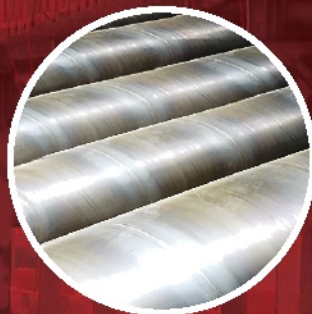


OUR PRODUCTS

As a leading steel pipe manufacturer in Indonesia, with long experience
Through year of service, KHI plays main role providing:



► **Spiral
Welded Pipe**

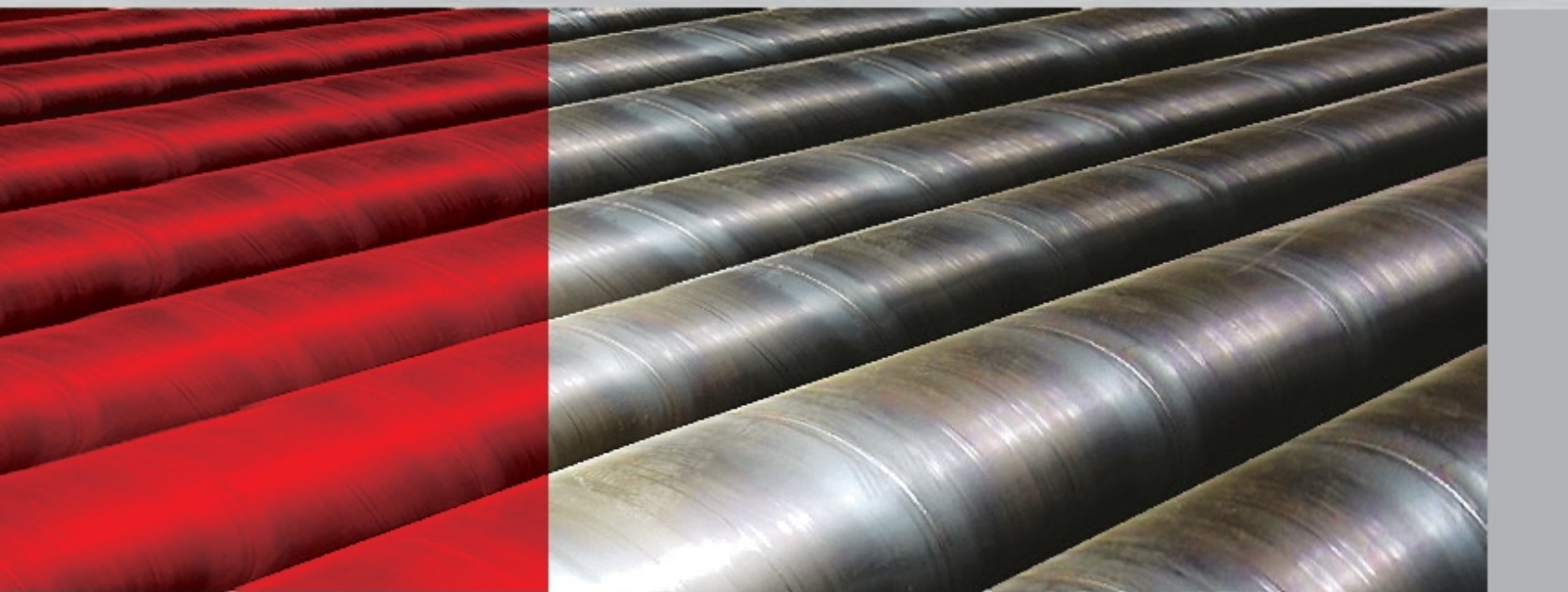
► **Electric
Resistance
Welded Pipe**

► **Coating &
Corrosion
Protection**

we are a partner
to support pipe line, constructions
and infrastructure projects
for your **total solution**

● SPIRAL WELDED PIPE

We commit to provide Spiral Welded Steel Pipes for good Infrastructure, oil and gas and construction projects, including technical engineering and financial solutions for the sake of nation and community prosperity.

