

Modular Gearless Machines

For mid-rise elevators



Schindler's gearless machine upgrade is the next logical step when modernizing your older mid-rise elevators. This modular package replaces your older geared machines with Schindler's proven gearless machines, creating an unbeatable value that delivers significant benefits.

With Schindler modular gearless machines for mid-rise elevators you can expect:

- Modular design means machine is delivered unassembled, easing installation into an existing machine room.
- Smoother, quieter ride performance
- More efficient energy usage from Schindler's Power Factor 1 regenerative drives
- Space saving design. Schindler's suspension traction media (STM) replace conventional cables and require a significantly smaller sheave.
- Fast, reliable operation.

Subsection on modular

Schindler modular gearless machine for mid-rise buildings is specifically designed to be used in existing machine rooms, while maintaining optimized ride quality. It's compact design and minimum dimensions allow the parts to fit through standard machine room doors, and be assembled in the machine room.

KT
Kits

AC
Accessories

CW
Counter-weights

SA
Safeties

FI
Fixtures

CA
Cars

DO
Doors

MM
Mechanical material

CO
Controls

DR
Drives

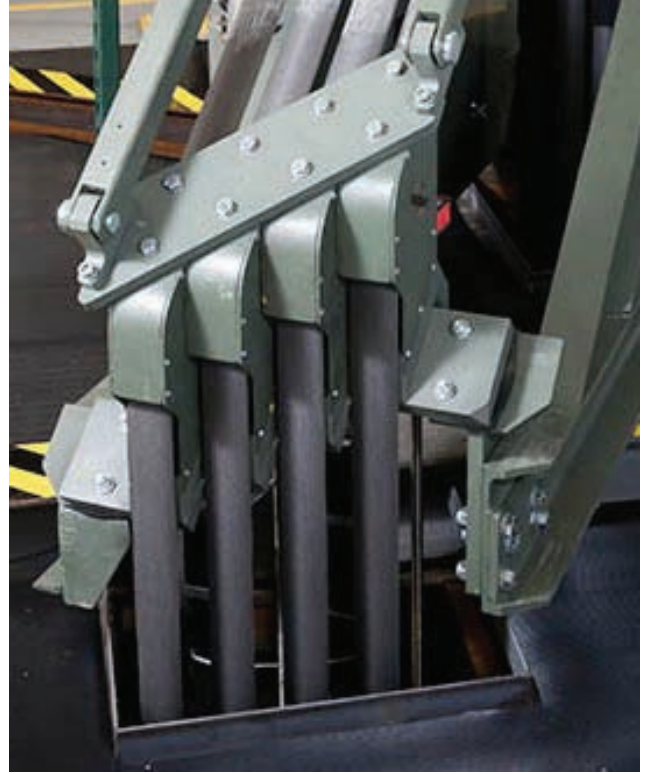


Schindler gearless machines save energy, space and time

Suspension Traction Media (STM)

The STM consists of thin metal cables sheathed in a non-circular EPDM (Ethylene Propylene Diene Monomer) jacket. Schindler gearless machines for mid-rise elevators use three to five STM depending on system requirements. STM design is inherently strong, lightweight and compact.

- Replaces conventional steel cables
- Requires no petroleum-based lubricants
- Smooth, quiet, precise operation
- More flexible than inelastic steel cables, providing space savings.



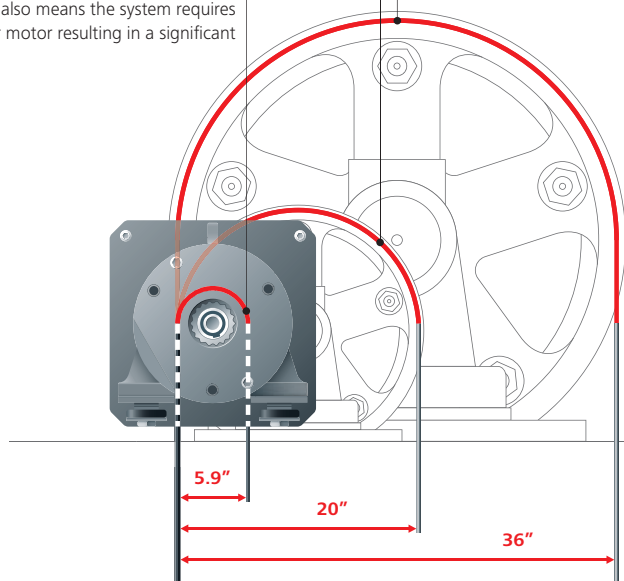
The STM advantage

Previously: steel cables

Steel cables on mid-rise elevators need a traction sheave diameter of 20" to 36". The complete conventional motor, including drive gears must be large enough to match and therefore requires considerable space.

New: Suspension Traction Media (STM)

Suspension traction media use a traction pulley that is only 5.9" in diameter. A much smaller sheave also means the system requires a much smaller motor resulting in a significant space savings.



