

MANN+HUMMEL

Corporate Introduction

MANN+HUMMEL KOREA
2023

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M+H Korea

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M+H Korea

Founded in
January 1941

Filterwerk
MANN+HUMMEL

Automotive
Original
Equipment



Automotive
Aftermarket



Water
Filtration



Industrial
Filtration



4,200 million €

million euros of sales revenue

2,500

Patent applications

Founders

Adolf Mann and
Dr. Erich Hummel

82 Years

Pioneers with inventive
genius

22,000

Employees

1,200

research and development
staff worldwide

5

continents

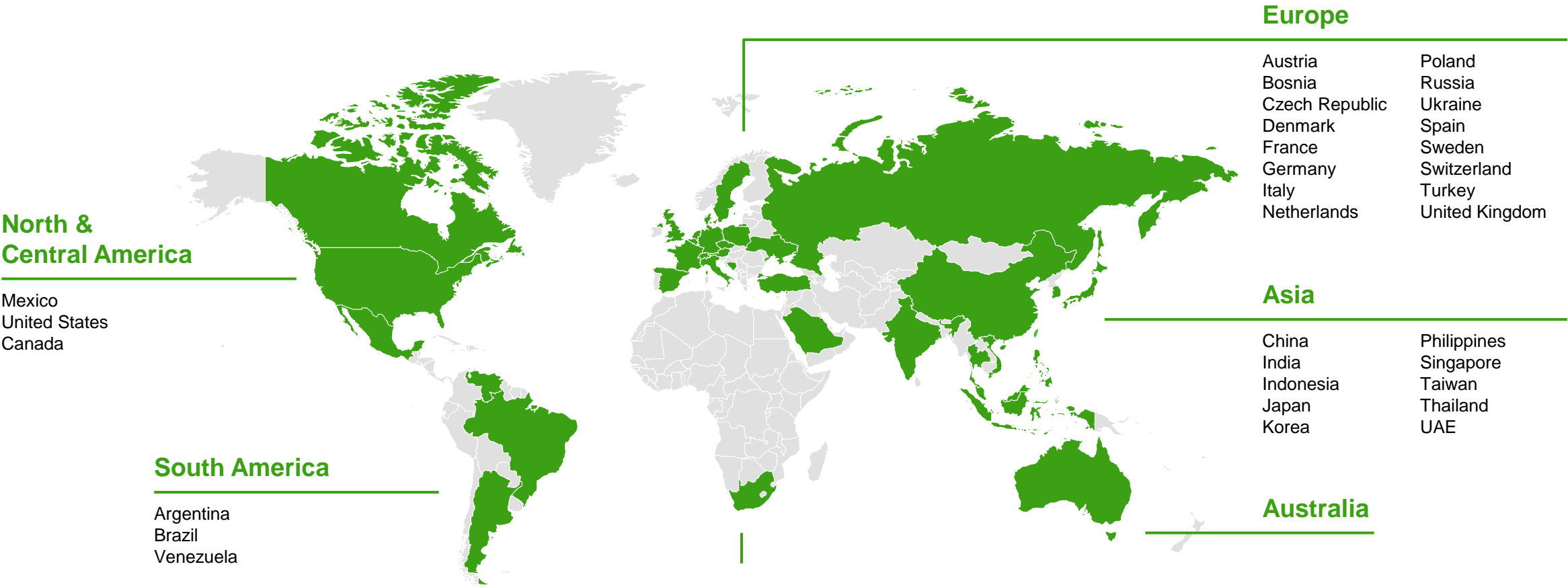
80

locations

MANN+
HUMMEL

MANN+HUMMEL worldwide

Global Presence - at more than 80 Locations



Inorganic Growth Acquisitions



MANN+HUMMEL

Selection of our Customers in Segment Heavy Duty & Industrial



Original Equipment Segments

Passenger Car



Heavy Duty & Industrial

On-Road



Off-Road



New Energy Vehicles

Product History

2010

First plastic battery frames for electric cars



2012

Air Dryer Cartridge for high voltage batteries



2012

Cooling Particle Air Filter for high voltage batteries



2013

Degassing unit for high voltage batteries



2014

Second generation of degassing unit for high voltage batteries with intrinsic safety



2016

Second generation of Air Dryer Cartridge for high voltage batteries



2016

Oil Filter for cooling and lubrication of E-Motor and gears



2017

Cabin Air Filter System with HEPA Filter for electric vehicles



2018

Oil Dryer for high voltage batteries



2018

Coolant Particle Filter for high voltage batteries



**MANN +
HUMMEL**

01

M+H Group

02

M+H Korea

Established in
January 1983

DongWoo Co.