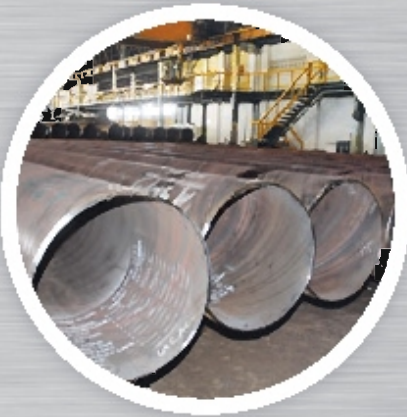


SPIRAL WELDED STEEL PIPE CAPACITY & CAPABILITY

• Total Design Capacity	: + 150,000 tons/Years
• Oil / Gas Line Pipe Capacity	: + 100,000 tons/Years
• Structural / Piling Capacity	: + 120,000 tons/Years
• Water Pipe Capacity	: + 100,000 tons/Years
• Diameter	: 12" - 80"
• Wall Thickness	: 3.2 mm - 25 mm
• Material	: Up to SMYS 80,000 Psi

MAXIMUM PIPE LENGTH ► **12.4m**
for line pipe

65m
for pile pipe



Our Commitment toward high quality products and implementation of quality management system has been proven and meet international standard such as:

• ASTM	• BS	• AWWA	• JIS
• API 5L	• DIN	• AS	

And accepted by our customer especially oil and gas, EPC companies which has already known by their high quality standard requirements.

► SPIRAL WELDED PIPE APPLICATIONS:



WATER LINEPIPE

PLTM Bungin III, Makasar

PT KHI Pipe Industries supplied water linepipes for PLTM (Micro Hydro Power Plant) Bungin III, Makasar - PT Great Color Energy with pipe diameter 1212 & 1216 mm Spec. AWWA C200 and total length 9 KM. The project located in bungin river bank and completed in end of 2014.



GAS LINE PIPE

Senoro Gas Development Project

KHI Pipe Industries supplied 20.040 m Spiral Line Pipe for Senoro Gas Development Project for Joint Operating Body (JOB) Pertamina – Medco E&P Tomori Sulawesi with specification API 5L Grade X60 PSL2 Dia 30" x 17,5mm x DRL with FBE Coating. The project is constructed by PT Tripatra Engineering & Contractor.



PILE PIPE FOR DOMESTIC INFRASTRUCTURE

Jetty for Donggi Project, Mc. Connell Dowell

This is one of Mc. Connell Dowell project where in KHI supplied pile pipe for Jetty of Donggi Project in 2011. Total quantity of this project is 4200 Ton. The jetty used steel pile pipe with diameter 800 & 900 mm, 16 & 19 mm WT, spec. ASTM A252 Gr.2



CONSTRUCTION PIPE

Conveyor Tarahan Project, PT Krakatau Engineering

PT KHI Industries and PT Krakatau Engineering participated in conveyor Tarahan Project in 1st Quarter 2014. PT KHI Pipe Industries supplied pile pipe with diameter 1422 mm & 1016. ASTM A252 Gr2. Aside this project, KHI also supplied pile pipe for PKT Bontang Project.



LINEPIPE FOR GEOTHERMAL PROJECT

Patuha Geothermal Project, West Java

KHI participated on Patuha Geothermal Project by supplying spiral welded linepipe with Diameter 558, 914 & 1066 mm x 12.7 mm WT in 2013. The pipe is used by PT JFE Engineering – contractor of this project to transfer geothermal to power plant.



PILE PIPE FOR INTERNATIONAL INFRASTRUCTURE

Freemantle Australia Project.

One of the biggest challenge in 2009 is Freemantle project, Australia. This Project required high pipe specification BS 4360 Gr 50 C which is equal to API 5 LX-65 with 22mm thickness and 43 m max length. The pile pipe with completed accesories such as 3 segments pile shoe, lifting hole, End seal will be applied for jetty in Australia.

