ADVANCED LIFT TECHNOLOGY

# De?PER

lift manufacturers





Dear friends and associates,

As we have entered our second decade of business presence in the lift industry, I feel the need through this message to outpoint all those things that helped us reach this point, such as the complete solutions we can provide to all our clients, and the expansion in both the domestic and international market. Through a series of organized and focused moves on behalf of the company's management and personnel, we enter a new era, by creating a new series of products, expanding to new markets, and enforcing the ties with our existing and new associates. The perspective of economic and business changes on a global level, gives us an additional motive to preserve the high level of efficiency when it comes to our clients' needs, by providing high-end products and services. This is what brought us to the present level, and this how we intend to continue.

With kind regards,

Stavros Stavropoulos President and CEO





# THE COMPANY

DOPPLER Manufacturing was established in 2000 by people with long technical experience both in the Greek and international elevator market. Since November 2000, the company's head offices and industrial facilities are based in its 4,500 sq.m. area private industrial building, located in Polykastro Industrial Park, north of Thessaloniki. Following the extension of the existing building and manufacturing facilities, the total building area available is now 11,000 sq.m.. Doppler's Athens branch was established in February 2001, in a 1.800 sq.m. building at the heart of the city. The branch is equipped with offices and a well organized warehouse, offering fast and direct sales services to its Athens and Southern Greece clientele. The company is a modern manufacturer of lift components, well equipped with advanced machinery capable of producing high quality products. Combining the manufacturing with the trading activities Doppler is in place to supply a wide range of components for every lift type or even complete lift packages, while always retaining high quality and reliability. Main company policy is to offer to its customers direct and complete support, in terms of materials, components and services provided before and after every sale. A specialized team of experienced engineers are continuously working, by studying and applying the best solutions for each and every different project presented by our nominated partners throughout the world.

# **CABINS**

Based on a successful combination of modular system and a wide selection of specialized high quality materials, Doppler Manufacturing has a complete range of passenger and cargo cabins taking a good care of even the smallest manufacturing detail. Using a software, specially developed by the company, in cooperation with a 3-D drawing CAD/CAM package, the symmetry of the car shape and the high quality of internal finishes is ensured.

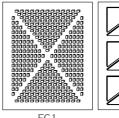
#### EPOXY | GALAXY | FOREST | INOX | PRESTIGE | PANORAMIC | CARGO | PARKLIFT | ESCALATORS & TRAVELATORS

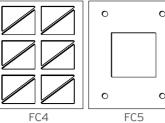


#### **CABINS**

# **EPOXY** series

Quality in simplicity. Epoxy cabin combines these two features. Side walls and false ceiling powder coated in high quality and durability, modern spot lights on the ceiling and durable plastic floor make up the affordable solution for many years of daily, uncompromising elevation.









#### proposed selection of side walls





















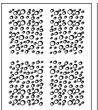
501 black 504 blue Ral 7012 Ral 7032 Ral 7035 Ral 7042

linoleum grey PF1 PF2



# **GALAXY** series

The Galaxy range is offered as the basic model. A wide range of plastic laminates, stainless steel finishes, floors, false ceilings and handrails are available, gives you the opportunity to design your own unique cabin. The corners of the cabin can be constructed either in a standard straight or in a curved shape.