40 Years

Pioneers with inventive
genius

263 Bil. KRW

Billion KRW of sales revenue
(2022)

50,000,000

Annual Production Capacity

Integrated in
April 2008

Mann+Hummel Korea Ltd

303

Employees(Current)

3

Locations

OEM
Customers

Hyundai-Kia
GMK
RSM
SsangYong
HD Hyundai

Main Products

Oil Filter, Fuel Filter,
Air Intake System,
Air Intake Manifold

LUFTFILTER
TUCHFILTER
ABSCHLEIFFILTER
ABSCHLEIFER
KOMBINATIONSFILTER
SAUGGERÄUSCHDÄMPFER

MANN+HUMMEL Korea – Location

GwangGyo Office(Sales)



GwangGyo, Suwon-si, GyeongGi-Do

MunMak HQ(Plant/R&D)

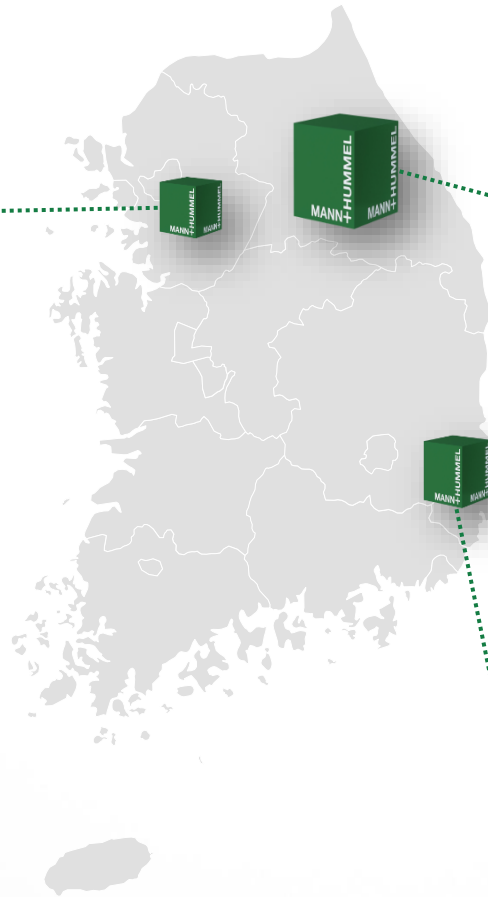


MunMak-Eup, WonJu-Si, GangWon-Do

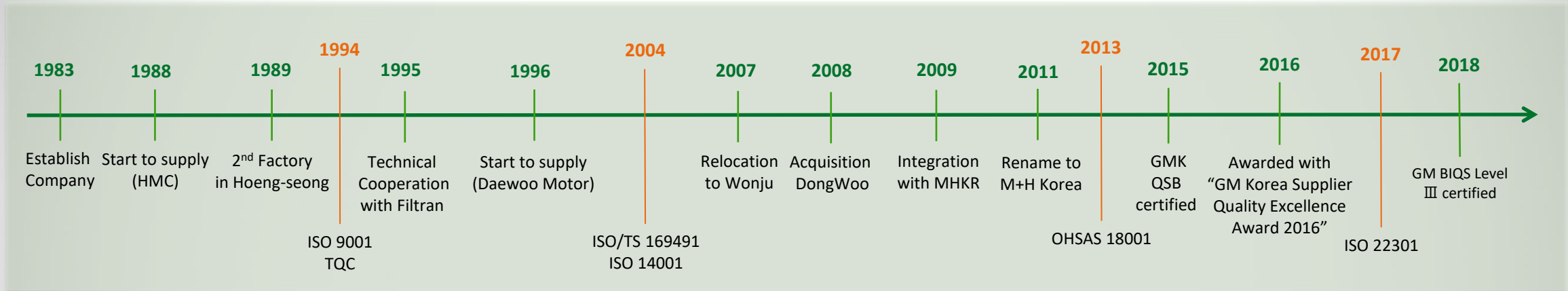
Ulsan Plant



HyoMun-Dong, Buk-Gu, Ulsan



MANN+HUMMEL Korea – History



1983

- Establish Company(Jan, 29th, 1983), start to supply Oil Filter and Fuel Filter to HMC
 ※Incorporation : Apr, 29th, 1988
- Establish 2nd Plant in Hoeng-Seong

1990

- Technical Cooperation with SPX Filtran in USA
- Start to supply to Daewoo Motor Co., Ltd

