

HYUNDAI ELEVATOR

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HDEL, Now Serving Luxury Cruise Ships!

Behind Story of HDEL's Cruiser-elevator Deal



HDEL, the first ever Asian supplier of elevators to the super-luxury cruise, AIDA PRIMA, delivered its products to the purchaser, AIDA Cruise, in March 2016, when the ship began its operation in earnest. AIDA PRIMA, cruising along the West-European course, marked another milestone achievement of HDEL which has the largest market share in the world's elevator market for ships.



The Encounter between the World's Top Cruise Operator and Top Elevator Maker

HDEL closed the deal for supplying elevators for the two luxury cruise vessels of AIDA Cruise in July 2012. The super-luxury cruisers, 125,000 GT, can transport 3,400 passengers each. With the deal, HDEL sold 14 elevators for passengers, 15 for cargoes, and 4 observatory elevators. This is a total of 33 elevators per vessel, totaling 66 for both vessels.

Since the initial launching of the ship elevator business of HDEL, the company has risen to the top place in the world's ship elevator market with a 40% market share. Carnival Corporation, which is the parent company of the purchaser in this deal, AIDA Cruise, runs 10 cruise companies with a total of more than 100 cruisers, placing it firmly at the top in the world cruise market. With this deal, the two top players of the cruise market and the elevator market joined hands.

HDEL's Technology to Promote Safety, Convenience, and Style

AIDA PRIMA and AIDA PERIA, which are the luxury vessels to which HDEL is to provide the elevators, are known to equal five-star hotels in terms of their luxury. This deal is a significant milestone for an Asian company to supply elevators to such luxury ships. And, the significance of this achievement is further enhanced by the fact that now it is possible to demonstrate the technical capability of HDEL to guests from all across the world.

The elevators installed in the ships are designed with a special feature which prevents the cable being entangled even when the ship is tilted, using a device called the 'Cable Holder,' along with several other safety features to keep the users safe. Each

unit of the elevators is assigned with an IP address by applying the Lan-base supervisory panel, so that it is possible to get on the network without installing a separate communication line. In addition to such technical features, the units are designed to match the plush features of the super-luxury cruisers, custom designed only for AIDA Cruise.

AIDA PRIMA staged a successful launching show in Hamburg, Germany in July 2016 and is now cruising along the Western-European course. The other vessel, AIDA PERIA is still being built and scheduled for her first voyage in the first half of 2017. AIDA Cruise seems to be getting favorable conditions for its voyage, and HDEL is also enjoying good times. HDEL's products will be carrying more people at sea to provide them with even more special experiences and wonderful views.

HDEL JOINS HANDS WITH AIDA, THE BEHIND STORY



An HDEL elevator engineer at work in AIDA Prima [left]

Winning the deal was a challenge for the company. While HDEL was the top player in the world's ship elevator market, the market reputation of 'HDEL' from 'South Korea' was less prestigious than other competitors. Especially, for the cruiser operators

that were mainly based in Europe, an Asian company was not familiar to them. To address this issue, HDEL's Marine Elevator Team invited the executives and related officers to the test tower located in the Icheon HQ of the company. The visiting executives were convinced that HDEL was in no way inferior to any other company in the world in terms of technical capabilities. The efforts of the Marine Elevator Team finally paid off.

Global HYUNDAI! Safety HYUNDAI!

Meet HDEL at 2016 International Lift Expo Korea, ILEK

'2016 International Lift Expo Korea, ILEK' was held in Coex, Gangnam, Seoul for three days from November 17. This year's event, which was attended by many companies including HDEL, was particularly more significant as the event went beyond a mere exhibition of technologies or products and included discussions on safety, which is a key issue.



A Fest of New Technologies and Gathering of Global Leaders of the Industry

On the fourth occasion of ILEK, which was started in 2010, the event constituted the largest exhibition of its kind in the industry where trends in the South Korean elevator industry can be discovered at a single place.

Covering 6000m² with 400 exhibition booths, this year's event was joined by more than 140 companies from across the world, including HDEL, and multinationals like Otis Elevator and Thyssen Krupp. The number of visitors, who attended the event to learn about trends in the world's elevator market, exceeded 25,000.

