*Dedicated to People Flow*™

KONE

MACHINE ROOM-LESS PERFORMANCE IN A HYDRAULIC ELEVATOR HOISTWAY

# KONE EcoSpace™

# The revolutionary machine room-less elevator concept

KONE's machine room-less (MRL) technology eliminates the need for a machine or control room by attaching the hoisting machine to the guide rail, and placing all control and logic components within the confines of the hoistway.

**Greater efficiency**
The secret behind the KONE EcoSpace™ elevator is the energy-efficient, permanent-magnet, gearless traction KONE EcoDisc® motor.

**Space savings**
KONE EcoSpace does not need a separate machine room thanks to the KONE EcoDisc hoisting motor, which is so compact that it can be located in the hoistway. There is no need for a control room as the KONE EcoSpace control and logic components fit inside the wall of the top elevator landing.

**Simplified installation**
The whole elevator fits inside the shaft, simplifying the building interface and saving valuable, usable floor space. This also speeds up the installation process, since no scaffolding or crane is needed.

**Destination control**
The KONE Polaris™ destination control system can significantly improve convenience in your building while enhancing the appearance of your lobby.

# KONE EcoDisc – gearless energy saver

KONE took the technological lead in the elevator industry by developing the KONE EcoDisc hoisting machine. With nearly half a million installations worldwide, KONE continues to develop machine room-less technology while focusing on energy and space efficiency, reliability and excellent ride comfort. The KONE EcoDisc is the core technology for all KONE elevators. It employs a permanent-magnet synchronous motor, frequency control and low-friction gearless construction.

### Regenerative system

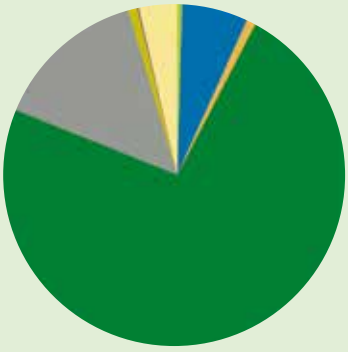
The energy consumption of a KONE EcoSpace can be further reduced with the installation of a regenerative drive. KONE's regenerative drive solution:

- Recovers excess energy from the elevator when an empty car travels upward or a full car travels downward
- Can recover up to 20% of the total energy used by an elevator
- Produces clean and safe energy that does not damage the network

### Product material content

KONE EcoSpace is mainly composed of steel and cast iron.

### Material weight %



| | |
|---|---|
| Aluminum | 0.5 |
| Cast iron | 6.3 |
| Copper | 0.9 |
| Stainless steel | 0.0 |
| Steel | 73.4 |
| Steel (zinc coated) | 14.2 |
| Plastics | 0.9 |
| Others | 0.1 |
| Electronics and electromechanical components | 3.6 |

The metals, which are about 97% of the elevator material weight, are recyclable.

The product does not contain asbestos, paints containing lead or cadmium pigments, condensators containing PCBs or PCTs, ozone layer depleting chemicals such as CFCs or chlorinated solvents. Mercury is not used in applications other than lighting and batteries. Cadmium stabilizers are not used in plastics.

# Aesthetic options for your new elevator

The KONE EcoSpace™ elevator offers a wide selection of cabs, entrances and signalization to enhance the look of your building at an affordable price.

For KONE, the goal is to create the best possible user experience. A smooth ride and reliable performance ensure the ideal people flow, while the car interior design creates an aesthetically pleasing experience for each passenger.

For additional interior offerings, reference the KONE Design Collection Catalog or visit kone.us to create project-specific designs with the KONE Car Designer Tool.

## Handrails

**1.25" Round** in Brushed Aluminum, Stainless Steel with Satin finish

**2" Round** in Stainless Steel with Satin finish

**1.5" Flat** in Stainless Steel with Satin finish

**2" Flat** in Stainless Steel with Satin finish

**3" Flat** in Stainless Steel with Satin finish

**4" Flat** in Stainless Steel with Satin finish

## Ceilings

Several ceiling designs are available for KONE EcoSpace elevator cabs.