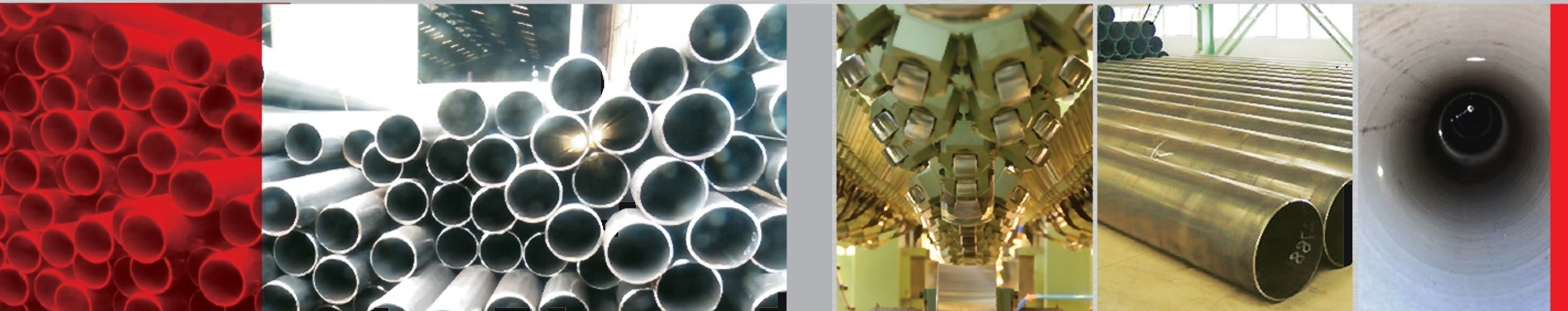
Aside this, KHI also provided spiral welded pile pipe for Singapore, Malaysia.

● ELECTRIC RESISTANCE WELDED PIPE

We produce high quality ERW/Electric Resistance Welded Steel pipes for Oil, Gas and Water Pipe Installation, Infrastructure and Construction Projects to be market leader and fulfill customer needs for infrastructure growth.

HIGH FREQUENCY RESISTANCE WELDED(HFRW)/ERW CAPACITY & CAPABILITY

• Total Design Capacity	: 220,000 tons
• Range of Diameter	: 1/2" up to 20"
• Range of Wall Thickness	: 2.77 mm - 16 mm
• Material	: Up to 70,000 Psi



In order to fulfill pipe demand in oil and gas projects i.e. offshore and onshore projects; we expand our capability to include large diameter ERW line facility with advance technology of manufacturing process. The line production is capable to produce large diameter ERW pipes up to 20 inch as high strength API Grade up to API 5L X80 sour service, offshore requirement (DnV OS F101) and casing tubing products refers to API SCT.



PETROLEUM LINE PIPE

North Duri Development (NDD) Project of PT Chevron Pacific Indonesia.

PT KHI Pipe Industries has completed NDD Project of PT CPI in mid of 2013. The ordered pipes is ERW with pipe dimension diameter 6" & 8", Spec ASTM A252 gr. 2.

KHI Line pipe have small tolerance deviation on each pipes where this will make the installation process easier.



PILE PIPE

VICO Bridge Construction

VICO bridge connected onshore site to other site.

Pipe Specification is ERW pile pipe spec with varnish protector, ASTM A 252.

The pipe have durability to weather condition and have good protection for anti corrosion.



GAS LINE PIPE

Depok – Lebak Bulus Gas Kota Project , PT Pertamina

PT Pertamina developed linepipe distribution network to distribute gas with coverage area Depok – LebakBulus. Pipe diameter 219.1 mm, 8,18 mm WT with total length 27 km. The pipe is coated by Asphalt Enamel Coating (3 LPE Coating substitution).



CONSTRUCTION PIPE

Hydrant Pipe For Perum PERURI

PT KHI Pipe Industries has many experiences to supply hydrant pipe for building installation. PT Pembangunan Perumahan – contractor of the project used ERW pipe which is installed overlaid on roof of building.



WATER DISTRIBUTION LINE PIPE

ERW Water Pipe Project

PT KHI is a partner of PDAM National Water Supply Company, in providing ERW pipe for water distribution.

Pipe specification:
Diameter 8", 10" 12", AWWA C200.

KHI has participated in water pipe project for PDAM such as Karang Asem, Bali, Medan, Karang Pilang, Aceh and Poso.

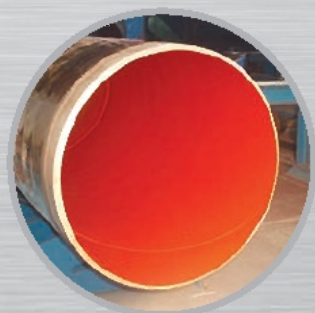


ELECTRIC POLE

Electric Pole for PLN DJBB, Bandung

In 2013 PT KHI Pipe Industries supplied electric pole for PLN DJBB Bandung Project

● COATING & PROTECTION

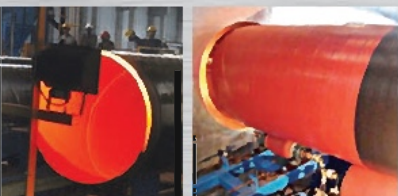


As integrated pipe mill, We also provide coating application service for oil and gas infrastructure project to protect your product against corrosion.



