

LONGITUDINAL SUB-MERGED ARC Welded Steel Pipe

HISTEEL CO., LTD.

60 years Industrial experiences with trust and technical advance

HISTEEL CO., LTD. started with the establishment of HANIL IRON & STEEL CO., LTD. in 1957. HANIL started to produce ERW pipe in 1977 after takeover of the first pipe manufacturer in Korea. The pipe division was later-on separated from HANIL and incorporated as HISTEEL to strengthen the competitiveness by intensively focusing on the pipe business. Since then, HISTEEL has been making steady progress through continuing investment, development of new products and expansion of production range.

In 2009 HISTEEL established in Dangjin a Large-Diameter, Heavy-Wall Pipe mill with an annual capacity of 240,000MT to serve rising demand for energy pipes worldwide. HISTEEL's state-of-theart facility holds a dominant position in product quality in the market, especially by having introduced the first Full Length Cold Expansion facility in Korea. This has set a milestone in the quality level of Korean Large-Diameter Heavy-Wall Thickness Pipe.

At the No.2 Plant in Dangjin, HISTEEL has developed the world's first Small-Diameter Heavy-Wall LSAW Pipe mill starting at 10" by using our own 40 years of accumulated experience. HISTEEL's unique JCO-Press enables LSAW pipe manufacture under the diameter of 14", which was before considered to be impossible. This JCO facility produces Small-Diameter Heavy-Wall LSAW pipes from diameters 10" to 24" with an exceptionally heavy wall thickness up to 50mm. This enables broader and reliable LSAW solutions made from plates as an alternative to commonly used expensive seamless pipes. Small-Diameter Heavy-Wall LSAW Pipe can be used in applications such as Process-Piping for a super high pressure plant and offshore construction, as well as Line Pipe for oil & gas transportation, and special structural applications. Excellent wall-thickness and surface tolerances of plate materials processed on our modern JCO-Press assure extraordinary dimensional tolerances as a modern alternative old-fashioned seamless technology.

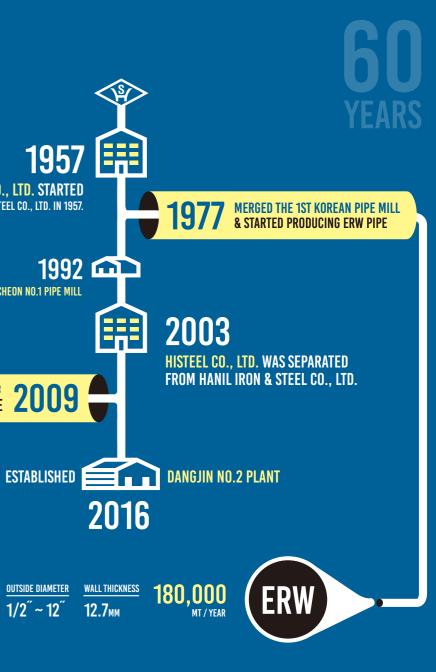
The driving forces of HISTEEL as a globally recognized pipe manufacturing company are loyalty, integrity, which has built trust and satisfaction for our customers. HISTEEL staffs are constantly motivated to offer customer-oriented solutions. HISTEEL is proud to be known as a trusted partner aiming to satisfy customers from all over the world since over half a century.

1957 HISTEEL CO., LTD. STARTED WITH THE ESTABLISHMENT OF HANIL IRON & STEEL CO., LTD. IN 1957 1992 **ESTABLISHED INCHEON NO.1 PIPE MILL** ESTABLISHED IN DANGJIN PLANT FOR LARGE DIAMETER SAW PIPE 2009 2016 OUTSIDE DIAMETERWALL THICKNESS1/2 ~ 12 ~12.7 mm wall thickness 50mm 10[‴] ~ 60[″] ISO 9001:2008

