



MARINE
ELEVATORS



HYUNDAI
ELEVATOR CO., LTD.

MARINE ELEVATORS

Occupying the largest share in the world marine elevators market, Hyundai Elevator provides tailored solutions through its world-class technology and experience.

WHY HYUNDAI ELEVATOR?



NO.1

- Ranked 1st in market share in the Korean elevator market for 12 consecutive years
- Ranked 1st in market share in the global marine elevator market
- Recorded the lowest accident rate in the industry



ALL IN ONE

Lead time minimized by establishing an enterprise-wide system dealing with in-house designing, purchasing, manufacturing, and quality control.



GLOBAL NETWORK

Maintenance service promptly provided at major ports around the world through our global service network



ECO-FRIEND

Eco-friendly and efficient management achieved as evidenced by reaching Class A on the energy efficiency scale (certification of Germany's TÜV SÜD attained)

Design

ENTRANCE DESIGN



SPECIFICATION

HALL INDICATOR BUTTON

- Stainless steel with hairline finished
- Car here light

LANDING DOOR

1. HINGED TYPE

- Steel with baked painting
- A-0 & A-60 Class fire proof door
- Vision glass (Option)

2. CENTER OPEN TYPE

- Steel with baked painting or stainless steel
- A-0 & A-60 Class fire proof door
- Sill : Aluminium Alloy or Stainless steel (Option)

CAR DESIGN



SPECIFICATION

CAR WALL, CAR DOORS AND CEILING

- Steel with baked painting
- STS hairline finished
- STS etching finished
- STS mirror finished
- STS mirror etching finished

LIGHTING

- LED lighting with emergency light

VENTILATION

- Fan with louver

FLOORING

- Non-slip type vinyl sheet / rubber tile / STS bared plate

OPERATION PANEL

- STS hairline finished
- Key-lock switch : For restriction to enter into the designated deck (ISPS)

Structure

FEATURES & SPECIFICATION

SPECIFIC FEATURES

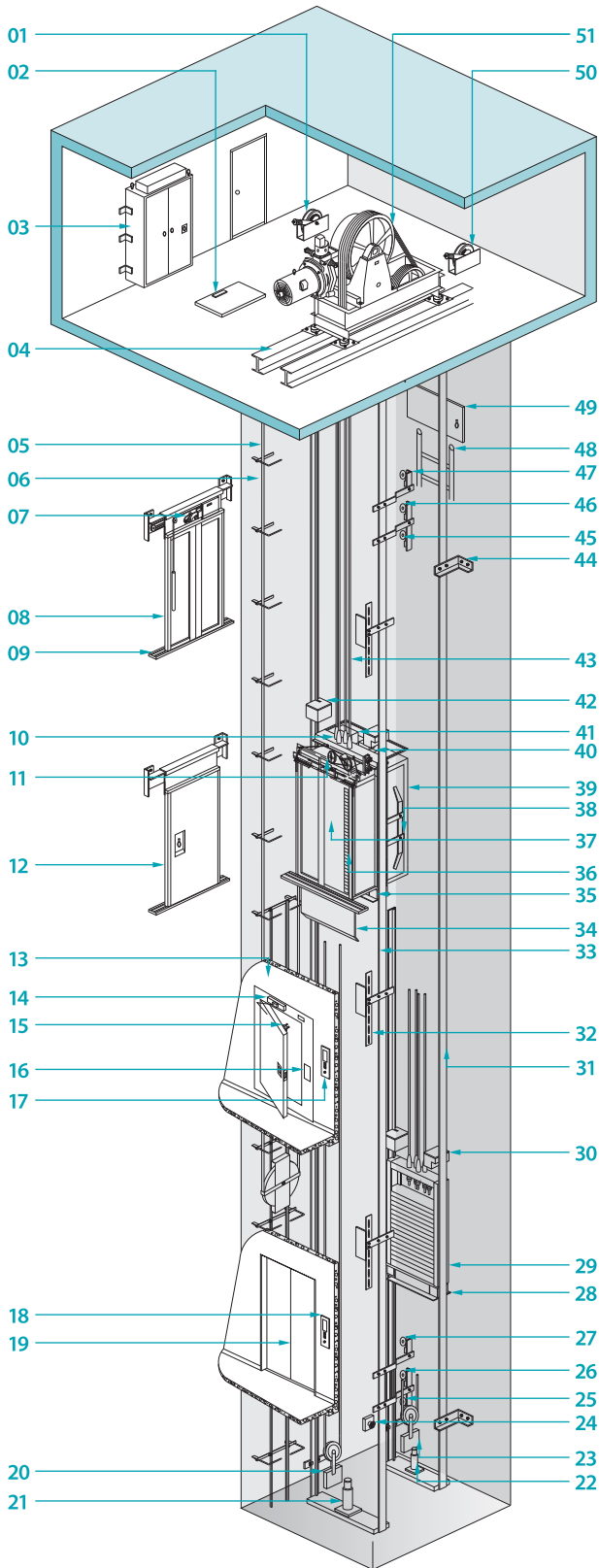
- Upgraded safety allowances for the power factor and structures.
- Type approved fire proof landing doors. (A-0 & A-60)
- Home landing operation.
- Smoother & superior riding comfort.
- Energy-saving control & drive system.
- Efficient & accurate landinag control system.
- Efficient & easier installation and maintenance.
- Fire, CO₂ or Halon alarm provided as optional to prevent a person to accessing the engine room area in case of fire & gas leakage.
- ISPS Requirement
- TCP/IP Application (Option: Telephone & CCTV)

