

About Us



Specialist in Touch Monitors, Touch PCs & Optical Bonding

Operating on a **global basis**

In-house **Design**, **Development**, **Manufacturing** and **Marketing German engineered** products, **manufactured in Asia** with **local service**



12+ Years

FOCUS ON THE NICHE OF TOUCH DEVICES

+000,000

TOUCH DEVICES
SOLD WORLDWIDE

10,000+

MONTHLY OUTPUT CAPACITY FINISHED DEVICES



Milestones

150+ employees

Moving to new factory premises of 3400m²

Significant expansion and investment in equipment

faytech Service GmbH turned into faytech AG (joint-stock venture)

SGS ISO 9001:2015 certification



2016 / 2017



2018 / 2019

280+ employees

Introduction of open

frame monitors, faytech

flat and mirror series

NAV ERP-system Roll-

out in Germany (2018) &

China (2019)

Opening faytech Japan,

faytech India and

opening of new factory in

Suining of 16,200m²

Microsoft and Intel Gold

partner

Received E-mark

certification (automotive)



370+ employees

Launch of faytech's new w ebsite

> Opening of faytech Korea

Significant investment into new machinery

Introduction of faytech's first industrial tablet

Many milestones still to come for 2022!

2022

2021

2020

340+ employees

faytech products listed

on Intel's solution

provider marketplace

Partnership with Dell,

ensures faytech

products are listed in

their portfolio

Introducing anti-

microbial coating

technology (Kastus®)

IATF 16949 conform

(automotive)











8 employees

Start of production in Shenzhen, China with 8 employees on 650m²

Start international distribution

2010 / 2011





40+ employees

Start development

cooperation with ASUS

SGS ISO 9001:2008

certification



2014 / 2015

70+ employees

faytech Service GmbH is established in Germany

Start production

capacitive multi-touch

products (also large

sized)

Introducing optical

bonding & chemical

etching



faytech AG







PYRAMID

2022 is a very special year for faytech, as we are becoming a part of the **Pyramid AG group**, which allows us to truly focus on our growth, innovation and competitive advantage in the touch devices market.

With the integration we increase our global reach, will have a higher efficiency on product innovations and shall leverage on synergy effects to offer you further improved products and services providing a real competitive advantage in the field of touchscreen devices.

Together with **Pyramid AG** team, we can build a pioneering center of competence and innovation for **P.O.S.**, **QSR** and **industrial touch devices**. Together, we have the potential to become the global market leader in several lucrative market niches.

