



**HYUNDAI STEEL**

**AUTOMOTIVE STEEL**

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## CORPORATE INTRODUCTION (CI)



The symbol 'H', which embodies the mission of Hyundai Steel, stands for 'High Spirit', 'Harmony', and 'Humanity'. The firm and stable axes on both sides of the 'H' imply the past and new businesses and customers. The bridge connecting the two axes suggests a promising future of Hyundai Steel, growing with balanced contact and integration of both axes.

The bright blue color shows the leading position of Hyundai Steel in future environmental concerns, proposing a new blueprint based on modern technology and reliability. In other words, High Spirit, Harmony, Humanity collectively represent that Hyundai Steel will grow into a world-leading steel company with high spirit and harmony, thereby contributing to the humanity.

**FROM RAW METAL TO CARS, FROM KOREA TO THE WORLD, HYUNDAI STEEL, AN INNOVATIVE STEEL INDUSTRY LEADER, IS HERALDING A NEW ERA OF CHANGE AND CREATIVITY BY DEVELOPING AN ECO-FRIENDLY PRODUCTION SYSTEM BASED ON THE "3Rs", REUSE, RECYCLE, AND REDUCE.**

# COMPANY HISTORY

## START~1979

- 1953. 06 Established as Korea Heavy Industry Corporation
- 1962. 11 Changed name to Incheon Heavy Industry Company Ltd.(Privatized)
- 1964. 09 Established Incheon Iron & Steel Company
- 1970. 04 Merged with Incheon Heavy Industry Company Ltd.
- 1972. 05 Commissioned a wire manufacturing
- 1973. 07 Commissioned a 40 ton crude steel facility
- 1973. 11 Commissioned a wire rod rolling mill
- 1975. 05 Commissioned a mini mill
- 1978. 06 Incorporated into Hyundai Group
- 1979. 03 Commissioned an electric arc furnace mill

## 1980~1990



- 1982. 03 Commissioned a wide flange beam mill
- 1983. 02 Commissioned a casting mill
- 1985. 02 Expanded 40 ton electric furnace mill to 50 ton mill
- 1986. 01 Converted 60 ton electric furnace mill
- 1986. 02 Converted wire manufacturing mill
- 1987. 02 Expanded 30 ton electric furnace mill to 40 ton mill
- 1987. 05 IPO (Initial Public Offering)
- 1990. 03 Commissioned a stainless cold rolled steel mill (50,000 tons/year)
- 1990. 09 Expanded stainless cold rolled steel mill (120,000 tons/year)

## 1991~2000

- 1992. 01 Completed the 1.1 million ton wide flange beams mill
- 1992. 10 Became a full member of the International Iron & Steel Institute
- 1993. 12 Renovated the shapes mill
- 1994. 12 Completed the 90 ton electric arc furnace mill and second No.2 reinforcing bar mill
- 1997. 10 Completed the R&D building
- 1998. 03 Completed the 120 ton electric arc furnace mill and new shapes mill
- 2000. 03 Merged with Kangwon Industries Ltd.
- 2000. 12 Acquired Sammi Steel Company Ltd.

## 2001~2005



- 2001. 04 Reincorporated into Hyundai Motor Group
- 2001. 07 Changed name to INI Steel Company
- 2004. 10 Acquired Dangjin Steelworks (Hanbo Iron & Steel) assets
- 2004. 10 Dangjin Works was merged and acquired
- 2005. 05 Completed commercial test run of Dangjin hot rolled steel mill production

## 2006~2008

- 2006. 03 Changed name to HYUNDAI STEEL
- 2006. 09 A harbor opening ceremony for ships with a draft of 50,000 tons

