

# Company profile



The Best Technology

# WONIL F&T CO., LTD.



# Content

1. Company introduction
  - 1.1 CEO Greeting
  - 1.2 Overview
  - 1.3 History
  - 1.4 Organization
2. Manufacturing process
3. Manufacturing facilities and equipment
  - 3.1 Forging
  - 3.2 Heating
  - 3.3 Heat Treatment
  - 3.4 Machining
4. Mass(as forged) of largest forgings which can be made
5. Quality Assurance
  - 5.1 Quality Policy
  - 5.2 Certificate
  - 5.3 Testing equipment
6. Service material
  - 6.1 Carbon steel
  - 6.2 Alloy steel
  - 6.3 Stainless steel
7. Raw material suppliers
8. Location

# 1. Company Introduction



## 1.1 CEO Greeting



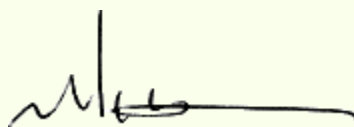
### **WONIL F&T Co., Ltd.**

Which has been growing up as a world-wide forge manufacturer by continuous improving technology and investment, is producing forging products of Power Plant, Shipbuilding and Marine engine, Petrochemical, Oil & Gas, On/Off shore, Industries plant facilities and engineering systems and Aerospace compartments, since 2004.

We are advancing into the world-Europe, Asia, and the Middle East-with our high technology and reliance from the customers. We realize our ideal by quickly and accurately supplying the products to our customers.

We will continue do the our best to supply high quality products, to be a global company.

Best regards

C.E.O Sang Tae, Kim 

# 1. Company Introduction

## 1.2 Overview

Company Name	WONIL F&T Co., Ltd.
C.E.O	Sang Tae, Kim
Establishment Date	Oct. 11 <sup>th</sup> . 2004
Head office & Factory	#468, Angok-ro, Hallim-myeon, Gimhae-si, Gyeongsangnam-do, Korea
Area	Site : 8,264m <sup>2</sup> Building : 3,169m <sup>2</sup>
Tel.	82-55-346-0680
Fax.	82-55-346-4832
E-mail	wonil0680@hanmail.net

# 1. Company Introduction

## 1.3 History

Oct. 2004	Established "WONIL Metal Company" (#1461-1, Songjeong-dong, Gangseo-gu, Busan, Korea)
Feb. 2005	Obtained ISO9001:2000 Certificate from ABS
Dec. 2007	Moved Head office and Factory to Gimhae-si (#468, Angok-ro, Hallim-myeon, Gimhae-si, Gyeongsangnam-do, Korea) Changed the company's name "WONIL F&T Co., Ltd." <ul style="list-style-type: none"><li>- Installed 2500ton Hydraulic Press</li><li>- Installed 50ton(1unit) and 30ton(2units) Heating Furnace</li><li>- Installed 50ton(1unit) Heat Treatment Furnace</li><li>- Installed Quenching Tank for Solution Annealing</li></ul>
Apr. 2008	Obtained ISO9001:2008/KS Q 9001:2009 Certificate from BVIS
Jan. 2012	Installed 2500 Ring Rolling Mill(1unit)
Apr. 2012	Installed 10ton Electric Heating & Heat Treatment Furnace(1unit)

# 1. Company Introduction

## 1.3 History

Jun. 2012	Qualification NORSOK M-650 UNS S31803(ASTM A182 F51), UNS S32750(ASTM A182 F53) for Flange
Aug. 2012	Approved by ABS and BV as a forging manufacturer of Carbon, Carbon-manganese, Alloy and Stainless Steels(Max. weight : 12ton)
Aug. 2012	Approved by KR as a forging manufacturer of Carbon, Carbon-manganese, Alloy and Stainless Steels(Max. weight : 7ton)
Dec. 2012	Installed 1.5ton Air Hammer & 10ton Heating Furnace(1unit)
Feb. 2013	Qualification NORSOK M-650 UNS S31803(ASTM A182 F51) for Plate and Round Bar
Mar. 2013	Approved by DNV as a forging manufacturer of Carbon, Carbon-manganese, Alloy and Stainless Steels(Max. weight : 5ton)
Mar. 2013	Qualification NORSOK M-650 UNS S31803(ASTM A182 F51) for Flange
Jul. 2013	Approved by LR as a forging manufacturer of Carbon, Carbon-manganese, Alloy and Stainless Steels(Max. weight : 5ton)

