

## DRIVES GIVE PATIENTS A LIFT AT MILAN HOSPITAL

At the Sao Paulo Hospital in Milan, the high level of patient care also extends to the ride comfort and rapid floor-to-floor times achieved in their lift system, thanks to the lift manufacturer Elex and their drive partner Control Techniques, who provided AC variable-speed drives with sophisticated elevator software built-in.

The new high-rise 12-storey healthcare block is equipped with a gearless winch driven elevator supplied by leading Italian lift manufacturer Elex. The motor is driven by a Control Techniques Unidrive SP AC drive incorporating an intelligent plug-in applications module loaded with Control Techniques' own elevator software to give optimum direct-to-floor performance with smooth vibration-free ride comfort and minimal electrical noise.

In recent years, Elex has opted for gearless technology for its premier products and selected Control Techniques for its flexible high-performing Unidrive SP drive, that met their engineering requirements and Control Techniques' Milan Drive Centre for its product support and development capabilities.

Thanks to the optimal results achieved with gearless systems and the excellent technical service provided by Control Techniques, Elex is now also using Unidrive SP on conventional cable and winch systems and on large size lift platforms too.

At the system installed at Sao Paulo Hospital, the Unidrive SP drives are closely integrated with the Elex lift controller, giving seamless immediate response to calls. Thanks to integral brake management, motor control is synchronised during



starts and arrivals, completely eliminating the momentary disturbing roll-back on start or stop and guaranteeing absolute comfort for passengers.

The lift's load capacity is 1600kg, speed between floors is 1.6m/sec and the total travel over the 12 floors is 42 metres.

### KEY BENEFITS

- ABSOLUTE RIDE COMFORT
- VIBRATION FREE RIDES
- MINIMAL ELECTRICAL NOISE
- ROLL-BACK ELIMINATED
- AUTOMATIC RETURN TO FLOOR STRATEGY

In the event of a power loss, Unidrive SP activates an automatic return to floor strategy (RAP), automatically selecting the travel direction on the basis of an analysis of the current car load.

The Unidrive SP AC variable speed drive range spans 0.37kW right up to 1.9MW. Unidrive SP is the world's most advanced 'solutions platform' AC drive, configurable into five operating modes - open and closed loop, vector, servo and regenerating modes - connectivity to most industry standard networks and accepting 14 position feedback protocols. With a range of plug-in module options, its on-board PLC can be supplemented, as in this case, with programmable modules.

For more than 20 years, Elex has been manufacturing lifts with capacities from 300 to 20,000 kg and speeds from 0.15 (Home Lift Genius-Solo) to 3.5 m per second (Matrix), in

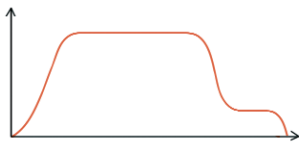
hydraulic ram or winch solutions to quality levels that match the best in the world.

Elex developed the first high speed inverter drive controlled systems for speeds of 2.5 - 3.0 and 3.5 m/s, both geared and gearless, in the early '90s, long before European multinationals introduced the use of AC inverter drives with variable frequency and voltage, installing its systems in Hong Kong and mainland China, both areas in which the use of elevators is more consolidated than in many other parts of the world.

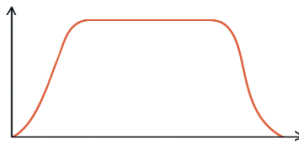
Elex has always sought the highest possible performance levels throughout its history and this has been achieved by equipping its systems with the latest technology capable of ensuring that users receive the maximum levels of comfort and safety - hence the partnership with Control Techniques.

## Excellent floor-to-floor travel

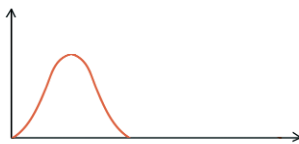
Speed



**CREEP to floor positioning**



**DIRECT to floor positioning**



**SHORT floor positioning**

Time



Unidrive SP - The Range



For further information please visit  
[www.controltechniques.com](http://www.controltechniques.com)



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