

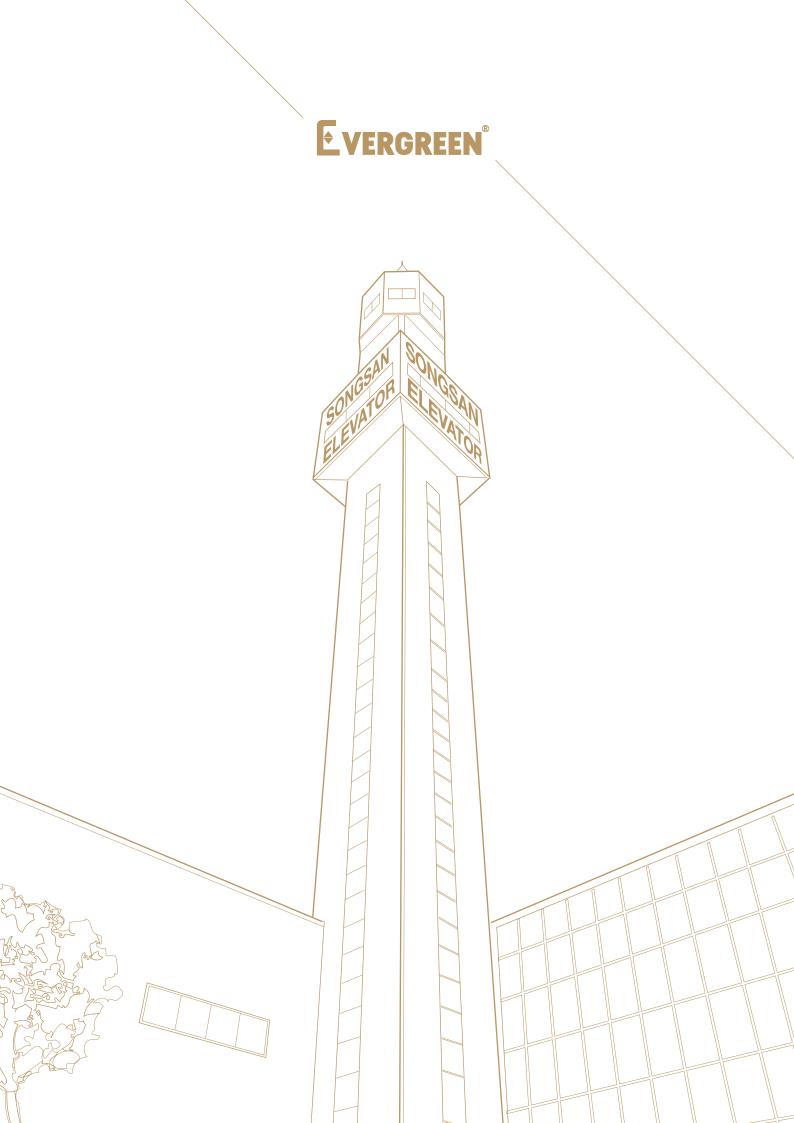
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Songsan History



Year 2015~2011

2015 Developed Goliath Elevator® capacity 10 ton~50 ton(150~500prs), Exxon Mobil Corporation, Installed 300 passenger, Hebron project, Hyundai Heavy Industries.

Registered patent, Goliath Elevator

Awarded 'The Best Management' by Deputy Prime Minister, Minister of Strategy and Finance Incheon International Airport Extending Project III Passenger Modular Panoramic Elevators Free Trading Area, Ulsan, Elevators

Universiade 2015, Center, Elevators UAE Barakah Nuclear Power Plant Elevators

2014 Awarded 'Trade Promotion' by Minister of Export Ministry of Trade, Industry, Energy

Awarded 'Export Tower Prize' by President of Korea, Park Geun-Hye

Contracted Explosion-Proof Elevators, Kavian Olefine Plant and Ethan Cracking Plant at Tehran, Iran Contracted 'Hebron Project' Goliath Elevators, Exxon Mobil, Hebron

Awarded 'Certificate of Designation for an Excellent Company for overseas public procurement market' by Public Procurement Service of the Republic of Korea

Contracted 'Incheon International Airport', the 3rd terminal elevators

Elected President Mr.G. Y. Kim as Chairman of Korean Elevator Association

2013 Acquired the certification of OHSAS 18001 Health & Safety

Awarded 'The best Booth Design' at International Lift Expo 2013

Developed Modular-Top® Advanced MRL

Inclined Elevator 55M 20 passenger, Yongin Giheung Station

Installed the Second underground inclined Elevator 350M 48 passenger in the 3rd underground tunnel at DMZ

2012 Contracted Gimpo International Airport Elevators and Escalators of SMS

Contracted S-Brake® for Public Procurement Service, Republic of Korea

Acquired The Certificate of Good Design Selection from Korea Institute of Design Promotion and Ministry of Knowledge Economy

Awarded 'The best company' from Small & medium Business Ministry

Acquired the certificate of Designation of Excellent Product, S-Brake® from Public Procurement Service, Republic of Korea.