# 1. Company Introduction

## 1.3 History

Jun. 2014	Approved by LR as a forging manufacturer of CuNi10Fe1Mn1 (Max. weight : 250kg)
Oct. 2014	Verified the heat treatment procedure by STATOIL Qualification NORSOK M-650, NORSOK M-630, MDS D44 Rev.5 UNS S31803(ASTM A182 F51) for FLANGE
Nov. 2014	Installed 3500ton Hydraulic Press
Dec. 2014	Obtained CE PED 97/23/EC from BVIS
Feb. 2015	Approved by GL as a forging manufacturer of Carbon Steel(Max. weight : 5ton)
Mar. 2015	Approved by RINA as a forging manufacturer of Carbon Steel(Max. weight : 5ton)
Apr. 2015	Approved by GS caltex as a forging supplier
Aug. 2015	Approved by DAELIM C&S as a forging supplier

# 1. Company Introduction

## 1.3 History

Jul. 2015

Approved by TOTAL as a forging supplier for KAOMBO Project  
(TOTAL E&P ANGOLA BLOCK 32)

Mar. 2016

Approved by LR as a forging manufacturer of Duplex and Super Duplex Stainless  
Steel(Max. weight : 1,920kg)

Mar. 2016

Approved by EIL(ENGINEERS INDIA LIMITED)



# 1. Company Introduction

## 1.4 Organization



Total Employees	54
Management	7
Purchasing	2
Production	32
Sales	8
Q.A	5

## 2. Manufacturing process



# 3. Manufacturing Facilities and Equipment

## 3.1 Forging facilities



2500ton Hydraulic press



1.5ton Air Hammer



2500 Ring Rolling Mill

Facility name	Capacity (W x H x L)mm	Q'ty (ea)	Manufacturer	Remark
Hydraulic Press	3,500ton (2,500 x 2,000)	1	HPM (USA)	
Hydraulic Press	2,500ton (2,500 x 2,000)	1	Dong Myoung (Korea)	
Ring Rolling Mill	Max. Outer Dia. : 2,500 Max. Thickness : 1,000	1	Kaltek (Korea)	
Air Hammer	1.5ton	1	VORONEJ (Russia)	

