



Schindler 3300 MRL Product Family Distinctive design. Cost-effective solution. Green technology made easy.

For use in California





Value has a new, intelligent design

The world's most enlightened elevator

The Schindler 3300 MRL has proven itself globally as the smartest choice for low-to mid-rise commercial and residential buildings.

That's because it is engineered like no other everyday elevator. It offers a distinctive range of design and aesthetic options along with an amazingly smooth performance that uses less energy and makes less noise. All in a smaller, easy to fit footprint.

It's setting the new global standard.

More room. More usable space.

As architects and engineers around the world can attest, the Schindler 3300 MRL is designed to minimize the space required for technical equipment, while maximizing the square footage of the cab interior.

Thanks to our new easy-to-install suspension traction media, hoistways designed for a hydraulic elevator can now accommodate a more spacious traction elevator.

What's more, it requires minimum overhead, eliminating unsightly structures on your roof. All told, the Schindler 3300 MRL gives you more space and reduces construction costs.

Fast facts:*

Capacity (lbs.)	2,100 - 3,500 GP, 4,000 GP/HS, 4,500 HS, 5,000 HS
Travel height	Maximum 170 feet
Stops/Openings	24 openings maximum
Door width	36", 42", 48", 54"
Door height	7', 8', 9'
Drive	Regenerative drive standard
Speed	100 FPM, 150 FPM, 200 FPM, 350 FPM
Control	Selective collective
Interior	Powder coat, plastic laminate or brushed stainless steel

^{*}Not all features on all capacities, please contact your local Schindler sales representative for details.

Smooth to the eyes and ears

Schindler cabs are constructed using only high-quality materials. And with standard palettes that are anything but "standard," we can provide exceptional looks, while keeping lead times and costs down. From stainless steel to a distinctive collection of attractive color laminates, your design choices are easier than ever before.

To add to the aura, we are also working to reduce noise. Our suspension traction media enables the Schindler 3300 MRL to glide peacefully through your building. Elevator movements go virtually unnoticed — which will certainly be appreciated by guests in your building.

Sophisticated design for our passengers and our planet

With automatic evacuation available, we've elevated our focus on safety. In the event of a power failure, you will be taken safely to the next floor.

We're also setting a new standard in conservation. The Schindler 3300 MRL is economical in its use of energy, which contributes to lower operating costs and a smaller carbon footprint. The effects are highly visible.

Efficient and sustainable mobility

In architecture, in engineering, in everyday life, there is a global movement toward sustainability. There is a growing demand for solutions that benefit the planet as much as they do people. At Schindler, we are proud to be at the forefront of this initiative. In every facet of our business, we are looking for ways to become better stewards of the planet.

The Schindler 3300 MRL is the hallmark of our environmental efforts. When designing this elevator, sustainability was not an afterthought, but the driving force behind every decision we made. As a result, the Schindler 3300 MRL offers more eco-friendly features than one might have thought possible.

Drive

- Regenerative drive standard
- Gearless machine designed to save energy and avoid power loss
- Stable start uses energy more efficiently and reduces electric costs
- Frequency converter with standby power mode allows elevator to return safely to nearest floor in the event of a building power outage
- Compact, lightweight and durable design.

Control

- Controls automatically switch car lights to standby mode to save energy
- Car panel and floor indicators all operate with low power, LED lights
- Multi-bus control architecture reduces cabling, material and waste
- Smart controls provide more efficient passenger transportation.

Cab and hoistway

- Car lighting equipped with energy-efficient lamps
- Central guiding system reduces friction and overall energy consumption
- Door drive with standby mode uses less electricity
- Overall design provides more usable space for enhanced passenger comfort.

Environmentally-responsible company

We are working to make our entire operation more ecofriendly. We have instituted more ecologically responsible production systems and material usage. We are able to manage installations faster and more efficiently. And our products and services are designed to provide energyefficient and eco-friendly options to architects, contractors, building owners and managers.

What's more, Schindler is a member of the U.S. Green Building Council and supports the LEED® Green Building Rating System.

The following categories of the LEED rating system are areas where Schindler can assist you in obtaining the necessary credits for accreditation





LEED RATING SYSTEM VERSIONS 3 AND 2.2

Energy and Atmosphere

Prerequisite 1 Fundamental Commissioning of the Building Energy Systems

Credit 1
Optimize Energy
Performance

Materials and Resources

Credit 2.1 and 2.2 Construction Waste Management

Indoor Environmental Quality

Credit 4.1 Low – Emitting Materials: Adhesives and Sealants

Credit 4.2 Low – Emitting Materials: Paints and Coats

Credit 4.4 Low – Emitting Materials: Composite Wood and Agrifiber Projects

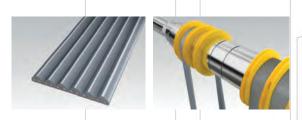
Technology advanced Perfection attainable

Drive system

The Schindler 3300 MRL requires a small hoist machine and inverter. A separate control room is required by local code. The optimum location is at the top landing adjacent to the hoist way, but can be located up to 145' of wire run, away from the machine in the overhead. Please contact your local Schindler Sales Representative for additional information. The system stops the car with precision. Cab and landing floor line up very accurately to ensure that passengers get in and out safely. The system is economical in energy consumption and causes minimal noise due to the material of the suspension traction media (STM) in the elevator and in the entire building. Real comfort.