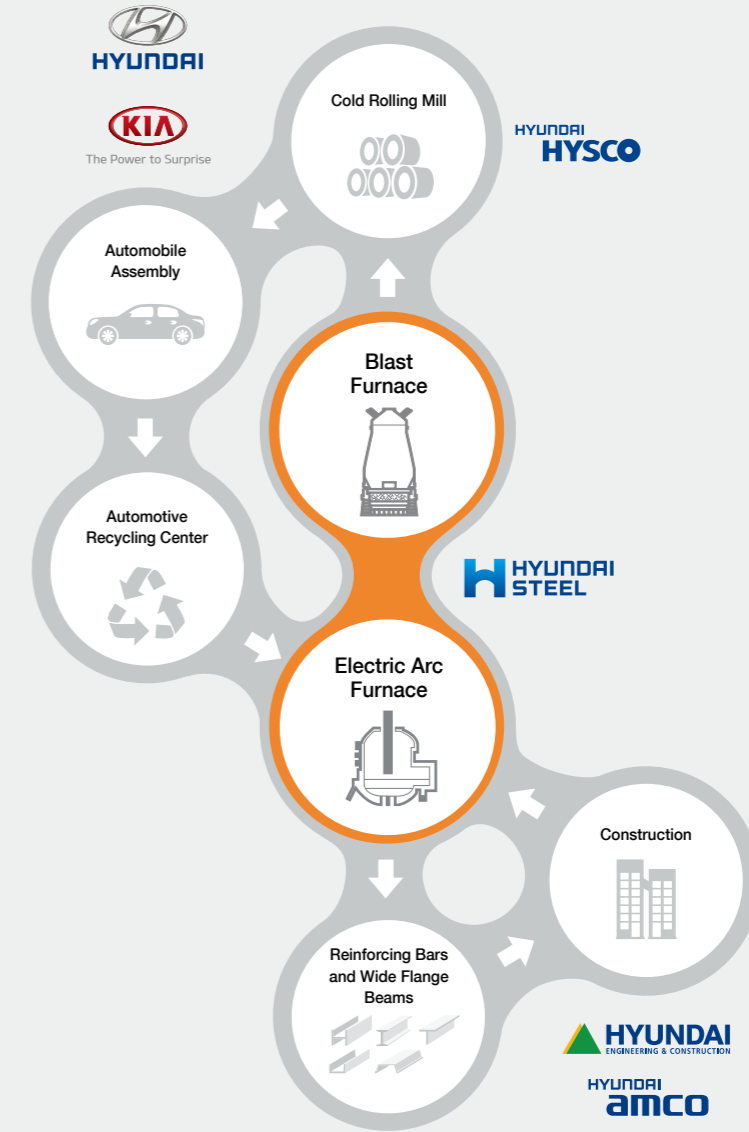
- 2006. 10 Completion Hyundai hot-rolled steel mill
- 2006. 10 Ground-breaking ceremony for integrated steel mill
- 2007. 07 Ground-breaking ceremony for the closed-loop type raw material treatment facility for the integrated steel mill
- 2007. 08 Developed high strength H beam steel for seismic design
- 2008. 06 Joined 'UN Global Compact'
- 2008. 10 Developed railways for magnetic levitation train
- 2008. 12 Obtained Information Security Management System Requirements (ISO 27001) Certification

## 2009~2013



- 2009. 03 Completed 100,000 tons & 200,000 tons berths of integrated steel mill
- 2009. 06 Developed large sized Ingots (150 ton)
- 2009. 08 Received integrated steel mill's first shipment of iron ore
- 2009. 11 Began operations of coke plant
- 2009. 12 Began operations of sintering plant and plate plant in integrated steel mill
- 2010. 01 Fired up No.1 blast furnace; began operations
- 2010. 01 Began operations of steel making plant and continuous casting plant in integrated steel mill
- 2010. 04 Opening ceremony for Dangjin Integrated Steelworks
- 2010. 11 Firing ceremony for No.2 Blast Furnace at Dangjin Integrated Steelworks
- 2011. 04 Ground-breaking ceremony for No.3 Blast Furnace at Dangjin Integrated Steelworks
- 2013. 09 Began operation of Blast Furnace No.3

