



주식회사 **한국몰드**

**HANGUK MOLD CO., LTD.**

[www.hkmold.com](http://www.hkmold.com)

Ensure Our Customers With The Best Engineering Services,  
Advancing As Global Leading Company.

## Company History

Mar. **1987** - Established HANGUK Model Co.

Jan. **1989** - Designated as a Tier 1 vender by Hyundai Motors

Dec. **1993** - Automated CAD/CAM and CNC M/C

Sep. **1996** - Associated as a Leading mold making Co. of the Korean Mold Industry

Jan. **1997** - Designated as a Tier 1 vender by Apollo Ind

Jan. **1998** - Designated as a Tier 1 vender by KIA Motors

Feb. **1998** - Automated CAE Analysis System

Dec. **1999** - Designated as a Tier 1 vender by Hyundai Mobis

Mar. **2002** - Establishment of operation computerized E.R.P

Dec. **2002** - Germany Euro Mold Exhibition - Film insert mold



Dec. **2005** - ISO 9001 certified by SMICC

Dec. **2005** - Operated Kim Je plant (SMC production for BUS /TRUCK)

July. **2006** - Automated MES (Manufacturing Execution System)

Mar. **2008** - World's first film insert product mass production

Apr. **2011** - Selected 'Star Company' by the chamber of commercial & industry

Mar. **2012** - Certified Supplier best Quality by Hyundai /Kia Motors

Dec. **2013** - Awarded 10 million dollars Export Tower from Korean government

Dec. **2014** - Awarded 20 million dollars Export Tower from Korean Government

Feb. **2016** - Open 2<sup>nd</sup> Plant for Automotive part production plant (Focusing to high efficiency part)



- **Main Business** : **Automobile A`CLASS SMC Manufacturing & Sales**
- The total sales 2024” : 27.3 Billion Korean Won
- Personnel : 91

- ※ 23 FY : 64.8 Billion Korean Won (226 staff)
- ※ 22 FY : 55.1 Billion Korean Won (231 staff)
- ※ 21 FY : 51.8 Billion Korean Won (230 staff)



- **Main Business** : **Plastic Injection Mold**
- The total Sales 2024” : 34.5 Billion Korean won
- Personal : 110

**2024 FY Whole Sales**  
**76.7 Billion Korean Won**  
 (265 staff)



- **Main Business** : **Plastic Molding & Assembly**
- Total Sales 2024 “ : 14.9 Billion Korean Won
- Personnel : 64

# Domestic Major Customer

In order to build trust with our customers, HANGUK MOLD is building a comprehensive and systematic quality system through securing quality and technology.

- Hyundai Motor
- KIA motors
- Hyundai Mobis
- LX Hausys
- ECO Plastic Co.,Ltd.
- Duck Yang
- Hung-A Forming
- SeoYeon E-hwa
- SHB



ISO 9001 : 2008



ISO/TS-16949



OHSAS 18001 : 2007



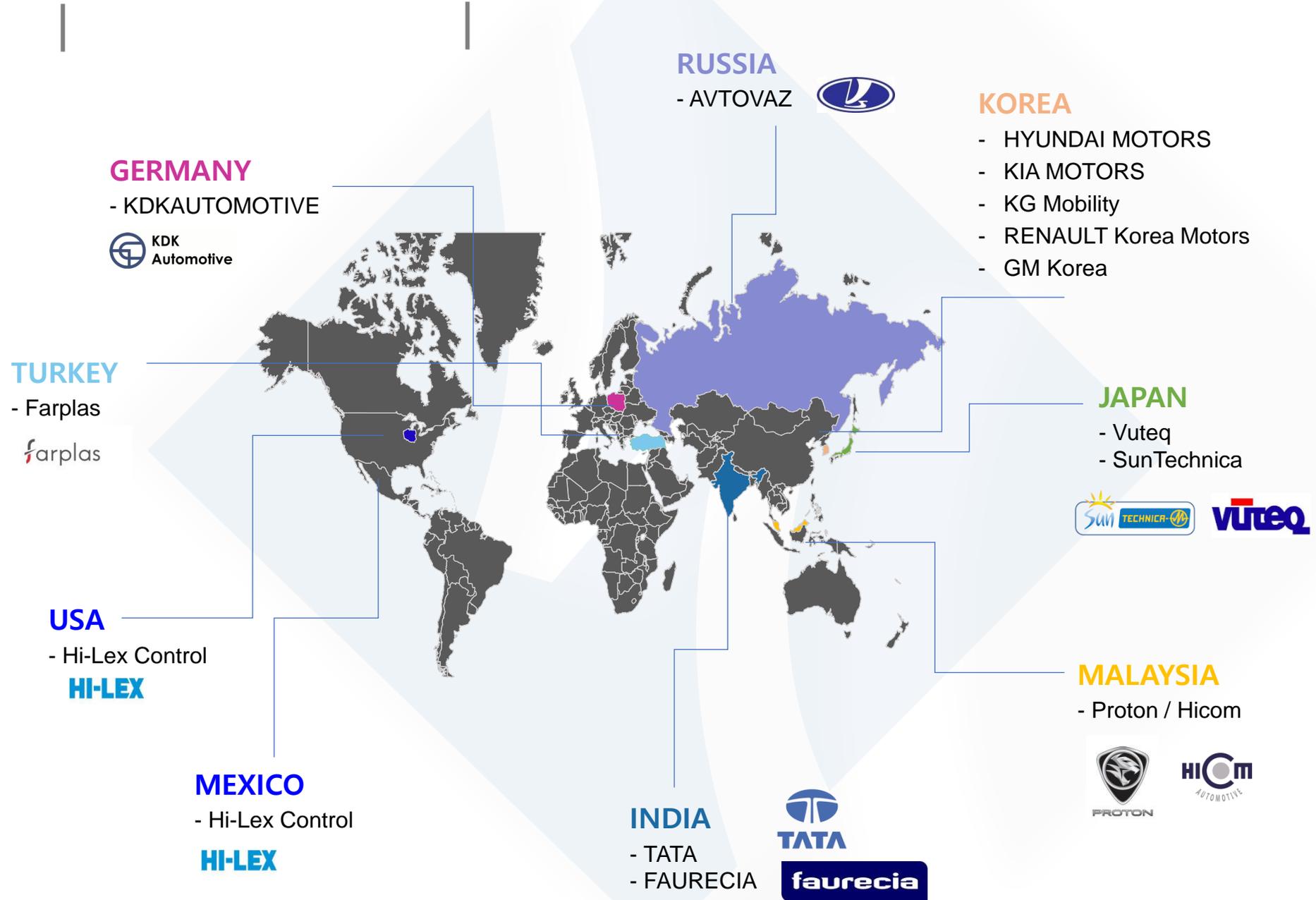
SUPPLIER QUALITY (Mold)