In particular, this year's event was combined with an international conference and the regular convention of 'Pacific Asia Lift and Escalator Association.'

As the leader in terms of market share in South Korea, HDEL presented the largest exhibition stand of all participating exhibitors. With the theme 'Global HYUNDAI & Safety HYUNDAI,' the company staged six sections with different focuses, including the Global Hyundai section, LED Multi-vision section, Safety and Technology section, and Design section.

Displaying the Worlds' Highest Technical Competency and Designs!

HDEL unveiled its latest nude elevators and escalators using LED glass for the first time in the world. In addition, the company displayed new products with a stronger emphasis on the design, such as the NEW YZER SIGNATURE portraying images of emeralds, crystals, and other jewels, and the INNOVER, with the natural themes of water, gold, land, and light.

The company also staged a simulated experience of the world's fastest elevator, traveling at 21m/s-velocity. The elevator is still in its development stage. They also provided an indirect experience of HRTS (Hyundai Real Time Service) and CCC (Customer Care Center), using smart-phone applications. With this attraction, the visitors were able to control the elevator in operation with their smart phones. And, in the virtual CCC where many large screens were installed, it was possible to participate in the real-time product monitoring process and witness the prompt field inspection service in response to a request by a customer. In addition, the company gained the

attention of the visitors with its two-way video-call technology in the try-out elevator and superb maintenance and service capability.

HDEL, a Customer-Oriented Company, Now Ventures into the World!

Elevators are no longer a mere mode of transportation. Lately, elevators are viewed as an essential element in enhancing the value of a building with their various functions and designs. The variety of the designs of elevator products displayed at the exhibition seemed to reflect this trend. Especially, the new products introduced by HDEL were highly praised as reflecting the shifting focus of customers to technology, safety, and designs.

HDEL once again proved its leadership in the South Korean market by demonstrating its technical capabilities with the fastest elevator in the world and designing skills. At the same time, it was an opportunity for the company to demonstrate its potential and ability to achieve its goal of globalization and venture into the world market and go beyond its leading position in the South Korean market.



Shanghai Subsidiary of HDEL Aims for Another Success

The Shanghai subsidiary of HDEL is preparing to create another success story by bolstering the fundamentals through a company-wide innovation program. The Shanghai subsidiary shared its vision through its Vision 2020 Declaration Ceremony and aims to secure the energy for its future growth by pulling off the H-1 project successfully.

Calling for Dedication for Success, the Vision 2020

Declaration Ceremony of Shanghai Subsidiary

The Shanghai subsidiary of HDEL held its Vision 2020 Declaration Ceremony in Shanghai on September 30, with a view to renewing its commitment to achieving further success and presenting its vision for the year 2020. The ceremony was attended by CEO Bob Jang, local staff members, and their families, totaling 700 participants. In the ceremony, the 2020 goals of the Shanghai subsidiary were presented along with a new plan to build a factory. The participants at the ceremony also shared and discussed the business plans of each division, with a view to creating "a company that grows with its customers at the center."

The declaration ceremony was followed by a talent contest in Part 2 of the event. There were 16 contending teams who staged their performances on the stage and strengthened their will and commitment to achieve the goals for 2020.

HDEL Shanghai Subsidiary, Pledges Revolutionary Changes in Its Management

Following the Vision Declaration Ceremony in September, Shanghai subsidiary held its 'Kick Off Ceremony' where the H-1 TFT members, local staff, CEOs of the Branch and agencies were present, totaling 152 guests, to mark the launching of the H-1 Project.

The H-1 Project is a corporate Operational Excellence



Program established in order to achieve a more efficient management system and make the products more competitive. After the project execution in South Korea, Shanghai subsidiary will continue the project from October for five months.

CEO Bob Jang said in his speech, "The future of the company hinges on the success of the H-1 Project," and added, "All employees should forge a collective will and share awareness of the critical issues facing the company in order to make the H-1 project a success."

The Shanghai subsidiary plans to secure the energy for its future growth to the next level in the Chinese market by realizing company-wide innovation through the H-1 project.