# NEW ERA OF CIRCULATION



## Development of Resources Recycling System

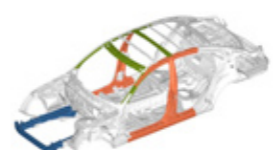


Hyundai Steel is the first steel maker in the world to develop a resources recycling business system that stretches all the way from iron ore to final steel product, to scrap. This system in Hyundai Steel which has already been the largest steel resources recycler in Korea has allowed us to enhance global competitiveness through our new blast furnaces business. Hyundai Steel produces hot-rolled coil followed by cold rolling in Hyundai Hysco. The cold-rolled automotive steel is used to make cars in Hyundai Motor and KIA Motors. The next step is out-of-service cars turning into the scrap for recycling at the Automotive Recycling Center. The scrap is then converted into reinforcing bar or H section to be utilized in construction and building projects in charge of Hyundai Engineering & Construction and Hyundai Amco. When the wastes from the construction are recycled to scrap, the recycling system is completely closed as one circle.

# AUTOMOTIVE STEEL OF HYUNDAI STEEL COMPANY



## R&D STRATEGY FOR AUTOMOTIVE STEEL



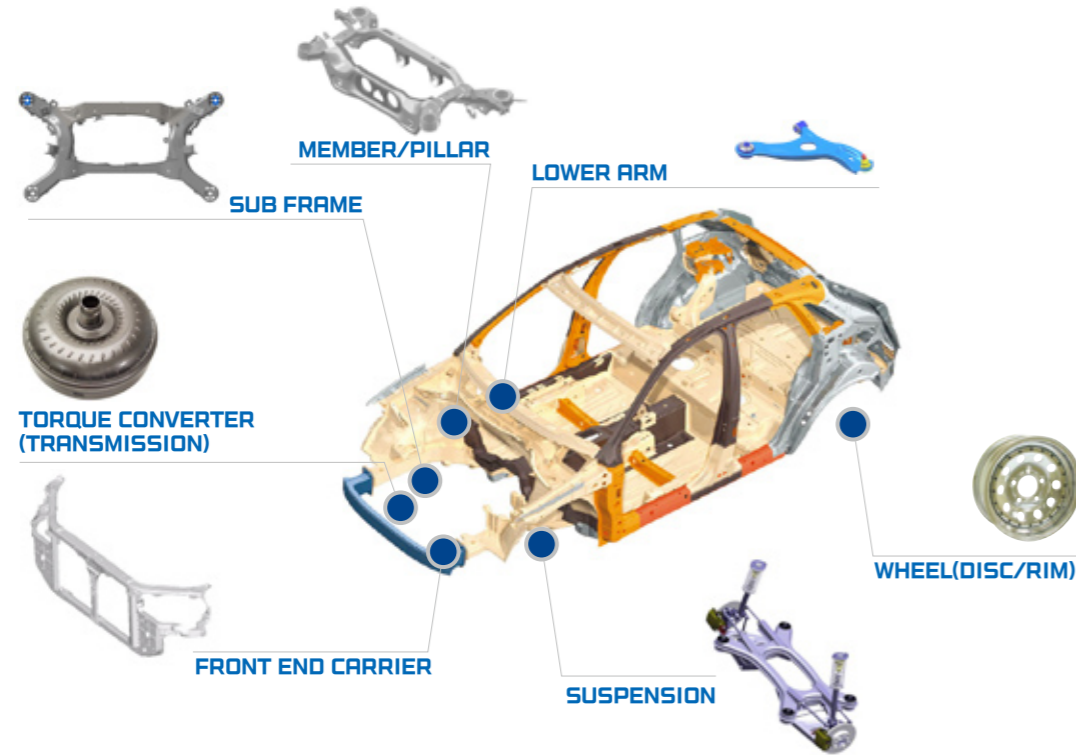
Category		2008 ~ 2009	2010 ~ 2011	After 2012
R&D Strategy		Basic Technologies	Quality Stabilization	High Technologies
Product Development	Hot Rolled Coil	 Alloy Design (auto sheet / general)	 Expansion of Application (auto sheet / general)	 Ultra-High Strength Products (for hot stamping with TS 150kN)
	Applied Technology	Collaborated R&D System (Hyundai Automotive Group)	Quality Assessment Tech. (forming, welding, painting)	EVI Technologies (forming, durability and collision analysis)
Process Development	Iron Making	Raw Material Blending	Optimization Productivity & Cost	High Productivity with Competitiveness
	Steel Making	Process Model & Standards	Stabilization of Quality	Process Technology for High-Grade Steels



