# ELECTRONICS Factory Guide

### **Developing Global EMS (Electronics Manufacturing Service)**

We provide a uniform level of high service at domestic and overseas factories in 9 countries and 12 different locations. Corresponding to changes in operation environments, we are able to smoothly handle production transfers with flexible support for country risks.

### [Global production and procurement bases]



### KATOLEC TAKAMATSU Factory









### **JAPAN**



4-1-51, Asahimachi, Takamatsu-shi, Kagawa 760-0065, Japan

- -10minutes by car from JR Takamatsu Station
- -40 minutes by car from Takamatsu Airport

• Establishment: March 1999

Capital: 100million yenFloor space: 13,717m²

● Employees: 225

### History

- 1983 Takamatsu factory established as a predecessor in Kita Town; started assembly and manufacturing of electronic components
- 1989 Changed company name to Takamatsu factory of Katolec West corporation
- 1999 Established a new factory in Asahi-machi, Takamatsu city to assemble back light of car navigation system ,SMT and CRW finished product, etc.
- 2011 Started mass production of PCB-ASSY for warm water toilet seats
- 2013 Changed company name to Takamatsu factory of Katolec corporation
- 2025 Open new head office factory in Takamatsu.

### Strengths

- ❖ A domestic pilot factory for establishing a smooth mass production system abroad.
- We have experiences in printed circuit board assembling of medical instruments such as endoscope video processors and image diagnostic devices
- It is possible to support printed circuit board assembling with a high degree of difficulty, with a large number of parts and man-hours.
- Production system that can cope with various types of small lots, from implementation to assembly, can be handled in as little as three days.
- It is the prefecture with the fewest disasters in Japan, and procurement logistics and transportation that makes use of the proximity to the airports, stations and expressways is possible.

### Global Standard

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### **Products**

### (Consumer products)

- ► Warm water toilet seats
- ► Medical imaging diagnostic equipment
- ► Endoscope video processor
- ▶ Dialysis machine
- ► Emergency Stop Switches
- ► Amusement equipment
- ► Microphone preamplifiers
- ▶ Refrigerator for machine containers
- ▶ Data logger equipment
- ► Security device for lock sensors Receiving units
- ► Household gas alarms





### KATOLEC MATSUYAMA Factory











# MATSUYAMA JAPAN



15-6 Kuukodori 7-Chome Matsuyama, Ehime, 791-0054, Japan -10 minutes by car from JR Matsuyama-ekimae station -5 minutes by car from Matsuyama airport

Establishment : Nov 1982 Capital: 100million yen ● Employees: 166 ● Floor space: 8,543m<sup>2</sup>

### History

- 1982 Matsuyama factory established, production of video-PCBs started
- Started production of CD-ROM driver-PCBs
- 2001 Started production of television-PCBs
- Clean room 660 m completed, LCD backlight assembly started
- Started production of plasma television power supply-PCBs and ETC
- Selected as a model base for KIPS activities
- 2011 Started production of tail lamp-PCBs for automotive applications
- Started production of commercial video equipment and fuel cell battery
- H3 rocket quality management system authorization
- IATF 16949 Certified
- 2019 Started production of commercial pump PCBs
- 2025 Started production of remote camera system PCBs

### Strengths

- As a domestic model factory of KIPS (Katolec Innovative Production System) activities, we will work to shorten L / T and improve work efficiency. We will improve profitability and human resource development.
- ❖ We will manufacture production and inspection equipment in house including FCT, automatic splitting machine and moisture proof coating. Currently, we are undertaking research on the development of hand soldering.