Acquired GOST R 52382 Certification, National Standard of Russian Federation,

Passenger & Freight Lifts

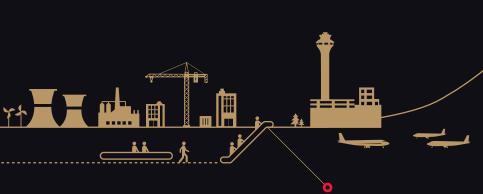
Acquired invention Patent & Certificate 'Protection Safety Brake Reversal Direction and

Over Speed' S-Brake® for Escalator



LEADING NEW TECHNOLOGIES OF SPECIAL ELEVATORS

We, SONGSAN SPECIAL ELEVATORS CO., LTD. will develop new technologies and do its endeavor in order to get the high quality and reliable products, satisfied by all of clients in the world.



Year 2010~2001

- **2010** Acquired Heliport Elevator[®] for the first in invention patent Acquired the Certificate of Registration from KHNP and KEPCO, Nuclear Power Plant
- 2009 Acquired 'Excellent service quality' from Korean Government Acquired invention Patent of elevator door deviation device Acquired 'Evacuation Lift' X-vator® for the first invention patent Acquired EK certificate, Developed SONGSAN SPEC-901 HD escalators Developed exclusive Heavy duty Escalator, Moving Walk for Rail station and Subway station
- 2008 Awarded from Minister of knowledge Economy
- 2007 Acquired the certificate of EMC of controller for Modular Elevator Developed the World First, Arch Elevator Constellations[®]
- 2006 SONGSAN Special Maintenance System [SSMS] for Seoul Metro in Korea Awarded from Commissioner of National Tax Service of Korea
- 2004 Awarded "Official Commendation from the seoul Mayor"
- 2003 Awarded "the Outstanding Award [INNO-BIZ] Technical Innovation Acquired the certification of ISO 14001 Environmental management system
- 2002 Acquired the Authentication of K-Mark on Machine Room Less elevator by Korea Testing Laboratory Installed the World Largest underground inclined Elevator 350M 48 passenger in the 3rd tunnel at DMZ
- 2001 Completed Sihwa Factory & Test Tower
 Carried out Developing Business for High efficiency technical innovation

Year 2000~1994

- 2000 Exported to China Taiwan, Philippines, Thailand, Guam, Hongkong, Russia Acquired "Excellent Quality Product" from supply Administration.
- 1999 Awarded Official Commendation from the president of Korea Developed Machine Room Less Modular Elevator[®], the first in Korea Acquired "Excellent Machine, Mechanism & Materials EM" Approval by Ministry of Commerce, Industry & Energy Awarded "Minister of Commerce, Industry & Resources Prize" Selected as "Outstanding Technical Competitiveness Enterprise"
- 1998 Awarded "Outstanding Gyeonggi Minor Business Entrepreneur" Established Songsan Technology Laboratory Excellent Machines, Materials, and Mechanism Acquired the Authentication of New Technology NT
- 1997 Developed Handylift® Products, for the first in Korea
- 1996 Developed Advanced Elvro-3000 VVVF Elevator®

 Developed Advanced Technology for G7 Gov. Project for special Lifts
- 1995 Developed innovated technologies for special elevators & Lifts
 Acquired the certification of ISO 9001 Quality management system
- 1994 Established SONGSAN Special Elevators Co., Ltd.





Evergreen Songsan Technologies



CEO's Message

Dear prospective customers,

We are very proud of our corporate ideal "Evergreen Songsan Technologies" We have been strongly committed to based upon our love of human beings, safety and nature.

We stand firm for leading the vertical transportation industry by providing the safest and most convenient products, and excellent customer support for the benefit of our customers.

