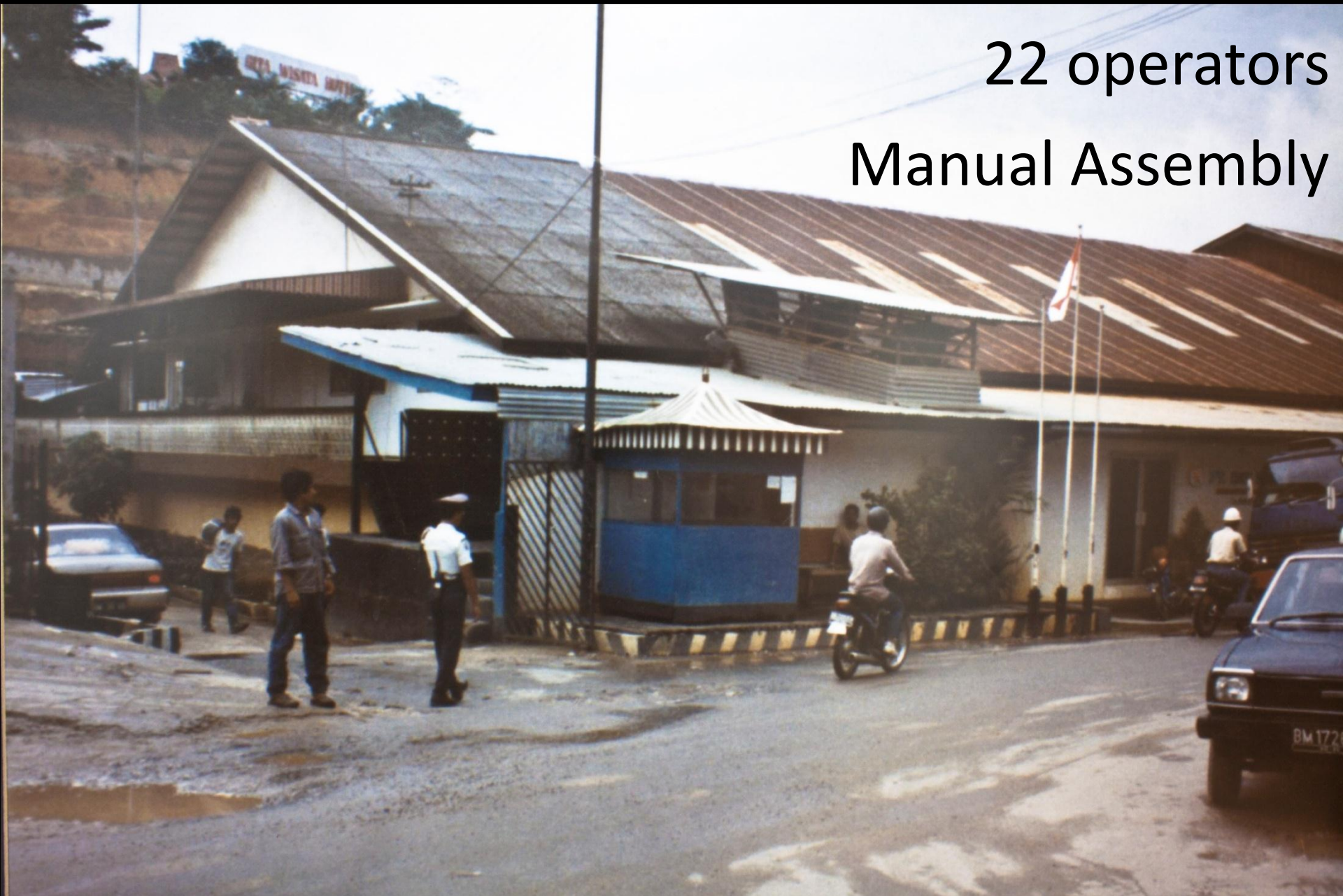


**PT SAT NUSAPERSADA Tbk**  
ESTABLISHED IN 1990

22 operators  
Manual Assembly



23 YEARS LATER

5,500 Operators  
Manual Assembly  
High Technology Manufacturing  
Public Listed in 2007