2007

- Award Bronze Tower Order of Industrial Service Merit
- Move the Head office (YongIn, Hoeng-Seong -> WonJu)

2008

- Majority shareholder changed to M+H Group
- Renamed as MANN+HUMMEL DongWoo Co., Ltd.(Aug. 29th)

2009

- MDKR & MHKR Integration(Aug, 1st)

2010

- HYUNDAI MOBIS selected MDKR as one of the top 10 Suppliers of the Year and awarded a trophy

2011

- Rename of the company(July, 1st)
 (MANN+HUMMEL Dongwoo Co., Ltd. → MANN+HUMMEL Korea Co., Ltd.)

2013

- Improved material warehousing system

2014

- Improved finished goods management system

2015

- Developed MFS system, Introduce Q-DAS & Tooling management system
- GMK QSB certified

2016

- Awarded with "GM Korea Supplier Quality Excellence Award 2016"

2017

- Transition audit for new IATF16949:2016 certified.
- ISO22301 certified

2018~

- GM BIQS Level III certified.

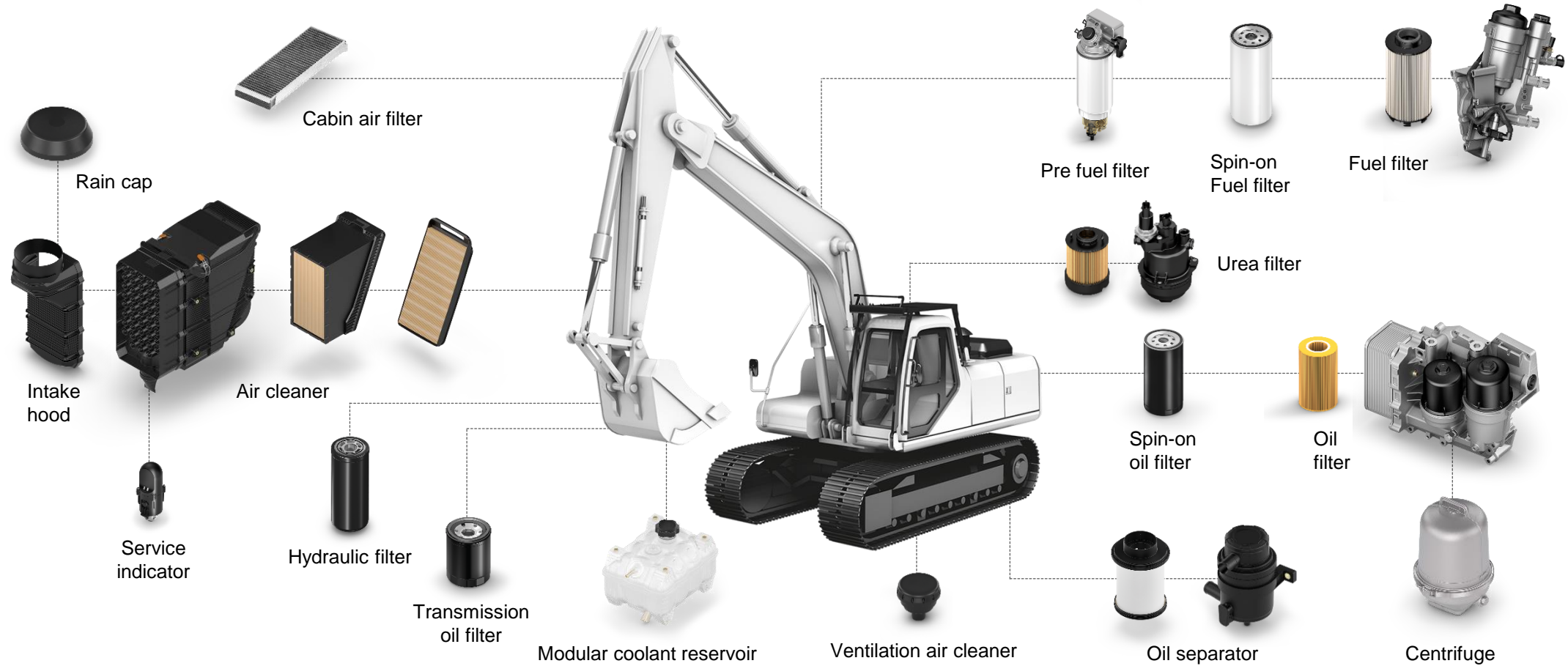
MANN+HUMMEL Korea – Customers

Major Customers

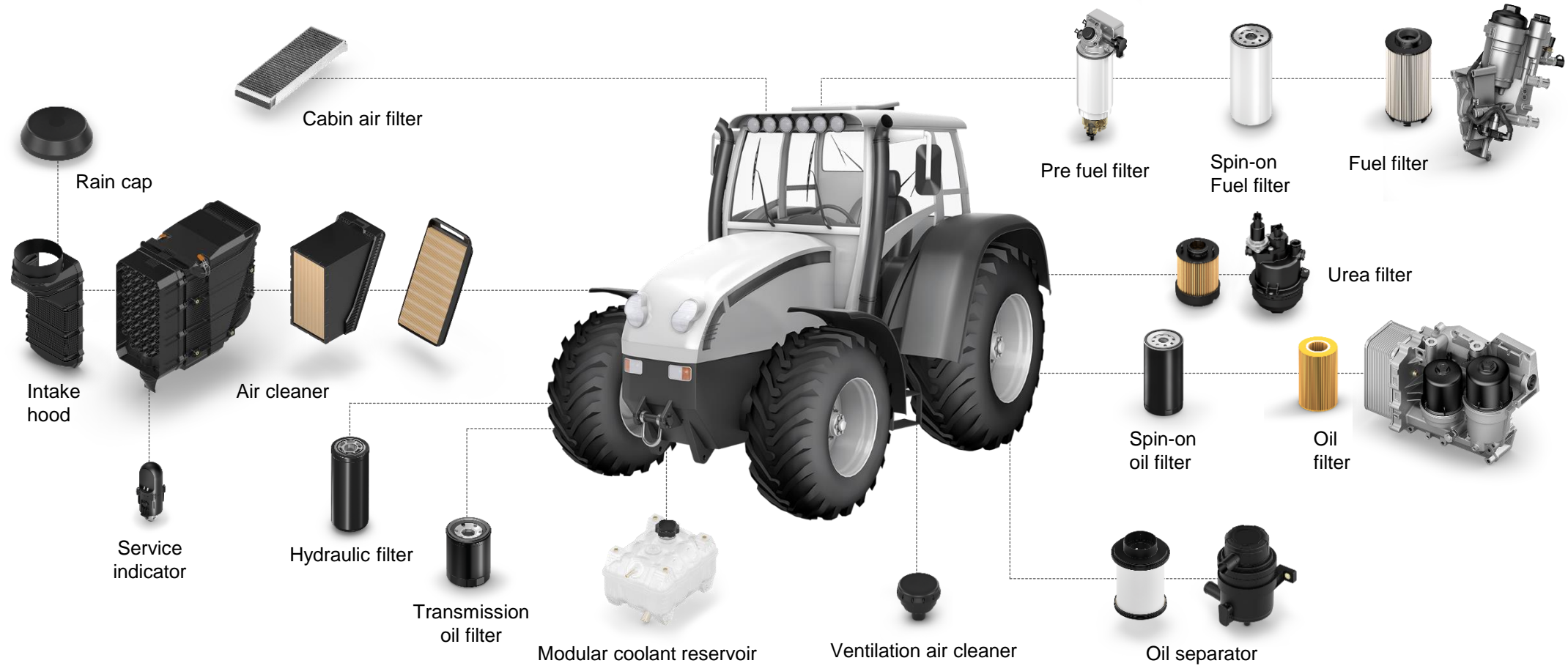
Customer is our best asset



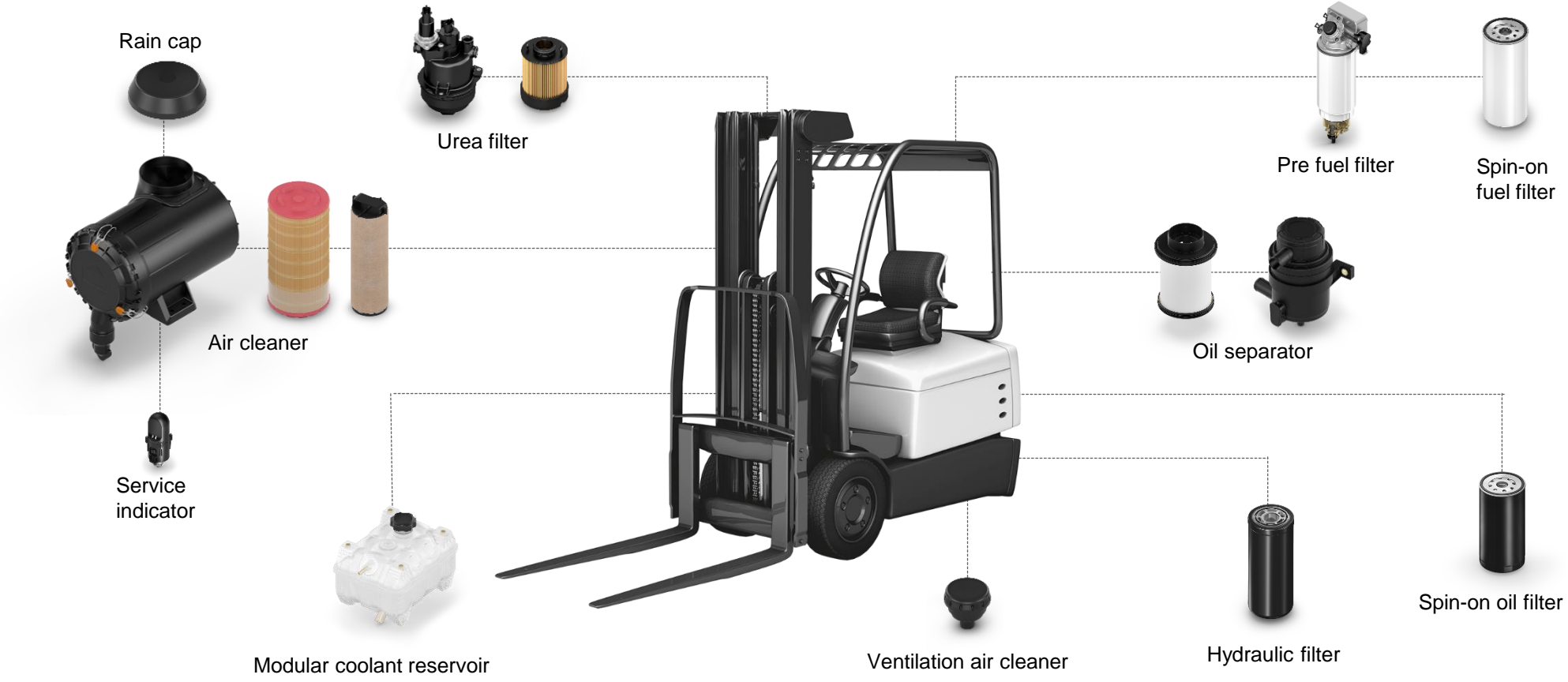
Original Equipment Product Portfolio for Construction Machines