G grade (750., 2024)



SUPPLIER QUALITY (Plastic Part)

# World Wide Major Customer



## GERMANY

- KDKAUTOMOTIVE



## RUSSIA

- AVTOVAZ



## KOREA

- HYUNDAI MOTORS
- KIA MOTORS
- KG Mobility
- RENAULT Korea Motors
- GM Korea

## JAPAN

- Vuteq
- SunTechnica



## MALAYSIA

- Proton / Hicom



## INDIA

- TATA
- FAURECIA



## MEXICO

- Hi-Lex Control

HI-LEX

## USA

- Hi-Lex Control

HI-LEX

## TURKEY

- Farplas





# HANGUK MOLD

## HQ / 1st PLANT



Company Name : HANGUK MOLD CO., LTD.  
CEO : **CHOI KYU NAM**  
Establishment Date : 1987. 3  
Land area : 6,606 m<sup>2</sup>  
Building Area : 5,764 m<sup>2</sup>  
Capital Stock : 10.9 billion won  
Total Sales 2024 : 34.5 billion won  
Personnel : 110

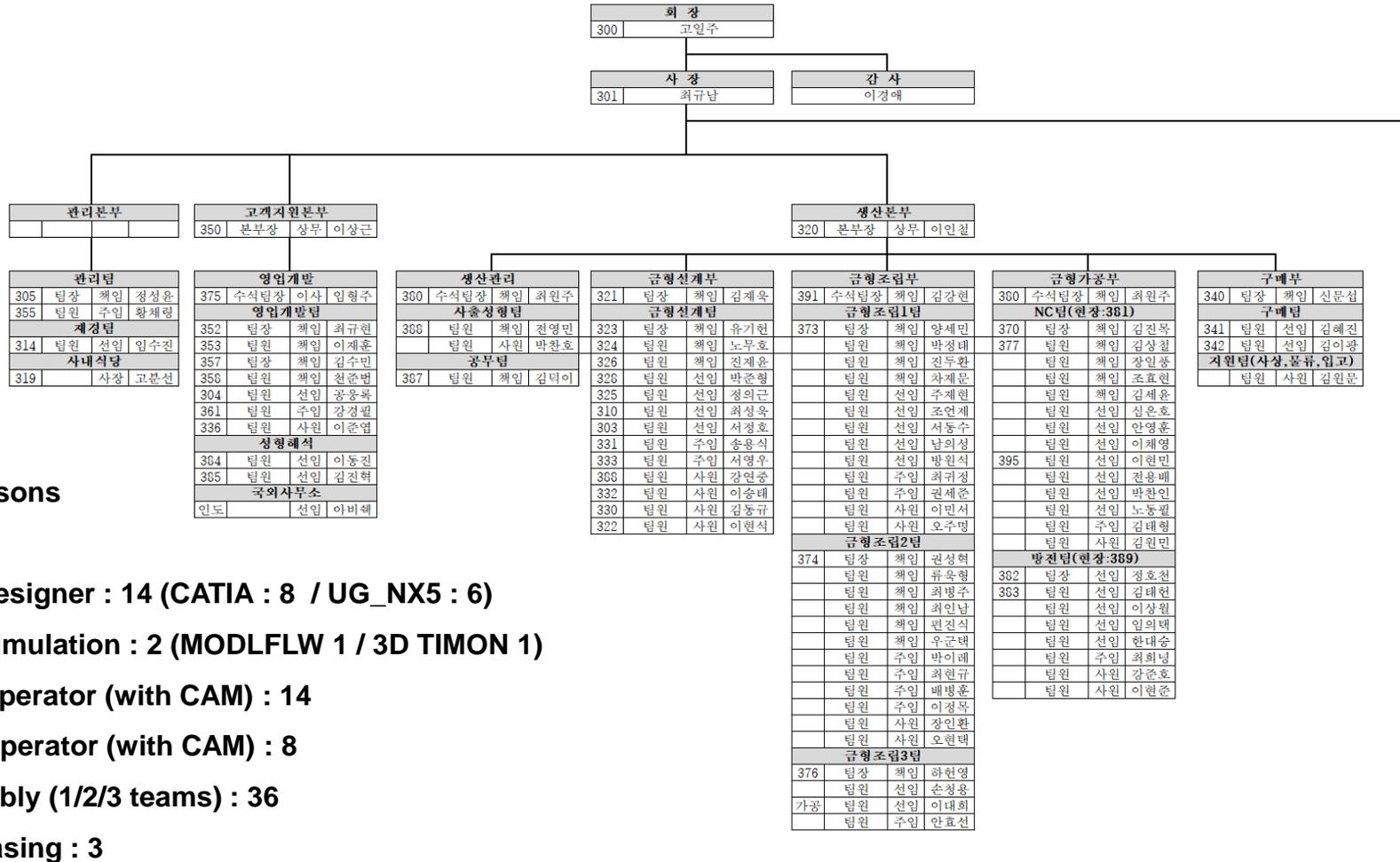
Address (Head office & 1ST. Plant) :  
21, Maegoksaneop 1-gil ,  
Buk-ku Ulsan, Korea

Business : ***Plastic Injection Mold***  
***Plastic Parts Injection***



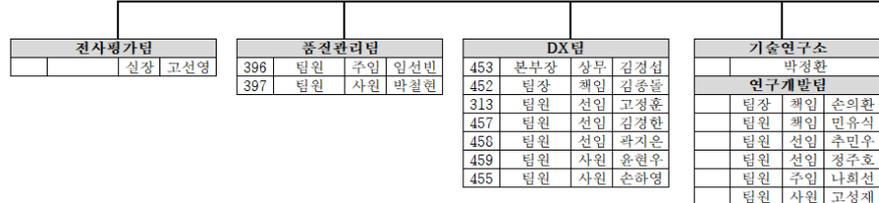


본사 조직도



• 110 persons

- 1) Tool Designer : 14 (CATIA : 8 / UG\_NX5 : 6)
- 2) CAE Simulation : 2 (MODLFLW 1 / 3D TIMON 1)
- 3) CNC Operator (with CAM) : 14
- 4) EDM Operator (with CAM) : 8
- 5) Assembly (1/2/3 teams) : 36
- 6) Purchasing : 3
- 7) QC : 2
- 8) Mechanical Maintenance : 1
- 9) Team Leader each Production Dept. : 4