Date of faytech AG & Pyramid AG deal

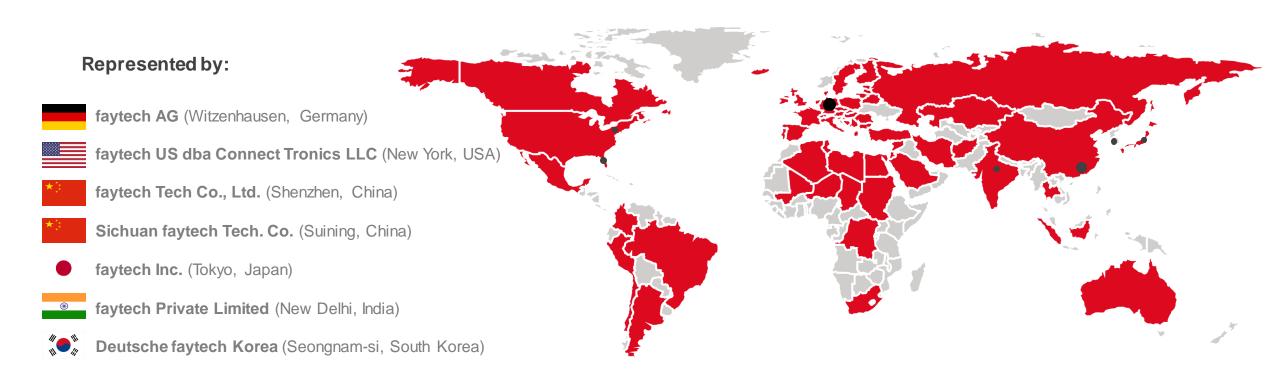
Q1, 2022

Pyramid AG group revenue expectations

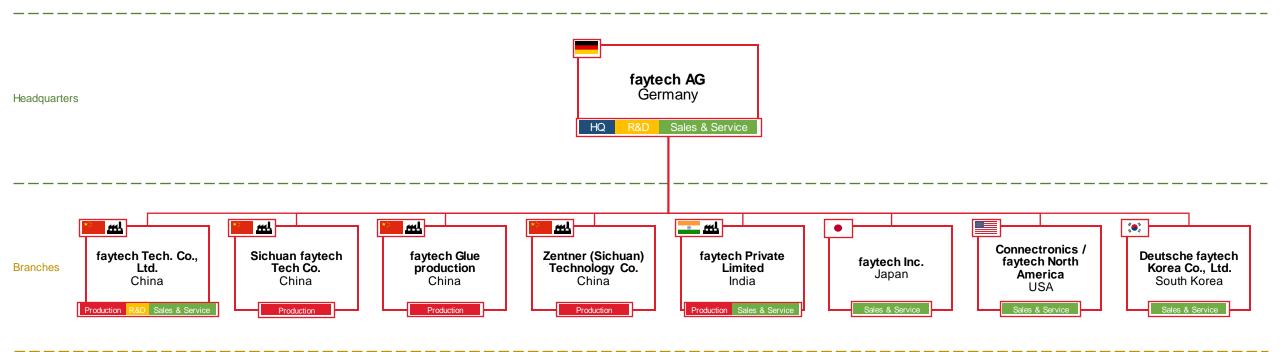
2022 (e) **USD 100 Million** 2023 (e) **USD 120 Million**

About Us

Founded	March 27, 2009	Global Employees	370+
Headquarters	faytech AG (Witzenhausen, Germany)	No. of Technology Patents	24 (7 pending)
CAGR 2009 - 2020	35%	Revenue invested into R&D	10.2%
Consolidated Revenue 2021 (based on global company ownership)	USD 31.8 Million	Standard products in portfolio (excluding projects & accessories)	92



Simplified Structure of the faytech AG Group



Products and Services

Standard Products

Standard Productportfolio 2 Years Warranty

Special Touch PCs Touch Monitors Products Industrial Tablet Open Frame faytech flat Capacitive Touch Resistive Touch IP65 HB Touch Capacitive Touch Resistive Touch IP65 HB Touch Embedded Touch Capacitive Touch Monitors Monitors **PCs** PCs PCs PCs Monitors Mirror PCs Monitors Hygienic Solutions **Shopping Cart** Kiosk Systems Intel Celeron DualCore N3350 Box PCs Realtek 2795 / 2662 / 2556 / 2271 / 2270 Intel Pentium QuadCore N4200 ARM V40 QuadCore Mstar V59 Intel Core i3-7100U processor ARM Rockchip RK3399 Intel Core i5-7300U processor Amlogic A311D Intel Core i7-7600U processor Amlogic S905 Intel Elkhart Lake (Q2, 2022) Intel Tiger Lake (Q2, 2022) Linux

Chassis Options

Rubber Frame

Standard

Open Frame

Aluminium Frame

Customized Frame

Project

















Product / Service Offering

faytech covers the whole value chain, from cell and backlight design & assembly, to optical bonding and eventually the integration into a final product: Touch Monitor, Touch PC or a Special Product.

Value Chain (simplified)

External Components for production

Display Production

Cell design & assembly Backlight design & assembly

Touch Panel Production

Cover Glass Touch Sensor Lamination **Optical** Bonding*)

Touch Monitor

Combination with mainboard

Touch PC

Combination with individual special devices

Special **Product**



Capacitive Touch Monitors/PCs



Resistive Touch Monitors/PCs



IP65 High Brightness Touch Monitors/PCs



Open Frame Touch Monitors



IP65 Industrial (ruggedized) Tablet

- > Multi-touch functionality with adjustable sensitivity
- > Extremely resistant to environmental forces
- Works when pressed (any material)
- > For outside use in bright, dusty and wet areas
- > Frameless touch monitor for integration
- > Easy to built into own products
- > For outdoor & semi-outdoor use
- > Battery included (mobile solution)



















faytech flat



Mirror PC



Hygienic Solution



Shopping Cart

Kiosk



Projects (e.g., ButterflyMX, NEC)





In-House production step



Product

^{*)} The process of connecting the display with the touch panel using our own silicone glue

