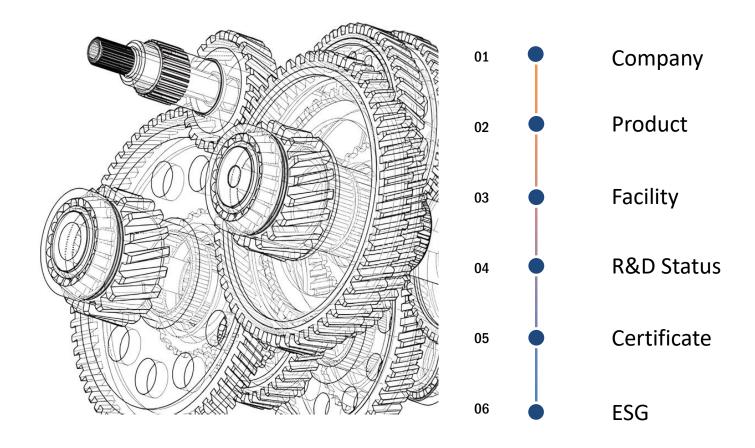


BEST MOBILITY PARTNER

One Dream To One World

OTO INDUSTRY - NEO OTO

Table Of Contents



OTO INDUSTRY - NEO OTO COMPANY

History

1998

Jan.

Founded JASE Co., Ltd.

2008 Apr.

Established **Ye-San Plant**

Jun.

Changed company name to **OTO Industry Co., Ltd**

Aug.

Established Vietnam plant (OTO VINA)

2012

Nov.

Installed Statistical Process Control(SPC) SYSTEM.

2016

May.
World Class 300
certification

certification (Hidden Champion System of KOREA) 2019

Aug. Established Forging plant in Vietnam 2024

Jan.

Attained **Quality 5-Star** from HMG

2007

Nov.

Established Overseas depots in India and Czech Rep.

2010

Apr.

Awarded Industrial Service Medal of Government

Jun.

Ye-San Plant demerged to NEO OTO Co., Ltd. 2015

Oct.

Full line-up P/T parts to HMG (Hyundai Motor Group)

Nov.

NEOOTO listed in "KOSDAQ" (Korean stock market)

2018

Oct.

EV Motor Shaft to Global OEM in USA

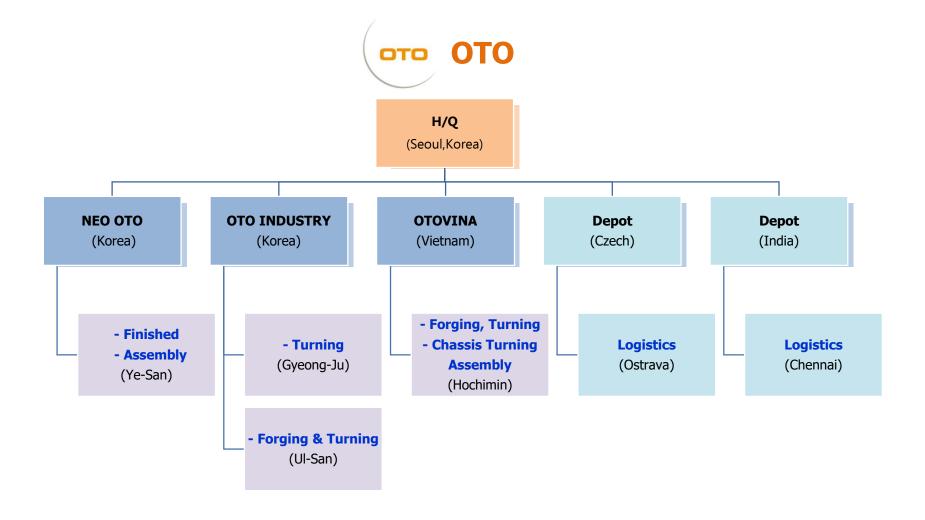
2021

Mar.

