

Our Company

- > Established WOFE in 2000
- > Total investment 18M\$
- > Fully equiped Toolshop
- ➤ Metal & Plastic & Decoration
- > Components & Full Assembly
- > 27000m2 floor space
- **→** ISO 14001 certified (2002)
- > IATF 16949 certified (2004)
- **→** ISO 13485 certified (2012)
- > 26.6 M USD Sales (2020)





Safety Protocol 1. Emergency Phone call 119 or 66652081

- 2. Follow PPE (personnel protection equipment) requirement
- 3. Walk ON Green Aisle
- 4. Green Cross Policy
 - (1). All Potential safety risks can be avoided
 - (2). Zero Safety Incident
- 5. Be Always Safe In KeyTec
- 6. Pictures only upon approval







Our mission

We provide Metal and Plastic parts and combine them in Mechatronic Manufacturing Solutions (MMS) for various application areas.

We are a reliable partner during the product life cycle for customers with a focus on technology and innovation.

"We Help Industrialize Your Ideas"





Our company strategy

- Engineering & Manufacturing
- Metal & Plastic technologies
- Surface decoration and assembly
- Creating integrated modules/ products
- Worldwide production facilities
- One roof concept
- Joint focus on worldwide customer support
- Reliability and Trust

"Powerful in Metal-Plastic combinations"

Worldwide production





1. Netherlands



<u>Eindhoven</u> headquarters

Sittard

Proto & Mass production
Metal, Plastic and Assembly



2. Czech Rep.

<u>Ceske Budejovice</u>
Metal, Painting and Assembly



3. China

Suzhou PC

Metal, Plastic, Painting, Decoration Assembly and Tooling

Suzhou MM

Hongkong Rep. office

Our technologies



Metal

- Deep drawing
- Bending

- Progression
- Exotic metals

modular stamping

Plastic

- High volume
 - ume Insert molding
- Small series
- 1K 2K molding
- Reel to reel

Engineering plas

Assembly

- Laser welding
- Glueing
- Ultrasonic welding
 Cinching
- Electric welding

Decoration

- Water Based
 - Painting

- Tampon printing
- Screen printing
- Laser etching







Quality in KeyTec group

KeyTec plant	ISO 9001 Quality system	ISO 14000 Enviroment	IATF 16949 Automotive	ISO 13485 Medical	SA 8000, EICC Social Acc.	ISO 22030 Continuity
Sittard, Netherlands				EU-MDR		
Ceské Budejovice, Czech Republic						
Suzhou, China						





We help industrialize your ideas

Customer responsibility portfolio									
Research	Concept	Development	Pre-production	Production	Marketing & Sales				
Customer research assistance	Conceptual design	Development	Pre-production Keyec	Production					



Mechanical Design Assembly design Tooling Pilot production Mass production

KeyTec Family Company



Warm

Cozy

Transparent

































- Pro active
- Zero-defect Quality













YAZAKI KOSTAL "Powerful in Metal-Plastic combinations"



Our customers KeyTec Inside



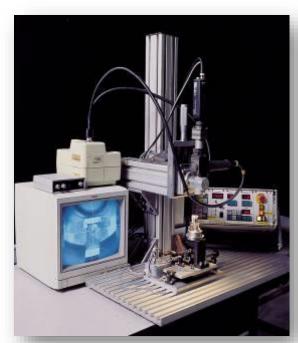
- Multinational
- Worldwide focus
- Proactive
- Zero-defect Quality

"Powerful in Metal-Plastic combinations"



KeyTec Quality System

- > ISO 14001 (since 2002)
- > IATF 16949 (since 2005)
- > ISO 13485 (TüV, since 2012)
- > APQP/PPAP
- > FMEA & MSA/SPC/G-RR
- Supplier Quality Assessment (SQA)
- > 8D Action, Continuous Improvement, Training
- > Conform to ROHS, REACH Registration





KeyTec Quality System







ISO 13485 IATF 16949 ISO 14001



KeyTec Measuring Capabilities



CMM (2 sets)

VMM (3 sets)