HDEL Certified for Global Carbon Management



HDEL has become the first company in the elevator industry to obtain the Global Carbon Management Certification. The Global Carbon Management Certification is the most highly regarded certification of its kind, originally founded by Carbon Trust, a non-profit organization funded by the British Government in 2001 in response to the increasing concern over global warming. HDEL has been minimizing energy consumption and maximizing efficiency through various energy saving efforts, including recovery of wasted energy from the manufacturing process, updating its equipment, and operating a natural ventilation system. These efforts have paid off, as the company pulled off an astounding 20.1% energy efficiency improvement in 2015 in terms of greenhouse gas emission cut per sales in 2015 compared to 2013-2014, which earned the company the certification.

The award ceremony of the certification has held in Hyundai Asan Tower located at the Icheon HQ of the company, and was attended by Mr. Darren Messem, the President of Carbon Trust, on October 20.

Second Workshop for Acceleration of Globalization Held

The Seoul Office of HDEL held the second Workshop for Acceleration of Globalization on October 21. The workshop, which was held based on the agenda of 'Identifying the Execution Tasks for Each Division in Order to Secure Globalization Competitiveness,' was attended by the division heads, officers in charge, Department Heads, and Team Leaders. The morning program of the event was composed of a lecture on the "B2B Business Competency Development Model and Sales Process," and a session in which the materialization strategies were shared and discussed. In the afternoon session, the participants joined together in a lively debate to identify the acceleration agendas in 10 domains, including domestic sales, installation, overseas business, service business, manufacturing, quality & safety, R&D, purchasing, logistics equipment business, and Chinese incorporation.



HDEL Announced the First Interim Report for the H-1 Project



HDEL announced the first interim progress report for its operational Excellence project, titled 'H-1' at the Seminar Room of Icheon HQ of the company on September 22. The project, which was launched in June this year, was completed four months after its start. The announcement meeting was attended by CEO Bob Jang, representatives of the Labor Union, heads

of various divisions and officers in charge, Department Heads, and TF members. The 86 participants of the meeting shared news on the progress of the programs in the project and discussed action plans for the next phases and their goals. Also, nine employees who suggested brilliant ideas and three departments received citations for their contributions.

CEO Bob Jang stated in his speech to honor the participants: "We will enhance the ability of the company to execute the projects in order to spread its benefits to the entire company, while we establish dedicated organizations to provide support for the company-wide participation in the project." With such words he encouraged the members of the company to press on with their efforts for innovation in order to maximize the benefits and results.

Scholarship Awarding Ceremony Held



On November 22nd HDEL handed over scholarships to fifteen students from the city where the HQ of the company is located. HDEL has been providing sponsoring scholarships for junior high school and high school students in a matching grant program, in which the employees contribute small amounts in their salary below 1,000 Korean won to the charity fund, which is matched by a grant provided by the company. HDEL has been engaged in various social-responsibility activities in addition to the scholarship program, including supporting environment enhance programs, sponsoring Icheon Pottery Festival, volunteer farm works, coal-delivery volunteering, and sponsoring welfare facilities in the city, to help the local community.

Malaysia, UDA LEGASI



HDEL concluded a deal for 15 elevators with UDA LEGASI, located in Jalan Razak, Kuala Lumpur, Malaysia in September. The deal includes thirteen 3.5m/s-velocity elevator products. UDA LEGASI is a combined office-residence facility located in Kampong Bharu, which is one of the oldest residential districts in the city, and close to Putra LRT, Kg Bharu Station.

Turkey, SURYAPI MARKA



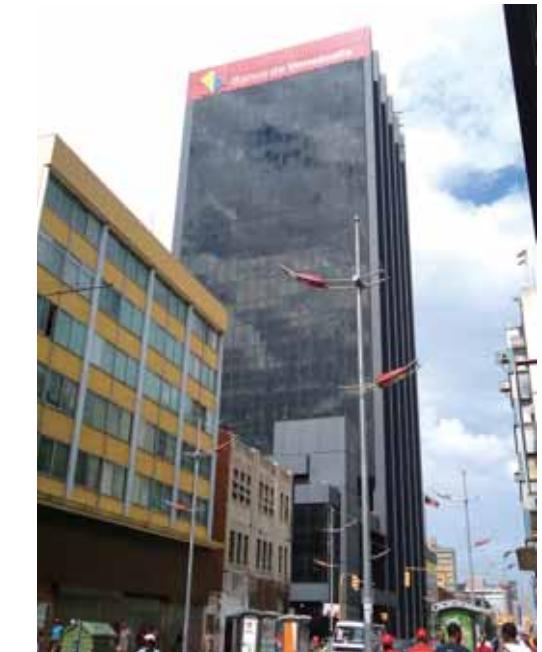
HDEL closed an elevator supply deal with SURYAPI MARKA, located in Bursa, Turkey in September. According to the deal, the company is to provide the buyer with a total of 52 units, which include twelve 2.5m/s-velocity elevators, 14 escalators, and 12 moving walks, by January 2017. SURYAPI MARKA is a compound facility composed of a shopping-mall and residences. Bursa is a district that is vital to the automobile industry of Turkey as there are many world-renowned auto-part makers and factories located there.