API Q1

QUALITY & SAFETY

HISTEEL 02



ISO 14001 ISO/TS 29001

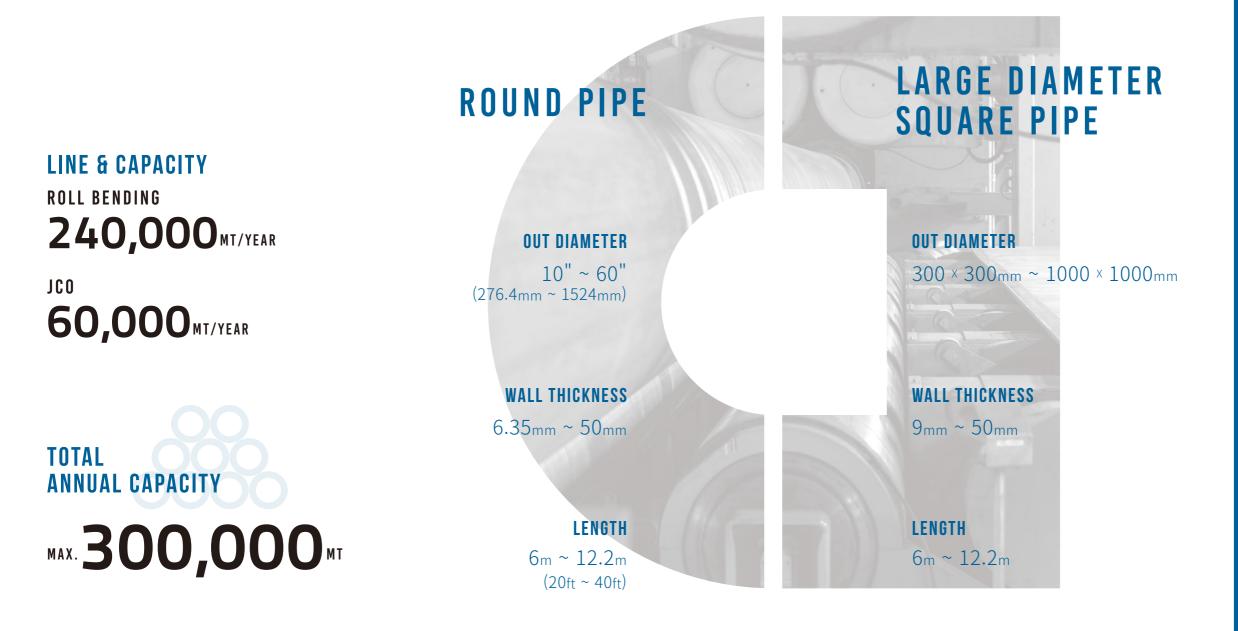
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OHSAS 18001 QMS 3183

CAPACITY

Thanks to its modern high-output threeroll-bending machine and full-body coldexpander HISTEEL has sufficient technical ability to supply large volume projects with hundreds kilometers of pipes to sophisticated customer specifications.

HISTEEL's JCO line provides new solutions that complement the technical limitation of ERW pipe and substitute seamless pipe. HISTEEL is able to manufacture Large-Diameter Square Pipe for mechanical applications, hollow-sections as well as seismic columns for high-rise buildings.





LINE PIPE API 5L EN 10208-1, 2 GOST ISO 3183

OFFSHORE STRUCTURALS

API 2B EN 10219 EN 10225 DNV-OS-B101

PROCESS PIPING

ASTM A672

ASTM A134 ASTM A691 ASTM A139 EN 10217-1,2 ASTM A671 KS D 3583

PILING PIPES

ASTM A252 EN 10029 KS F 4602 KS F 4605

STRUCTURAL TUBULARS

ASTM A500 EN 10219 EN 10210 EN 10225 KS D 3566

MECHANICAL TUBING

EN 10296









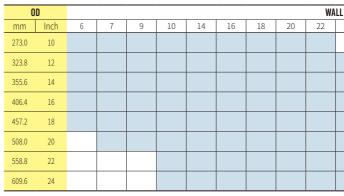




PRODUCTION RANGE

HISTEEL's various sizes of production from 10" to 60" in outer diameter ensures supply of a broad range of products. HISTEEL's unique 10" Small-Diameter SAW Pipe and Large-Diameter Square Pipe provide unprecedented solutions to the industry.

JCO LINE ROUND PIPE



ROLL BENDING LINE

0	D		WALL THICKNESS (mm)																	
mm	Inch	6	7	9	10	14	16	18	20	22	24	26	28	30	32	34	36	38	40	45
457.2	18																			
508.0	20																			
558.8	22																			
609.6	24																			
660.4	26																			
711.2	28																			
762.0	30																			
812.8	32																			
863.6	34																			
914.4	36																			
965.2	38																			
1,016.0	40																			
1,066.8	42																			
1,177.6	44																			
1,168.4	46																			
1,219.2	48																			
1,270.0	50																			
1,320.8	52																			
1,371.6	54																			
1,422.4	56																			
1,473.2	58																			
1,524.0	60																			
1,524.0	60																			

JCO LINE LARGE-DIAMETER SQUARE PIPE

OD	WALL THICKNESS (mm)											
SQ (mm)	9	12	16	19	22	25	28	32	36	38	40	45
300 X 300												
350 X 350												
400 X 400												
450 X 450												
500 X 500												
550 X 550												
600 X 600												
650 X 650												
700 X 700												
750 X 750												
800 X 800												
850 X 850												
900 X 900												
950 X 950												
1000 X 1000												

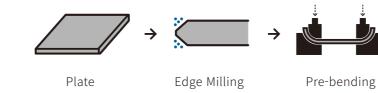


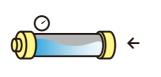
L THICKNESS (mm)												
24	26	28	30	32	34	36	38	40	45	50		

MANUFACTURING PROCESS

HISTEEL's shop layout is designed with a modern conveyor system which connects each process, making the work-flow highly efficient for mass production. Every manufacturing process is monitored by ERP system enabling traceability and reliability. HISTEEL is certified to ISO 9001, ISO 14001 and OHSAS 18001 helping ensure the excellent product quality to our clients.

