



## COMPANY PROFILE



 RK ENGINEERING CO., LTD.



Land Plot CN3.2K, Dinh Vu Industrial Zone, Dong Hai 2 Ward, Hai An Dist., Hai Phong, Vietnam  
Tel : +84-31-326-0715~8 Fax : +84-31-326-0719  
URL : <http://www.nkweb.co.jp/> E-mail : [info@rk-eng-vn.com](mailto:info@rk-eng-vn.com)

06.2015.010

 RK Synergy Group  
Technologies for creating the future

 RK ENGINEERING CO., LTD.



## Introduction

RK ENGINEERING CO.,LTD. was established in Haiphong — the third city in Vietnam — on March 2012 as a maker which can meet plant makers in and out of Vietnam's expectation for high level of production technique, quality control, and cost effectiveness by gathering technical skills of Japan and talented Vietnamese stuff.

On March 2014, we finished constructing one-stop production line to perform from forming Head Plate which is essential parts of pressure vessel to canning, heat treatment by ourselves.

Our heat treatment furnace, exhaust duct, and chimney are designed by ROZAI KOGYO, manufactured by RK ENGINEERING.

LPG tank and supplysystem for furnace is designed and manufactured by Vietnamese stuff of RK ENGINEERING.

With these skills, we are sure that we can supply equipments of various fields and meet customer's expectations.

We will aim to become a trusted maker by Vietnamese and Japanese stuff working together.

## 3 major reasons why RK ENGINEERING came Dinh Vu I.Z. in Haiphong

### 1. Regional characteristics

In Vietnam — located between Southeast Asian countries showing remarkable economic growth and China, Haiphong city is located 100km to the east from Hanoi but central city of logistics that has an international trading port.

### 2. Locational conditions

Dinh Vu I.Z. adjacents to Dinh Vu Port that is international trading port of Haiphong.

It is suitable to carry materials and ship large products by sea. And development and construction of Lach Huyen Port is proceeding rapidly to meet the increasing demand for container transportation.

Except for marin transport, highway is under construction to relieve traffic congestion of Route 5 leading to Hanoi, and Cat Bi Airport that connects middle and southern areas is located 10km away.

### 3. Skill

There are many factories perform cutting, bending, and welding steel because Haiphong is a port city and shipbuilding industry is flourishing. Therefore it is possible to employ highly skilled workers, and there are many companies to support our job.



## ASME certified company

On December 4th 2012, RK ENGINEERING acquired ASME certification that is technical standard for manufacturing of Power Boiler and Pressure Vessel.

We are the first Japanese company in Vietnam to acquire ASME certification for manufacturing Power Boiler and Pressure Vessel, and contribute to manufacture equipments for power, chemical, and food plant in Southeast Asia including Vietnam and China.



The first meeting for ASME (May 22, 2012) The second meeting for ASME (July 10, 2012)



ASME Section I Power Boiler (S)No43958

ASME Section VIII Division I Pressure Vessel (U)No43959



The third meeting for ASME (August 16, 2012) Demo-fabrication for ASME (September 26, 2012)



Final survey for ASME (November 15-16, 2012) (Document) Final survey for ASME (November 16, 2012) (Factory)

ASME: The American Society of Mechanical Engineers

ASME Boiler and Pressure Vessel Code provides safety regulations for design and inspection of pressure vessel and equipment for nuclear power plant.

## Quality Control Safety Management

We are trying to improve Quality, Safety, Efficiency, and Communication.



Quality policy

To satisfy customer requirement on Quality, Cost, Delivery and Safety, we make concered efforts together to take actions to continually improve effectiveness of the quality management system by clarifying the roles and responsibilities and by improving employee's competence.



Greeting Campaign



1 S + 5 S Improvement activities

Safety

- S1 Seiri (Sorting/Tidiness)
- S2 Seiton (Setting in order/Orderliness)
- S3 Seiso (Shining/Cleanliness)
- S4 Seiketsu (Standardize)
- S5 Shitsuke (Sustain/Discipline)



Safety Management



We will be the bridge between Vietnam and Japan through manufacturing pressure vessels of high quality and competitive price, and create wonderful future.