**LF-1**

**Panels** – Polygal Translucent **Frame** – Brushed Aluminum
**Lighting** – T-5 Fluorescent

**LF-2**

**Panels** – Stainless Steel with Satin Finish
**Lighting** – T-5 Fluorescent

**LF-94**

**Panels** – Stainless Steel with Satin Finish
**Lighting** – T-5 Fluorescent

**LF-88**

**Panels** – Stainless Steel with Satin Finish
**Lighting** – Round LED*

**LF-97**

**Panels** – Stainless Steel with Stain Finish
**Lighting** – Square LED*

**LF-98**

**Panels** – Stainless Steel with Satin Finish
**Lighting** – Rectangular LED*

*Six light fixtures for Passenger Shape and nine light fixtures for Service Shape.

# Walls

Choose from a wide variety of high-quality interior materials. Multiple combinations of wall and ceiling materials are available, allowing you to match virtually any lobby design.

## Color Finishes

**4757-60***
Mystique Moonlight

**4911-38***
Soft Gold Mesh

**4796-60***
Burnished Chestnut

**ES2002T****
Honeytone Essence

**4813-60***
Nickel Ev

**4744-60***
Karratha Brush

**4746-60***
Woolamai

**4669-60***
Natural Tigris

**4623-60***
Graphite Nebula

**WZ1001T****
Red Dragon Bamboo

## Metal Finishes

**6258***
Satin Brushed Gold

**M4254*****
Brushed Black Aluminum

**M6486*****
Plex Bronzetone

**6261***
Satin Brushed Light Bronze

**6262***
Satin Brushed Med. Bronze

**6277***
Alumasteel

Scottish Quad Rigidized Stainless Steel

Brushed Stainless Steel

## Wood Finishes

**7850-60***
Beigewood

**10776-60***
Kensington Maple

**7062-60***
Congo Spruce

**7919-38***
Amber Cherry

**7054-60***
Wild Cherry

**7039-60***
Windsor Mahogany

**7949-38***
Asian Night

**7040A-60***
Figured Mahogany

## Pearlescent Finishes

**D487-07***
Pearl Silver LS

**D485-07***
Pearl Bisque LS

**Laminate Brands**
* Wilson Art ** Nevamar ***Formica

# Signalization

KSS 140 vandal resistant signalization is impact, scratch, burn and splash resistant.
KSS 570 signalization enhances the look of your elevator.

**KSS 140**
**Flush**

Hall Lanterns

Hall Stations

**KSS 570**
**Flush**

Hall Lanterns

Hall Stations

For additional aesthetic offerings, reference the KONE Design Collection Catalog or visit kone.us to create project-specific car designs, CAD drawings, BIM models and CSI specifications.

# KONE Ecofuture™ Planning Guide

rough opening?

