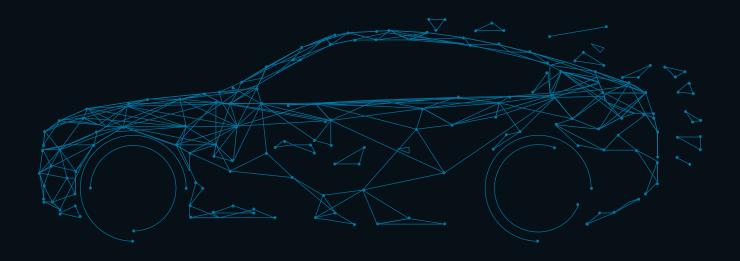
KOREA FUEL-TECH CORPORATION







Specializing in eco-friendly automotive fuel system parts and interior trim parts, Korea Fuel-Tech Corporation (KFTC) is leading an era of sustainability in the global automotive industry.

Driving the automotive industry toward a sustainable future

CONTENTS

03

Introduction

- ·Contents
- · Company Overview

06

Products & Solutions

- · Fuel System Parts
- · Interior & Exterior Parts
- · ADAS
- · Mobile Entertainment

14

Our Driving Force

- · R&D Center
- · Test & Validation
- · Manufacture & Supply
- · Global Network

COMPANY OVERVIEW

KFTC has enhanced its competitiveness with technology and quality recognized not only in Asia but also across global markets including Europe and North America, in line with the realignment of the global automotive industry.

Global Network



(5 domestic, 9 overseas)

Founded



Number of Employees (Total 2177, as of 2023)



KOREA 24%



CHINA 10%



INDIA 14%



POLAND 31%



SLOVAKIA **19**%



Current Patent Holdings (As of 2023)



KOREA 41



CHINA 6



EUROPE



JAPAN



Annual Production Capacity (in millions)



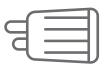


8.6



Trim Parts 29.2

Revenue Share by Major Product



Carbon Canister 42%



Plastic Filler Neck 14%



Trim Parts 35%



9%

Global Partners

Product	Partners
Carbon Canister	Hyundai Motors, Kia, GM Korea, Renault Korea Motors, Ssangyong Motors, Volkswagen, General Motors, Geely, Volvo, Renault, Nissan, Porsche, CHJ Automotive, Lynk&Co, Hozon, Hyundai Mobis
Plastic Filler Neck	Hyundai Motors, Kia, GM Korea, Renault Korea Motors, Ssangyong Motors, General Motors, Renault-Nissan, Hyundai Mobis
Trim Parts	Hyundai Motors, Kia, Ssangyong Motors, Volkswagen, Skoda, BAIC Motor, Hyundai Kefico, Hyundai Mobis







































PRODUCTS & SOLUTIONS

KFTC is making active efforts to create higher added value against the backdrop of the rapidly changing automotive parts industry and is garnering attention as a company with an even brighter future by pursuing cooperation with prominent firms in each sector.

Advanced Driver Assistance System

- · Vehicle Collision Warning
- · Pedestrian Detection
- · Lane, Traffic Sign/Light Recognition

Sunshades

- ·Sunshade
- · Door Curtain

Interior Parts

- · Pillar Trims (Front, Center, Rear)
- · Floor Console
- · Glove Box
- · Luggage Board
- · Connection Duct







Fuel System Parts

- · Carbon Canister
- · Plastic Filler Neck

Exterior Parts

- · Radiator Grille
- · Bumper Grille
- · Skid Plate

Air Intake & Exhaust System

· Air Intake Hose

Mobile Entertainment

· Virtual Image Monitor

FUEL SYSTEM PARTS

Carbon Canister

A major component of the evaporative emission control system within the fuel systems of internal-combustion engines (ICE) and electrified gasoline vehicles, the carbon canister absorbs hydrocarbon gas generated by the fuel tank during parking, driving or refueling to limit atmospheric emissions and re-ignites the gas by using the air flow (purge) caused by negative intake pressure when the engine is running.