# 3. Manufacturing Facilities and Equipment

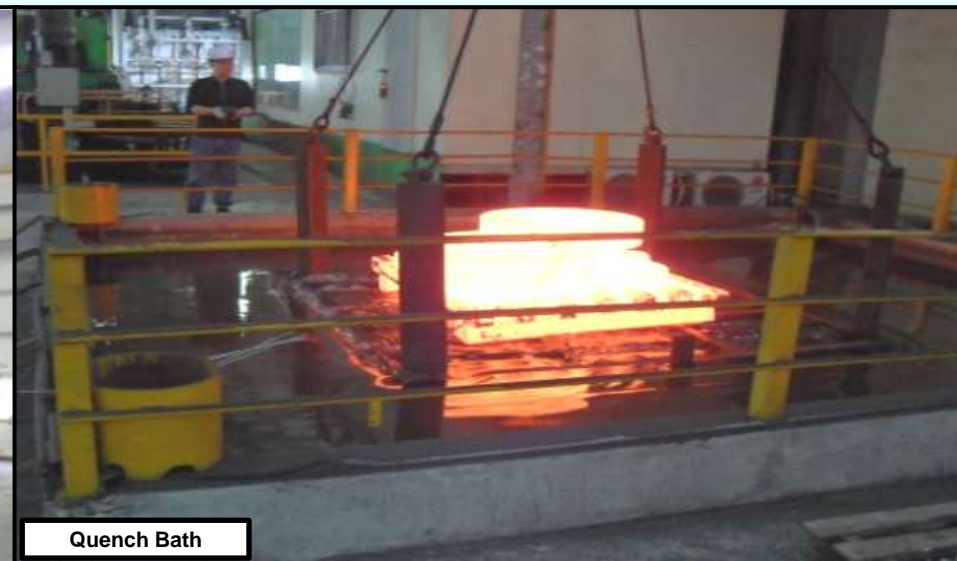
## 3.2 Heating Furnace



Facility name	Capacity (W x H x L)mm	Q'ty (ea)	Manufacturer	Remark
Heating Furnace (Batch Type)	50ton (3,000 x 2,400 x 7,000)	1	Hyundae Special Furnace (Korea)	LNG
Heating Furnace (Batch Type)	30ton (3,000 x 2,000 x 3,000)	3	Hyundae Special Furnace (Korea)	LNG
Heating Furnace (Batch Type)	10ton (2,000 x 1,800 x 2,000)	1	Hyundae Special Furnace (Korea)	LNG
Heating Furnace (Batch Type)	10ton (2,000 x 1,700 x 3,000)	1	Hyundae Special Furnace (Korea)	Electric Power

# 3. Manufacturing Facilities and Equipment

## 3.3 Heat Treatment



Facility name	Capacity (W x H x L)mm	Q'ty (ea)	Manufacturer	Remark
Heat Treatment Furnace (Car-bottom Type)	50ton (3,000 x 2,400 x 7,000)	1	Hyundae Special Furnace (Korea)	LNG
Heat Treatment Furnace (Batch Type)	10ton (2,000 x 1,700 x 3,000)	1	Hyundae Special Furnace (Korea)	Electric Power
Quenching Bath	5,500 x 4,500 x 4,500	1	Ho Min Ind. (Korea)	water

# 3. Manufacturing Facilities and Equipment

## 3.4 Machining



Facility name	Capacity (Outer Diameter)mm	Q'ty (ea)	Manufacturer	Remark
Vertical Lathe	NVT-1800 (2,000)	1	NAKAYAMA (Japan)	
	VTO-16 (1,600)	3	O-M Ltd. (Japan)	
	13EK150 (1,500)	1	SCHIESS (Germany)	
	VTO-12 (1,200)	1	O-M Ltd. (Japan)	

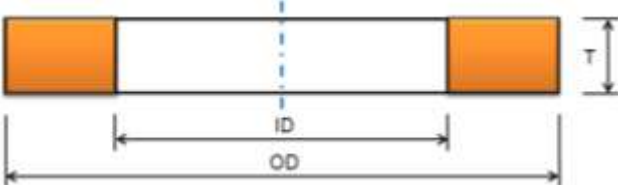

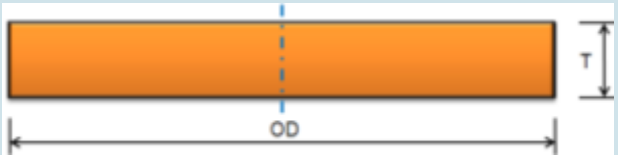
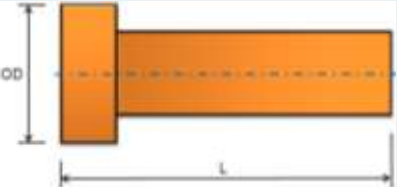
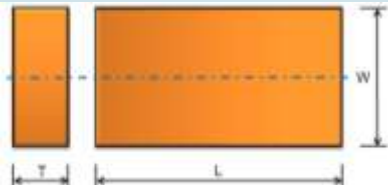
# 3. Manufacturing Facilities and Equipment

## 3.4 Machining



Facility name	Capacity (L x H)mm	Q'ty (ea)	Manufacturer	Remark
Milling Machine	YD1200 (2,700 x 1,100)	1	YONEDA(Japan)	
	STN-6UF (1,500 x 500)	1	STONIC CO., LTD.(Japan)	
Horizontal Lathe (for Deep Hole)	Max. Outer Dia.: 1,000 Max. Length : 450	2	HANKOOK MACHINE TOOL CO., LTD.(Korea)	
	Max. Outer Dia.: 1,200 Max. Length : 400	1	HANKOOK MACHINE TOOL CO., LTD.(Korea)	
Radial Drilling Machine	Max. Outer Dia.: 3,000	1	SNK(Japan)	