# STRATEGIC LOCATION

## FREE TRADE ZONE



# ADVANTAGES

Free Trade Zone

EURO GSP

ASEAN-FTA & USSFTA

Abundant of Labor Force

Daily Cargo transport BTM–  
Singapore

VOA for 65 countries



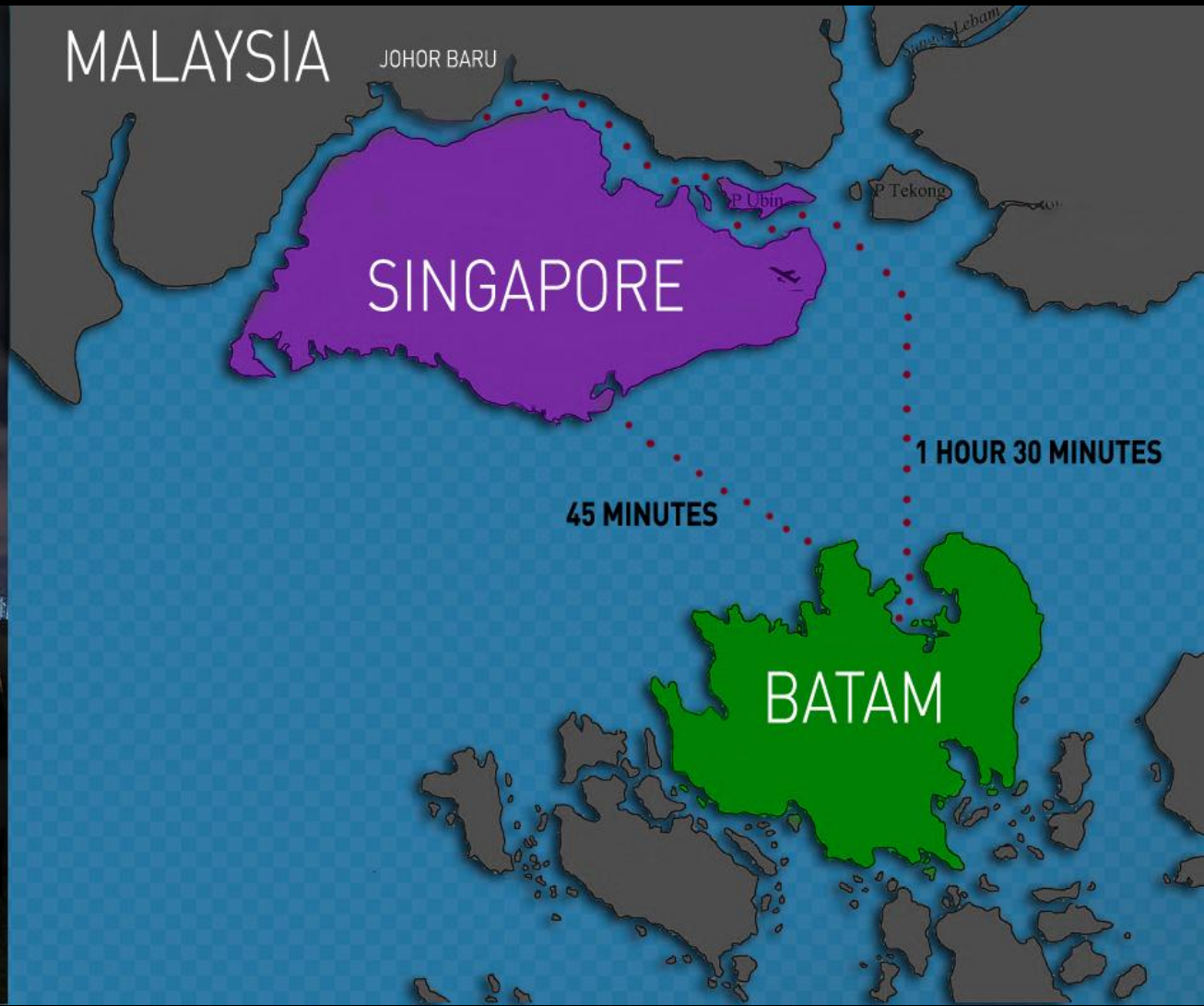
## INFRASTRUCTURE

6 Ferry Terminal

3 Cargo Terminal

1 International Airport

26 Industrial Zones





## MANUAL JOBS



## HIGH TECHNOLOGY

- SMT
- PLASTIC MOLDING
