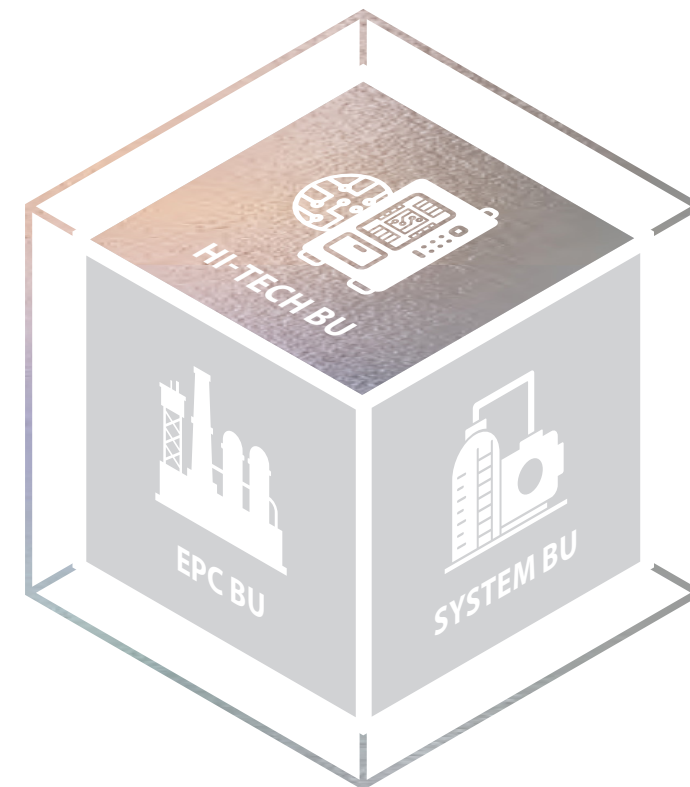


TOTAL SOLUTION PROVIDER

HI-TECH BU



HANYANG ENG CO.,LTD

72, Yeongtong-ro 26beon-gil, Hwaseong-si, Gyeonggi-do, 18380, Korea
Tel. 82-31-695-0000 Fax. 82-31-204-0394

<http://www.hanyangeng.co.kr>

Contents

Hi-Tech BU	04
About Hi-Tech BU	06
Technical Capabilities	08
Modularization Method	10
Main Equipment	12
Key Achievements	14
HANYANG ENG	16
Clients & Organization	18
Global Network & Subsidiaries	20



A Global Company that Provides
Total Engineering Solutions

HANYANG ENG is leading the creation of customer value
by implementing the best quality and services through quality management.
HANYANG ENG, which provides the best total service to customers with the best
technologies in the semiconductor and display fields, industrial plants
(general industry and gas industry), environment, green energy, and aerospace field,
is realizing sustainable growth with creative technologies to create
a bigger tomorrow through innovation.

Hi-Tech BU

- **Main Projects**

- Gas & PCW
- Modularization Process
- Utility & Process Piping

- **Hook-Up Projects**

- Gas(Bulk & Special)
- UPW & Drain
- Chemical
- Vacuum
- Exhaust

HI-TECH BU

Reliable Construction Capability & Advanced Technologies that Drive the Success of IT Industry

HANYANG ENG, which is a company specialized in mechanical equipment construction, is the first company in Korea to commercialize utility line construction, which is essential for IT industrial production facilities such as semiconductors and displays.

Hi-Tech BU carries out utility line constructions for not only domestic large-scale semiconductor and display manufacturers but also large-scale overseas projects.



Hi-Tech Business Unit is...

HANYANG ENG Hi-Tech BU, which has UHP (Ultra High Purity) piping technology, an essential technology for the semiconductor and display industries, has been a reliable partner of leading domestic and overseas semiconductor and display manufacturers based on diverse construction experiences such as cleanroom, HVAC, utility system, etc. In establishing production facilities in the hi-tech sector, which is the foundation of the 4th industrial revolution, HANYANG ENG will make continuous efforts for the future value of customers based on the differentiated engineering and construction capabilities, expertise, and organizational power.

