

# SHINWOOSHIN

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Automotive parts with innovation and smart factory



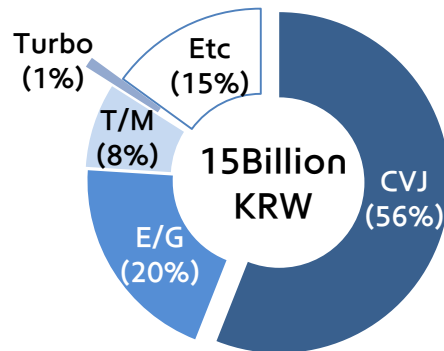
**SHINWOOSHIN**

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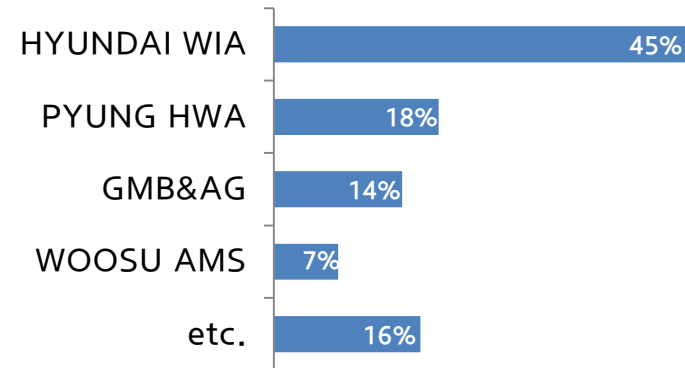


Name	ShinWooShin Co., Ltd.	Sales	KRW 15Billion ( '18)
President & CEO	Ji-Woo Lee	Credit Ratings	BBB ( '18)
Establishment	Sep. 25, 2001	Total Workforce	63 employees
Business Type	Automobile Parts (Clamp Band, Press, etc.)	Customer	HYUNDAI WIA, GMB, etc.