- KFTC holds a dominant position in the domestic market, and 9% of global market share.
- Developed the world's first heated canister for hybrid vehicles: Registered Korean and US patents / Filed for Chinese and US patents
- Developed to meet global environmental regulations and certification evaluations, such as North American environmental regulations (LEV-III) and EEC environmental regulations (EURO-6d)



PHEV LEV-3 / Tier-3 (North America)

- Used in HEV vehicles sold in North America
- Integration of ELCM parts for OBD2 fuel system evaporative leak diagnosis



HEV LEV-3 / Tier-3 (North America)

- Used in HEV vehicles sold in North America
- Integration of ELCM parts for OBD2 fuel system evaporative leak diagnosis



LEV-3 / Tier-3 (North America)

- Used in gasoline-powered vehicles sold in North America
- Meets CARB LEV3 and EPA Tier-3 environmental regulations
- Diurnal Bleed Emission Test: 300 mg or less/test



KLEV3 (South Korea)

- Used in gasoline vehicles sold in Korea
- Meets KLEV-3 environmental regulations enforced by the Ministry of Environment
- Diurnal Bleed Emission Test: less than 350 mg/test



EURO-6 (Europe)

- Used in gasoline vehicles sold in Europe
- Meets EURO-6d environmental regulations enforced by the EEC
- Diurnal Bleed Emission Test: less than 2.0g/test



CHINA-6 (China)

- Used in gasoline vehicles sold in China
- Meets China-6 environmental regulations
- Diurnal Bleed Emission Test: less than 700 mg/test

Plastic Filler Neck & Air Intake Hose

A flow pipe from a fuel inlet to a fuel tank, the lightweight plastic filler necks help improve fuel efficiency and reduce air pollution.

- As the largest manufacturer of plastic filler necks in Korea, KFTC supplies plastic filler necks to all five domestic automakers.
- Based on the experience and know-how stemming from mass-production for a wide range of customers since 1993, KFTC carries out the entire design-development-verification process 100% in-house.
- Manufacturing technology that meets varied customer requirements : emission regulations, warranty extensions, fuel types
- Superior fuel efficiency achieved by using lightweight plastic materials
- Asia's first 3D suction blow molding method
- Continuing technological innovations in compliance with strengthened HC emissions standards: Multi-layer technology, Urea plastic filler neck, PA6+NANO material



Mono-layer Filler Neck

- Improved performance and durability compared to plastic filler necks with corrugated pipes



Multi-layer Filler Neck

- The multi-layer structure provides outstanding gas barrier properties



Urea Filler Neck

- Used in SCR system responding to the strengthened environmental regulations (NOx)
- Superier durability and corrosion resistance to diesel exhaust fluid



PA6+ Nano Filler Neck

- Newly developed PA6+NANO material with excellent evaporative emissions barrier properties compared to the PA6 MONO-LAYER model



Capless & MFI Filler Neck

- Prevents misfuelling into a diesel-powered vehicle
- Convenient capless system enables drivers to release the door and immediately insert the fuel nozzle



Air Intake Hose (*Part of Air Intake & Exhaust System)

- Transfers the filtered air from the air cleaner to the throttle body or turbocharger
- Absorbs vibrations generated during engine rolling



INTERIOR & EXTERIOR PARTS

Interior Parts

Automotive parts that ensure the safety of the driver and passengers, and increase convenience by providing storage space inside the vehicle, as well as air conditioning and heating systems.

ATUR

- Designed to improve the interior aesthetics of the vehicle
- \bullet A product line-up produced by European subsidiaries in Poland and Slovakia



Front Pillar Trim

- Attached to the section connecting the floor and roof of the vehicle body



Center Pillar Upper & Lower Trims

- Attached to the section connecting the floor and roof of the car body



Rear Pillar Trim

- Attached to the section connecting the floor and roof of the car body



uggage Board

- Loading space installed inside the trunk of an RV/SUV



Floor Console

- Storage space that increases driver convenience and manipulability



Glove Box

- Storage space that enhances passenger convenience



Connection Duct

- Delivers air discharged from the heater unit to the vehicle interior

Sunshades

Sunshades provide convenience and comfort to vehicle occupants by blocking sunlight, ensuring privacy, and securing greater driving safety by preventing obstructions to visibility stemming from the headlights of vehicles following behind.

1 2 2

- First in Korea to develop and produce vehicle awnings
- Holds numerous Korean and international patents.
- A product line-up that can be produced by subsidiaries overseas



Sunshade (electric type)

- Switch method or automatic operation



Sunshade (manual type)



Door Curtain (manual type)

Exterior Parts

Automotive parts that are located on the exterior of the vehicle to improve pedestrian safety and the exterior image of the vehicle.

