



# DSP Co., LTD

## PARTS OF MUFFLER

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- Company Overview
- Company History
- Company Certificate
- Organization
- Annual Sales
- Customer
- Export countries

### 2. Products

- Main Products Overview / Exporting Countries
- Main Products

### 3. Equipments

- Product Equipments & Facilities
- Test Equipments

# 01

## General Overview

- Company Overview
- Company History
- Company Certificate
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## Company Overview

DSP Co., Ltd is Korean based Tier#2 supplier specialized in exhaust system.

The products of DSP Co., Ltd are stamping parts as Manifold Shell, Manifold Collector, Converter Shell, Cone, Heat Shields, Front muffler sub assembly, baffles, end plate, valves and tail pipes.

DSP's contracted company, exhaust pipes, mesh ring, tail tip can be supplied as well.

### Location



Head quarter



2<sup>nd</sup> Factory DSP Co., Ltd

Head quarter(HYUNWOO Co., LTD) 229 Munsangongdan-Gil, Oedong-Eup, Gyungju-City, Republic of Korea.

2<sup>nd</sup> Factory(DSP Co., Ltd) 24-8 Mohwasandan-Gil, Oedong-Eup, Gyungju-City, Republic of Korea.

## Company History

Based on HYUNWOO, DSP has excellent technology and basic skills.



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### Starting

1994. 08  
Established HYUNWOO Co., Ltd

1995  
~2000

### Opportunity

1995. 04 Contracted  
to cooperate with SEJONG  
1998. 08 Contracted  
to cooperate with HYUNDAI MOBIS  
2000. 03. Contracted  
to cooperate with FAURECIA

2000  
~2007

### Stabilization & Prosperity

2000. 08  
HMC / KMC SQ Certification  
2005. 02.  
Single PPM(100PPM) Quality Certification  
2006. 12.  
ISO / TS 16949 System Certification  
2007. 03.  
ISO 14001 Environmental Management  
System Certification

2015  
~2020

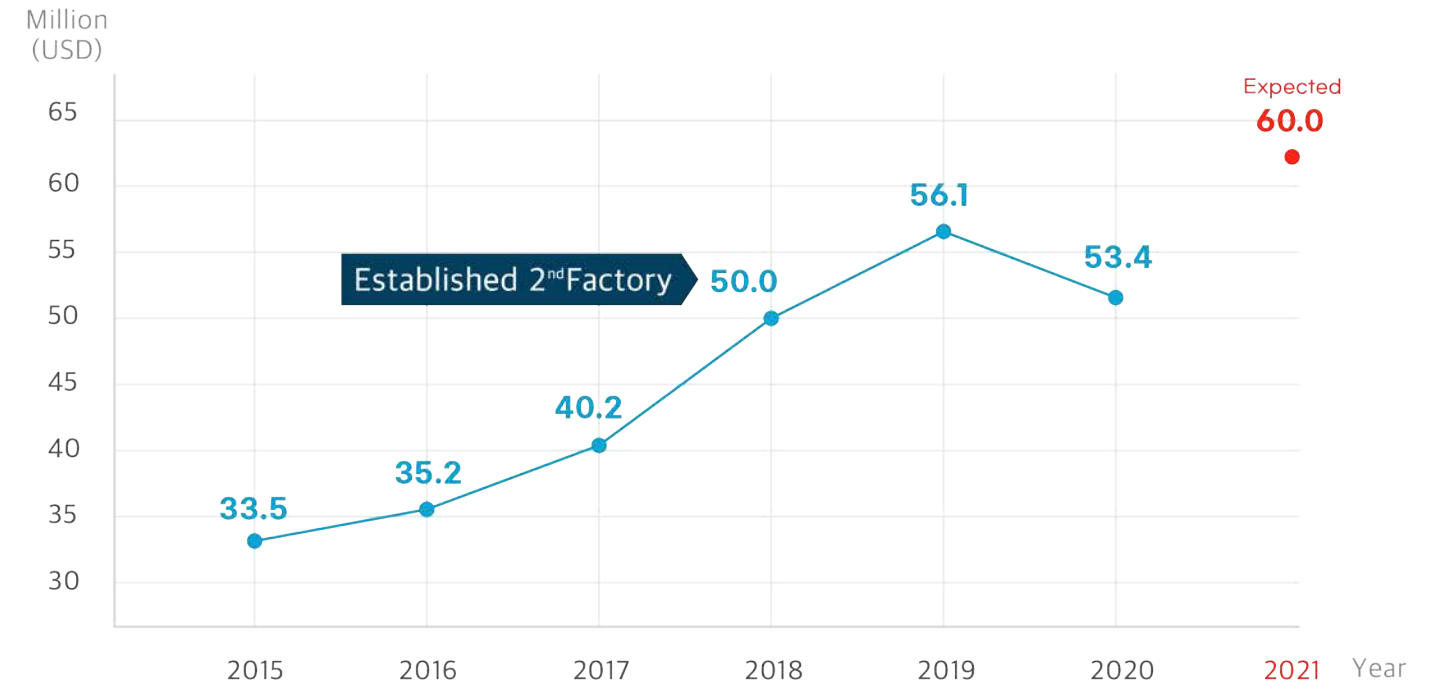
### New Challenge

2009. 05.  
Established Hyunwoo-2nd Factory(DSP Co.,Ltd)  
2017. 08.  
Established New R&D department(DSP Co.,Ltd)  
2020. 12.  
Awarded USD 7 Million Export Award

