SAM CHANG FOUNDRY CO., LTD. INTRODUCTION

Corporate Management & Planning Team 22nd June 2016



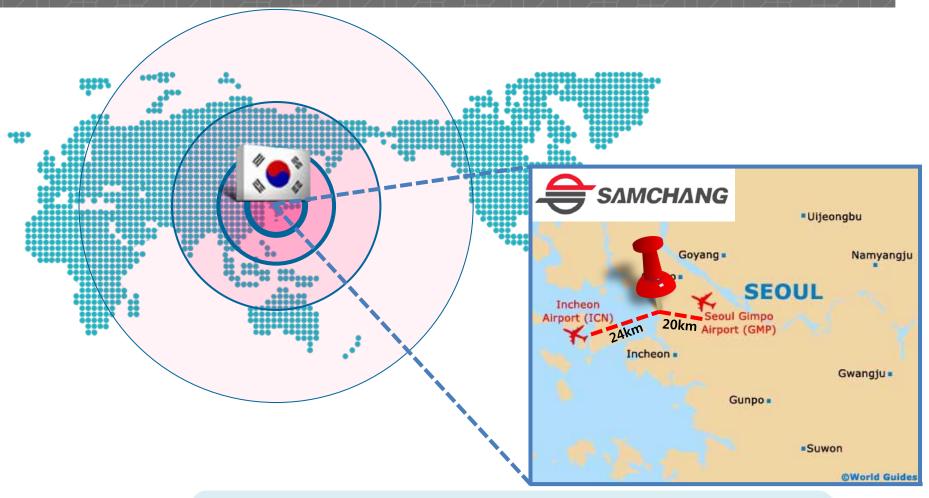
TABLE OF CONTENTS

- 1 COMPANY LOCATION / HISTORY
- 2 BUSINESS PORTFOLIO
- 3 ORGANIZATION STRUCTURE
- 4 COMPANY STATUS
- 5 FACILITIES & EQUIPMENT

- 6 R&D CENTER
- 7 CERTIFICATES
- 8 US BUSINESS PARTNERS
- 9 MAJOR CUSTOMERS
- 10 CONCLUSION



COMPANY LOCATION





Address: (22744) 4, Saryeom-ro 32beon-gil, Seo-gu, INCHEON, KOREA

20 minutes from Incheon International Airport(ICN) by Car

Tel.: +82-(32)-561-7752 / e-mail: <u>latemz@hotmail.com</u>



COMPANY HISTORY

1967~



2010s

1967 Established as Sam Chang Foundry

1977 Established as
Sam Chang Foundry Co., Ltd.
1987 Moved from Seoul to Inchon
1987 Approved by UL, ULC and FM
for Butterfly Valves

(The FIRST COMPANY in ASIA)

1990s

2003 Installed Electric Furnace (2.0ton x 2)

2000s

2003 Certified ISO9001:2000 2005 Certified QS9000:1998

2005 Installed DISA Molding Machine (2013MKIII)

2007 Certified ISO/TS16949:2002

2008 Replaced AMF Horizontal Automatic Molding Machine to AMF-IV

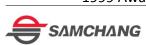
1995 Approved by UL, ULC and FM for Gate Valves

1995 Installed Electric Furnace (2.5ton)

1995 Open US Subsidiary (Global Safety Products, Inc.)

1999 ISO9001 Certified

1999 Awarded One MUSD Exportation Prize



2012 Established R&D Center

2015 Approved by UL, ULC and FM for Swing Check Valves 2015 Awarded Five (5) MUSD Exportation Prize

2016 Approved by API for Flowline Products

2016 Approved by GOST, EAC for Butterfly Valve

2016 Launched New Gate Valves

2016 Small Giants Company
approved by Ministry of
Trade, Industry and Energy

of Korea

BUSINESS PORTFOLIO

CASTING

- Automobile Parts
- Heavy Equipment Parts
- Railroad Car Parts
- Agricultural Machinery Parts
- Various Industrial Goods