2. External Coating

• External Painting Epoxy	Diameter	: 4 – 80 inch
	Design Capacity	: 800,000 sqm/year
• Coal Tar Enamel Coating	Diameter	: 4 – 60 inch
	Capacity	: 800,000 sqm/year
• Fusion Bonded Epoxy	Diameter	: 4 – 48 inch
	Design Capacity	: 800,000 sqm/year
• 3 Layer Polyethylene / 3 Layer Polypropylene (3 LPE / 3 LPP)		
	Diameter	: 4 – 48 inch
	Design Capacity	: 1,600,000 sqm/year
• Concrete Weight Coating	Diameter	: 4 – 48 inch
	Coating Thickness	: Up to 150 mm.
	Design Capacity	: 500,000 MT/Year
• Asphalt Enamel	Diameter	: 4 – 48 inch
	Coating Thickness	: Up to 5.5 mm.
	Capacity	: 800,000 sqm/Year



For external and internal coating process, KHI is equipped with shot blasting machine conforms to ISO 8501 1 and SSPC standards to assure the quality of product. The qualities of pipe coating are inspected using high voltage Holiday detected equipment.

COATING CAPABILITIES

1. Internal Coating

• Epoxy Coating	Diameter	: 4 – 48 inch
	Design Capacity	: 800,000 sqm/year
• Internal Cement Lining	Diameter	: 4 – 60 inch
	Design Capacity	: 800,000 sqm/year



OUR COATING PROTECTION MEETS THE FOLLOWING INTERNATIONAL STANDARDS:

INTERNAL COATING

- API RP 5L2 - Recommended practice for Internal Coating at pipeline for Non Corrosive Gas Transmission.
- ASTM A-569- Adhesion Test
- NACE-TMO3-84- Holiday Detection of Internal Tubular Coating
- SSPC-SP10/NACE No. 2 - Joint Surface Preparation Standard. Steel Structures Painting Council/National Association Engineer: Near White Blast Cleaning
- AWWA & British Standard
- SSPC-PA-2- Measuring Dry Film Thickness
- SSPC- SP 1 Steel Structural Painting Council - Surface Preparation Specification No. 1 : Solvent Cleaning

EXTERNAL COATING

- CAN/CSA-Z245.20/2245.21-External fusion bonded epoxy coating for steel pipe/External Polyethylenecoating for pipe.
- SSPC-SP10 - Surface Preparation Standards for painting steel surface
- SIS Standard 05-59-00-1088 - Swedish Standard Institute for Blast Cleaning
- ISO 8501-1-1988 - International Organization for Standard Blast Cleaning
- ASTM D4417 - Field Measurement of Surface Profile of Blast Cleaned Pipe
- ANN-VVA & British Standard
- ISO 21809-2

COATING & PROTECTION APPLICATIONS:



PETROLEUM LINE PIPE

Fusion Bonded Epoxy (FBE) for EPC Pertamina Tanjung Uban Project

Fusion Bonded Epoxy with total coating coverage 18774 Sqm on Line Pipe was supplied for EPC Pertamina Tanjung Uban Project in 2014. The protection has good flexibility and excellence resistance to cathodic disbondment.

For more severe abrasive & temperature condition, Dual Layer FBE is applied. Dual Layer FBE is a dual powder abrasion resistant coating which is designed to provide excellent abrasion resistance to the pipes.



PILE PIPE FOR INTERNATIONAL INFRASTRUCTURE

External Epoxy Coating For LNG - PNG Project (Mitsui & Co, Ltd.)

Pile pipe for LNG - PNG project used external ultra high build epoxy, inter zone 485, 100 mm

This application able to protect the pipe in long term condition.



PETROLEUM LINE PIPE

Concrete Weight Coating for PHE - ONWJ Project.