Main Business

R&D

Facility

Door Module

FEM Module

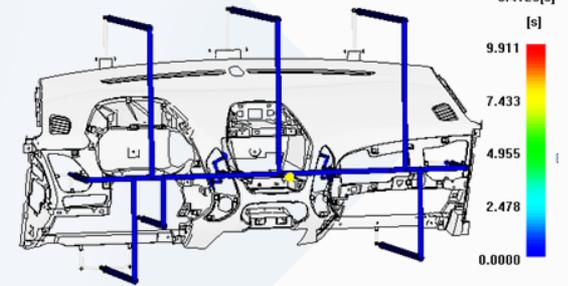
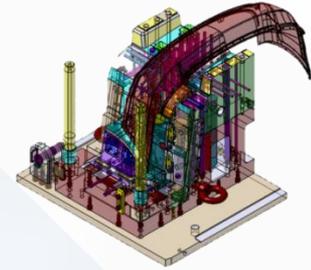
Film Insert Mold

2K Injection Mold

# Injection Mold and Specialized Mold

Total process from 'Prototype' to 'Mass Production'  
SQ mark certified by Hyundai Motors in 2004

- Bumper Mold
- Instrument Panel Mold
- Door Trim / Module Panel Mold
- FEM Carrier Mold
- Special Mold  
(Tandem / Film insert / Gas / 2Shot..)
- Customizing Mold



Bumper Mold

Instrument Mold

FEM Mold

Door Module

Customizing part Mold



Main Business

R&D

Facility

Door Module

FEM Module

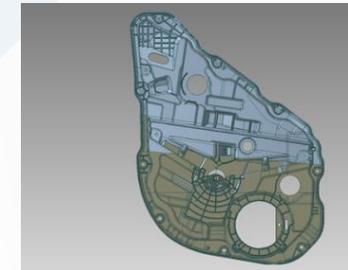
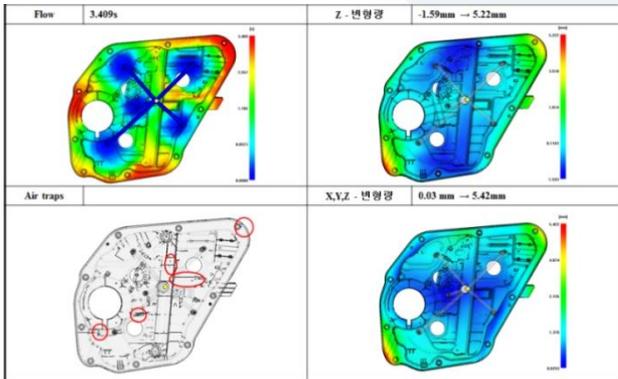
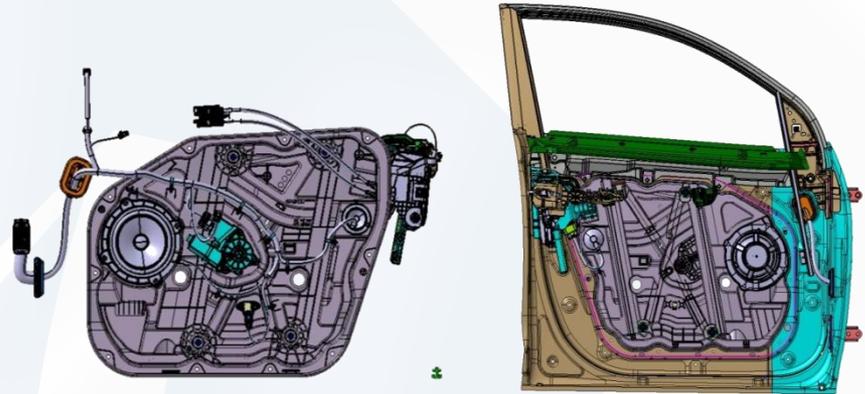
Film Insert Mold

2K Injection Mold

# Plastic Injection Mold Developed Instead of Steel Panel

Door Inner Panel  
Door Guide Rail

- Material Type : PP+LGF 30%
- Light weight, Reduce the cost
- Increase the freedom of shape





Main Business

R&D

Facility

Door Module

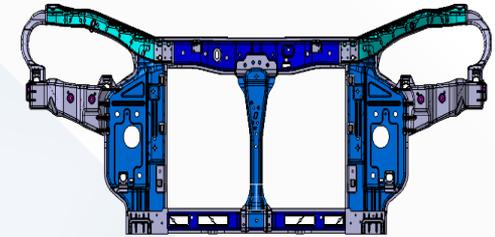
FEM Carrier

Film Insert Mold

2K Injection Mold

# FEM Module Development

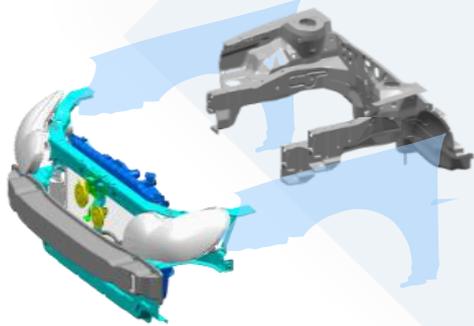
- Injection Molding inserted Steel Panel
- Since NF Sonata (2003), All models have been mass-produced



PA6+GF30%



INSERT STEEL MEMBER (7EA)





Main Business

R&D

Facility

Door Module

FEM Carrier

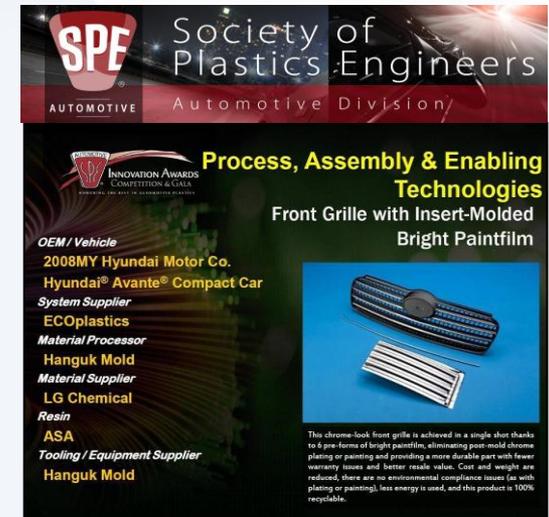
Film Insert Mold

2K Injection Mold

# Film Insert Mold

- Non-Chrome painting process through Metal Film
  - Simplify 16 Process to 5 Process, Environment-Friendly
- Advanced product surface by application of various Color Film
- First patent in film insert type mold in Korea (1999)
- World's First Film insert product mass production (2008)

