

# G-POWER+

Geared to geared modernization



# IT'S TIME TO MODERNIZE YOUR GEARED ELEVATOR.

As geared elevators age, they decline in performance and energy efficiency while requiring additional maintenance. This can lead to more outages, higher costs and tenant frustration. And your building gets blamed.

## We understand your pain.

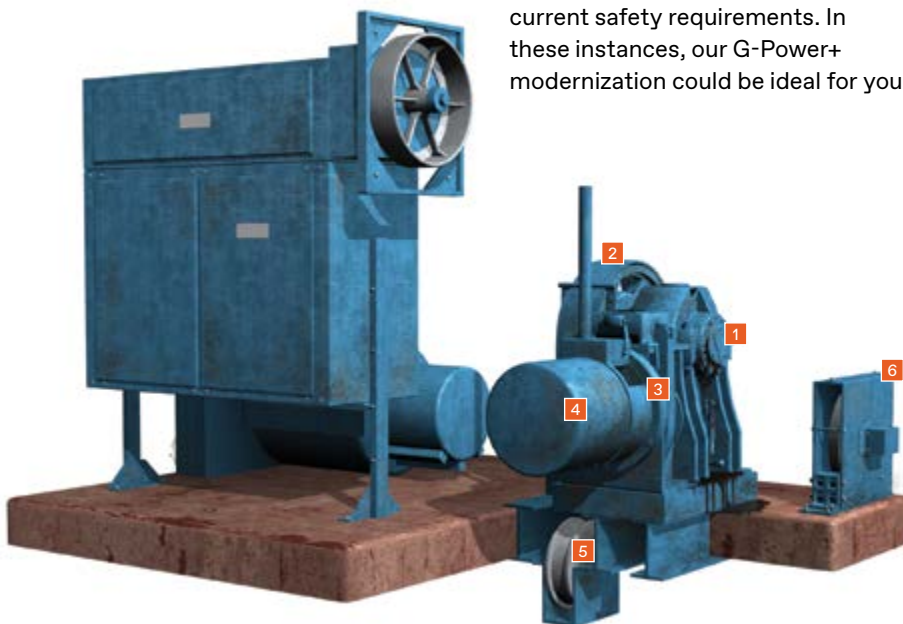
By modernizing your geared elevators with our G-Power+ solution, your equipment will receive new components that improve its efficiency and reliability while lowering its energy use. The process can be affordably completed with minimal equipment downtime.

### An elevator modernization with value for money.

In certain buildings, such as facilities with low traffic or limited size, improving declining elevator performance may not be a high priority. You may only want to enhance your elevator's reliability or energy efficiency. Or you may want to ensure it meets all current safety requirements. In these instances, our G-Power+ modernization could be ideal for you.

With this modernization, your elevator will receive an upgraded machine that includes additional safety features, a new AC variable frequency motor, a new gear box and built-in safety devices. The new machine is designed to work with your existing components. You'll also receive a new advanced microprocessor controller engineered to interface with the new and existing equipment.

By choosing G-Power+, you can count on increased elevator reliability and long-term cost savings.



### Out with the old...

1. Worm and ring gear housing
2. Drive sheave
3. Drum brake
4. Direct current (DC) motor with carbon brushes
5. Deflector sheave
6. Governor (not included, but an optional cost)



## Geared elevators with today's innovations

Geared elevators have been considered a reliable workhorse for decades. But today's geared technology provides innovations that improve elevator efficiency while reducing energy costs.

Modernizing your elevators with upgraded geared equipment — including the latest digital controls, advanced dispatching and an efficient AC-drive system — can be done with minimal building disruption. Along with making your elevators more reliable, this technology will lower your energy costs and helps increase your property value.