Suspension Traction Media (STM)

The STM consists of thin metal cables sheathed in a noncircular polyurethane jacket. They replace conventional steel cables, weigh less, require less space and run quieter. Optional fire resistant STMs are available, eliminating the need for sprinklers and shunt trip interruptions in the hoistway.



Doors

Doors are equipped with a frequency-controlled drive for fast and reliable operations. Two-speed side-opening doors opening to the left or right, as well as single-speed center-opening doors are available.

Cab

Technology does not take much space in the Schindler 3300 MRL. This is an obvious benefit that allows hydraulic elevator-sized shafts to be utilized while providing a larger cab interior. This is a striking advantage.

We put a premium on design, without charging a premium.

Schindler 3300 MRL cabs

The Schindler Optimized 3300 uses an optimized cab design that reduces system weight, energy consumption and installation times. Constructed using high-quality, high-strength materials they are more stable, quieter and roomier for increased passenger comfort. Lighter cabs also require less operating power and consume less energy.

All around the world, architects and designers are discovering a new creative outlet. Conceptualized by an Italian designer, the Schindler 3300 MRL's sleek cab design is impressive yet understated. Simple, yet refined, with design palettes to suit any style or building décor.

- Cab walls are available in stainless steel, powder coat or a choice of plastic laminates.
- The unique ceiling design comes standard in brushed stainless steel.
- Ceiling lighting comes standard with classic LED round spot downlights.
- Elegant handrail options include a round design in brushed stainless steel and a rectangular design in brushed aluminum. Both handrail designs are available in cut and return ends.
- Landing doors are available in brushed stainless steel, various colors of durable powder coat or primer.
 Doors are available in center-opening or side-opening configurations, with left-hand or right-hand openings.
- Hall fixtures are composed of stainless steel and tempered safety glass panels, back-printed in white, to give the Schindler 3300 MRL a contemporary, modern look.

Note: For more information on the high fashion details we designed into the Schindler 3300 MRL, be sure to ask for a copy of our Deco brochure, which includes all décor and accessory options. The car specifications, options and colors in this brochure are representative only and are subject to change. Sample shown may vary from the original in color and material.



Laminate – Long Beach Blue



Brushed stainless steel







Hall fixtures



Handrail — round, return end



Ceiling lighting - standard LED round spot downlights*



Handrail — rectangular, cut end

 $^{^*\}mbox{Quantity}$ of LED round spot downlights depends on the elevator size/configuration.

If you can envision it, you can create it

The Schindler 3300 MRL gives you a wide selection of durable powder coat or colorful laminate finishes, as well as a sleek brushed stainless steel cab. Create a look and feel that is truly one of a kind.



Distinctive brushed stainless steel cab is an optional upgrade

Powder coated painted walls Fresh, flashy and multifaceted





Montreal Blue

Powder coat colors

Laminated Walls Warm, distinguished and genuine







Laminates with subtle, wavelike design

Laminated Walls Clean, cool and cutting edge







These laminates provide a clean, cutting-edge aesthetic

Steely, sophisticated and elegant



Toronto Grey



Laminates with subtle, monochromatic patterns

Rich, natural and classic

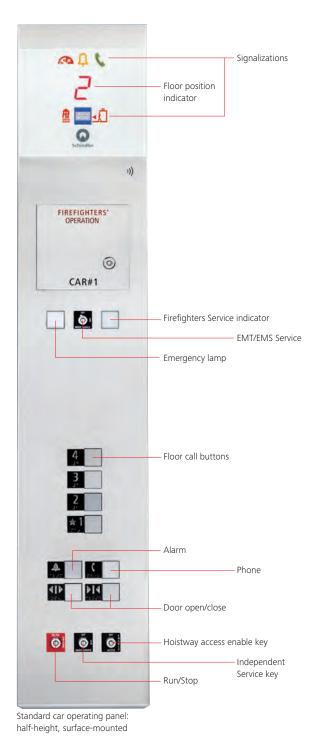


Baltimore Cherry



Rich, wood-grain color laminates

Stylish and smart elevator fixtures that meet California Building Code



The features and components of the Schindler 3300 MRL are smartly designed to enhance the rider experience, improve safety and minimize downtime. From the low-energy multiprocessor controls to the stylish, tempered safety glass operating panels, you'll find the latest technological advances.

