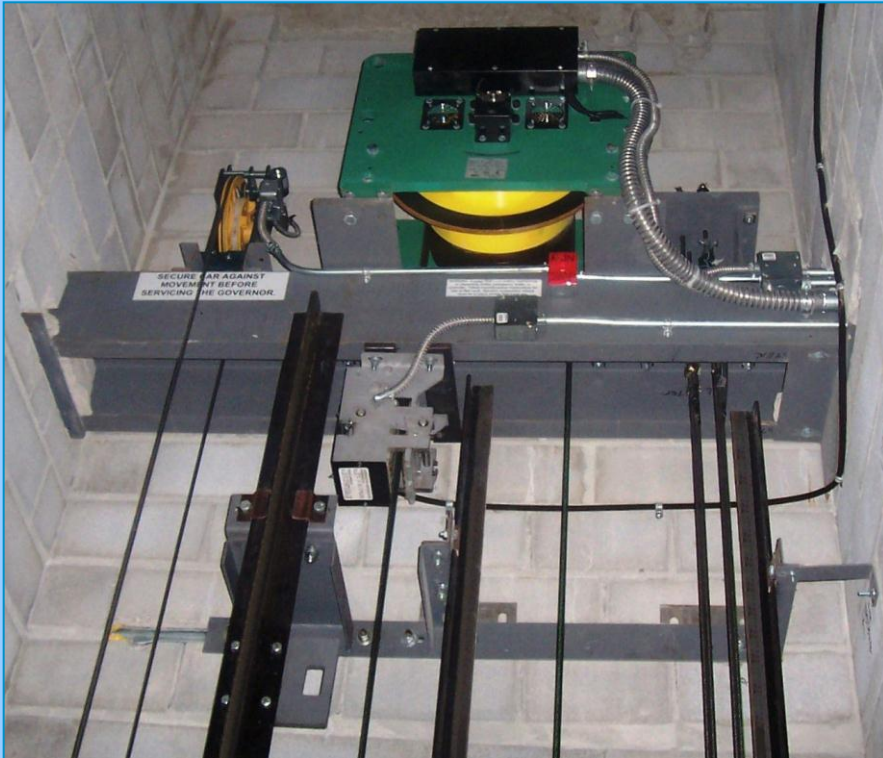


MRL Elevators

by

DELTA
ELEVATOR



The Machine Room-Less Elevator

Save Space

MRL elevators save space by placing the machine in the actual elevator shaft. This allows for more space efficient building designs.

Save Energy

MRLs are a good solution to the relatively high level of energy consumption of elevators. The MRL machines use counterweights, direct drives, and regeneration to reduce energy consumption.

Save Money

There is no need to build a machine room on top of the roof, saving both initial installation costs and ongoing building maintenance costs.

Save Time

When compared with traditional mid-rise hydraulic applications, the MRL can achieve higher speeds. This translates directly into shorter flight times for riders.



Integrity, Service & Quality since 1967

The MRL: A New Approach

The Machine Room-Less (MRL) elevator was developed in Europe, where space constraints for elevators are more severe than in North America.

Traditional elevators require a separate machine room, either for the pumping unit in a hydraulic application or for the machine in a traction application.

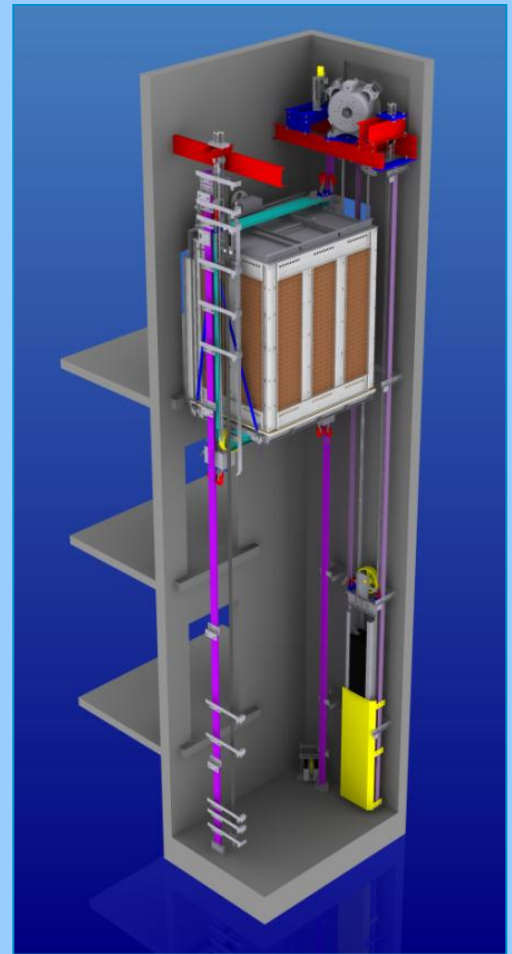
The key initial benefit of the MRL elevator was that these machine room spaces were no longer required since the machine was placed directly in the elevator shaft.

It is important to note that MRL elevators still require a secure room for the controller and associated components, as current regulations do not allow these to be located in the shaft.

However, the ancillary benefits of this new drive configuration – savings in time, money, and energy - has led to a growing market share in North America and worldwide.

The heart of the MRL is the compact gearless machine that is sized to fit directly in the elevator shaft.

Gearless technology combines a smooth, quiet ride, extremely accurate levelling ability, and energy efficiency through the use of counterweights and regenerative drives.