## 4. Mass(as forged) of largest forgings which can be made

Kind of Product	Size (mm)	Max. Mass (kg)	Remark
	Max. Outer Dia. : 2,500 Min. Inner Dia. : 250 Max. Thickness : 1,000	5,000	
	Max. Outer Dia. : 2,500 Min. Inner Dia. : 250 Max. Thickness : 2,000	10,000	
	Max. Outer Dia. : 3,000 Min. Outer Dia. : 50 Max. Thickness : 2,000	10,000	
	Max. Outer Dia. : 3,000 Min. Outer Dia. : 50 Max. Thickness : 12,000	10,000	
	Max. Thickness : 2,000 Min. Thickness : 50 Max. Width : 3,000 Max. Length : 12,000	10,000	

\* For other products, please contact the sales department.



# 5. Quality Assurance

## 5.1 Quality Policy

### Quality Policy

- Establish and systematize quality management system to meet requirements of
  - ▶ ISO 9001 2008
  - ▶ PED(97/23/EC) Annex 1 Sec. 4.3

- Maintenance the best quality by continuous improvement and development of the system

The quality policy is to establish a quality management system that meets the **ISO 9001:2008 and PED(97/23/EC) Annex1 sec.4.3** requirements and meets the customer's requirements and expectations.

Through continuous technology development and quality management activities is to maintain the highest quality that meets the customer's requirements

All staffs and organization of WONIL F&T Co., Ltd. shall be understood, implemented each responsibilities for achieve the quality policy.

C.E.O Sang-Tae, Kim 


### HSE(Health, Safety, Environmental) Policy



is committed to achieving operational excellence and delivering flawless customer service using an integrated risk-based approach to the management of Health, Safety, Environment, Quality and Security.

To fulfill our commitment, we will:

- Strive for zero harm to people and property by holding Health and Safety as our first priority
- Strive for zero oil spills and minimize the impact of our operations on the environment
- Safeguard personnel and property through risk based security measures
- Meet and exceed all regulatory requirements
- Enhance the competence of our people through training and career development
- Use performance measures to continuously improve our operations

C.E.O Sang-Tae, Kim 

# 5. Quality Assurance

## 5.2 Certificate



**BUREAU VERITAS**  
Certification

**WONIL F&T Co., Ltd.**  
#468, Angok-ro, Hallim-myeon, Gimhae-si, Gyeongsangnam-do, Korea

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standards

**ISO 9001:2008 / KS Q ISO 9001:2009**

Scope of certification

**Manufacturing and Servicing of Forged Flanges, Tube Sheets, Gears and Shafts in Carbon Steel, Alloy Steel and Stainless Steel**

Certification cycle start date: 03 April 2014

Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on: 02 April 2017

Original certification date: 03 April 2008

Certificate No. 158K28721      Version N, Revision date: 25 March 2014

*Signature*



Certification Authority      508

Certification body address: Boreham House, 180 Borough Road, London SE11 1UK, United Kingdom  
our office: Rm 1102, Kyeong Tower, #17-25, Yuseon-Dong, Gyeongju-Si, Seoul, Korea

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation.  
To check the certificate validity please call: +44 20 8916 3020

ISO 9001:2008



**BUREAU VERITAS**

**CERTIFICATE OF APPROVAL FOR QUALITY ASSURANCE**  
**SYSTEM OF MANUFACTURING OF MATERIALS**  
**CERTIFICATION D'APPROBATION DE SYSTEME DE QUALITE**  
**POUR LA FABRICATION DE MATERIAUX**  
**N° CE-PED-MM-WFT 001-14-KOR**

BUREAU VERITAS S.A. hereby certifies that the below-named material manufacturer has established and applies a Quality Management System and has undergone a Specific Assessment for Materials according to:

The European Pressure Equipment Directive 97/23/EC and its annex 154.3

BUREAU VERITAS S.A. certifie que le fabricant de matériaux mentionné ci-dessous a mis en place et applique un système de management de la qualité, qui a été l'objet d'une évaluation spécifique conformément à :