**Max Travel**[8]
150 ft. (45.7 m)

**Max Landings**[8]
15

**Speed**[8,9,10]
150, 200, 350 fpm
(.75, 1.0, 1.78 m/s)

**Car Height** F
8, 9 or 10 ft.
(2438, 2743 or 3048 mm)

**Entrance Height** G
7, 8 or 9 ft.
(2134, 2438 or 2743 mm)

| | | CAPACITY LBS. (kg) | OPENING TYPE | A HOISTWAY WIDTH (mm) | A SEISMIC HOISTWAY WIDTH (mm) | B HOISTWAY DEPTH (mm) | C INTERIOR WIDTH (mm) | D INTERIOR DEPTH (mm) | E DOOR WIDTH (mm) |
|---|---|---|---|---|---|---|---|---|---|
| Front Opening | PASSENGER | 2000 (907) | SSP | 7'-4" (2235) | 7'-8" (2337) | 5'-9" (1753) | 5'-8" (1727) | 4'-3" (1295) | 3'-0" (914) |
| | | 2500 (1134) | SSP-CO | 8'-4" (2540) | 8'-8" (2642) | 5'-9" (1753) | 6'-8" (2032) | 4'-3" (1295) | 3'-6" (1067) |
| | | 3000 (1361) | SSP-CO | 8'-6" (2591) | 8'-8" (2642) | 6'-3" (1905) | 6'-8" (2032) | 5'-0" (1524) | 3'-6" (1067) |
| | | 3500 (1588) | SSP-CO | 8'-6" (2591) | 8'-8" (2642) | 6'-11" (2108) | 6'-8" (2032) | 5'-6 3/16" (1681) | 3'-6" (1067) |
| | | 4000 (1814) | CO | 9'-4" (2845) | 9'-4" (2845) | 8'-11" (2108) | 7'-5 13/16" (2281) | 5'-6 3/16" (1681) | 4'-0" (1219) |
| | SERVICE | 4000 (1814) | 2SP | 7'-4" (2235) | 7'-4" (2235) | 9'-2" (2794) | 5'-6 3/16" (1681) | 7'-7 7/16" (2323) | 4'-0" (1219) |
| | | 4500 (2041) | 2SP | 7'-4" (2235) | 7'-4" (2235) | 9'-8" (2946) | 5'-6 3/16" (1681) | 8'-1 3/8" (2473) | 4'-0" (1219) |
| | | 5000 (2268) | 2SP | 7'-4" (2235) | 7'-4" (2235) | 10'-2 1/4" (3105) | 5'-6 3/16" (1681) | 8'-9 3/16" (2672) | 4'-0" (1219) |
| Front & Reverse Opening | PASSENGER | 2000 (907) | SSP | 7'-4" (2235) | 7'-8" (2337) | 6'-3 1/4" (1911) | 5'-8" (1727) | 4'-3" (1295) | 3'-0" (914) |
| | | 2500 (1134) | SSP-CO | 8'-4" (2540) | 8'-8" (2642) | 6'-3 1/4" (1911) | 6'-8" (2032) | 4'-3" (1295) | 3'-6" (1067) |
| | | 3000 (1361) | SSP-CO | 8'-6" (2591) | 8'-8" (2642) | 6'-11" (2108) | 6'-8" (2032) | 5'-0" (1524) | 3'-6" (1067) |
| | | 3500 (1588) | SSP-CO | 8'-6" (2591) | 8'-8" (2642) | 7'-5 1/4" (2267) | 6'-8" (2032) | 5'-6 3/16" (1681) | 3'-6" (1067) |
| | | 4000 (1814) | CO | 9'-4" (2845) | 9'-4" (2845) | 7'-5 1/4" (2267) | 7'-5 13/16" (2281) | 5'-6 3/16" (1681) | 4'-0" (1219) |
| | SERVICE | 4000 (1814) | 2SP | 7'-4" (2235) | 7'-4" (2235) | 10'-1 1/2" (3086) | 5'-6 3/16" (1681) | 7'-7 7/16" (2323) | 4'-0" (1219) |
| | | 4500 (2041) | 2SP | 7'-4" (2235) | 7'-4" (2235) | 10'-7 1/2" (3238) | 5'-6 3/16" (1681) | 8'-1 3/8" (2473) | 4'-0" (1219) |
| | | 5000 (2268) | 2SP | 7'-4" (2235) | 7'-4" (2235) | 11'-3 1/4" (3435) | 5'-6 3/16" (1681) | 8'-9 3/16" (2672) | 4'-0" (1219) |

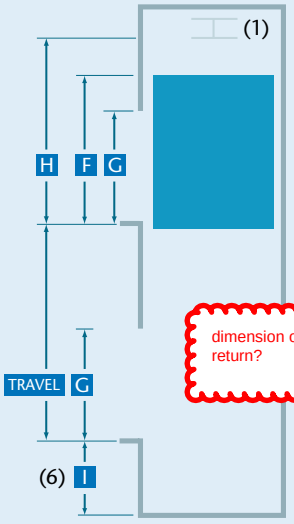
**CONTROL SPACE** J K L

| CAPACITY LBS. (kg) | CONTROLLER SPACE | WIDTH (mm) | DEPTH (mm) | DOOR WIDTH (mm) |
|---|---|---|---|---|
| 2000 to 5000 (907 to 2268) | integral or remote closet | 4'-0" (1219) | 1'-8" (508) | 3'-6" (1067) |
| 2000 to 5000 (907 to 2268) | adjacent room | 5'-0" (1524) | dimension (B) | 3'-0" (914) |

