## Message from the CEO



## Customer's satisfaction, Confidence business Making human resources Making a happy workplace

We, Nokwon Co..Ltd., are a company specializing in the machining and manufacturing of low and high hydraulic pipe assemblies for heavy construction equipment as well as shipbuilding industry.

Having the expertise in TIG welding and CNC bending, we supply the best quality goods to our main customers such as Hyundai heavy industry, Doosan mottrol and Doosan engine, etc. By sourcing QCD competitive products, parts and raw materials, we import and export them for ourselves and trade them on behalf of our customers.

From now on, we will keep making efforts to be the world best manufacturer of pipe assemblies and also a general trading company through incessant quality improvement and quality management with accumulated technologies and competent staff members.

Through the satisfaction of customers' needs, we also plan to center into the new business such as Automobile, Aerospace and plan in the future.

The President of Nokwon Co., Ltd.



# History of NOKWON

## 1990's

## Established

#### 1996

- Nokwon Industry was established. Started to produce the pipe assemblies for heavy construction equipment
- Manufacturing Pipe assemblies for excavation and defense industry

#### 1997

- Registered as a supplier of DOOSAN Corporation Mottrol Co.,Ltd.
- Registered as a supplier of Hyundai Heavy Industry Co.,Ltd.
- Manufacturing the Lowe hydraulic Pipe assemblies (Boom, Suction and Return Pipe)
- Started to do the foreign trading business

## 2000's

### Grew up

#### 2000

- · Converted a Private company into a corporation
- · Certified ISO 9001

#### 2002

 Awarded the one million export achievement prize on the 39th Annual Trade Day

#### 2003

- · Opened Shanghai Office, China
- · Certified clean workplace from Ministry of Labor
- Awarded a prize of Man of Trade at the 9th Gyeongnam Trade Anniversary
- Awarded the three million export achievement prize on the 40th Annual Trade Day

#### 2006

 Registered a certificate of utility of Pipe's leak tester Combination device

#### 2007

- Established the Research and development exclusive department (from The Korea Industrial Association)
- Awarded a prize of Man of Trade at the 12th Gyeongnam Trade Anniversary

# Certificate







# 2010's

## Taking a leap

#### 20

- Relocated new factory
- Manufacturing Pipe & Tank & Structure assemblies for Hi Ballast

#### 2014

- Manufacturing Pipe for Shipping Engine
- Certified ship's classification of KR, ABS, LR, DNV



- Awarded the five million export achievement prize on the 44th Annual Trade Day
- Certified Technology Innovation small business (Inno-biz certification)
- Certified Management Innovation small business (Main-biz certification)
- Certified ISO 14001
- · Awarded the Order of Industrial Service Merit
- Making an compressor exclusive sale agency contract in korea with Hitachi Refrigeration Engineering Co., Ltd from Shanghai, china

#### 2008

- Registered a certificate of design of Plastic Box installed Blanking device
- · Registered a certificate of design of functional cleaning box
- Certified TS 16949
- Completed to set up the spray painting equipment –surface treatment process inner production Line

#### 2009

- · Registered a certificate of design of functional cleaning box
- Registered a certificate of patent of double-sided cleaning Box designed inner support
- Manufacturing the Tube Pipe assemblies and Oil tank for defense industry (K55)

#### 2011

- Making an compressor exclusive sale agency contract in Korea with The Xian Dong Fang Kangpusi Refrigeration Engineering Co.,Ltd
- · Established a welding technology of R&D center









# Main **Business Scope**

## Provide to give some more trustful blending product to customer













- 01. Construction / Industrial Equipment
- 02. Shipbuilding Industry
- 03. Defense Industry
- 04. Home Appliances Industry

Established in 1996, we manufacture hydraulic pipe assemblies for excavators, wheel loaders, and other construction/ industrial fabrication, structural pipe assemblies for tanks, artillery, and other defense industry one, and pipe spools and structures for ballast water treatment.

It has already acquired ISO9001/ISO14001 certification, that kinds of quality/environment management system certifications including INNO-BIZ one.

It has also established a welding technology of R&D center, and it owns various intellectual property rights.

Everyone at Nokwon is making unceasing efforts to ensure that the company becomes a global best leader by 2020.

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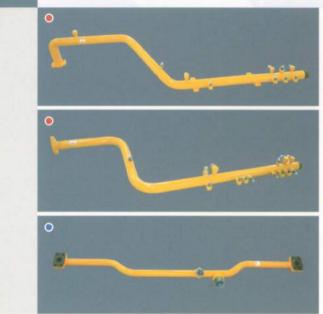
# Construction Equipment

Low / high hydraulic pipe assembly

- High Hydraulic PressureLow Hydraulic Pressure

# Defense Industry

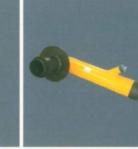
Structural pipe assembly

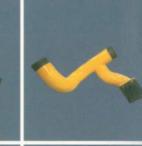


Return Pipe Assembly

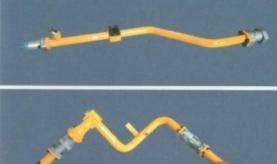


Suction Pipe Assembly











Check Valve Pipe Assembly











# Shipbuilding and Offshore Plants (BWTS)

Electrolyzers, tanks, and spools(pipes) for ballast water treatment systems.