### Global Standard

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© ISO 14001:2015





### **Products**

#### (Consumer products)

- ► Motor
- **▶**Pump
- ► Water purifier
- ► Rice cookers
- ▶remote camera system
- ► Vending machine network infrastructure
- ► ENE-FARM inverters

- ► Tail lamps
- ►Interior lights





### PT. KATOLEC INDONESIA (KAI)











# INDONESIA EJIP Industrial Park

**Address** 

Ejip Industrial Park Plot 8F, Cikarang Selatan Bekasi 17857, Jawa Barat, Indonesia

-2 hours by car from Soekarno-Hatta International Airport

• Establishment: Sept 1993 ● Employees: 1,073

● Capital: 3,500,000USD ● Floor space: 22,200m

### History

- 1994 Indonesia factory established
- 2<sup>nd</sup> building factory started production
- 3<sup>rd</sup> building factory started production
- Received an excellent vendor award from PT, INDONESIA EPSON INDUSTRY
- Started production of meter panel PCBs for 2 wheeled vehicles 2010 (first stage of automotive product)
- 2014 Celebration of 20th anniversary of establishment
- 2015 Received the FY2014 excellent vendor award from PT. INDONESIA EPSON INDUSTRY
- 2018 Received the Best supplier award from Pioneer Manufacturing(Thailand) Co.,Ltd
- 2020 4<sup>rd</sup> building factory started production

### Strengths

- Assembly of audio equipment for automotive products Support exports to 8 countries including Asia, Europe and America
- Concise Buildings 1–3 are operated as bonded factories, and Building 4 as a non-bonded (general) zone.
- Providing low-cost and high-quality services in both cases of direct and indirect exports with the benefits of tariff exemption.
- ❖ Additionally, four buildings include non-bonded areas, providing services for the domestic Indonesian market.
- Assembly can be performed in the cleanroom of Building 4, which was completed in 2020.
- Installed solar power generation.

#### Global Standard

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#### **Products**

### (Consumer products)

- **▶** Printers
- **▶** Projector
- ► Electronic pianos
- ► Power supply (for Television/Adaptor)
- ► Electric blankets

- ► Switch for two-wheeled vehicles
- ► Audio equipment
- ► Switch for four-wheeled vehicles
- ► Meter panels for four-wheeled vehicles
- ▶ Panel shift levers for four-wheeled vehicles
- ► Head lights for two-wheeled vehicles
- ▶ Tail lamps for two-wheeled vehicles
- ► Acceleration sensors for two wheeled vehicles
- ► Automatic gain control sensors for two wheeled vehicles





### KATOLEC PHILIPPINES CORPORATION (KAP)









# PHILIPPINES Laguna Technopark



103 East Main Avenue Special Export Processing Zone Laguna Technopark, Binan, Laguna, Philippines

-40 minutes by car from Ninoy Aguino International Airport

● Establishment: June 1996 ● Capital: 4,777,079USD

● Employees: 650 ● Floor space: 17,130 m

### History

1996 Philippines factory established

Started production of HDD PCBs

Started production of telecommunication equipment PCBs

2000 Started production of car meter panel PCBs

2<sup>nd</sup> building factory completed for increased production

2006 Started production of car security system PCBs and finished goods

Received an excellent supplier award from DENSO PHILIPPINES CORPORATION

Warehouse extended

Started production of laser printer PCBs

Started efforts to make smart factories

3rd building factory started production

Received an Outstanding Supplier award from DENSO PHILIPPINES CORPORATION

Received an Outstanding Supplier award from DENSO PHILIPPINES CORPORATION Received the ASIA DENSO Group Best Supplier award from DENSO International Asia CO.,LTD

2024 Solar power system operational — all factory energy replaced with renewable energy.

### Strengths

- ❖ A variety of experience in manufacturing from consumer electronics to automotive equipment and others.
- Within the bonded processing area, customs duty and consumption tax are exempted.
- Within an hour from the airport and port, so there are advantages with parts procurement and shipping goods.
- Operates a smart factory. Information can be centralized, updated in real time, and alarms can be sent in the event of an abnormality.