**CLEAR OVERHEAD** H **AND PIT DEPTH** I

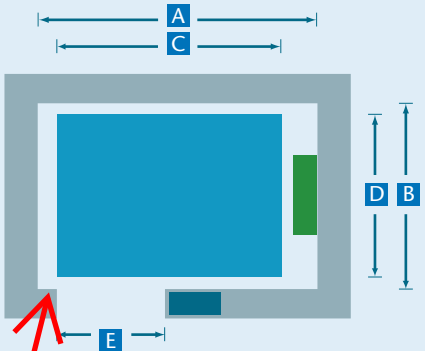
| CAPACITY LBS. (kg) | 150 FPM (.75 m/s) | | 200 FPM (1.00 m/s) | | 350 FPM (1.78 m/s) | |
|---|---|---|---|---|---|---|
| | Pit Depth (mm) | Clear Overhead (mm) | Pit Depth (mm) | Clear Overhead (mm) | Pit Depth (mm) | Clear Overhead (mm) |
| 2000 to 3500 (907 to 1588) | 5'-0" (1524) | 13'-0" (3962) | 5'-0" (1524) | 13'-1" (3988) | 5'-6" (1676) | 13'-4" (4064) |
| 4000 to 5000 (1814 to 2268) | 5'-0" (1524) | 13'-0" (3962) | – | – | – | – |

## Section View

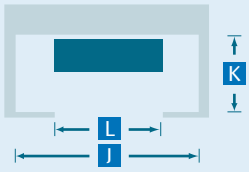



dimension of wall return?

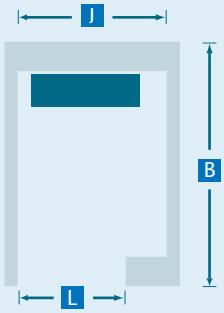
## Plan Views (3) (4) (5) (10)




Integrated Control Solution (standard)




Integral or Remote Control Closet (option 1)




Adjacent or Remote Control Room (option 2)

Visit kone.us for the latest project-specific details, CAD drawings, CSI specifications, electrical data, reaction loads and building access requirements.

## Notes

(1) A hoist beam (by KONE) is required for installation (by others). Dimension H reflects clear under hoist beam.

(2) If an EBD (Emergency Battery Device) is required please contact your KONE Sales Professional for further detail regarding dimensions H, J and L.

(3) The published hoistway A dimensions represent the minimum clear inside requirements. Construction efficiencies can be realized by increasing these dimensions by up to 2" (51 mm).

(4) For pit depths less than 5'-0" (1524 mm) please contact a KONE Sales Professional.

(5) If occupied space exists below the hoistway, consult your KONE Sales Professional.

(6) All dimensions are based on an 8'-0" (2438 mm) cab with a 7'-0" (2134 mm) door. Alternate car and door heights are available, but will affect dimension H.

(7) Contact your local KONE Sales Professional regarding local code variations when utilizing the integrated, integral and remote closet options.

(8) 150 fpm (.75 m/s) only available up to 85 ft. (25 m) of travel and 10 landings. 200 fpm (1.00 m/s) available up to 100 ft. (30.5 m) of travel and 12 landings.

(9) 150 fpm (.75 m/s) is maximum speed available for capacities greater than 3500 lbs. (1588 kg).

(10) 200 fpm (1.0 m/s) is maximum speed available for Integrated Control Solution.

KONE provides innovative and eco-efficient solutions for elevators, escalators and the systems that integrate them with today's intelligent buildings.

We support our customers every step of the way; from design, manufacturing and installation to maintenance and modernization. KONE is a global leader in helping our customers manage the smooth flow of people and goods throughout their buildings.

Our commitment to customers is present in all KONE solutions. This makes us a reliable partner throughout the life cycle of the building. We challenge the conventional wisdom of the industry. We are fast, flexible, and we have a well-deserved reputation as a technology leader, with such innovations as KONE MonoSpace®, KONE EcoMod™, and KONE UltraRope®.

KONE employs nearly 50,000 dedicated professionals to serve you globally and locally.

KONE
**kone.us**



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**Rev 0516**