EV Diff. Gear Assembly to HMG OTO INDUSTRY · NEO OTO COMPANY

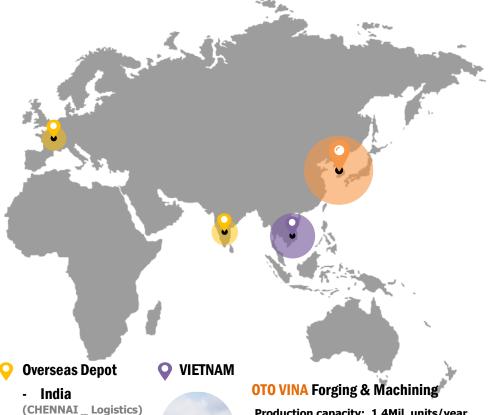
OTO Group Organization

4



OTO INDUSTRY · NEO OTO COMPANY

Locations







OTO Headquarter in Seoul

NEO OTO YESAN 1st ~ 3rd Plants

Production capacity: 39Mil. units/year

- Gear-Pinion, Diff Drive Gear & Output Shaft
- Annulus Gear , Differential Carrier Assembly
- T/F Drive/N Gear, Reducer
- Distance: 156km (from Incheon Airport)

OTO INDUSTRY GYEONGJU Plant

Production capacity: 20Mil. units/year

- Output Shaft, Speed Gear, Annulus Gear
- T/F Drive/N GEAR, Clutch Gear, CVT Parts
- Distance: 365km (from Incheon Airport)

OTO INDUSTRY ULSAN Plant

Production capacity: 5.2Mil. units/year

- Input & Output Shaft
- T/F Drive GEAR
- Distance: 381km (from Incheon Airport)

Production capacity: 1.4Mil. units/year

- Gear Speed ,Gear Clutch, Gear Diff
- Output Shaft, Pulley
- Chassis (Axle ass'y, Break Disc, Knuckle)
- Distance: 32km (from Ho Chi Minh Airport)



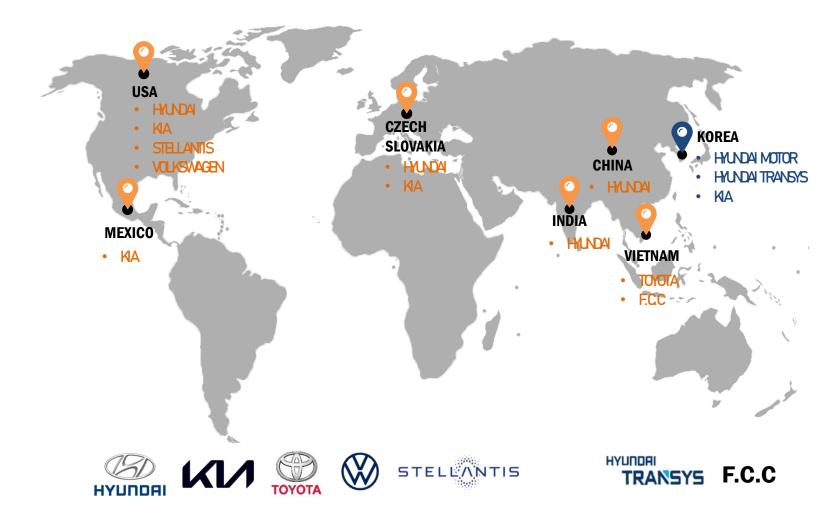
Czech

(OSTRAVA _ Logistics)

OTO INDUSTRY - NEO OTO COMPANY

Client Distribution

5

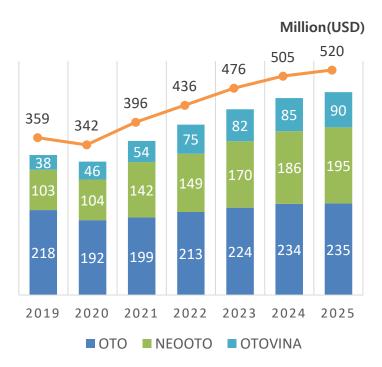


OTO INDUSTRY · NEO OTO COMPANY

Sales Forecasting

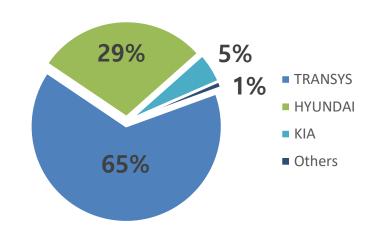
7

Annual Turnover



◆ **2024-2025:** Ready-made Order

◆ Sales Portion: Domestic 70%, Export 30% ※Export is made through indirect route Sales Portion (2023)



