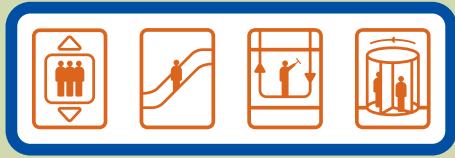


# MITSU NEWS



#1

*Mitsulift and Equipment S.A.L is proud to present the first issue of our semi-annual newsletter.*

*Through this, we hope to create a liaison among our clients; suppliers; and our neighboring markets, keeping you informed about who we are and where we are going.*

*We strive to offer you the best service and exceed your expectations.*

*We are not just in the elevator business, but in the service business. Our team of engineers and technicians are highly qualified and are committed to serving you better.*

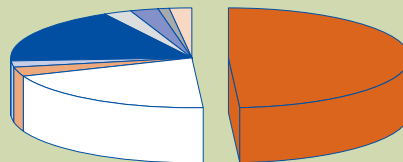
*I hope you will enjoy this newsletter, as those to come.*

*The president, **Samir Abillama***



Our board of directors

## Our company



### Units sold in Lebanon - 2001

- 44% ■ Mitsubishi elevators
- 21% □ Mitsulift elevators
- 3% ■ Dumbwaiters
- 2% □ Elevators for the handicapped / Hospital bed elevators
- 21% ■ Mitsubishi escalators
- 3% □ Garage doors (Breda)
- 3% ■ Window cleaning systems (AESAs)
- 1% ■ Entrance doors (Boon Edam)
- 2% □ Other

- 1984** Mitsulift and equipment S.A.L was established as a company specialized in the supply, installation and maintenance of elevators and escalators.
- 1997** Gained sole distributorship in Lebanon of AESA, a Spanish multinational in window cleaning systems.
- 1999** Became the first elevator company in Lebanon to be certified ISO 9001.
- 1999** Expanded into Cyprus Cylift and Equipment Ltd.
- 2000** Formed a joint venture with Mitsubishi Electric Corporation - Japan.
- 2000** Expanded into Greece-Mitsulift Hellas S.A.
- 2000** Expanded into Syria-Mitsulift and Equipment Syria.
- 2001** Appointed as sole distributor in Lebanon of Boon Edam, leader in entrance technologies.

### Our recent projects include:

#### Beirut

- Movenpick Resort & Marina* - 27 units
- Beirut International Airport* - 51 units
- ABC, Achrafieh* (under installation) - 41 units
- Parkview*, (under installation) - 10 units
- Bloc 24*, (under installation) - 17 units

#### Cyprus

- New Government offices, Nicosia* - 7 units

#### Greece

- GEK, Athens* (under installation) - 5 units
- Profin, Athens* (under installation) - 5 units

#### Syria

- Sheraton Hotel, Sednaya* - 4 units
- Syrian Arab News Agency HQ, Damascus* - 2 units