SPE [Society of Plastic Engineers] Award (2008)



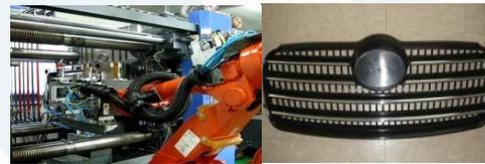
## Reduce production cost by simplifying process



1. Vacuum Forming



2. Trimming Injection



3. Robot Insert/ Plastic Injection



4. Assy/Inspection/Forwarding



Main Business

R&D

Facility

Door Module

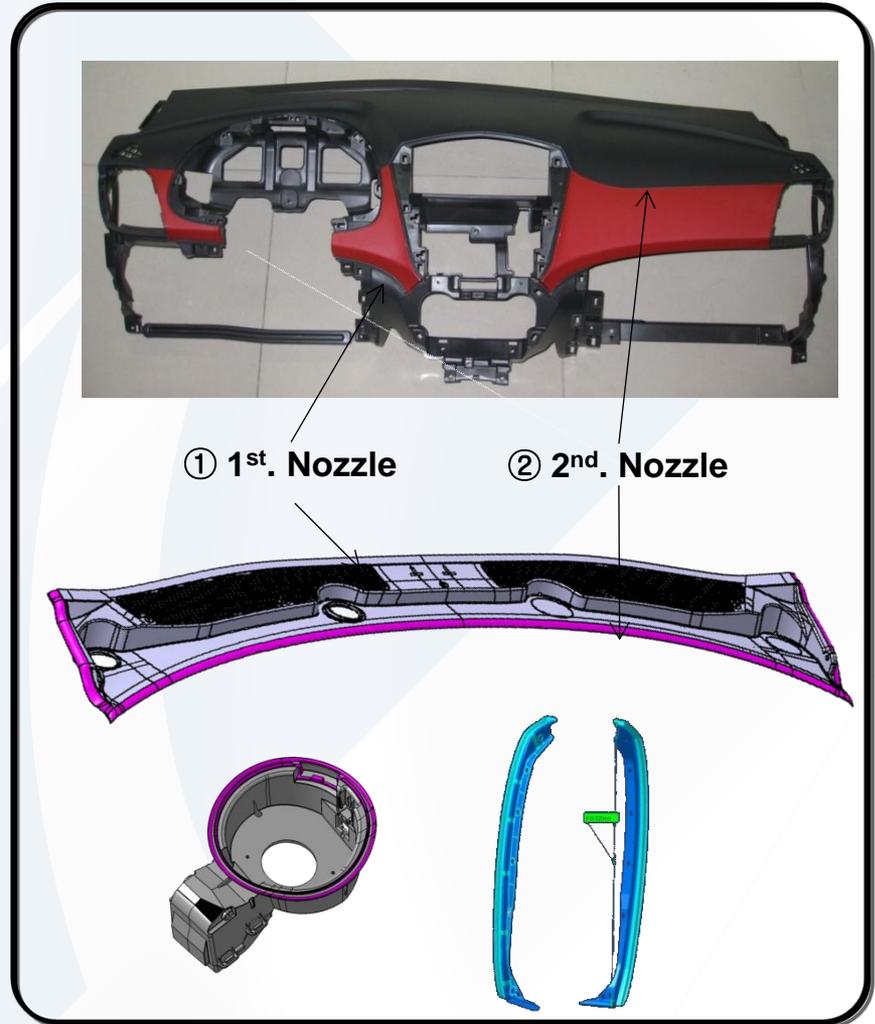
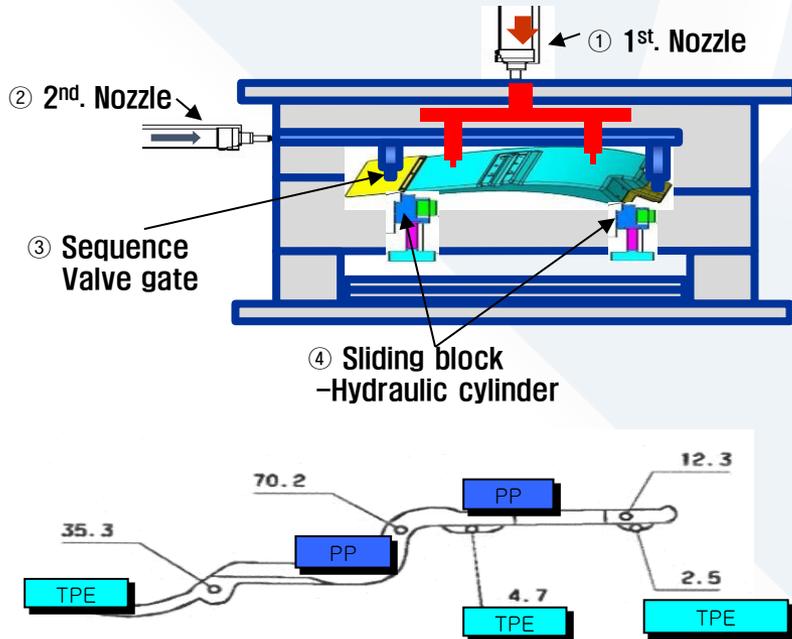
FEM Carrier

Film Insert Mold

2K Injection Mold

# Double (2-shot) Injection

Simultaneous injection with variety color  
All in one injection with Variety material





Main Business

R&D

Facility

Door Module

FEM Carrier

Film Insert Mold

2K Injection Mold

IP (C/PAD Main Core)



Cowl Top Grille



Mud Guard on Heavy Truck (3000 Ton – Dual M/C)



Fuel Trap Housing



All AIR/GUIDE (Ventilation Part area)





