

WE MAKE YOU DRIVE BETTER

KYUNG CHANG BROCHURE

 **KC**INDUSTRIAL



» WE MAKE YOU DRIVE BETTER

Reliable Company with Over 60 years of Experience and Continuous Growth

Taking Leadership in the Era of Changes,
Kyung Chang Industrial will Achieve the Goal of One-hundred
years of Business through Sustainability Management.

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» KCI AT A GLANCE

ABOUT KYUNG CHANG

Company Overview

Founded in 1961, Kyung Chang Industrial has been constantly challenging itself as a leading manufacturer of automotive parts beyond borders, languages, and cultures. More than 1,400 employees continue to innovate today to contribute to the success of OEM customers with outstanding technology and manufacturing capabilities.

FOUNDATION

October, 1961

HEADQUARTER

Daegu,
Republic of Korea

ANNUAL PRODUCTION

60,000,000 UNIT

ANNUAL SALES REVENUE

USD 615M
(Consolidated sales in 2022)

KCI PRODUCT LINE-UP

① CHASSIS SYSTEMS



② POWERTRAIN COMPONENTS



③ ELECTRIC MOTORS & COMPONENTS



HISTORY

2023	<ul style="list-style-type: none"> Established North America Incorporation Newly Constructed Mexico Plant
2022	<ul style="list-style-type: none"> HMG Supplier of the Year Grand Prize
2021	<ul style="list-style-type: none"> Excellence in New Technology Grand Prize (HMG R&D Techday) Newly Constructed Electrification plant; Started to Produce Electric Motors
2020	<ul style="list-style-type: none"> Completed Smart Factory System
2017	<ul style="list-style-type: none"> Newly Constructed Chassis Plant
2013	<ul style="list-style-type: none"> Newly Constructed 2nd Powertrain Plant Selected as a Korean Hidden Champion by the KOREA EXIM Bank
1994	<ul style="list-style-type: none"> Initial Public Offering on the KOSDAQ
1972	<ul style="list-style-type: none"> Started Producing Automotive Parts
1961	<ul style="list-style-type: none"> Foundation

» CHASSIS SYSTEMS

SHIFTERS PEDALS CABLES & SYSTEMS

Kyung Chang Industrial supplies Shifters, Pedals and Cables based on mechanism & software design capabilities.

We also provide total solutions from product design, production, verification to quality management.



SHIFTERS ⓘ

E-SHIFTER | AT LEVER | MT LEVER



PEDALS ⓘ

ACCELERATOR PEDAL MODULE |
BRAKE PEDAL | CLUTCH PEDAL



CABLES & SYSTEMS ⓘ

MPR CABLE & HANDLE |
SUNROOF CABLE | CONTROL CABLES



E-Shifter Promotional Video



Foldable Pedal Promotional Video

>> CHASSIS SYSTEMS

SHIFTERS

MAIN PRODUCTS

KEY HIGHLIGHTS

- Provide Customized Operating Feel
- Functional Safety [ISO26262 (ASIL 'B')]
- Communication Protocol: CAN, CAN-FD
- Position Detection Sensor: Hall IC (SPI, ADC, PWM)
- AUTOSAR (V4.X.X)
- Software Verification
- Secured Excellent Commonization
- Applied Aesthetic Mood Light Technology
- A-SPIICE Level 2

PRODUCT LINE-UP

E-SHIFTERS

AT LEVERS

MT LEVERS

PRODUCTION CAPACITY

3.44 million units / year

[▶ E-Shifter Promotional Video](#)

E-SHIFTER (Dial Type)



- Dial (R-Nr-Null-Nd-D) + Button (P)
- 1 Stable - 5 Position
- RGB LED Ambient Light (Mood Light)

E-SHIFTER (Column Type)



- Rotary (R-Nr-Null-Nd-D) + Button (P)
- Rotary / Button Position : Use Hall IC
- CAN FD + CAN (Back up)
- Lights for Each Position (P/R/N/D)

AT LEVER



- Pattern (P-R-N-D-M-+/-)
- Lever Position : Uses Cable (Manual)
- Minimized Customer Burdens by Applying Common Core Type
- Realize Better Sense of Operation that Satisfies Customer Needs

E-SHIFTER (Lever Type)



- Stick (R-N-D) + Button(P, P_Release)
- Unlock Button at Knob Side
- Lights for Each Position (Backlight + Indicator)
- PRA (Park Release Actuator) Control

E-SHIFTER (Button Type)



