

# Elevator Modernizations

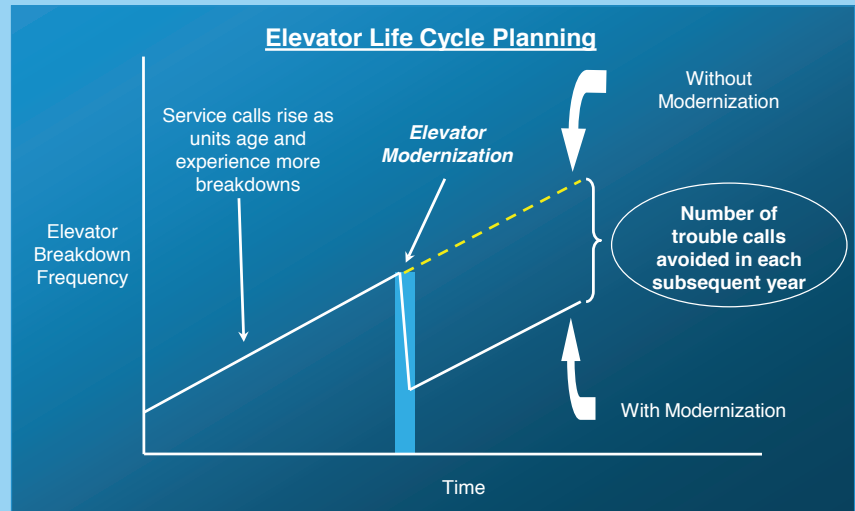
## Life Cycle Planning

Having an efficient elevator system is an important part of the building infrastructure.

However, despite regular service and component repairs, the overall operational integrity of elevator systems will deteriorate due to operating environments, duty cycle, and parts obsolescence.

Modernizations address this problem, even as the average age of residential tenants increases and as commercial tenant expectations rise.

Tenants will see a dramatic improvement in elevator operations as trouble calls decrease and elevator reliability increases.



### Delta's modernization packages:

- Extend your elevator's life cycle
- Improve your elevator's reliability
- Enhance your elevator's aesthetics

## Cab Upgrades



An elevator cab upgrade is optional when an elevator is modernized. The upgrade reuses the existing car and platform and sets new wall panels on the supporting shell structure that are separated with stainless steel reveals. As well, the face of the car and the front transom are capped in stainless steel and the hand railings are replaced to suit the current Code.

If the elevator is constructed with unremovable panels, the new look is simulated by adding new panels to the walls of the elevator; however, maximum weight restrictions set by the Code must be taken into account to prevent a structural review of the supporting structure.

## Machine Replacement

A traction elevator machine may sustain sufficient degradation and obsolescence over the years that it will need to be modernized. A complete machine replacement or a partial modernization (such as converting from a DC voltage drive to a variable frequency drive) is possible when changing an existing controller.



## Hydraulic Pumping Units

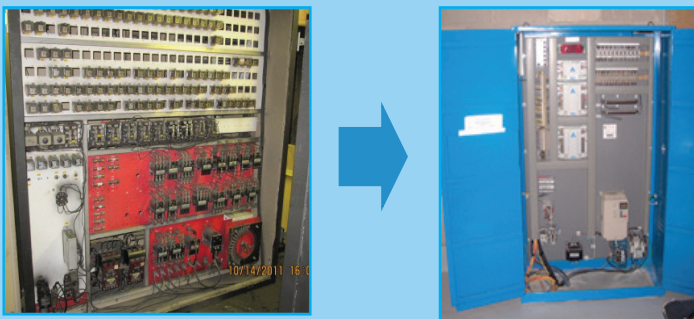
Hydraulic elevator valves and pumping units may need to be partially or fully replaced. Frequent re-levelling, over heating, and erratic stopping at floor levels may indicate that this type of modernization is required. Options available for this type of modernization include:

- Replacement of the entire pumping unit (tank, motor, pump, and valve).
- Replacement of the control valve.
- Replacement of the pump and motor.

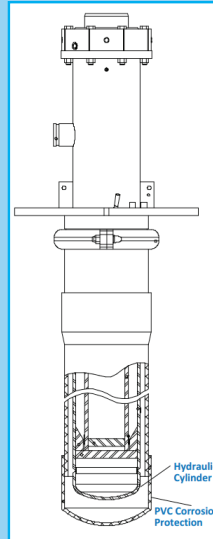
## Controller Replacement

Controllers become obsolete even though elevators have a long service life. New controllers improve monitoring with memory that can store operational logs and quickly point technicians to the root cause of a problem.

Since Delta manufactures its own CSA-approved controller, we have the expertise and knowledge to replace virtually any control system – from accessibility lifts to passenger elevators and freight elevators.



## Cylinder Replacement



New in-ground hydraulic elevator cylinders are protected from corrosion by encasing the cylinder in PVC.

However, some older existing installations without this type of effective corrosion protection could pose a serious safety or environmental issue.

If your elevator cylinder does not have an impermeable barrier like the PVC pipe, we recommend to address this potential issue by considering a replacement.

## Other Upgrades

**Door Operator:** Door operators are prone to continuous wear and to abuse. When replacement parts are no longer available, an upgrade is required. This can include replacement of the entire door operator or of the door re-opening components only.

**Drives:** Drive upgrades can help improve ride quality as well as reduce energy consumption. Often, local power companies approve rebate applications when changing to a VFD (Variable Frequency Drive) when submitted with a pre- and post-evaluation report.

**Safety:** Dramatic advances in safety-related devices and circuitry mean that rider safety has never been as sure. Examples include:

- The introduction of up-direction over speed protection with the addition of a rope brake, which clamps the suspension ropes and prevents movement away from the landing.
- Increased sensitivity in detecting out-of-level floors to help reduce trips and falls and improve navigation for wheel chairs and walkers by keeping floor levels within a 6mm range.

**Accessibility:** The Accessibility for Ontarians with Disabilities Act now provides legislated standards for accessibility lifts and elevators. In many cases, existing units may need to be re-designed to meet these important guidelines in order to provide full and equal building access.