# STRUCTURAL PARTS, REINFORCEMENTS & CHASSIS

## DEMANDING PROPERTIES

high strength & formability / high drawability

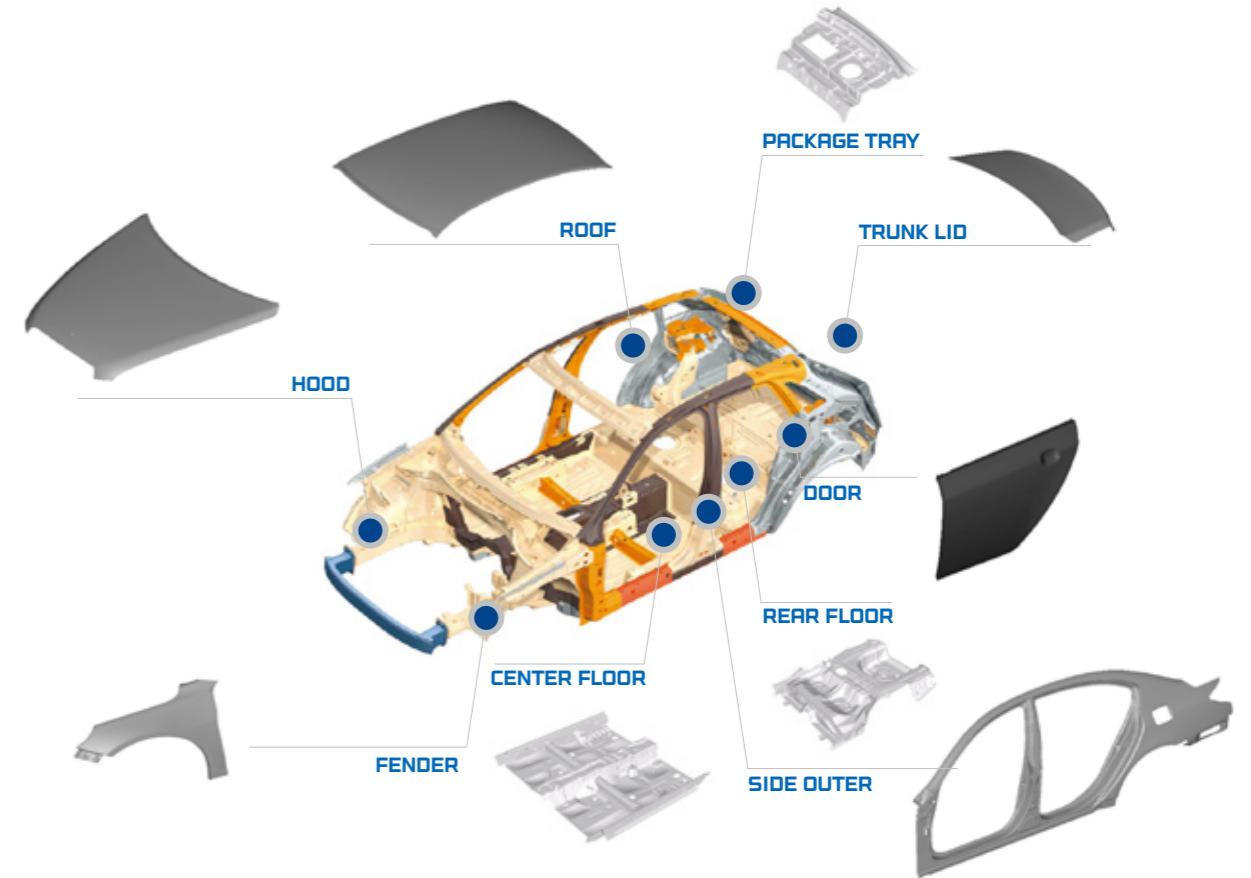


Tensile Strength (MPa)	HYUNDAI STEEL	
	Commercial Production	Developing
300 ~ 400	JIS-SPHC/D/E JIS-SAPH370	
400 ~ 500	JIS-SS400 JIS-SAPH400 JIS-SAPH440 JIS-SM490A	
500 ~ 600	JIS-SPFH540 JIS-SPFH590 SPFH540FB SPFH590FB HS540AS HS590AS	SPFH590Y
over 600	HS780AS	SPFH1180MS

# INNER & OUTER PANEL

## DEMANDING PROPERTIES

excellent surface / high strength & formability / galvanizing & painting



Tensile Strength (MPa)	HYUNDAI STEEL	
	Commercial Production	Developing
200 ~ 300 (IF STEEL)	HSCC1/HSCC2 HSCC3/HSCD HSCDD/HSCED	
300 ~ 400	HSC340R/E HSC390R/E HSC340BH	