- P/R/N/D Gate with Buttons
- Detects Output Values of the Contact Signal of Buttons
- Lights for Each Button (Backlight + Indicator)

MT LEVER



- Pattern (R-1-2-3-4-5-6)
- Lever Position : Uses Cable (Manual)
- Applied R-Gear Malfunctioning Blocker (Pull Up Type)
- Shift Blocker Prevents 1/2 Shift During High Speed Driving (Electric Solenoid + Magnet)
- Integrated Rear Duct Maximizes Space Utilization

» CHASSIS SYSTEMS

SHIFTERS FOR FUTURE MOBILITY

UNIQUE DESIGN (E-SHIFTER)

KCI recently completed prior design for E-shifter equipped with functionality and aesthetics. Also, it is in line with the near future vehicle interior trend of major OEMs.



E-SHIFTER (DIAL TYPE)
UNIQUE DESIGN A



E-SHIFTER (DIAL TYPE)
UNIQUE DESIGN B



E-SHIFTER (DIAL TYPE)
UNIQUE DESIGN C



E-SHIFTER (COLUMN TYPE)
UNIQUE DESIGN A



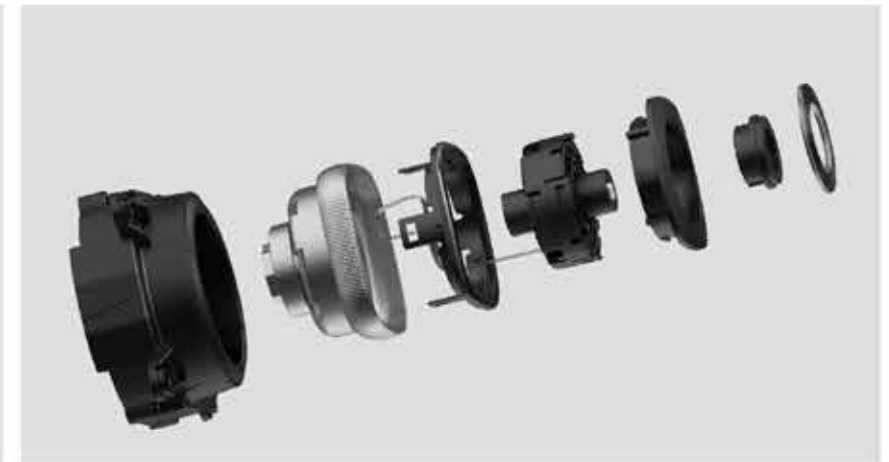
E-SHIFTER (COLUMN TYPE)
UNIQUE DESIGN B



E-SHIFTER (COLUMN TYPE)
UNIQUE DESIGN C

Meet KCI's Diverse Design for E-Shifters

We propose & provide the most optimized E-shifters products to fully satisfy your requirements



>> CHASSIS SYSTEMS

PEDALS

MAIN PRODUCTS

KEY HIGHLIGHTS

- Optimized Product Size
- Provide Customized Operating Feel that Meets Customer Needs
- Position Stroke Sensor: Inductive, Hall IC (Analog, PWM)
- Provide Design Optimization to Meet Target Weight
- Constant Efforts to Reduce Manufacturing Costs
- Excellent Commonization Design
- Own Original Technologies for Each Product

PRODUCT LINE-UP

ACCELERATOR PEDAL MODULES

BRAKE PEDALS

CLUTCH PEDALS

PRODUCTION CAPACITY

2.30 million units / year

[▶ Foldable Pedal Promotional Video](#)

ACCELERATOR PEDAL MODULE (Floor Type)



- Applied Contactless Sensor
- Hysteresis Friction Structure Design to Reduce Driver Fatigue
- Provide Customized Operating Feel that Meets Customer Needs

BRAKE PEDAL (ALL-IN-ONE Type)



- Applied Tubular Arm for Weight Reduction
- All-in-one Press Member
- Developed and Applied Stop Lamp Switch
- Applied Brake Position Sensor for HEV and EV

CLUTCH PEDAL (Hydraulic Type)



- Injection Arm • All-in-one Injection Member
- Applied Integrated Switch (Clutch S/W, Ignition S/W)
- Provide Customized Operating Feel that Meets Customer Needs
- Able to Handle the Changes in Operating Feel Per Different Engine Output

ACCELERATOR PEDAL MODULE (Pendant Type)



- Applied Contactless Sensor
- Hysteresis Friction Structure Design to Reduce Driver Fatigue
- Applied Plastic Arm