Touch Panels / Sensors / Display Panels

Touch Panels

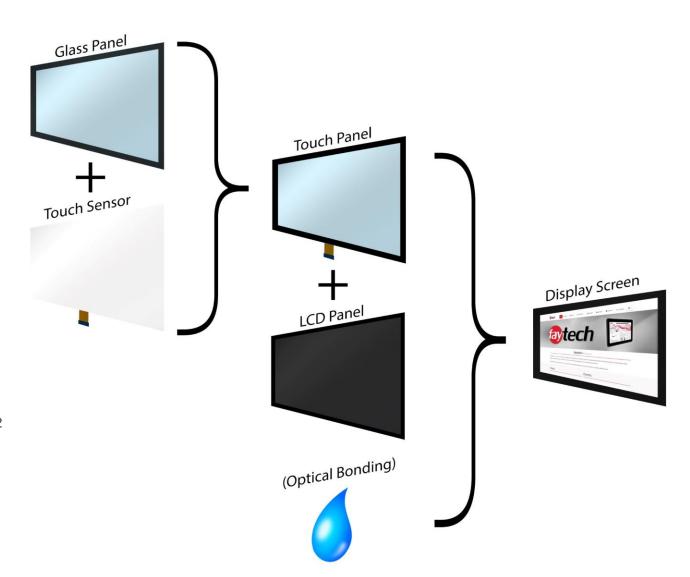
- Resistive touch panels
- Capacitive touch panels

Touch Sensors

- Adjustable sensitivity
- In-house design
- In-house firmware tuning
 - Gloves & water (raindrops adjustments)
 - Capacitive Touch Stylus support

Display Panels

- High brightness tuning: 1000 / 2500+ cd/m²
- 100k hours backlight
- Full-array & Edge backlight



Coating/Customizations

Main Coating & Etching Technologies

- Kastus anti-viral & anti-bacterial coating
 - + Activated by natural light
 - + Lasts complete lifecycle of device
 - + active 24/7, day and night
 - + Permanently blocks up to 99.99% of bacteria
 - + Effective results against Human Coronavirus
- Anti-Glare (chemical etching)
 - + chemical etching, allowing for more flexibility
 - + Reduces glare and reflections
 - + Resilient to scratches and fingerprints

Other Coating Possibilities

- Ultraviolet (UV) Coating
- Infrared (IR) Coating
- Anti-fingerprint Coating

Other Customizations

- Cover glass
 - Dimensions / design
 - Thickness
 - Printing
- Customizable FPCs

Anti-viral & anti-bacterial coating





Anti-glare (chemical etching)



Other coating possibilities





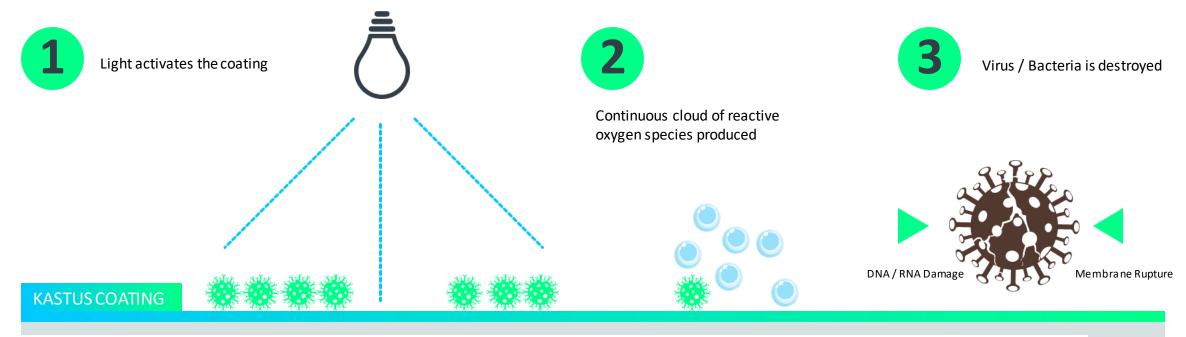


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Kastus Antimicrobial Coating Explained

How Does Kastus' Technology work?

While natural light is the primary method of antimicrobial activation on a Kastus® coated surface, our technology also contains a patented ingredient that continues to fight pathogens in the dark. Ensuring 24/7 protection.



GLASS

Optical Bonding

- Own Patented Technology
- In-house Production, Rigorous Quality Inspection
- Expertise in Large Size Optical Bonding
- High Performance/Cost Ratio
- World Leader in Large Size Optical Bonding
- Optical Bonding of OLED & E Ink Devices

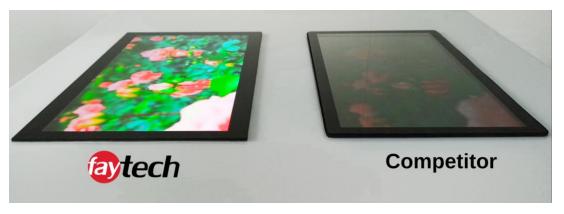


Optically Bonded 32" E Ink Display

Look for the CLEARBOND Logo

All products with this logo are Optically Bonded in-house by faytech!





