

# JEIL SOLUTION Co., Ltd.

## Machine Toolholder System

Hydraulic Expansion  
Chuck System



# Company Introduction

HQ: CheongCheon Macharo 58, Bupyeong-gu, Incheon, Korea  
Tel: 032-552-1302~4 Fax: 032-552-1305  
Homepage: [www.jeilsolution.com](http://www.jeilsolution.com)



Company Motto:  
Accomplish the “Responsibility”



# Managerial Objectives



## **Revolutionary automatic system**

Provide the stable quality with finest system



## **High quality panel**

Build the high trust panel texture by radical quality control



## **Active technical sales support**

Support the technical sales adjust the purpose of customer.

# *Leading company of Tool Holder*



## **Reinforce the personal capability**

- Effort to self development of each person
- Reinforce the ability for prepare the new business
- Create the added value based on knowledge and know-how



## **Content the challenging mind**

- Content the knowledge and know-how of change
- Endless challenge for pioneer the new business
- Effort for expansion the area of new business



## **Cooperation with a close relationship**

- Importance the friendship and interest between colleague
- Projection the joint effort for achieve a goal
- Create each group's community and strengthen

# Contents

- 
- 1. Company introduction**
  - 2. History of JEIL Solution**
  - 3. Organization**
  - 4. Certificates and Patent Status**
  - 5. Working process**
  - 6. Product description**
  - 7. Retraction & measuring equipment**
  - 8. Sales technical consultation counter**
  - 9. Future strategy**
  - 10. Location**
-

# Company Introduction

**Name of company**

JEIL Solution Co., Ltd

**Establishment**

June 20<sup>th</sup>, 1976

**President**

Jeong Wook, Kim (Mr)

**Corporate registration  
number**

122-81-94127

**Number of employees**

44 Employees  
except President

**Head Quarter**

CheongCheon Macharo-  
58, Bupyeong, Incheon

**Factory**

CheongCheon Macharo-  
58, Bupyeong, Incheon

**Branch office**

Chasang ro 150beon gil  
53, Uichang gu,  
Changwon, Kyeong nam

**Vietnam Branch**

phòng 11. tầng 7. tòa  
nhà IPC. 1489 Nguyễn  
Văn Linh. Phường Tân  
Phong. Q7. Tp HCM