BRAKE PEDAL (Injection Type)



- Applied Tubular Arm for Weight Reduction
- All-in-one Injection Member

E-CLUTCH PEDAL



- Applied CBW (Clutch By Wire) Pedal • Applied Plastic Arm
- All-in-one Injection Member
- Applied Clutch Position Sensor
- Implementation of Pedal Operating Force Equivalent to Hydraulic Clutch System
- Applied to the Mass-produced Car Models for the First Time in Korea

» CHASSIS SYSTEMS

PEDALS FOR FUTURE MOBILITY

FOLDABLE PEDAL

Kyung Chang Industrial suggests new technologies to global OEMs with proactive research & development on future mobility trends.



- Extra legroom space
- Prevent Driver leg injury in an accident
- Reduce vibration and noise by separating it from IEB (Integrated Electronic Brake)
- Easy to design pedal location - no hydraulic pipe



>> CHASSIS SYSTEMS

CABLES & SYSTEMS

MAIN PRODUCTS

KEY HIGHLIGHTS

- Provide Customized Operating Feel that Meets Customer Needs
- Design Capability Applied to Various Systems, Extensive Manufacturing Technology and Evaluation Experience
- Excellent Communization Design, Easy Installation and Design Considering After Service
- Operation Structure Optimized for Vehicle Layout
- Selection of Material and Structure Design Considering Elasticity of Material
- Design and Manufacturing Capabilities of Products with Functions of Releasing Emergency Measure and Transmitting Power in Electrification System

PRODUCT LINE-UP

MPR CABLES
SUNROOF CABLES
CONTROL CABLES

PRODUCTION CAPACITY

1.92 million units / year

MPR CABLE & HANDLE



- Manual Parking Release Handle & Cable
- Applied SBW (Shift by Wire) System
- Battery Discharge Light I Release Gear P in case of ISO2 Emergency
- Applied Lost Motion Device (LMD) to Natural Driving Mode
- Pull-Pull Type in Handle Operating Part

HOOD • TRUNK LID • FUEL FILLER CABLE



- Molding, Caulking & Swaging Type
- Applied END D/C

CABLE & LEVER SYSTEMS (AT • MT)



- One-Touch Socket
- Prevent EYE EBD Reverse Assembly and Adjust Structure

CABLE & LEVER SYSTEMS (PARKING)



- Materials Reflect Elastic Deformation Regulation

SUNROOF CABLE



- Applied YAN Specification
- Applied END | INSERT Molding

DOOR LATCH CABLE



- Enhance Separation Force
- Improved Operation Feel due to No-load Sliding Resistance

» POWERTRAIN COMPONENTS

STAMPED PARTS SPLINE FORMED PARTS WELDED PARTS

Powertrain components applied to AT, DCT, CVT and AWD.
With world-class metal forming technology,
it guarantees high precision and low defectability.



ROTOR



SHAFT



CARRIER



CARRIER



DISC BRACKET



PISTON



THRUST RING



PISTON

» POWERTRAIN COMPONENTS

HUB, DRUM, ROTOR & CARRIER ASSEMBLIES

MAIN PRODUCTS

KEY HIGHLIGHTS

- Implement Highly Reliable Feasibility Study from the Early Sourcing Phases Based on the Accumulated Experience and Data
- Propose Optimized Process per Product Characteristics (Roller-die Forming · Roll Forming · Flow Forming · Cold Forming · Helical Broaching)
- Reliable Development Capability Proven by Multiple Project Experience with Global OEMS (26 Project, 153 Powertrain Components)