<u>Competitor Comparison video</u>
See the difference Optical Bonding makes!

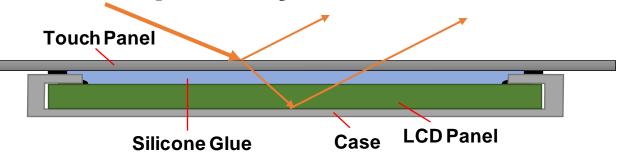


Optical Bonding

Better Display Quality

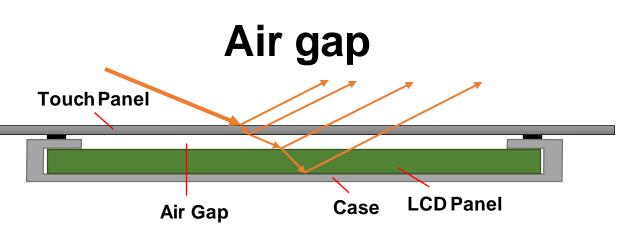
- Less refraction—Comparing to air bonding, optical bonding reduces refraction up to 65%
- The perceived brightness of LCD enhanced up to 10%
- Insusceptible to condensation and dust particles
- Solid connection between touch panel and LCD panel

Optically Bonded



Better Performance Than Acrylic

- Better curing——Silicone glue cures more evenly
- Less internal stress——During curing, the contraction rate for acrylic is 4%, whereas only 0.1% for silicone glue
- Better control over hardness——the hardness of silicone glue can be manipulated within a wider range
- No yellowing——Acrylic yellows over time due to ultraviolet radiation, silicone glue does not yellow



Certifications



- ISO 9001:2015

- CE

- FCC

Upon Request:

- · UL
- · CCC
- · CE 'Category B'



- RoHS III Compliant



- IATF 16949

Upon Request:

· E-Mark certification



Upon Request: • EN 60601-1

faytech guarantees extraordinary quality and consistency throughout the company, and in compliance with above certifications to ensure all products meet the internal rigorous quality standards.



Control Panel for Meiko's Commercial Dishwasher

Customer requirements

- Control panel for commercial dishwasher machine to operate 24/7 with long-lifetime
- Solution which is directly linked to the machine and network
- Touch solution, insensitive to water droplets (no ghost touches)
- Waterproof solution in an industrial environment

- 7" Embedded Touch PC (V40)
 solution with Optical Bonding
- Customized internal i/o board to operate the dishwasher machine (with AC inputs, temperature sensors and PWM outputs)
- Capacitive touch with adjusted touch sensitivity, ensuring no ghost touches by water droplets
- Rubber front, when built-in allows complete IP65 waterproof solution
- Integrated Wi-Fi & 4G connection

IP65 Yacht PC

Customer Requirement

- Need of Touch device on a yacht for navigation
- Brightness controlled by buttons
- Completely compatible to use for navigating on the sea

faytech's Solution

- Integrated GPS
- High brightness IP65 PC with buttons
- Solid rugged case with mounting solution for yachts





10.1" Medical Touch PC

Customer Requirement

- Medical device with Capacitive touch function
- White case, to fit in with the hospital equipment
- Specialized connectors to work with hospital equipment

- Customized white case with customized connectors e.g. S-Video
- Certified EN60601-1 Device
- · Capacitive touch PC with IP65 front



7" Mobile in-car PC

Customer Requirement

- Mobile in-car solution for transportation platforms
- Small, light but also robust and easy to install within a car or bus
- Exact location and speed information
- · Certification for the automotive Industry
- Withstand Short-Term Power losses

- Customized mainboard, with connectors for automotive
- Separate Monitor and PC
- Optically bonded, clear capacitive touch monitor
- Integrated microphone, speakers, 3G and GPS
- E-Mark Certification
- Extended voltage input

11.6" Building Access Control PC

Customer Requirement

- Outdoor application
- · Readable in bright environments
- · Visitor image acquisition
- Real time communication with resident
- · Convenient admittance for residents

faytech's Solution

- IP65 front protection
- · High brightness enhancement
- Webcam integration and extra illumination
- Loudspeakers and microphone integration
- RFID card reader integration