Songsan has made brilliant achievements since its foundation in 1994. Right after birth, with ingenuity and technological advancement, Songsan succeeded first time in Korea in developing special elevators not only for meeting domestic demands but for demands from abroad over 20 countries.

In 1998, Songsan developed the Modular Elevator[®] patented MRL and inclined elevator the first in Korea. In 2002, 350M underground Inclined elevator was successfully developed and installed for passengers in the third tunnel at DMZ in Korea. In 2015, developed Goliath elevator[®] 10ton~50ton, 150~500 passenger and freight elevators for Offshore Oil Plant, Shipyard & Marine.

Songsan's technological advancement and high quality have been continuously recognized by various awards, certifications and advanced products as Modular[®], Arch Elevator Constellations[®], Evacuation X-vator[®], Elvro[®] Heavy duty, Nobah Clean Elevator[®], Explosion Proof, Goliath[®], David Module Elevator[®], Delta Inclined Elevator[®] and Escalator Spec901. Songsan will also be a leading manufacturer in the development of eco-friendly Wellness[®] Elevators.

With the continued trust and support of our customers, we will overcome all challenges with our dedication and passion, and engage prosperously in the future.

Thank you again for your interest in Songsan Evergreen Technologies and Solutions.

Gi-Young Kim Ph.D. CEO, SONGSAN Special Elevators Chairman, Korea Elevator Association

ykim



Goal & Vision

GOAL

GLOBAL NETWORK



Secure Global Leading Technologies and Quality Competitiveness



Maximize Synergy through Collaboration with related Global Partner



Realize Good Corporate Songsan Culture, Evergreen Pine Tree Mountain

VISION

Global Elevator Specialist & Leader



■ Develope the best Global Technologies

COMPANY MISSION

Evergreen SONGSAN Technologies

Secure Human beings

Secure Nature

Secure Safety

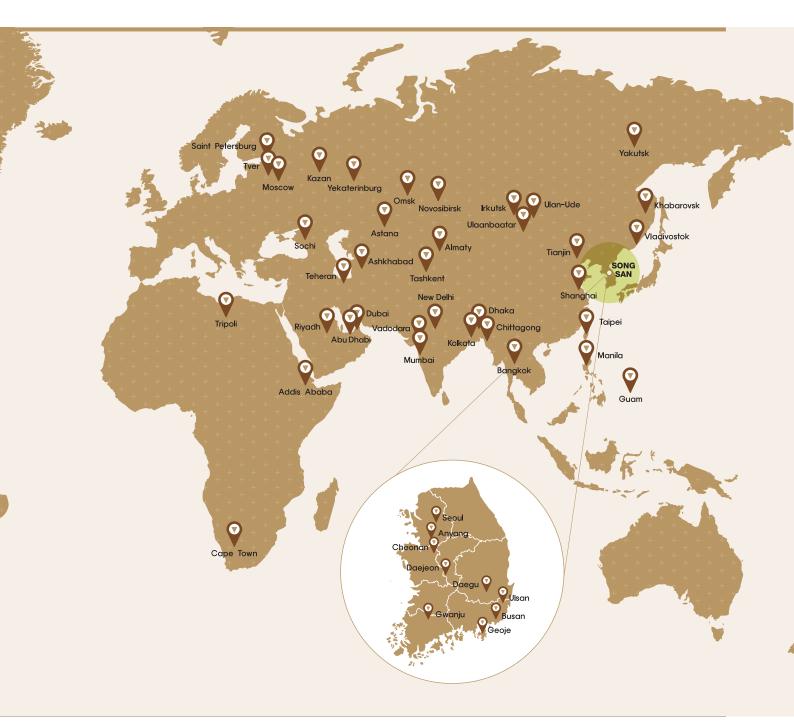
Head Office / Factory 65, Mayu-ro 70 beon-gil Siheung City, Gyeonggi-do, 15113, Korea

Customer service center and Local office Seoul Gwanju Samsung
Busan Anyang Seoul International Airport

Daejeon Ulsan Nongshim Daegu Cheonan Geoje

SONGSAN, THE GLOBAL SPECIALIST OF ELEVATOR CORPORATE

SONGSAN is born again now as a high value-added global enterprise. New competitive power of technology is the foundation of the SONGSAN growth, and the new competitive power of technology is being prepared upon the foundation of growth.