Main Business

R&D

Facility

Door Module

FEM Carrier

Film Insert Mold

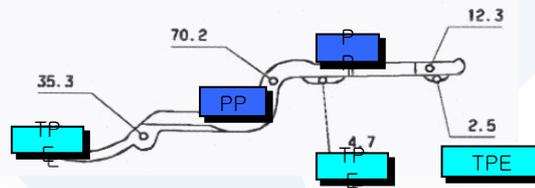
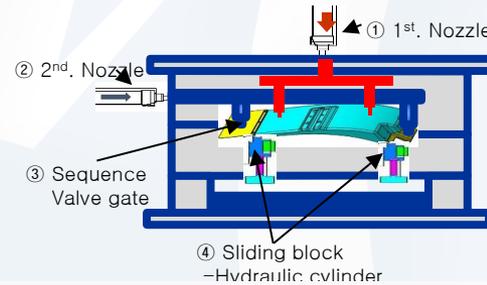
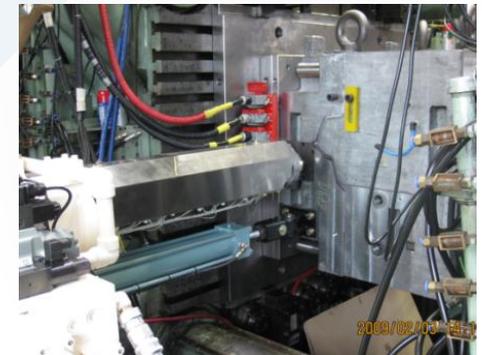
2K Injection Mold

Tandem Mold

# Double Injection 2 Shot Mold (High Productivity Mold)

## Cowl Top CVR IP / Ventilation Part

- Simultaneous injection with variety color
- All in one injection with Variety material.
  - Environment-Friendly, Reduce the energy and cost



Mold



Main Business

R&D

Facility

Machine List

Manufacturing / Measuring

Machine List



CNC 3 axis : 6

CNC 5 axis : 4 ( 1 big + 3 small)

GRAPHITE M/C : 3

EDM : 4

DIE SPOT PRESS : 2 ( 500 ton)

Injection Trial M/C : 1 ( 2,500 ton)





# HANGUK MOLD

## 2nd PLANT



Company Name : HANGUK MOLD CO., LTD.

CEO : **KO MIN SUNG**

Establishment Date : 2016. 2

Land area : 10,555 m<sup>2</sup>

Building Area : 1,839 m<sup>2</sup>

Capital Stock : 10.9 billion won

Total Sales 2024 : 14.9 billion won

Personnel : 64

Address (2<sup>nd</sup>. Plant) :

21, Maegoksaneop 1-gil ,  
Buk-ku Ulsan, Korea

Business : *Plastic Molding*

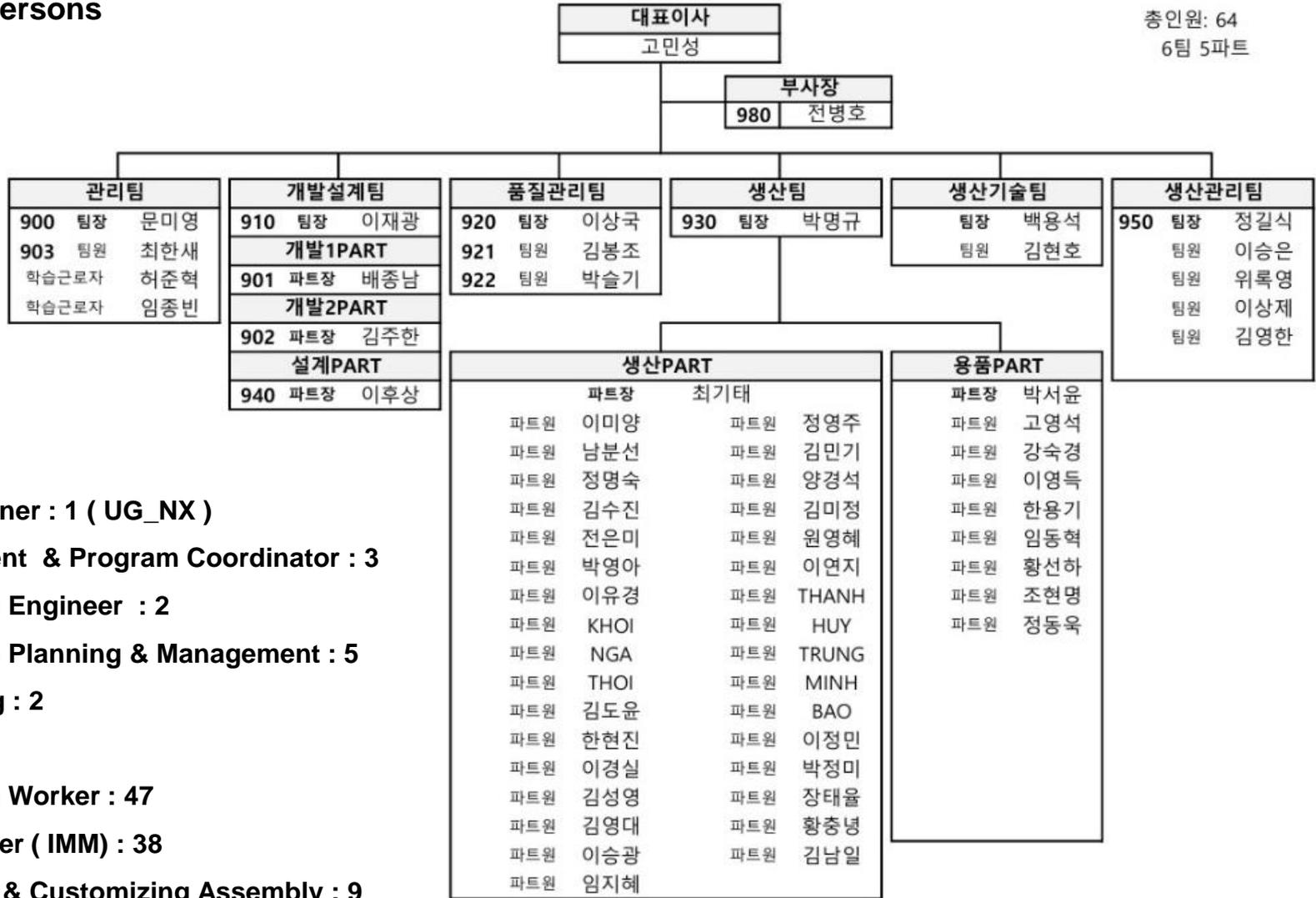
*Module Assembly*

*Customizing part*



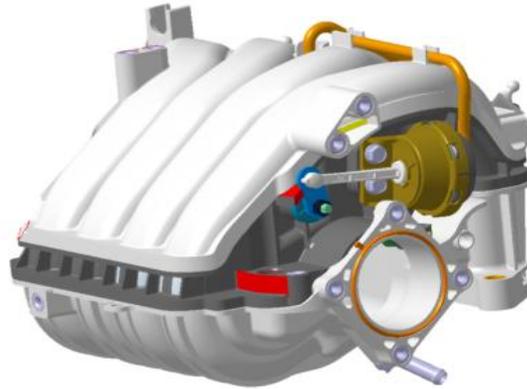
• Total 64 persons

총인원: 64  
6팀 5파트



- 1) Part Designer : 1 ( UG\_NX )
- 2) Development & Program Coordinator : 3
- 3) Production Engineer : 2
- 4) Production Planning & Management : 5
- 5) Purchasing : 2
- 6) QC : 3
- 7) Production Worker : 47
  - Line worker ( IMM ) : 38
  - Side Step & Customizing Assembly : 9