ATHRE

- Produced by local subsidiary in Slovakia
- A classy and sophisticated design that harmonizes with the exterior of the vehicle



Radiator Grille

 Ventilation duct that improves the cooling performance of engines and minimizes the influx and potential damage caused by external contaminants



Bumper Grille

 Ventilation duct that improves the cooling performance of engines and minimizes the influx and potential damage caused by external contaminants



Skid Plat

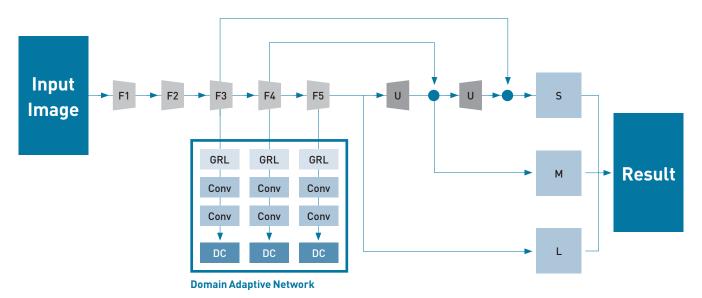
- Improves the exterior image and protects the underside of the vehicle

ADVANCED DRIVER ASSISTANCE SYSTEM (ADAS)

Vision-Based ADAS

The vision-based ADAS software algorithm using Al(artificial intelligence) and deep learning improves driving safety and convenience by detecting objects including vehicles, pedestrians, lanes, traffic signs and light. At the moment, we aim to enhance the accuracy and reliability of image sensing and object detection technology close to 100% both during the day and at night or at the harsh weather conditions.

- Technology that complements relatively weak nighttime data with daytime data by matching similarities in day and night data through domain adaptation
- In general, since differences in distribution exist between day/night data, the volume of nighttime data had to be increased to improve performance after dark. However, by customizing distribution charts, daytime data can be used to enhance nighttime performance.
- A pedestrian detection algorithm that remains reliable at night and in bad weather
- Diverse object detection and real-time processing possible



Network Flowchart

- Network for reliable object detection at night







Object Detection - Daytime

- Detection of multiple objects in the daytime driving environment

Object Detection - Nighttime using conversion algorithm (before and after)

 $- \\ In a dark environment, detection performance is improved through night video improvement algorithm$

MOBILE ENTERTAINMENT

Virtual Image Monitor

A personalized headset which allows users to enjoy the power of a whopping 300-inch extra-large screen to watch 2D/3D movies, surf the internet or read emails. It provides patented horizontal/vertical switchable videos.

- No dizziness: wide eye-box, long eye relief, distortion free
- High-definition display: no chromatic aberration, no distortion, excellent MTF
- Large screen portrait mode: 9:16 vertical input image ratio and resolution maintained, horizontal/vertical mode conversion patent registered
- User Interface: Horizontal/vertical mode switching, 2D/3D mode switching, screen brightness adjustment
- Support for various devices: PC, smartphone, Nintendo gaming console, HDMI game stick, etc.



Virtual Image Monitor (V300i)

- **Resolution:** 2160 x 2160 (active 1920 x 1080 / 1080 x 1920)
- Refresh rate: 60Hz
- Panel dimensions: 2.9inch x 2
- Virtual screen size: 300inch @8m
- Field of view: 51 degrees
- Eye relief: 24mm
- IPD adjustment range: 58 ~ 70 mm

- Power consumption: 6 watts
- Power supply: DC 5V, 2A
- Video/Audio Input: HDMI
- Audio output: 3.5mm audio jack
- **Size:** 165 x 80 x 83mm
- **Weight:** 410g



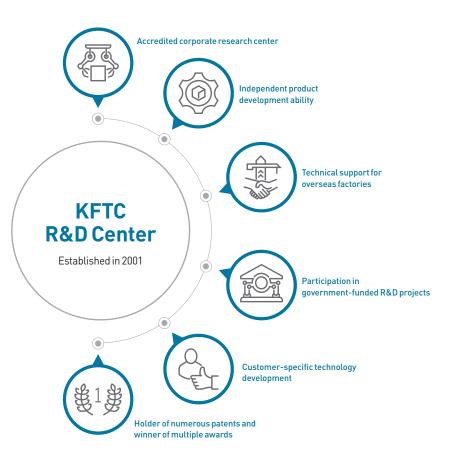


R&D CENTER

With its 20+ years' experience and 80+ engineering specialists, KFTC's R&D Center is committed to developing eco-friendly technology and achieving carbon neutrality in close collaboration with global automakers, through government-funded projects as well as its own independent R&D projects.