Equipments



1 Office  
 1 Entrance  
 5 Canteen



12 Convection type car bottom heat treatment furnace  
 3 1000ton pressing machine  
 4 SSM (Special Spinning Machine)  
 11 Overhead travelling crane 20t  
 8 Hydraulic pressing machine  
 9 Spinning machine  
 10 Plasma cutting machine  
 6 Bending roll  
 2 Machining area  
 2 Band saw machine  
 2 Radial drilling machine  
 7 Gantry crane at open yard



Products



Shell plate bending



Polishing shell plate



Assembly and welding of shell plate (Inner surface polished products)



Assembly and welding of shell plate (SS400)



Installation of partition plate (SUS304)



100m<sup>3</sup> Silicone oil tank for Japan  
SUS304  
4 spaces inner surface polished #300  
■ φ3400 x L 12000



Shipping (for Japan)



Polishing inner surface of Head plate



Finish



Customer's witness inspection




Head plate  
A516-60  
■ T16(Min12.8)x D2000x EDx SF38



Sump Plate  
SA36  
■ OD960x ID492x t13



Expansion A515-60  
■ Nom.12(min10.5)x  
■ ID3000x OD3542x H288



Heat treatment



Water tank  
SUS304  
■ 350A x L533



Chimney  
SUS201  
■ OD360x L1.2x L11570



Oxygen surge tank for Japan  
SS400  
■ ID3000x TL~TL5410x t12



Oxygen adsover for Japan  
SS400  
■ ID3400x TL~TL1600x t12



Stainless steel tank 11kinds, 17sets



GAC tank for CCBH  
SA240TP316L  
■ ID2100x  
TL~TL5813x t10t



Liquefied gas drainage tank  
SA240TP304  
■ ID2100x  
TL~TL4614x t6



MS adsorber  
SA516-70 (U-STAMP)  
■ ID2000x  
TL~TL2276x t10



Column SUS316L  
■ OD1582x ID1364 x L3015



Recuperator  
SUS304/SS400  
■ φ 356 x L 3370 ~ 120pc



Duct for dust collector of AL melting furnace and attached structures  
SS400  
■ Total weight: 9500kg



Shelves for metal mold  
SS400  
■ Total weight: 76900kg



Manhole cover for Japan  
SUS304



Casing  
SUS316L  
■ φ 1860 x L 1960 ~ 2 pcs



Impeller  
SUS316L  
■ φ 1410 x L 1960 ~ 2 pcs



L P G tank  
SA516-70  
■ φ 2500 x L 7250



Mixing tank  
SUS316L/SS400  
■ φ 1850 x H3100 ~ 1 pc  
■ φ 1155 x H2000 ~ 1 pc



Separator tank  
SUS316L  
■ φ 2200 x H3900



N2H2 Receiver tank  
SUS304  
■ 1 m<sup>3</sup> ~ 2 pcs. 0.5m<sup>3</sup> ~ 1 pc



Recuperator for Thailand  
SUS304/SS400  
■ φ 267.4 x L 2620 ~ 16pcs



RT Recuperator for Japan  
SUS304/SS400  
■ φ 216.3 x L 1158 ~ 16pcs



Separator tank  
SUS304L  
■ ASME U-Stamp



Buffer tank  
SS400  
■ 3.4m<sup>3</sup>



Cart

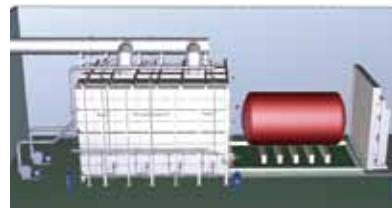


## Convection type car bottom heat treatment furnace

### Heat treatment for improving mechanical properties of metal

#### Heat treatment is essential to conform to standard of steel structures

Heat treatment is essential to improve mechanical properties of mechanical parts and structures by improving strength, elongation, and toughness. We equipped a heat treatment furnace which has one of the largest capacity of size and temperature in Vietnam. It made us possible to perform one stop production of products that require heat treatment by various standards.



Convection type car bottom heat treatment furnace Closed

Our heat treatment furnace, exhaust duct, and chimney are designed by ROZAI KOGYO, manufactured by RK ENGINEERING. LPG tank and supply system for furnace is designed and manufactured by Vietnamese staff of RK ENGINEERING.