Elevator Configurations

When it comes to elevators, no one type fits all applications.

An MRL elevator is an excellent configuration choice in certain circumstances, such as mid-rise buildings, but may not be suitable for other applications.

Delta's Sales staff can provide pre-contract design consultation to assist you in choosing the best configuration for your specific needs.

Some building factors to consider when deciding whether to use a traction, MRL, hydraulic, or LULA elevator include:

- the availability and location of a machine room space,
- the building size and use,
- budget limitations,
- capacity requirements,
- serviceability needs, and
- energy consumption levels.

Delta also has expertise in accessibility lifts, LULAs, hydraulic elevators, freight elevators, and traction elevators.

MRL Passenger Elevator Specifications

Capacity (kg)	910	950	1160	1200	1365	1587	1587	1815	2050	2050
Orientation	Wide	Deep	Wide	Deep	Wide	Deep	Wide	Deep	Wide	Deep
Cab Size										
Width (mm)	1726	1370	2032	1406	2032	1610	2032	1598	1698	1598
Depth (mm)	1300	1726	1300	2032	1406	2032	1610	2364	2364	2554
Height (mm)	2286	2286	2286	2286	2286	2286	2286	2286	2286	2286
Door Width (mm)	914	914	1067	1067	1067	1067	1067	1219	1219	1219
Hoistway										
Width (mm)	2539	2183	2845	2219	2845	2423	2845	2448	2548	2448
Depth (mm)										
• Front Entrance Only	1800	2302	1800	2608	1906	2608	2110	2940	2940	3130
• Front & Rear Entrances	2036	2614	2036	2920	2142	2920	2346	3252	3252	3442
Speed of 0.75 – 1.00 m/s										
Pit Depth (mm)	1626	1626	1626	1626	1626	1626	1626	1676	1676	1676
Overhead (mm)	4500	4500	4500	4500	4500	4500	4500	4750	4750	4750
Speed of >1.00 – 1.75 m/s										
Pit Depth (mm)	1676	1676	1676	1676	1676	1676	1676	1750	1750	1750
Overhead (mm)	4725	4725	4725	4725	4725	4725	4725	4975	4975	4975

Control Room Details

Control Room Type	Simplex		Duplex	
	Room (with 914 mm door swinging outward)	Closet (with 1829 mm double swing doors)	Room (with 914 mm door swinging outward)	Closet (with 1829 mm double swing doors)
Located Beside Hoistway	Hoistway depth x 1524 mm	Hoistway depth x 914 mm	Hoistway depth x 1829 mm	N/A
Located Behind Hoistway	Hoistway width x 1524 mm	Hoistway width x 914 mm	Overall hoistway width x 1524 mm	Overall hoistway width x 914 mm (2 sets of double doors)
Height	3000 mm			

Features & Applications

- Governed by the CSA-B44 Elevator Code
- Capacity: 910 – 2050 kg
- Speed: 0.75 – 1.75 m/s
- Non-proprietary configuration and components
- Safety features:
 - Infra-red door curtain
 - Emergency cab lighting
 - Emergency phone

MRL passenger elevators are ideal for mid-rise buildings with higher speed requirements and where the presence of a rooftop machine room is not desirable or possible.

In addition to the standard designs listed above, Delta's in-house engineering department has the ability to meet your unique MRL needs.

Please call us to discuss other MRL elevator capacities, hoistway dimensions, or control room configurations.

Unlike other MRLs, the Delta MRL includes a rope gripper to prevent unintended motion. Talk to us about this important safety feature!

Who We Are

Delta has been in business since 1967, and has offices in the GTA, Peterborough, Owen Sound, and Kitchener, servicing Southwest and Central Ontario. With proven experience in new elevator construction, maintenance, repairs, and modernizations, Delta's products and services are high quality and field-tested.

Delta's commitment to **Integrity, Service, and Quality** results in elevator products and services with superior reliability.



Quality Design, Manufacture, Installation and Service

As a leader in the elevator industry, Delta provides clients with:

✓ **Coverage throughout Southwest and Central Ontario**

Delta has mechanics permanently stationed in Woodstock, Owen Sound, Kitchener, Mississauga, and Peterborough. This allows customers to single source Delta as their elevator supplier for all properties located within this extensive coverage area. The result is a uniformly superior quality level as well as easier project management.

✓ **Design consultation and specification writing and reviews**

Delta's sales staff are qualified to assist with design consultation from the earliest part of your building project. Our staff can also help create a new elevator specification or provide feedback on existing specifications. **We believe that it is more important for you to have the right elevator even when it may not be a Delta elevator.**

✓ **In-house elevator mechanics registered with the TSSA**

Delta achieves high quality installations through the use of its own mechanics, as opposed to contracting this important function out to others. Delta's carefully screened staff are licensed mechanics or enrolled in the apprenticeship program. All employees undergo rigorous on-the-job and in-the-classroom technical training, as well as thorough safety training.

✓ **40+ years of elevator industry experience on all styles of elevating devices in Ontario**

Delta has career elevator staff in all areas of its operation: Sales, engineering, manufacturing, maintenance, and construction. This means Delta can meet virtually all of your elevator needs, and provide a solution to even the most challenging problem. **If a standard elevator is not a viable solution, Delta has the resources and experience to design, manufacture, and install a custom unit.**

Delta continues to lead the way in providing clients with products and services that exceed expectations.