### Global Standard

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### **Products**

### (Consumer products)

- **▶** Printers
- ► Control panels for dishwasher
- ► Oven range panel
- ► Bar code printers
- ► Indoor air conditioner
- ▶ Refrigerator

- ► Meter panels for four-wheeled vehicles
- Sensors for four-wheeled vehicles
- ► Switches for four-wheeled vehicles
- ► Seat heater for four-wheeled vehicles
- ► Power window for four-wheeled vehicles
- ► Smart keys for four-wheeled vehicles







### KATOLEC (THAILAND) Co., ltd. (KAT)











## THAILAND

## A. Nakhon Luang Industrial Estate

**Address** 

Nakhon Luang Industrial Estate 115/5 Moo 4, T.Bangprakroo, A.Nakhon Luang, Ayutthaya 13260 THAILAND

-2 hours by car from Suvarnabhumi International Airport

• Establishment: July 1996 Capital: 162,500,000THB ● Employees: 1,246 ● Floor space: 17,400m<sup>2</sup>

### History

1996 Thailand factory established

2012 Thailand factory restarted

2013 Started production of car audio equipment PCBs

Received the Best Quality Award from MITSUBUSHI ELECTRIC CONSUMER PRODUCTS

2015 (THAILAND)CO.,LTD.

2017 Received the Best Quality Award from MITSUBISHI ELECTRIC THAI AUT-PARTS CO.,LTD.

2018 Received the Pioneer Best Supplier Award (four years in a row)

Received the Best Collaboration Award from Canon Prachinburi (Thailand) Ltd.

Received the Best Supplier Award PIONEER MANUFACTURING(TAHILAND)CO.,LTD.

2022 Received the MELCO Award MITSUBISHI ELECTRIC CONSUMER PRODUCTS(THAILAND)CO.,LTD.

2024 Received the Sustainable Grand Prize Company Award from NIKON Co., Ltd.

Received the Best Collaboration Award from Canon Prachinburi (Thailand) Ltd.

Received GLP Award from the Governor of Ayutthaya — Best Labor Environment (2-year certification).

Received the Partner Award from NIKON Co., Ltd.

Received the Partner Award from TOTO Corporation.

### Strengths

- Core point of southeast Asia, advantageous access from Bangkok and the "East-West and Southern" economic corridor
- Good point of supplier and logistics company, sustainable infrastructure and skillful workers contribute to customer service
- This is a factory with an excellent equipment operating ratio with planned investment in production facilities.
- Recently, entrusted with automotive equipment and delicate handling medical equipment, so has built up expertise in manufacturing technology and quality control
- Total supply chain proposals are possible through cooperation with KATOLEC Global Logistics (Thailand) Co., Ltd.

### Global Standard

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LOGITRONICS



#### **Products**

#### (Consumer products)

- **▶** Printers
- ► Air conditioner indoor / outdoor unit
- ► Single lens reflex cameras
- ➤ X-ray image processing
- ► Warm water toilet seats
- ▶ Optical communication module

- ► Car audio systems
- ► Car multimedia
- ► Sensors for four-wheeled vehicle ECUs
- ► Wireless battery charger for smartphones





### KATOLEC SUZHOU CO.,LTD (KASZ)









# SUZHOU

## CHINA, Suzhou Industrial Park



Bldg.,D,No.58,Yang Dong Road,Suzhou Industrial Park,Suzhou,China -60 minutes by car from Sunan Shuofang International Airport -80 minutes by car from Shanghai Hongqiao International Airport -150 minutes by car from Shanghai Pudong International Airport

Establishment : Sept 2003Employees : 119

Capital: 115,000,000USDFloor space: 5,932m²

### History

- 2004 Operation started
- 2007 Added a factory building to increase production capacity
- 2015 Received the quality improvement progress award from Fujitsu General (Shanghai) Co., Ltd.
- 2019 production of automotive area (clean room) extension
- 2020 Started production of automotive equipment
- 2023 Received the On-time Delivery Excellence Award from Toto (Shanghai) Co., Ltd.

### Strengths

- Chinese market available facilities, parts at reasonable price and skillful workers
- ❖ Achieved process improvements including low cost and cost-effective automation.
- Located in the suburbs of Shanghai, it has strengths in every aspect of transportation of land, sea and air.