#### External equipments



Chimney



Outside overview



LPG Tank



Convection type car bottom heat treatment furnace Opened

#### Specification of Heat treatment furnace

Type	Convection type car bottom heat treatment furnace	
Fuel	LPG	
Inside dimension	4000W × 7000L × 4000H	
Capacity	30Ton / CH	
Heat treatment temperature	Annealing	600 ~ 650°C
	Normalizing	900 ~ 950°C
	Solution	Max.1050°C
Tolerance	±25°C	

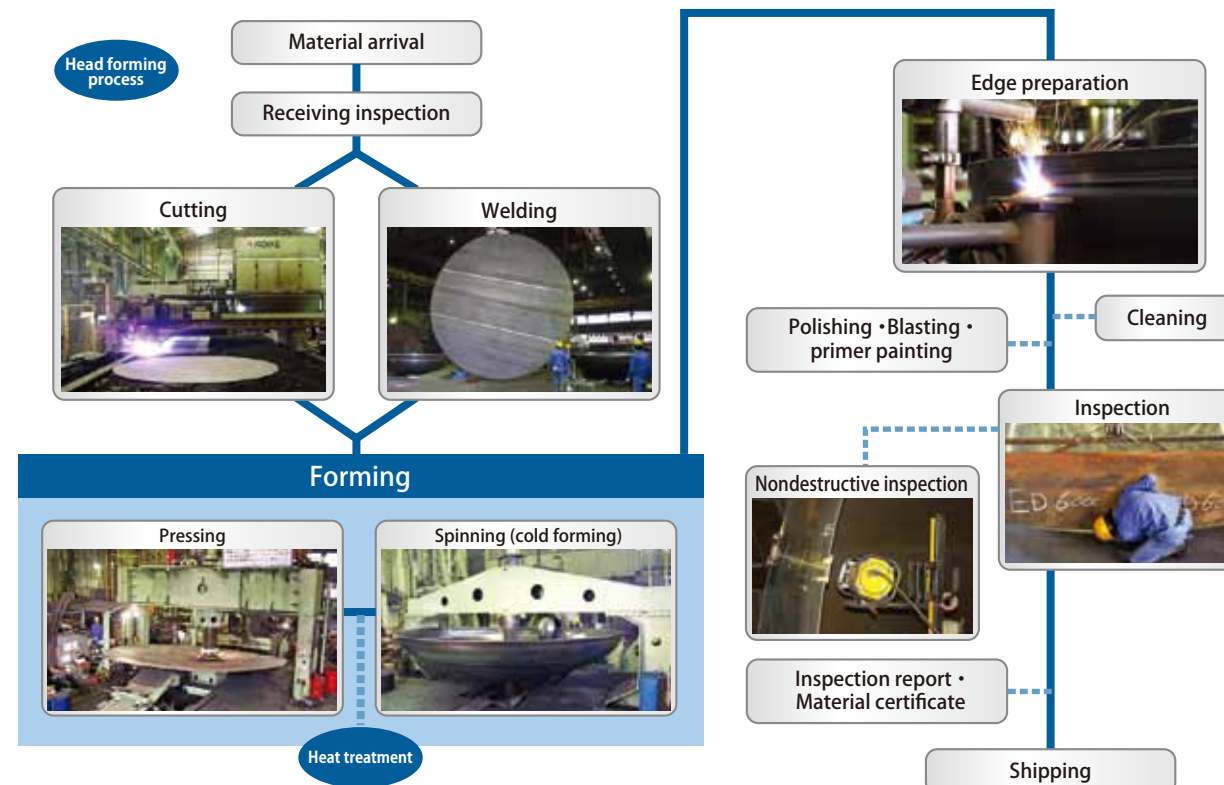
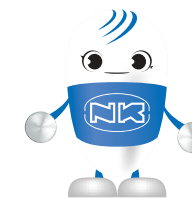
## Forming Head plate

### Forming technology of Head plate that is used in various fields.

#### Head plate is essential for vessel

We deal with various Head plates that is used in chemical, pharmaceutical, and food plant. Besides plant, Head plate is used for boiler, underground storage tank at gas station, tank truck and tank train.

In addition, our technology is used for lighted buoy that is necessary for safe voyage. Head forming technology will be continued to contribute to development of industry.



