We offer advice to earn environmental credits (VDI, BREEAM, LEED,...).

Intelligent solutions capable of reducing their environmental impact, which contributes to improving the environmental rating of your building.

Permanent-magnet motors with variable frequency drives to guarantee low power consumption when the lift is in motion. With the lift idle, lights, fan, indicators, corridor lighting... automatically switch over to stand-by mode.

## ADAPTABILITY TO THE BUILDING



Our added value is the capacity of our solutions to blend perfectly into their environment.

Orona lifts are designed to meet whatever demand for vertical transport. We commit ourselves to adapting the project to our customers' requirements for facilities, performance and service. Our solutions feature cutting-edge technology and flexible design for 100% adaptability to the characteristics of the building.

## CONTROL AND SAFETY



### Evacuation

Orona's concern for control and safety extends beyond the strict fulfilment of the regulatory standards. Therefore, we have developed a number of solutions likely to more than meet any user's expectations in this regard. Those solutions include, without limitation, round-the-clock teleservice systems aimed at handling information of emergencies and various automatic rescue features.

### Control of accesses

The Orona solutions incorporate access control systems suitable for the heaviest traffic conditions of the lift.

### Communications

We install the most advanced devices to establish permanent two-way communications with the passengers. Our control systems for monitoring and operating the lifts remotely, our intercom for communications between the car and the reception, and the VDAP® Multimedia Full Colour TFT Screens are some examples.





With the award of the Ecodesign Management System certification to UNE 150301:2003 in June 2008, Orona became the first Ecodesign-certified company in the vertical transport industry worldwide. This gives clear proof of Orona's commitment to sustainable development and to the environment.



A result of said commitment to the environment is the design of a new machine-room-less gearless lift.

# ecoefficiency

04 We develop technological solutions that permit very considerable savings in the building's energy consumption



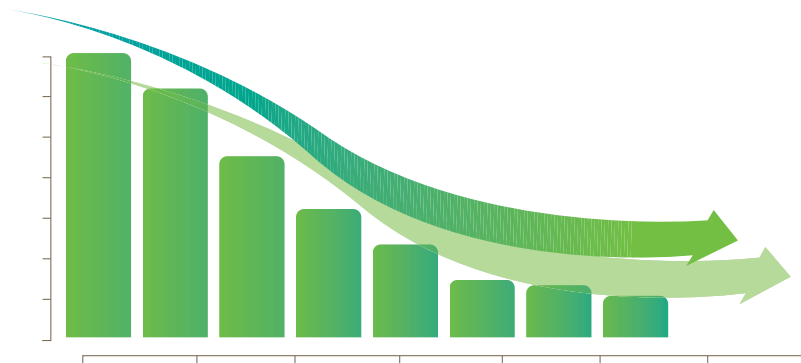
The above-mentioned new model of lift means a great leap forward in technology and innovative design, which leads to a reduction in power demand of up to 50% compared to a conventional two-speed lift and 70% with regard to hydraulic lift. Moreover, it requires less space and offers higher levels of comfort and performance.

During the design stage, we exhaustively assess the effects of the product on the environment against eco-indicators and correct any environmental deficiency. In doing so, we always aim at a global reduction of the environmental impact and take the entire life cycle of the product into account.

<p>System comprising an electronically controlled direct drive (gearless) motor of high energy efficiency when the lift is in motion.</p> <p><b>LOW-ENERGY DRIVE</b></p> <p>1</p>	<p>Low-energy car lighting system.</p> <p><b>EFFICIENT LIGHTING</b></p> <p>2</p>	<p>When the lift is stand-by, lighting switches off automatically after a programmable delay. This entails a longer service life of the lamps and significant energy saving.</p> <p><b>AUTOMATIC CAR LIGHTING</b></p> <p>3</p>
<p>This function turns the staircase lighting on when passengers reach their destination floor.</p> <p><b>CORRIDOR ILLUMINATION CONTROL</b></p> <p>4</p>	<p>A control feature to reduce the energy consumption of the lift system during idle periods.</p> <p><b>LIFT STAND-BY</b></p> <p>5</p>	<p>Through this system, the energy generated during lift decelerations is used.</p> <p><b>REGENERATIVE SYSTEM</b></p> <p>6</p>