# Main item – AIM (Air In-Mani fold)



Process	Injection	Welding	Assembly	Shipment
Previous	Long Storage Time	Manual	Stock Goods → F/PROOF	-
Present	Next process within 30 min	Robot	Half F.G → Production (F/PROOF)	Scheduled shipment
Effective	<ul style="list-style-type: none"> <li>▪ Quality Improvement</li> <li>Less Warpage</li> <li>• Welding Status Improvement</li> <li>• Stable Dimension</li> <li>• Control Tolerance (Bearing/Sealing area)</li> </ul>		<ul style="list-style-type: none"> <li>▪ Stock Control Improvement</li> </ul>	<ul style="list-style-type: none"> <li>▪ Scheduled Shipment</li> </ul>



## ■ SIDE STEP(Desig\_Develop\_Product)

- DM SIDE STEP
- NC SIDE STEP
- UM SIDE STEP
- YP SIDE STEP(2MODEL)
- TL SIDE STEP(2MODEL)
- QL SIDE STEP(2MODEL)
- TMa SIDE STEP(N.A.)
- ON SIDE STEP(N.A.)
- NX4e/a SIDE STEP
- US4 SIDE STEP



## ■ Customizing Desig.-Devel.-Produc.

- TM FRT & RR BUMPER SKID
  - └ GAS & DIE.
- SX2 (KONA) IRON MAN HOOD
- TM PE SKID





**HKMC 3 programs\_ SP2, SK3, BR2**





# HKMC 7 programs\_ JX1, RG3, CN7, LX2, CD, PD, PDe



# Injection Machine List



3300 ton Injection Press



2000 ton Injection Press



1800 ton Injection Press



850 ton Injection Press



850 ton Injection Press



650 ton Injection Press



350 ton Injection Press



240ton Injection Press



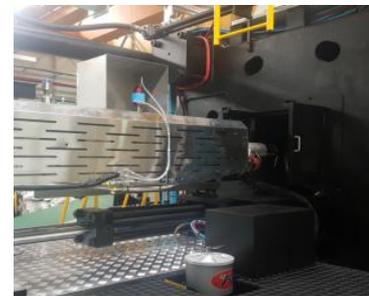
## ■ GAS injector : 2



## ■ Rapid tool Heat & Cool device : 1



## ■ Mucell Hydrogen gas Injector : 1



# Main Inspection Equipments



Static 내압시험기	Dynamic 내압시험기	항온 항습 시험기	열 충격 시험기	대진(먼지)시험기	내열성 시험기	염수분무시험기	인장강도시험기
							
정적내압테스트	동적내압테스트	온도-습도 사이클 / 내한성	열 충격/내한 충격 시험	대진(먼지)시험	내열/고온 내압	내식성 시험	강도 시험

밸브 작동기	토크 측정기	밸브 작동력 측정기	3차원 측정기	공구 현미경	기밀성(진공)시험기	기밀성(흡기)시험기	낙하시험기
							
밸브응답성/달힘성	인서트너트 강도	밸브 작동력 테스트	치수 검사	내부 미세치수 측정	진공 리크	흡기 리크	내한 충격

NO.	시험기 명	장비메이커	모델/규격
1	3차원 CMM 측정기	덕인	HERO 8127S(2.5+L/300 <sub>μ</sub> m)
2	BURST TESTER	SONICS	SKFT-151214(600mmHg/3Sccm)
3	BUBBLE LEAK TESTER	SONICS	SKFT-151214(압력: 8.5Bar 이상)
4	수분측정기	KETT	AH60346(100g/0.001g)
5	디지털 온도계	TESTO	41715022(-50 ~ 350℃)
6	디지털 온도계	TESTO	41715708(-50 ~ 350℃)
7	외경 마이크로 미터	Mitutoyo	46103038(0 ~ 25mm/0.01)
8	외경 마이크로 미터	Mitutoyo	45191716(75 ~ 100mm/0.01)
9	디지털 단차 게이지	Mitutoyo	15054323(12.7mm/0.01)
10	디지털 단차 게이지	Mitutoyo	15054321(12.7mm/0.01)
11	디지털 단차 게이지	Mitutoyo	15054355(12.7mm/0.01)
12	전자저울	CAS	CLG467(50g ~ 15kg/1.0)
13	전자저울	에이컴	WD2005(80g ~ 20kg/2.0)
14	조도계	TES	150801889(20 ~ 20,000LUX)
15	수준계	RSK	151073(200mm/0.01)
16	디지털 토크렌치	ECLATORQ	WP3-060-12000121(60N.m)
17	디지털 토크렌치	TOHNI CHI	700363G(360N.m)

NO.	시험기 명	장비메이커	모델/규격
18	디지털 하이트 게이지	Mitutoyo	1416237(600mm/0.01)
19	디지털 버니어 캘리퍼스	Mitutoyo	4(150mm/0.01)
20	디지털 버니어 캘리퍼스	Mitutoyo	07516713(200mm/0.01)
21	디지털 버니어 캘리퍼스	Mitutoyo	11551841(200mm/0.01)
22	디지털 버니어 캘리퍼스	Mitutoyo	14640718(200mm/0.01)
23	디지털 버니어 캘리퍼스	Mitutoyo	0049734(600mm/0.01)
24	디지털 버니어 캘리퍼스	Mitutoyo	06432903(100mm/0.01)
25	디지털 인서트 단차 게이지	Mitutoyo	14052362(0.01 ~ 10.0mm)
26	디지털 인서트 단차 게이지	Mitutoyo	14163677(0.01 ~ 10.0mm)
27	디지털 인서트 단차 게이지	Mitutoyo	14052359(0.01 ~ 10.0mm)
28	토크게이지(마찰력)	TOHNI CHI	502975E(0 ~ 3.6N.m)
29	보어게이지	Mitutoyo	526-152(6 ~ 10mm/0.001)
30	공구현미경	Hexagon	OLM3020(300x200)
31	경도계	TECLOC	SHORE A(지침형)
32	확대경	LOCAL	SK-102L(3X)
33	나사링 게이지	J.P.G	M6X1.0GRIR2(JIS 2급)
34	나사 플러그 게이지	J.P.G	M6X1.0GPIP2(JIS 2급)
35	다이얼 인디케이터 스탠드	LOCAL	석재 컵플레이터 스탠드(200X150)



Main Business

Facility

Smart Factory

Gas KIT & Heat-Cooling

Injection Machine

IN MANI Line

PLAZMA Nitriding

Assy & Test

Machine List

## IN MANI Line

- Injection Machine (850t, 650t,450t)
- Vibration Welding Machine (3EA)
- Assembly Machine (13EA)
- Checking Machine for Cutting





# HANGUK MOLD

## GIMJE SMC Production (Commercial Truck & Bus)



Company Name : HANGUK MOLD CO., LTD.