## Local subsidiary

Company name	RK ENGINEERING CO.,LTD.
President	小林 三郎 (SABURO KOBAYASHI) (President of NIPPON KYOHAN KOGYO CO.,LTD.)
The Management	社長 (General Director) 土屋 讓 (YUZURU TSUCHIYA) (Managing director, Overseas division manager of NIPPON KYOHAN KOGYO CO.,LTD.)
Address <Office • Factory>	Land Plot CN3.2K, Dinh Vu Industrial Zone, Dong Hai 2 Ward, Hai An Dist., Hai Phong, Vietnam Tel : +84-31-326-0715~8 Fax : +84-31-326-0719
Established	April 14, 2011
Operation started	April 2012
Paid-up Capital	US\$600,000
Investment ratio	NIPPON KYOHAN KOGYO CO.,LTD. 100%
Business	Manufacturing and sale of pressure vessel, head plate, industrial furnace, refractory, burner, etc.
Site area	15,000 m <sup>2</sup>
Factory area	5,300 m <sup>2</sup>
Employees	65



**Equipment List** (As of March 2014)

Equipment	Description	Quantity
Convection type car bottom heat treatment furnace	Inside dimension (W4000×H4000×L7000) Max.temp. 1050°C Max.weight 30 t	1set
Hydraulic pressing machine	1000 t W6000×Daylight 2500	1set
Hydraulic pressing machine (with manipulator)	300 t	1set
Spinning machine	22 t × φ 800~φ 4000	1set
Special Spinning Machine	14 t × φ 3000×Max.Height 3000	1set
Bending roll	25 t × W2550	1set
Bending roll	6 t × W2000 (Min. φ 150)	1set
CNC gas/plasma cutting machine	W2500×L6000 Thickness (SS Max. 60mm, CS Max. 120mm)	1set
Lathe	Max. φ 1600, Max.length 3000	3sets
Band saw machine	Thickness Max. 400mm	1set
Milling machine	Table length 800mm	2sets
Radial drilling machine	1210L×640H Max. φ 32	2sets
Slotter	Max. φ 100mm	1set
Welding positioner	500kg, 150kg	3sets
Turning rolls	10 t	6sets
Turning rolls	5 t	3sets
Gas cutting machine		6sets
Plasma cutting machine	Max. 60mm	1set
Submerged arc welding machine	1000A	1set
MAG welding machine	350 A	25sets
TIG welding machine	300 A	9sets
TIG welding machine (Small-sized)	200 A	2sets
Arc welding machine	400 A	3sets
Arc welding machine (Small-sized)	200 A	5sets
DC arc welding machine	630 A	2sets
Grinder		27sets
Beveling machine for Head plate		1set
Polishing machine (Automatic)		1set
Polishing machine (Manual)		4sets
Hydraulic pressing machine (for straightening)	100 t	1set
Compressor	15Hp	2sets
Pressure pump		4sets
PMI (Positive Material Identification) equipment		1set
Overhead travelling crane	20 t	2sets
Overhead travelling crane	10/5 t	1set
Overhead travelling crane	10 t	2sets
Overhead travelling crane	5 t	5sets
Jib crane	0.5 t	4sets
Gantry crane at open yard	20 t / 5 t	1set
Forklift	5 t	1set
Welding rod dryer	100kg	1set
Portable welding rod dryer		4sets



Convection type car bottom heat treatment furnace



Spinning machine SSM (Special Spinning Machine)



Hydraulic pressing machine 1000ton pressing machine

**ロザイ工業株式会社 ROZAI KOGYO KAISHA,LTD.**

会社設立 1947年8月1日  
資本金 96,000,000円  
代表取締役 社長執行役員 小林太郎  
従業員数 245名  
事業内容 工業炉設備・環境設備の設計・製作・施工  
燃焼機器の設計・製作、耐火物・機能材料の製造  
本社 〒550-0015 大阪市西区南堀江1丁目2番14号  
電話:06(6534)3611(代表) FAX:06(6531)2043  
E-mail:rinfo@rozai.co.jp  
URL: http://www.rozai.co.jp

Established : August 1st, 1947  
Paid-up Capital : ¥96,000,000  
The Management : Taro Kobayashi President & CEO  
Employees : 245  
Business : Design, manufacture, installation of industrial furnace and environmental control system, Design and manufacture of combustion equipment, Manufacture of refractories and functional materials  
Head Office : 2-14, 1-chome, Minamihorie, Nishi-ku, Osaka, Japan 550-0015  
Phone : (81)6-6534-3611 FAX : (81)6-6531-2043  
E-mail : rinfo@rozai.co.jp  
URL : http://www.rozai.co.jp