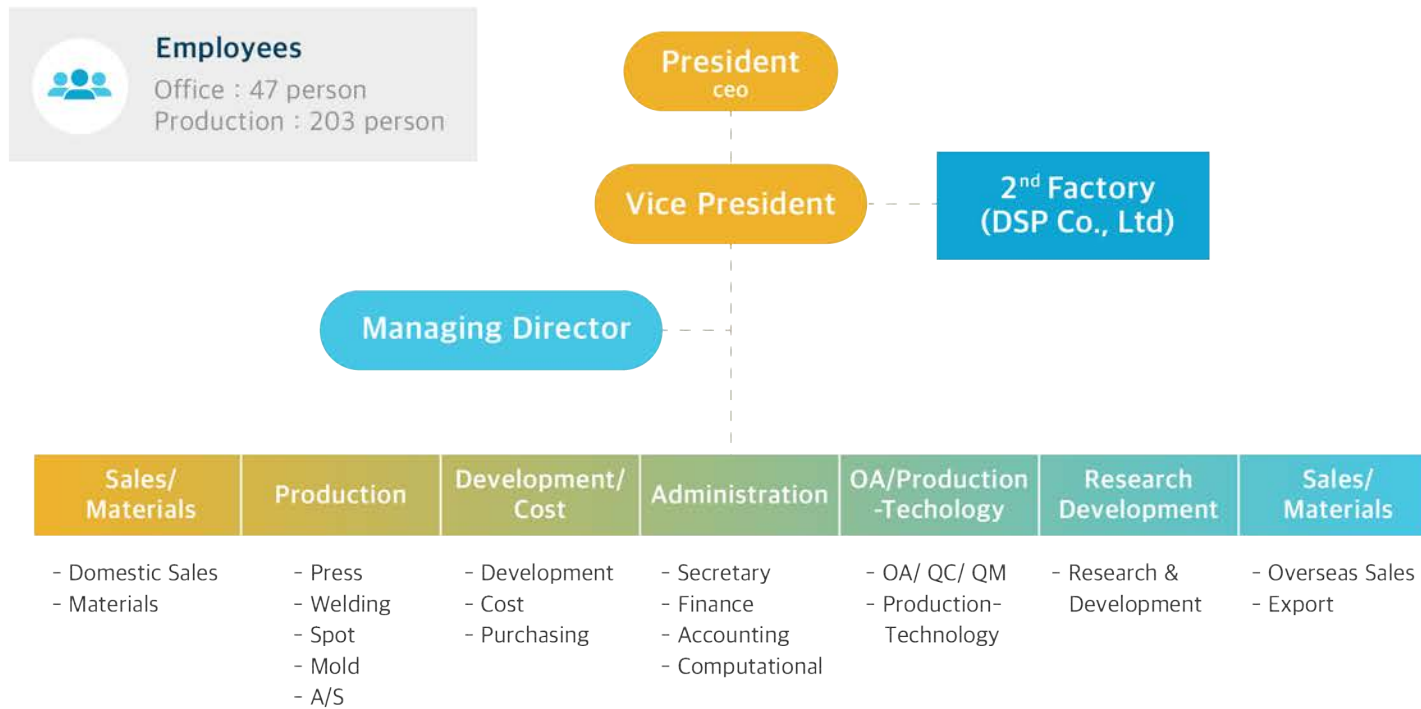
# Company Certificate (As of 2021)