FC6 FC8



#### proposed selection of side walls









316







G427













**CABINS** 

## **FOREST** series

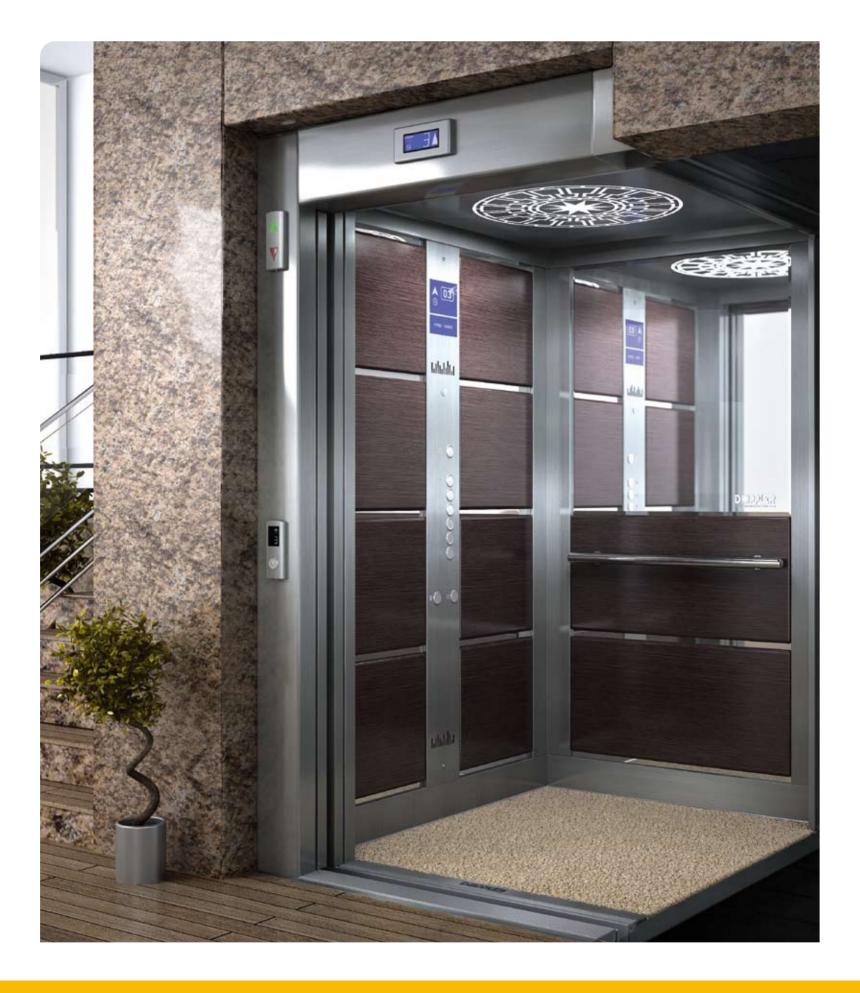
The side walls of the cabin are made of horizontal panels, finished in plastic laminate and separated by mirror stainless steel grooves. A wide range of interior finishes, floors, false ceilings and handrails is available. The corners of the cabin are constructed either in a standard straight or in a curved shape.







7 FC13 FC1



#### proposed selection of side walls



proposed selection of floors









piel cane opuser brown wenge brown beige array



## **INOX** series

This is the next stage of luxury, offered with a complete range of interior finishes in stainless steel patterns, various floors, false ceilings and handrails. The corners can be constructed either in a standard straight or in a curved shape. In addition to the stainless steel finishes, the option of glass mirror is also available, offering a more elegant style.







FC15

FC16

FC18



#### proposed selection of side walls



inox dama







inox gold inox leather inox linen inox mirror inox satine mirror







proposed selection of floors





orient black

starlight black piel wenge

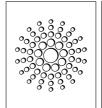
35 hamilton black CF1



**CABINS** 

# **PRESTIGE** series

The side walls of the cabin are made of vertical panels, finished in stainless steel or plastic laminate and separated by mirror stainless steel grooves. A wide range of interior finishes, floors, false ceilings and handrails is available. The corners of the cabin are constructed either in a standard straight or in a curved shape.