La directive européenne 97/23/CE et son annexe 154.3

Manufacturer (name) / Fabricant (nom): **Wonil F&T Co., Ltd.**

Address / Adresse: **#468, Angok-ro, Hallim-myeon, Gimhae-si, Gyeongsangnam-do, 621-872, Korea.**

Identification of material concerned (Not attached when necessary): see Annex pages 2/2 & 3/3  
Identification des matériaux concernés (S'ils ont annexé le cas échéant)

Quality Assurance system approval number: Certificate No. 158K28721  
Numéro d'approbation du système d'assurance qualité

This certificate is valid until: April 02<sup>nd</sup>, 2017.  
Cette attestation est valable jusqu'à :

The approval is conditional upon the surveillance audits, tests and verifications to be carried out by Bureau Veritas, as per the provisions stated in the agreement signed by both the manufacturer and Bureau Veritas.  
La mention de l'approbation est soumise à la réalisation par Bureau Veritas des audits, essais et vérifications selon le contrat signé par le fabricant et Bureau Veritas.

This certificate shall be deemed to be void and the manufacturer shall also bear any consequences pursuant to its use when the manufacturer fails to comply with its obligations as per the agreement in respect of implementation of the approved quality system and inspection and tests on the final product.  
Cette attestation est annulée toute et si fabricant ne respecte pas les obligations de son utilisation, si les assurances données par le fabricant lors de la demande d'intervention ou manque d'application de son système qualité approuvé, et d'inspection et d'essais des produits lors de visites surveillées.

Signed at / Signé à	On / Le	Signed by / Signé par	Checked by / Vérifié par
Seoul	December 09 <sup>th</sup> , 2014	Hyeol PARK	HAUNG DAN

Registration code / Code d'identification: 201412\_01\_1209

This certificate is subject to the terms of Bureau Veritas General Conditions of Service attached to the agreement signed by the applicant.  
La présente attestation est soumise aux Conditions Générales de Service de Bureau Veritas jointes à la demande d'intervention signée par le demandeur.

Bureau Veritas S.A. 17-17 Boulevard du Châtelet, 92200 Neuilly sur Seine, France

PED 97/23/EC

# 5. Quality Assurance

## 5.2 Certificate



GS Caltex



EIL

# 5. Quality Assurance

## 5.2 Certificate





# 5. Quality Assurance

## 5.3 Testing equipment



Equipment name	Capacity	Q'ty (ea)	Manufacturer	Remark
Chemical analysis (PMI)	32channel	1	SPECTRO (Germany)	
Universal testing machine	500kN	1	ASAN (Korea)	
Charpy impact tester	500J	1	ASAN (Korea)	
Brinell hardness tester	3,000kg·f	1	SAMIL Precision Co. (Korea)	

# 5. Quality Assurance

## 5.3 Testing equipment



Equipment name	Capacity	Q'ty (ea)	Manufacturer	Remark
Ultrasonic tester	USM Go	1	GE (Germany)	
Magnetic particle tester	YOKE type	1	KANGSUNG IND. CO., LTD. (Korea)	
Liquid penetrant tester	Cleaner/Remover, Penetrant, Developer		KYUNGDO ENTERPRISE CO., LTD (Korea)	
Portable hardness tester	Equotip 3	2	Proceq (Switzerland)	

## 6. Service material

### 6.1 Carbon steel

ASTM	JIS	ASTM	JIS	ASTM	JIS
	S15C	A668 CL.F	SF590B	A765 Gr.4	
	S20C		SF640B		SM490A
	S25C	A181 CL.60	SFVC 1		SM490B
	S30C	A181 CL.70	SFVC 2A		SFT590
	S35C	A266 Gr.1	SFVC 1		SSWR1/R2/R3
	S40C	A266 Gr.2	SFVC 2A		
	S45C	A266 Gr.3			
	S50C	A266 Gr.4	SFVC 2B		EN
	S55C	A350 LF1	SFL 1	S355NL	
A668 CL.B	SF390A	A350 LF2	SFL 2	S355 J2 G3	
A668 CL.C	SF440A	A694 F42			
A105	SF490A	A694 F50			
A668 CL.D	SF540A	A694 F52			
	SF540B	A694 F55			
A668 CL.E	SF590A	A765 GR.1			

\* For other materials, please contact the sales department.



