

Total steel plant solution

YOUSUN International

We lead plant industry business

Specialized steel plant equipment partner

We support customer success with specialized coke oven machinery expertise and more than 20 years of field know-how.



Coke oven machine

Specialized in fabrication and equipment



20 years in business

Extensive field experience



ISO certified

Quality / environment / safety



Major references

POSCO / Hyundai Steel

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Equipment solutions
proposed by

YOUSUN International



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 Founded
1999

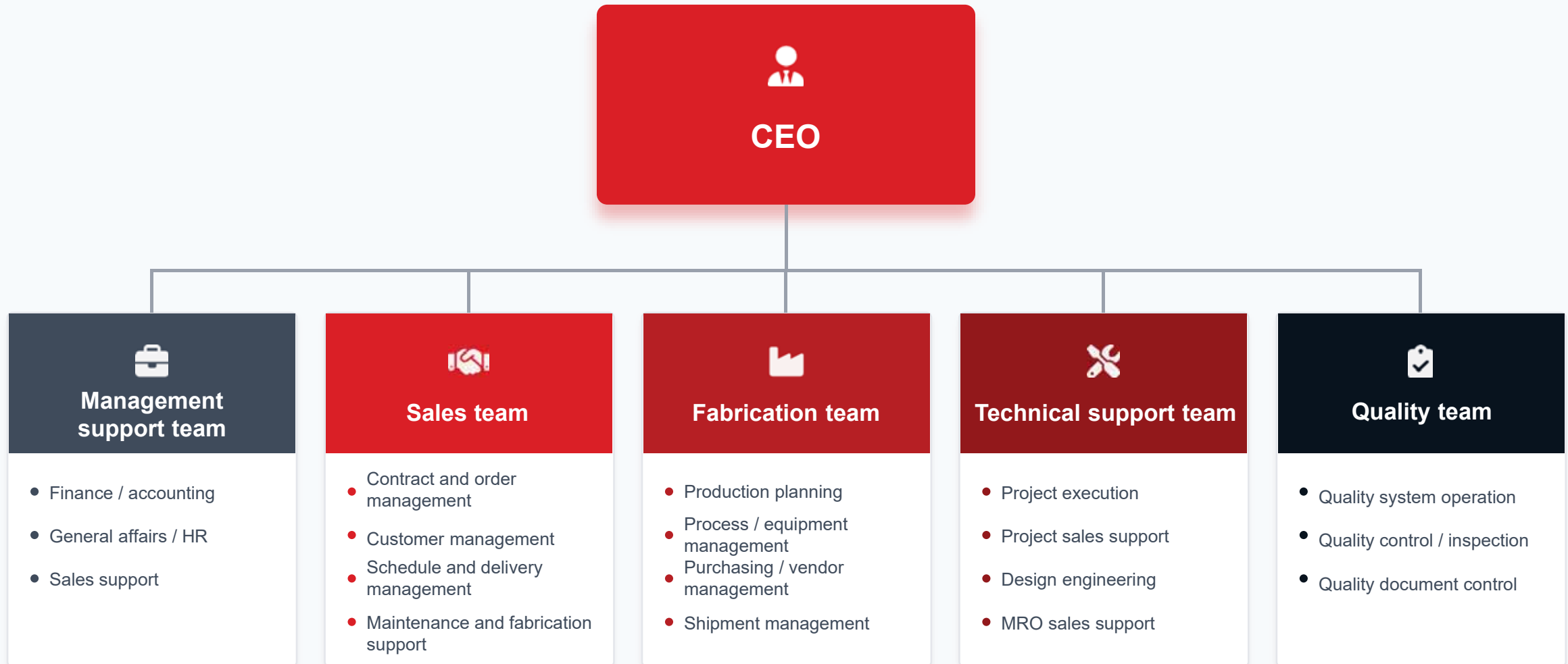
 CEO
Hyun-jung Kwon

 Employees
29 people focused on technical specialists

Company overview

YOUSUN International specializes in coke oven machinery and steel plant equipment.