Fixtures

The stylish stainless steel and tempered safety glass panels give the elevator a contemporary, modern look while meeting all applicable codes.

Car operating panel

Standard: Stylish stainless steel and tempered safety glass

- Door open/close and alarm buttons
- Braille
- Visual and audible confirmation of the call
- Position indicator
- Concealed Phase II Firefighters Service operation
- Attractive, metallic-finished push button frame and blanks.

Signalizations on car operating panel:



Voice communication: The pictogram for "voice communication established" shall be placed on the top part of the car operating panel. The color of this symbol is green. This symbol shall only be visible if activated.



Earthquake: The official pictogram for "earthquake" shall be placed in the top part of the car operating panel. The color of this symbol is red. The symbol is only visible if active.



Overload protection: The official pictogram for "overload" placed on the top part of the car operating panel, the information can also be visible with letters "OL" in the car position indicator. The color of the symbol/letters is red. For the audible warning, the buzzer element is also a requirement. A potentiometer (volume adjustment) is directly mounted on the fixture PCB.



Central alarm: The official pictogram (bell-shaped symbol) for "alarm is given/alarm sent" confirmation shall be placed on the top part of the car operating panel. This symbol shall only be visible if activated. The color of this symbol is yellow. The symbol must be solid filled.

Optional Car Operating Panels

In addition to the standard half-height car operating panel there is an optional fixture line offering a full length, flush mounted car operating panel. This optional fixture line is also available in a vandal resistant design.

Please refer to Schindler's Deco brochure and the Schindler Fixtures brochure for more information on all decor and fixture options.



Optional car operating panel: full-length, flush-mounted



Optional car operating panel: full-length, flush-mounted, vandal resistant

Landing operating panels that meet California Building Code

Fixtures

The stainless steel and glass panels, back-printed in white, give the elevator a contemporary, modern look.



Landing operating panels

Each Schindler 3300 MRL comes equipped as standard with stylish pushbutton stations in the hall. Landing indicator with direction arrows can be installed in the jamb wall mounted fixtures can also be selected as optional vandal resistance.

Standard:

- Stylish stainless steel with tempered safety glass accent, with pushbuttons
- Jamb mounted for fewer building interfaces
- Call acceptance both visual and audible
- Raised, tactile circle for positive contact assurance



Indicator fixtures

- Direction arrows with position indicator at each floor, jamb mounted
- Pre-announcing arrows on each floor with audible signal.

Note: The car specifications, options and colors in this brochure are representative only and are subject to change. Sample shown may vary from the original in color and materials.

The traction elevator you've been waiting for – optimized for two- to three-story buildings

If hydraulic elevators have been the workhorses of the low-rise market, the Schindler Optimized 3300 MRL is a comparably priced traction thoroughbred. It's easy to order, simple to install, a pleasure to ride, provides space and energy saving, and of course ... it's reliable and safe.

An enlightened elevator

The Schindler Optimized 3300 MRL is the smart choice for two- or three-stop commercial and residential buildings. That's because it is engineered like no other low-rise elevator. It offers a distinctive range of design and aesthetic options along with an amazingly smooth performance that uses less energy, makes less noise and fits easily into a traditional hydraulic elevator hoistway.

Performance and value

The Schindler Optimized 3300 MRL traction solution provides all the benefits of our highly regarded Schindler 3300 MRL but configured cost-effectively for the low-rise market. It delivers the same level of product quality, easy installation and safe, reliable service.

Fast facts:

Capacity (lbs.)	2,100 – 3,500 lbs. 13 – 21 passengers
Travel height	Max. 56 feet
Stops/Openings	3 stops, with up to 3 front and 3 rear openings
Door width	36 – 42 inches
Door height	84 inches
Drive	Regenerative drive standard
Speed	100 FPM
Control	Selective collective
Interior	Powder coat, plastic laminate or brushed stainless steel

MRL Traction vs. MRL Hydraulic

	Traction	Hydraulic
Energy efficient		
Eco-friendly	V	_
Space saving	V	V
Smooth ride	V	_
Low noise	V	_
No odor	V	_
Large cab	V	_
Fits standard hoistway	V	V
Affordably priced		V

Schindler 3300 MRL/Optimized 3300 MRL California Hoistway Dimensions

(control room sizes may be different for the Expanded 3300)

Standard Speeds: 100, 150 fpm (0.5, 0.75 m/s) 16 Openings max

Travel: Up to 98'-5" (30.0 m)

For jurisdictions following ASME A17.1 code prior to 2009, please add 1 additional inch of overhead at 150 FPM.