Overseas Sales
Office & Partners

Tegucigalpa Brasilia Guam Addis Ababa Tripoli Cape Town Moscow Vladivostok Saint Petersburg Yekaterinburg Khabarovsk Novosibirsk Sochi Yakutsk Irkutsk Kazan Tver Ulan-Ude Omsk Teheran Riyadh Dubai Abu Dhabi New Delhi Mumbai Kolkata Vadodara Ashkhabad

Ulaanbaatar Astana Almaty Tashkent Manila Shanghai Tianjin Bangkok Taipei Dhaka Chittagong



Songsan Special Elevators makes only the world's best.

SONGSAN products made with the best passion and technology are already being exported to more than 20 countries. SONGSAN products are performing their best everywhere seen or unseen, making everyone's lives more convenient and beneficial. SONGSAN will continue to provide quality products and customer service. SONGSAN will be with our customers on the way to the better future.



Quality assurance & Awards

Certificates of Quality



ISO 9001



ISO 14001



Certificate of X-vator



K-Mark Certificate



K-Mark Certificate MRL Control System



GOST Certificate

Letter of a patent



Turkey Certificate



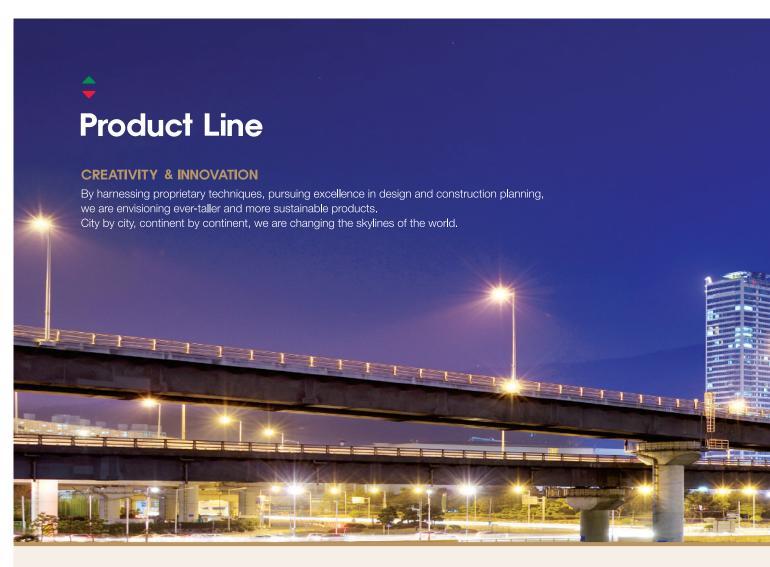
Kazakhstan Certificate



Russian Patent Arch Elevator Constellation







01Arch Elevator
Constellation®



05 Explosion Proof Elevator®





02David Module
Elevator®



:

06 Goliath Elevator® Shipyard





03 Elvro3000[®]



07 Goliath Elevator[®] Offshore Oil Plant





04Nuclear Power Plant Elevator®





08Marine Elevator







10 Delta Inclined Elevator®







13 Escalator SPEC901®





Nobah Clean Elevator®



14 Moving Walk SPEC902®





12SPARA Panoramic Round Elevator®

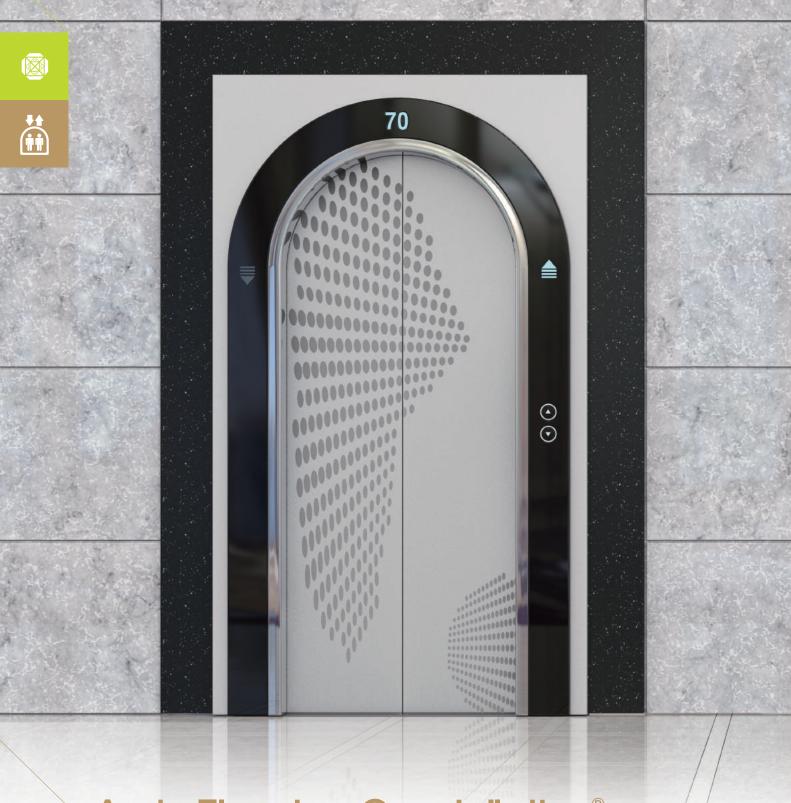












Arch Elevator Constellation®

Highly luxurious Arch Constellation Elevator with arch style design not only supplies comfortable and convenient spatial feeling by providing highly effective space layout but also elevate the elegance of architectural space through ultramodern creative design.



1 The first arch elevator in the world Design Patent no.0375054



2 The world first arch elevator at Tehran, Iran





Special Advantages of Round Entrance Elevator

- High graceful design: Arch type design used at ancient palace, triumphal arch etc. was applied to elevator first time in the world, and we supply distinguishable high graceful visual space than existing elevator.
- By dispersing the vertical gravitational pressure to the sides with unique capability of arch configuration, the elevator provides safer structure than general elevators.
- Arch Entrance Elevator provide elegant and comfortable spatial feeling when getting on and off the elevator with increased effective height of 100~300mm at entrance than general elevators.



DAVID MODULE ELEVATOR®



David Module Elevator[®] does not require separate machine room which is essential in existing normal type elevator, instead, it has traction motor, control panel and safety system inside of hoistway by modules, which is a new concept elevator that saves space and construction expense. Permanent magnetic gearless traction motor is located upper and intermediate of hoistway, and controller is located at hall side, beside doors.



II Masan University 2 National Assembly Building 3 Church of Dreams 4 Incheon International Airport 5 Korea Cultural Content Center









Concerning architecture

- Does not require additional space for machine room
- Does not required to raise top floor.
- Location of elevator components will be unrestricted
- Enlargement of building and replacement will be convenient and economic
- Cost of construction and mechanical works will be reduce remarkably
- Can be installed without any modification of structure, where general elevator can not be installed.
- Maintenance will be convenient and economical.
- Unique MRL driving type without change of dimension of standard hoistway.



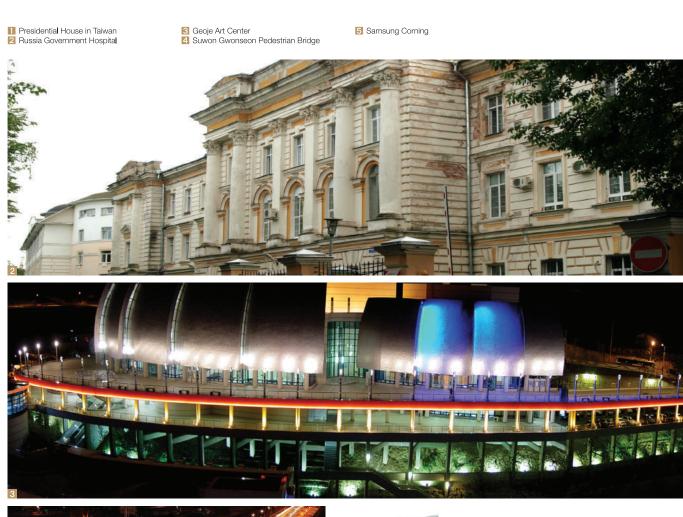
ELVRO 3000®





Improving productivity for vertical transportation at building site cutting-edge performance and high quality can be realized with SONGSAN Elvro 3000. Industrial elevator of SONGSAN has been leading the vertical transportation in local and overseas building project sites with high quality and complete performance.









Explosion-proof lifts for the chemical and petro-chemical industries

Industrial and non-standard special elevator ELVRO 3000 such as large capacity high rise elevator with load capacity 1,000~20,000kg, dustproof clean elevator, moisture-proof elevator for places with lots of moisture, explosion-proof lift for chemical industry buildings where danger of explosion is present. Top maker in special elevating facilities, SONGSAN, applies

various optional features according to customer needs based on specialized KNOW-HOW on the elevators and ultra modern technology. SONGSAN has been establishing highest fame and myth with complete and through after service considering customer's safety and convenience first.