**Main business**

Manufacture the MCT  
Equipment and Toolholder

# History

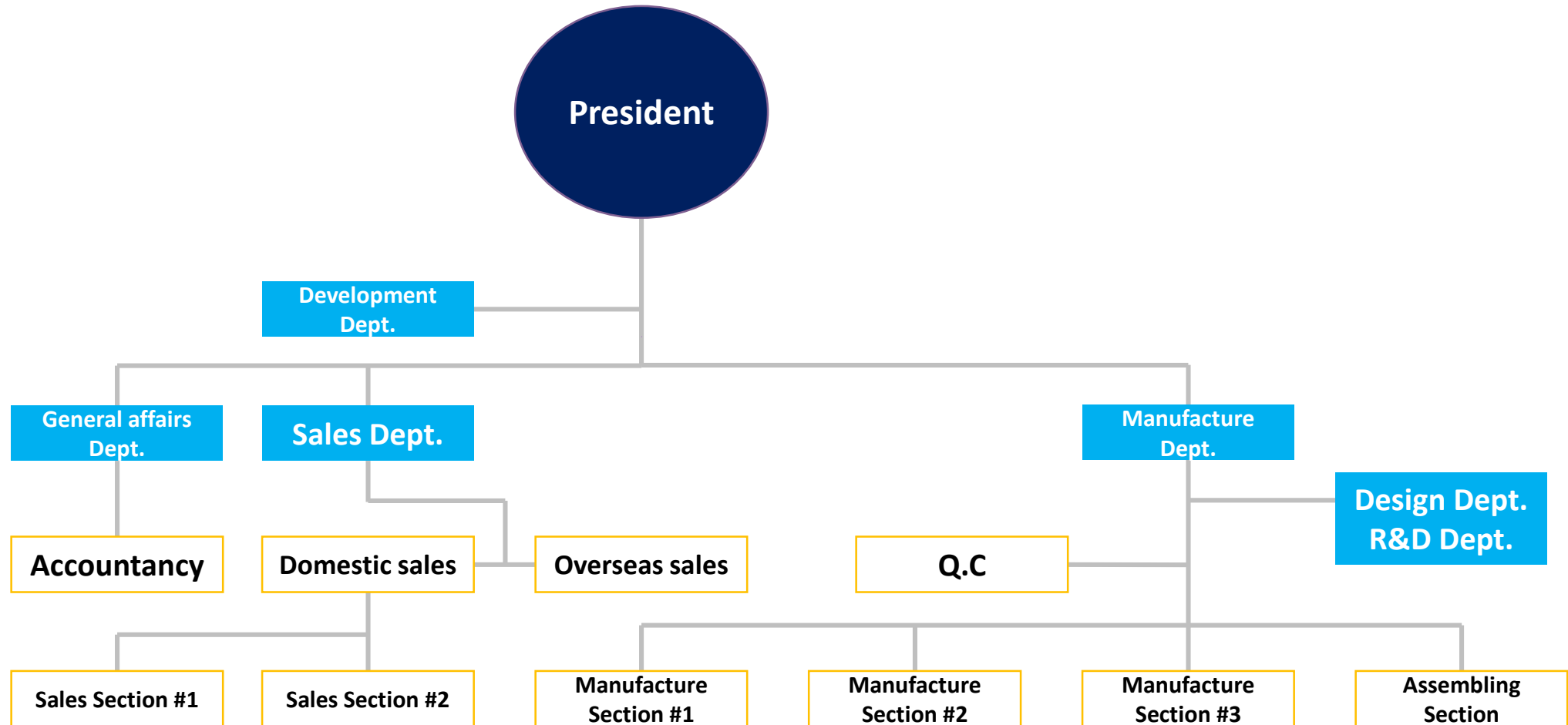
## 1980 ~ 1990

1976. 06.20	Establish the Company with company name of JEIL Machine
1984.	Enter into the toolholder business
1988.	Starting export to overseas market
1989.	Exporting toolholder to European market
1992.	Registered a utility model for Milling Chuck
1997.	Registered a utility model for Hydraulic Chuck Collet
1998.	Exporting toolholder to Germany, Italy, Canada and etc
1999.	Obtain invention patent about Hydraulic Chuck

## 2000

2000. 06.	Obtain ISO 9001
2001.	Awarded "Ultra Precision Machining Technology Competition" by Ministry of Commerce & Industry
2004. 10.	Awarded "Role Model to Taxpayer" by National Tax Service Remove head office and faxtory
2006. 02. 13	Remove head office and faxtory
2007. 01. 01	Swichover the Company name with JEIL Solution co., Ltd
2010. 09. 14	Obtain ISO 14001 : 2004 Obtain ISO 9001 : 2008
2011. 04. 13	Set up a R&D Center
2011. 11. 14	Obtain a "Certification of Vision Company" by Incheon Metropolitan Government
2012. 07. 11	Awarded by Ministry of Knowledge Economy
2014. 11. 01	Developed slim design hydraulic chuck
2016. 10. 21	Establishment of local sales office
2016. 12. 05	Received Export Tower Presidential Award
2018. 11. 28	Obtain invention patent about Hydraulic Chuck for Tool Grinding

# Organization



# Certificates and Patent Status



▲Certificate of design registration  
(Milling Collet Chuck)



▲Certificate of utility model registration  
(Milling Collet Chuck)



▲Certificate of utility model registration  
(Hydraulic chuck)



▲Patent certificate  
(Hydraulic expansion chuck)



▲Commendation of Prime minister



▲Award of the precision products  
in technology division



▲Commendation by the  
National tax service



▲Award of exemplary tax payment



▲ISO Certificate



▲Trade association membership card



▲ISO 9001 2015



▲ISO 14001 2015



▲Vision Company certificate



▲Technological Innovation company



▲Commendation of the President  
of the Trade Promotion



▲Commendation of Trade Promotion Minister



▲MAIN Biz membership card



▲Management innovation company  
confirmation letter



▲Trademark registration certificate



▲Prospective Company Certificate



▲Patented hydraulic chuck for grinding only

# Work Process

- Material Selection
- CNC operation
- MCT operation
- Brazing
- Heat treatment
- Coloring
- Chamfering
- 8' V Slot
- Abrasive polishing
- Inner diameter polishing
- Total inspection
- Marking & Rusting
- Packing