FC9 FC17



#### proposed selection of side walls











#### proposed selection of floors





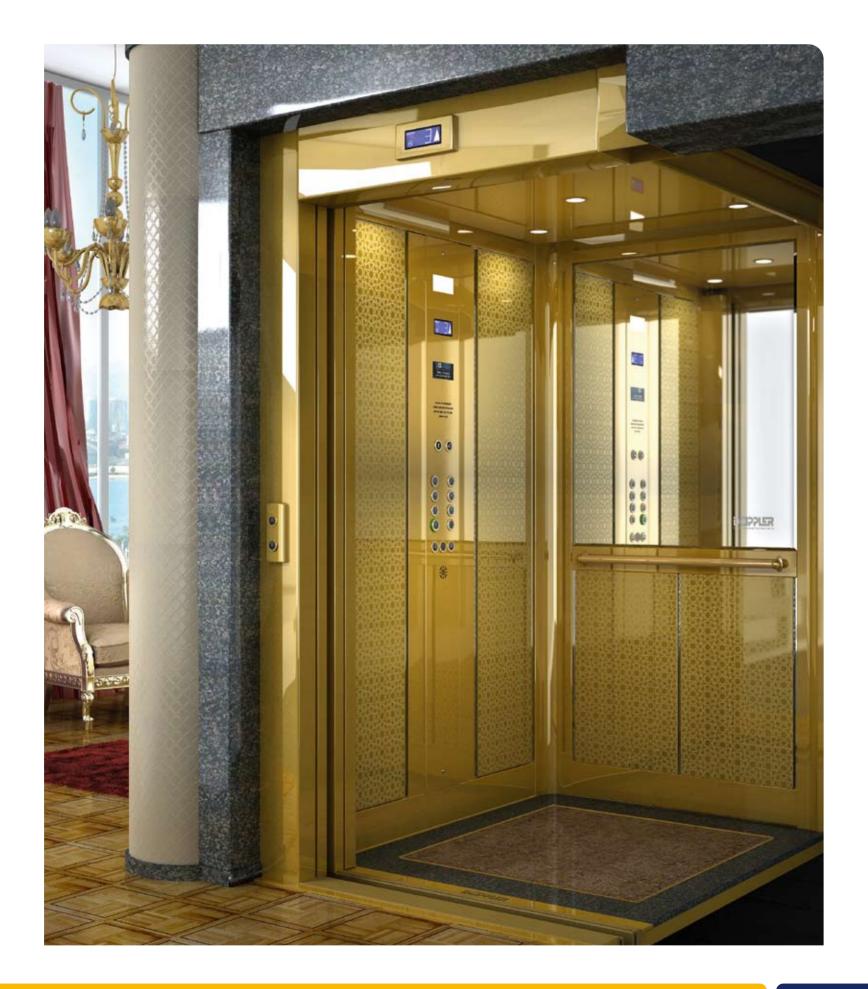








50 hamilton crocodilo chocolate dark brown starlight black linoleum black 1869 G426 inox linen wave red



# **PANORAMIC** cabins

Special care is taken in the design and manufacture of the panoramic cabins. Due to the unlimited design flexibility and the wide selection of materials, panoramic cabins are tailor made to meet the individual requirements of each project and ensure harmony with the building's architectural style. Therefore the lift is upgraded from a means of transport to a high aesthetics element.











# **FREIGHT** cabins

A wide range of freight cabins are available to satisfy all potential operational needs. Materials, such as, galvanized, epoxy painted steel sheet, or even stainless steel can be used, depending on the requirements of each project. They are used for heavy duty industrial applications, warehouses, super markets, parking, hospitals and commercial centres. Doppler "CARGO" cabins are distinguished by their stiffness, aesthetics and ease of installation.









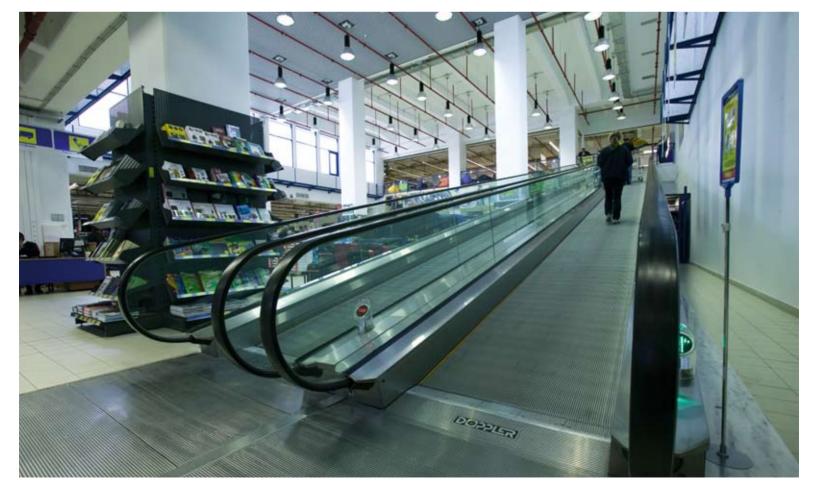
# **ESCALATORS** & MOVING WALKS

DOPPLER cooperates with well known manufacturers for supplying escalators and travelators. Many have been installed in demanding areas with heavy traffic like airport terminals and subways.

#### Characterized by:

- Innovative stylish design
- Reliable operation.
- Superior riding comfort and exceptional quietness.
- Safe demarcation line.
- Fault display.





### **PARKLIFT**

Using its know-how in hydraulic elevation, DOPPLER is entering the growing market of parking lifts. The aim is to provide a full range of equipment that will give total solutions for access to the parking area through elevation, rotation or side displacement, and increase of the available parking places using stacking machinery.

#### The Doppler parking lift benefits are the following:

- Multiplies parking spaces, fully utilizing the available building height.
- Low installation cost and no need for additional construction.
- Increase of parking spaces, providing the constructor with the additional revenue potential.
- Ideal for areas with limited building coefficient.
- · Pollution reduction.