21.5" Mirror Touch PC

Customer Requirement

- Eye-catching display for retail section
- Multi-purpose screen with & without touch
- · Android PC inside

- Optically Bonded Mirror PC screen
- Custom size
- Complete lp65 protection
- PC inside with Android 6.0 installed

Customization Examples – Touch Monitors

15" IP65 HB Capacitive Touch Monitor

Customer requirements

- Touchscreen device for locker terminal
- Water and dust-proof solution for (semi-)outdoor use
- High brightness display required for sunny days
- Capacitive 10-finger multitouchscreen

- Capacitive Touch Monitor with complete IP65 protection
- 1000+ cd/m² brightness for outdoor use
- Optically bonded Capacitive Touch panel



Customization Examples – Touch Monitors

Global Cooperation with NEC in the Transportation Industry





55" IP65+ Capacitive Touch Kiosk

Customer Requirement

- Water and dust-proof Kiosk
- Outdoor use, extremely high brightness needed for sunny days
- Robust, heavy and rugged casing
- Touch screen needed

faytech's Solution

- IP65+ Kiosk with complete water and dust protection
- 2500 cd/m² brightness with active cooling
- Complete customized kiosk stand
- · Optically bonded Capacitive Touch panel





21.5" Touch Monitor Kiosk

Customer Requirement

- Camera required
- · Own graphics on case
- IP65 front
- Easy-to-use solution
- Solution on a PC

- IP65 protection front
- Customized case with graphics
- Camera integrated on top
- Integrated Industrial PC



Customization Examples – Hygienic Solutions

21.5" Digital Signage Sanitization Station



Customer Requirement

- Solution to maintain hygienic guidelines
- Interactive kiosk solution
- Tool to measure body temperature
- Sanitizer Dispenser

faytech's Solution

- 21.5" Optically Bonded Touch Kiosk
- Integrated Hand Sanitizer Dispenser
- Thermal + Full HD Camera on top
- · Wall or Free-standing Mounting options
- Monitor version or PC with Windows / Linux



10.1" Thermal Temperature Testing PC

Customer Requirement

- Solution to maintain hygienic guidelines
- Interactive device
- Tool to measure body temperature
- · Card reader integrated
- Easy mounting solutions (VESA)

- 10.1" Optically Bonded Touch PC
- Integrated RFID scanner
- Thermal + Full HD Camera on top
- PC with Windows / Linux / Android

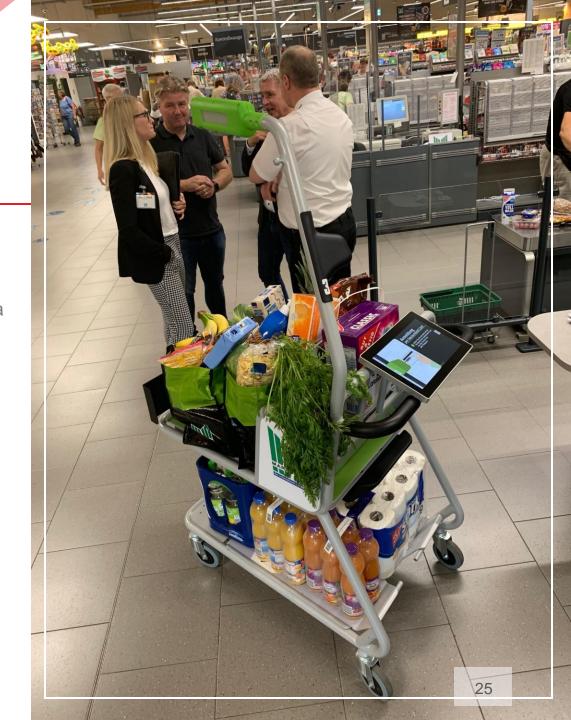
Customization Examples – Shopping Cart

Interactive Shopping Cart "EASY Shopper"

Customer requirements

- Complete shopping cart "All-in-One solution"
- Multi functional panel with touch screen
- Scale, scanner, cameras, GPS,
 Accelerometer and more!
- 18h battery lifecycle time, also in Winter

- Investment in pipe bending-, cutting-, punching-machines and a complete production setup
- Development of the complete shopping-cart electronics, including battery management
- TÜV-certification (battery certification)
- There is a container delivered to Germany every week using the "one belt road"







- Well-Trained Employees
- Chemical solvent resistance (IEC60068-2-45)
- IATF 16949 Conform (Automotive)
- Highly Flexible for Customization
- Touch Panel with Extraordinary Quality
- Rigorous Quality Inspection
- ISO 9001:2015 Certified