## ■ Product distribution



## ■ Customer distribution



## ■ Customers



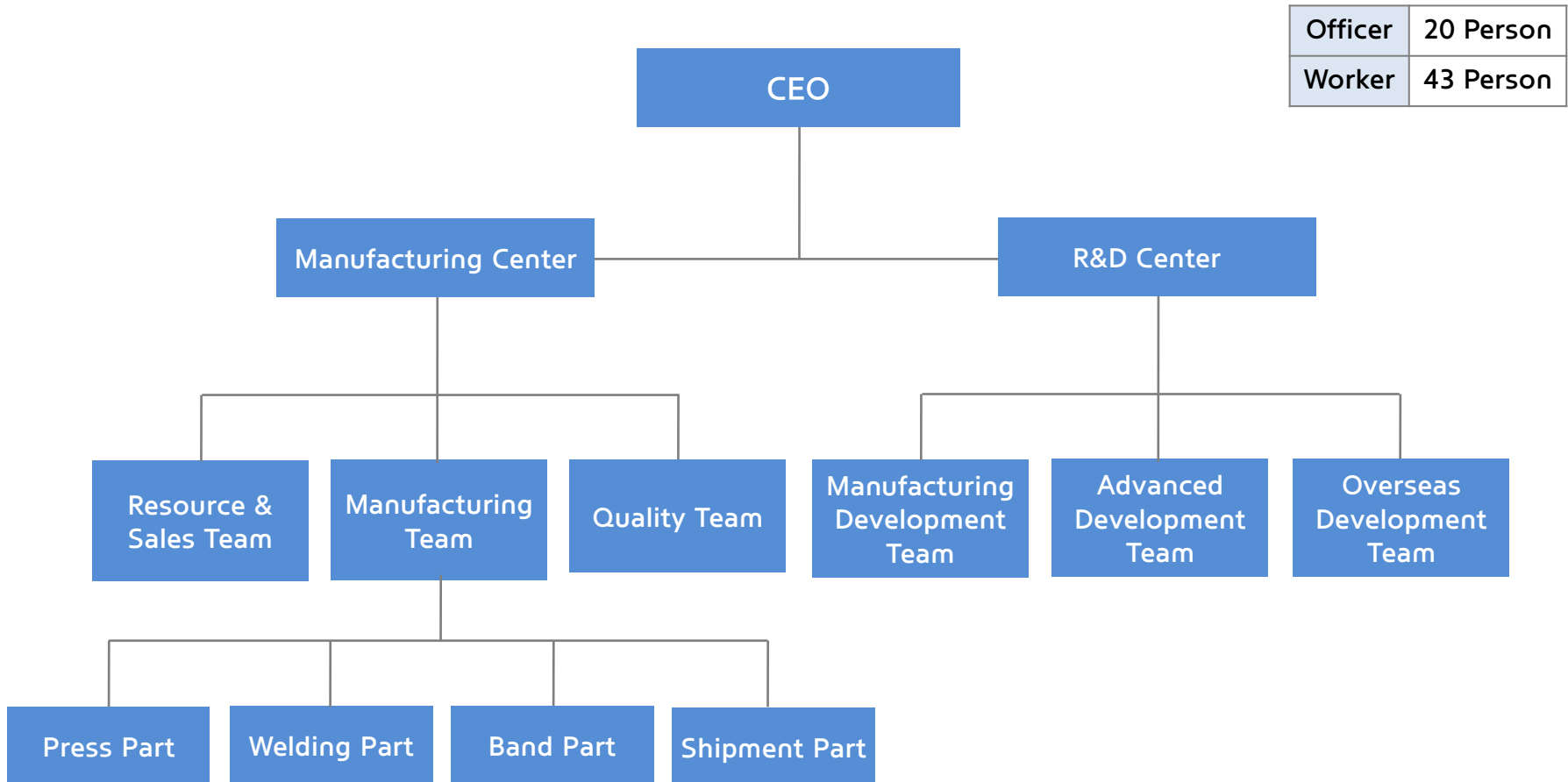


# Customer Networks





# Organization



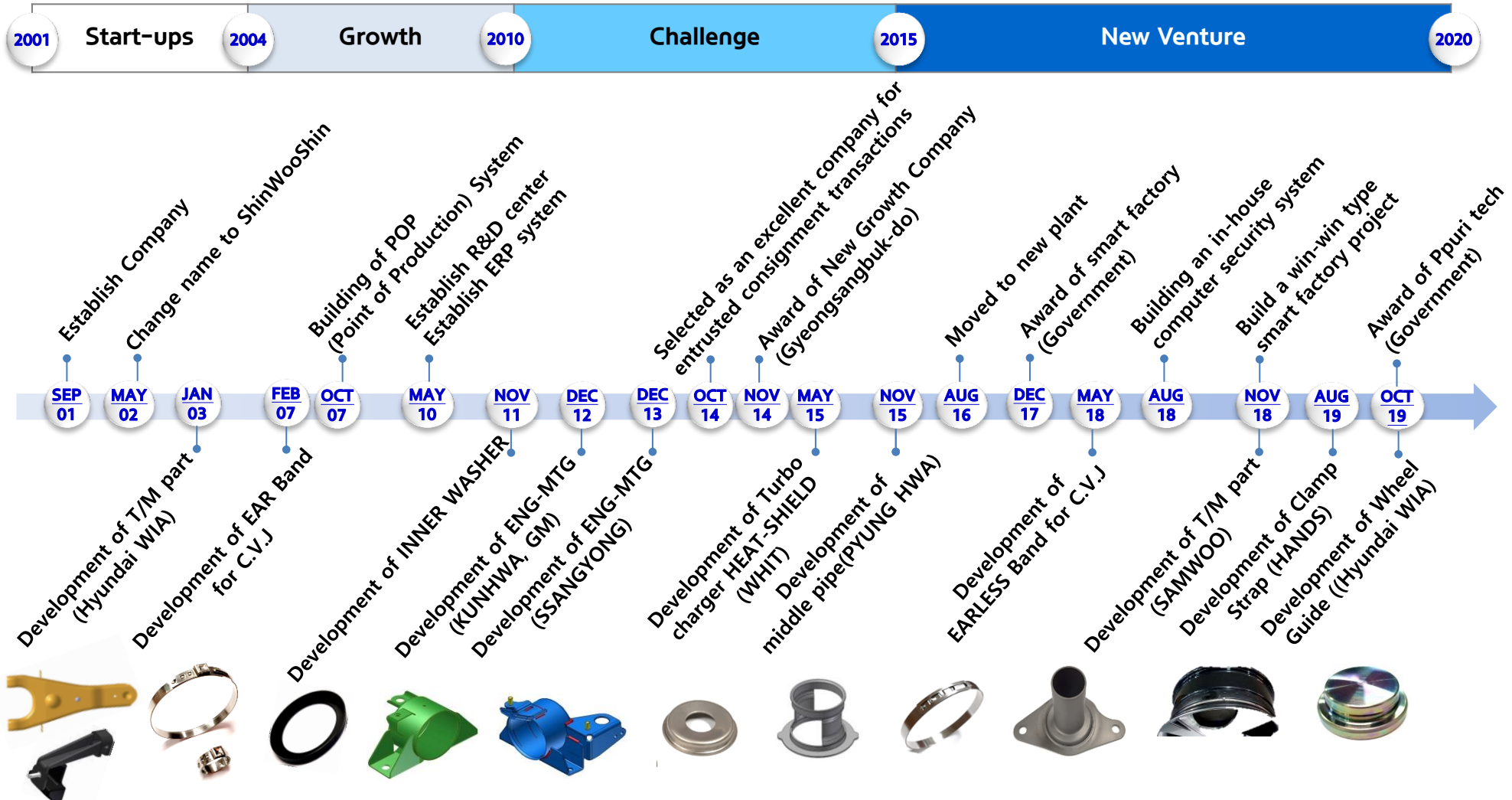




**Shin (新)** *Newly*  
**Woo (又)** *Renewed every day*  
**Shin (信)** *Unlimited trust for our customers*

**Steady** *Sustainable Systems*  
**World-best** *With the best quality & technology*  
**Solution** *Provide expertise to customers*







# Certification Status



Steady  
World-best  
Solution

Hyundai's SQ-MARK Certification

ISO/TS16949 Certification

SES-Tier2 Certification(Renault Samsung Motors)

INNO-BIZ Certification

Ppuri tech Certification

SSQ Certification(Ssangyong Motor)

IATF16949 Certification

MAY  
05

FEB  
06

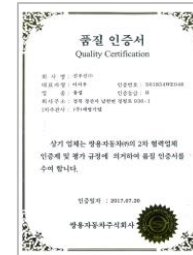
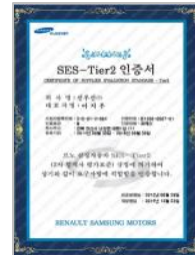
AUG  
12