- METAL STAMPING
- FINAL ASSEMBLY



# SURFACE MOUNT TECHNOLOGY (SMT)

ESTABLISHED IN 1996





■ DUAL LANE

■ CPH 100,000

■ INTELLIGENT FEEDER

■ CHIP 0402 (01005)

■ PLACING ACCURACY 30 MICRON

■ FLIP CHIP (C4 PROCESS)

# SURFACE MOUNT TECHNOLOGY (SMT)

TOTAL OF 21 SMT LINES

# SURFACE MOUNT TECHNOLOGY (SMT)

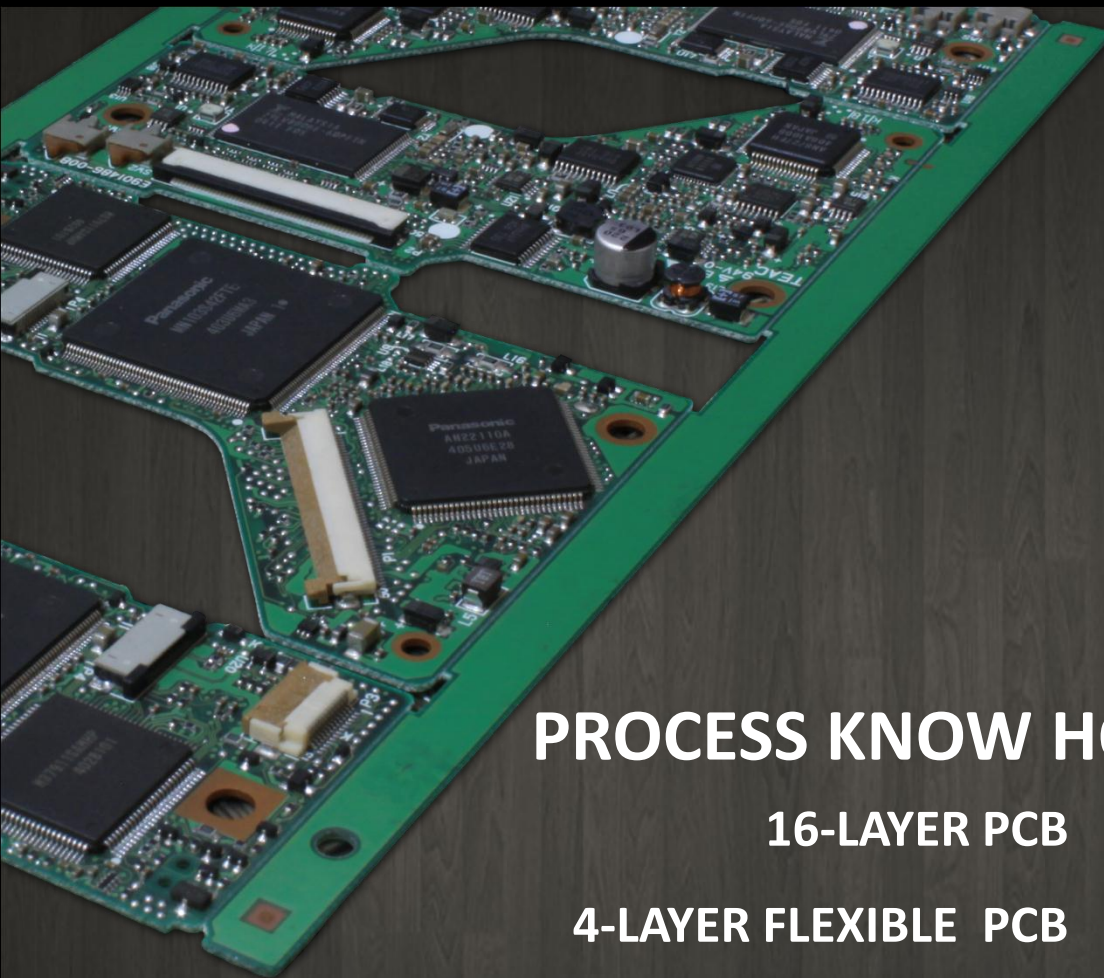
MONTHLY CAPACITY (23 WD) :  $\pm$  330 ,000,000 POINTS