MAIN SPECIFICATION

Control System	Inverter (VVVF) drive with microprocessor control
Speed (m/min.)	30, 45, 60 & 96
Capacity (kg)	360, 500, 600, 800, 1000, 1200, 1500, 1700, 2000 & 5000
Operation	Selective Collective Control (2BC)
Landing Door	Hinged Type : A-0 & A-60 Fire Class Center Open Type : A-0 & A-60 Fire Class

STANDARD ARRANGEMENT IN HOISTWAY

- | | |
|-----------------------------------------------------------------|-----------------------------------------------------------------|
| 01. Car governor | 27. Down slow limit switch |
| 02. Trunk top escape hatch switch
(In case of overhead type) | 28. Counterweight safety gear |
| 03. Control panel | 29. Counterweight |
| 04. Machine foundation | 30. Counterweight guide shoe |
| 05. Travelling cable | 31. Counterweight guide rail |
| 06. Travelling cable guide | 32. Landing vane |
| 07. Door interlock switch | 33. Car guide rail |
| 08. Landing door (Center open type) | 34. Apron |
| 09. Hatch sill (Center open type) | 35. Car safety gear |
| 10. Slack rope switch | 36. Safety edge |
| 11. Door operator (Car) | 37. Car door |
| 12. Landing door (Hinged type) | 38. Final limit switch cam |
| 13. Bulkhead (Steel wall) | 39. Car assembly |
| 14. Door closer (Hinged type only) | 40. Car exit switch |
| 15. Landing door safety switch | 41. Car junction box |
| 16. Landing door interlock switch | 42. Oiler |
| 17. Hall indicator button | 43. Main wire rope |
| 18. Hall indicator button | 44. Counterweight rail bracket |
| 19. Landing door (Center open type) | 45. Up slow limit switch |
| 20. Car governor tension sheave | 46. Up limit switch |
| 21. Car buffer | 47. Up final limit switch |
| 22. Counterweight buffer | 48. Escape ladder |
| 23. Counterweight tension sheave | 49. Trunk top escape hatch switch
(In case of basement type) |
| 24. Pit switch | 50. Counterweight governor |
| 25. Down final limit switch | 51. Traction machine |
| 26. Down limit switch | |



Technology

MAIN EQUIPMENT



TRACTION MACHINE

The traction machine is driven by a squirrel cage induction motor and provided with an electromagnetic brake acting on the coupling between the gear and the motor. And, in order to prevent the vibration from the hull, isolation pad is equipped in the traction machine foundation.