### Global Standard

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### Products

#### (Consumer products)

- ► Air conditioners
- ►Warm water toilet seats
- ► Automatic faucets
- ► Urinal faucet sensors
- ► Sensor bathroom dryers
- ► Electronic musical instrument
- ▶ LED lights
- ► Medical dialysis machine
- washing machine

(Automotive products)

► Headlight controller















## GUANGZHOU CHINA

**Address** 

3 Xingda Road, Huangpu, Guangzhou, Guangdong, China -1 hour by car from Guangzhou Baiyun International Airport

• Establishment: July 2012 ● Employees: 179

Capital: 25,100,000USD ● Floor space: 13,958m

### History

- 2012 KATOLEC AUTOMOTIVE SYSTEMS (GUANGZHOU) CO., LTD. established
- 2012 Started production of car navigation system PCBs
- SMT line for in-car device installed
- GE Appliances' Best Control Supplier for Quality 2015
- Acquired Nissan ASES certification
- Received the Katolec Global Kaizen Award (Excellent Prize) Started production of Mobile information communication system unit
- 2018 Received the Excellent Supplier Award from Foster Electric Company, Limited Started production of Center display unit for Chinese EV vehicles
- Started production of Automatic parking control device for Chinese EV vehicles
- Started production of Stepping motor PCBs
- Started production of ECU for motorcycles PCBs Received the Best Quality Award from Guangzhou Imasen Electric Industrial Co., Ltd. Received the Improvement Award from ZHUHAI BROTHER INDUSTRIES, CO., LTD.
- 2022 Started manufacturing boards for CANON. Received the highest quality VVV award.
- Received the Improvement Award from Zhuhai Brother Industries. Received the Best Partner Award from Lianyou.
  - Received the Quality Excellence Award from Nidec

### Strengths

- ❖ Manufacturing area exclusively for in-vehicle products, and more severe protection against dust and static electricity are implemented.
- ❖ Part suppliers are concentrated, utilizing the benefits of the southern part of China, it is possible to respond quickly in terms of delivery time and quality.
- The quality system and service are highly evaluated, and we have a track record of dealing with emerging Chinese EV manufacturers.

### Global Standard

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### **Products**

#### (Consumer products)

- ▶ POS printer
- ▶ Barcode printer
- ► Laser printer
- ▶ of Stepping motor PCBs

- ▶ Battery sensors
- ► Steering locks
- ► Automatic parking control device
- ► Telematics Box
- ► Center display unit
- ► ECU for motorcycles PCBs
- ► EOP Control
- ► Car headphones







### KATOLEC VIETNAM CORPORATION (KAV)











# VIETNAM

### Quang Minh Industrial Zone

**Address** 

Lot 41A&B, Quang Minh Industrial Zone, Quang Minh Commune, Ha Noi City, Vietnam

-15 minutes by car from Noi Bai International Airport

• Establishment: May 2005 Employees: 1,413

• Capital: 7,700,000USD ● Floor space: 36,157m<sup>3</sup>

### History

2005 Katolec Vietnam Factory established

Operation started

Started production of automotive equipment

1st building Expansion

Started production of finished goods

Received a excellent prize from Hanoi City labor union

Received the Best supplier prize from Kyocera group

Authorized by the Canon partners authorization company

2nd building factory started production

### Strengths

- ❖ Among ASEAN countries, closest to the South China District and Hong Kong which is the supply area of electronic parts, and has high convenience in parts procurement and product export.
- Registered as an EPE (export processing type) company, exempt from tariffs, it is possible to offer low cost and high quality service.

### Global Standard

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### **Products**

#### (Consumer products)

- **▶** Printers
- ▶ Office multifunction printer
- ▶ Bar code printers
- ► Washing machine
- **▶**cleaner
- **▶**Scanners
- ▶ Fire alarm
- ▶ Remote control equipment
- ► Electric assist bicycle

- ► Steering angle sensors
- ▶ Switches for four-wheeled vehicles
- ► motorcycle tail lamp





### KATOLEC MALAYSIA SDN. BHD. (KAMP)











# MALAYSIA

## Bayan Lepas Free Industrial Zone



150-C, Jalan Kampung Jawa, Bayan Lepas, Free Industrial Zone Phase III, Bayan Lepas, Penang, Malaysia -10 minuted by car from Penang International Airport