Capacity 2100 - 3500 lbs, 13 - 21 passengers

Capac- ity	Pas- sen- gers max.	Speed	Num- ber of stops max.	Avail- able en- tranc- es max.		Car (Inside)		Door			Shaft (Inside)			Travel height max.							
lbs (kg)		fpm (m/s)			A in (mm)	B in (mm)	C in (mm)	Door type	D in (mm)	E in (mm)	Entrance type (x)	F _(vii) ft (mm)	G ft (mm)	H (viii) ft (mm)	l (iii) (iv) ft (mm)	J (vi) ft (m) / FPM (m/s)					
2100	1 13 1	10100/150	10	15	5'-9 ⁵ /16"	4'-4 7/8"	7′-9″	2550	3'-0"	7′	Front or Front/	7'-8"(vii) (2235)	5'-9" (1755)	5'-0" (1524)	12'-7" (3835)						
(950)		(.5/.75)			(1761)	(1343)	(2366)		(915)	(2134)	rear	7'-8"(vii) (2235)	6′-5 ⁵ /8″ (1972)	5'-0" (1524)	12'-7" (3835)						
2500	15	100/150	10	15	6′-9 ⁵ /16″	4'-4 ⁷ /8"	7′-9″	2550/	3'-6"	7′	Front or Front/	8'-8"(vii) (2540)	5'-9" (1755)	5'-0" (1524)	12'-7" (3835)	98′-5″					
(1135)	15	(.5/.75)	10	15	(2066)	(1343)	(2366)	SSCO	(1067)	(2134)	rear	8'-8"(vii) (2540)	6′-5 ⁵ /8″ (1972)	5'-0" (1524)	12'-7" (3835)	(30.0) / 150 (.75) 59'					
3000	000 18	100/150	10	10 15	6′-9 ⁵ /16″	′ 4′-10 ⁷ /8″	7′-9″	2SSO/	3'-6"	7′	Front	8'-8"(vii) (2540)	6'-3" (1905)	5'-0" (1524)	12'-7" (3835)	(18)/100 (.5)					
(1360)	10	(.5/.75)	10	15	(2066)	(1495)	(2366)	SSCO	(1067)	(2134)	or Front/ rear	8'-8"(vii) (2540)	6'-11 ⁵ /8" (2124)	5'-0" (1524)	12'-7" (3835)						
3500	24	24	24	24	2.1	21	100/150	10	15	6′-9 ⁵ /16″	5′-6 ⁷ /8″	7'-9"	2550/	3′-6″	7′	Front	8'-8"(vii) (2540)	6'-11 ¹ /16" (2110)	5'-0" (1524)	12'-7" (3835)	
(1590)	21	(.5/.75)	10	15	(2066)	(1699)	(2366)	SSCO	(1067)	(2134)	or Front/ rear	8'-8"(vii) (2540)	7'-7 ⁵ /8" (2328)	5'-0" (1524)	12'-7" (3835)						
					B Insid C Insid unde	e cab width e cab depth e cab heigh erside of roc de cab heigh ned ceiling is 8/16" (2265).	t to f. nt to	2SSO 2-speed side opening (i) SSCO Single speed center opening D Door Width E Door Height				G Sha	ft width ft depth depth rhead								

Notes:

All dimensions are for information only and cannot be used for construction purposes without Schindler confirmation.