PRODUCT LINE-UP







STAMPED PARTS

SPLINE FORMED PARTS

WELDED PARTS

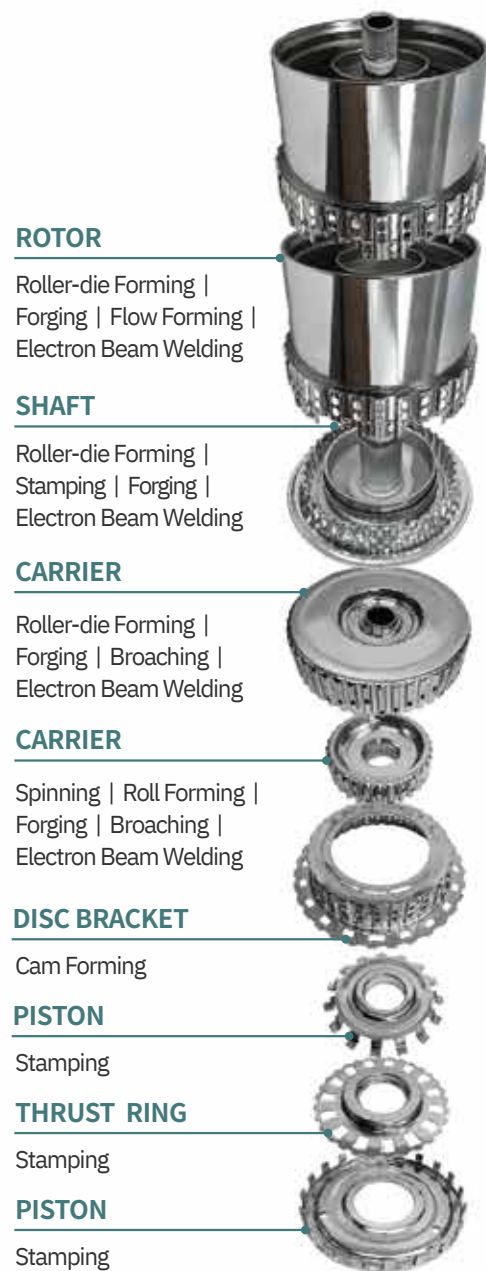
PRODUCTION CAPACITY

41 million units / year

AT		DCT	
Carrier Assembly  <ul style="list-style-type: none"> • Material: SAPH440 · SCr420H1 • Engineering: Multi-tasking Turning EB Welding 	Retainer Assembly Clutch  <ul style="list-style-type: none"> • Material: SAPH440 · SCr420HB • Engineering: Multi-tasking Turning 	Rotor Assembly  <ul style="list-style-type: none"> • Material: S355MC · 16MnCr5 • Engineering: Flow Forming, EB Welding 	Housing  <ul style="list-style-type: none"> • Material: SPFH540 • Engineering: Roller-die Forming
CVT		AWD	
Retainer Assembly Clutch  <ul style="list-style-type: none"> • Material: SAPH440 · SCr420HB • Engineering: Roller-die Forming, EB Welding 	Piston Primary  <ul style="list-style-type: none"> • Material: SAPH440 • Engineering: Stamping 	Housing  <ul style="list-style-type: none"> • Material: SAPH440 • Engineering: Roller-die Forming 	Drum Clutch Assembly  <ul style="list-style-type: none"> • Material: SAPH440 · SCr420HB • Engineering: Roll Forming · EB Welding

» POWERTRAIN COMPONENTS

CORE TECHNOLOGY



41,000K capacity per year (59 units)

Electron Beam Welder

- Guarantee better quality with advanced process than traditional laser welding technique



27,000K capacity per year (6 units)

Roller-Die Forming

- Utilize transfer press equipment with up to 16 stations including spline shaping, and it is suitable for mass-production



12,500K capacity per year (22 units)

Roll Forming Cam Forming. Spinning

- It is suitable for small-volume production of many varieties and can reduce mold investment costs



1,000K capacity per year (6 units)

Flow Forming

- Widely applicable as it can handle shape that is difficult to implement through roll forming

» ELECTRIC MOTOR & COMPONENTS

ELECTRIC MOTORS

STATORS

ROTORS

As a leading Foundry Manufacturer, Kyung Chang Industrial assembles and produces electric motors, stators, and rotors that function of powertrain