GENERAL SPECIFICATION OF MOTOR

- Motor Protection : IP23, IP44 & IP54
- Insulation Class : B and/or F Class
- Starting times (2BC) : 180 times/hour
- Ambient temperature : 45°C
- Variation Voltage : +6% ~ -10% at rated voltage
- Variation Frequency : ±2.5% at rated frequency



LANDING DOORS (Fire Proof Landing Doors)

All types of Hyundai Elevator landing doors are designed especially for marine elevators. This first of all means that the doors are designed and fire-tested for a class (A-0 & A-60) divisions in accordance with SOLAS. Furthermore, type approval certificates for each type have been issued by most national marine authorities and major classification societies.



CONTROL PANEL

The control panel is placed in the elevator machine room contains Main Inverter, PC Boards, relays, rolling/ pitching switch and relevant equipment for operation.

SAFETY DEVICES

DOOR INTERLOCK



Each landing door is provided with an electromechanical lock connected in series with safety circuit. Hence, the elevator car can not be started or kept in motion unless every landing door is fully closed and locked in compliance with safety requirements.

SPEED GOVERNOR



If the car traveling speed exceeds the specified upper limit, the speed governor is activated, turning off the drive motor and activating the safety gear on outer frame of the car whereby the car is stopped and secured to the rails.

SAFETY GEAR (for Car & CWT)



Safety gears for car and counter weight are provided under the car and counter weight. At the moment of emergency case (eg. free-falling the car or counter weight), the safety gear related with speed governor is operated with gripping the guide rails.

CAR DOOR SWITCH



This switch prevents the car from starting unless the car doors are completely closed.

EMERGENCY EXIT SWITCH



If the emergency exit door on the car roof is opened, the power would be disconnected to prevent from the car moving.

BRAKING SYSTEM



At the moment when the drive motor is turned off, a spring loaded DC magnetic brake is applied to the motor.

EMERGENCY LIGHT



This light provided on the ceiling is illuminated as soon as power failure takes place.