FEATURE

- Accredited corporate R&D center
- R&D Center established in 2001
- New Business Development Research Center established in 2014
- Recognized for its independent product development capabilities, KFTC's R&D
 Center has led independent projects for both Korean and global OEM automakers and
 participated in new model development from the initial development stage.
- Technical support extended to our overseas factories located in China, India, Poland, Slovakia, and the United States
- Participated in diverse government-funded R&D projects with the aim of developing energy-saving and eco-friendly parts to respond to changes in the automotive industry.
- Customer-centric product development to meet diverse needs: enhanced emissions regulations, extended warranty period, use of diverse fuel sources in the field
- Build technological entry barriers with numerous Korean and international patents and awards.





TEST & VALIDATION

Boasting a wide range of testing facilities, KFTC can handle 100% of the entire process in-house, such as CAE analysis and quality assurance, and can conduct self-evaluations of test items requested by our global customers.

FEATURE

In addition to Korean and international industry certifications and quality assurance certifications, KFTC's global business sites have also achieved high scores in supplier quality programs from customers such as GM Global, Renault Global, Volkswagen, Volvo, and Hyundai-Kia Motor Company.

CERTIFICATION

• Korea : IATF 16949, ISO 14001, OHSAS & K-OHMS 18001, AEO

China : IATF 16949, ISO 14001, ISO 45001, ISO 9001
 India : IATF 16949, ISO 14001, ISO 45001, AEO
 Poland : IATF 16949, ISO 9001, ISO 45001
 Slovakia : IATF 16949, ISO 9001



Mini Shed

- Measures bleed emissions



Vibration Tester

- Ensures the parts function properly when exposed to different vibration loads



3D Measuring Machine

- Precisely measures the dimensions of parts



Thermal Shock Tester

- Evaluates the resistance of parts to rapid changes in temperature



MFI Durability Tester

- Tests the durability of mis-fuel inhibitor (MFI)



MANUFACTURE & SUPPLY

KFTC boasts automated processes and specialized facilities to meet the diverse needs of customers around the world. We pursue continuous quality improvements with the aim of achieving 100% customer satisfaction and a zero defect rate.

FEATURE

- Process automation
- Reduces cycle time by reassigning workers on the production lines.
- Relieves the physical workload on workers by utilizing robotic equipment.
- Universalization of production lines
- Increases flexibility and versatility to meet diverse demands of global customers.
- Lessons learned database
- The lessons learned database created during new vehicle development is shared by both the Korean and overseas subsidiaries to promote horizontal development of processes/customers/fields and prevent the occurrence of identical problems.
- Customer-first quality assurance
- In our Quick Response Quality Control (QRQC) system, all departments including the quality, sales, production, development, and materials departments work closely to respond quickly to urgent customer requests.



3D Blow Molding Machine

FILLER NECK PRODUCTION FACILITIES



Multi-layer Pipe Extruder



Spin Welding Machine

CANISTER PRODUCTION FACILITIES



Ultrasonic Welding Machine



Leak Tester

OUR DRIVING FORCE

GLOBAL NETWORK

To remain a step ahead in the global era, we operate 12 production plants, one research R R&D Center center, and two offices, centered around our global bases in six countries connecting Office Asia, Europe, and the Americas. More than 60% of KFTC's sales come from the overseas market as a result of our continuous localization strategy. POLAND • Zabrze P • Zory P KOREA • Seoul O • Pangyo O • Anseong PR • Gongdo P • Gyeongju P CHINA SLOVAKIA • Beijing P • Yancheng 🕑 • Rajec 🕑 • Chongqing P • Changzhou 🕑 USA • Auburn, AL P INDIA • Chennai (P SLOVAKIA USA KOREA CHINA INDIA POLAND • Plant: 3 • Plant: 4 • Plant : 1 • Plant: 2 • Plant : 1 • Plant : 1 • R&D Center: 1 • Office : 2 • Canister : 4.9 • Canister : 2.5 • Canister : 1.5 • Canister : 1.4 • Trim Parts: 5.9 • Canister: 0.3 • Filler Neck: 3.9 • Filler Neck : 1.8 • Filler Neck: 2.0 • Filler Neck: 0.9 • Trim Parts: 1.7 • Trim Parts: 3.1 • Trim Parts: 0.2 • Trim Parts: 18.4

P Plant

24 | 25

KFTC Korea

Main Facilities

→ vibration welding m/c, ultrasonic welding m/c, activated carbon filling m/c, leak tester, 3D blow molding m/c, extrusion blow molding m/c, injection molding m/c, single layer pipe extruder, multi layer pipe extruder, hot plate welding m/c, overmolding m/c, sunshade ass'y assembling m/c, pipe assembling m/c, noise & operation tester