**日本鏡板工業株式会社 NIPPON KYOHAN KOGYO CO.,LTD.**

会社設立 1965年2月1日  
資本金 90,000,000円  
代表取締役社長 小林三郎  
従業員数 120名  
事業内容 各種鏡板・压力容器・マンホールカバーの製造  
金属プレス曲げ加工全般  
化工機設備の製造  
本社 〒555-0012 大阪市西淀川区御幣島6丁目12-22  
電話:06(6472)4772(代表) FAX:06(6477)1430  
E-mail: info-s@nkweb.co.jp  
URL: http://www.nkweb.co.jp

Established : February 1st, 1965  
Paid-up Capital : ¥90,000,000  
The Management : Saburo Kobayashi President  
Employees : 120  
Business : Manufacture of various types of tank head, pressure vessel and manhole cover, Metal press-bending, Manufacture of chemical engineering machine  
Head Office : 12-22, 6-chome, Mitejima, Nishiyodogawa-ku, Osaka, Japan 555-0012  
Phone : (81)6-6472-4772 FAX : (81)6-6477-1430  
E-mail : info-s@nkweb.co.jp  
URL : http://www.nkweb.co.jp



**炉盛(上海)商貿有限公司 ROZAI (SHANGHAI) TRADING CO.,LTD.**

会社設立 2009年4月1日  
資本金 100,000,000円  
役員 董事長 小林太郎  
総経理 小林三郎  
副総経理 東山鴻毅  
事業内容 工業炉設備・関連部品・耐火物原料の  
中国国内販売と輸出入  
エンジニアリングサービス  
本社 〒200336 上海市長寧区婁山関路85号  
東方国際大廈C座1401室  
電話:(86)21-62083311 FAX:(86)21-62759858  
E-mail: info-rch@rozai.cn  
URL: http://www.rozai.cn

Established : April 1st, 2009  
Paid-up Capital : ¥100,000,000  
The Management : Taro Kobayashi Chairman  
Jiro Kobayashi President  
Kouki Higashiyama Vice President  
Business : Domestic sale, import & export and engineering service of industrial furnace, associated components and refractory materials  
Head Office : Room NO.1401, Orient International Building C, No.85 Loushanguan Road, Changning District, Shanghai 200336 China  
Phone : (86)21-62083311 FAX : (86)21-62759858  
E-mail : info-rch@rozai.cn  
URL : http://www.rozai.cn

**炉赛亿(大連)耐火材料有限公司 ROZAI (DALIAN) CERAMICS CO.,LTD.**

会社設立 2011年2月25日  
資本金 US\$1,000,000  
役員 董事長 小林太郎  
総経理 小林洋介  
副総経理 金谷雅勝  
事業内容 耐火物・機能材料の製造  
耐火物製品の中国国内販売・海外輸出販売  
耐火物関連の設計・施工  
本社 大連市開発区得勝街道得勝村工業園1号  
電話:(86)411-87214180 FAX:(86)411-87214184  
E-mail: info-dalian@rozai.cn

Established : February 25 2011  
Paid-up Capital : US\$1,000,000  
The Management : Taro Kobayashi Chairman  
Yosuke Kobayashi President  
Masakatsu Kanaya Vice President  
Business : Manufacture of refractories and functional materials, Domestic sale and export & sale of refractory products, Design and installation of refractories and related products  
Head Office : No.1, Industrial Estate, Desheng Village, Desheng Street, Dalian Development Area, Dalian, P. R. China  
Phone : (86)411-87214180 FAX : (86)411-87214184  
E-mail : info-dalian@rozai.cn

**ROZAI (THAILAND) CO.,LTD.**

会社設立 2013年2月20日  
資本金 2,000,000バーツ  
代表取締役 小林太郎  
事業内容 工業炉を主とする産業機械及び耐火物の  
販売・技術サービス提供・施工  
本社 246 Times Square Building 15-03  
Sukhumvit Rd., Between Soi 12-14,  
Klongtoey, Bangkok 10110 Thailand  
電話:(66)83-615-9028 FAX:(66)2-653-0899  
E-mail: info-th@rozai.co.th

Established : February 20th, 2013  
Paid-up Capital : THB2,000,000  
The Management : Taro Kobayashi President  
Business : Sales, technical service offer and construction of the industrial machinery and refractories, mainly involving the industrial furnace.  
Head Office : 246 Times Square Building 15-03 Sukhumvit Rd., Between Soi 12-14, Klongtoey, Bangkok 10110 Thailand  
Phone : (66)83-615-9028 FAX : (66)2-653-0899  
E-mail : info-th@rozai.co.th