400 ~ 500	HSC440R/E	HSC490DP
over 500	HSC590C HSC590DP	HSC780DP

# PIPE USAGE

## DEMANDING PROPERTIES: (Pipe Making) cold drawability

excellent surface / high cleanliness / tight thickness tolerance



Tensile Strength (MPa)	HYUNDAI STEEL	
	Commercial Production	Developing
300 ~ 400	JIS-STKM11A JIS-STKM13A SAE1008	
400 ~ 500	JIS-STKM12B JIS-STKM13B SAE1010 SAE1016 SAE1020	HS440CD HS470CD
500 ~ 600	SAE1022 HS510CD	HS550CD JIS-STKM16A SAE1026
over 600	HS1470DIB (boron steel)	

# HIGH CARBON & ALLOY STEEL

## DEMANDING PROPERTIES: (After Rerolling) mechanical quality

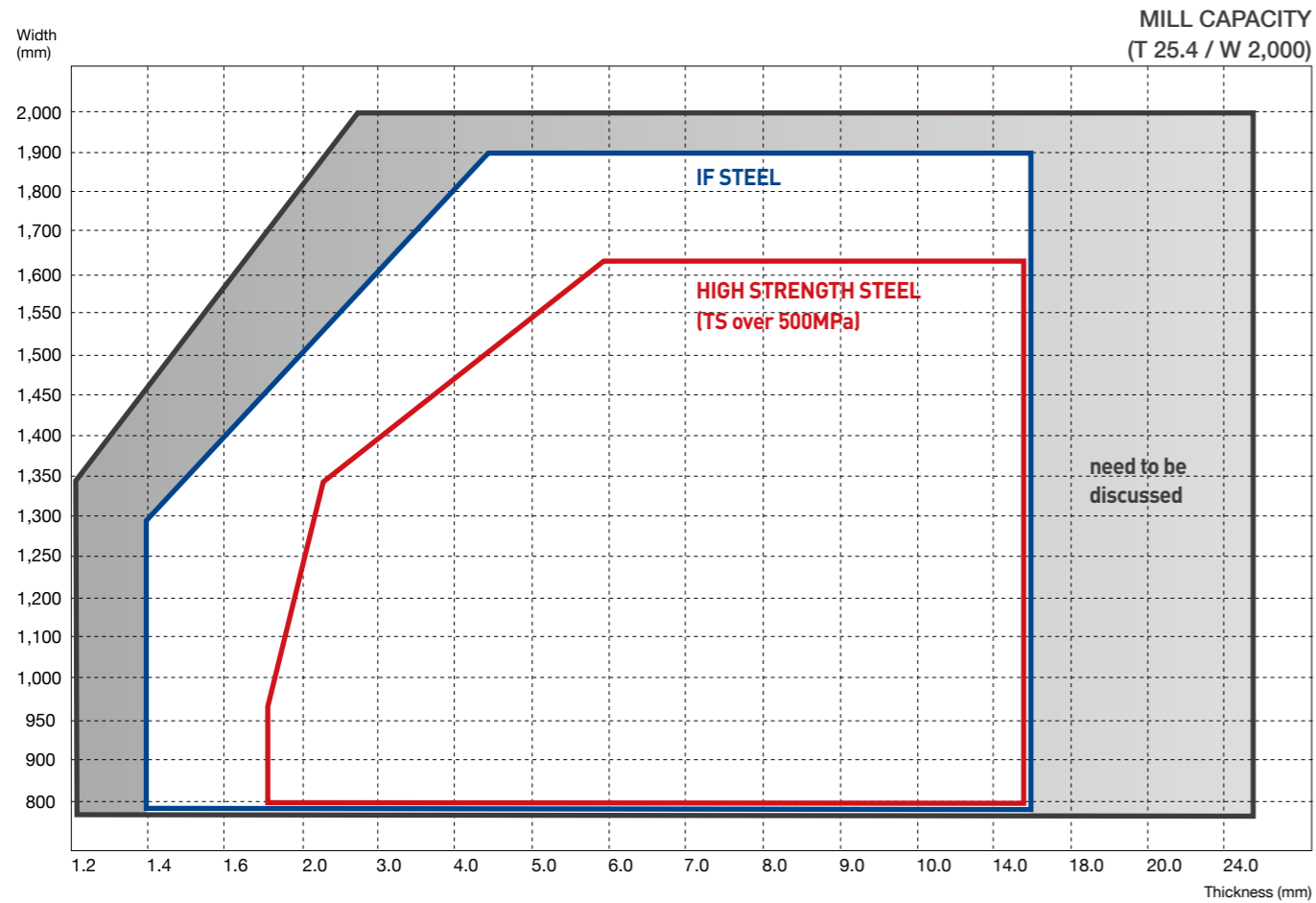
excellent surface / high cleanliness / good quality after heat treatment