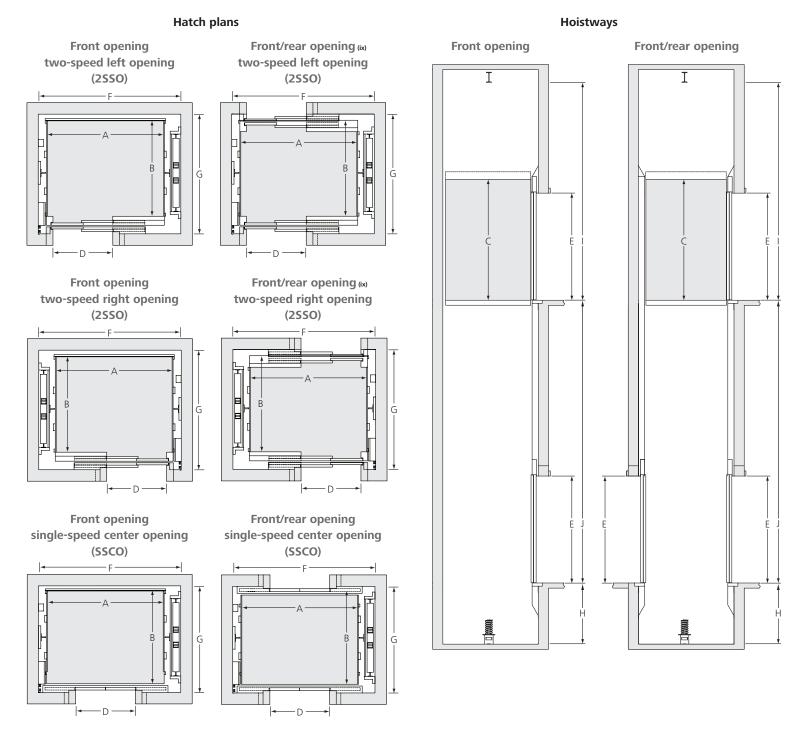
- (i) 2SSO doors available with right or left opening.
- (ii) Duplex operation available.
- (iii) Clear overhead is defined from the lowest point below any obstruction such as: hoist beam(s), building beams, or roof structure to floor of top landing. For jurisdictions following ASME A17.1 code prior to 2009, please add 1 additional inch of overhead at 150 FPM.
- (iv) Where permitted by code, no control closet is required. A 3-phase disconnect must be located in both the hoistway overhead and a location in the building outside of the hoistway. 110v disconnect should be located outside of hoistway. Disconnects are not required to be an elevator-dedicated space. Please confirm with local requirements.
- (v) Travel height max. varies depending on speed (FPM) and capacity (lbs).
- (vi) Please contact your Schindler Sales Representative for additional hatch options such as diagonal entrances.
- (vii) Shaft dimensions depend on if there are front or front/rear entrances.

Schindler Expanded 3300 Planning Data

Standard Speeds: 150, 200, 350 fpm (0.5, 0.75, 1.78 m/s)

Stops, Openings: 24 openings max

Travel: Up to 170' (52 m)



General Purpose, Hospital/Service Specifications and Layout Data

	Cab Width	Cab Depth		Door Width	Hoistway Width	Hoistway Depth				Clear Overhead ³		Pit Depth
Load Capacity lbs (kg)		4.9	Door Type				4*	Speed fpm (m/s)	Height ft-in (mm)	\$		**
(9)	ft-in (mm)	ft-in (mm)	Door height (7', 8', 9')	ft-in (mm)	ft-in (mm)	Front only ft-in (mm)	Front & Rear ft-in (mm)			PU Buffer Minimum ⁵ ft-in (mm)	Spring Buffer Minimum ft-in (mm)	⁵ PU Buffer/Spring Buffer Minimum ft-in (mm)
General P	urpose											
3,500	6'-4 ⁹ /16" (1945)	5'-6 ¹⁵ /16" (1700)	SSCO	3'-6" (1067)	8'-8" (2540)	6'-11 ¹ /16" (2110)	7'-4 ¹ /2" (2248)		7'-9" (2362)	12'-7" ⁵ (3835)	12'-11 ¹ /4" (3942)	5'-0" (1524)
(1,590)	6'-4 ⁹ /16" (1945)	5'-6 ¹⁵ /16" (1700)	2SSO	3'-6" (1067)	8'-8" (2540)	6'-11 ¹ /16" (2110)	7'-7 ¹¹ /16" (2328)	150 (0.76)	9'-0" (2743)	13'-10" ⁵ (4216)	14'-2 ¹ /4" (4323)	5'-0" (1524)
4,000 (1,815)	7'-4 ³ /16" (2240)	5'-7" (1700)	SSCO	4'-0" (1219)	9'-8" (2843)	6'-8 ¹ /8" (2035)	7'-4 ³ /16" (2240)		10'-0" (3048)	14'-10" ⁵ (4521)	15'-2 ¹ /4" (4628)	5'-0" (1524)
	•	•				•			7'-9" (2362)	12'-8" ⁵ (3858)	13'-4 ³ /16" (4068)	5'-0" (1524)
Hospital S	ervice							200 (1.02)	9'-0" (2743)	13'-11" ⁵ (4239)	14'-7 ³ /16" (4449)	5'-0" (1524)
4,000 (1,815)	5'-4 ¹ /4" (1632)	7'-8 ¹ /2" (2350)	2SSO	4'-0" (1219)	7'-8" (2235)	8'-11 ⁵ /16" (2725)	9'-9" (2970)		10'-0" (3048)	14'-11" ⁵ (4544)	15'-7 ³ /16" (4754)	5'-0" (1524)
4,500 (2,040)	5'-4 ¹ /4" (1632)	8'-2 ¹ /2" (2500)	2SSO	4'-0" (1219)	7'-8" (2235)	9'-5 ³ /16" (2875)	10'-2 ⁷ /8" (3120)		•		'	
5,000 (2,270)	5'-4 ¹ /4" (1632)	8'-8 ⁵ /16" (2650)	2SSO	4'-0" (1219)	7'-8" (2235)	9'-11 ¹ /8" (3025)	10'-8 ³ /4" (3270)			Oil Buffer ft-in (mm) 13'-4" (4060)		Oil Buffer ft-in (mm)
	5'-10 ⁷ /8" (1800)	8'-8 ⁵ /16" (2650)	2SSO	4'-6" (1372)	8'-2 ⁵ /8" (2504)	9'-11 ¹ /8" (3025)	10'-8 ³ /4" (3270)	3,500 lbs only	7'-9" (2362)			5'-0" (1524)
								350 (1.78)	9'-0" (2743)		^{' 3} /16" ₁₄₉₎	5'-0" (1524)
									10'-0" (3048)		' ³ /16" "54)	5'-0" (1524)