UAE, DAMAC Maison De Ville Artesia



HDEL concluded an agreement with DAMAC Properties, to provide a total of 27 elevators, including seven 1.75m/s-velocity units to be installed in Maison De Ville Artesia. Maison De Ville Artesia commands a view over an international-class golf course as it located in The Drive at AKOYA, which is a 'golf master plan community.' The facility accommodates a hotel and service residences.

Venezuela, BANCO DE VENEZUELA



HDEL closed a deal with BANCO DE VENEZUELA to provide eight units of 5m/s-velocity elevators by March 2017. The client's facility is located in Caracas, Venezuela. BANCO DE VENEZUELA is one of the leading banks of the country and was founded in 1890.

Vietnam, MUONG THANH SON HAN



HDEL closed a purchase contract with MUONG THANH SON HAN, located in Danang, Vietnam. The deal includes eighteen 3m/s-velocity elevators and six escalators. MUONG THANH SON HAN is located in the most beautiful area along the coast of Danang, which is a world-renowned resort town in Central Vietnam. The facility is planned to be used as a hotel and apartment complex.

India, 3C Ozone Boulevard



HDEL concluded a sales agreement for elevators with 3C Company in India. The elevators purchased in this contract are to be installed in 3C Ozone Boulevard, which is located in sector-98 Noida. With this deal, the company is to ship out 72 units of 1.75m/s-velocity elevators by July 2017. 3C Ozone Boulevard, Which is a combined retail and office facility, is composed of three towers.



Your Double-Deck Bus to the Sky, Double-Deck Elevators

When the elevator was invented, the aim was to make life easier for the workers who had to move heavy loads to a height. Today, however, elevators do a lot more than that. They have gone beyond the transportation of cargoes and have become the means of vertical movement of people, even making it practical to live in a skyscraper with dozens of floors. They became faster, safer, and became handier in moving more people at a higher speed. Now, here is the latest development of their evolution.

Faster, safer, and more convenient – Double-deck elevators

There are more and more skyscrapers being built every day, and the new ones seem to grow higher than ever before. The increase in the number of high rises boosts the progress of the elevator technology. In addition to the speed and safety related features, where progress has been astounding, they are expanding in their capacity, as well. Our double-deck elevator is the new invention of HDEL, aiming at carrying more people with more comfort in a sky scraper.

Normally, an elevator unit has one 'car.' A double-deck, however, has two of them vertically aligned. Like a double-deck bus, the two levels are attached to one another in a vertical alignment, allowing the double-deck elevator to transport more people.

A double-deck elevator needs to make fewer stops compared to single-deck elevators. Due to the reduced number of stops to make, the people have to wait less. Running two cars at the same time allows a higher transportation volume, boosting the transportation efficiency 1.8 times.

As one hoist way can accommodate two



The new HQ of LG U+, Korea

elevators at the same time, so to speak, the number of hoist way can be reduced, as well. This means there is more space in the building that can be used.

HDEL succeeded in developing its double-deck elevator with its own technology in 2010. Now, the company has introduced 'THE EL Duo.' The new elevator can travel at 10m/s-velocity, making it one of the fastest of its kind in the world.

'THE EL Duo,' high precision technology and flexibility in operation arrangement

The EL Duo can travel fast, and thanks to the high-precision alignment mechanism, it can stop at the exact location, even when the heights of the floors it covers differ, using its 'floor distance adjustable device'. This device can control the gap between the two cars freely, making it possible to install the elevator in an environment where the levels of the floors are not the same.