Place for
Mechanical
Equipment
Construction
Nationwide



(2017, 2020, and 2021)

1ST

Corporate
Credit
Rating



A⁺

Obtaining Own
Development
Equipment &
Technologies



Manufacturing &
Logistics Centers in
Cheongju
and
Hwaseong



Hi-Tech BU

Core Technology

Core Technology

HANYANG ENG has various elemental technologies that can be utilized in the mechanical equipment construction of domestic and overseas semiconductor/ display companies. We also provide comprehensive construction, such as UHP (Ultra High Purity) piping and mechanical equipment construction, cleanroom, HVAC, utility system, and equipment, along with a unique modularization method. From high-tech engineering to construction, HANYANG ENG will open the door to the future through rich construction capabilities based on highly accumulated technologies and quality.

Modularization Method with High Quality and Safety

This is a method of manufacturing the utility supplied inside the semiconductor FAB as a unit (piping & duct) from the outside, transporting, installing, and constructing it to the site. The modularization method is a new method that provides various advantages, such as shortening the construction period and improving quality, as well as reducing required on-site manpower and securing work safety.

Construction of Korea’s First UHP Piping and Mechanical Equipment

In the late 1980s, HANYANG ENG contributed to the localization of the entire process from engineering to production and construction of UHP piping for the semiconductor manufacturing process for the first time in Korea. By expanding its business areas, such as cleanroom, HVAC, utility system, etc., HANYANG ENG has been recognized for its excellent technologies by leading semiconductor/display companies and manufacturing companies in the IT field domestically and abroad.

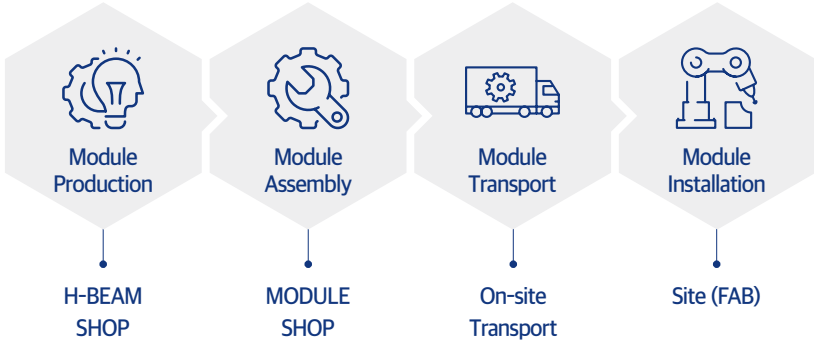




Module Method

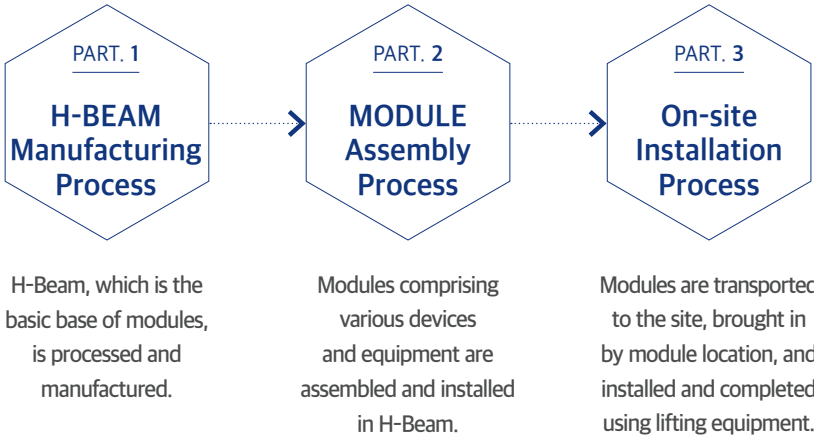
The modularization method developed and constructed by HANYANG ENG in-house is a technology that manufactures the piping systems and devices necessary for semiconductor/display production outside in advance, turns them into blocks, transports them to the site, and assembles them immediately. The modularization method is a new technology that can improve efficiency and safety while reducing cost and time, and is being actively used in leading projects.