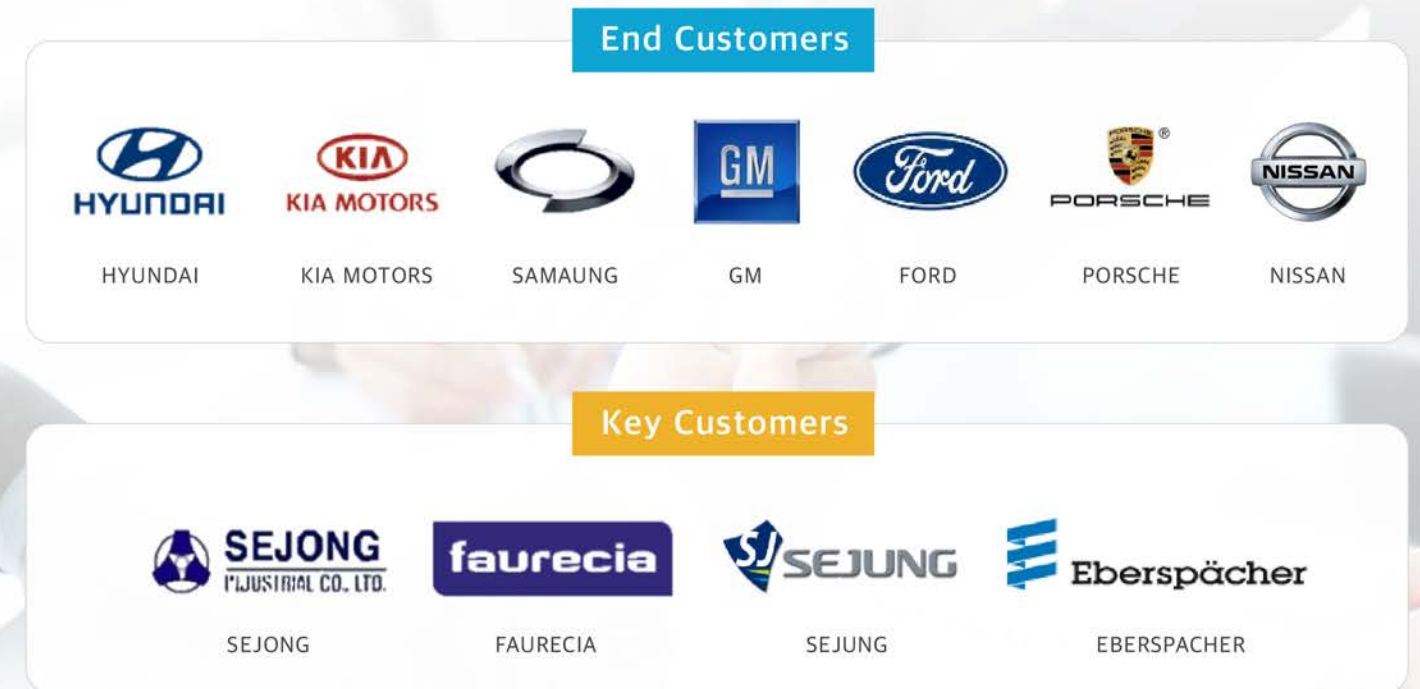
# Annual Sales



## Company Organization



## Item status by customers



# Overseas Export\_Turnover\_2021

- Export Countries : 10
- ▲ Plant : 23
- Warehouse : 4

**2020 : 11.6 million**  
EXPORT ITEM: 159EA



**• Warehouse Address**

- 1) Chicago : 950 Lunt Ave, Elk Grove Village, IL 60007 USA
- 2) Atlanta : 3145 Northwoods Parkway, Norcross, GA 30071 USA
- 3) Detroit : 35000 Industrial Rd, Livonia, MI 48150 USA
- 4) Mexico : Apatzeo Lote 39 Manzana 2 Parque Industrial Colinas de Apaseo, Apaseo el Grande, GTO, Mexico

**China**

▲ Yantai plant	▲ Beijing plant
▲ Shanghai plant	▲ Yancheng plant
▲ Wuhan plant	▲ Taichang plant
	▲ Chongqing plant
	▲ Ziyang plant