 Seoul HQ	East wing 1316, 322 Teheran-ro, Gangnam-gu, Seoul
 Pohang factory	227 Cheolgangsandan-ro 130beon-gil, Ocheon-eup, Nam-gu, Pohang
 Dangjin office	7-3 Seojeong 7-gil, Songsan-myeon, Dangjin
 Ulsan office	84 Cheoyongsaneop 2-gil, Onsan-eup, Ulju-gun, Ulsan
 Business scope	<ul style="list-style-type: none">  Coke oven machine fabrication and maintenance  Industrial valve fabrication and repair  Steel plant equipment fabrication and installation  Plant material import/export <div style="border: 1px solid #f08080; padding: 5px; margin-top: 10px;">  Extensive supply references for POSCO and Hyundai Steel with maintenance-qualified vendor certification from five power companies </div>



Integrated teamwork ensures optimal delivery schedules and the highest quality.

International standard management system certifications (ISO)



ISO 9001

: 2015 quality management system



ISO 14001

: 2015 environmental management system



ISO 45001

: 2018 occupational health and safety management system

Major institutional and power company certifications



Five power companies

Maintenance-qualified vendor certification



KHNP

Qualified supplier registration



KPS

Registered partner



We provide trusted partnerships based on systematic quality, environmental and safety systems.



Plant 1 (Fabrication building)

Main fabrication plant

Core

Total site area

7,769m²

Factory area

1,488m²

Main equipment (overhead cranes)



20 ton

Main hoist crane (1 unit)



10 ton

Sub hoist crane (1 unit)



2.8 ton

Utility crane (1 unit)



Plant 2 (Valve building)

496m²

Dedicated area



Dedicated valve line

Specialized assembly and overhaul system



Equipped with a 10 ton crane

Capable of handling large valves



Optimal location advantage



Located in Mundeok 4th industrial complex, Pohang

Close to POSCO Pohang steelworks and the steel industrial complex



Quick response system

Optimized emergency maintenance and parts supply with 24-hour response

Business overview

Four core business areas covering steel plant equipment from A to Z



Coke oven machine

Core business

- Main equipment: charging car, quenching car, transfer car and pusher machine
- Core parts: door extractor, frame cleaner and coke guide wheel
- Specialized technologies: extended component life in high-temperature environments and dewatering valve fabrication
- Key customer: Hyundai Steel Dangjin works with continuous orders



Plant equipment fabrication

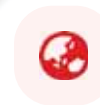
- Blast furnace equipment: PCI main bag filter, granulation tower and iron runner
- Steelmaking equipment: lance elevating device and turning device
- Fabrication capability: integrated large structure and precision machining work
- References: major modernization projects for POSCO and Hyundai Steel

Total
Solution



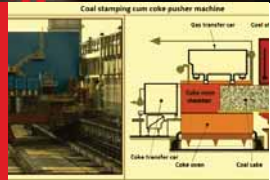
Valve fabrication and repair

- Fabricated items: cock valves for coke plants and gate / globe valves
- Maintenance service: control valve, MOV and safety valve overhaul
- Export references: 1,900+ sets for overseas steelworks in Indonesia, Brazil and India
- Certification: valve leakage test and quality assurance system



Plant material import/export

- **Control valve:** official handling of Baker Hughes **Masoneilan** products
- **Safety valve:** supply of **Consolidated** product line
- Other materials: **Kaydon filtration** and **Qlar PDV Dome valves**
- Global sourcing: sourcing quality overseas equipment and supplying domestic and international markets