JCO LINE ROUND PIPE







Hydrostatic Testing

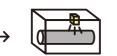
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Plate

Shipment

End Facing





Ultrasonic Testing X-Ray Testing

Final Inspection, Marking & Packing

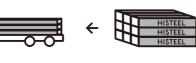
JCO LINE LARGE-DIAMETER SQUARE PIPE





Edge Milling

JCO forming



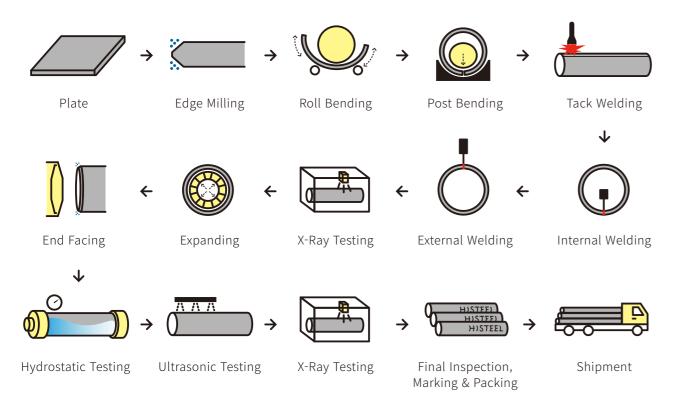




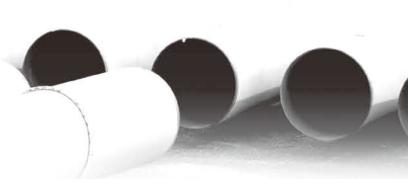
Final Inspection, Marking & Packing

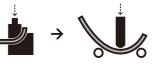
End Facing

ROLL BENDING LINE



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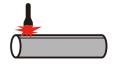
JCO Bending



Calibration



External Welding



Tack Welding





Internal Welding





Shipment







Tack Welding



Calibration



Internal Welding



External Welding

ROLL BENDING LINE

HISTEEL's heavy duty 3-Roll-Bending machine enables to achieve high level of productivity within our scope of diameter and wall-thickness. HISTEEL's Full-Body Cold-Expander is able to calibrate the pipes to perfect straightness and roundness over and above customer strict requirements.



1 EDGE MILLING MACHINE

W.T. Max. 43mm

2 **ROLL BENDING** MACHINE

3 Roll Type

O.D. 18" ~ 60" (406.4mm ~ 1,524mm)

W.T. Max. 43mm

Length 20ft ~ 40ft

3 WELDING MACHINE

Welding Type SAW

Internal 3-Pole

External 5-Pole

4 FULL BODY **COLD EXPANDING** MACHINE

W.T. Max. 43mm

Length 20ft ~ 40ft

Procedure Pre Washing > Expanding > Post Washing

5 **HYDROSTATIC** TESTER

Pressure Max. 350 bar

Test Duration Max. 20 sec

6 ULTRASONIC **TESTER**

Number of Probe 22 channel Laser Auto Seam Tracking Type

7 X-RAY (2 SETS)

X-Ray Image Intensifier System Real Time TV Screen Type

JCO LINE

HISTEEL's JCO press line is specially geared to produce the smallest LSAW pipes in the world starting at 10". This Small-Diameter Heavy-Wall LSAW Pipe serves in subsea line-pipe, process-piping and offshore structural applications as a perfect alternative to seamless pipe with much better dimensional tolerances.



1 EDGE MILLING MACHINE

W.T. Max. 50mm



W.T. Max. 50mm

Length 20ft ~ 40ft

Simultaneous Bending on both Edges

JCO PRESS MACHINE

W.T. Max. 50mm

Length 20ft ~ 40ft

4 WELDING MACHINE

Welding Type SAW

5 LONG-SEAM MILLING MACHINE

W.T. Max. 50mm

Length 20ft ~ 40ft

Top Position Milling Type

HISTEEL 12

6 CALIBRATION MACHINE

W.T. Max. 50mm 6 Independent Calibrating Jaws

ADDITTONAL SERVICES

HISTEEL has access to quality-proven long-term service providers to satisfy additional customer specification requirements such as post weld heat treatment (PWHT), anti-corrosion coatings for environment protection and rust prevention. HIC/SSC testings are done in-house own laboratories using current modern stateof-the-art equipment monitored by certified bodies.