Category	HYUNDAI STEEL	
	Commercial Production	Developing
High Carbon Steel	JIS-S20C JIS-S35C JIS-S45C JIS-S50C JIS-S55C SAE1040 SAE1060	JIS-SK85 SAE1045 EN-C45 EN-C55 EN-C67
High Manganese Steel		SAE1541
Alloy Steel	JIS-SCM415 JIS-SCM435	JIS-SNCM220 DIN-50CrV4

# PRODUCTION CAPACITY

## Available Sizes



## Tolerances

(Unit: mm)

Thickness Range	1.2 ~ 3.2	3.2 ~ 4.0	4.0 ~ 5.0	5.0 ~ 6.3	6.3 ~ 10.0	10.0 ~ 16.0	16.0 ~ 25.0
Thickness Tolerances	± 0.15	± 0.16	± 0.18	± 0.20	± 0.22	± 0.25	± 0.30
Width Tolerances	- 0 ~ +20						
COIL ID	762 ± 50						

# SPECIAL STEEL



Steel Group		HYUNDAI STEEL	
		Commercial Production	Developing
Carbon Steel	Low Carbon Steel	SM10C, SM20C, SM25C	
	Middle Carbon Steel	SM35C, SM38C, SM43C, SM45C, SM48C, SM50C, SM53C, SM55C, S45CM, S48CM, S53CM, S45CS	S53CRB, S55CKN
Low Alloy Steel	Cr Steel	SCR420H, SCR420H1, SCR440H	
	Cr-Mo Steel	SCM415H, SCM420H, SCM420HD, SCM440H, SCMH1ST, SCMH1M	
Boron Steel		SAE10B38M2	
Micro Alloy Steel		S40CVS, S45CVMN, 15V24, S30CVT	S43MNVF, S25CVMNS, 38MNSIVS5