# Product Description

제일 솔루션은

“최고 기술주의”를 실현하고

# Hydraulic Chuck

- Schunk of Germany and the world's leading hydraulic chuck manufacturer
- Optimized for precision machining
- Superb T.I.R. Accuracy  $\leq 0.003\text{mm}$
- **Core Factors** of Hydraulic chuck decision
  - No leakage
  - Stable torque power (**Stable holding power for long time**)
- Compatible with various tools by using exclusive Collet
  - $\varnothing 3\text{mm} \sim \varnothing 25\text{mm}$
- Cutting material and application industry
  - Aluminum
  - Mold base, **Electric / Electronic, Aerospace, Automotive Industry**
  - Finishing
  - End milling, Reaming, Tool grinding, Fine Drilling, Chamfering



# Shrink Fit Chuck

- Shrinkage using the thermal expansion coefficient of the material itself (Shrinking)
- Material: **SKD 61(JIS Standard)**
- Realization of precision machining
- Superb T.I.R. **Accuracy  $\leq 0.003\text{mm}$**
- Realization of high speed machining
- G 2.5 **25,000 RPM**
- Tool length extension with Extension sleeve
- Up to **300mm**
- Finish grinding / roughing / heavy cutting with powerful gripping force
- Cutting material and application industry
- Aluminum
- Mold base, **Electric / Electronic, Aerospace, Automotive Industry**
- Roughing, heavy cutting and finishing
- End Milling, Reaming, Drilling, Chamfering, Tool Grinding



# JSK Collet Chuck

- Suitable for deep hole processing(**No workpiece interference by nuts**)
- Realization of high speed machining
  - G2.5 **20,000 RPM**
- Collet **inner diameter 8 ° design**
  - Tool Extend length to be gripped after inserting into inner diameter part -> **Gripping power increase**
- Compatible with various tools by using exclusive Collet
  - **Ø3mm ~ Ø 25mm**
- Cutting material and application industry
  - Alloy Steel Carbon, Stainless Steel, Cast Iron, Aluminum
  - Mold Base, **Electric / Electronic, Aerospace, Automotive Industry**
  - Roughing, heavy cutting and finishing
  - End Milling, Reaming, Drilling, Chamfering



# ER Collet Chuck

- Suitable for high speed drilling and cutting
- Realization of high speed machining
- G2.5 **25,000 RPM**
- Compatible with various tools by using exclusive Collet
- $\varnothing 3\text{mm} \sim \varnothing 25\text{mm}$
- Tap processing is realized by using only Tap collet
- Cutting material and application industry
- Alloy Steel Carbon, Stainless Steel, Cast Iron, Aluminum
- Mold Base, **Electric / Electronic, Aerospace, Automotive Industry**
- Roughing, heavy cutting and finishing
- End Milling, Reaming, Drilling, Chamfering, Tapping



# Milling Chuck

- Strong gripping force
- C32 Size: **3,430 Nm(=350Kgf.m)**
- T.I.R. Accuracy < 0.01mm at 100mm from nose
- **Adoption of 300 Needle bearing**
- Deliver uniform gripping force inside the chuck
- Compatible with various tools by using exclusive Collet
- $\varnothing 3\text{mm} \sim \varnothing 25\text{mm}$
- Cutting material and application industry
- Alloy Steel Carbon, Stainless Steel, Cast Iron
- Mold Base, **Electric / Electronic, Aerospace, Automotive Industry**
- Roughing – Milling, Rough Cutting, Reaming, Drilling



# Oil Hole Holder

- Realization of **Center Through Coolant**
- Used when there is no center through coolant in the equipment itself
- Chip forced discharge by cutting oil
- **Improve work efficiency more than 5 times**
- Automatic cooling of tool edge by cutting oil
- Tool life extension
- Shank kinds: BT Shank, SK Shank
- Output kinds: ER Chuck, Side Lock Holder(=Endmill Holder)
- Cutting material and application industry
- Alloy Steel Carbon, Stainless Steel, Cast Iron
- Mold Base, **Electric / Electronic, Aerospace, Automotive Industry**
- Roughing and finishing
- Milling, Rough Cutting, Reaming, Drilling