SOUR SERVICE

POST WELD HEAT TREATMENT



HYDROGEN INDUCED CRACKING(HIC) TEST

Test Method NACE TM0284

Solution Solution A (Strong Acid) Solution B (Weak Acid)

Capability Vessel: 10 liter X 6ea 20 specimens / vessel

SULFIDE STRESS Corrosion Cracking(SSCC) test

Test Method NACE TM0177, ASTM G39

Test Type Four Point Bend Test

Solution Solution A (Strong Acid) Solution B (Weak Acid)

Capability Vessel : 10 liter X 6ea 20 specimens / vessel **Stress Relieved** 590°C ~ 680°C ASTM A671, A672, A691 CL22

Normalizing 900°C ~ 950°C ASTM A671, A672, A691 CL32

* Hold time : 1inch / hour

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COATING

3Layer PE Coating DIN 30670, ISO 21809-1, CSA Z245-21

FBE / Dual FBE Coating ISO 10080, CSA Z245-20, AS 3862, AWWA C213

Liquid Epoxy Lining

High Build Epoxy Coating

Zinc Rich Primer Coating

HISTORY

After its establishment in 1957, HISTEEL merged the first Korean pipe mill in 1977 and has produced steel pipe products with the pride of being the 1st Korean pipe manufacturer. HISTEEL has grown in the past 60 years, on the base of loyalty and trust. HISTEEL endeavors to continuously grow to become a plus 100-year company.

1950s

WITH LAND DOWN LINES.

DEC.1957 Established Hanil Iron & Steel Co., Ltd.

1960s

AUG.1965 Founded Korea Steel Association and selected as the 1st Chairman

1970s

MAY.1973 Selected as POSCO's 1st distributor

JUL.1976 Established Seoul Works



NOV.1976 Established Pohang Coil Center

AUG.1977 Installed No.1 pipe line at Seoul Works

1980s

DEC.1987 Implemented ERP System

JUL.1988 Established Osan Works

OCT.1988 Went Public



1990s

JAN.1992 Established Incheon Mills



JAN.1994 Established Incheon Coil Center

Obtained Japanese Industrial Standard Certifications for Steel Pipes

MAR.2002

JAN.2003 HISTEEL was strategically separated from Hanil Iron & Steel

Co., Ltd. R R R R R R R 092288

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FEB.2003 Established Incheon No.3 plant

HISTEEL 16

2000s

MAR.2003 Established

Jiangyin Hanil Steel Co., Ltd. in China



NOV.2005 Awarded the Presidential medal for export contribution

OCT.2009 Established Dangjin Plant for LSAW Pipe for Oil & Gas



2010s

DEC.2010

Approved SAW Vendor of Korea Gas Corporation (KOGAS)

NOV.2012

Approved SAW Vendor of ADNOC & Takreer (UAE)

MAR.2013

Approved SAW vendor of PETRONAS (Malaysia) and KNPC (Kuwait)

DEC.2013

Awarded 50 million USD **Export Tower**

DEC.2014 Awarded 70 million USD **Export Tower**

AUG.2016 Installed JCO line specialized in small OD



LOCATIONS



DANGJIN NO.1 PLANT (SAW)

ADDRESS 28-252, Bugokgongdan 4-gil, Dangjin-si, Chungcheongnam-do, KOREA

- **TEL.** +82-41-357-8511~4
- **FAX.** +82-41-357-8515

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HISTEEL's manufacturing facilities in Dangjin and Incheon are closely situated to ocean going ports to ideally serve export overseas customers. We are strategically positioned in industrial complexes with well-equipped highway and railway access. This enables us excellent turn-

around times for the logistics of receiving pre-materials from our suppliers as well as dispatching of finished goods to class-A sea-ports.

囲 **SEOUL HEAD OFFICE**

ADDRESS 8F Hanyoung Bldg. 28, Toegye-ro 27-gil, Jung-gu, Seoul, KOREA

TEL +82-2-2273-2155~6

➡ FAX. +82-2-227<u>3-2157</u>

囲 **BUSAN OFFICE**

ADDRESS 3F Shinwoosa B-dong Bldg. 52, Gwangjang-ro 56-beon-gil, Sasang-gu, Busan, KOREA

- **TEL.** +82-51-315-3132
- **FAX.** +82-51-315-3139

DANGJIN NO.2 PLANT (SAW)

ADDRESS 28-129, Bugokgongdan 4-gil, Dangjin-si, Chungcheongnam-do, KOREA

TEL. +82-41-354-3093

FAX. +82-41-354-3191

曲 **INCHEON NO.1 PLANT (ERW)**

- ADDRESS 139, Namdong-daero, Namdong-gu, Incheon, KOREA
- **TEL.** +82-32-815-6386~7 **FAX.** +82-32-815-6389

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• SEOUL HEAD OFFICE



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DANGJIN NO.1 PLANT DANGJIN NO.2 PLANT

BUSAN OFFICE •

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