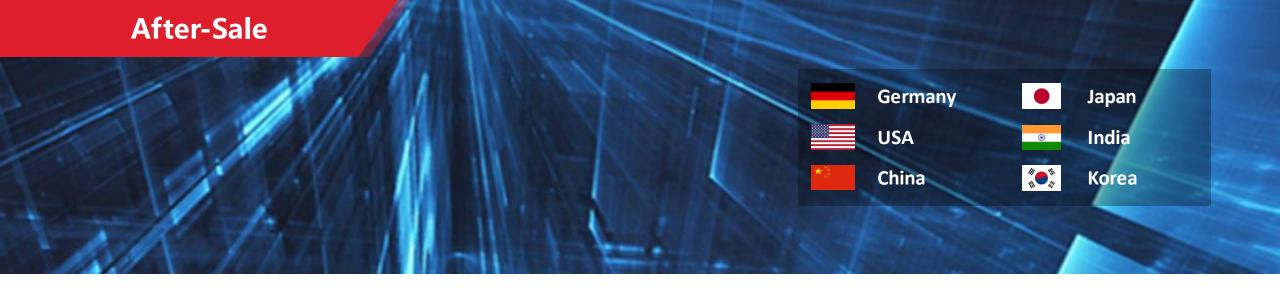
- 15+ specialists in Germany

 To analyze all European service cases, supporting the Production/Service interface of the company
- 25+ specialists in China

 All with long-term working experience, complete expertise in their respective field, and each having a technical college or university background
- 5 CAD designers
 Setting the right base for any faytech product

- Own R&D teams in both Germany and China + a global network of R&D partners securing that faytech follows highest quality standards
- Project sample team of 10+ engineers in 2 factories
- Large team of specialists:
 - Mainboard specialists
 - Firmware designers
 - Touch controller specialists
 - Software developers
 - Backlight designers (HB)

- Touch panel designers
- PCB-board designers
- Optical bonding specialists
- BIOS & Image specialists
- Glass coating specialists



- Local Service
- Reliable Technical Support
- Experienced Field Application Engineers





Customer satisfaction is regarded as the highest priority for faytech.

faytech is entrusted by customers for its expertise in the niche and superior quality.





















Factories & Production



Production Plant

faytech Tech. Co., Ltd. (APAC HQ)

Purpose

Optical bonding, electronics assembly, R&D, Sales and project business

Size

4,450 m²

Established

2009

Machine / Tool list

Production Line Electronic workspace

- ~120 m² ISO 5 (class 100) cleanroom
- ~880 m² ISO 6 (class 1,000) cleanroom
- ~500 m² ISO 7 (class 10,000) cleanroom

Production Capacity (monthly):

20k+ optical bonding & touch panels



Production Plant

Sichuan faytech Tech Co.

Purpose

Optical bonding, electronics assembly and manufacturing of faytech devices

Size

12,000 m² (2x 6000 m²)

Established

2018

Machine / Tool list

Production line, EASY Shopper assembly Electronic workspace ~130 m² ISO 6 (class 1,000) cleanroom

Production Capacity (monthly):

~3400 m² ISO 7 (class 10,000) cleanroom

10k+ touchscreen devices



Production Plant

Zentner (Sichuan) Technology Co.

Purpose

Metal production and case manufacturing

Size

6000 m²

Established

2018

Machine / Tool list

Laser cutters, Bending machines Welding area, Powder coating CNC machine, Pipe cutting machine

Production Capacity (monthly):

40k+ sets of cases



Production Plant faytech Tech. Co., Ltd. (APAC HQ)

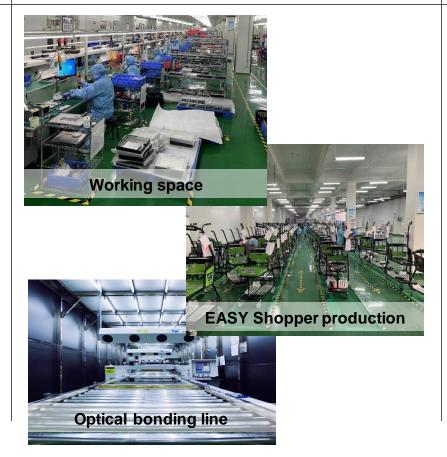


Production PlantSichuan faytech Tech Co.



Production Plant
Zentner (Sichuan) Technology Co.









Thank you!

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