ELECTRIC MOTOR 



STATOR 



ROTOR 



INVERTER 



POWER MODULE 



PE SYSTEM 



Electrification Promotional Video

>> ELECTRIC MOTOR & COMPONENTS

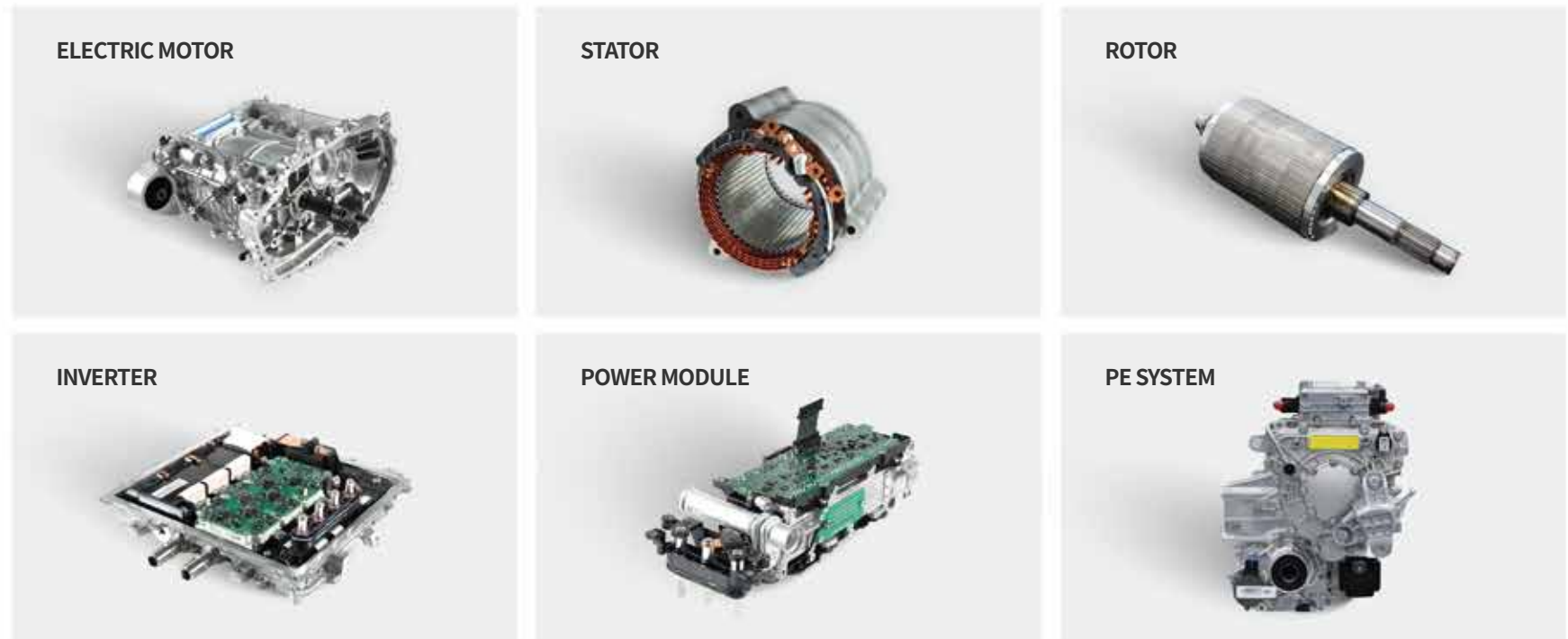
ELECTRIC MOTORS, STATORS, ROTORS

▶ Electrification Promotional Video

MAIN PRODUCTS

KEY HIGHLIGHTS

- Provide Optimized Process Design to Produce Products with High Speed · Torque · Efficiency Power Density
- Applied Automation for Core Processes to Secure Highest Quality (Electric Motor, End-Of-Line Test)
- Operate the Troubleshooting Process based on the Accumulated Data and Experiences

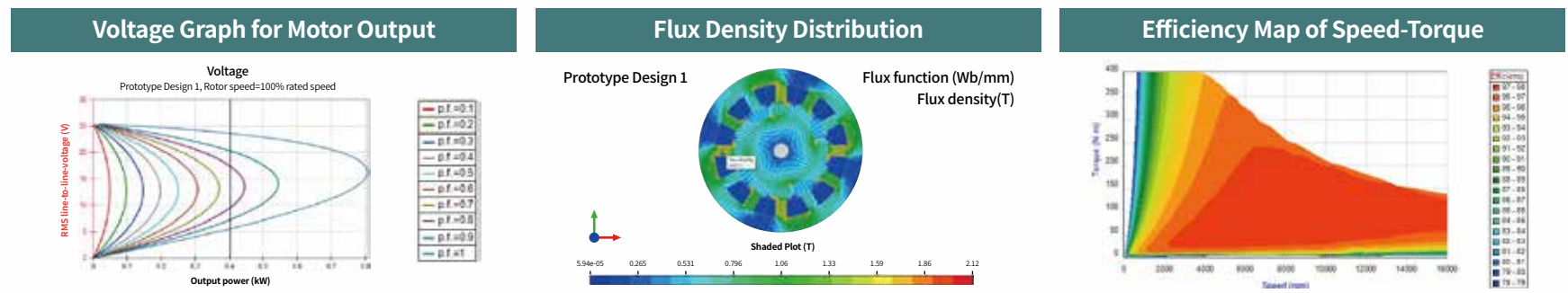


PRODUCT LINE-UP

ELECTRIC MOTORS
STATORS
ROTORS

PRODUCTION CAPACITY

500,000 units / year



- Secured Operating Experience and Know-how of Global Top 3 Hairpin Forming Production Line
- Improvement Suggestions: 228 Improved Cases for Recent 2 Years
- Counterproposals for Quality Improvement are Possible Based on a High Understanding and Interpretation of the Motor