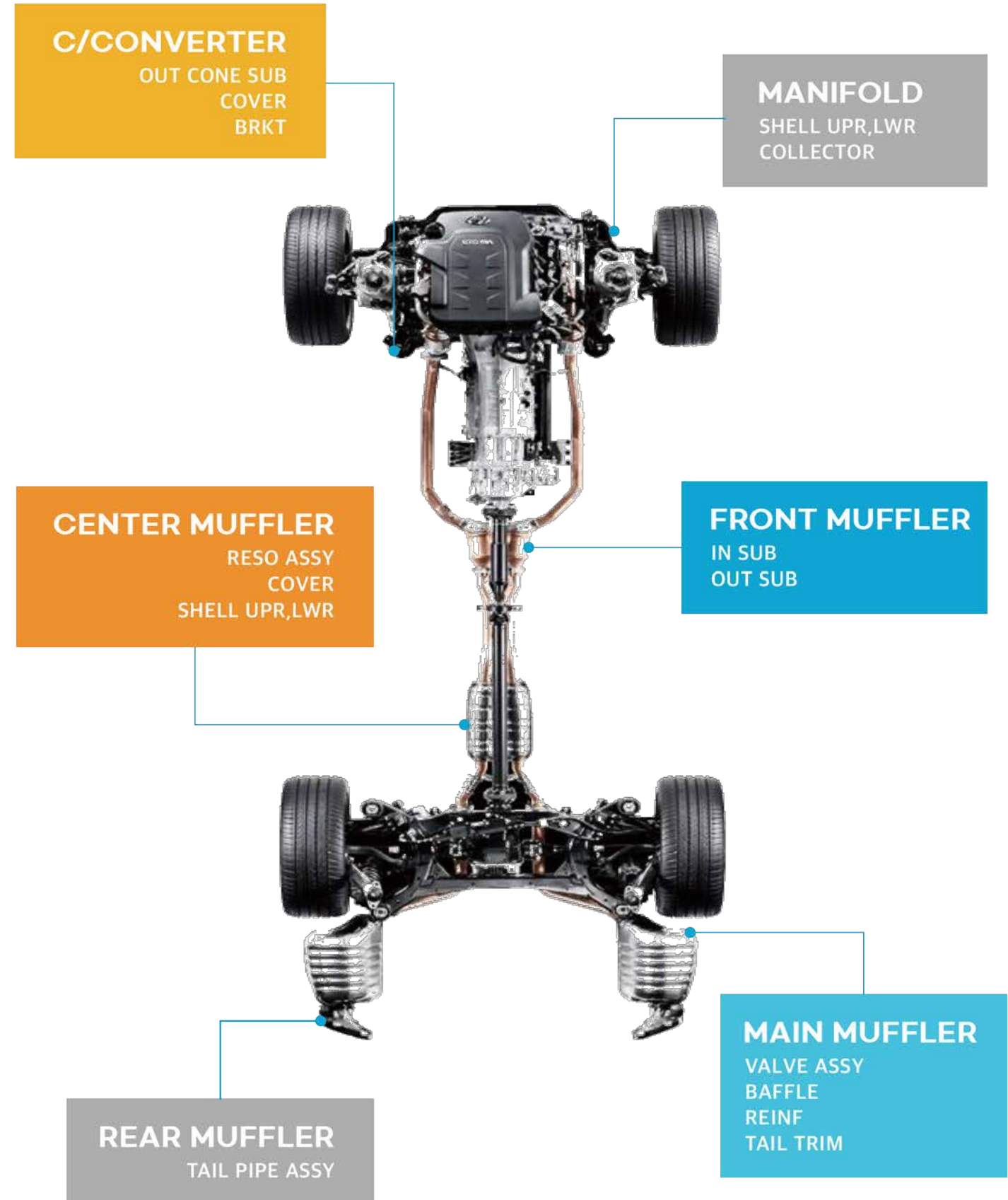
# 02

## Products

- Main Products Overview
- Main Products
  - Company Overview
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  - Annual Sales
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## Main Products Overview



# C/Converter

Main Products

- SHELL UPPER / LOWER



- INLET/ OUTLE CONE ASSY



- HEAT-COVER-UPR / LWR SUB



- 2 Layers Spot-Cover ASS'Y



- CHAMBER SUB ASS'Y




- CONE




# Front Muffler

Main Products

- FRT MUFFLER SUB



- FRT IN SUB
- FRT MUFFLER SUB



- INLET PIPE ASS'Y



- OUTLET PIPE ASS'Y



- CHAMBER SUB ASS'Y

MIXER:(Laser Welding)




# Center Muffler

Main Products

## • PRERESO ASS'Y



## • RESO ASS'Y SUB



# Main Muffler

Main Products

## PLATE

### • END PLATE IN(4WD)



### • END PLATE OUT(4WD)



### • BAFFLE-B(2/4WD)



## VALVE

### • VALVE ASS'Y



### • VALVE ASS'Y



## TAIL PIPE

### • TAIL TRIM ASS'Y



### • TAIL PIPE SUB ASS'Y



### • TAIL PIPE ASS'Y





# Main Muffler

Main Products

## VALVE ASSY in Main Muffler

Mass production/ AS parts : 50 types  
Developing : 4 types



- BUSH** When opens and closes, it minimizes friction between gate and Shaft.
- SHAFT** It is using a supporting fixture.
- SPRING** As a "K" value(Constant value), it determines opening and closing times.
- SUS MAT** When opens and closes, it prevents touching noise.
- GATE** It guides exhaust gas flow.
- SUS RING** It minimizes Gas Leak and prevents touching noise when valve opens and closes.
- ROD** It prevents trembling valve and avoids resonance.

Exploded view



# 03

## Equipments

- Product Equipments / Facilities
- Test Equipments



# Product Equipments / Facilities

## PRESS



MECHANICAL PRESS

Total 14 Machines

- 350 Ton\_1EA
- 250 double Ton\_1EA
- 250 Ton\_2EA
- 200 Ton\_4EA
- 160 Ton\_4EA
- 110 Ton\_2EA



NC FEEDER

Total 2 Machines

- 350 Ton\_1EA
- 250 Ton\_1EA



3P ROBOT

Press automation-Robot Shuttle

**CAPACITY (Stamping)**  
 Press capacity: 33.8 M. pcs (2020)  
 Full capacity: 50 M. pcs/yea

## WELDING M/C



SPOT WELDING M/C  
 Total 8 Machines



ROBOT  
 Total : 35 Machines



CMT  
 (Low heat welding M/C)  
 Total : 2 Machines



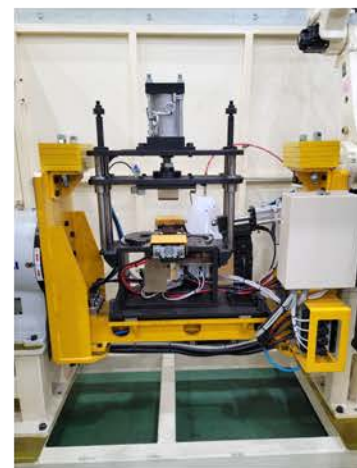
Z-PULSE Welding M/C  
 Total 70 Machines