DP-X2 (double stage, scissor car platform)



DP-X1 (single stage, scissor car platform)



DPS-xRyC Doppler Parking System – x Rows y Columns



DP-2I2P
Doppler Parking system – 2 Independent parking spaces / 2 Posts



DCS-2D/2P Doppler Car Stacker – 2 Dependent parking spaces / 2 Posts



DCS-2DL
Doppler Car Stacker – 2 Dependent parking
spaces Low headroom

### LIFT COMPONENTS

# MECHANICAL PARTS OF HYDRAULIC LIFTS

Hydraulic lifts were the first manufacturing choice based on a balanced combination of manufactured equipment and supplied quality products. The hydraulic package is now considered to be one of the best in Europe in terms of quality, smooth operation and safety.







**PISTON**High quality seal without oil leakages
Minimum maintenance required.



**HYDRAULIC PUMP**Extremely low noise level screw pump



**VALVE BLOCK**BLAIN EVIOO with a wide range of adjustments



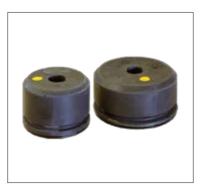
**MOTOR**Low noise, highly efficient with integrated flywheel



**GUIDE RAILS**Supplied by top quality manufacturers



**SHAFT COMPONENTS** 



**SHAFT COMPONENTS** 



**PULLEY**Two-point suspension

LIFT COMPONETS

#### **MECHANICAL PARTS OF TRACTION LIFTS**

The development of electronic technology in the field of frequency control of the electric motors (VVVF) has created a new advantage for traction lift applications. This mainly applies in cases where long travels and high speeds are required, ensuring smooth operation, high levelling and stopping accuracy. The drive mechanism in combination with the car sling and the rest of the available components (overload device, speed governor, guide rails, asteel ropes, elastic buffers), comprise a particularly reliable and functional mechanical set.

The unique characteristics of the sub-components are as follows:







**MOTORS** Alternative choices between doublespeed or VVVF, geared or gearless. Low noise and vibration levels. Long life span.

D=22E2



**CAR SLING AND COUNTERWEIGHT FRAME** Stiff structure for safe operation. Absolutely reliable activation of the safety gear mechanism. Easy and quick lift installation.

LIFT COMPONETS

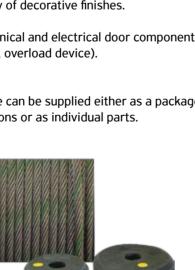
#### MODERNIZATION KIT FOR TRACTION LIFTS

Many traction lifts, already in use, have over exceeded their designed life cycle and suggested operational limits. This could be dangerous in the most of the cases.

Our engineering department offers a particularly competitive modernization solution, which is appropriate for the proposed installation and offers the client safety, high performance levels and aesthetics, using a combination of the following components:

- Geared motor DOPPLER and SASSI.
- · Microprocessor control panel.
- Full emergency operation.
- · Car operating panels and landing stations.
- · Car sling and counterweight frame.
- · Car enclosure with a variety of decorative finishes.
- · Car and landing doors.
- Safety components (mechanical and electrical door components, pit buffers, speed governor, overload device).
- Steel ropes and rope rods.

The components listed above can be supplied either as a package for complete lift modernisations or as individual parts.









### **DOORS**

# **AUTOMATIC SLIDING CAR** & LANDING DOORS

Having entered into a partnership with high profile European door manufacturers, Doppler is in position to supply any type of automatic door for use in private houses, residential flats, commercial centers, offices, multi-storey car parks, super markets, and industrial application.

#### Primarily characterized by:

- Low noise, reliable and smooth operation using VVVF driven motor.
- Option for automatic emergency operation.
- Wide variety of choices depending on the needs of your building.
- · Epoxy painted.
- Finished in various stainless steel patterns.
- Glass panels with or without stainless steel frame.
- · Round shaped.
- Easy installation.
- Wide span of life with minimum maintenance.
- Door locks certified according EN 81 regulations. Fire rated certification if required (E-120, EI-60).

#### **SWING OPENING LANDING DOORS**

Selected as an economic solution for both passenger and goods lifts. Entrance clearances vary from 600 to 3000mm, single panel or two-panels, satisfying a wide range of a applications.

#### Distinguished for:

- Stiff and reliable structure.
- Easy installation and maintenance.
- Wide range of paints and finishes.