PT KHI Pipe Industries has many experiences to process concrete weight coating. One of the coating projects is PHE -ONWJ project. The linepipe required 4 mm Asphalt Enamel Coating thickness, Concrete Weight Coating and installed anode inside the pipe as anticorrosion.

The coated pipe will be installed on seashore where these to be sunk into seabed to avoid the waves.



GAS LINE PIPE

Internal Epoxy coating for PGN SBU 1, Jakarta

PT KHI Pipe Industries supplied 10566 sqm coated for SBU 1 using special epoxy coating material which has high quality and good reability.

This application used two parts of liquid epoxy paint system applied in a single coat as anticorrosion protection for steel pipes and able to protect the pipe in long term condition.



GAS LINE PIPE

3 LPE External Coating for PT PGN SBU 1, Jakarta

PT KHI Pipe Industries supplied 33,636 Sqm coated for PT PGN SBU 1, Jakarta. This Line Pipe required 3-Layyer Polyethylene (3LPE) External Coating.

3LPP is similar with 3LPE coating system. The different is instead using Polyethylene as outer layer. 3LPP is using Polypropylene tape. Inner layer provides corrosion protection and flexibility while outer layer of Polyethylene provides impact and abrasion protection. Between Inner and outer layer are tape 3LPP which is provide improved impact and abrasion resistance than 3LPE and is suitable with operation temperature more than 11041 C.



WATER DISTRIBUTION LINE PIPE

Internal Cement Lining for PT Krakatau Posco Project

PT KHI Pipe Industries supplied water pipe Dia. 4", 8", 10", 12", 20", 24", 28", 36" Spec AWWA C200 for PT Krakatau Tirta Industries - Water Line Pipe Distribution for PT Krakatau Posco Project, Cilegon, Banten. The pipe required external coating 3LPE with 2mm thickness and Cement Lining for internal coating which will be applied for transmission.

Cement Linings prevent ruberculation by creating a high pH at the pipe wall, and ultimately by providing a physical barrier to the water. Cement linings are also smooth, which results in a high flow coefficient.

QUALITY CONTROL

To ensure our product giving the maximum quality result, all KHI pipes undergo strict quality test before and after commercial production.



WHY CHOOSE OUR PRODUCTS



1. Package supply available in wide size range and large quantity.

2. Excellence in quality product based on world wide quality system certified ISO 9001 and API Q1.

3. Integrated Pipe Mill and Coating Applicator.

4. Guarantee supply of raw material from PT Krakatau Steel.



TEST EQUIPMENT

Non Destructive:

- Ultrasonic tester online
- Ultrasonic tester offline
- X-ray
- Fluoroscopy
- Hydrostatic tester
- Holiday test methode

Destructive:

- Tensile test machine
- Bend test machine
- Drop weight tear test machine
- Hardness test machine
- Sample preparation workshop
- Compressive test machine

Destructive:

- Emmision spectrometer
- Mikroskop optic
- Polishing machine
- Tensile test machine

OTHERS BENEFIT

Products
maintenance guarantee

Easy
Logistic handling



• The port of Cigading (Krakatau Steel Group) – the deepest on the Java Island, which is located 2 KM from the pipe mill.

OUR CUSTOMERS

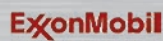
As a reputable steel pipe manufacturer in Indonesia, KHI has supported many operators and fabricators in EPC projects for Oil, Gas, water and Infrastructure by providing spiral welded steel, ERW pipe and coating application in one stop service solution, such as :



PT Perusahaan Gas Negara (Persero) Tbk



PT PERTAMINA (PERSERO)



ExxonMobil



PT Chevron Pacific Indonesia



Total E&P Indonesia



PT PERTAMINA GAS



PT PERTAMINA EP



VICO Indonesia



PetroChina Company Limited



PT. INTI KARYA PERSADA TEKNIK



PT WIJAYA KARYA (Persero) Tbk



Satuan Kerja Khusus
Pelaksana Kegiatan Usaha Hulu
Minyak dan Gas Bumi.



PT Adhi Karya (Persero) Tbk



McConnell Dowell



PT JFE Engineering



PT Krakatau Engineering



PT Pelabuhan Indonesia (Persero)



PT Krakatau Bandar Samudera



PT Rekayasa Industri



PT Krakatau Tirta Industri



TRIPATRA



MITSUI & CO. (AUSTRALIA) LTD.