### Machine-gear technology

- Permanent magnet AC motor only runs when elevator is in use and significantly reduces energy consumption
- Cleaner system; eliminates carbon dust
- Petroleum-free machine room
- Direct drive technology maximizes energy efficiency
- Smooth ride with minimal vertical vibrations
- Better control and floor leveling
- Auxiliary brake system and unintentional movement device provides additional safety features

### Controller: TAC series

- Advanced technology, including microprocessing, increases reliability
- Adjusts to high-traffic-demand buildings through technology that comprehends changes in patterns

- Self-diagnostics reduce downtime
- Quicker floor-to-floor times
- Load weigher technology eliminates stops when elevator is fully loaded
- MAX predictive maintenance technology reduces elevator downtime through real-time diagnostics

### Sustainable regenerative drives

- Replaces motor generator
- Harnesses unused energy captured for reuse in the building
- Reduces heat, requiring less air conditioning
- Consistent performance
- Less space required
- Smaller environmental footprint

# A safer, more comfortable ride.

After a G-Power+ modernization, your elevator passengers will experience a smoother and safer ride. This is achieved by installing the following components:

- Auxiliary brake system — prevents unintended motion; no additional equipment required
- Elevator car door interlock — ensures doors stay closed from inside of elevator
- Door reversal electronic safety edge — prevents car door from making contact with passengers

## Improved ride quality:

- Reduced vibration — due to new roller guides on the car and isolation pads on the machine bedplate
- Better control and floor leveling — due to controller's SIL 3-rated absolute positioning technology
- Noise reduction — due to an upgraded linear door operator

## TK Elevator quality

State-of-the-art technology requires top-quality products and components — and that's what TK Elevator provides with every modernization. The G-Power+ modernization package features:



### Geared machine

An energy-efficient, geared machine with modular deflector sheave, isolated bedplate, and integrated velocity encoder ensures a smooth, reliable elevator ride. Auxiliary brakes prevent unintended motion. (Shown: TGD-2 model)



### Controller

Microprocessor-based system with diagnostic capabilities and easier troubleshooting than most traction elevators. It comes with MAX, the elevator industry's first cloud-based digitally enhanced maintenance solution.



### Why modernize?

- Increased building value
- Lower long-term maintenance costs
- Regenerative drive actually creates usable energy
- Noise reduction
- Permanent magnet drive motor saves space and energy
- High energy rating
- Smoother ride
- Cleaner machine rooms

# Improved passenger experiences.

From new buttons and indicators to smoother door operation, passengers will instantly notice you've modernized. Our comprehensive selection of fixtures, included with your modernization, is easy to install and safe for walls. All fixtures are in full compliance with U.S. and Canadian National Fire Service Codes.



Horizontal hall lantern

## Hall lanterns

A light fixture mounted in the hallway that provides visual and audible indication that a car is about to arrive and the direction of travel when it leaves.

## Hall stations and position indicators



Intermediate hall station with fire services devices



Combination hall and position indicator

A sleek hall and position indicator combination that can be mounted in your hallway or lobby.

- Informs passengers that a car is about to arrive
- Indicates the direction of travel when it leaves and the relative position of the car in the hoistway

Typically, hall stations includes the fire service switch and signage in the main hall station.



## Universal door operator

Linear door operator with permanent magnet drive motor for quick, smooth and quiet elevator door operation.



Car operating panel

## Car operating panel

Choose from a variety of attractive panel options that contain buttons and key switches necessary for operation.

Mounted inside the car, the car operating panel (COP) includes:

- Call register (floor) pushbuttons
- Door open and door close
- Alarm
- Emergency stop
- Any other buttons or keyswitches required for operation

## Button types

We offer a wide variety of pushbutton styles to coordinate with your building's décor. Each metal button is available in brushed or polished muntz and stainless steel. These have brilliant LED illumination for extended life span. LED illumination is available in blue, white, red or green. Vandal-resistant options available.



Traditional and vandal-resistant (illuminating jewel and halo style)

# ENHANCE EFFICIENCY. REDUCE TRAFFIC.

## AGILE enhances elevators and buildings.

Upgrade your elevators — and your building — by adding AGILE. It combines technologies that give passengers more efficient elevator experiences and reduce building traffic.

AGILE kiosks can display traditional up-and-down mode or floor buttons. Displaying floor buttons indicates the elevators are in Estimated Time to Dispatch (ETD) mode. This intelligent dispatching mode analyzes passenger destination information and groups the riders with similar destinations. This grouping leads to less crowding, fewer stops and more efficient elevator usage.

Optimize your elevator performance and adapt to tenant demands with management center software. Survey traffic, disable and enable operation, view status and control access to certain floors at specified times. You can also generate summaries displaying a range of elevator performance statistics and use this data to make smarter decisions.