#### **AUTOMATIC FOLDING CAR DOORS**

The automatic folding car door is the ideal solution for lifts with swing opening landing doors. The main advantage is the small shaft width required.

#### Distinguished for:

- · Stiff and reliable structure.
- Smooth and low noise operation.
- · Easy installation and maintenance.
- Post depth 80 or 100mm.











Photocell or full height light curtain is fitted to every car door, ensuring passengers' safety while entering or leaving the cabin.



# CAR OPERATING PANELS & LANDING PUSH STATIONS

Doppler offers a wide range of car operating panels and landing push stations with high aesthetics and reliable operation, tailor made for the special needs of each project.

#### **Basic specifications:**

- Stainless steel plate, satin, mirror or patterned.
- 7-segment, dot matrix and LCD landing indicators.
- Arrows and displays in various colors.
- Micro-switch, vandal-resistant buttons with visual call acceptance confirmation.
- TACTILE symbols, conforming to DDA regulations are available.
- Emergency Light 12V DC and load plate on the car operating panel showing lift details and the individual EN81 lift number.
- Profile or Flat landing operating stations.

#### Option for compliance with:

- EN 81.28 for emergency dialer device.
- EN 81.70 for DDA.
- EN 81.72 for fire fighting operation.



















### LIFT CONTROLLERS

# DOPPLER AC SERIES CONTROL SYSTEMS

- Modular philosophy with add on boards covering all possible requirements.
- Most of the functions are integrated, avoiding the use of additional hardware.
- Provision for all possible connections (parallel, CAN-Bus communication) between the controller, the shaft and the cabin elements.
- All inputs and outputs are freely programmable creating a very versatile system.
- Particularly reliable and easy to install and maintain using friendly environment of the programming menu, with the use of message LCD display.
- · Real-time clock and date.
- Short calling or sending detailed GSM message in case of error.
- Computer access via the internet, local area network and USB.
- · Group operation up to 8 lifts.
- Magnetic Switches, shaft encoder or motor encoder for counting system.
- Individual control of 2 doors per elevator. Manually operated swing doors or fully automatic sliding doors can be used - also mixed.
   Compatible with any kind of door drive.
- · Special software for lift access security.
- · Built-in Phase sequence controller.
- Emphasis on the safety of the lift using multiple electrical safety settings.
- Electric shock protection of the car and shaft lighting 230VAC power supply, by an interrupting differential relay.
- Compliance with EMC directives EN 12015, EN 12016, Lift directive 95/16/EC and EN 81 regulations including EN 81-70 for Disabled persons lifts, EN 81-72 for firefighters lifts and EN 81-73 for Behavior of lifts in the event of fire.

#### **ACH CONTROLLERS**

Suitable for all kinds of Hydraulic lifts up to 16 stops for all command systems (APB, Down collective, Full collective), with built-in Safety line bridging relays.

#### **VVVF OPERATION**

Special attention has been given in the development of VVVF controllers.

#### The advantages of this technology are:

- Environmentally friendly operation due to low energy consumption.
- Optimum motor performance even in low RPM.
- Smooth motor start and low starting current.
- Effective acceleration and deceleration control for comfortable motion.
- Lift position and speed control and accurate floor leveling, with the use of encoder.
- Motor protection from high voltage and other electrical hazards.
- Fully automatic emergency operation.
- Elimination of the motor's electrical noise.
- Pre-assembled electrical installation.

#### **ACT CONTROLLERS**

Suitable for all Traction lifts (VVVF, 2AC), up to 32 stops for all command systems (APB, Down collective. Full collective).

#### **ACS CONTROLLERS**

Suitable for all Traction lifts (VVVF, 2AC), up to 64 stops for all command systems (APB, Down collective, Full collective). Available only with CAN-Bus communication between the controller, the shaft and the cabin elements



The pre-assembled electrical installation is tailor-made for each lift and ensures:

- Plug and play installation.
- · Low staff qualification level.
- Easy detection of future electrical failures.

# **COMPLETE LIFT PACKAGES**

Doppler's main policy since its founding, was to provide complete lift packages, offering:

- High quality with up to 5-year guarantee.
- Compliance with EN 81 regulations and EU directive 95/16/EC.
- Equipment completeness and compatibility, resulting in a reduction of installation time and cost.
- Wide variety in cabins and operating panels selection.
- Quick delivery times.
- · Safe and easy to handle packing.
- Accurate and fast quoting and pricing.