Major Customers Certifications

- → Hyundai Motor Company, Kia, Hyundai Mobis, GM Korea, Renault Korea Motors, Ssangyong Motors
- → IATF 16949, ISO 14001, OHSAS & K-OHMS 18001, AEO



Anseong

- Year of Establishment: 1996
- Facility Size(Land/Floor Area): 9,663m²/6,613m²
- Major Products: plastic filler neck, intake hose



Gongdo

- Year of Establishment: 2013
- Facility Size(Land/Floor Area): 16,387m²/7,119m²
- Major Products: carbon canister, sunshade, ash tray



Gyeongju

- Year of Establishment: 2004
- Facility Size(Land/Floor Area): 8,971m²/4,703m²
- Major Products: carbon canister, plastic filler neck

KFTI India

Main Facilities

→ 3D blow molding m/c, extrusion blow molding m/c, injection molding m/c, activated carbon filling m/c, vibration welding m/c, over molding m/c, ultrasonic welding m/c, spin welding m/c, grease dispenser machine, pipe insert machine, sheet pipe ass'y machine,

fabric ass'y m/c, spring ass'y m/c, operating force test bench

Major Products → Major Customers →

→ carbon canister, plastic filler neck, door curtain
 → Hyundai Motor Company, Kia, Renault Nissan, Hwashin, Inergy, Bundy

Certifications

→ IATF 16949, ISO 14001, OHSAS & K-OHMS 18001, AEO







Chennai

- Year of Establishment: 2006
- Facility Size(Land/Floor Area): 14,093m²/8,770m²

BKFTC China

Main Facilities

→ 3D blow molding m/c, extrusion blow molding m/c, injection molding m/c, activated carbon filling m/c, vibration welding m/c, over molding m/c, ultrasonic welding m/c, spin welding m/c, door module panel, annealing m/c, lighting check, leak test, light distribution test, aluminum metalizing m/c

Major Products

→ carbon canister, plastic filler neck, washer reservoir tank ass'y, fuel tank baffle, reservoir cup, door module panel, latch, engine cover, cowl top, air guard, lipbumper, lamp part, intake manifold shell, interior parts

Major Customers Certifications

- → Hyundai Motor Company, Kia, Hyundai Mobis, GM, Volvo, Beijing Motors (BAIC), Lixiang Motors, Dongfeng Renault, Lynk&Co, Hozon
- → IATF 16949, ISO 14001, ISO 45001, ISO 9001



Beijing

- Year of Establishment: 2003
- Facility Size (Land/Floor Area): 24,000m²/10,500m²



Yancheng

- Year of Establishment: 2010
- Facility Size(Land/Floor Area): 33,138m²/16,810m²



Chongqing

- Year of Establishment: 2015
- Facility Size(Land/Floor Area): 66,000m²/8,000m²



Changzhou

- Year of Establishment: 2016
- Facility Size(Land/Floor Area): 15,000m²/5,400m²

KFTP Poland

Main Facilities

Maior Products

ightarrow 3D blow molding m/c, injection molding m/c, over molding m/c, vibration welding m/c, ultrasonic welding m/c, spin welding m/c

Major Products Major Customers

→ interior parts, carbon canister, plastic filler neck, blow parts
TS → Hyundai Motor Company, Kia, Hyundai Mobis, Renault, Volkswagen, Skoda, Porsche

Certifications → IATF 16949, ISO 9001, ISO 45001



Zabrze

- Year of Establishment: 2007
- $\textbf{-Facility Size(Land/Floor Area):} \ 35,041 \\ m^2/17,190 \\ m^2$



Zor

- Year of Establishment: 2010
- Facility Size (Land/Floor Area): $29,000 m^2/9,456 m^2$

KFTS Slovakia

Main Facilities

→ 2D blow molding m/c, injection molding m/c, vibration welding m/c, painting line - spray robot 3

Major Products

→ exterior parts (bumper parts), painted parts

Major Customers → Kia, Hyundai Mobis

Certifications → IATF 16949, ISO 9001







Rajec

- Year of Establishment: 2014
- Facility Size(Land/Floor Area): 30,600m²/10,636m²

KFTA USA

Planned

Auburn, TN

- Year of Establishment: 2022

CONTACT

KFTC

BKFTC → Beijing Plant

Yancheng Plant

KFTI

KFTS

KFTA