FIRE SAFETY

- Butterfly Valve (Grooved/Wafer)
- Butterfly Valve (Brass)(Grooved/Threaded)
- Swing Check Valve
- Shotgun Valve
- Gate Valve (NRS/OS&Y)
- (Alarm Valve / Riser)
- Coupling
- ●Flexible Drop & Fittings



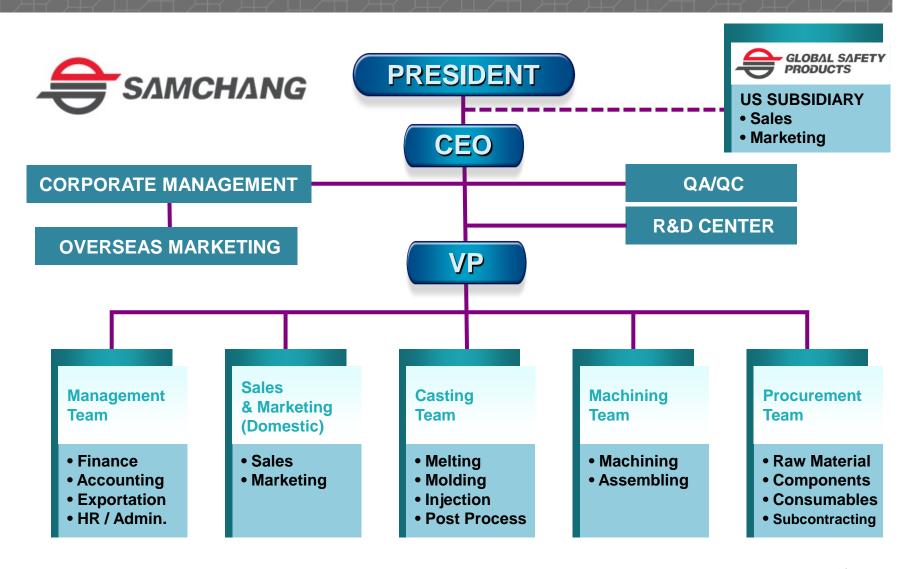
OIL/GAS FLOWLINE

- Plug Valve
- (Choke Valve)
- Swivel Joint
- Pup Joint
- Hammer Union
- (Integral Fittings)
- Sucker Rod Couplings
- Tubing Clamp
- Pumping Flow Tee
- Tilting Check Valve