Caliber

Color Meter

Resin Water Inspector

Resin Flux Inspector

Gloss Meter

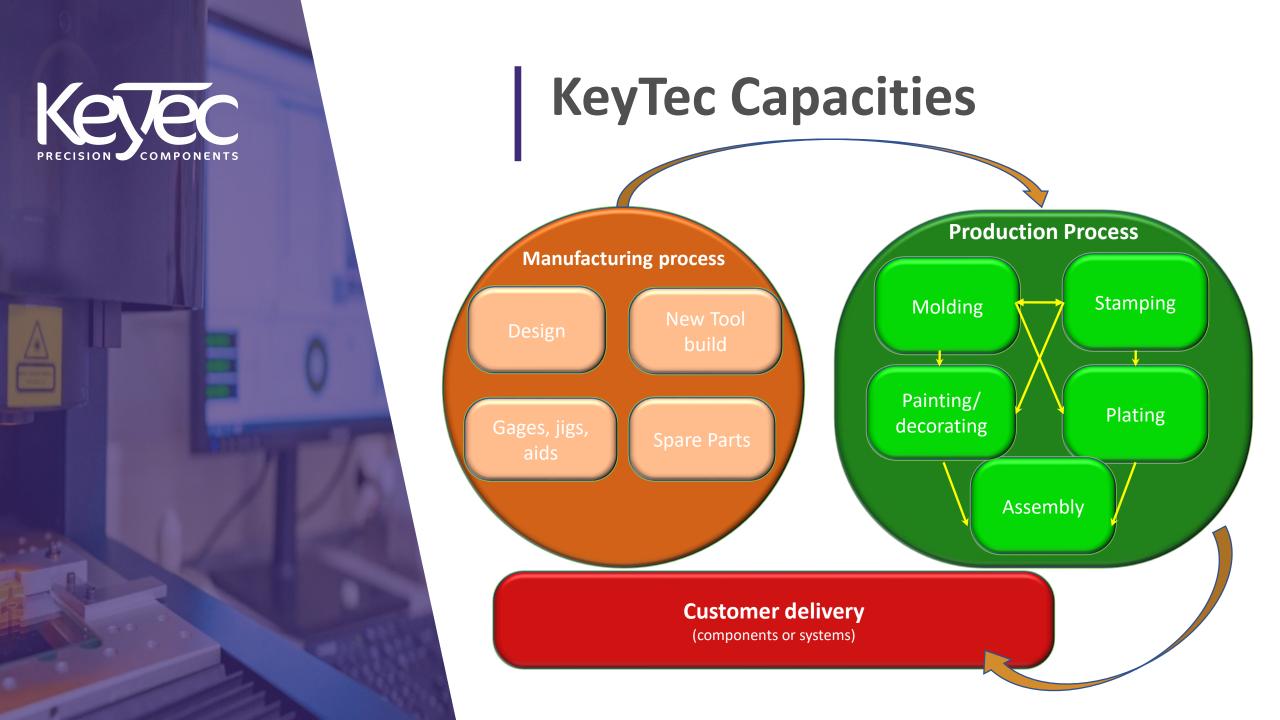
Life Cycle Validation

Climate

Wear Resistance

Solvent Resistance

Measuring Jigs





KeyTec Stamping

➤ Floor Space: 1600m2

▶ Presses: 14 (Kaiser, Seyi, Micron)

≻Tonnage: 25T-400T

➤ High Speed (800SPM)

≻Deep Drawing

➤ Deburring & Cleaning

➤ Ultra Sonic Cleaning

≻Auto Bending & Assy





KeyTec Precision Molding

- ➤ Machines: 44 (Arburg, Demag, Engel)
- Insert Molding (Metal + Plastic)
- > 2K (2shot) Molding
- > High Speed Molding
- Rapid Heating and Rapid Cooling
- Clean Room Molding
- Electric Molding
- > Tonnage: 15-650T
- > Floor Space: 2500m2





KeyTec Painting

- > Floor Space: 1000m2
- > 1 Automatic Spindle Line
- > 1 Water-based Robot Painting Line
- > CO2 Snow and Ionized Cleaning
- Plasma Surface Activation





KeyTec Surface decoration

- > Laser Etching
- > Silk screen Printing
- > Pad (tampon) Printing
- > Painting
- Plating (outsourced to partner)





KeyTec Assembly

- **≻**Area: 3000m2
- **≻**Laser Welding
- **➤**Ultra-sonic Welding
- **≻**Adhesive Bonding
- **≻**Solder-Wave Assy
- > Manual assembly
- > Automatic Assembly
- ➤ High-class Clean Room (class 100K-1K)
- ➤ Additional 1000m2 dedicated to LCD-BL/TP Assembly





KeyTec Specialty Professional Product

- Plastic
- > Connectors
- > Printing
- PCB surface mounting
- > Assembly & Testing
- End Product