Modularization Process Flow Chart

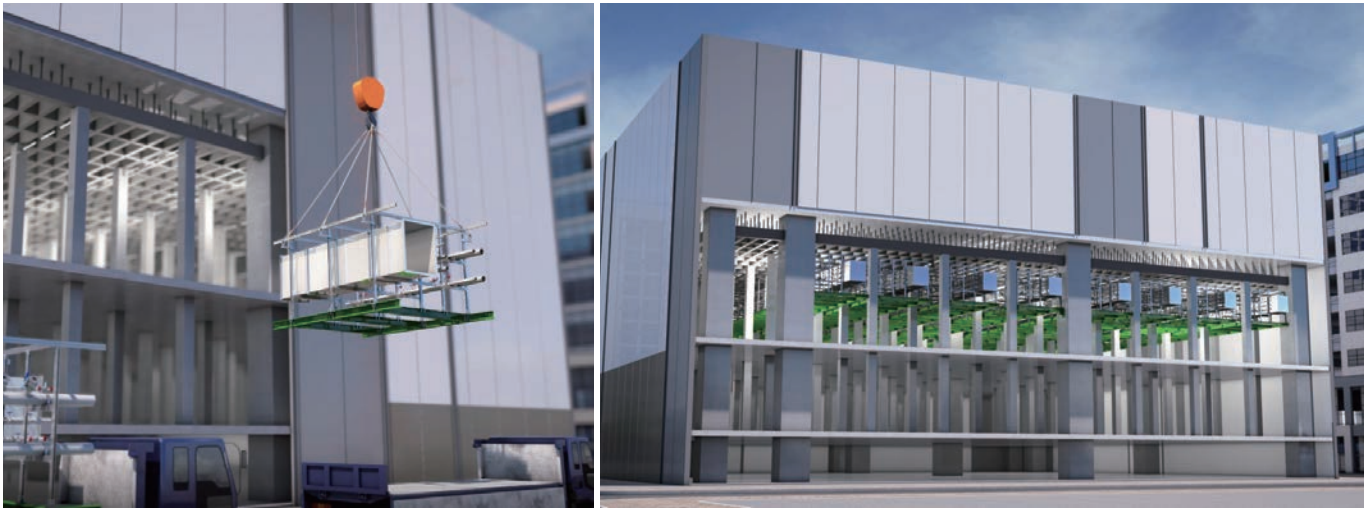


Advanced Newly Developed Method that Secures High Quality, Safety, & Scalability - Modularization Method

The modularization method is a technology to minimize on-site work in which standardized module units are manufactured at the HANYANG ENG plant at the same time as the on-site foundation construction from the start of construction, transported, and installed to the site immediately upon completion of the foundation construction, and assembled and completed within a short period of time. It is a newly developed construction method that has many advantages such as shortening the construction period, high-quality construction, strengthening seismic performance, easiness of engineering for extension and expansion, minimization of on-site work, and securing safety.



Hi-Tech BU
Modularization Method



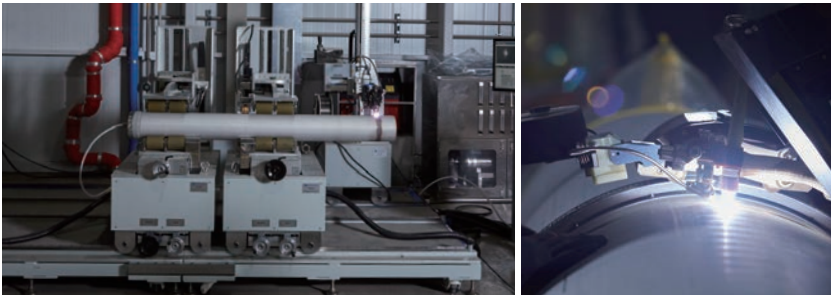
Hi-Tech BU
Automation Equipment



Automation Equipments

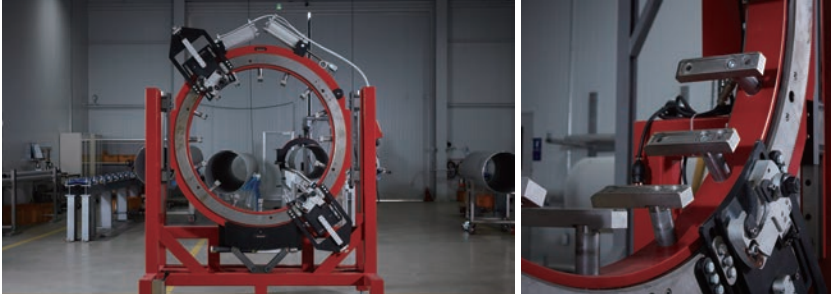
Large Diameter Automatic Welding Machine

We produce high-quality products by processing large-diameter pipes (over 1,000mm in diameter) with equipment capable of automatic welding, rather than general-sized pipes.