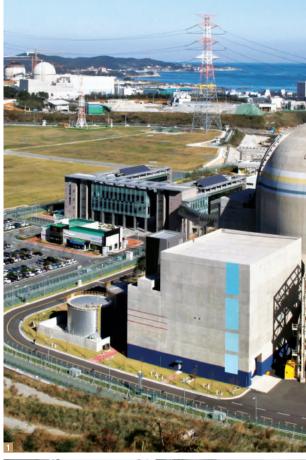


Nuclear Power Plant Elevator®

Explosion Proof Elevator®

Special industrial purpose elevators, Explosion proof Elvro3000, such as chemical plants, Nuclear power plants, Oil refinery plants and etc., securing human beings and high-valued production facilities from explosion caused by dangerous chemical plants and nuclear power plants.

Barakah Nuclear Power Plant at Abu Dhabi, UAE
Shin-Hanul Nuclear Power Plant in Korea
BASF factory at Ulsan, Korea
Kavian Olefine Plant and Ethan Cracking Plant at Dubai, UAE
IOCL Barauni Refinery Plant in India













Goliath Elevator®

Offshore Oil Plant Shipyard & Marine

Based on accumulated manufacturing experience and technical know-how of Goliath Elevator® Songsan is able to supply various kinds of special elevators such as gigantic capacity of cabin and rated load, 300 passengers, 20 tons rated load, special elevators installed for offshore oil plant and shipyard.

Recently in 2015, gigantic elevator, 300 passengers, 20 tons are produced by SONGSAN and installed for Hebron project, ordered by Exxon Mobil, Aasta Hansteen project, ordered by Statooil, Hyundai Heavy Industries and INPEX ICHTHYS CPF project, ordered by INPEX Corporation, Samsung Heavy Industries. It is the world largest passenger elevator.

Quality assurance & Patent



Trademark Registration of Goliath Elevator



Invention patent of Goliath Elevator

















Evacuation X-vator®

In case of fire in High-rise building, Emergency rescue Elevator



Emergency Evacuation Purpose Elevator for High Rise Building

On firing in high rise building, incoming and spread out poisonous gas, flame and smoke, and then Evacuation X-vator can rescue residents safely with new generation technology system. And it prompts resident staying high-rise floors and handicapped happiness in comfortable and safety condition. X-vator normally uses and operates as normal passenger elevator and it can be installed in a standard hoistway dimension without any additional construction. In order to avoid and effective evacuation from increasing firing disasters in complicated down town the regulation in Korea requests evacuation elevator, X-vator as an obligation for more than 30 stories buildings.

- O1 Composition of Emergency rescue Elevator
 Hoistway air purification jet cut-off system
 Water-proof, fire-proof, Explosion-proof,
 electric control device & system
 Emergency rescue device
 High credibility of driving system
- O2 | Emergency drainage pump
 Overspeed governor
 Guided laser beam & audioguide device
 Fire detecting sensor & control system
 Fire-proof door system at outside exit
 Blocking poisonous gas & flame system
- O3 Controller for emergency rescue
 Driving self supply power at emergency
 Auto shift device at Emergency operation system
 in power failure
 Hoistway pressure control system







Invention Patent of X-vator





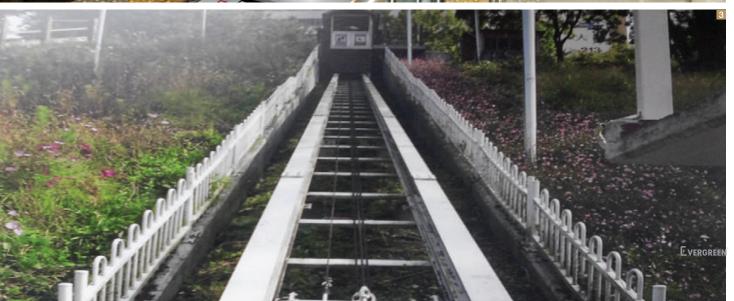


Inclined elevator is developed and applied for the physically disabled, the elderly, pregnant women, baby carriage, patients and also normal passengers installed at riverbed parks, mountainous area, facilities for the elderly, recreational & leisure facilities, short-distance transportation, golf cart transportation, Shipyard and Offshore oil Plant

■ Everland Giheung Station
☑ The Would Largest Underground Inclined Elevator in the 3rd Tunnel of DMZ
⑤ Yangjaecheon Seoul
The First Inclined Elevator in Korea













Songsan has supplied many projects with major semi-conducts factories and food factories such as Samsung, Nongshim and etc. more than 20 years.