TIG Welding M/C  
 Total : 35 Machines



INVERTER Welding M/C  
 Total 42 Machines



# Test Equipment(Valve ASSY)

- Torque Tester



VALVE ASSY Reliability Test  
 - TORQUE test

- Spring Torque Tester



VALVE ASS'Y Reliability test  
 - Spring TORQUE Rig test

- High thermal endurance Tester



VALVE ASS'Y Reliability Test  
 - At 550 °C, 40,000 CYCLE (open /close)  
 -1 CYCLE (open/close) in every 2 seconds

- Tension & Compression Tester



VALVE ASS'Y Reliability test  
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- Environmental Tester



VALVE ASS`Y Reliability Test  
 - Cooling resistance test  
 : 96HR left at lowtemperatures  
 - Thermal shock test  
 : low => normal => high=> normal-  
 temperature 20 CYCLE test

## Test Equipment

- Quick image



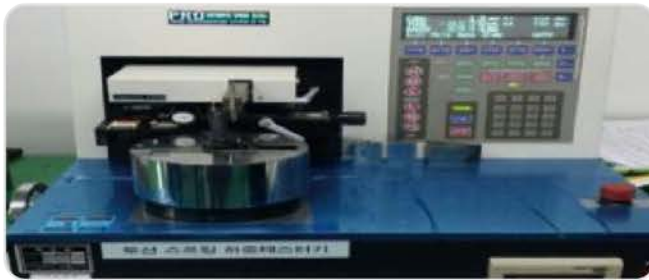
- Polishing Machine