» R&D

R&D AT A GLANCE

Innovation for a Better Future

Secured Own Technologies through Bold R&D Investment and Professional R&D Organization

Highly Skilled R&D Workforce

53% of all R&D Personnel have more than 10 years of experience

53%



Development Capability

Continuous New Technology Development

- Advanced Technologies for Electric & Autonomous Vehicles
- Patent Acquisition: 217



Period of Continuous Service



Design Customization

- OEM Customized Design Review and Detailed Modeling



3.5%

Proportion of R&D Investment during the past 3 years ↑

to Chassis Systems Business Sales

2020 2022

YEARS	PROPORTION
● Above 10~19 years	44%
● Above 20 years	9%

● Above 10~19 years	44%
● Above 20 years	9%

» ESG

ESG MANAGEMENT

Sustainable Partner

KCI Serves as a Sustainable Partner for Customers by Actively Practicing ESG Management

Environmental

- Rejecting the use of Conflict Minerals (Conflict Minerals Compliance)
- Compliance with EU REACH
- Carbon Neutrality
 - Efforts to reduce carbon emissions through solar powergeneration
- Power Generation Business License



Social

- Contributing to Community Growth (Promoting youth employment, Support for vulnerable groups, Blood donation, Employment of vulnerable people and other initiatives)
- Certified for Youth Employment Promotion
- Certified as an Employment-Friendly Company
- In-House Volunteer Club (Kyung Chang C&S)
- Promote Employee Welfare (Invite employee families and take a factory tour, offer Souvenirs, Support club activities)



Governance

- Award for a Company with Excellent Labor-Relations Management
- Strengthen Transparent Management and Maximize Shareholder return by Establishing a New Internal Accounting Team in 2022
- External Consulting to Enhance Reliability of Internal Accounting (with Deloitte, in progress)



Renew Certificates Every year

- **SAQ 5.0** : A sustainability standard utilized by major OEMs and Tier1s in the automotive industry
- **Eco Vadis** : A sustainable platform that evaluates supplier environmental and social performance

» LOCATIONS

GLOBAL NETWORK



1 NORTH AMERICA

KCUSA

- Sales / R&D Center in Detroit

KCIMX

- Chassis Plant in Nuevo Leon, Mexico

P.P.I. Caster Inc

- Sales Office in L.A.

2 INDIA / INDONESIA

Moonlight

- Technical Partnership Agreement in India

Trimitra

- Technical Partnership Agreement in Indonesia

3 CHINA

KE-AUTO

- Cables Plant in Zhejiang
- Cables Plant in Guizhou

KC-TECH

- Shifters & Pedals Plant in Jiangsu

4 SOUTH KOREA

KCI

- Headquartered in Daegu
 - Chassis Plant
 - 2 Powertrain Plants
 - Electrification Plant

KCP

- Precision Press Plant in Daegu

» LOCATIONS

PRODUCTION SITE (KOREA)

 [KCI Website](#)
 [KCI LinkedIn](#)

SALES & TECHNICAL INQUIRY

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KCI - CHINA

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- +86 188-5841-1599
- hz_yin@keauto.cn
- yhc0402@kc.co.kr



HEADQUARTER

- **AREA** : 45,998m²
- **LOCATION** : 6, Seongseo-ro 35-gil, Dalseo-gu, Daegu
- **MAIN PRODUCTS** : Powertrain Components



HYUNPOONG PLANT

- **AREA** : 66,113m²
- **LOCATION** : 2, Techno Jungang-daero 1-gil, Yuga-eup, Dalseong-gun, Daegu
- **MAIN PRODUCTS** : Powertrain Components



CHASSIS PLANT

- **AREA** : 48,781m²
- **LOCATION** : 57, Techno sunhwan-ro 1-gil, Yuga-eup, Dalseong-gun, Daegu
- **MAIN PRODUCTS** : Shifters / Pedals / Cables and Gear Actuators



ELECTRIFICATION PLANT

- **AREA** : 49,498m²
- **LOCATION** : 10, Techno sunhwan-ro 7-gil, Yuga-eup, Dalseong-gun, Daegu
- **MAIN PRODUCTS** : Electric Motors and Components for Electric Vehicles