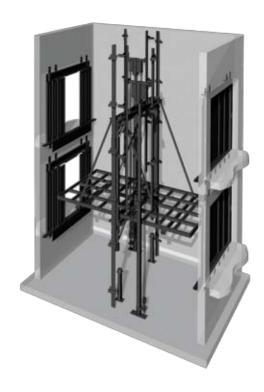
HYDRAULIC LIFT MOTOR ROOM | MACHINE ROOM LESS (MRL) | HYDRAULIC HOME LIFT | SERVICE LIFTSLIFT TRACTION LIFTS WITH MOTOR ROOM | MACHINE ROOM LESS (MRL) TRACTION LIFT | ESCALATORS AND MOVING WALKS PARK



# HYDRAULIC LIFT WITH MOTOR ROOM

Following a policy of qualitative choices since the establishment of the company, Doppler offers a complete range of hydraulic lift packages, covering applications from small passenger lifts up to panoramic and large goods lifts.

- Compliance with Lift Directive 95/16/EC, EN 81 regulations, PUBEL PB 10-558-03 regulation and Machinery Directive 2006/42/EC.
- Capacity range from 200 to 20,000 kg.
- Speed up to 0.9m/sec.
- Travel up to 28m (10 stops).
- Low noise and smooth operation.
- Stiff structure.
- Standard Automatic Emergency Operation.
- Motor room at any location with reference to the lift shaft.

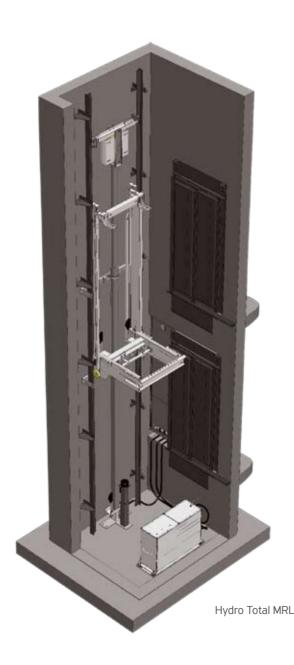




# MACHINE ROOM LESS (MRL) HYDRAULIC LIFT

The increasing market demands during the last decade throughout Europe, in combination with the flexibility of the new European regulations, orientated DOPPLER Manufacturing towards the design, certification and supply of hydraulic lifts without motor room. Depending on the project, two different types are offered. The HYDRO MRL, where all the motor room equipment is fitted into a metal cabinet and the HYDRO TOTAL MRL, where the tank of the power unit is placed into the shaft pit whilst the controller and the valve block.

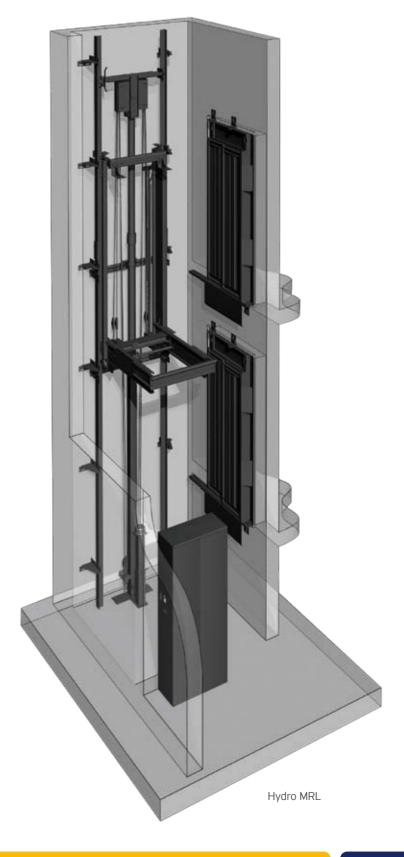
- Compliance with Lift Directive 95/16/EC, EN 81 regulations and PUBEL PB 10-558-03 regulation.
- · Capacity range from 200 to 2,000 kg.
- Speed up to 0.9m/sec.
- Travel up to 18m (7 stops).
- · Low noise and smooth operation.
- Stiff structure.
- Standard Automatic Emergency Operation.









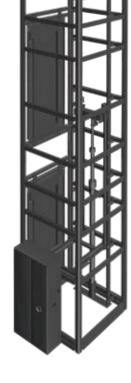


## **HYDRAULIC HOME LIFT**

Home Lift is the ideal solution for residences and low height buildings, especially in cases where there is no shaft either internally or externally. It is available in two types the Hydro Status and the New Era combining luxury with Galaxy or panoramic cabin and low energy consumption with the use of VVVF drive of the pump motor.