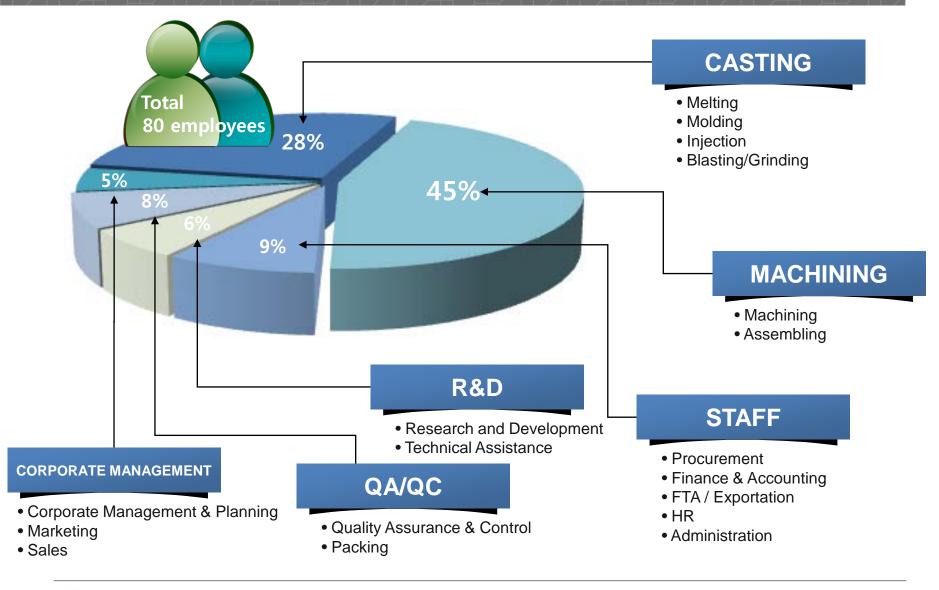
ORGANIZATION STRUCTURE



※ VP : Vice President

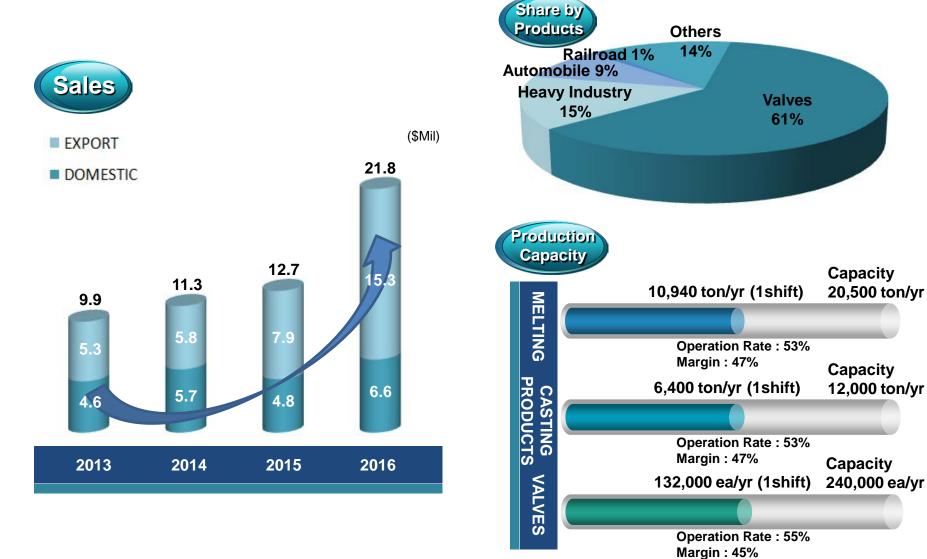


MANPOWER STATUS





BUSINESS STATUS





FACILITIES & EQUIPMENT (CASTING)

Melting

- Melting Furnace
- 2.5 ton 1 Source 1 Body (Inductotherm, USA)
- 2.0 ton 1 Source 2 Bodies (AMM, UK)



Molding

- Automatic Molding Line
- AMF IV-06R Horizontal 610x508x400, 160 mold/hr (Tokyu, JPN)
- DISA 2013MK-3 Vertical 600x480x330, 360 mold/hr (DISA, DEN)
- Sand Preparation
- 1.5 ton/batch, 40 ton/hr (B&P, USA)

Sand Preparation



Blasting

- Shot Blast M/C
- Apron Type M/C
 1.2 ton, 30 min/piece
 (Sekwang-shot, KOR)
- Drum Type M/C1.5 ton, 30 min/piece(Sekwang Engineering, KOR)

Post Process

- Trimming Press M/C
- 60 ton x 1 set (KIA Machinery, KOR)
- Bench Grinder
- Two Heads Grinding Φ650, Φ405 (Tae Sung, KOR)





FACILITIES & EQUIPMENT (MACHINING)

CNC

- V-850 (Doosan, KOR)
- ECO 5V R (Hwacheon, KOR)
- HI-ECO 31A (Hwacheon, KOR)
- PUMA 12L (Doosan, KOR)
- PUMA 240 (Doosan, KOR)
- DC-3000 (Daegu, KOR)

MCT

- HC500 (Horizontal) (Daewoo, KOR)
- KH50G (Horizontal) (Hyundai, KOR)
- PCV-50 (Vertical) (Samsung, KOR)
- LCV50 (Vertical) (Samsung, KOR)

DRILLING

- NBTG 540 (Nambuk, KOR)
- NBTG 540 (Nambuk, KOR)
- DRD-1000 (Doosan, KOR)

MILLING

- HF NO2 (ENSHU, JPN)
- DMB U54 (Doosan, KOR)
- HMTH-1300N (Hwacheon, KOR)