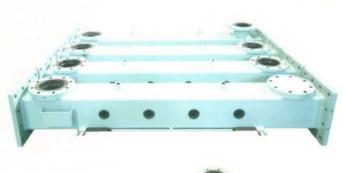
















# Shipping Engine

#### Hydraulic Power Supply

Engine oil pressure required for the system to work hydraulic generating unit / device start-up and operation.













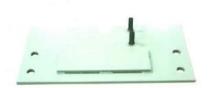








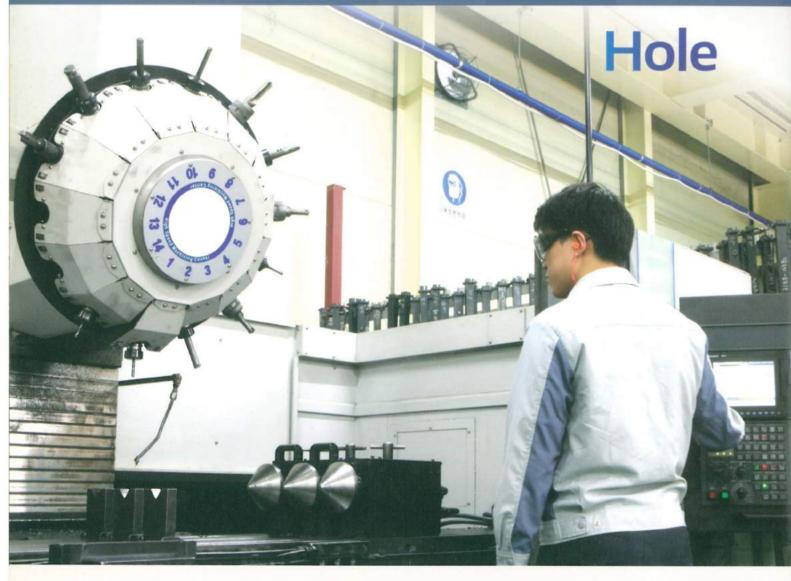




# Manufacturing **Process**

Cutting material from the processing, assembly work, from being a one-stop production process NOKWON CO., LTD., Bending / Automatic Welding / Auto-hole processing technology, unique system boasts the best manufacturing processes.

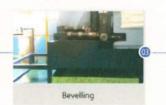
One stop solution system from cutting raw materials to blending products



















14

# Manufacturing **Process**

Shipment of raw materials from the implementation of each of the phases is 100% customer satisfaction and quality check the product towards a more complete effort of the Nokwon corporation.

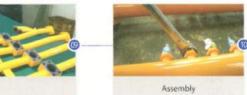
One stop solution system from cutting raw materials to blending products















## **CNC Cutting M/C**

- · Cutting external diameter: Ø30~ Ø120
- · Cutting Limit: 10~6,000mm



### **Pipe Bevelling**

Machining external diameter: 20A~100A (Ø27.2~Ø114.3)
Machining Limit: 10~2,500mm



#### **Machining Center**

- · Machine tool Q'ty: 14ea
- · Hole machining Size : Ø1.0 ~ Ø32
- · Within the range of Length: 10~3,000mm





#### CNC Bending M/C

- Bending external diameter: Ø6.35~Ø34 (under thickness 4T) Ø50 (under thickness 2T)
- · Bending length : 4,000mm · Bending minimum radius :
- 180°, 20R



## Global Best Leader by 2020

# One-Stop Production Process

### Auto Welding M/C

- · Welding type: Robot TIG Auto Welding
- External diameter limit: Ø42.7~Ø89.1
- · Length Limit: 100mm~6,000mm



## **Spray-Type Painting Line**

- · Painting type: Liquid SPRAY Painting (electrical-painting)
- · Within the range of painting size
- : 10 ~ 2,500mm (within 15kg per Hanger)
- Equipment composition
- booth of primer and top, dryer, conveyor, electric precipitator





# Quality Assurance

With quality policies of zero leaks, basic compliance, and fool-proof improvement, quality inspections are performed throughout all of Nokwon's production processes to ensure perfect quality.

Jig inspection, Patrol inspection, Routine inspection, NDT( = Non Distribution Test) **Process Audit** Operation standard, Process specification LQC **Process** Audit Customer Satisfaction DIQ IQC Check Valve inspection, Visual inspection Part - Raw material Part- Customer final inspection, Raw material - Mill Sheet control .∵Net • CERTIFICATE 20

All the products nokwon ISO9001, ISO14001 quality system, have obtained the certificate of quality management system to go through as much as be excellent.

A company that refuses to settle for anything less than perfect products

Customer

Satisfaction

**Final Inspection** 

Check Valve, Visual inspection

**Process Quality** 

Jig, Patrol, Routine inspection, NDT

**Part-Materials** 

Part- Customer Final inspection, Raw materials mill sheet management JIG, NDT

# **Global Network**

Provide to give some more trustful blending product to customer



A company strives to be a global leader and contribute to our communities Nokwon Co., Ltd.