Focused on HMG demands: 99% in 2021

◆ Expanding to Global OEMs: 1% in 2021

5% in **2023**~ fixed

Transmission, EV Reducer & Motor Parts

8

Transmission Parts





EV Motor Parts





EV Reducer





OTO INDUSTRY · NEO OTO PRODUCT

EV REDUCER Parts

9

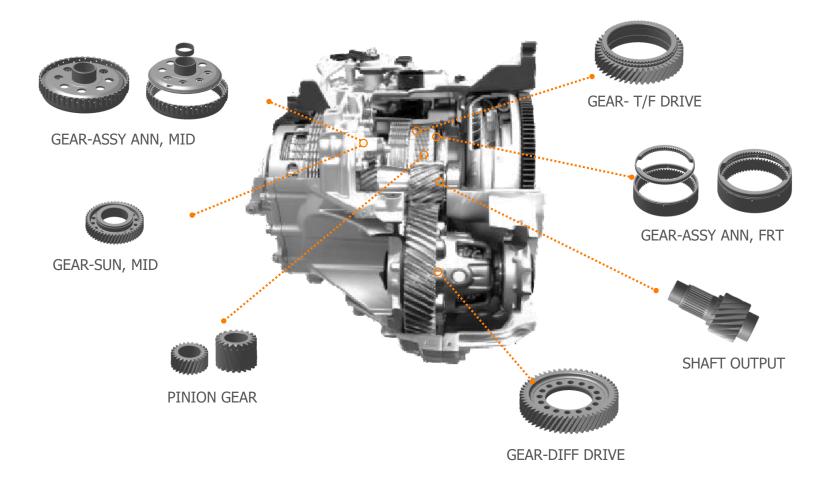
EV B,C SEGMENTS



A/T Parts_8speed

10

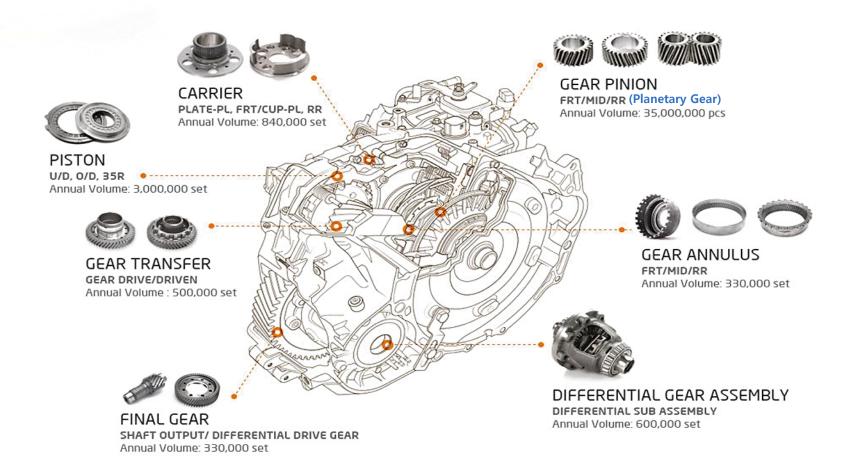
FF Type 8 Speed Automatic Transmission Part