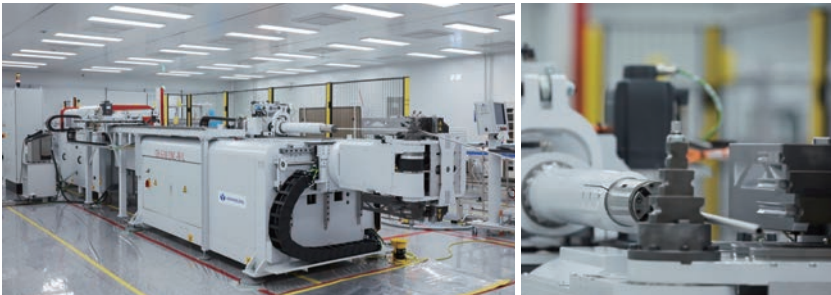
Large Diameter Cutting Machine

This equipment cuts large-diameter pipes (up to 1,000mm in diameter), not general-sized pipes. It improves productivity by securing high quality, safety, and time reduction.



Automatic Bending Machine

Through the production of automatically bending (bending processing) the pipe when the user inputs a unique barcode, it ensures high quality and time reduction and allows mass production of products to be possible (Tube Size: 1/4 to 1 inch/ Angle: 0° to 360°).



Major Performance

Key Achievements



1980

- 1982 HANYANG Mechanical Engineering established
- 1983 Participated in semiconductor line piping for the first time in Samsung Electronics Giheung Line 1
- 1984 Participated in piping for SK Hynix (Hyundai Electronics at the time) Icheon Semiconductor Assembly Line
- 1986 Participated in Samsung Electronics Giheung Line 2
- 1989 Participated in Samsung Electronics Giheung Line 3
- 1992 Participated in Samsung Electronics Giheung Line 5
- 1997 Participated in LG Display (LG LCD at the time) Gumi Plant 2 (P2)
- 1998 Participated in mechanical piping for Samsung Electronics Austin (SAS) FAB1 Plant in the USA

2000

- 2000 Participated in Samsung Electronics Hwaseong First Production Line (Line 10/11)
- 2002 Participated in Samsung Electronics Hwaseong Line 12/13
- Participated in Samsung SDI PDP Line 2
- 2003 Participated in Samsung SDI PDP Line 3
- Participated in Samsung Electronics Giheung Line 14
- 2004 Participated in LG Display Paju Plant 7
- 2005 Participated in SK Hynix Wuxi PJT in China
- Participated in Samsung SDI PDP Line 4
- 2006 Participated in Samsung Electronics Hwaseong Line 15
- Participated in LG Display Paju Plant 8
- Participated in Samsung Display A1 Line
- 2008 Participated in SK Hynix Cheongju M11 Line

2010

- 2010 Participated in Samsung Electronics Hwaseong Line 16
- 2011 Participated in LG Display Paju Plant 9
- Participated in Samsung Display A2 Line
- 2012 Participated in SK Hynix Cheongju M12 Line
- 2013 Participated in Samsung Display A3 Line
- 2014 Participated in Samsung Electronics Xian Line 1 in China
- Participated in SK Hynix Icheon M14 Line

2015 - Now

- 2015 Participated in Samsung Electronics Hwaseong Line 17
- 2016 Participated in LG Display Plant in Haiphong, Vietnam
- 2017 Participated in Samsung Electronics Pyeongtaek Line 1
- Participated in SK Hynix Cheongju M15 Line
- 2018 Participated in Samsung Electronics Xian Line 2 in China (first attempt of the modularization method)
- Participated in Samsung Electronics Pyeongtaek Line 2 (full-scale execution of the modularization method)
- 2019 Participated in Samsung Display A4 QD-Display Construction
- 2020 Participated in SK Hynix Icheon M16 Line
- 2022 Participated in Samsung Electronics Pyeongtaek Line 3 (Phase 1 - 2 FAB Module)

A modern, multi-story office building with a white facade and large glass windows. The building has a distinctive architectural style with a series of white, rectangular, cantilevered structures along the top edge. The entrance is a glass-fronted area with a small overhang. The building is surrounded by greenery and a clear blue sky with some clouds.