Charging car

Equipped with precise coal charging and dust collection systems

Main equipment



Pusher machine

High-power equipment that pushes red-hot coke out of the oven



Quenching car

Safely receives coke above 1,000°C and transfers it to CDQ facilities

High-temperature durability



Transfer car

Efficient inter-process transport with automated control systems

Key technical challenges



High-temperature thermal deformation control

Special design for rapid temperature changes



99.9% operation rate target

Durability for 365-day continuous operation



Auto-positioning

Precise stop control within ± 5 mm



Eco-friendly equipment

Dust and hazardous gas leakage prevention system

Competitiveness

Fabrication competitiveness



Own factory in Pohang

Direct fabrication and inspection



Localization of core parts

Reduced maintenance cost



20 years of know-how

Extensive field experience



36+

Cumulative deliveries from 2018 to 2022



Continuous

Continuous orders from Hyundai Steel



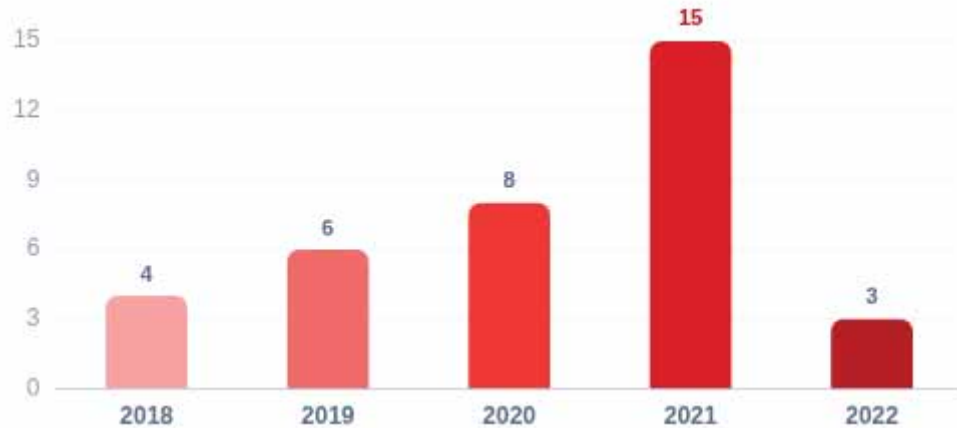
100%

Quality and delivery compliance

Background: coke oven plant overview

Yearly project execution trend

Unit: projects



i Growth: after entering in 2018, we achieved the highest performance in 2021 with 15 projects and became a key partner in mobile machinery based on trust.

Major delivery status (excerpt)

*Major projects in the last five years

Year	Project name	Client	Remarks
2021	Transfer car No.6 door extractor replacement Precision replacement of key drive unit	Hyundai Steel	Equipment replacement
2021	Quenching car dewatering valve fabrication Special material with improved corrosion resistance	Hyundai Steel	Parts fabrication
2020	Transfer car #1 coke guide wheel replacement Improved travel stability and reduced rail wear	Hyundai Steel	Maintenance
2019	Coke quenching car #1 bucket replacement Precision fabrication and installation of large structure	Hyundai Steel	Structure
2018	Coke charging car 1, 2 and 3 door replacement Improved oven sealing and environmental performance	Hyundai Steel	Environmental improvement



53 Projects+

Cumulative projects



Major

POSCO / Hyundai Steel

Coke plant

Hyundai Steel coke plant equipment

Project share by process



■ Blast Furnace / Ironmaking
 ■ Steelmaking / Continuous Casting
 ■ Environment / Energy
 ■ Others

Major project status

Highlights

Year	Project name	Area	Client
2020	Sintering NOx removal equipment fabrication and installation Environmental improvement modernization work for sintering lines 2 to 4	Environmental equipment	Daejoo Machinery / POSCO
2019	Gwangyang blast furnace No.3 granulation tower fabrication Ultra-large structure (Φ6500 x 35000L)	Blast furnace equipment	Daejoo Machinery
2019	Pohang blast furnace No.3 cast house damper fabrication Key cast house control equipment for blast furnace	Blast furnace equipment	POSCO E&C
2019	PGC tube replacement work Plant gas treatment equipment maintenance	Gas equipment	Hyundai Steel
2019	Pohang STS steelmaking No.1 turning device Key drive equipment for steelmaking process	Steelmaking equipment	POSCO Plantec
2018	Coke oven mixed combustion equipment duct Energy efficiency improvement and duct fabrication	Energy equipment	POSCO Plantec

... In addition, 47 further references in sinter, raw material and refractory plants

 Cock valve global export

1,900+ Total sets exported

IN
 Bhushan Power & Steel
 (India)
638
 sets (2015)

BR
 CSP Pecem
 (Brazil)
616
 sets (2013)