- Compliance with Lift Directive 95/16/EC, EN 81 regulations and Machinery Directive 2006/42/EC.
- Aluminum shaft structure in various finishes.
- Manual or automatic doors.
- Minimum shaft pit and headroom requirements.
- Capacity range from 200 to 450 kg.
- Speed up to 0.63m/sec.
- Travel up to 12m (5 stops).
- Low noise and smooth operation.
- · Stiff structure.
- Standard Automatic Emergency Operation.
- 230V single-phase power supply







### **SERVICE LIFTS**

#### **HYDRO COMPACT CARGO LIFT**

The HYDRO COMPACT CARGO LIFT is suitable for goods and freights, primarily designed for use in industrial facilities and warehouses. The flexibility in dimensions and capacities, make it adaptable to any special requirements.

- Compliance with Machinery Directive 2006/42/EC and EN 81-31.
- Preassembled on a stiff steel structure.
- Available with platform or low height cabin.
- Minimum shaft depth and headroom requirements.
- · Lifting Capacity from 200 up to 1,300 kg.
- · Speed O.15m/sec.



# DUMBWAITER (PICO LIFT, NANO LIFT)

Pico Lift is a small, machine room-less traction service lift for small capacities. It is suitable for restaurants, hotels, department stores or residential buildings.

- Compliance with Machinery Directive 2006/42/EC and EN 81-31.
- · Lifting capacity 250 kg.
- Speed up to 0.5m/sec.
- Travel up to 30 m (12 stops).
- · Noiseless and smooth operation.
- · Fast and easy installation.
- Lightweight construction.
- · Zero pit depth.
- Low minimum headroom (2.5 m).

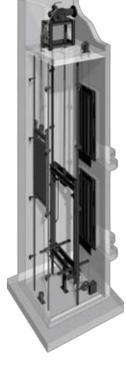


# TRACTION LIFTS WITH MOTOR ROOM

The development of the electronic driving of lift motors (VVVF), together with the demand for long travels, brought the classic traction lift again into the market. Following a policy of qualitative choices, a complete range of traction lift packages is offered, satisfying all kind of applications.

- Compliance with Lift Directive 95/16/EC, EN 81 regulations and PUBEL PB 10-558-03 regulation.
- Capacity range from 200 up to 5,000 kg.
- Speed up to 2,5m/sec.
- Travel up to 100m (32 stops).
- Low noise and smooth operation.
- Stiff Structure.
- Automatic emergency operation.







# MACHINE ROOM LESS (MRL) TRACTION LIFT

The MRL Traction Lift eliminates the disadvantage of the classic traction lift, which is the need of a machine room. The MRL traction machine is located inside the shaft whilst the controller is fitted in a stainless steel cabinet adjusted to the top floor landing door post. Two different configurations are offered: The BASIC 2 MRL, a low-cost choice with direct suspension and two speed or VVVF geared motor, and the ECO 2i MRL, a high-end choice with indirect 2:1 suspension and VVVF controlled gear-less motor.

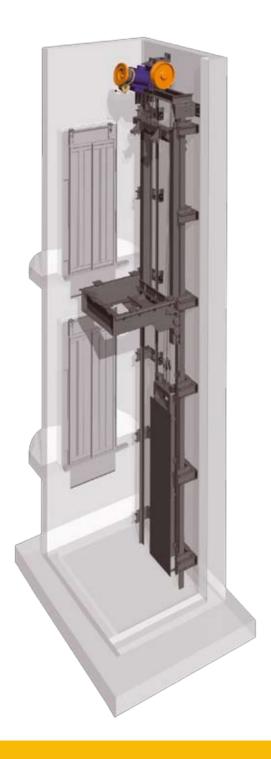
- Compliance with Lift Directive 95/16/EC, EN 81 regulations and PUBEL PB 10-558-03 regulation.
- Capacity range from 450 up to 2,000 kg.
- Speed up to 1.6m/sec.
- Travel up to 100m (32 stops).
- Low noise and smooth operation.
- · Stiff structure.
- Standard automatic emergency operation.