Original Equipment Product Portfolio for Agriculture Machines



Original Equipment Product Portfolio for Material Handling



MANN+HUMMEL Products for New Energy Vehicles

Overview - Heavy Duty

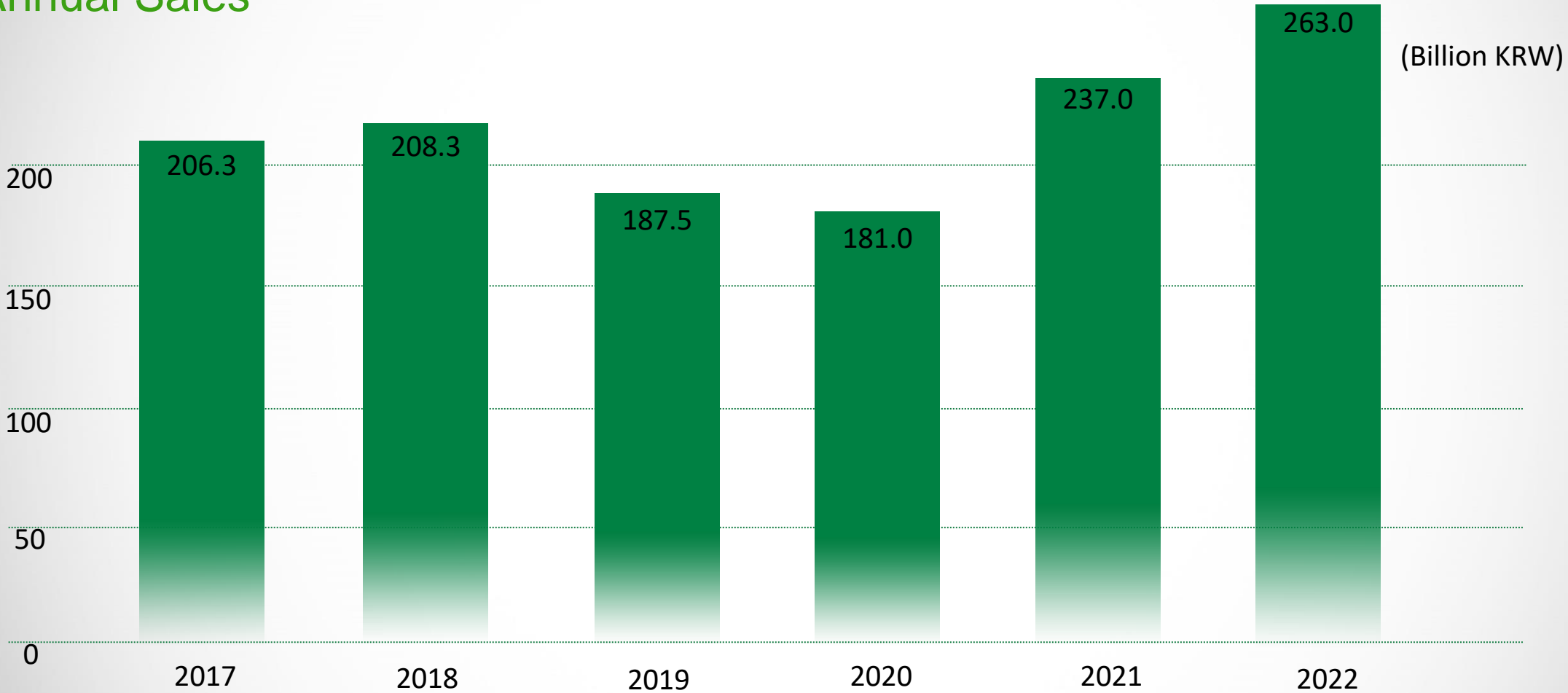


- All vehicle applications
- xEV applications
- HV battery systems
- Fuel cells



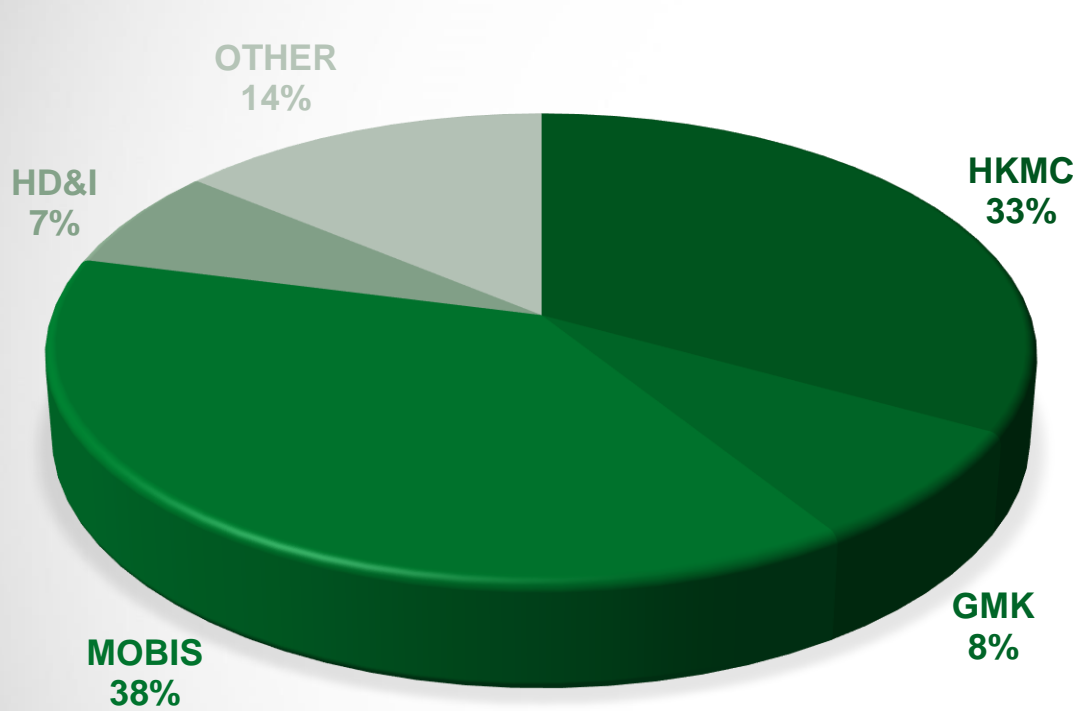
MANN+HUMMEL Korea – Sales

Annual Sales

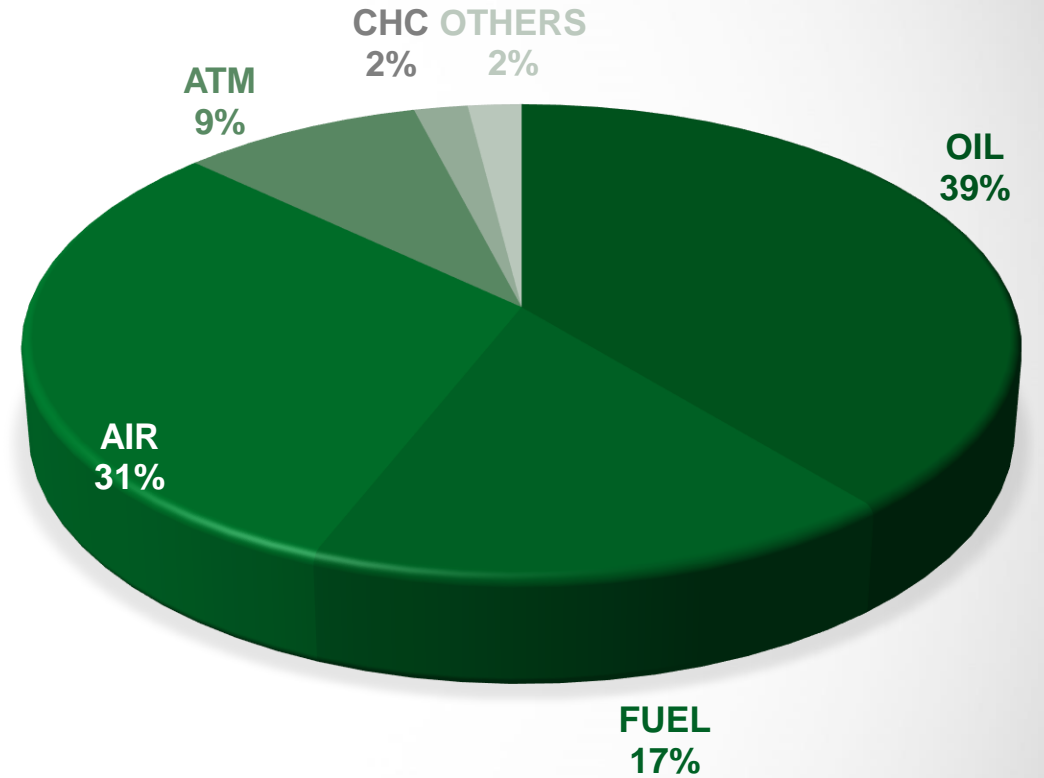