ID
 PT. Krakatau POSCO
 (Indonesia)
522
 sets (2012)

JP
 NSSMC Kashima
 (Japan)
138
 sets (2016)

 Valve maintenance and supply
 Control / safety / MOV valves


21
 Projects
 (2020-2022)


1,000+
 Units
 Supplied


Masoneilan


Consolidated

 Major references (2020-2022)

 **Adnoc / aramco**
 Sour gas PJT, Berri and Hawiyah

 **JG Summit / DSME**
 PSV, PRV and control valves

 **Lotte Chemical**
 Riau Indonesia and G1 project

 **Posco e&c**
 Plant control valves supply

- Gate valve
- Globe valve
- MOV
- Safety valve



Domestic clients

Reliable partner for Korea's steel and power industries



Global partners

Technology reaching global markets

posco

Plant fabrication

Blast furnace equipment

Hyundai Steel

Coke oven machine

Maintenance

Pt. Krakatau Posco

ID

Indonesia

Cock Valve

Plant

CSP

BR

Brazil

616 valves

Material

posco E&C

Valve supply

Plant

Khnp

Qualified supplier

Bhushan Steel

IN

India

Moving machine

Valve

JFE

JP

Japan

Conveyor Belt

Parts

KPS

Registered partner

Maintenance

Komipo

Power plant maintenance



Global export

Export references in major steel-producing countries

10+ Countries

POSCO Pohang



5,600m³

No.4 blast furnace inner volume (ultra-large blast furnace)

Annual crude steel capacity of 21 million tons

Hyundai Dangjin



20 million tons

Annual crude steel capacity

3 blast furnaces / 3 coke plants

Environmental equipment investment



KRW 875.7 billion

Pohang steelworks environmental investment (2018-2021)

Enclosed storage facilities / sintering NOx reduction

Industry trends



Smart and safety

Introduction of unmanned mobile robots and expanded control systems in high-risk workplaces such as coke ovens



Eco-friendly

Environmental equipment improvements such as dust collection and CDQ for carbon neutrality with reduced pollutant emissions



Efficiency

Productivity improvement through modernization of aging equipment and replacement with high-efficiency parts

Business opportunities

Replacement cycle

Continued demand for major repair and parts replacement every 3 to 5 years due to high-temperature and continuous operation characteristics

Retrofit demand hot

Increasing demand for engineering and hardware modification to convert existing mobile machinery to unmanned and automated operation

MRO service

Growing need for preventive maintenance and stable supply chains for standard consumables to prevent unexpected shutdowns

Localization

Targeting shorter lead times and cost reduction through localization of imported equipment parts

Why choose us?

YOUSUN International is more than an equipment supplier. We are a partner that solves field problems quickly and accurately.

“ With 20 years of accumulated know-how and trust we support successful customer operations.

Infrastructure and expertise



Optimal location

Own factory in Pohang enables immediate response to steelworks emergencies



Specialization 20Y+

More than 20 years of specialized technical know-how in coke oven machinery



Technology solutions

Engineering capability for equipment modification and improvement beyond simple fabrication

Performance and trust



Delivery compliance

Minimized lead time through in-house fabrication facilities and standard stock operation



Quality assurance

Zero-defect orientation through strict process and inspection systems based on three ISO certifications



Customer trust

Proven long-term partnerships with major customers such as continuous orders from Hyundai Steel



Cost competitiveness

Reasonable pricing without intermediary margins through direct fabrication and maintenance systems

Global steel plant partner

Thank you

YOUSUN International will be a trusted partner for clients with the highest quality and technical capability to support customer success.



Seoul headquarters

Hanshin Intervalley 24 East wing #1316,
322 Teheran-ro, Gangnam-gu, Seoul



Pohang factory

227, Cheolgangsandan-ro 130beon-gil,
Ocheon-eup, Nam-gu, Pohang



Dangjin office

7-3 Seojeong 7-gil
Songsan-myeon, Dangjin,
Chungcheongnam-do



Ulsan office

84, Cheoyongsaneop 2-gil
Onsan-eup, Ulju-gun, Ulsan



www.yousun.co.kr