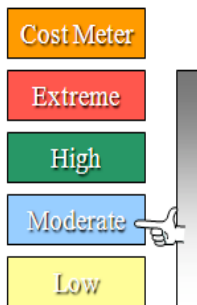


Green Solutions Green Solutions



While there are relatively few materials that contain the “Green” label in the elevator industry, there are many products designed to make every aspect of the elevator and escalator usage more efficient and environmentally safe. Including green products during new installation or adapting them to your current equipment can significantly decrease energy consumption and limit the environmental impact on the planet.

Lighting Alternatives:



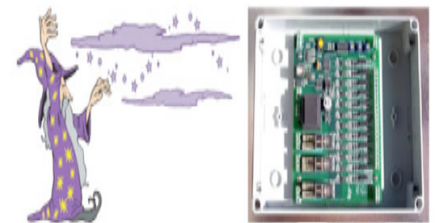
Light emitting diodes or LED style lighting last longer than standard incandescent lamps and consumes far less energy thus reducing operating cost and limiting the impact on the environment. Replacing standard form of lighting in elevator cabs, car operating panels, hall call fixtures, positioning indicators and directional lanterns with new LED style lighting can in many cases dramatically reduce relative electrical energy consumption.



Motion Sensors & Timers:



Motion sensors detect movement and can serve as a great source to control lighting in areas that only require lighting when in demand. Automatic cab lighting control devices further maximize energy efficiency by turning off the cab lights and ventilation fans in unoccupied elevators. Installing approved motion sensors where applicable and LiteWizard control technology to deactivate cab interior lighting and fans eliminates energy waist whenever elevators are idle for a predetermined period of time.



Bio-degradable Fluids:



Hydraulic elevators require several gallons of special grade oil to raise and lower the elevator through the hoistway by means of a hydraulic pump and underground cylinder. Vegetable based fluids and highly refined bio-degradable oils are ample substitutes that will not damage equipment or contaminate the environment in the event of an underground leak or uncontrolled spill of any magnitude. Replacing existing hydraulic fluids in the reservoirs with approved vegetable based fluids or industry approved Citco A/W NZ 32 bio-degradable hydraulic oils offers a sensitive alternative and provides outstanding anti-wear protection for otherwise inefficient hydraulic elevator systems.

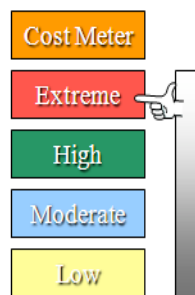
Soft Start Starters



Hydraulic elevators typically contain high current electro-mechanical starters to furnish initial power to the electronic control systems that operate the normal functions of the elevator. Next generation solid state starters regulate the incoming current and only applies the voltage required to physically start the elevator. Significant energy savings is offered by simply replacing the existing inefficient Wye-Delta electro-mechanical start and run relay contactors on hydraulic power control systems with new Siemens or industry approved solid state "soft starters".

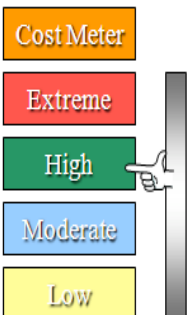


Microprocessor Controls



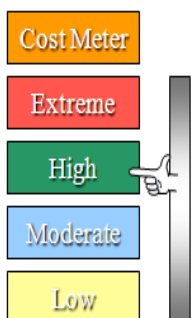
Elevator controllers greater than 10 years old are much less efficient than modern day micro-processor based control systems with state of the art motor drive units. Today's elevators react in "real time" and utilize AC current with variable voltage, variable frequency (VVVF) motor drives that are dramatically more efficient and only consume energy upon demand. Upgrading aging relay logic and first generation solid state control systems with new micro-processor based AC controls with regenerative motor drive assemblies offer the ultimate solution in maximizing energy efficiency.

Closed Loop Door Operators:



Closed loop technology provides substantial improvements in elevator door performance and conserves energy by utilizing less power to maintain consistent door speeds and functions even under extreme strong air current conditions in the hoistway. Dynamic braking improves operation and prolongs motor life by removing power whenever the doors are in the fully opened and closed positions. Replacing existing electro-mechanical car door operators with new GAL manufactured or industry approved "Closed Loop" operators and related mechanical devices not only gains energy efficiency but many times extends the useful life expectancy of dated elevator systems.

Regenerative Motor Drives



Older elevator systems dissipate unused energy in the motor windings and resistor grids located in the machine room as heat. Modern energy saving motor drives recycle captured energy that is typically wasted and regenerates it for use in the elevator or other parts of the building. Regenerative motor drives also offer enhanced performance features while providing the optimum means of efficient elevator power. Replacing existing motor generators or SCR motor drive units with new state of the art regenerative motor drives, filters and associated electrical wiring provides the absolute ultimate return on your investment in energy efficiency.



Destination Dispatching

Cost Meter

Extreme

High

Moderate

Low

Some elevator systems reduce energy use and maximize elevator efficiency by limiting excess passenger trips through the use of destination control software. These systems direct passengers to specific elevators based on their desired floors and group them according to their final destination. Depending on the building layout and design, this relatively new method of dispatching can sometimes offer dramatic reductions in user wait-times and increase handling capacity by up to thirty percent. Replacing conventional corridor call stations at main elevator lobby's with new "Destination Dispatch" touch screens, program software and circuitry modifications offers additional energy returns and outfits your building in the latest state of the art advancements.



Recycled Paints

Cost Meter

Extreme

High

Moderate

Low

Recycled paints that have been reprocessed or remanufactured to achieve a high quality and consistency are considered environmentally friendly and a suitable alternative to standard paints when applied to industrial surfaces such as elevator machinery, elevator pits and mechanical room floors and car tops. Applying recycled paints with low tolerates of volatile organic compounds (VOC) to exterior surfaces of elevator machinery, floors and related hoistway components offers an eco sensitive alternative to the commonly used harmful chemicals formerly considered acceptable within the industry.



A PARTNERSHIP FOR THE FUTURE
Energy Conservative & Environmentally Conscious