## 6. Service material

### 6.2 Alloy steel

ASTM	JIS	ASTM	JIS	ASTM	JIS
A182 / A336 F1	SFVA F1	A541 GR.22			SNCM420
A182 / A336 F6	SFVA F5A/B	A541 GR.22V			SNCM439
A182 / A336 F9	SFVA F9	A765 GR.3			SNCM815
A182 / A336 F11	SFVA F11A/B		SCM415	A291 CL.3A	SFNCM740 S/R/D
A182 / A 336 F12	SFVA F12A/B		SCM420		SFNCM780 S/R/D
A182 / A336 F22	SFVA F22A/B		SCM430	A291 CL.4	SFNCM830 S/R/D
A182 / A336 F91			SCM440	A291 CL.6	SFNCM880 S/R/D
A350 LF3	SFL 3		SCM445		SFNCM930 S/R/D
A508 GR.1			SFCM740 S/R/D	A291 CL.1	SFNCM980 S/R/D
A508 GR.2	SFVQ 2A		SFCM780 S/R/D		SFNCM1030 S/R/D
A508 GR.3	SFVQ 1A		SFCM830 S/R/D		SFNCM1080 S/R/D
A508 GR.4N	SFVQ 3		SFCM880 S/R/D	etc.	
A541 GR.1 & 1A	SFVQ 2B		SFCM930 S/R/D	EN 42CrMO4	
A541 GR.7B	SFVQ 3		SFCM980 S/R/D	AISI 4130	
A541 GR.11			SNCM220	AISI 4340	

\* For other materials, please contact the sales department.

## 6. Service material



### 6.3 Stainless steel

ASTM	JIS	ASTM	JIS	ASTM	JIS
A182 F6a	SUS F410	A182 F51		B564 UNS N06625	
A182 / A965 F304	SUS F304	A182 F53		UNS N07718	
A182 / A965 F304L	SUS F304L	A182 F55		B564 UNS N08810	
A182 / A965 F304H	SUS F304H	A182 F60		B564 UNS N08825	
A182 / A965 F310	SUS F310			B564 UNS N04400	
A182 / A965 F316	SUS F316			Non-Ferrous steel	
A182 / A965 F316L	SUS F316L			5052	A5052 FD/FH
A182 / A965 F316H	SUS F316H			5083	A5083 FD/FH
A182 / A965 F317	SUS F317			6061	A6061 FD/FH
A182 / A965 F317L	SUS F317L			7075	A7075 FD/FH
A182 / A965 F321	SUS F321			B265 GR.1	
A182 / A965 F347	SUS F347			B265 GR.2	
A182 F44				B265 GR.2H	
A182 F904L				B265 GR.3	
	SUS 304N2			B265 GR.4	