Energy-efficient drive system

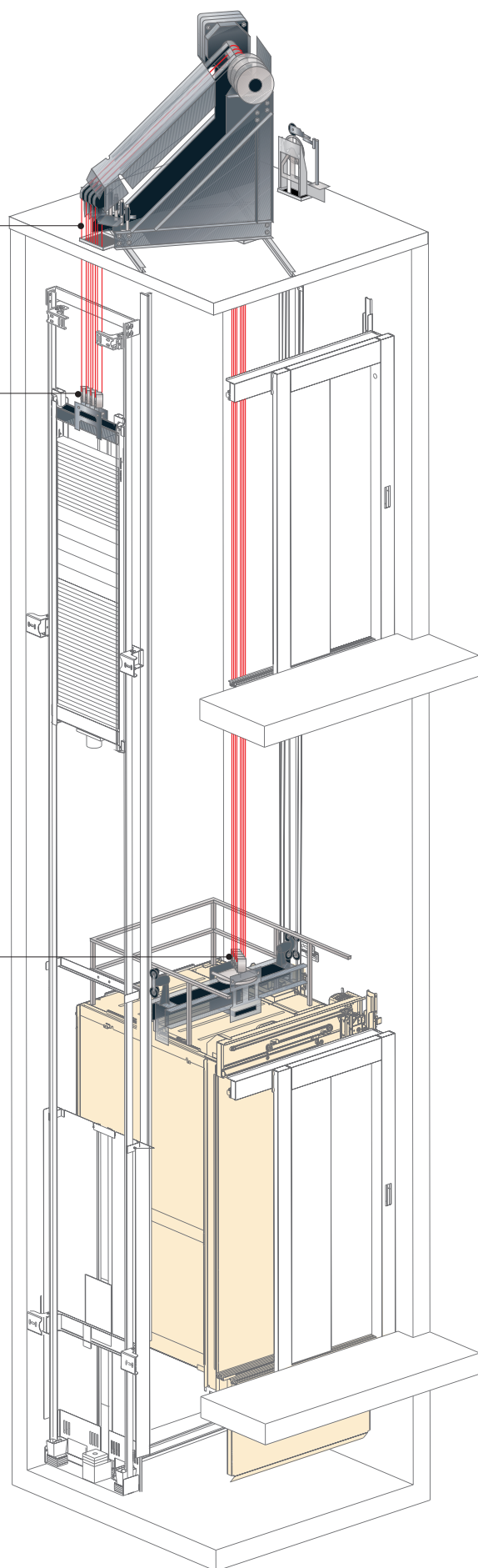
The Schindler mid-rise gearless package is designed to complement Schindler's Power Factor 1 drives. Power Factor 1 energy-efficient, regenerative drives are designed to return energy to your electrical grid instead of wasting it as heat. The mid-rise gearless machine helps users realize the full benefits of the PF1 drive technology. These gearless machines, using suspension traction media, utilize a sheave whose diameter is three to six times smaller than conventional geared systems. They deliver smooth, quiet, gearless operation.

- Less net power usage means lower monthly utility bills
- Possibility of rebates from government-sponsored and local utility programs
- Potential to earn points toward LEED certification for existing buildings
- Dual brakes for added safety
- Modular design allows easier delivery and faster installation
- Replaces inefficient geared machines.

STM leave the gearless machine in a staggered configuration to align precisely with the STM adapter on the counter weight.

STM adapter connects STM to counter weight frame.

STM adapter connects STM to the car top. Adapter is adjustable to accommodate machine placement.



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Main specification

| | |
|------------------|--------------------------------------|
| Travel height | ≤ 250 ft, 76 m* |
| Rated speed | 200 to 500 ft/min, 1.0 to 2.54 m/sec |
| Rated load (car) | ≤ 5500 lb, 2500 kg |
| Roping | 2:1 |
| Code compliance | Global |

* Maximim travel height according to drive calculation.

Application range

| | |
|-------------------|------------------------------------|
| Travel height | 33 to 250 ft, 10 to 76 m |
| Actual car weight | 1800 to 8500 lbs, 816.5 to 3856 kg |
| Rated car load | 1100 to 5500 lbs, 500 to 2500 kg |
| Rated car speed | 200 to 500 fpm, 1 to 2.54 m/sec |

Note:

The chart above represents the general application range. The selection of the correct machine must be determined for each case. The gross weight of the car and the speed have to be taken into account.

Characteristics

| | |
|-----------------------------|-----------------------------|
| Number of starts per hour | 240 |
| Degree of protection | IP 21 |
| Rated motor output | Max. 49.3 kW |
| Rated voltage of motor | 415 V / 460 V |
| Rated frequency | 15 Hz |
| Sound level of machine | ≤ 65 dba (at nominal speed) |
| Traction sheave | |
| – Wrapping | Single |
| – Diameter | 150 mm |
| Width of suspension STM | 60 mm |
| Distance between rope falls | 1000 mm – 1525 mm |
| Number of STM | 3 to 5 |
| Reviewing Factor | 2:1 |

For further information, including location of the Schindler office nearest you, please contact:

U.S. Headquarters. Morristown, New Jersey
Toll-Free 877.696.8382
www.us.schindler.com

Canada Headquarters. Toronto, Ontario
Tel. 416.332.8280
www.ca.schindler.com



Schindler Holding has been named as one of the 100 most innovative companies in the world by the leading American business magazine, *Forbes*.



Schindler is a member organization of the U.S. Green Building Council.



Schindler has received renewal to ISO 14001:2004 and ISO 9001:2008 certificates.



Schindler prints with vegetable-based ink on paper containing post-consumer waste fiber.