- Repeated Spring Tester  
- Spring Reliability Test



- Torsion Spring Load Tester  
- Spring Reliability Test



- CMM





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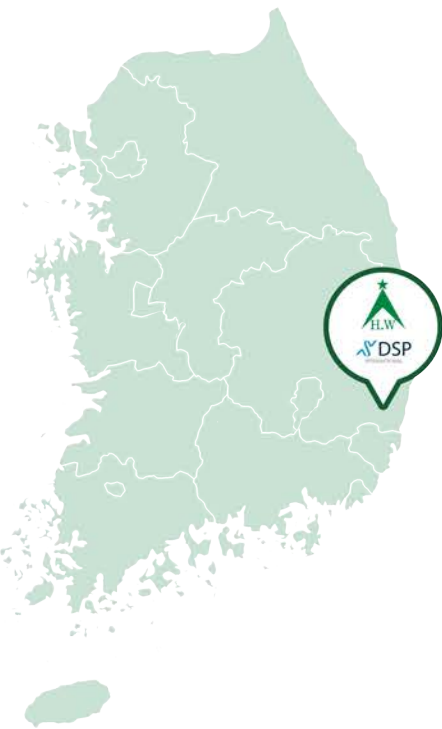
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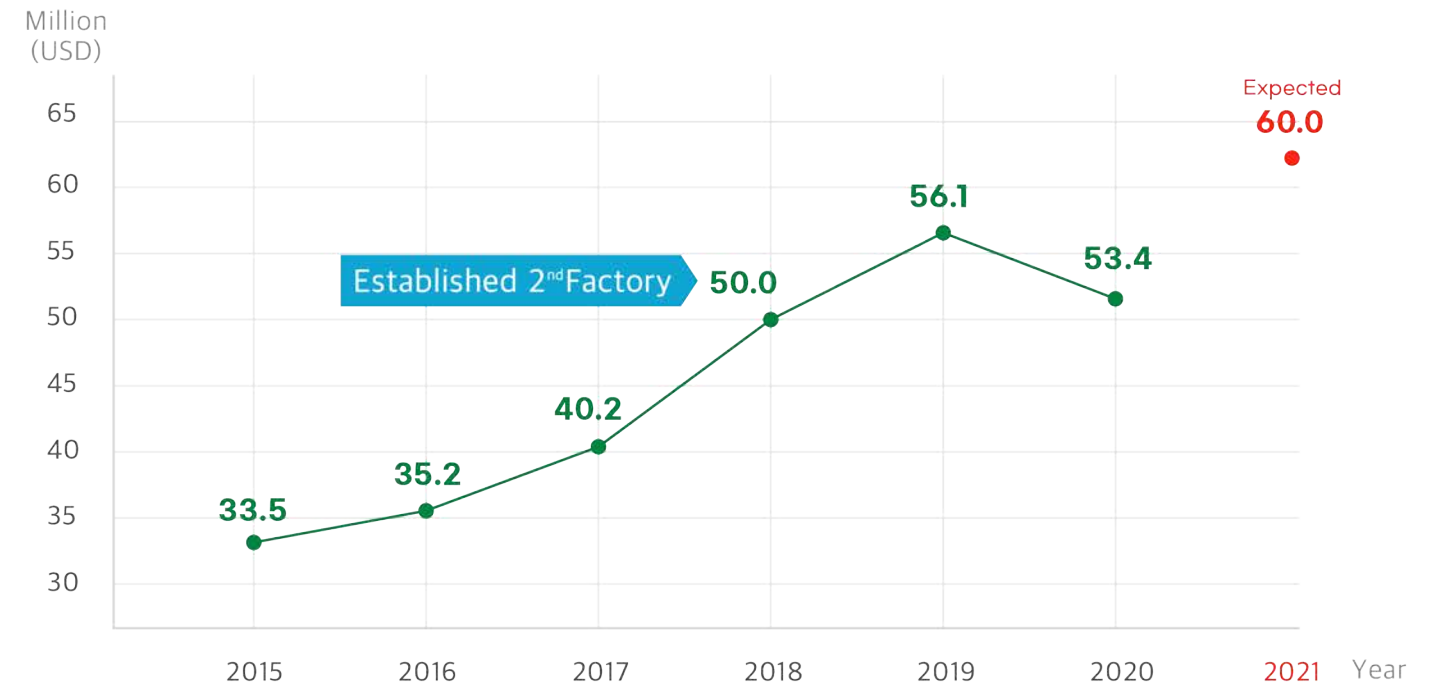
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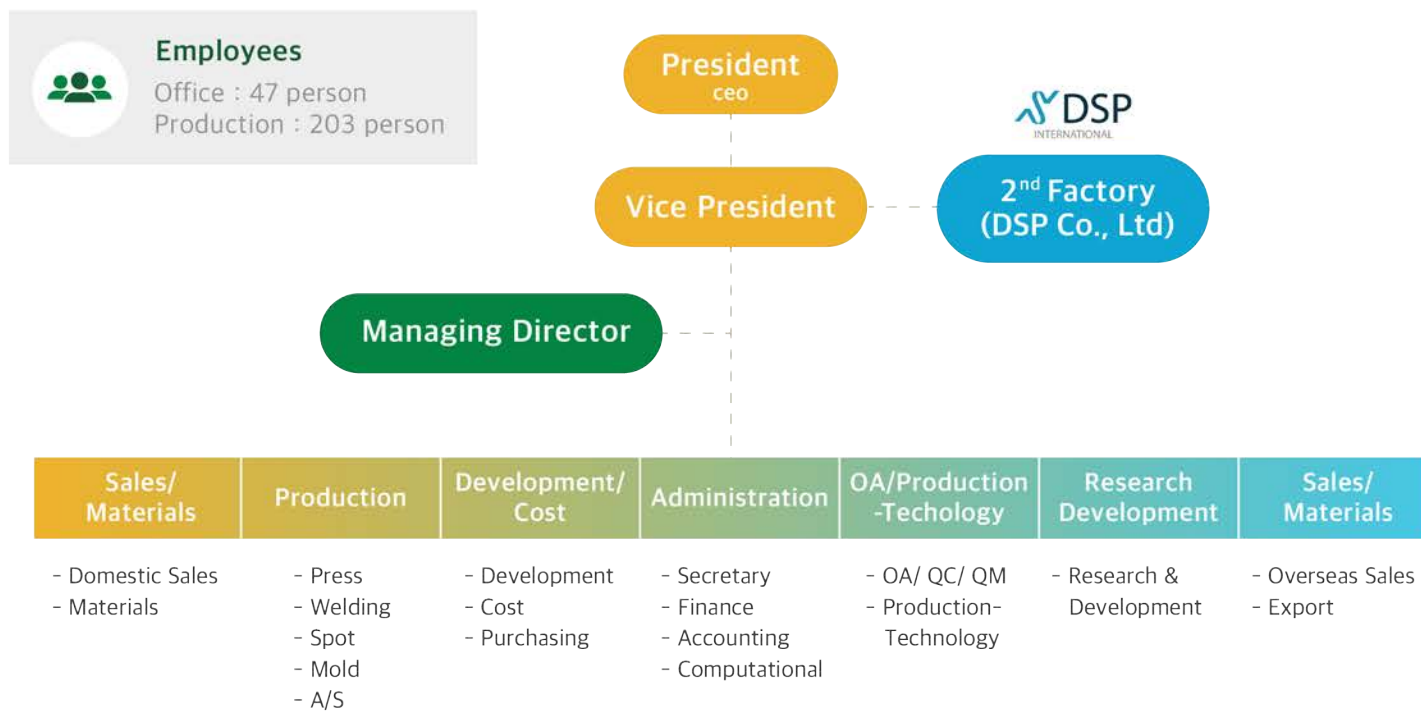