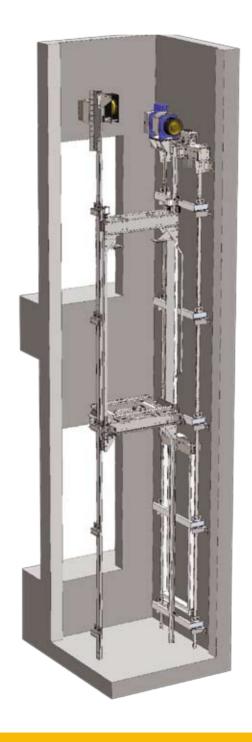












# REFERENCE PROJECTS























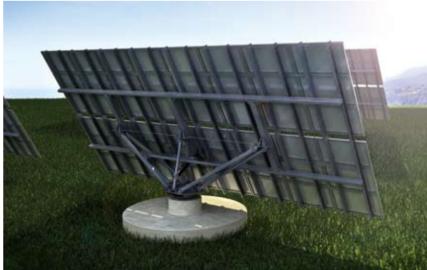
# GREEN ENERGY 🏶 🏶

After its successful first decade of presence, DOPPLER enters the renewable energy market with DOPPLER GREEN ENERGY. An innovative manufacturing module of photovoltaic systems, that produces in its own facilities most of the system's components, and imports the rest from the bigger manufacturers worldwide. This way, DOPPLER GREEN ENERGY is able to offer a full service package that includes the engineering study and installation of photovoltaic systems for private buildings, agricultural plots, small and big enterprises.

**SOLAR TRACKER | WIND ENERGY GENERATORS | PHOTOVOLTAIC SYSTEMS** 







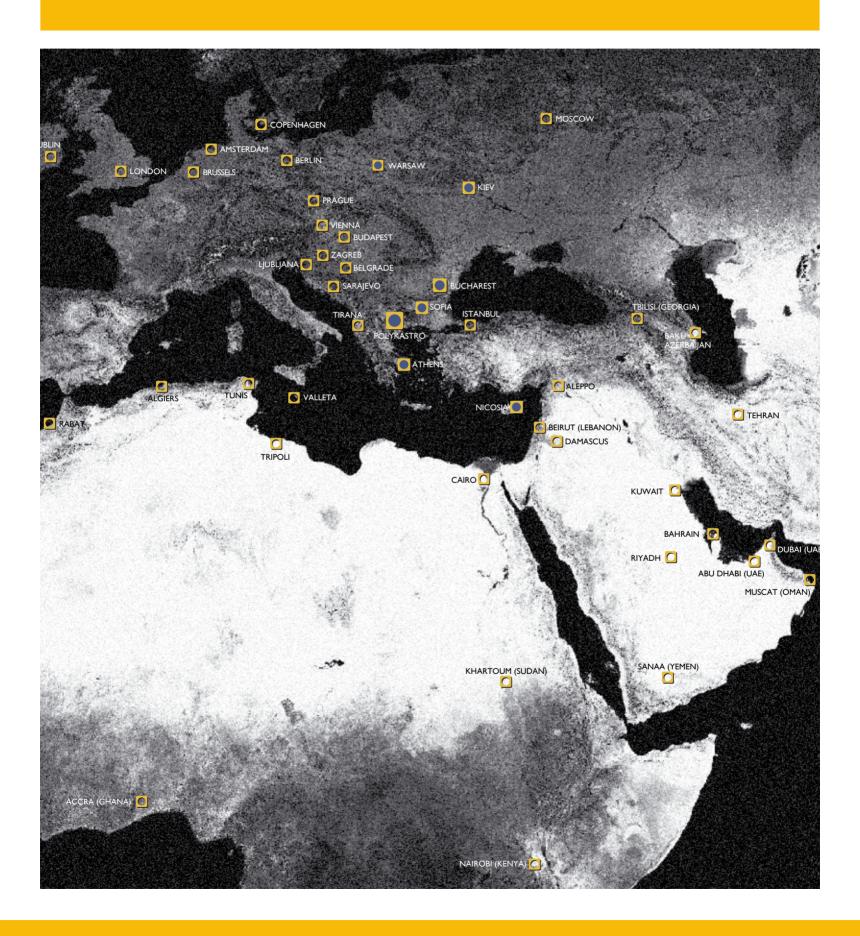






## **NETWORK**

Until 2008, the Greek market represented 65% of Doppler's annual sales. However, this ratio tends to be reversed, since exports are holding nowadays the company's largest sales share. The high product quality and its competitive prices are the two main factors for Doppler's continuous growth and position as one of the biggest lift manufacturers in Southeastern Europe. Doppler's export orientation and its considerable presence in Northern Europe lift markets is an additional proof of the company's capability and quality level of products and services. The company's main export markets are the countries of Eastern Europe, North Africa and Middle East, while Great Britain and Russia hold the top positions export-wise.





lift manufacturers







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