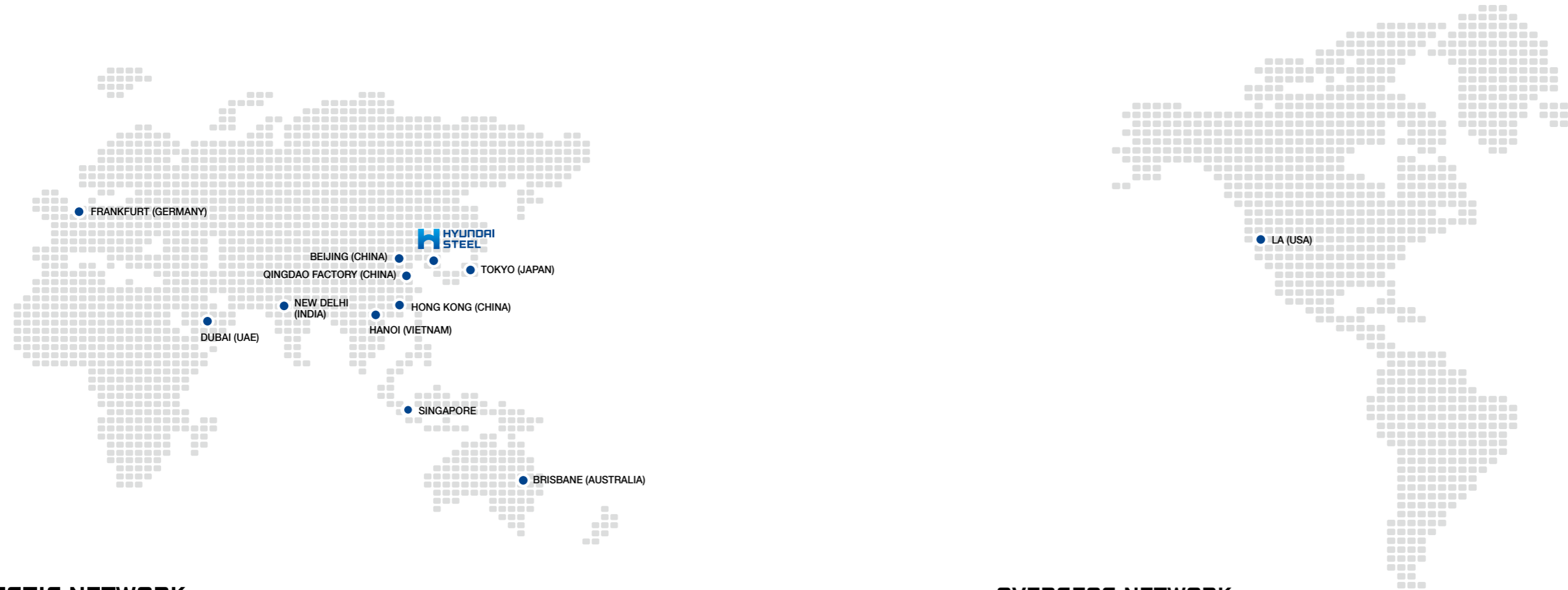
# DIMENSIONS AND WEIGHT

Dia (mm)	25 ~ 34	35 ~ 42	45 ~ 55	58 ~ 75	80 ~ 105	110 ~ 160
Unit Weight (kg/m)	3.85 ~ 7.31	7.55 ~ 10.9	12.5 ~ 18.7	20.7 ~ 34.7	39.5 ~ 68.0	74.6 ~ 158

\*Other diameters could be possible after consultation.