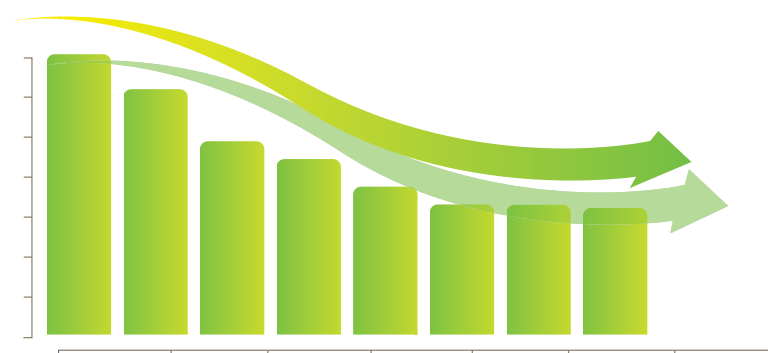
## CO<sub>2</sub> emissions

Reduction of CO<sub>2</sub> emissions



## energy consumption

Reduction in energy consumption





Orona solutions are designed to meet whatever requirement for vertical transport and to adapt easily to available space however small this may be.

Our lift systems fit into every type of building and will cause no or little interference during the installation process. This results in money saving as well as in improved efficiency and safety on the work site.

# adaptability to the building

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We offer design and technological adaptations “à la carte”



## FLEXIBLE CONTROLLER LOCATION

# 1



On machine-room-less lifts, the controller can be mounted on the last but one floor. Suitable for lifts accessible from a public thoroughfare, car park, etc.

## WIDE-FRAMED DOOR

# 3



Doors with a wider frame than usual to minimise infilling work on each landing.

## LOW OVERHEAD OPTION

# 4



With this option, it is possible to reduce the height of the safety room required at the top of the lift well by providing additional safety features.

## LIFT WELL ENCLOSURE

# 2



Enclosure for landing doors, which limits the scope of civil engineering.

- ✓ **INCREASED SAFETY ON WORK SITE**  
There is no need for staff outside the lift installers to get in the lift well to put the finishing touch, which reduces risk exposures and guarantees a completely safe enclosure.
- ✓ **MONEY SAVING**  
Since there is no need for masonry or rejoining from inside the lift well.
- ✓ **GREATER EFFICIENCY**  
This type of enclosure reduces downtimes and coordination between Orona and the builder for brickwork inside the lift well, while leaving the surface ready to fit the external linings on each floor.
- ✓ **IMPROVED TIDINESS**  
The system contributes to keeping the work site cleaner and tidier. It also prevents soiling or damaging the lift installation.

## TRANSIT UNDER LIFT SHAFT

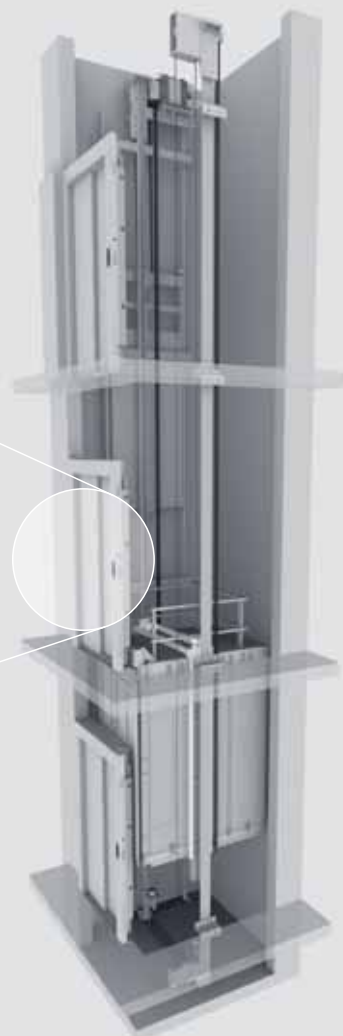
# 5



A safety device stops the counterweight in a lift overspeeding condition. It applies to facilities where there can be people walking in the counterweight projecting area.