# ***Tapping Chuck***

- Realization of Chuck's own **Tension and Compression function**
- Tap life extension
- Realization of Tap Processing with Tap Adapter
- **One Touch Type and Slide Lock**
- Cutting material and application industry
  - Alloy Steel Carbon, Stainless Steel, Cast Iron, Aluminum
  - Mold Base, **Electric / Electronic, Aerospace, Automotive Industry**
  - **Tapping only industry**



# Drill Chuck

- Strong stiffness
  - Prevention of drill breakage due to reverse thrust during penetration
- Manufactured in one piece
  - **Excellent stability and concentricity**
- Bolt lock of Chuck and Body
  - Prevent Chuck escaping during heavy cutting
- Cutting material and application industry
  - Alloy Steel Carbon, Stainless Steel, Cast Iron, Aluminum
  - Mold Base, **Electric / Electronic, Aerospace, Automotive Industry**
  - **Drilling only**



# ***End Mill Holder (Side Lock Holder)***

- Clamping by Side Lock Screw
  - Easy and quick tool change
- Realization of high speed machining
  - G2.5 25,000 RPM
- Cutting material and application industry
  - Alloy Steel Carbon, Stainless Steel, Cast Iron, Aluminum
  - Mold Base, Electric / Electronic, Aerospace, Automotive Industry
  - Roughing – End Milling, Reaming, Drilling, Chamfering



# *Face Mill Arbor (Shell Mill Arbor)*

- Arbor for **Milling Cutter**
- Cutting material and application industry
  - Alloy Steel Carbon, Stainless Steel, Cast Iron, Aluminum
  - Mold Base, **Electric / Electronic, Aerospace, Automotive Industry**



# Morse Taper Adaptor

- With Tang – **MTA**
  - 13mm or more large diameter drilling
- Withdraw Thread – **MTB**
  - 13mm or more large diameter drilling
- Cutting material and application industry
  - Alloy Steel Carbon, Stainless Steel, Cast Iron, Aluminum
  - Mold Base, **Electric / Electronic, Aerospace, Automotive Industry**
  - **13mm or more large diameter drill only**



# Boring System

- Accurate Boring with Precision Grinding Serration
  - For finishing Boring Bar
- Modular System
  - Various sizes of Extension and Reduction Sleeve
    - > Easy boring range and length control
- Insert
  - Double-head height tolerance  $\leq 0.003\text{mm}$
  - Using ISO standard insert
- Cutting material and application industry
  - Alloy Steel Carbon, Stainless Steel, Cast Iron, Aluminum
  - Mold Base, Electric / Electronic, Aerospace, Automotive Industry
  - Roughing and finishing Boring



The background image shows a vast industrial facility, likely a particle accelerator or a large-scale manufacturing plant. It features a long, straight aisle with complex machinery on both sides. The equipment includes various pipes, cables, and structural supports, all organized in a systematic manner. The floor is marked with blue lines, and the overall environment is clean and well-maintained. The lighting is bright, illuminating the entire space.

# Retraction & measuring equipment

# Retraction equipment status

## MCT

- Samsung 650S, 430 / Daewoo V500
- Doosan DT400 / Samsung 6
- Seojin ENG / Hwachun Milling



## CNC

- Doosan 550S / Doosan PUMA400 x2
- Doosan S220L / Samsung x2
- Doosan ACT4 / Tong il Namsun (Universal)