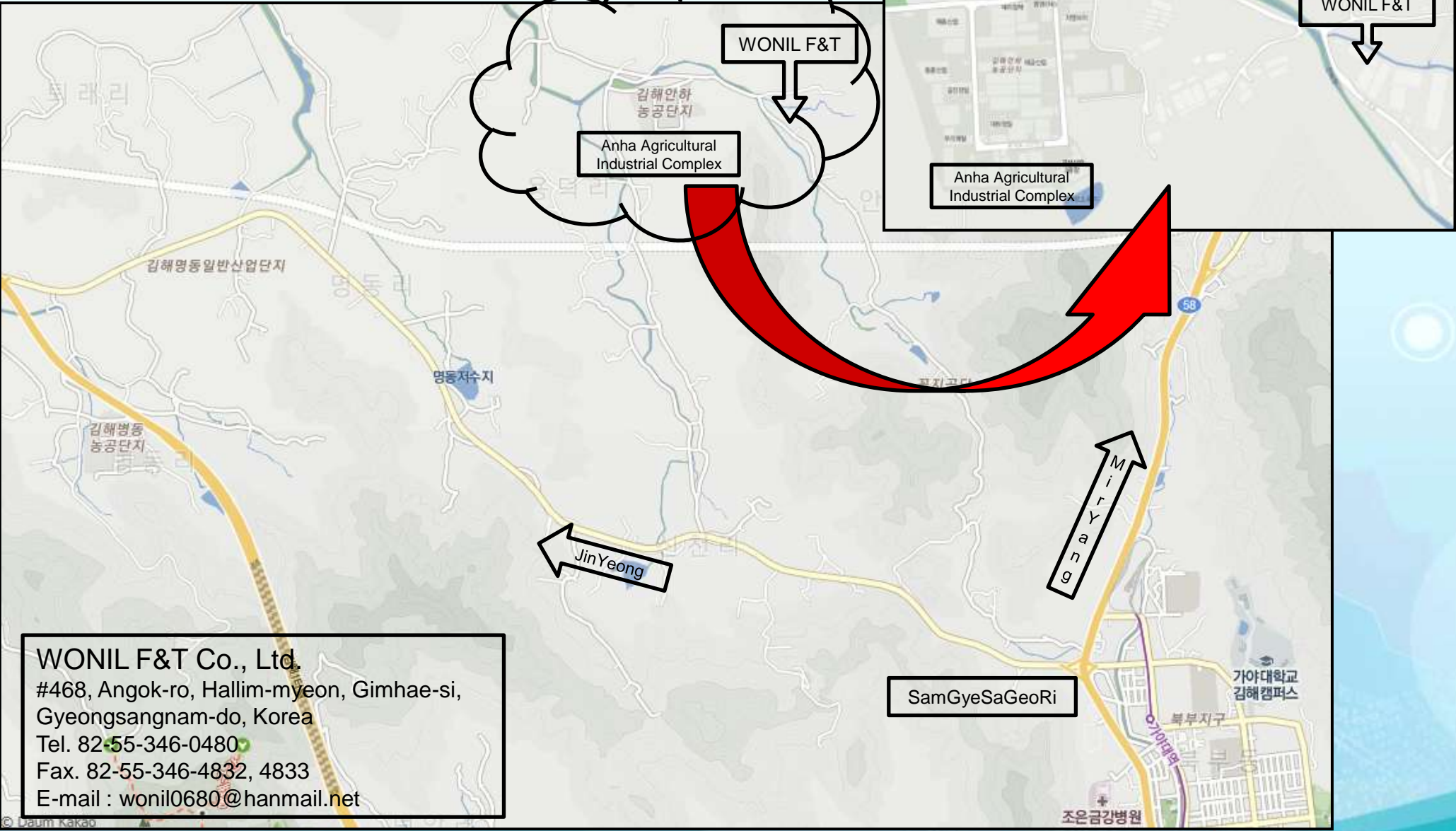
\* For other materials, please contact the sales department.

## 7. Raw material suppliers

Manufacturer	Commodity	Steel Grade	Remark
Hyundai Steel Company	Ingot Slab	Carbon steel Carbon-Manganese steel Alloy steel	Korea
JFE	Bloom	Carbon steel Carbon-Manganese steel Alloy steel	Japan
KISCO	Ingot Round bar	Carbon steel Carbon-Manganese steel Alloy steel	Korea
KOTOBUKI	Bloom	Carbon steel Carbon-Manganese steel Alloy steel	Japan
OUTOKUMPU Stainless Ltd.	Slab	Stainless steel Duplex stainless steel Super duplex stainless steel	United Kingdom
POSCO	Slab	Carbon steel Carbon-Manganese steel Alloy steel	Korea
SeAH CSS	Ingot Round bar	Carbon steel Carbon-Manganese steel Alloy steel Stainless steel	Korea
SeAH Besteel	Bloom	Carbon steel Carbon-Manganese steel Alloy steel	Korea

\* For other materials, please contact the sales department.

# 8. Location



**WONIL F&T Co., Ltd.**  
#468, Angok-ro, Hallim-myeon, Gimhae-si,  
Gyeongsangnam-do, Korea  
Tel. 82-55-346-0480  
Fax. 82-55-346-4832, 4833  
E-mail : wonil0680@hanmail.net



**THANK YOU**