Notes:

- 1. 2SSO doors are available with right or left openings as are optional diagonal doors, if necessary for stretcher compliance. Please contact your local Schindler Sales Representative for more details.
- 2. Up to four car group operation is available. Please consult with your local Schindler Sales Representative for more information.
- 3. Clear overhead is defined as from the lowest point below any obstruction such as: hoist beam(s), building beams, or roof structure.
- 4. Where permitted by code, no control space is required. A 3-phase and 110v disconnect must be located in both the hoistway overhead and a location in the building outside of the hoistway. The latter is not required to be an elevator-dedicated space.
- 5. PU buffer requires a local code review. Please contact your local Schindler Sales Representative for additional PU buffer information.
- 6. These dimensions are for information only and cannot be used for construction purposes without Schindler confirmation. Confirm with your local Schindler Sales Representative.
- 7. The unique hoistway dimensions shown above take installation margin and seismic projects into account. The hoistway width dimensions above represent nominal dimensions with -/+2" tolerance evenly distributed on both sides. If necessary, this elevator can fit into industry standard hydraulic hoistway widths, but with zero negative tolerance. Please contact your local Schindler Sales Representative for more details.

Schindler 3300

For use in California

General requirements

Requirements for installation vary by type of equipment selected. These general requirements assist you in preparing your building for the installation of Schindler elevators. All designs, clearances, construction, workmanship and materials, unless specifically excepted, shall be in accordance with the requirements of the latest published ASME A17.1 Code for electric traction elevators plus applicable building code and local codes. State or local requirements must be used if more stringent.

Items to be provided — A complete installation includes the following items not included in the elevator contract:

- 1. Clear, plumb hoistway, with variations on a minimum dimension hoistway not to exceed -0" and +1" (25.4 mm) per side at any point. Tolerance may increase to variations not to exceed -1" (-25.4 mm) and +1" (25.4 mm) per side at any point when an additional 2" (50.8 mm) is provided on the hoistway width dimension.
- 2. Two-hour fire resistance of hoistway walls or rating to meet applicable local codes. 75° bevel guards on all projections, recesses or setbacks over 4" (102 mm) except on side used for loading or unloading. The overhead machinery space temperature at top of hoistway to be maintained between 41° F (5° C) and 104° F (40° C) and < 95% relative humidity, non-condensing.</p>
- 3. Supports for rail brackets at pit, each floor and one or two locations above top floor in the overhead (application dependent). Divider beams between hoistways at each floor level and one or two locations above top floor in the overhead for guide rail bracket supports. Locate per layout. For masonry block hoistway construction, Schindler will provide rail bracket inserts for installation by others, located per the Schindler final layout drawings. Where inserts are not used, hollow masonry blocks are not acceptable for bracket fastening. Provide 125 mm (5") concrete belt around hoistway or other acceptable support at each floor, in overhead, and intermediate levels (if required). For max. rail bracket vertical spacing, contact your local sales representative.
- Supply hoist/safety beam for elevator construction and service work. Beam to run across the width
 of the elevator shaft. Locate per layout. Hoist beam to be left in place after elevator installation.
- 5. A temporary work platform is required for installation. It is to be constructed at the top floor of each elevator. It must comply with applicable governing codes and regulations. The platform shall be securely fastened to the building structure. Erection, maintenance, and removal are by others. (Reference Schindler drawing TD440.)
- Lighting, light switch and duplex receptacle (GFCI) for each elevator, in the center of hoistway pit and in the elevator overhead/machinery space, as indicated by Schindler. The pit light switch located adjacent to access door.
- Recesses, supports, and patching, as required, to accommodate hall button boxes, signal fixtures, etc. (if required).
- 8. All barricades outside elevator hoistways or between elevators inside hoistways.
- 9. Dry pit reinforced to sustain normal vertical forces from rails and buffers.
- 10. Drains & sumps in elevator pits, where provided, shall comply with the plumbing code, and shall be provided with a positive means to prevent water, gases and odors from entering the hoistway. The cover must be secured and level with the pit floor and located to clear elevator equipment. (Cannot be connected directly to storm drain or sewer.)
- 11. Pit ladders shall be provided where required.