## 2 LIFT WELL ENCLOSURE

## 4 LOW OVERHEAD OPTION





Our automatic passenger rescue systems, lifts with special firefighters options, and developments of several materials and communication devices lend us credibility.

# control and safety evacuation

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Maximum confidence, safety and reliability in emergencies





## TELESERVICE SYSTEM

24 hours a day,  
365 days/year



Two-way telecommunication system aimed at information of emergencies and on rescue procedures. It comprises periodic check mechanisms and connection to a 24-hour call centre (EN 81-72).

If the Customer has his/her own call centre, there is an add-on for flexible connection of other Telealarms, ensuring a perfect blend with the usual aesthetics and signalisation.

## AUTOMATIC RESCUE SYSTEM



Battery-operated electronic device responsible for driving the lift to the nearest landing, opening the doors and allowing passengers out in the event of a mains power cut.

## BEHAVIOUR OF LIFTS IN THE EVENT OF FIRE (EN 81-73)



In the event of a fire, the lifts are dispatched to the designated floor and remain inoperative as stipulated in EN 81-73.

## CONNECTION TO AUXILIARY POWER UNIT (GENERATOR)



This feature serves to coordinate with an external emergency power supply for discontinuing the lift service in case of a mains failure. The lift system arranges evacuation travels according to the energy available.

## PIT WATER DETECTOR



Linked to a water collector in the pit of the installation, the detector when activated (pit flooding) will send the car to the parking floor, allow passengers to get out and put the lift out of service.

## LANDING CALL CANCELLING BY EXTERNAL SIGNAL



This function is associated with a number of temperature sensors at each floor access. When activated (floor temperature  $>70^{\circ}\text{C}$ ), the controller impedes door opening and call registration at or from the landing concerned.

## FIREFIGHTERS LIFT (EN 81-72)



It incorporates special interfaces (switches, communications), specific water protections, electric insulations and mode of operation. It also features a roof trap (EN 81-72).

## LANDING FIRE DOOR



Certified flameproof door.



Orona has developed various technologies that are most valuable for users in terms of personal safety. The lift systems incorporate intelligent traffic control features that facilitate journeys.

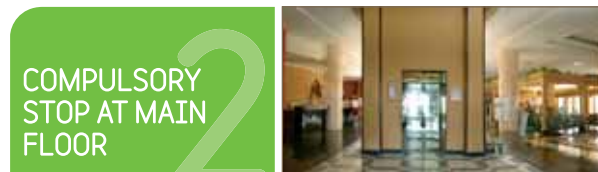
Thanks to those features, user can fully benefit from Orona lifts.

# control and safety access control





User has to enter a code through the car control panel before the call being registered. There can be several codes usable simultaneously to handle different access zones.



Regardless of whether there are any registered car or landing calls, this function enables the lift to stop and open the doors each time it reaches the main floor. Hotels require it as an aid to supervise passenger traffic.



Function enabled through external signals (key switch, timer, code entered through the car control panel, i-Button® restricted access pushbutton, RFID cards) that cancel access to floors (configurable) from which calls are made.

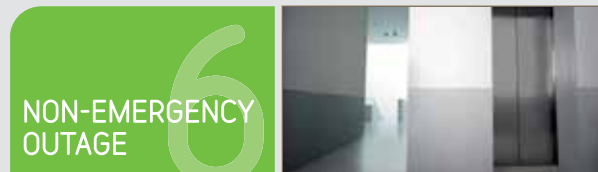
This mode permits exclusive service for the person in the car, e.g. cleaning or maintenance staff, etc.