FEB  
14

MAY  
17

JUL  
17

MAY  
18

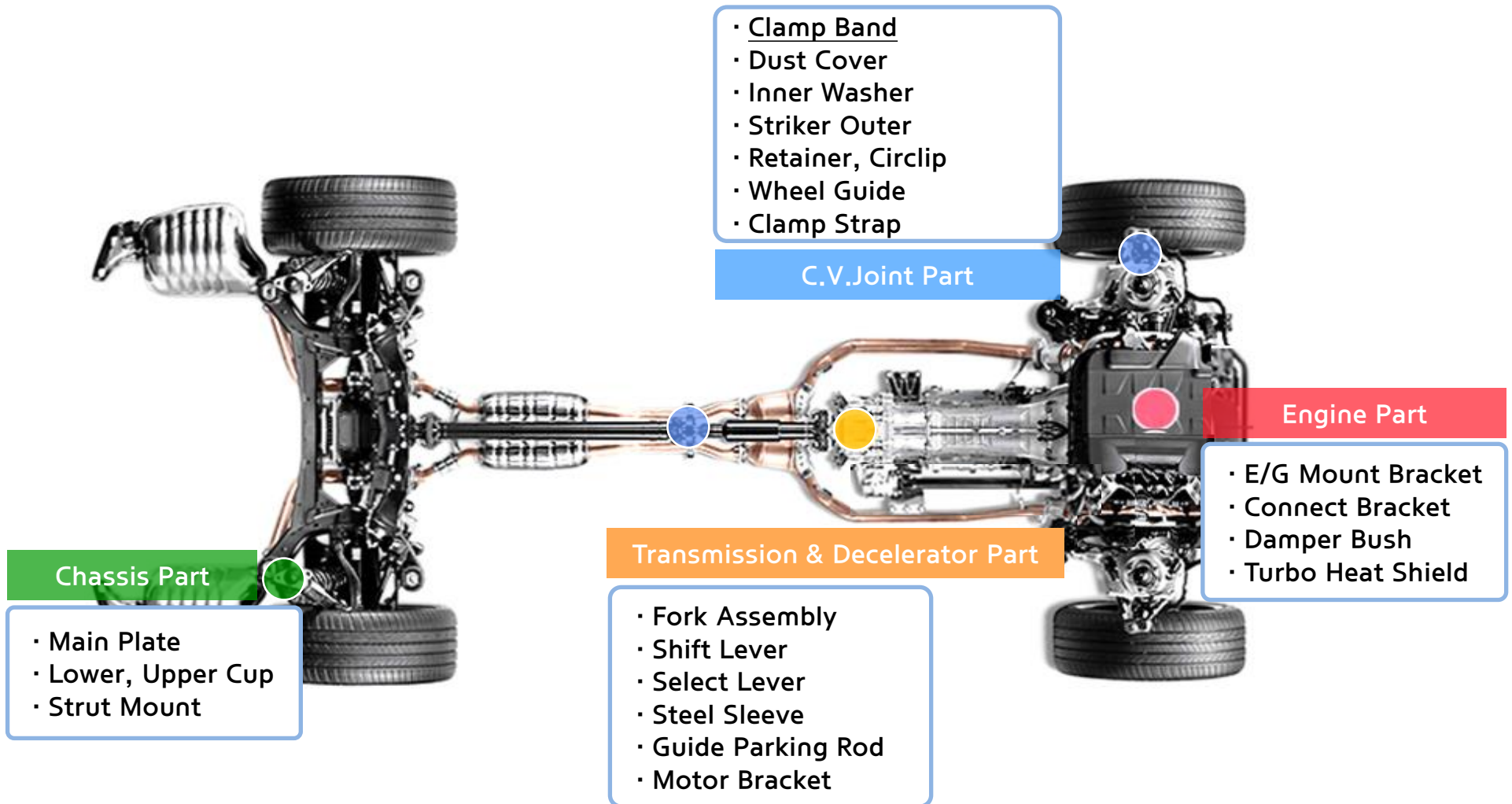




- JUL.06** ■ [Utility] Clamping Band (20-0421736)
- JAN.07** ■ [Design] Tone Wheel for Vehicle (30-0438382)
- JAN.07** ■ [Design] Tone Wheel for Vehicle (30-0438384)
- MAY.08** ■ [Design] Clamping Band (30-0492260)
- APR.10** ■ [Utility] Material transfer structure (20-0448426)
- AUG.10** ■ [Patent] Processing for Tone Wheel (10-0979965)
- NOV.10** ■ [Patent] Manufacturing device for Tone Wheel (10-0996436)
- AUG.13** ■ [Design] Clamping Band (30-0707402)
- OCT.16** ■ [Design] C.V.Joint Clamping Band (30-0876275)
- OCT.16** ■ [Design] C.V.Joint Clamping Band (30-0876276)
- DEC.16** ■ [Design] Clamping Band (30-0884844)
- DEC.16** ■ [Patent] Clamping Tool (10-1684783)
- APR.18** ■ [Patent] Clamping Band for Clamping the C.V.Joint Boot (10-1854293)
- MAR.19** ■ [Patent] Clamp Strap for Wheel Resonator (10-2019-0029687)