HANYANG ENG

HANYANG ENG

Total Solution Provider

HANYANG ENG has been recognized for its capabilities by accumulating various business experiences and technologies in domestic and overseas markets since its establishment in 1988.

Now, HANYANG ENG is pursuing substantial growth by discovering new business models and new markets in line with the changing global paradigm to enhance future value, and practicing transparent management. Through this, we will be a 'Total Solution Provider' that provides optimized quality and services in not only the semiconductor/display industry but also in the fields of industrial plants, gas, environment, green energy, and aerospace.

The logo consists of a stylized, circular emblem with three curved lines inside, resembling a flower or a leaf.

HANYANG ENG



Major Clients


삼성전자


삼성디스플레이


삼성전기


삼성SDI


삼성물산


삼성엔지니어링


삼성중공업



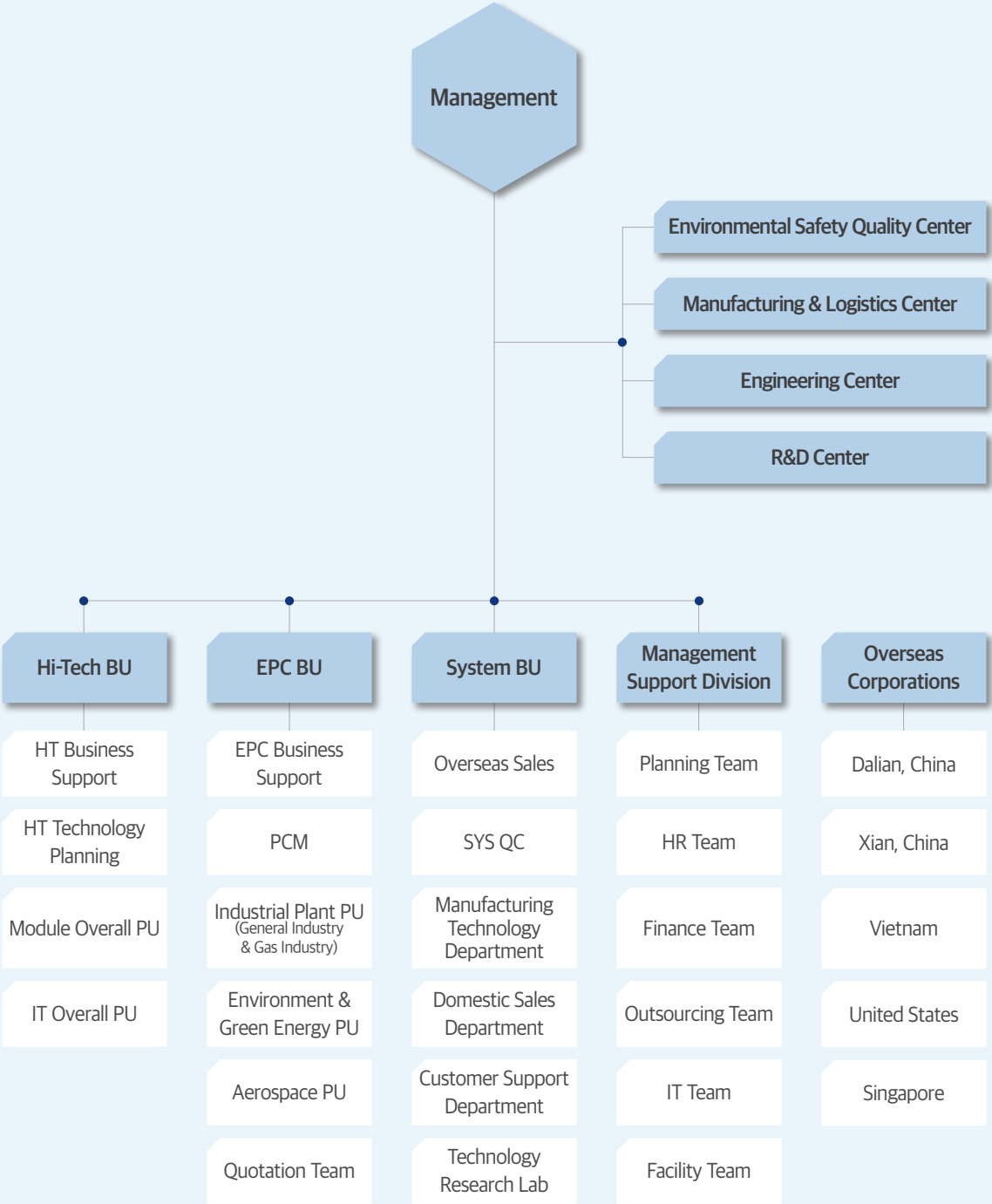








Organization



* BU(Business Unit)
* PU(Performance Unit)

Global Network & Subsidiaries

Domestic & Overseas Business Sites

Domestic

HQ

72, Yeongtong-ro 26beon-gil, Hwaseong-si, Gyeonggi-do
Tel. 82-31-695-0000 Fax. 82-31-204-0394

Seoul Office

Hanyang Bldg., 123, Yeoksam-ro, Gangnam-gu, Seoul
Tel. 82-2-2148-0000 Fax. 82-2-2148-0190

Central Branch (Eumbong)

32, Yeonamsan-ro, Eumbongmyeon, Asan-si, Chungcheongnamdo
Tel. 82-41-541-0139 Fax. 82-41-534-4634

Manufacturing & Logistics Center (Gajae-ri)

482-15, Samcheonbyeongma-ro, Paltanmyeon, Hwaseong-si, Gyeonggi-do
Tel. 82-31-695-9006 Fax. 82-31-354-7943

Manufacturing & Logistics Center (Cheongju)