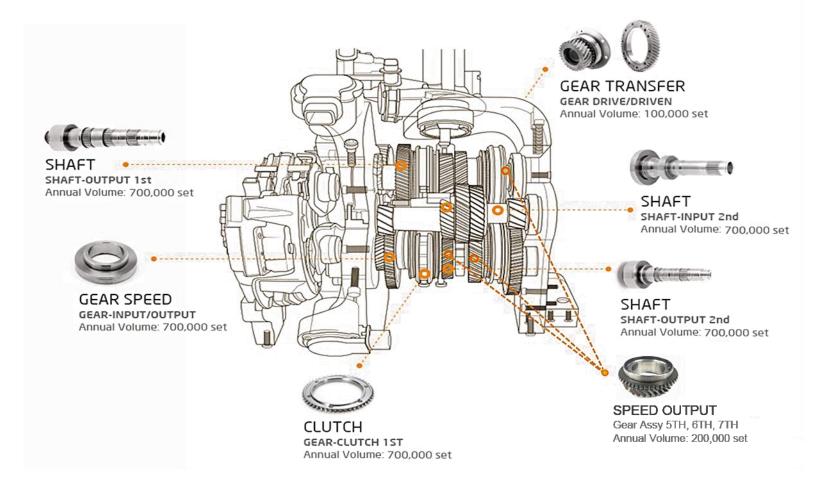
A/T Parts_6speed

11

FF Type 6 Speed Automatic Transmission Part

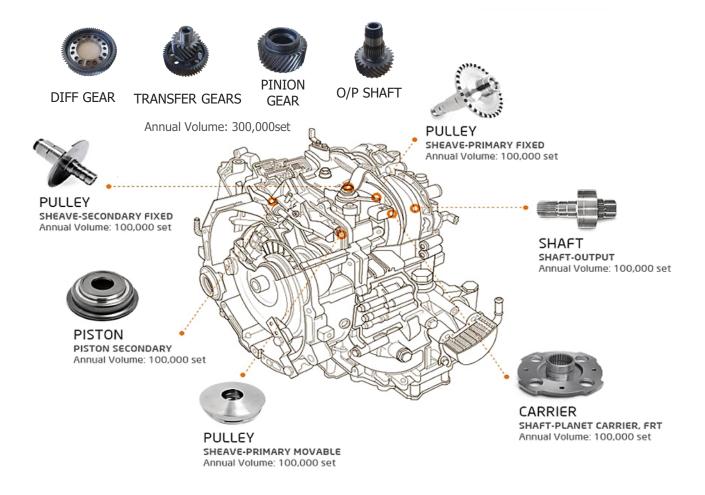


FF Type 7 Speed Dual Clutch Transmission Parts



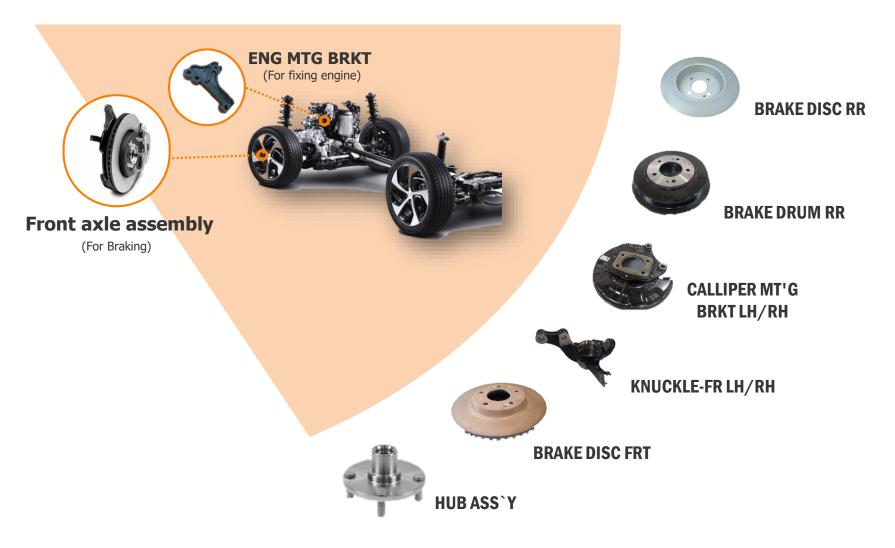
CVT Parts

Continuously Variable Transmission Parts



Chassis Parts (Vietnam)

14



OTO INDUSTRY - NEO OTO FACILITY

Gear Line 15







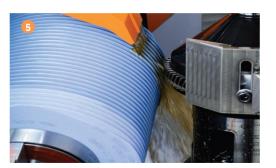
1. Hobbing —— 2. Shaving

3. Heat Treatment

6. Gear Inspection 5. Gear Grinding/Honing

4. In/Out Face Grinding







16

EV Motor Shaft Line













1. Hot Forging

2. Soft Turning

3. Broach

4. Shaper

5. Hobbing

6. Heat **Treatment** (Vacuum)



12. Auto Inspection

11. Washing

10. Gear Honing

9. Grinding

8. Hard Turning

7. Hard Shot **Peening**













FACILITY | 3.2

OTO INDUSTRY · NEO OTO FACILITY

Differential Gear Assembly Line

17





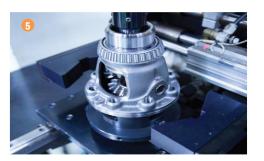


1. Incoming Inspection

- 2. Sub Assembly
- → 3. Main Assembly

- 6. Lot Marking
- 5. Backlash & Air Leak Test
- ___ 4. Automatic Inspection







FACILITY

Inspection Equipment & Tooling management

18



OTO INDUSTRY - NEO OTO





















OTO INDUSTRY · NEO OTO FACILITY

Quality Management

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Process Inspection

Measuring Item

- OBD
- RUN-OUT
- IN.DIA.
- E.F.WIDTH



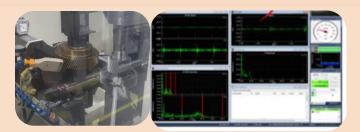
Final Inspection

Measuring Item

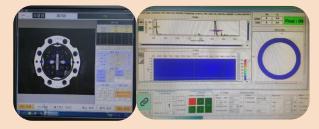
- ORI
- NICK
- RUN-OUT
- IN.DIA.
- E.F.WIDTH
- E.FACE