# C.V.Joint Part



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Solution



C.V.Joint Assembly



Clamp Band



Inner Washer



Dust Cover



Sensor Ring



Striker Outer Retainer, Circlip



Inner Shaft



Cross Groove Type



Wheel Guide



Heat Protector



Dust Cover



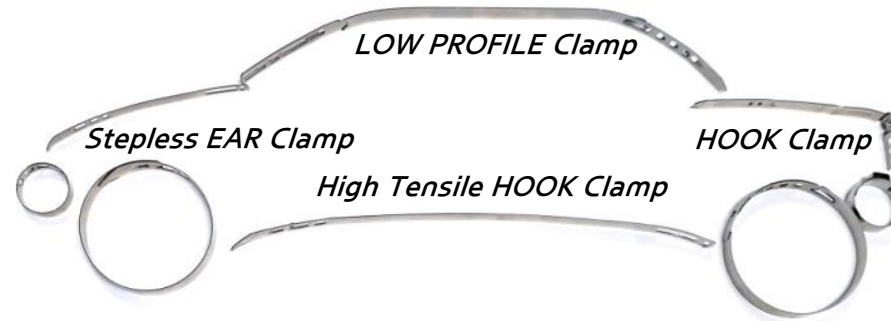
Adaptor



Back Cover



## ■ Clamp Band



### Stepless EAR Clamp

가체결경 Open Dia.	두께 Thick.	밴드폭 Width	이어폭 Ear Width Inside	재질 Material
Φ27.0~ Φ531.1	0.8 ~1.0	10	10	SUS304 BA

### High Tensile HOOK Clamp

체결경 Close Dia.	두께 Thick.	밴드폭 Width	재질 Material
Φ71.1~ Φ101.6	0.7	10	SUS301 or 304 3/4H



### LOW PROFILE Clamp

체결경 Close Dia.	두께 Thick.	밴드폭 Width	재질 Material
Φ70.6~ Φ101.0	0.8	10	SUS301 or 304 3/4H

### HOOK Clamp

체결경 Close Dia.	두께 Thick.	밴드폭 Width	재질 Material
Φ27.1~ Φ100.8	0.4 ~0.5	7	SUS301 or 304 3/4H