In order to keep high-purity condition of special products such as semi-conduct, clean-room facilities, food company, cooking facilities for hotels and convention centers clean-room elevator with special devices, installed with advanced cleaning system, filters in cabin ceiling and hoistway, various

special joints between panels, protecting from dust, inflection air, bacterium, insects, dirty and pollution, and double folded and antistatic tile in cabin floor avoiding dust onto floors, is up graded of comfortable condition of elevator cabin than conventional elevators and keep elevator cabin with higher purity.











SPARA Panoramic Round Elevator®

According to up-grade of elevator, SPARA® with creative ultramodern design, elegant glass exterior and excellent ride quality upgrades the elegance of architecture more.

Completion of structure's internal design. Special Panoramic Design.

SONGSAN's high quality elevator upgrades completeness of architecture with passenger's convenience, creative ultramodern panoramic design and excellent ride. Also, as it is designed and manufactured specially according to customer's order, occupies minimum space and presents individually the harmonization with architecture.









Escalator SPEC901®

Full automated energy control system automatically senses travel speed of escalators and its load weight, and have realized optimal driving control and energy saving system.



Best performance on energy saving

Alpha-plus System controlling automatically best transportation efficiency at all times by automatic operation recording system. Remote control service system, SMS CS System, controlled by on-line can be applied as an optional specification.

Putting much value on the characteristics of architecture and each different operation condition, satisfaction of passenger is also carefully considered from the early stage of design, and needs of customer is also reflected to highly elegant escalators

outdoor weather proof and moving walks established by ultra high technological design and innovation.







1 Yangpyung Station 2 Hoeryong Station 3 Namwon Chunhyang Park 4 Asia Culture Center





Moving Walk SPEC902®

Moving walks of SONGSAN are made by uppermost technology of SONGSAN making inconvenient and hard vertical horizontal movement convenient and Moving walks have become not only economical and transportation efficiency but also essential facilities of aesthetic and magnificent living spaces as safe and comfortable continuous transportation means in airports, railroad stations, subway stations, terminals, shopping centers, public places etc.











S-Brake[®]





- S-Brake will protect you safely from any cause of Reversing accident & Overspeed accident. S-Brake escalator safety brake prevents any cause of Reversing accident & Overspeed accident from
 - any mechanical, electrical, or electronic reason as like Service brake breakdown, Chain disconnection, Control Malfunction, Main power failure, uncontrolled movement, etc. S-Brake escalator safety brake will protect a passenger safety from accidents & injury.
- You can install S-Brake at your escalator & moving walks. Even if it is already running. You can easily install S-Brake escalator brake during off business hour without structure change.
- O3 | You can apply S-Brake at your new escalator & moving walks. You can easily install S-Brake without reconfiguration regardless of manufacturer and model type. Also, S-Brake effectively substitute escalator safety brakes defined at EN115 for high rise escalator.
- Strong & Smooth!! Patented new technology hydraulic break type safety device S-Brake Patented new technology S-Brake, in the 30m height, 18tib rate load Reversing & Overspeed accident test, it is proving it's safe performance by enough brake force & less than 1m/sec deceleration.
- Korea Product Safety code, EN115-1, ASME A17.1, ISO Escalator safety code 100% satisfied S-Brake is 100% completely safety Korea Safety code
- You can use S-Brake for additional escalator safety brake with simple connection S-Brake is easy to connect with exist safety switches & it will work for additional escalator safety brake. S-Brake will stop your escalator in safety, even if main brake is not work for brake failure.







Certificate of designation of excellent product



Patent of S-brake



Patent of S-brake



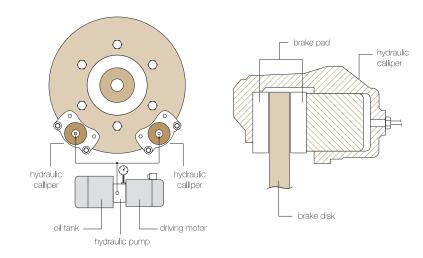
Korea Service quality excellent company

S-Brake® Product Structure

\blacktriangleright

The final guard for an escalator passenger Songsan S-Brake $^{^{\tiny{\tiny{\tiny{\tiny{\tiny{B}}}}}}}$

Reversing accident & Overspeed accident solution



S-Brake[®] Solution



Q1 Is it really safe from Reversing accident & Overspeed accident, regardless of escalator model type or escalator condition?