Calls from car control panel are enabled or disabled by means of a key.



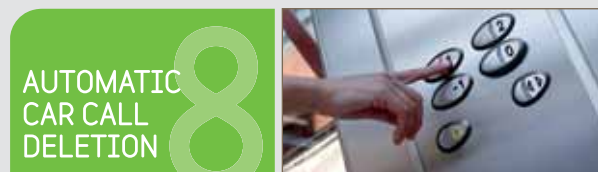
Passenger can choose the appropriate entrance from the two or more entrances available (by using different call pushbuttons on the control panel) to reach independent zones of the building. A typical example of application is a lift with two separate entrances for public garages and private housing.



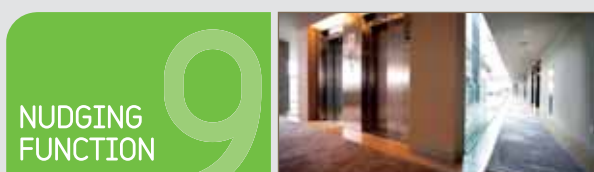
Feature for keeping the car idle after certain periods of no or little traffic. Automatic return to home floor, evacuation of passengers and putting out of service.



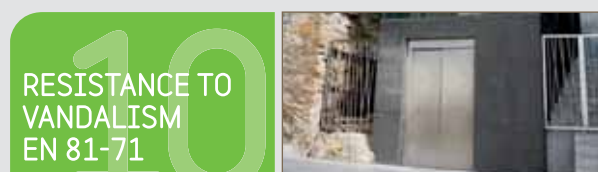
Feature for preventing any movement of the lift car, by cancelling all registered car and landing calls.



The system limits the number of car calls that can be registered simultaneously in order to avoid, or reduce the effect of, all car pushbuttons being pressed at the same time.



Its object is to reduce the "dwell time" of the car due to improper use by passenger and to ensure free traffic.



Specially sturdy lift for environments prone to vandalism.



We adapt our solutions to environments that require varying levels of communication (hospitals, hotels, public buildings having specific safety requirements, etc.).

We offer innovative systems that allow quick and efficient information flows, whether to solve emergencies or to improve passengers' ride quality and comfort.

# control and safety communications

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We supply a range of possibilities for improving communications with regard to passenger traffic management





With this feature, the doors will start to open during the docking procedure before the car stops. This improves traffic, by increasing handling capacity as well as reducing the average waiting times.



Through digital signalling, these units connect the lifts to the building or facility's integral management and monitoring systems.

There are two types of digital signals:

- OUTPUTS: providing information on the lift status (position, doors, failures, etc.)
- INPUTS: for activating modes of operation related to lift control.



The supervisor allows remote monitoring and control of lifts through a computer and a modem. With the PC-run application, it is possible to process all the data relative to the lift installation (operational status, failures...) at any time and place. Below are the implemented functionalities:

- Users access management.
- Monitoring.
- Programming lift operation.
- Operating mode statistics.
- Traffic analysis
- Failure Management, etc.



Multi-media Full Colour TFT Screen integrated into the car control panel. It offers the following functions, among other:

- Display of lift position, operating status, etc.
- Help with the use of teleassistance in case of lift failure.
- Incorporation of the corporate logotype.
- Floor directory and related information (pictures and videos).
- Audiovisual entertainment.

All in an adaptable and customisable environment to suit the user's needs.



This control makes the lift stop at floors with down calls registered. It results in improved traffic management.



This control makes the lift stop at floors with both up and down calls registered. It results in improved traffic management.



Operation algorithm-based systems adjust the lifts' conditions of use according to the type of building and traffic requirements:

- Restricted access floors.
- Floor-to-floor returns.
- VIP calls.



Communication system between the lift car and the reception lounge or area of the building (porter's lodge, maintenance department). It works coordinated with the Telealarm system and serves to calm passengers down.