# Transmission & Reducer part



Steady  
World-best  
Solution



Fork Assembly



Shift Lever



Select Lever



Steel Sleeve



Transmission



Transaxle



Reducer



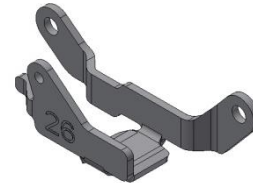
Motor Bracket



Control Lever



Cable Bracket



Guide Parking Rod



Manual Lever





# Engine & Turbo charger part



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World-best  
Solution



Mount Bracket



Outer Ring



Core



Rod



Engine



Turbo charger



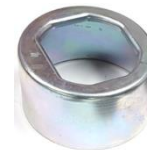
Lower Insert



Outer Sleeve



Middle Pipe



Sleeve



Heat Shield







# Chassis & etc.



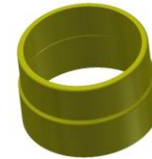
Main Plate



Lower Cup



Upper Cup



Sleeve



Side Bracket



Suspension



Propeller Shaft



Steering gear



Wheel Assembly



Hose Bracket



Seat Damper Bracket



Clamp Strap



**Press Line Overview  
(Max 400ton, Min 60ton)**



**Press Robot Line**



**Press Line (Large)**



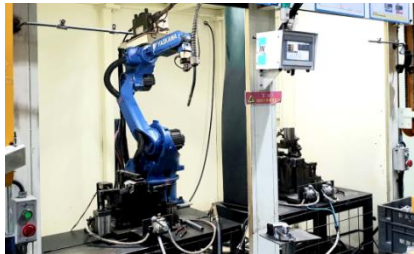
**Press Line (Small)**



**Roll Forming Line**



**Welding Line  
(CO<sub>2</sub>, Ar, Spot)**



**Fool Proof Line**



**Assembly Line**



**Clamp Band Line 1**



**Clamp Band Line 2**



**Coiling Line**



**Clamp Strap Line**





**3D Coordinate  
Measuring Machine**



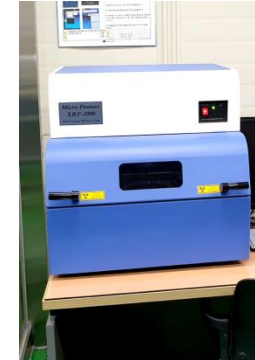
**Video Measuring  
System**



**Shape Measuring  
Instrument**



**Coating Thickness  
Gauge**



**Salt Spray Tester**



**UTM**



**Radial load Tester**



**Ear Clamping  
Force Tester**



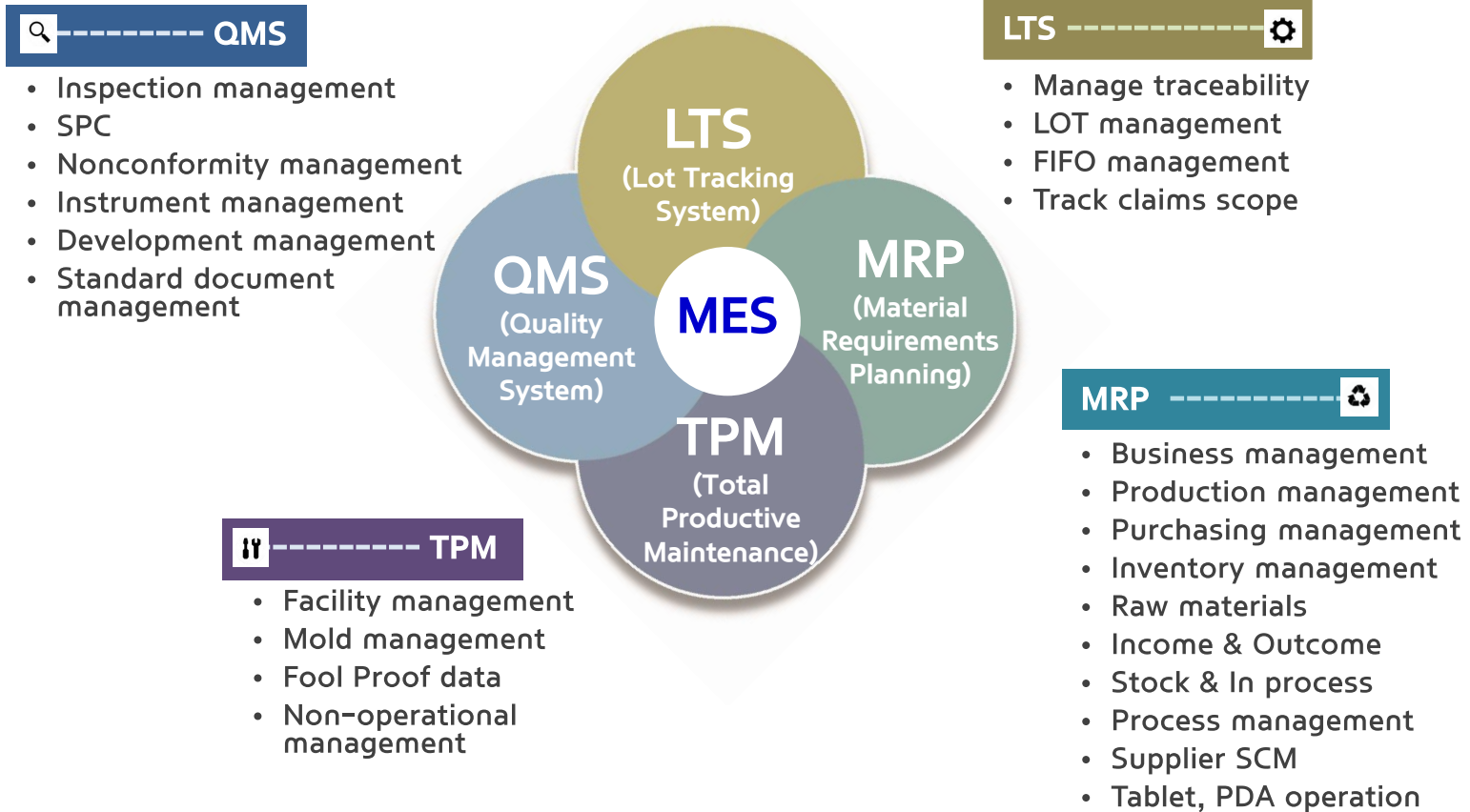
**Air Leak Tester  
(Constant&Impulse)**