# SURFACE MOUNT TECHNOLOGY (SMT)

IN 1 DAY (24 HR) :  $\pm 14,300,000$  POINTS

# SURFACE MOUNT TECHNOLOGY (SMT)

EVERY SECOND :  $\pm$  166 POINTS



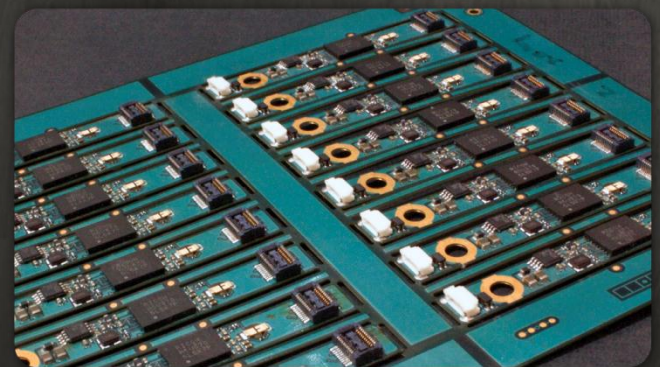
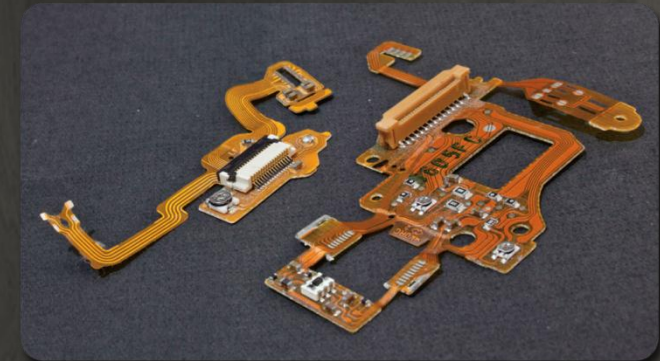
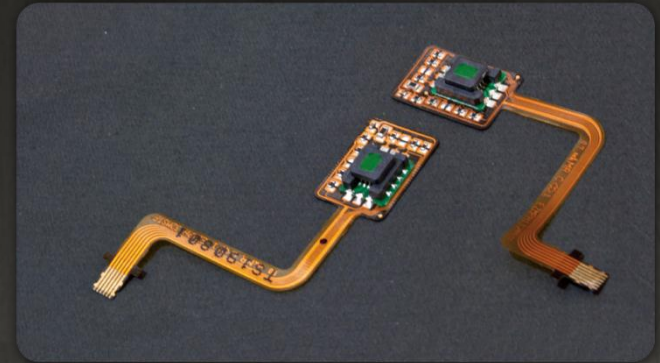
## PROCESS KNOW HOW