## External Grinding

- OKUMA / Hyundai-wia x2
- UGO / MITSUBISHI / STUDER
- SHIGIYA / KELLENBERGER



## Internal Grinding

- YAMADA YOKI / TOYO
- DMG / PARMARY x3
- Beveling machine x2



# Measuring equipment status

## Tool position Center

- Sony SR 721R



## Roundness Measurement

- RONDCOM 41



## Tool Pre-setter

- PARLEC 1500TMM



## Shrink set TMM System

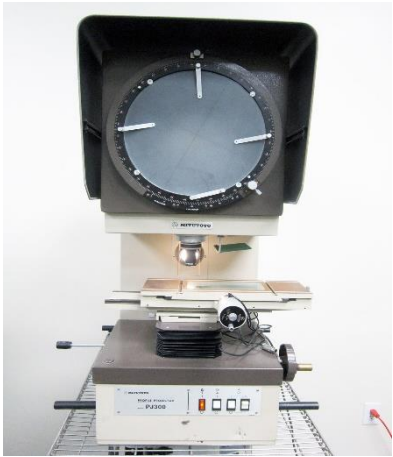
- GIS 6000 / GMT GCS-1
- JRS8700 F



# Measuring equipment status

## Angle Measurement

- MITUTOYO PJ300



## Balance Measurement

- HAIMER2 / NPM1



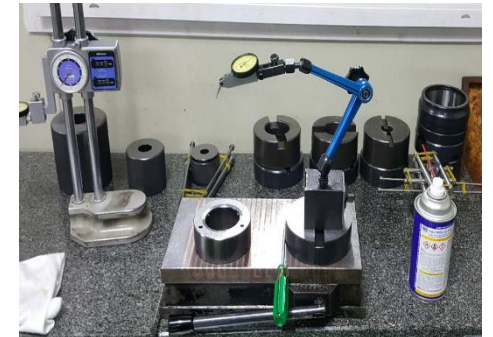
## Grip force Measurement

- GUHRING SENSO 3000



## MASTER TAPER Measurement

- BT/SK/HSK/ISO/MT



# Sales technical consultation counter

## Business management



Young Gyu, Joo(Head of Sales dept.) / Gyu Cheol, Lee(Manager)  
Myeong Hee, Ko(Sales section chief) / Jeong Gak, Moon(Sales section chief)



- Sales technical consultation
- Product inquiry
- Overseas marketing inquiry

# Sales technical consultation counter

## Production management



Jong Kyu, Park(Plant manager) / Jong Bae, Kim(Chief of Manufacture Dept.)  
Hee Mun, Kim(Manufacture section chief) / Ui Sun, Noh(Manufacture section chief)



- Product manufacturing / production process
- Production technology consulting
- New product research and development