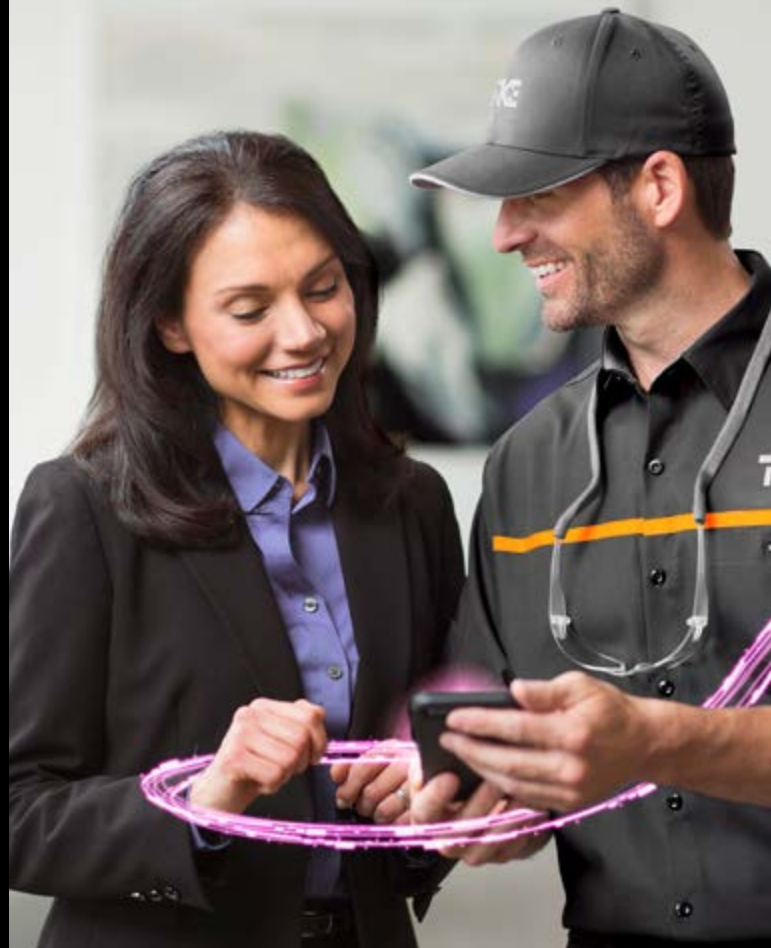
AGILE also integrates with your building's security system, can function as a standalone system and can be used as a card reader to provide floor access. You're also set for future upgrade opportunities with built-in cameras and RFID readers.

You can customize the kiosk backgrounds with preloaded options — or upload your own.



AGILE kiosks can be programmed to handle either traditional up-and-down mode (left) or ETD mode (right) depending on your building's needs.

# MAXIMIZE YOUR UPTIME.



## Get smarter service and less downtime with MAX.

Combining the power of cloud computing, big data and machine learning, MAX continuously collects data about your elevator's components and systems, and sends it to the cloud.

The data is analyzed, and algorithms determine when your elevator will

require maintenance from our technicians. We call this predictive maintenance. It's revolutionary and can reduce your elevator downtime by up to 50 percent.

MAX also determines if an elevator issue is critical and needs immediate attention, or can be solved during

a scheduled visit. All of this means smarter, more efficient maintenance and higher elevator uptime. Plus happier tenants.

We're continuously improving MAX, so you can expect its benefits to get bigger and better over time.



MAX works onsite 24/7/365.



MAX sends equipment diagnostic analysis.



Repairs are completed in less time.

TK Elevator (Canada) Limited  
2075 Kennedy Rd., Suite 600,  
Scarborough, ON M1T 3V3  
P: 416 291 2000  
[www.tkelevator.com/ca-en](http://www.tkelevator.com/ca-en)



All illustrations and specifications are based on information in effect at time of publication approval.  
TK Elevator reserves the right to change specifications or design and to discontinue items without prior notice or obligation.  
© 2023 TK Elevator (Canada) Limited. CA License #C11-651371 | 27170 | G-Power+ modernization brochure - CA-en