CEO : KO IL JU

Establishment Date : 2005. 12.

The total sales 2024 : 27.3 Billion won

Personnel : 91

Land Area : 16,529 m<sup>2</sup>

Building Area : 6,427 m<sup>2</sup>

Address : 38, Daedonggongdan 2-gil,

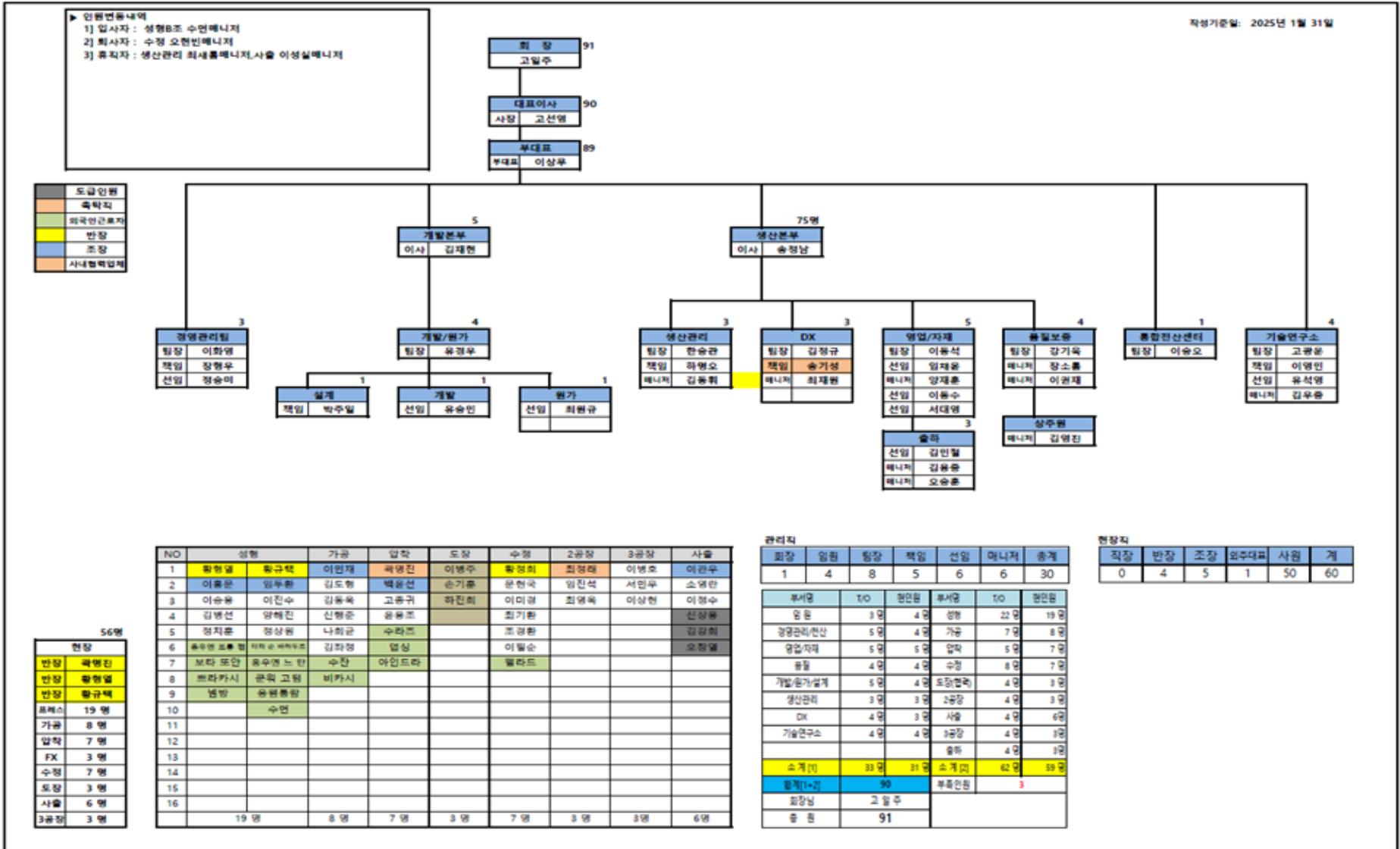
Baeksan-myeon, kim-je City Jun buk, Korea