Inspection and test panel

- 12. A switch placed adjacent to the jamb-mounted inspection and test panel enclosure shall control lighting in front of the panel. Minimum lighting to be 200 lux (19 fc).
- 13. A lockable, 13 ½" x 15 ½" x 3 ½" (minimum), metal cabinet with group-1 key to house required electrical schematics and maintenance history documents, shall be wall mounted, adjacent to the disconnect switch, by others, at the top landing. The supplier, location, and mounting of the cabinet shall be coordinated with Schindler.
- 14. Provide, preferably on the same floor as the elevator inspection and test panel, a lockable panel with a fused disconnect switch or circuit breaker suitable for 3-phase power for the elevator control, and a fused disconnect switch or circuit breaker for car lighting for each elevator in a separate lockable panel adjacent to the 3-phase panel or within the 3 phase panel. The panel(s) must be accessible to qualified personnel only (NEC NFPA reg. 620.51[C]) with a Group 2 key (ASME A17.1 req. 8.1.3). Alternative locations for the panel(s) can be considered, provided they are located in accessible areas without obstructions to qualified personnel in compliance with NEC NFPA req. 620.51(C). Locate and mark the panels and disconnects with appropriate signage, (NEC NFPA 70 req. 620-22 and 620-51, or CSA C22.1-02 sections 38-022 and 38-053). The disconnects or circuit breakers may also be located without panels in a Group 2 key-secured room identified and dedicated to elevator apparatus only, and in all cases must be capable of being locked in the open position with a lock that cannot be removed from the devices or panel(s). FOR DRIVE IN HOISTWAY CONFIGURATION ONLY: Electrical contractor to supply an additional lockable auxiliary non-fused disconnect in the hoistway at the location of the drive (motor controller), along with wiring from the main disconnect to the auxiliary disconnect (see also NEC NFPA 70 - 2008 req. 620.51[C]{1}). This disconnect must also be lockable in the open position with a secured lock that cannot be removed from the device

15. For ALL power circuits:

- a. If a sprinkler head is located in the hoitway or other disconnect location, any disconnect served by that sprinkler head must be NEMA 3 compliant. Sprinklers shall be located at the top and bottom of the hoistway per NFPA 13-2010 requirement 8.15.5.6 (see also 8.15.5.3) and A.8.15.5.3).
- b. In U.S. jurisdictions ONLY, when a sprinkler head is located in the hoistway, the building shall provide shunt trip activation of a) JH, the main disconnect or b) the feed to the main disconnect, triggered by contacts of the fire recall initiating devices (as defined by NFPA). These devices, located in the hoistway or other disconnect location, shall provide independent disconnection of electrical power to both main and auxiliary power circuits prior to sprinkler activation (ASME A17.1-2007/CSA B44-07 rule 2.8.3.3. and/or local code).

Control spaces (When specified in lieu of an Inspection and Test Panel, a partial or full body entry space/room shall be provided.)

- 16. Enclosed and protected control space at top landing adjacent to the hoistway wall closest to the elevator hoist machine. Two-hour fire rating of control space walls or rating to meet applicable local codes.
- Provide fire-rated, self-closing, self-locking door. Door must be capable of opening 180 degrees for access to control space.
- 18. 42" (1067 mm) minimum clear space is required in hallway in front of control space door and top hoistway entrance for service barriers. Additional hallway width may be required, subject to local building, fire and ADA codes.
- 19. The temperature in front of the control space must be maintained between 32° F (0° C) and 104° F (40° C) and less than 95% relative humidity, non-condensing, for proper operation of equipment.
- Disconnects for each elevator must be provided per National Electrical Code (NFPA No. 70) and located inside the elevator control space.

Other wiring

- 21. Suitable copper feeder, ground and branch wiring circuits for signal system and power operated door. Feeder and branch wiring circuits for car light and fan.
- 22. Telephone outlet provided at the inspection and test panel or in control closet (where applicable)
- 23. All conduit and wire runs remote from either the control space or hoistways (if required).
- 24. Heat, smoke or products of combustion-sensing devices connected to elevator control space terminals when such devices are required. Sprinklers shall be located at the top and bottom of the hoistway per NFPA 13-2010 requirement 8.15.5.6 (see also 8.15.5.3 and A.8.15.5.3). Shunt trip circuit breaker shall also be installed when sprinklers are present in the hoist way.