MANN+HUMMEL Korea – Sales Status

Trend in 2020



Customers



Products

MANN+HUMMEL Korea - Certificate Status



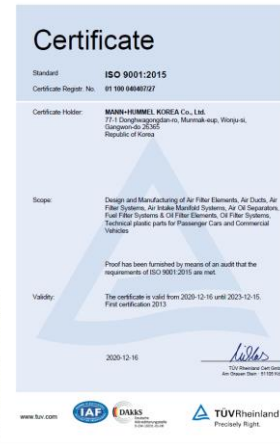
IATF16949:2016
Presented : 2020. 12. 16
Expiration : 2023. 12. 15



ISO 14001:2015
Presented : 2020. 10. 13
Expiration : 2023. 10. 12



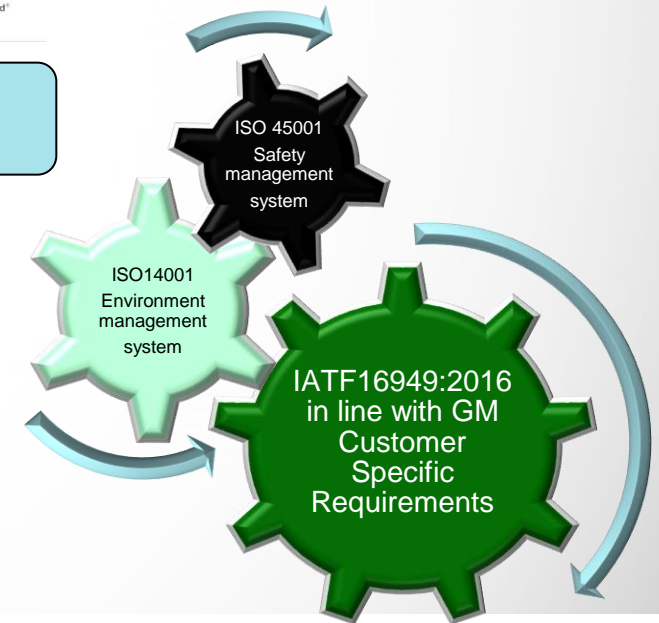
ISO 45001:2018
Presented : 2020. 09. 10
Expiration : 2023. 09. 09