● Establishment: April 2011 Capital: 4,500,000USD ● Employees: 347 ● Floor space: 11,000m<sup>2</sup>

### History

- 2011 Operation started
- Started production of air conditioner operation panel assembly for construction machines
- Started assembly of in-vehicle thermostat units
- Started production of LED light PCBs in vehicle
- Started production of in-vehicle audio unit PCBs
- Started production of SW-PCBs in vehicle
- Started production of microphone PCBs for taxis and buses
- Received the Best Supplier Award from TOTO MALAYSIA SDN.BHD.
- Received the Best Supplier Award from Foster Electric Company, Limited
- Received the Best Delivery Award from Tanashin Denki Co., Ltd.
- Started production of Dryer unit
- Started production of Photocatalytic deodorization and sterilization system units

### Strengths

- Geographical advantage -about 30 minutes from Penang port container yard and about 10 minutes from Penang International Airport by car
- Incentives for export and import in the free factory area (FIZ)

### Global Standard

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### **Products**

#### (Consumer products)

- ► Warm water toilet seats
- ▶ Blue-rays for home theaters
- ▶ LEDs for signboards
- ▶ Dryer unit
- ▶ Photocatalytic deodorization and sterilization system

- ▶ LED lamps
- ► Automotive optional switches
- ► Audio units
- ► Microphones for taxis and buses





### KATOLEC DE BAJA CALIFORNIA, S.A. DE C.V. (KABC) 🗃 🖼











### MEXICO, Tijuana Area

**Address** 

Boulevard Insurgentes #19208-5 Colonia Cerro Colorado, C.P. 22223 Tijuana, Baja California, Mexico -20minutes by car from Tijuana International Airport

• Establishment: August 2006 Capital: 5,000,000USD • Employees: 122 ● Floor space: 5,000m<sup>2</sup>

### History

2006 Started production of plasma TV substrates

Started mass production

2012 Started mass production of in-vehicle parts

### Strengths

- ❖ Tijuana Stable development of management by local staff. is the northernmost city of Mexico. Located near the border with California State, USA, it is a good location as a production base for products for North America.
- It supports various products ranging from consumer electronics, such as home appliances, to automotive electronic devices.
- The factory slogan is "Chiquito pero Picoso" (Translation; pepper is a small grain and spicy) - The customer develops a stimulating operation in a good sense.
- Deployment of stable management by local staff

#### Global Standard

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### (Consumer products)

- ► Wine cellar control
- **▶** Refrigerators
- ►ICD TVs
- ► Air conditioner indoor unit

- ► Steering switches
- ▶ 4 wheel door lock sensors
- ► Lead battery condition detection sensors
- ► Air conditioning modules
- ▶overhead console





### KATOLEC DE GUANAJUATO, S.A. DE C.V. (KAGT)



## GUANAJUATO

### MEXICO, Marabis Abasolo Industry Zone



Avenida Miguel Hidalgo 100, Parque Industrial Marabis Abasolo, Abasolo, Guanajuato 36987, Mexico

-1 hour by car from Guanajuato International Airport

Establishment : November 2014

● Capital: 10,000,000USD ● Floor space: 5,187㎡

● Employees: 157

### History

2014 KAGT established

2016 Transferred some manufacturing process from KATOLEC DE BAJA CALIFORNIA, S.A. DE C.V.(KABC)

2016 Started production

### Strengths

- This factory is located in the Central Mexican Plateau an area where the automobile industry has gathered.
- This area is blessed with a distance and location within a four-hour delivery period to all automobile set manufacturers in the Central Plateau.
- The factory provides high-quality services at low cost with direct and indirect exports by using the benefits of tariff exemption possessed by its customs bond status.
- This is a new factory which began operations in 2016. This facility supports the North America area in a two-base structure together with Tijuana Factory in Mexico

#### Global Standard

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### Products

### (Automotive products)

- ► Outside door handles
- ► Heater controls
- ► Seat fan blower
- ► Tailgate switch
- ► Headlight controller

(Industrial equipment)