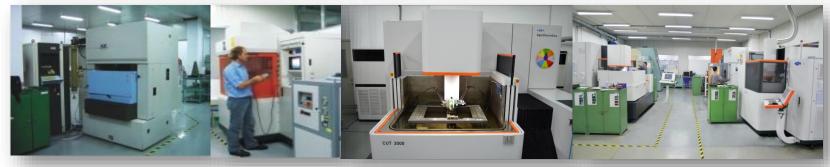






KeyTec Tooling

- World-Class Tooling Center established in 2004
- Die/Mold DFM + Development
- > Spare parts + New Die and Mold manufacturing



- Latest Investment: Exeron High Speed Milling Machine with 1.0U and Mirror Cutting Surface
- Latest investment: Agie Charmilles CUT3000 (2) with 1.5 U and 3D cutting

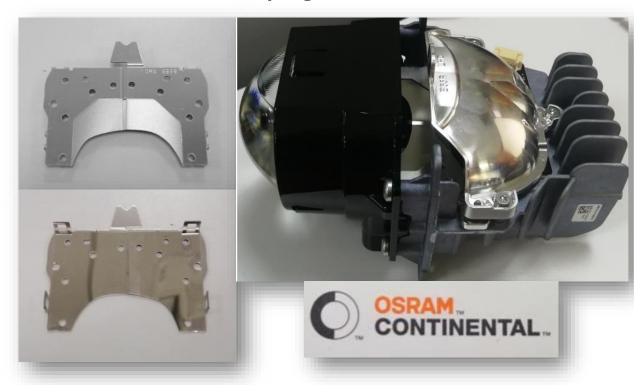


Automotive Lighting

Customer: Osram-Continental

Application: High and Low Beam Module

Process: 2K Stamping







Ultra-Thin LCD Frames (0.1mm)



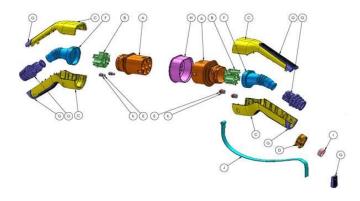
Thick bus bars (3.0mm)



KeyTec Specialty EV Charger







Customer: DEFA

Product: Electric Vehicle Charger

Specialty:

L. 2K molding

2. Rubber molding

3. Fiber glass re-enforcement

4. Kit Product

5. Scarlet color



Customer: Innolux End customer: PSA

Specialty:

1. Plastic bracket replaces the metal one

• Lighter product

Cost saving

2. Fiber glass re-enforcement





Customer: Aptiv

Car Brand: PSA DS 7

Crystal knob:

24 crystals

Mold with 6 slides

Plating

Rubber nest

"Manual ASSY"







Customer: INNOLUX

Car Brand: Audi A6L

Adapters: Long Fiberglass Re-enforced

Lighter and Stronger









Customer: INNOLUX

Car Brand: BMW X6 2020

1. Fashion Cubic Design

2. Front and Rear Cover Integrated

3. Water Based Painting







Automotive HUD LCD Display

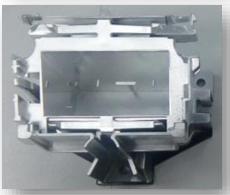
Customer: Tianma/ BHTC

Car Brand: BMW

Processing: stamping & inset molding

Material: electric conductive resin/metal

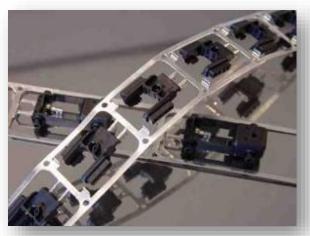








KeyTec Specialty Safety Products---Automotive Insert-molding







Brake Sensor Carrier

Airbag Ignitor Body **Coda Connector**



KeyTec Specialty Safety Airbag Igniter



ARC









KeyTec SpeciatySafety---ABS sensor carrier









KeyTec Specialty Romote KeyTec







Customer: Aptiv

Car Brand: GM Chevolet MENLO

Process: 2K molding

Rapid Heating and Rapid Cooling

High Glossy

Transparent Lens







Customer: Aptiv

Car Brand: GM Buick VELITE

Process: 2K molding

Rapid Heating and Rapid Cooling

High Glossy

Transparent Lens







Customer: Honeywell

- 1. Complex Lens Design
- 2. Insert molding
- 3. Cubic Cover





KeyTec Inside





and in.....
Ferrari California







"We Help Industrialize Your Ideas"

www.KeyTecgroup.com