16-LAYER PCB

4-LAYER FLEXIBLE PCB

HALOGEN-FREE SOLDERING PROCESS

PACKAGE TO PACKAGE MOUNTING PROCESS



# PLASTIC MOLDING

ESTABLISHED IN 1997

# FACTORY OVERVIEW



## WE HAVE TOTAL OF 34 INJECTION MACHINES

SUMITOMO : 29 UNITS RANGING FROM 15 – 350 TONNAGES

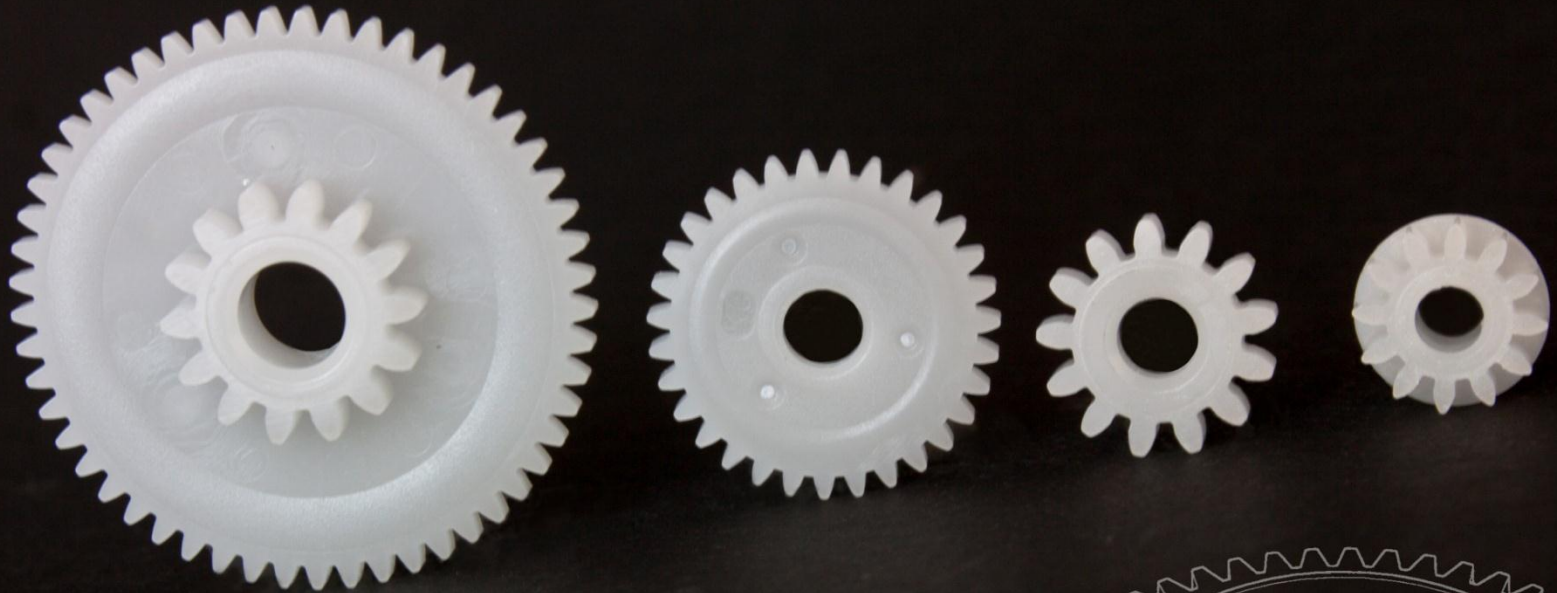
HAITIAN : 5 UNITS RANGING FROM 90 – 380 TONNAGES