91, Jikji-daero 307beon-gil, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do
Tel. 82-43-229-0200 Fax. 82-43-229-0279

Overseas

Dalian, China

HANYANG Construction(Dalian) Co., Ltd.
No.127 Liaohe Road, Wanda Plaza, Bulding 4, Room 915, Development Zones, Dalian City, Liaoning, China
Tel. 86-411-8753-6190 Fax. 86-411-8753-6192

Xian, China

HANYANG (Xian) Engineering Co., Ltd.
Room 706, Building A, Yanxiang City Plaza, No. 56 Jinye 1 Road, High-tech Zone, Xi'an, China
Tel. 86-29-8115-4808

Vietnam

HANYANG ENG Vina Co., Ltd.
Unit 2603, Floor 26, Eurowindow B/D, No. 27 Tran Duy Hung Str, Trung Hoa Ward, Cau Giay Dist, Hanoi City
Tel. 84-43-253-5265 Fax. 84-43-253-5265

United States

HANYANG ENG USA Inc.
12100 Samsung BLVD SUITE 100 Austin TX 78754, U.S.A

Singapore

HYE Global PTE., Ltd
3 Shenton Way #16-08, Shenton House Singapore

Affiliates

HCM Co., Ltd.

332-7, Samsung 1-ro, Hwaseong-si, Gyeonggi-do
Tel. 82-31-204-4330 Fax. 82-31-695-0195
<http://www.hcmkorea.com>

CTP Korea Co., Ltd.

332-7, Samsung 1-ro, Hwaseong-si, Gyeonggi-do
Tel. 82-31-202-3734
<http://www.ctpkorea.com>

※ CV & PV Business Unit separately operated

DINNO Co., Ltd.

D-810, 357, Guseong-ro, Giheung-gu, Yongin-si, Gyeonggi-do
Tel. 82-31-229-3040
<http://www.d-inno.co.kr>

Partners

HANYANG Digitech Co., Ltd.

332-7, Samsung 1-ro, Hwaseong-si, Gyeonggi-do
Tel. 82-31-695-5000
<http://www.hanyangdgt.com>

HANYANG Digitech Co., Ltd.
HCM Co., Ltd.
CTP Korea Co., Ltd.
DINNO Co., Ltd.
HQ
Manufacturing & Logistics Center (Gajae-ri)
Central Branch (Eumbong)
Manufacturing & Logistics Center (Cheongju)