### ECOEFFICIENCY

	1010	1015	1020	1025	1030	2015	2016	2017	2018	2026	2028	2032
LOW-ENERGY DRIVE	•	•	•	•		•	•	•	•	•	•	
EFFICIENT LIGHTING	•	•	•	•	•	•	•	•	•	•	•	•
AUTOMATIC CAR LIGHTING	•	•	•	•	•	•	•	•	•	•	•	•
CORRIDOR ILLUMINATION CONTROL	•	•	•	•	•	•	•	•	•	•	•	•
LIFT STAND-BY MODE	•	•	•	•	•	•	•	•	•	•	•	•
REGENERATIVE SYSTEM						•	•	•	•	•	•	



### ADAPTABILITY TO THE BUILDING

FLEXIBLE CONTROLLER LOCATION	•	•				•	•	•	•			
LIFT WELL ENCLOSURE	•	•	•	•	•	•	•	•	•	•	•	•
WIDE-FRAMED DOOR	•	•	•	•	•	•	•	•	•	•	•	•
LOW OVERHEAD OPTION	•	•				•						
TRANSIT UNDER LIFT SHAFT	•	•	•	•		•	•	•	•	•	•	



### CONTROL AND SAFETY

#### EVACUATION

TELESERVICE SYSTEM	•	•	•	•	•	•	•	•	•	•	•	•
AUTOMATIC RESCUE SYSTEM	•	•	•	•	•	•	•	•	•	•	•	•
BEHAVIOUR OF LIFTS IN THE EVENT OF FIRE (EN 81-73)		•		•		•	•	•	•	•	•	•
CONNECTION TO AUXILIARY POWER UNIT (GENERATOR)		•		•		•	•	•	•	•	•	
PIT WATER DETECTOR	•	•	•	•	•	•	•	•	•	•	•	•
LANDING CALL CANCELLING BY EXTERNAL SIGNAL		•		•		•	•	•	•	•	•	•
FIREFIGHTERS LIFT (EN 81-72)						•	•	•	•			
LANDING FIRE DOOR		•		•	•	•	•	•	•	•	•	•

#### ACCESSES

CODED CALL	•	•	•	•	•	•	•	•	•	•	•	•
COMPULSORY STOP AT MAIN FLOOR						•	•	•	•	•	•	•
EXTERNAL CALL OR ZONE CANCELLING		•		•		•	•	•	•	•	•	•
KEY-OPERATED CALL CONTROL & DISCONNECTION		•		•		•	•	•	•	•	•	•
INDEPENDENT ENTRANCE SELECTION	•	•	•	•	•	•	•	•	•	•	•	•
NON-EMERGENCY OUTAGE		•		•		•	•	•	•	•	•	•
EMERGENCY OUTAGE		•		•		•	•	•	•	•	•	•
AUTOMATIC CAR CALL DELETION						•	•	•	•	•	•	•
NUDGING FUNCTION						•	•	•	•	•	•	•
RESISTANCE TO VANDALISM EN 81-71						•	•	•	•	•	•	•

#### CONTROL AND COMMUNICATIONS

PRE-DOOR OPENING		•		•	•	•	•	•	•	•	•	•
MONITORING UNITS						•	•	•	•	•	•	•
SUPERVISOR						•	•	•	•	•	•	•
VDAP						•	•	•	•	•	•	•
DOWN COLLECTIVE CONTROL	•	•	•	•	•	•	•	•	•	•	•	•
FULL COLLECTIVE CONTROL	•	•	•	•	•	•	•	•	•	•	•	•
TRAFFIC MANAGEMENT						•	•	•	•	•	•	•
INTERCOM	•	•	•	•	•	•	•	•	•	•	•	•

Option available •



✦ 1 out of every 20 new lifts in the world is Orona

✦ 85 countries have Orona products installed

✦ 180,000 lifts worldwide with Orona technology



**Orona**

Reaching further together

[www.orona.es](http://www.orona.es)