**Complex Environment  
Tester (-40~180°C)**






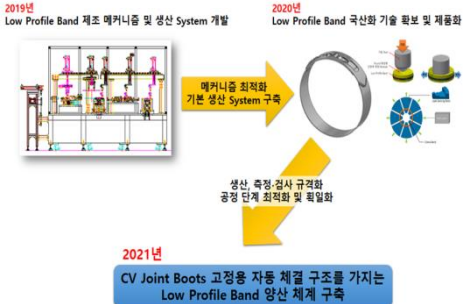




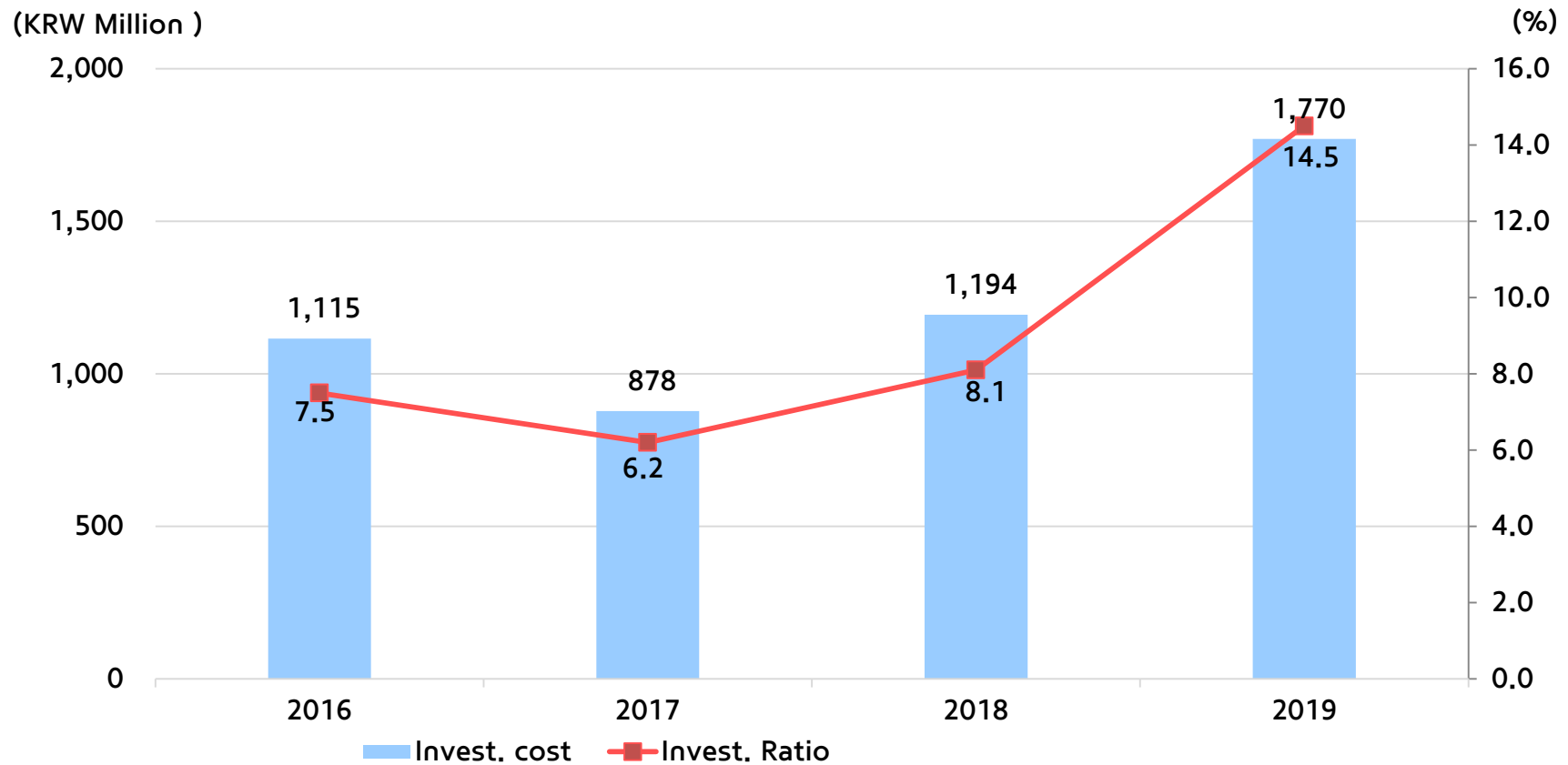




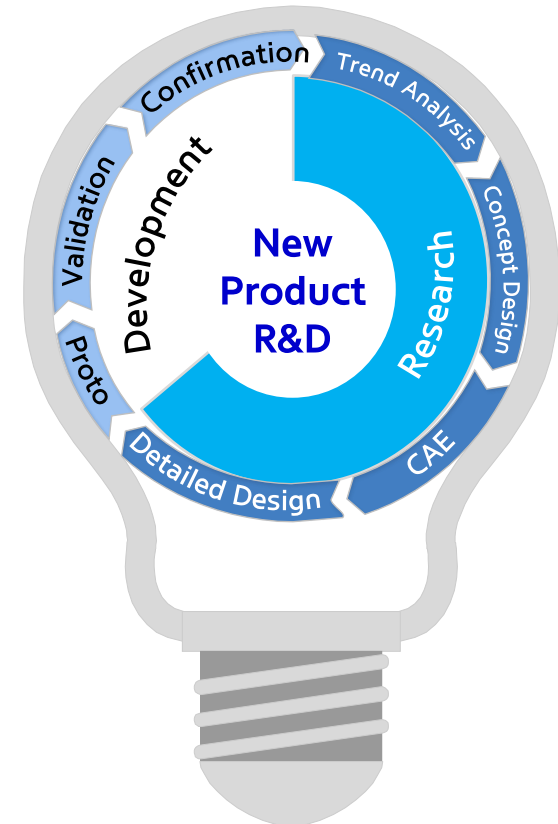
## ■ Smart Factory Government Support

Date	Concept	Contents	Remarks
Jan. 2017 ~ May. 2017 [Complete]	2017 Smart Factory Support Project	<ul style="list-style-type: none"> <li>Smart Factory foundational stage building</li> <li>MES, process innovation, smartization</li> </ul>	
Oct. 2018 ~ Jan. 2019 [Complete]	2018 Win-Win Smart Factory Support Project	<ul style="list-style-type: none"> <li>Smart Factory Middle Phase 1</li> <li>ICT linked robot automation line</li> <li>Real time integrated control system</li> </ul>	 
Jun. 2019 ~ Oct. 2019 [Complete]	2019 Win-Win Smart Factory Support Project	<ul style="list-style-type: none"> <li>Clamp band multiforming line automation</li> <li>MES upgrade (APQP reinforcement)</li> </ul>	 
Aug. 2018 ~ Apr. 2020 [Complete]	SME Technology Innovation Business and 3 other cases	<ul style="list-style-type: none"> <li>ICT linked clamp band automatic rolling system (Units 1~5)</li> <li>Clamp Band Reliability Test Equipment</li> </ul>	 <p>2019년 Low Profile Band 제조 메커니즘 및 생산 System 개발</p> <p>2020년 Low Profile Band 국산화 기술 확보 및 제품화</p> <p>메커니즘 최적화 기본 생산 System 구축</p> <p>생산, 측정, 검사 규격화 공정 단계 최적화 및 확립화</p> <p>2021년 CV Joint Boots 고정용 자동 체결 구조를 가지는 Low Profile Band 양산 체계 구축</p>