► Battery Backup Unit





### UNO MINDA KATOLEC ELECTRONICS SERVICES Pvt. Ltd. (UMKES)



### Pune, Maharashtra



Gat.No.427/5&427/10,Chakan-Talegaon Road, Village.Mahalunge,Tal.Khed, Dist.Pune-410501,Maharashtra, India

-Southeastern 140km of Mumbai City

● Establishment: April 2017

Capital: 350,700,000INR

• Employees: 618

● Floor space: 4,000m

### History

2017 Joint venture contract UNO MINDA LIMITED.

MINDA KATOLEC ELECTRONICS SERVICES Pvt. Ltd. Established

2018 Started production

### Strengths

- ❖ Located in the Indian core base of 140km from India's greatest commercial city Mumbai and copes with the wide needs of the customers of India.
- Established the production area of the level for vehicle installation and carry out severer protection against dust, electrostatic measures.
- UNO MINDA LIMITED is the Tier1 supplier who supplies electronic equipment to the maker of a car and the motorcycle.
- ❖ We show synergistic effect in development of products of the electronic equipment for vehicle installation and a technical area and can produce the invehicle electronic equipment of high quality in India.

### Global Standard

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Map data ©2017 Google

### **Products**

- ► Power Window Switch
- ► Floor Lamp
- ► License Plate Lamp
- **▶** Blinkers
- ► Tail Lamp
- ► Rear parking assist
- ►USB charger
- ▶ Roof lamp
- ► Engine Control Unit
- ▶ Wireless charger





### KATOLEC(HK) COMPANY LIMITED (KAH)

## HONG KONG

# International part procurement and sales, International logistics base



Unit B and C, 13/F, Roxy Industrial Centre, 58-66 Tai Lin Pai Road, Kwai Chung, New Territories, Hong Kong

- -5 minutes walk from MTR Aoi Ko Station
- -28 km by car from Hong Kong International Airport

• Employees: 19

### History

2002 Established KATOLEC (HK) Co., Ltd. to procure components from China and other countries for overseas markets.

2021 Office relocation and expansion.

### Strengths

- International part procurement and sales base
  - -Items handled:
  - Electrical and electronic parts, boards, molded parts, pressed parts, harnesses and foreign company semiconductors, etc.
- Supply of components to all Katorec Group sites utilizing international freight transport capabilities.
- Provision of development purchasing (alternative parts proposals) and procurement agency services.
- International logistics base
  - International cargo transportation, import/export customs clearance agency work, warehousing and buyer's consolidation, etc.







## GLOBAL EMS Center < JAPAN>

Sales, Material procurement, Design, Quality Assurance etc..



- Global EMS Center
- 4-1-51 Asahimachi Takamatsu-shi, Kagawa, 760-0065, Japan
- Global EMS Center Osaka Office Facade Esaka Bldg. 10F, 1-23-43 Esaka, Suita-shi, Osaka 564-0063, Japan
- Global EMS Center Tottori Development Office 7-5-1 Wakabadai-minami, Tottori-shi, Tottori, 689-1112, Japan
- Global EMS Center Matsuyama Office 7-15-6, Kukodori, Matsuyama-shi, Ehime 791-0054, Japan
- Global EMS Center Nagoya Office 2nd Floor, Hirokoji Center Place, 2-19-19 Nishiki, Naka-ku, Nagoya-shi, Aichi 460-0003, Japan

• Establishment: April 1997 • Employees: 126

### History

- 1996 Opened Materials Center to reinforce the domestic procurement of components.
- Established EMS Promotion Center (Formerly Materials Center). Reinforced the design department.
- 2014 Renamed to GLOBAL EMS Center.
- Launch Osaka office of Global EMS Center.
- Open new head office factory in Takamatsu.
- Launch Nagoya office of Global EMS Center.

### Strengths

- We are a manufacturing company that handles everything from design, material procurement, mounting of printed circuit boards to assembly of finished products.
- ❖ We have two domestic production bases and ten overseas production bases, all of which are operated in-house. KATOLEC global platform allows us to flexibly respond to our customers' BCP (Business Continuity Plan) needs.



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