# Future strategy



**Outstanding quality and image marketing strategies for increased awareness**



**Introduced products in the overseas market and reconstructing them according to the actual situation**



**Securing exclusive sales rights for products, checking against competitors**



**Increase customer benefits by diversifying services and products**



**Popular product distribution through basic research**



**Pioneering new business areas through future forecasting**

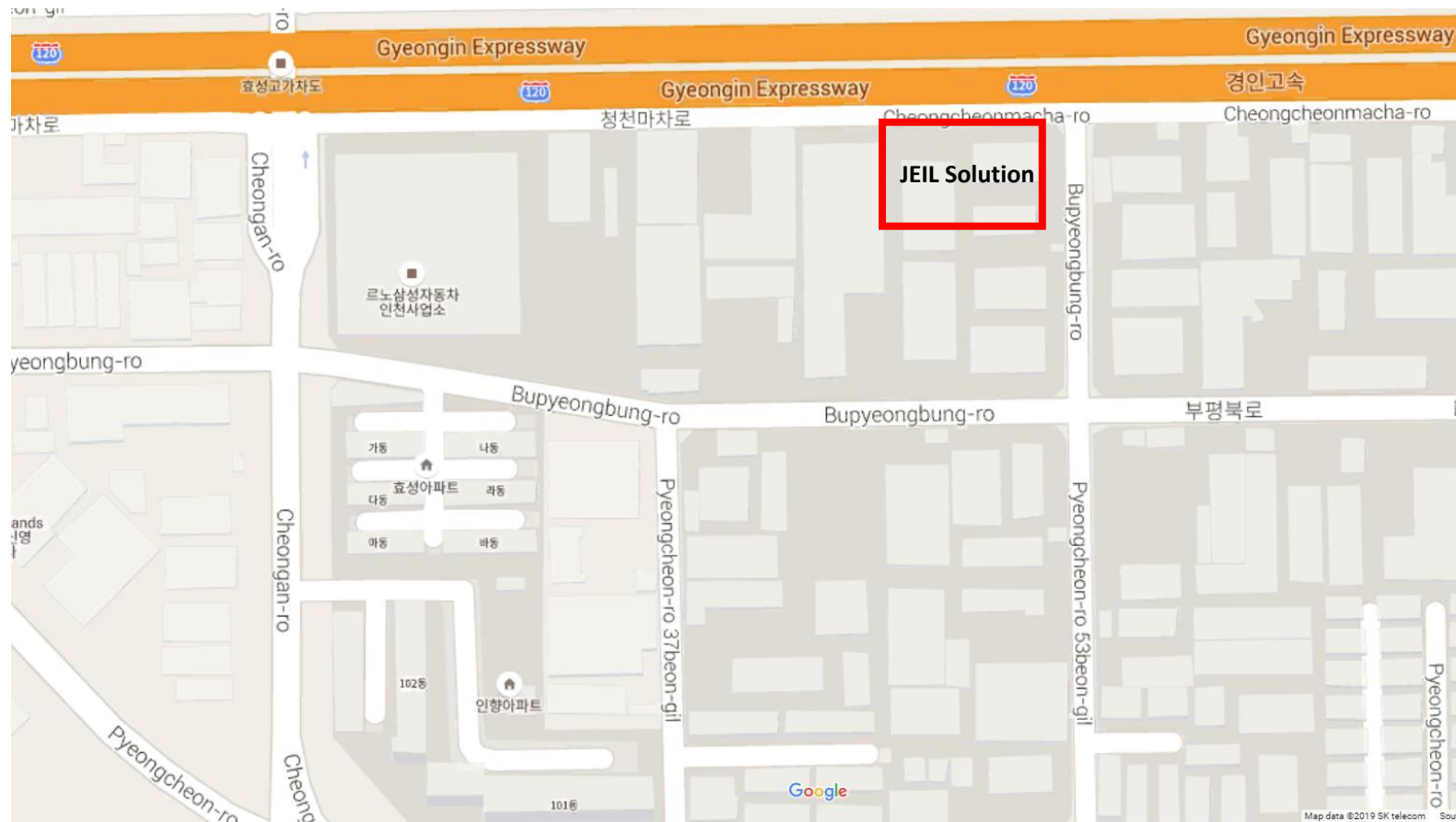


**Diversification of distribution structure for launched products**

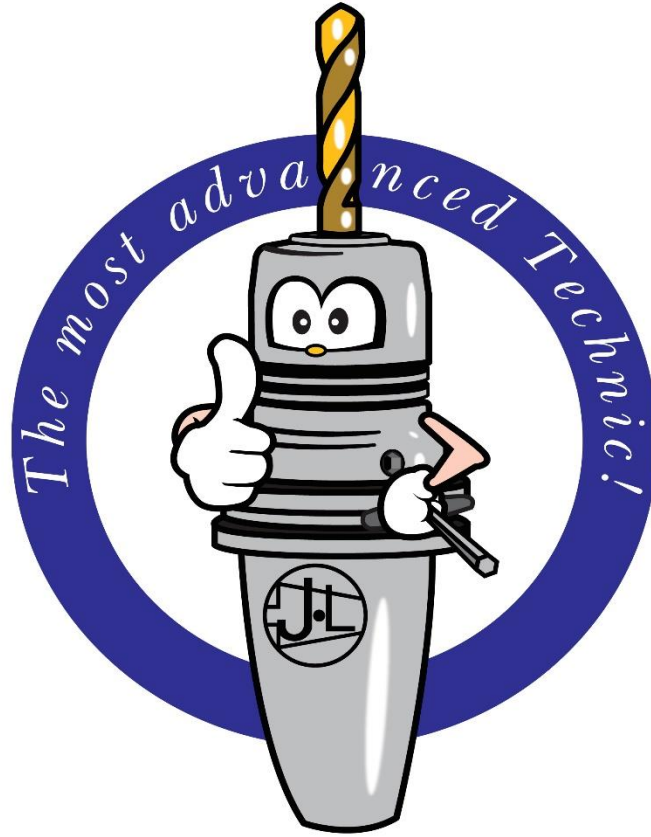


**Diversification of product structure by developing new products by R&D**

# Location



**JEIL Solution Co., Ltd**  
**Cheongcheon macharo58, Bupyeong-gu, Incheon**  
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Thank you