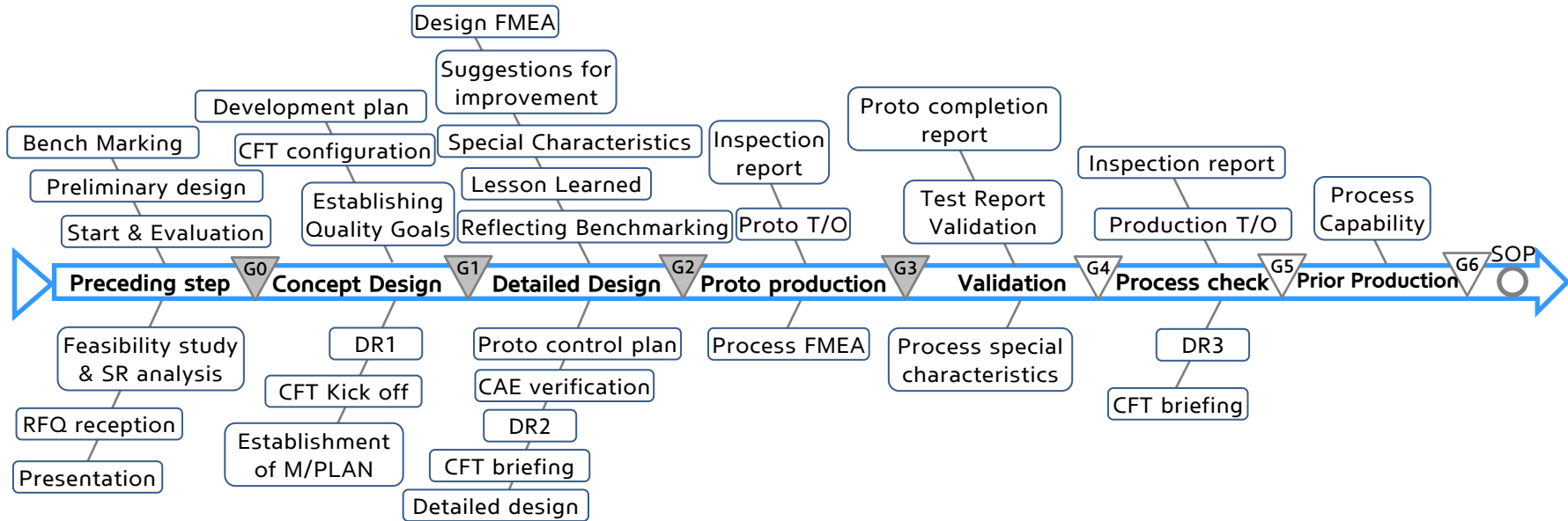








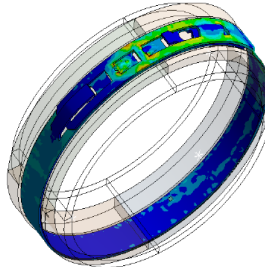
## ■ APQP Fish Bone



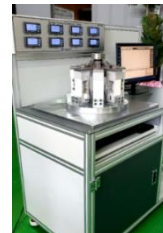
Design



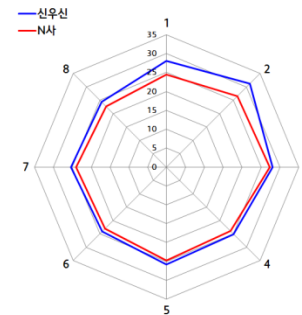
B: Copy of Static St  
Equivalent Stress 3  
Type: Equivalent (von  
Unit: MPa  
Time: 2  
578.09 Max  
514.75  
450.41  
386.06  
321.72  
257.38  
193.03  
128.69  
64.344  
5.0234e-6 Min