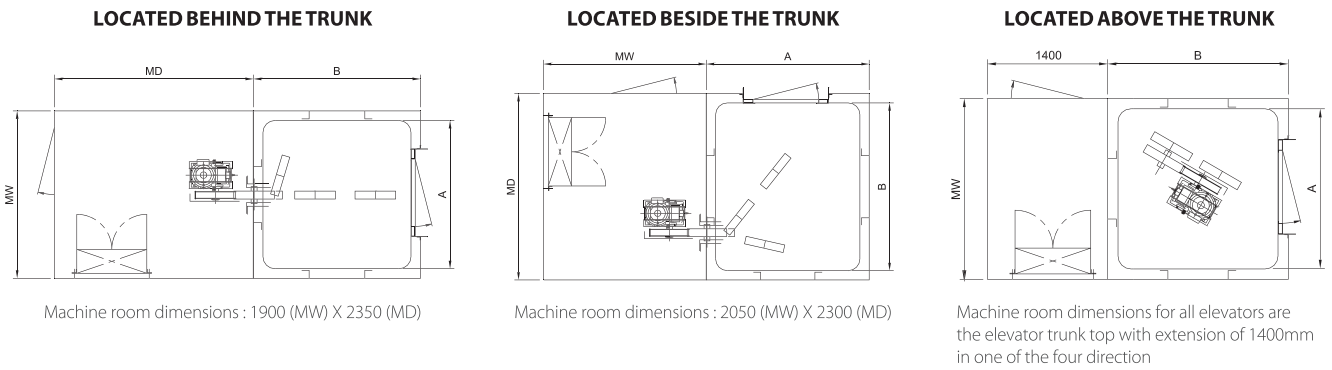
CAR BUFFER



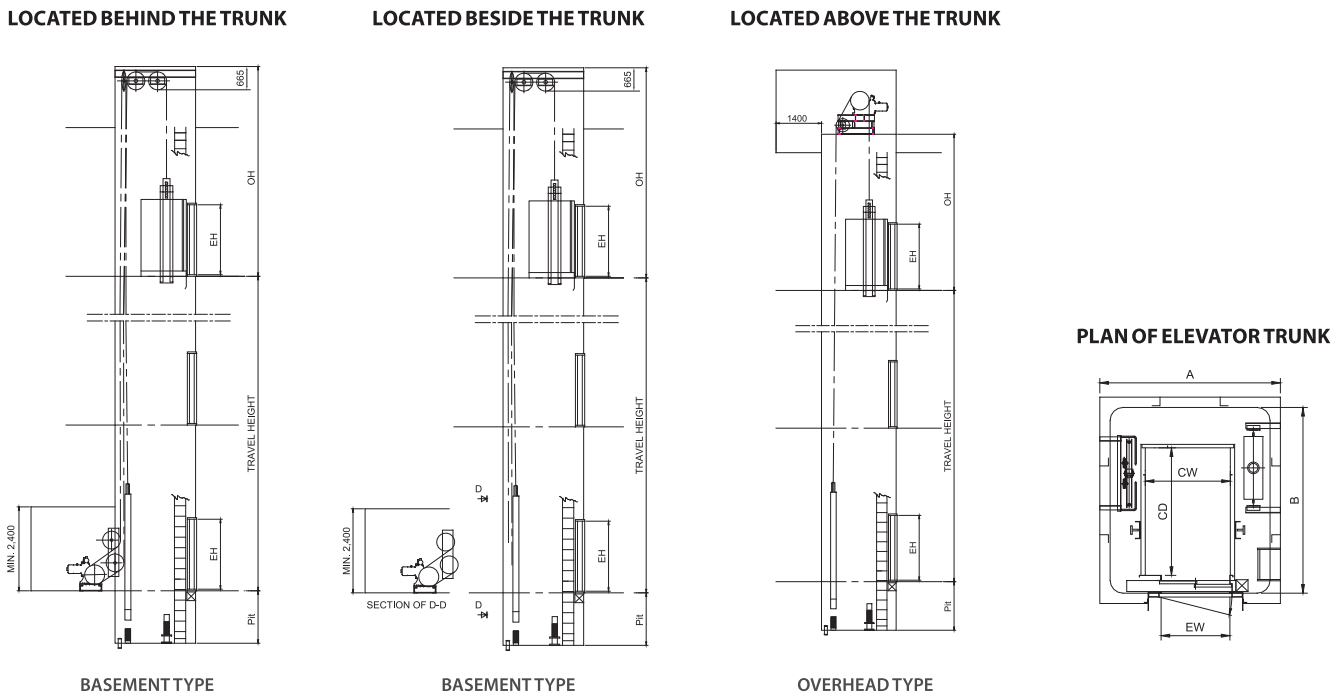
Spring buffers are mounted in the elevator pit area at the bottom of the elevator trunk, under the car and counterweight.