# GLOBAL NETWORK



## DOMESTIC NETWORK

### DANGJIN INTEGRATED STEEL WORKS

167-32 GODAE-RI, SONGAK-EUP,  
DANGJIN, CHUNGCHEONGNAM-DO, KOREA  
TEL : 82-41-680-0114  
FAX : 82-41-680-1199

### INCHEON WORKS

1-10 SONGHYEON-DONG, DONG-GU,  
INCHEON, KOREA  
TEL : 82-32-760-2114  
FAX : 82-32-763-5046

### POHANG WORKS

444 SONGNAE-DONG, NAM-GU,  
POHANG, GYEONGSANGBUK-DO, KOREA  
TEL : 82-54-271-1114  
FAX : 82-54-271-1241

### SEOUL OFFICE

231 YANGJAE-DONG, SEOCHO-GU,  
SEOUL, KOREA  
TEL : 82-2-3464-6114  
FAX : 82-2-3464-6100

### SEOUL SALES OFFICE

6 SINMUNRO 2-GA, JONGNO-GU,  
SEOUL, KOREA  
TEL : 82-2-772-2098  
FAX : 82-2-772-2109, 2091

### BUSAN SALES TEAM

11TH FL., 1106 BYEOKSAN DIGITAL VALLEY,  
132-7 GAMJEON 2-DONG, SASANG-GU,  
BUSAN, KOREA  
TEL : 82-51-329-7235  
FAX : 82-51-329-7248

### DAEGU SALES TEAM

8TH FL., GYOBO LIFE BUILDING,  
1 SUSEONG 2-GA, SUSEONG-GU,  
DAEGU, KOREA  
TEL : 82-53-745-1871~4  
FAX : 82-53-745-1875

### GWANGJU SALES TEAM

5TH FL., 501 SANGGONGHOIEUSO,  
652-1 NONGSEONG 2-DONG, SEO-GU,  
GWANGJU, KOREA  
TEL : 82-62-351-8404~7  
FAX : 82-62-351-8644

## OVERSEAS NETWORK

### L.A (U.S.A)

10550 TALBERT AVENUE, FOUNTAIN VALLEY,  
CA 92728, U.S.A  
TEL : 1-714-594-1699  
FAX : 1-714-594-1636

### FRANKFURT (GERMANY)

KAISERLE IPROMENADE 563067 OFFENBACH,  
GERMANY  
TEL : 49-69-271472-781, 783, 788  
FAX : 49-69-271472-798

### DUBAI (U.A.E)

OFFICE #2204, JAFZA VIEW 18 DUBAI, U.A.E  
P.O. BOX NO. 263190  
TEL : 971-4-884-8138  
FAX : 971-4-885-7666

### NEW DELHI (INDIA)

#102, RECTANGLE 1, D-4, DISTRICTCENTRE,  
SAKET, NEW DELHI-110017  
TEL : 91-11-4611-5231, 4108-7195  
FAX : 91-11-4611-5230

### SINGAPORE

152 BEACH ROAD, #11-02 GATEWAY EAST,  
SINGAPORE 189721  
TEL : 65-6341-5080~1  
FAX : 65-6293-5083

### HANOI (VIETNAM)

ROOM #601, ICT BUILDING, 10/81  
LINH LANG STREET, HANOI, VIETNAM  
TEL : 84-4-3946-1065  
FAX : 84-4-3946-1064

### HONG KONG (CHINA)

ROOM #6, UNITS NOS 1212-1215,  
12F THE METROPOLIS TOWER  
NO.10 METROPOLIS DRIVE  
HUNGHOM, KOWLOON, HONG KONG  
TEL : 852-3162-5313  
FAX : 852-3162-5315

### QINGDAO FACTORY (CHINA)

TWO AREA OF JIAOZHOUWAN INDUSTRY PARK,  
QINGDAO, SHANDONG, CHINA  
TEL : 86-532-8727-3818  
FAX : 86-532-8727-3816

### BEIJING (CHINA)

ROOM #1603, XIAN DAI QI CHE DA SHA #38 XIAO  
YUN ROAD, CHAO YANG, BEIJING, CHINA  
TEL : 86-10-8453-9228~9  
FAX : 86-10-6467-0706

### TOKYO (JAPAN)

SHUWA SANBANCHO BUILDING 3F,  
28 SANBANCHO, CHIYODA-KU,  
TOKYO 102-0075, JAPAN  
TEL : 81-3-5211-4410, 4412  
FAX : 81-3-5211-4413

### BRISBANE (AUSTRALIA)

LEVEL 36 RIPARIAN PLAZA, 71 EAGLE ST.  
BRISBANE QLD 4000, AUSTRALIA  
TEL : 61-7-3121-3351