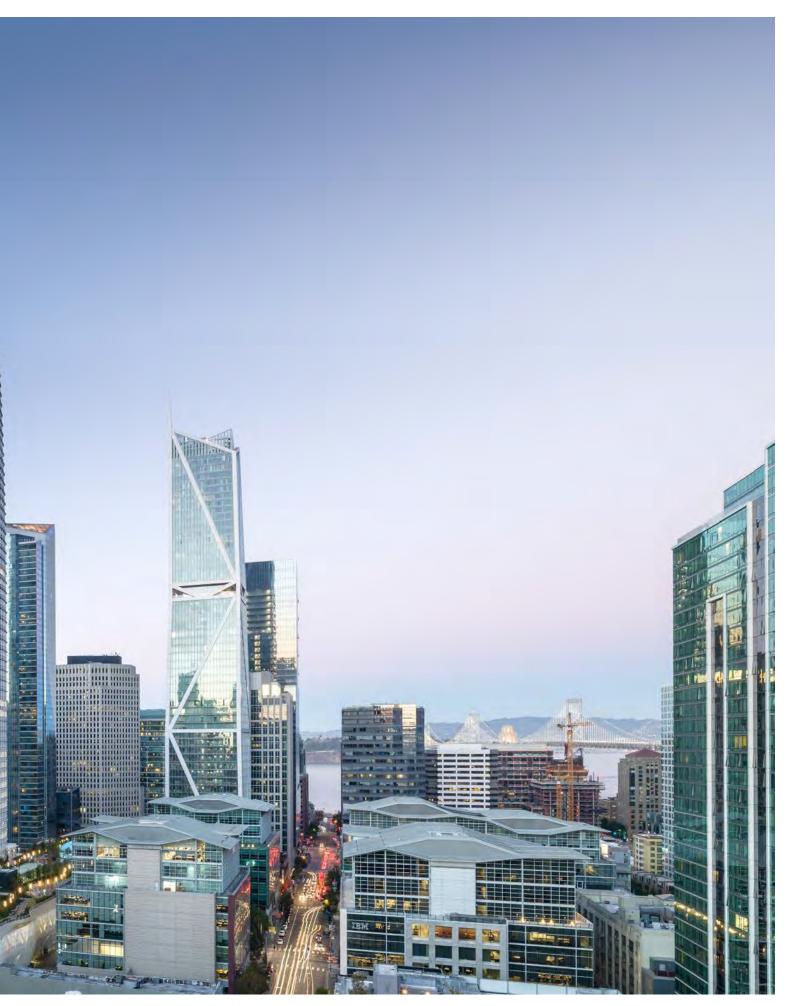
Emergency provisions

- Elevator Firefighter's and other emergency services, depending on height of the building or number of landings, per ASME A17.1 Rule 2.27.3 and local codes.
- Elevator Firefighter's and other emergency services' wiring and interconnections to automatic sprinkler systems or heat and smoke-sensing devices furnished by others.
- When emergency/standby power operation of elevators is required, the Electrical Contractor should coordinate with Schindler for operation requirements.
- 28. Provisions for earthquake protection, dictated by building code, are required in various sections of the country.

Entrances

- 29. Hoistway walls must have a fire rating per ASME A17.1 Rule 2.1.1.1.
- 30. Furnishing, installing and maintaining the required fire rating of elevator hoistway walls, including the control spaces and also the penetration of fire wall by elevator fixture boxes (if applicable), is not the responsibility of the elevator contractor.
- 31. The interface of the elevator wall with the hoistway entrance assembly shall be in strict compliance with the elevator contractor's requirements.
- Entrance wall and finished floor are not to be constructed until after door frames and sills are in place
 - a. Where front walls are of reinforced concrete, the concrete openings must be minimum 16" (406 mm) wider [8" (203 mm) on each side] and 8" (203 mm) higher than the clear opening.
 - b. Where drywall or sheet rock construction is used for front walls, it shall be of sufficient strength to maintain the doors in true lateral alignment. Drywall contractor to coordinate with the elevator contractor.
 - Note: A support member must be provided for floor heights greater than 15 $^{\prime}$ -0 $^{\prime\prime}$ (4572 mm) to support entrance header struts.
 - Door frames are to be anchored to walls and properly grouted in place to maintain legal fire rating (masonry construction).
- 33. Filling and grouting around entrance by others.
- 34. Where openings occur, all walls and sill supports must be plumb.







Schindler – We Elevate

For more information, including the location of the Schindler office nearest you, please visit:

U.S. Headquarters. Morristown, New Jersey Tel. 973.397.6500 www.schindler.com

Canada Headquarters. Toronto, Ontario Tel. 416.332.8280



Schindler has received renewal to ISO 9001 and ISO 14001 certificates.