Layout & Dimensions

PLAN OF MACHINE ROOM



ELEVATION OF ELEVATOR TRUNK



STANDARD DIMENSIONS

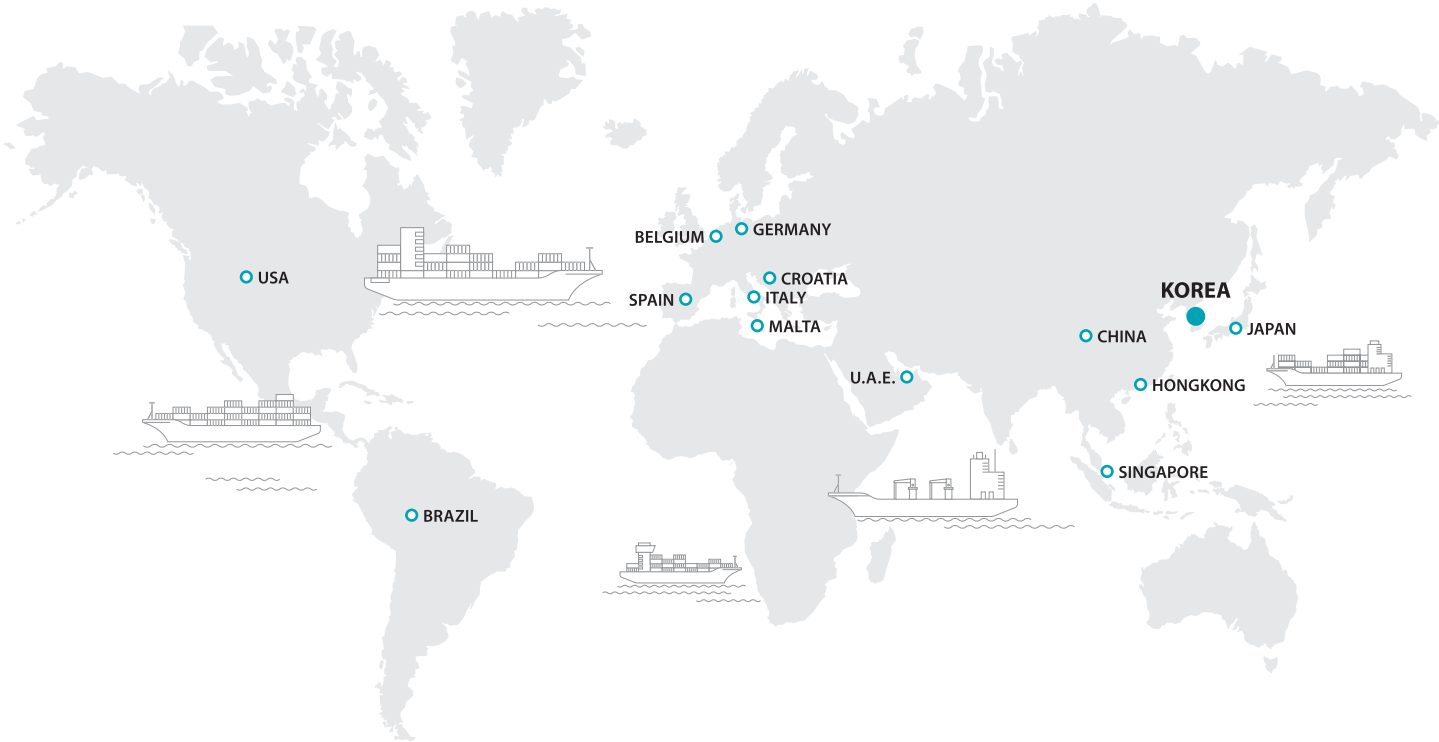
Load Capacity (Persons)	Speed (m/min)	Entrance Dim.	Internal Car Dim.	Trunk Dim.	Pit Depth (mm)	Overhead Height	
		EW × EH(mm)	CW × CD(mm)	A × B(mm)		Basement	Overhead
360 kg (4 Persons)	30	800 × 2050	950 × 1000	1800 × 2000	1300	4400	4000
	45						
	60						
500 kg (6 Persons)	30	800 × 2050	950 × 1300	1800 × 2200	1300	4400	4000
	45						
	60						
750 kg (10 Persons)	30	800 × 2050	1200 × 1500	2000 × 2200	1300	4400	4000
	45						
	60						

Notes:

- Trunk dimensions are the clear dimension except the deck cutting (opening), stiffener, insulation and etc.
- Please consult with Hyundai Elevator when the specification is different from the above table.

Global sales & Service network

You can meet hyundai elevator at landmarks in major cities all around the world.



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GENERAL REQUIREMENT FOR QUOTATIONS, WE REQUIRE THE FOLLOWING INFORMATION

- | | | |
|--------------------------------------|------------------------------|-------------------------------------------------------|
| 01. Shipyard | 06. Speed | 11. Dimensions of elevator trunk |
| 02. Hull No. | 07. Traveling height | 12. Power supply |
| 03. Flag | 08. Number of stops | 13. Any other special features which may be required. |
| 04. Classification and certification | 09. Type of landing door | 14. Delivery time |
| 05. Capacity | 10. Location of machine room | |





Accredited with ISO 9001,
an industry first in Korea



Accredited with ISO 14001,
an industry first in Korea



Accredited with
OHSAS 18001 Certification



Approved for CE Marking for
all areas of elevator,
an industry first in Korea



Selected for GD
(Good Design)



Accredited with KC
(Korea Certification)
for elevator safety



Underwriters
Laboratories Inc.
certification



Certified Korean national
quality award winner