LATHE

- DML (850 x 1500) (Daewoo, KOR)
- DL850-1500G (Daewoo, KOR)
- NSL (480 x 1000G) (Hwacheon, KOR)
- DL (580 x 1500G)
 (Daewoo, KOR)

CUSTOM MADE

- BFV BODY HOLE (Samwoo, KOR)
- BFV DISC HOLE (Samwoo, KOR)

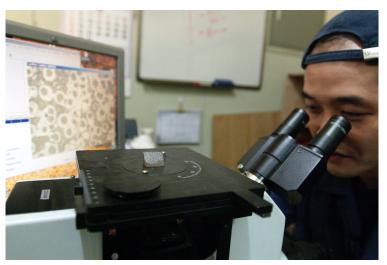




FACILITIES & EQUIPMENT (QA/QC)

Universal Testing Machine, 30 ton (Kyeongdo mfg. Ltd., KOR)

- Brinell Hardness Testing Machine
 - DTB-500 (Daekyung Tech, KOR)
- Metallurgical Microscope
 - XJP-6A (COIC, ITA)
- Spectrometer
 - SPECTRO MAXx (AMETEK, GER)
- CE Meter
 - 255ICS (Nisabu, JPN)
- Ultrasonic Inspection Meter
 - USM 35DAC (Krautkramer, GER)
- Ultrasonic Thickness Gauge
 - CL5 (Krautkramer, GER)
- Sand Testing (SIMPSON, USA)
 - Electronic Laboratory Shifter
 - Sand Rammer
 - Digital Permeability Meter
 - Moisture Analyzer
 - Electronic Universal Sand Strength Machine
- Rubber Hardness Tester
 - GS-706N (Teclock, JPN)
- Coating Thickness Gauge
 - TM510FN (TMTeck, CHN)
- Leak Tester 2,500 Bar (ENPOS, KOR)
- Leak Tester 100 Bar (Custom Made, KOR)





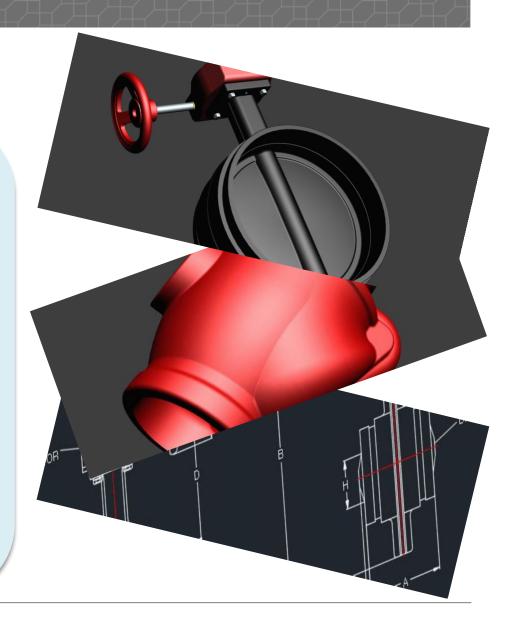




R&D CENTER



- Established in 2012
- Purposes
 - R&D for high valued product
 - Research on fundamental/application technology for material
 - Research on fundamental/application technology for manufacturing
 - Support total solution for fire safety
- Technical Fields
 - Casting (Gray Iron, Ductile Iron)
 - Valves (Butterfly, Check, Gate, Plug, Choke etc.)
 - Fittings, Couplings, Flexible Drop etc.
 - Oilfield / Shale Gas Flowline Products & Oil Tools
- Role & Responsibility
 - New product development
 - Conduct National Tech. Development Project
 - Project for International Standard Approval
 - Technical support for manufacturing
 - Complement existing products
 - Supervision for Subcontractors



CERTIFICATES











UL/cUL/ULC

FM

CE

VdS (Mfg' Plant)