Dimension Checking



Gear checking with frequency for NVH



Welding Bid checking with scanner & ultrasonic

FACILITY | 3.5

OTO INDUSTRY · NEO OTO R&D STATUS

EV Reducer (Gear box)

20



ADVANTAGES

- ✓ Self-designed and developed **EV Reducers with wide range** from 12.6kW to 150kW
- ✓ Customizing design of Reducer
- without additional parking gear













OTO INDUSTRY · NEO OTO R&D STATUS

EV Reducer/ Transmission Line-Up

21

	12.6kW	20kW	85kW	100kW 2 Speed [FR-Type)	150kW 2 Speed (FF-Type)
Products					
Max. Power	15 kW	30 kW	100 kW	100 kW	150 kW
Gear Ratio	9.34 : 1	8.2 : 1	7.35 : 1	2.9:1 (1st), 1.8:1 (2nd)	10.2:1 (1st), 6.2:1 (2nd)
Axial Distance	180 mm	150 mm	193 mm	102 mm	189 mm
Max Torque	65 Nm	150 Nm	288 Nm	350 Nm	400 Nm
Dry Weight	12 Kg	15 Kg	21.5 Kg	31.5 Kg	35.8 Kg / 35.4 Kg
Size [mm]	385 x 230 x 230	370 x 270 x 200	440 x 280 x 210	307.2 mm	310.9 mm / 302.8 mm
Application	Twizy, Danigo I	Cebo, Masta	IONIQ EV, Volt EV	Porter EV, Bongo EV	IONIQ EV, Volt EV
Segment	Compact	Compact	В,С	C , D, Commercial Vehicle (1Ton)	C , D Commercial Vehicle (1Ton)
Process	Design → Test	Design → Test	Design → Test	Test → Vehicle Test	Prototype Production ⇒ Test

OTO INDUSTRY · NEO OTO R&D STATUS

Test & Proto Equipment

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T/M DYNAMOMETER



Jan				
	Name (Q'TY)	Maker (Country)	Main Spec.	
	Input Motor (1Set)	AKH (Germany)	 Rated Power: 160kW Max. Torque: 400Nm Max. Speed: 16,000rpm Air Cooling Type 	
-	Out Motor (2Set)	SIEMENS (Germany)	 Rated Power: 275kW Max. Torque: 10,943Nm Max. Speed: 2,800rpm Air Cooling Type 	
	Noise Chamber (1Set)	VMV-Tech (Korea)	Sliding Shut TypeBlocked Outside Noise	
	Mobile H/W Data Acquisition	LMS SIEMENS (Germany)	■ Channel : 16ch ■ M'ment Time Data of NVH ■ Analysis of Overall Level ■ Analysis of Sound Quality	

(1Set)

SHIFT PERFORMANCE TESTER



PROTO ASSEMBLY EQUIPMENTS



■ Analysis of Sound Quality

Software Information

23

Div.	Name (Maker)	Image	Q'TY	Contents
2D & 3D Design	AutoCAD (AUTODESK)		14	2D Parts & Assembly designDetailed drawing design
	CATIA V5 (Dassault Systems)		3	 3D Parts & Assembly design BOM optimization SIMULATION with design data
Design & Calculation	KISSsoft & KISSys (KISSsoft)		1	 Gearbox design and Strength calculation Gear driving calculation of gear set Efficiency and power loss calculation for Bevel/ Spur/ Helical gear
Systems & Parts Analysis	ABAQUS (Dassault Systems)	TOCK STATE	1	 3D Nonlinear Durability Analysis Multiphisics integration analysis for structural, thermal, electrical, etc. Finite element analysis (collision, structural durability, noise, vibration, etc.)
TCU Logging & Analysis	CANoe (VECTOR)		1	 CAN/LIN Network Connection Analysis Inject CAN signals into single controller(TCU) Controller(TCU) CAN Simulation CAN Network Test

Certificates



IATF16949



Certificate of Approval Awarded to NEOTO CO., LTD

1. Donnerson, Bagginers, Stramp, Chaptergrown, Stramp, Stramperson, Stramp, Stramperson, Stramper

ISO14001



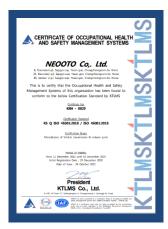
VDA 6.3 (Mr. B.Y Woo)



ISO22301



VDA 6.3 (Mr. Y.C Lee)



ISO45001



QUALITY 5-STAR (Awarded by HMG/ 2024)

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ESG

ESG Strategy

OTO has ESG vision to fulfill 3 aim and 6 key tasks for each area of environment, society, and governance.