HDEL installed 'The EL Duo' double-deck unit with 4m/s speed at the new HQ of LG U+ (Seoul, Korea) for the first time in the country in 2014. Especially, this unit employed the high-strength chain drive mechanism to prevent slipping. The automatic floor distance adjustable device, which supports high precision control allows the unit to serve floors with different ceiling heights seamlessly. In addition, HELIAS (HDEL Intelligent Access System) was introduced along with the intelligent speed gate system. With this, the passengers can press their ID card on the readers, and the elevator will take him/her to the floor he/she works on without pressing the button, making the life of the passengers even easier.

HDEL's 2016 in Keywords



Glocalization

HDEL held its Glocalization declaration ceremony on April 19, 2016 and announced its Glocalization strategy to become one of the Global Top 7 by 2030. Glocalization is a compound word between Global and Localization, meaning that the company cares about not only boosting its export sales but also expanding the company's core competency and talents to the global market to earn its place as one of the global companies.



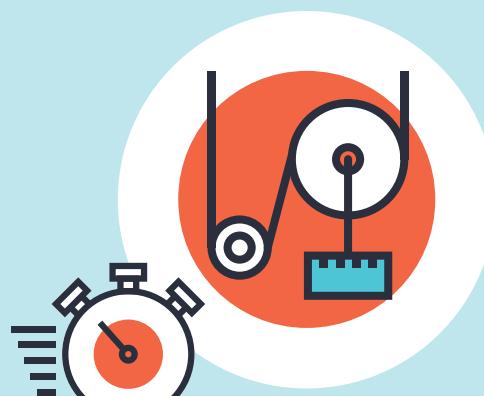
H-1

"H-1" is the company-wide operation Excellence program. Since the kick-off ceremony for the program on May 31, the program has been executed in the Korean HQ and extended to the Shanghai subsidiary starting from October. H-1 means all employees of HDEL (H) are to become one (1) to make the company 'Global No. 1,' while also meaning the company seeks to become 'No. 1' in everything through "High Performance."



2,000 & 20,000

August 2016, the monthly production rate of the Icheon factory of HDEL exceeded 2,000 units. This is one of the grandest achievements in the 32-year history of the company and was made possible by the continued efforts in technical R&D and the extension of the sales network. As of the end of 2016, it is expected that the annual production volume will exceed 20,000 units.



21m/s

HDEL, which has the technology to build the top-level elevators in the world in terms of speed that travel 18m/s-velocity, is currently developing the elevators that can travel 21m/s-velocity, which is a world record, by 2018. The company released the simulation video clip of an 21m/s-velocity, at the 2016 International Lift Expo Korea.



Ethics

HDEL declared that it is the policy of the company to embrace ethics management to match the company's status as a global company. In July, the company published its Sustainability Report, followed by the establishment of the 'Overseas Subsidiaries Cyber Reporting System' through which reports of corruption or illegal transactions, as well as other violations of the ethics policy, can be reported. In October, the company obtained the Global Carbon Management Certificate due to the success of the company in reducing greenhouse gas emissions by 20.1%. As such, the company is committed to its responsibilities and pursues sustainable growth beyond mere quantitative expansion.



Shanghai & Turkey

Of the overseas subsidiaries of the company, Shanghai and Turkey saw major changes in 2016.

Shanghai subsidiary laid the foundation for its growth through the Vision Declaration Ceremony and the H-1 project. The incorporation held the Vision 2020 Declaration Ceremony on September 30 and the kick-off event for the H-1 project on October 25.

In the meantime, HDEL established its Turkish local subsidiary by entering into a joint venture agreement with STFA group in July 2016. HDEL aims to reach the top position in terms of the imported elevator market share in Turkey and reach the sales amount of 100 billion Korean won by 2020.

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Traffic analysis
of elevator
equipments and
solution proposal



Phased design
support service
(Schematic Design ➤ Design Development ➤ Construction Document)



Introduction of
new elevator
technologies
(Life Boat Lift, Stack Effect, Building Sway, Noise-Vibration Countermeasures)



Analysis of
building law and
code/Review
service



Improvement
service of
elevator
technology and
safety through
technical
seminars



Technical
consulting
support on
application-
specific elevator
technology