Main Business : ***Automobile A`CLASS SMC  
Manufacturing & Sales***





• Total 91 persons





Main Business

Facility

Commercial Bus

QZ Truck

EU Truck

QT Truck

Product List



Engine Back Door



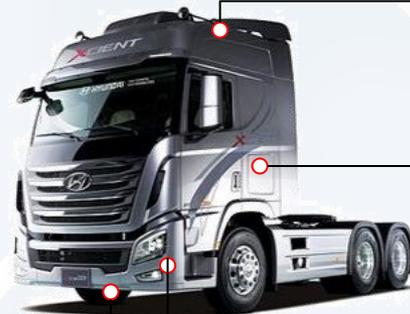
Luggage Flap Door



Engine Flap Side Door



FR Bumper



Spoiler



Door Skirt



FR Bumper CTR



Side Bumper





Main Business

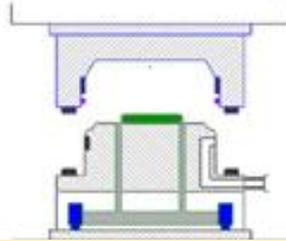
Facility

Procedure

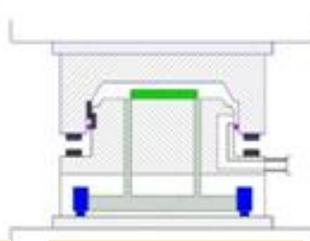
Present R&D Condition

SMC Process Facility

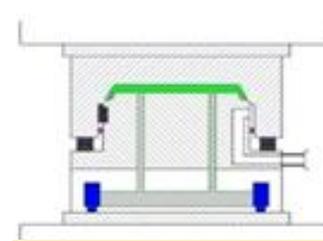
Injection Process Facility



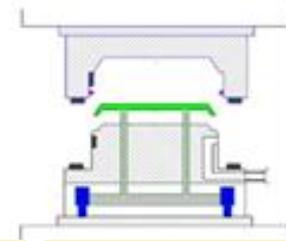
Material In-put



Vacuum



Pressing & Molding



Demolding

1. Paste Entrance

2. Paste Cutting

3. SMC Molding

4. Trimming

5. Hole Processing



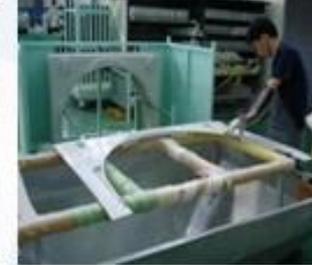
Temperature & Moisture Control



Charge Weight Charge Pattern



Press Temperature & Pressure Control



BURR Elimination & Self-Test



NTC Robot Processing

6. Brkt Assembly

7. Cleaning

8. Bonding/ Squeeze

9. Painting

10. Final Inspection



Specifications Brkt Assembly



Cleaning & Product Visual inspection



Heating & Robot Squeezing



Use Conveyor Automation



Product surface & Specifications Check



Main Business

Facility

Commercial Bus

QZ Truck

EU Truck

QT Truck

Product List

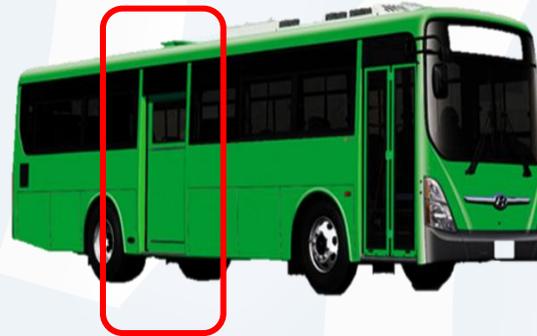
Main Product - Commercial Bus

FLAP DOOR



[PY Express Bus]

S/DOOR

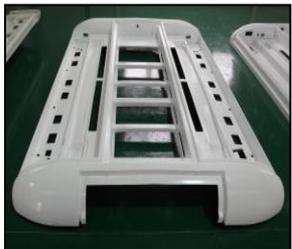


[CS City Bus]

FRT BUMPER



[CS Bus]





Main Business

Facility

Commercial Bus

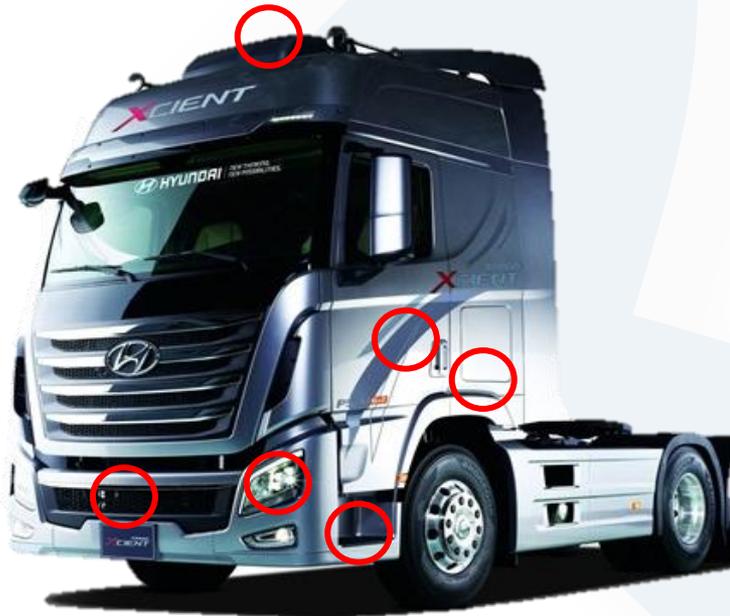
QZ Truck

EU Truck

QT Truck

Product List

Main Product - QZ Truck



[HYUNDAI QZ Truck]



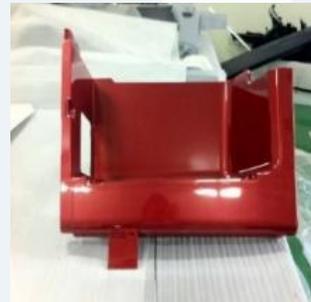
SPOILER



CENTER BUMPER



CORNER BUMPER



STEP GARNISH LWR



STEP GARNISH



DR SKIRT



Main Business

Facility

Commercial Bus

QZ Truck

EU Truck

QT Truck

Product List

Main Product - EU Truck



[HYUNDAI EU Mini Bus]



GRILLE-SPEAKER



BUMPER ASSY-FR



COVER-DR LWR TRIM



DR ASSY-FILLER DR



GARNISH ASSY-DELTA



Main Business

Facility

Commercial Bus

QZ Truck

EU Truck

QT Truck

Product List

Main Product - QT Truck

[HYUNDAI QT Truck]



COVER-COLUMN



TRIM-QTR UPR



STEP GARNISH



PLATE-SCUFF



PNL-FR DR SKIRT





Main Business

Facility

Procedure

Present R&D Condition

SMC Product Facility

Injection Product Facility

## RTM Molding Method Development and Application

RTM Mold Molding Technology + Infiltration Flow Technology

- Initiator and accelerator content Formulation
- Rovi Core + Vacuum Molding
- Reduce molding time and initial investment cost compared to existing RTM
- Bladder Insert technology of hollow molded parts

[ Development of Passenger Car HOOD OTR ]





Main Business

Facility

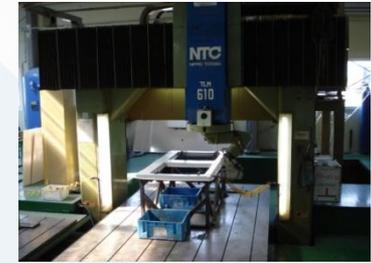
Procedure

Present R&D Condition

SMC Product Facility

Injection Product Facility

# SMC Product Facility



700 TON PRESS 1 EA

1000 TON PRESS 2 EA

1500 TON 1 EA

2500 TON 1 EA

CUTT G M/C 1 EA

CNC MILLING M/C 1 EA

ROBOT M/C 3 EA



BONDING PROCESS with ROBOT

PAINT LINE



주식회사 **한국몰드**

**HANGUK MOLD CO., LTD.**

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**Thank You**