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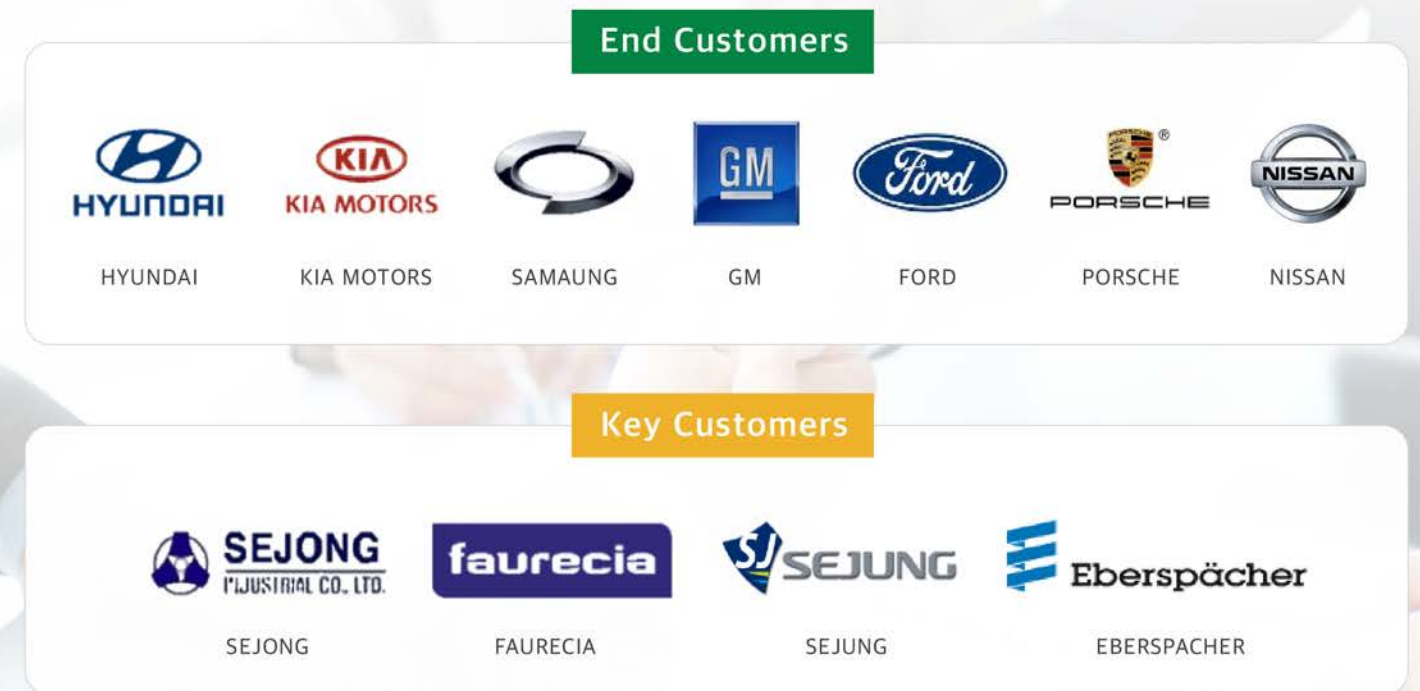
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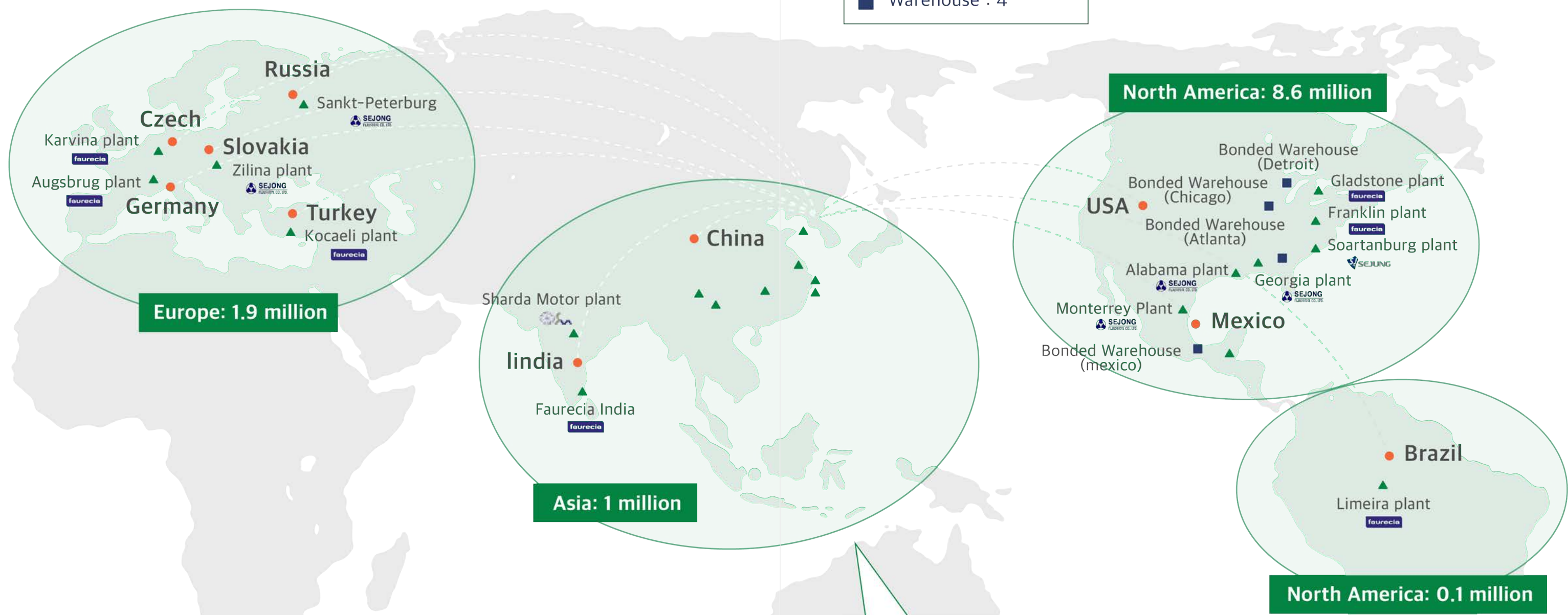
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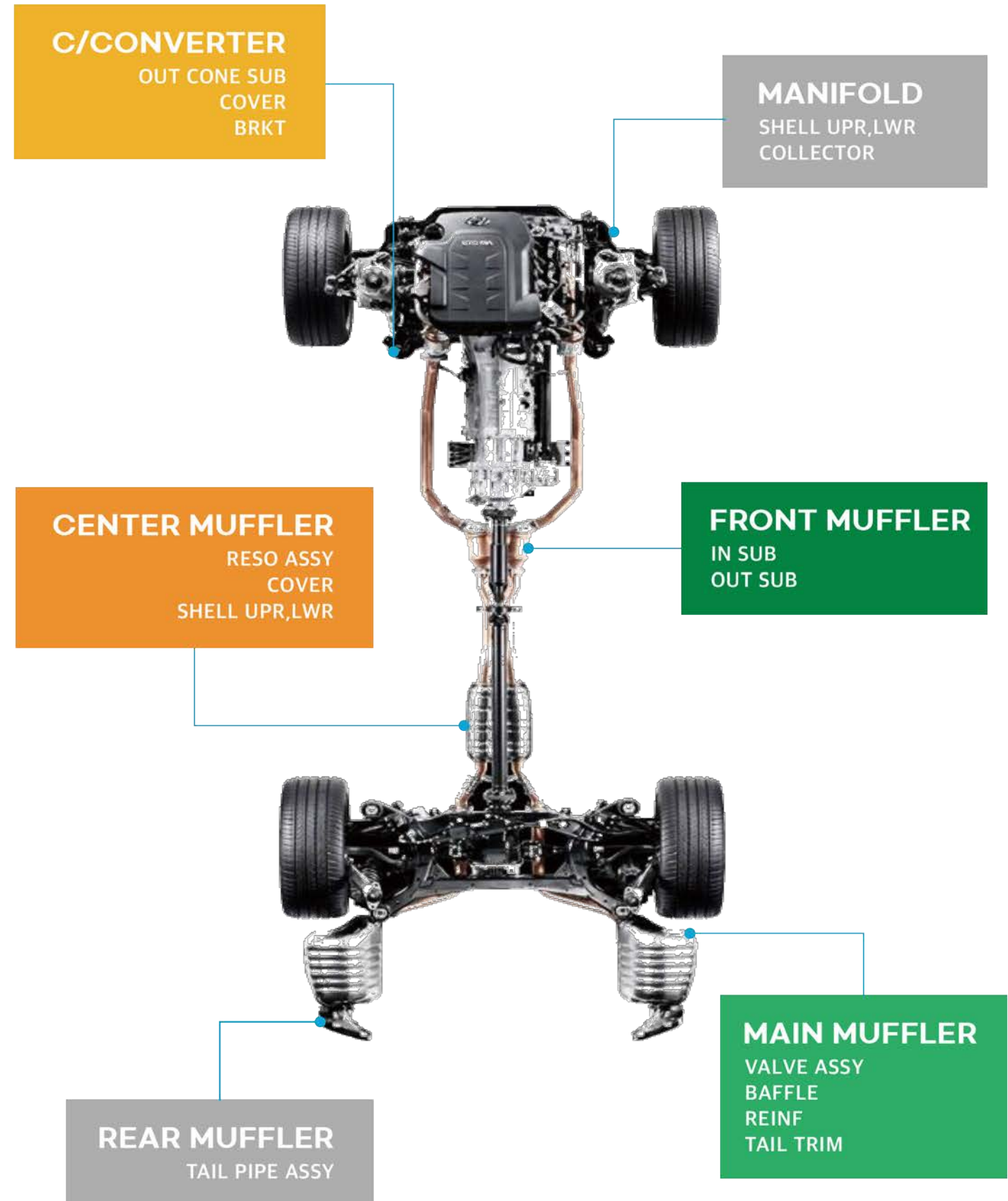
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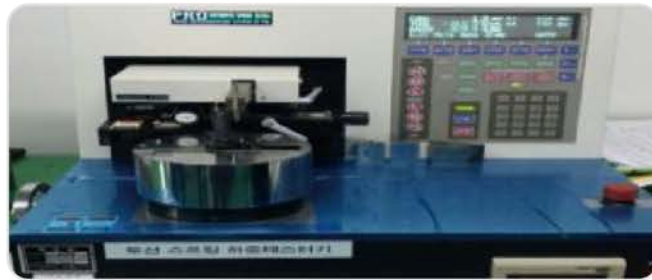
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