Aim



Environment

Building eco-friendly businesses for future generations and the earth



Social

Sustainability with society



Governance

Building a responsible business environment

VISION

Minimizing **Environmental Impact**

Wastewater/Waste/Chemical

management

Social Contribution Activities

Active social contribution activities to solve social problems

Greenhouse Gas Emissions Management

Responding to abnormal climate change

Creating Safe Working Environment

Achieving accident-free workplaces

Human Rights Management

Respect of human rights of employees

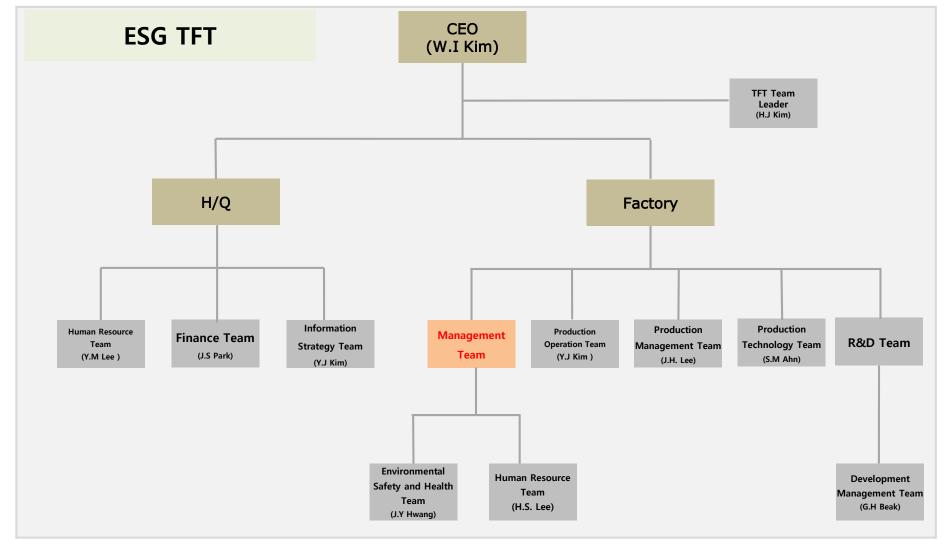
Building Trusted Management Structure

Strengthening Ethics and Transparent Management

ESG | 6.1



ESG 26



OTO INDUSTRY - NEO OTO COMPANY

ESG 27



Water Resources Management



The installation of water-saving devices indirectly contributes to the prevention of desertification

Solar Panel



Installation of Solar Panel contributes to use of reusable resource

ESG | 6.3

establishment and compliance

OTO INDUSTRY · NEO OTO COMPANY

ESG 28

Social Contribution Activity

OTO continues to carry out social contribution activities with the belief that good companies can make good products









Community Donation







One Dream To One World

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NEO OTO Co., LTD

8, Durumeori, Sapgyo-eup, Chungnam, Korea **Tel.** 82-41-337-1730 **Fax.** 82-41-337-1736 Web. www.neooto.kr

OTO Industry Co., LTD

60, Sinpyeonggongdan-gil, Geoncheon-eup, Gyeongju-si, Gyeongsangbuk-do, Korea **Tel.** 82-54-750-6000 **Fax.** 82-54-751-9320

OTOVINA Co., LTD

Nhon Trach 5 Industrial Zone, Dongnai Province, Vietnam **Tel.** 84-613-569-391 **Fax.** 84-316-569-393

Logistics Depot in India

Plot No.52, Royal Garden, Goparasanallur Village, Kattupakkam, Chennai 600 056 **Tel.** 91-70-7833-6698 **C.P.** 91-9790906159

Logistics Depot in Czech

OTO CZECH, s.r.o. Národních mučedníků 499, Frýdek, 738 01 Frýdek-Místek, Tschechien **Tel.** 420-558-433-143 **C.P.** 420-724-593-007