CAE



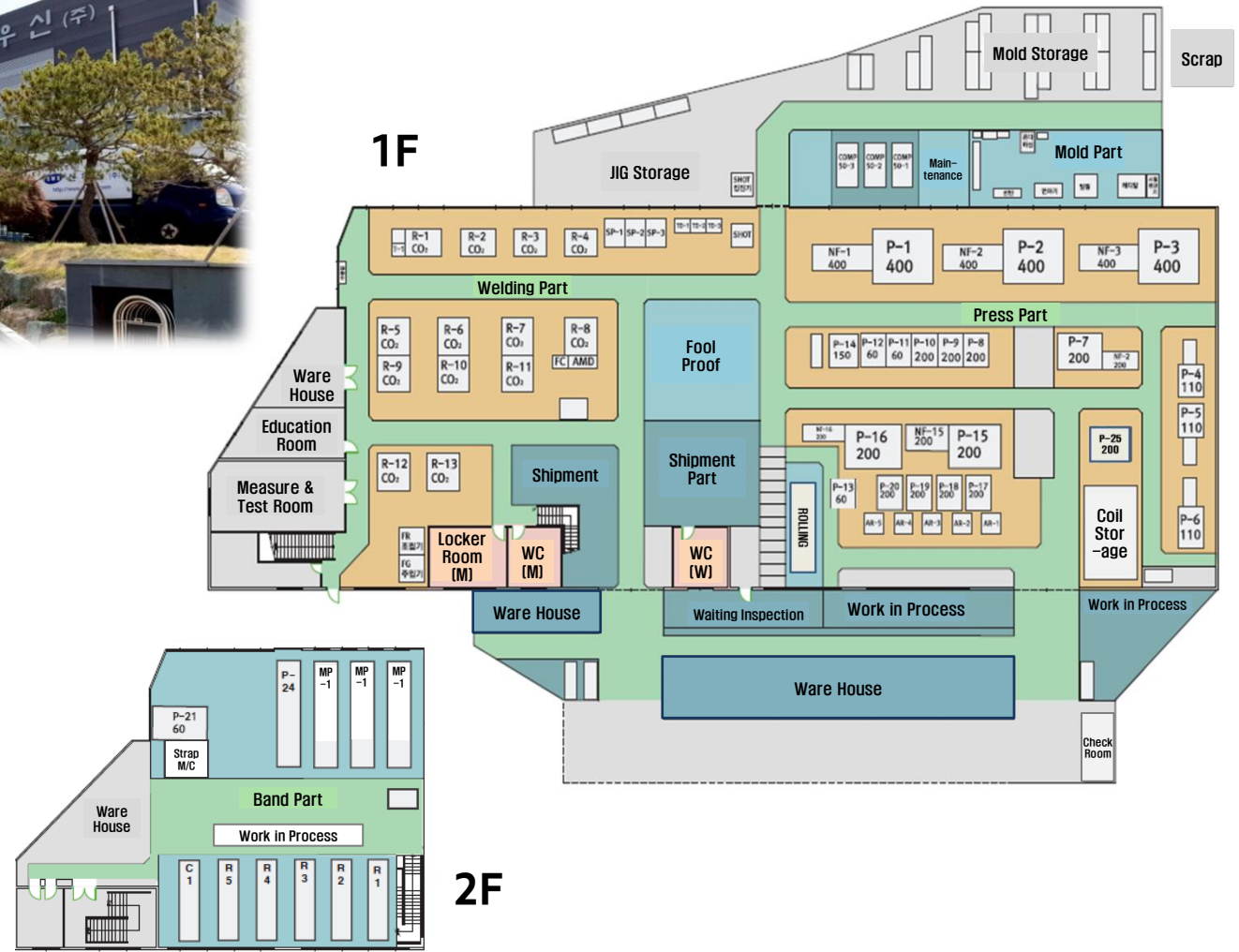
Proto & Validation



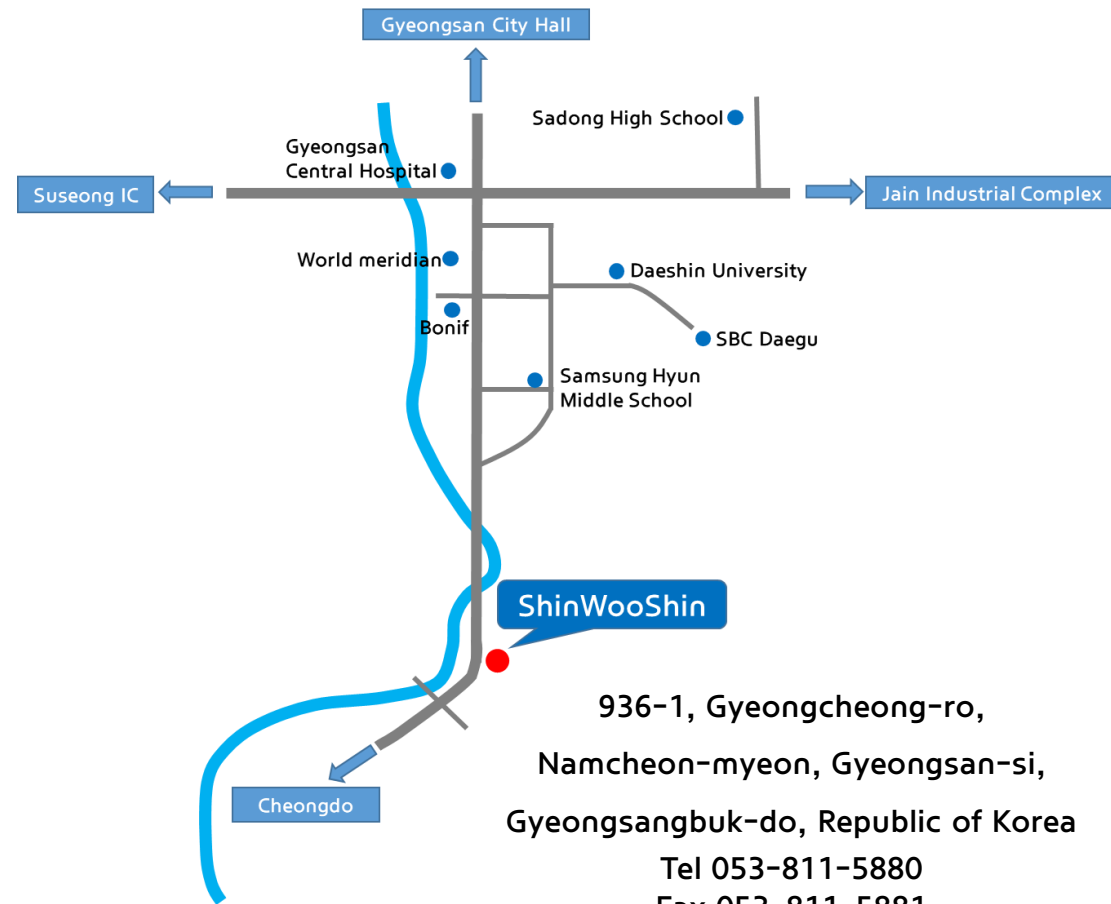
Design Fix



# Plant View & Lay-out









# Thank you

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 **ShinWooShin Co., Ltd.**

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