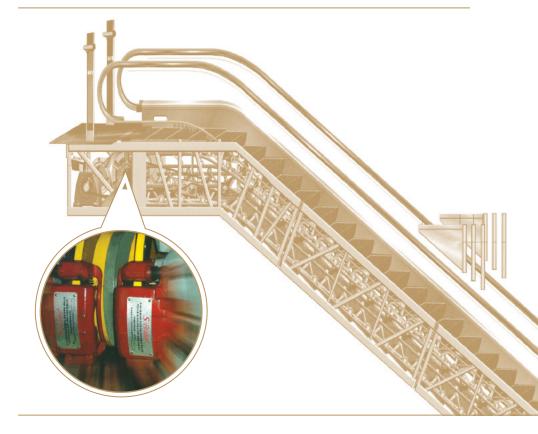
Ans Yes it is. S-Brake protect passengers safely by stopping driving shaft at the moment of Reversing accident & Overspeed accident causing by any reason

Q2 Isn't S-Braker out of order?

Ans It seldom happen.
In that case S-brake failure circuit is activating it stop escalator safely

Q3 Where is S-brake installed in escalator?

Ans S-Brake install at driving shaft center or side part of escalator



S-Brake® System



Revolution for the safe of Escalator New technology lead a safe driving

Prefect solution for existing escalators and new installion, "Reversing accident & overspeed accident"



Major Project Records

TRANSPORTATION













- Incheon International Airport
- Seoul International Airport
- Tehran Imam Khomeini International Airport
- Seoul Central Express Bus Terminal
- Seoul South Bus Terminal
- Busan Port Authority

RAILROAD & METRO STATION













- Korail Stations
- Seoul Metro Stations
- Incheon Metro
- Daeku Metro
- Kwangju Metro
- Stations Busan
- Station Tianjin China

INDUSTRY













































- HYUNDAI Heavy Industries
- SAMSUNG Heavy Industries
- Engineers india limited kolon

Indian Oil

Toyo Engineering

Corporation Limit

BASF

- Exxon Mobil
- Statoil
- INPEX Corporation
- Hyundai Glovis
- Hyundai Mobis
- LG Chemistry
- Daewoo Heavy Industries
- Korea Electric Power Corporation
- Korea Hydro & Nuclear Power Co., Ltd
- Korea Industrial Complex Corporation
- POSCO
- Nongshim
- Fursys
- Yuhan-Kimberly
- Larsen & Toubro hydrocarbon engineering

GOVERNMENT BUILDING







kocca



KOM:CO

- Korea National Assembly Building Korea food & Drug administration
 - Buyeo minting and security printing corporation
 - The board of audit and inspection
 - Korea culture & content agency

 - Government Buildings
- City Hall of Moscow





SHOPPING CENTER & DEPARTMENT STORE









- Lotte Department Store
- Observation Elevator
- Passenger Elevator
- Seoul Club
- Vladivostok Department Store
- Kwanghee Market

UNIVERSITY & SCHOOL









- Seoul Municipal University
- Masan University
- Kangwon University
- Daegu University
- Jeju International City
- Taiwan University

RESIDENTIAL BUILDING













- SK Center
- Dongwon Apartment
- Dongbu Building Exhibition
- KCC
- Daelim GS E&C
- Seoul Foreign Apartment
- Guhwa Building
- Florans Moscow
- Verhnaya Pishma

- Tc Letvinova
- Patrisa Lumunbi
- Komsom Tver
- Ordginikidze
- Detskaya Bolnica
- Alinghian's Building
- Teheran Razi Building
- Sama University
- Maloul Building

HOSPITAL & WELFARE









- Hongcheon Disabled Welfare Society
- Samsung Electronics Welfare Center
- Kim's oriental medical clinic
- Bupyeong Best Medical
- Government Children Hospital In Tver City
- Sharing Fountain Nursing Home
- Shin & Park Ophthalmology Clinic

MUSEUM & CULTURAL









- Seoul Savina Museum
- Kwangju Asia Cultural Complex
- leYoung Art Center
- Seongbuk Library
- Shiheung Welfare Center
- Daejeon World Cup Stadium
- Chungju National Sports Center













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