# Elenessa: the new machine-room-less elevator

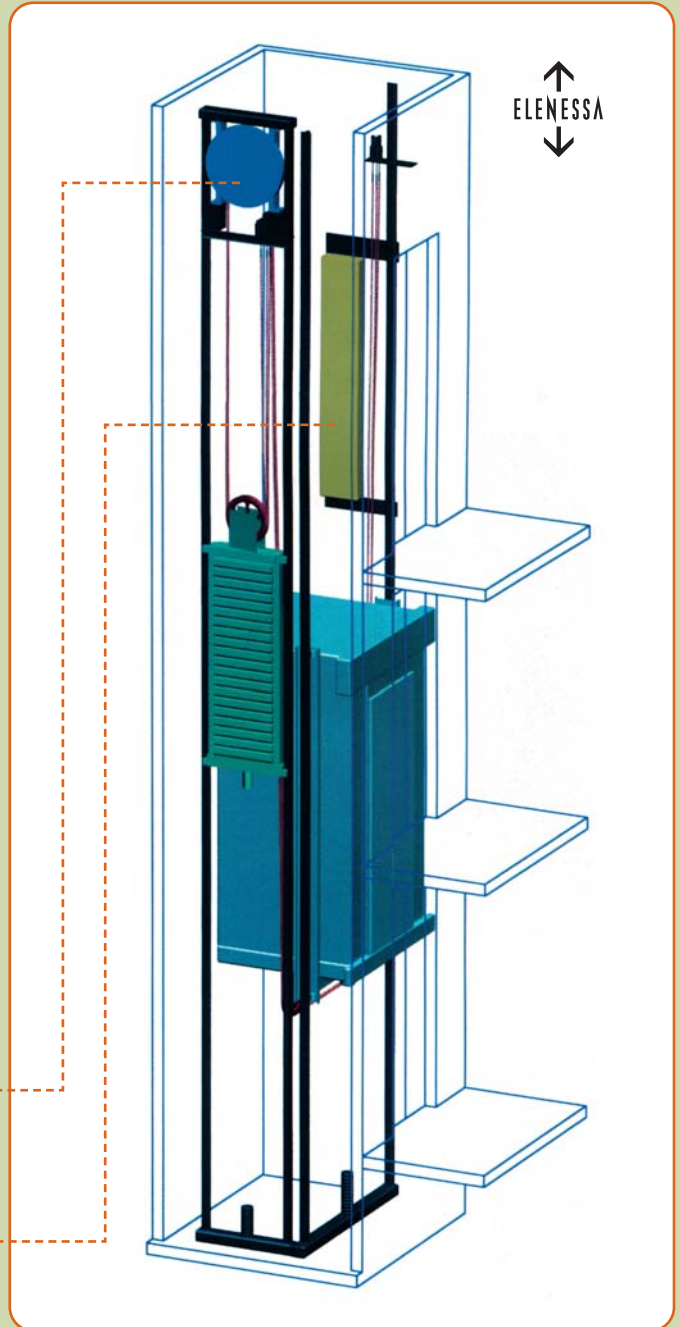
*Once again, innovation has brought us to a higher level. The Mitsubishi Elenessa machine-room-less elevator boasts numerous technological advances that improve the level of comfort, safety and efficiency.*



Slim Control Panel



Compact PM Motor



- **Product globalization:** It complies with most country codes, **EN-81-1: 1998 code & ISO compliance.**
- **No machine room,** proposing a solution for buildings that wish to reduce construction cost.
- Elevator cars, hall lobbies, operation panels, and indicators have all been redesigned and refurbished to meet **universal design concepts which are better suited for everyone's use.**
- By installing the high-density Slim Control Panel in the elevator shaft, **freedom of design** extends to the elevator hall too.
- **Quality ride:** By substantially reducing the torque ripple in the motor, an incredibly smooth ride is achieved.
- **Data Network system** that uses microprocessors distributed throughout the elevator configuration for more flexible control of the overall system.
- **The PM motor:**
  - Is the slimmest machine in the world (187mm wide).
  - Has high efficiency energy savings.
  - Is space saving.
- **The only car door operator with a PM motor.**
- **The Smart door system** makes door opening and closing quieter and smoother. A high performance chip enhances the doors' sensitivity making operation faster and safer.
- **Concealed hall inspection panel (HIP)** located on the top floor behind the push button station, offers quick access for the function of:
  - Normal operations
  - Emergency operations
  - Maintenance operations
  - Inspection service
  - Safety and buffer tests
- **Simplified Rescue Operation:**
  - Monitoring the elevator status and level from the HIP.
  - Elevator speed is self-controlled at rescue operation (control of speed does not rely on human power).
  - Moving the elevator by simply pushing the brake release button.
- **We offer unique features as a standard:**
  - **Next landing:** If the elevator doors can't open fully at the destination floor for any reason, the doors will close and the elevator will proceed to the next floor.
  - **Safe Landing:** If there is a malfunction and the elevator stops between floors, the controller performs a diagnostic check before moving the elevator to the nearest floor.