ISO 9001:2015
Presented : 2020. 12. 16
Expiration : 2023. 12. 15



BIQS certified
Presented : 2018.07.12
Expiration : 2021.07.11



MANN+HUMMEL Korea – Manufacturing Line

Liquid Filter

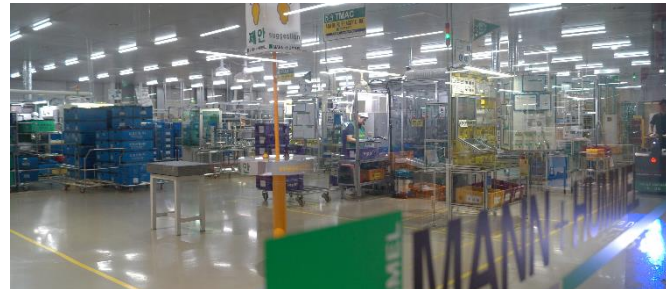
Spin-On Filter Assembly Line (4ea)

- Ultrasonic Cleaning M/C
- Auto Seaming M/C
- Auto Leak Test M/C
- Auto Welding M/C
- Auto Tapping M/C
- Auto Packaging M/C



Fuel Filter Assembly Line (7ea)

- Assembly M/C
- Air Leak Test M/C



Eco Oil Filter Assembly Line (1ea)

- Assembly M/C
- Air Leak Test M/C



MANN+HUMMEL Korea – Manufacturing Line

Liquid Filter & Manifold

Spin-On Element Line (1ea)

- Auto Assembly M/C
- Auto Packaging M/C



ATM Filter Assembly Line (5ea)

- Vibration Welding M/C
- Ultrasonic M/C
- Auto Air Leak Tester



Manifold Assembly Line (1ea)

- Hot & Cold Insert M/C
- Vacuum Leak Test & Inspection M/C



Oil Pan Assembly Line (1ea)

- Cold Bush and Retainer Insert M/C
- Air Leak Test & Inspection M/C

MANN+HUMMEL Korea – Manufacturing Line

Air Intake System

Injection Molding Line

- Horizontal Type : 650 ton(4ea)
450 ton(6ea)
- Vertical Type : 150 ton(4ea)
120 ton(7ea)
- Injection Mold Computerized Management System



AIS Assembly Line

- GM1385 Air Cleaner Assembly M/C (1ea)
- GM1185 Air Cleaner Assembly M/C (1ea)
- IQORON Air Cleaner Assembly M/C (1ea)
- GM1044 Air Cleaner Assembly M/C (1ea)
- Hot Plate Welding M/C (3ea)
- Vibration Welding M/C (4ea)



PU Element Line (1ea)

- Pleating M/C
- PU Dosing M/C

IQORON Element Line (1ea)

- Pleating M/C



MANN+HUMMEL Korea – Test Machine

Liquid Filter



- Multi Pass Test Rig (ISO 4548-12/19438)
- Oil Filter Test Rig
- Oil Filter Thermal Shock Test Rig
- Cold Impulse Test Rig
- Impulse Test Rig
- Drain Back Flow Rate Test Rig
- Anti Drain Valve Alteration Pressure Test Rig
- Fuel Filter Test Rig
- Water Separation Test Rig (ISO 16332)
- Element Bubble Test Rig
- ATM Filtering Efficiency/ Pressure Drop Test Rig
- Rxc A/T Durability /Pressure Drop Test Rig
- Vibration Test Rig & Temp. Cycle Chamber
- Static Electrification Test Rig

MANN+HUMMEL Korea – Test Machine

Air Intake System



- Air Performance Tester
- Air Filter Bench Aging Tester
- Anechoic Room
- Noise Measurement Tester
- Temperature Cycling Tester
- Air Cleaner Vibration Tester & Temp. Cycle Chamber
- CCV Efficiency Tester
- Oil Separator Durability Tester
- Air Leak Tester
- Salt Spray Tester
- Ozone Tester
- Cold Chamber
- Static Electrification Tester
- Microscopic Digital Measurement System
- Tensile Strength Tester
- Oil Deposit(Bath) Tester



Many Thanks!
For your attention.