CA State Fire Marshall











Russian GOST

EAC

API 6A / API 16C

KS

ISO 9001:2008 ISO/TS 16949

US BUSINESS PARTNERS

GLOBAL SAFETY PRODUCTS

- US Subsidiary (Established in 1995)
- Address
 970 E. Orangethorpe Ave. Unit B, Anaheim, CA 92801, USA
- Handling Products
- Fire Safety Butterfly Valves
- Fire Safety Swing Check Valves
- Fire Safety Gate Valves
- Flexible Drop & Fittings
- Heavy Industrial Casting Products



- Advancing the establishment
- Address Texas, USA
- Handling Products
- Oil Tools & Flowline Products

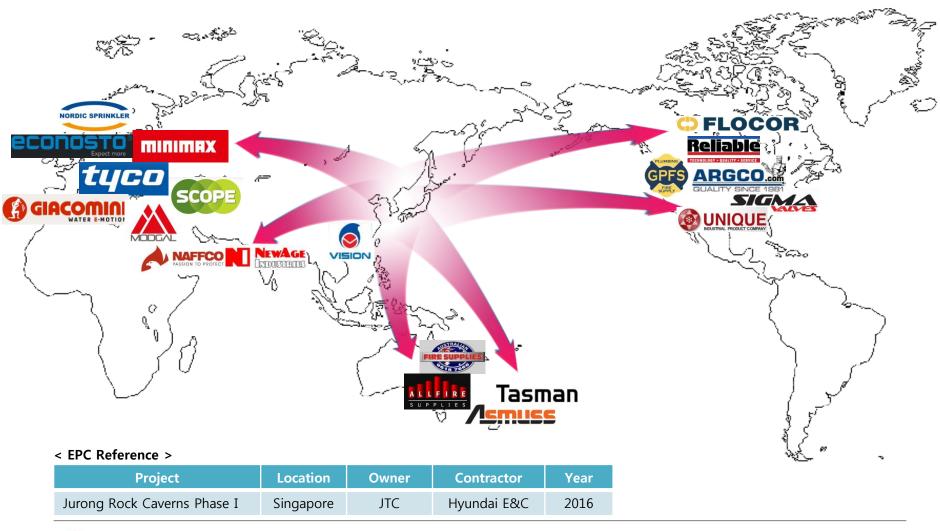


MAJOR CUSTOMERS (CASTING PRODUCTS)

CUSTOMER	PRODUCT	MATERIAL	SHARE	END USER
HANYEONG METAL IND.	KNUCKLE CARRIER	FCD 600	12%	A HYUNDAI HEAVY INDUSTRIES
JINHEUNG FOUNDRY	BEARING CAP HUB ADAPTER	FCD 450 FC 250	11%	DOOSAN TATA DAEWOO
SHINAN CAST IRON	KP BOLT & NUT	FCD 450	10%	SHIN AN CAST IRON Co., Ltd
DAWOO SEALANT	FLOOR HINGE	FC 200	7%	DAWOO Sealant Industrial Co., LTD.
HANKUK MACHINERY	G2 2.4L FLY WHEEL PULLEY	FC 250	7%	Bobcat.
SUNGBO P&T	CARRIER COVER	FCD 600	6%	A HYUNDAI HEAVY INDUSTRIES
TAEMYUNG INDUSTRIAL	SEGMENT BOLT BOX	FCD 500	5%	Taemyung Industrial Co., Ltd.
Magna Korea	BLOCK HOUSING	FC 250	5%	Magna KOREA
KOREA RAILROAD	BREAK DISC ADAPTER	FC 250 FCD 500	5%	KOREA RAILROAD
JINHEUNG FOUNDRY	ARM INTERMEDIATE SINGLE PULLEY	FCD 450 FC 250	5%	<u>GM</u>
KUDAN	BASE CAM COTTON PICKER	FCD 600	3%	JOHN DEERE



MAJOR CUSTOMERS (VALVES)





WHY SAMCHANG AS YOUR GROWTH PARTNER

Mutually Beneficial between us and Clients

Escalated Reputation & Repeated Orders

Ample Qualified Engineers

Accumulated Know-how Highest Quality Standard

Schedule Reduction





Your Growth Partner

Thank You!