## The fastest elevator in the world (18 m/sec)

Mitsubishi Electric has developed 1080 meters/minute (18 meters/second), the highest elevator speed in the world. Techniques on the high capacity traction machine, the driving control, the car vibration control and the noise suppression inside the car, were established so that ride quality and safety satisfy our users. Among the working elevators, Mitsubishi Electric's passenger elevators (installed in Yokohama Landmark Tower, 1993) have 750 m/min (12 m/sec), the highest speed in the world.



## Spiral escalator

Mitsubishi Spiral Escalator has an appearance which is obtained by bending an ordinary linear escalator into an arc shape. It consists of upper and lower horizontal zones for safe ride, intermediate inclined zone where steps move with a fixed rise between them and transit zones where steps gradually change in height which connect the former two zones. Because it moves in an arc shape, it comes to have kinds of structural characteristics which linear escalators do not present.

Technically, one of the first ideas tested was having steps return to the original position through the shortest route, the center column of the spiral. However, this spoils the beauty of the equipment and holds back free space design by the architect.

Still, the problem is the three dimensional curve, "without computers they would not have succeeded" said engineer S. Goto the manager of the development department's engineering section at that time.

The new unit does not have a precise arch. The radius of the curvature is slightly larger at the head and the tail, which makes the arch slacken at both ends. The radius of horizontal curvature is approximately five meters, which corresponds to a maximum rise of six meters when the angle between the turning points of the steps is 180 degrees.

The head driving system is similar to that of a conventional linear escalator. However, the pair of sprockets at the upper and lower landings have a large and a small diameter. The outer and inner step chains are different in their pitches and equipped with spherical bearings that allow movement in three dimensions along a curved track. The velocity of a moving handrail is the typical C shaped cross-section but of a material and bonding which facilitates flexing in all directions.

The truss itself is chiefly made of shape steel. Since it is charged with torsional moment caused by eccentric load, it is supported at two intermediate points in addition to the upper and lower end portions. The balustrade consists of curved and tempered glass, and the skirt guard is coated with fluorine resin to lessen the coefficient of friction, should footwear bear upon it. The step is of a fan shape; and the tread board and riser are equipped with curved cleats.

The basic specifications are an inclination angle of 30 degrees; a rated speed of 25 meters per minute; a step width of 1005mm and an applicable rise between 3.8 and 6.6m.



*Without suppliers, customers, employees, or managers, our organizational drive would not exist. These people are what we call our “assets”. Mitsulift and Equipment S.A.L. continually invests in developing these assets through the following tools:*

## Training

**In-House:** All Mitsulift staff complete non-technical training; such as how to enhance customer service, communication and teamwork, time management, and new management techniques.

In addition, representatives from Mitsulift Hellas S.A. in Greece and Cylift and Equipment Ltd. in Cyprus come to Lebanon to complete training.

**Training department:** Our technicians also get technical training for which we have established a training department committed to follow up and to develop their skills.

**Training in Japan:** Our project managers from the installation department and area engineers from the after sales department are sent to Japan to complete technical training.

**Congratulations for the new-borns of:**

*Samir Fayad, Cyril Mireille Abou Issa, Giorgio Hassan Sleiman, Rama Maryse Kfoury, Kaya-Maria*

## Cross-functional teams

We have developed teams composed of people from different departments and these teams are responsible to create action plans for a given set of objectives. Cross-functional teams allow us to improve communication, to interact across departments, and to participate in managerial change.

## Employee satisfaction survey

The company morale is very important to ensure better performance. For this purpose the human resources department conducted a survey that revealed the level of motivation, employee expectations, and their comments and suggestions. The results were then communicated to management who implemented a plan of actions.

## Customer satisfaction

Mitsulift and Equipment has established a customer satisfaction department through which we will improve our offering to contractors, developers, engineers, architects, consultants and owners. Our customer satisfaction coordinator is conducting a survey from which we hope to better understand our customer needs.

## Labor Day

*In order to learn more about our heritage, on the 1st of May - Labor day, the company organized a trip to Beit El Dine for the staff and our families.*