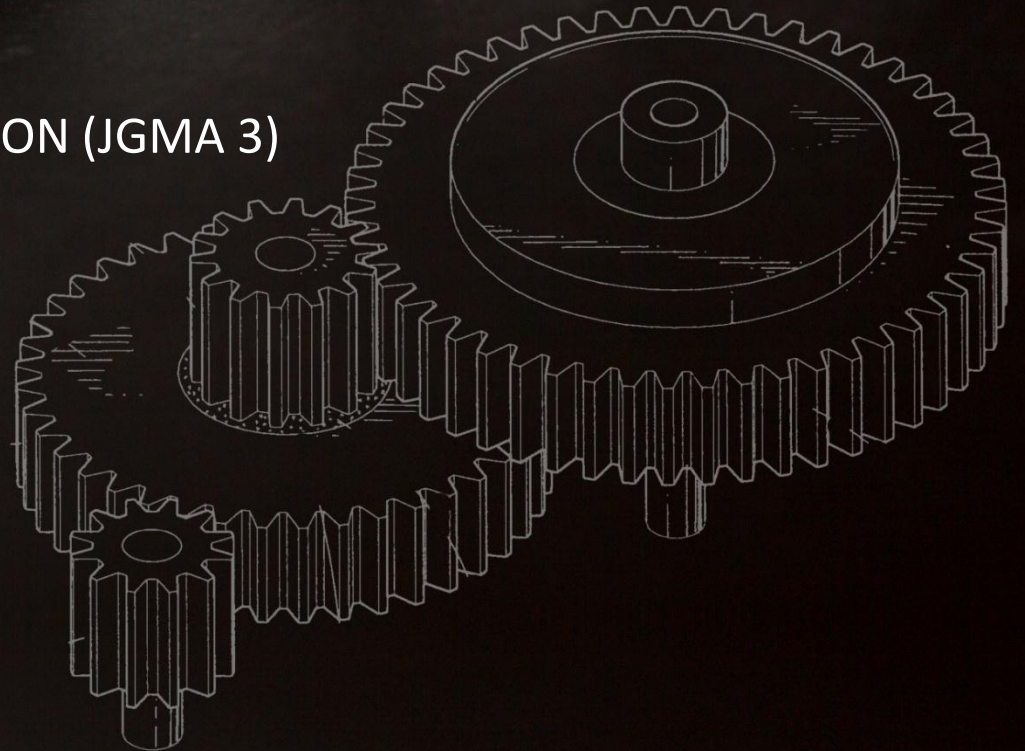
# COSMETIC PRODUCTS

MIRROR SURFACE FINISHING  
SPRAY PAINTING



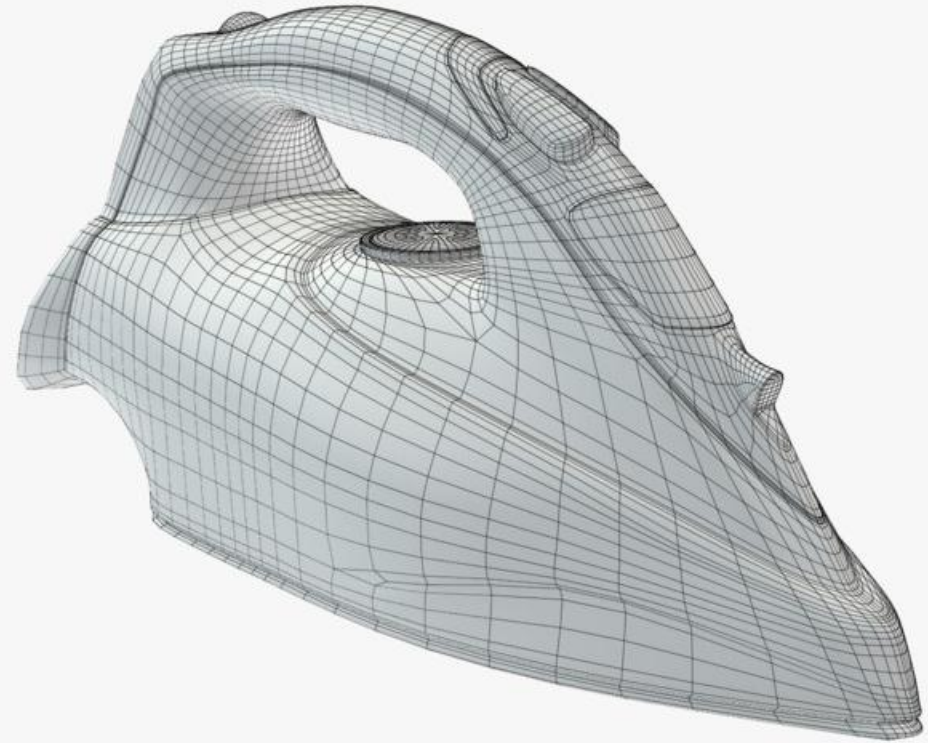


RUN OUT CONTROL UP TO 50 MICRON (JGMA 3)



HIGH PRECISION GEAR

# TRANSPARANCY PRODUCT



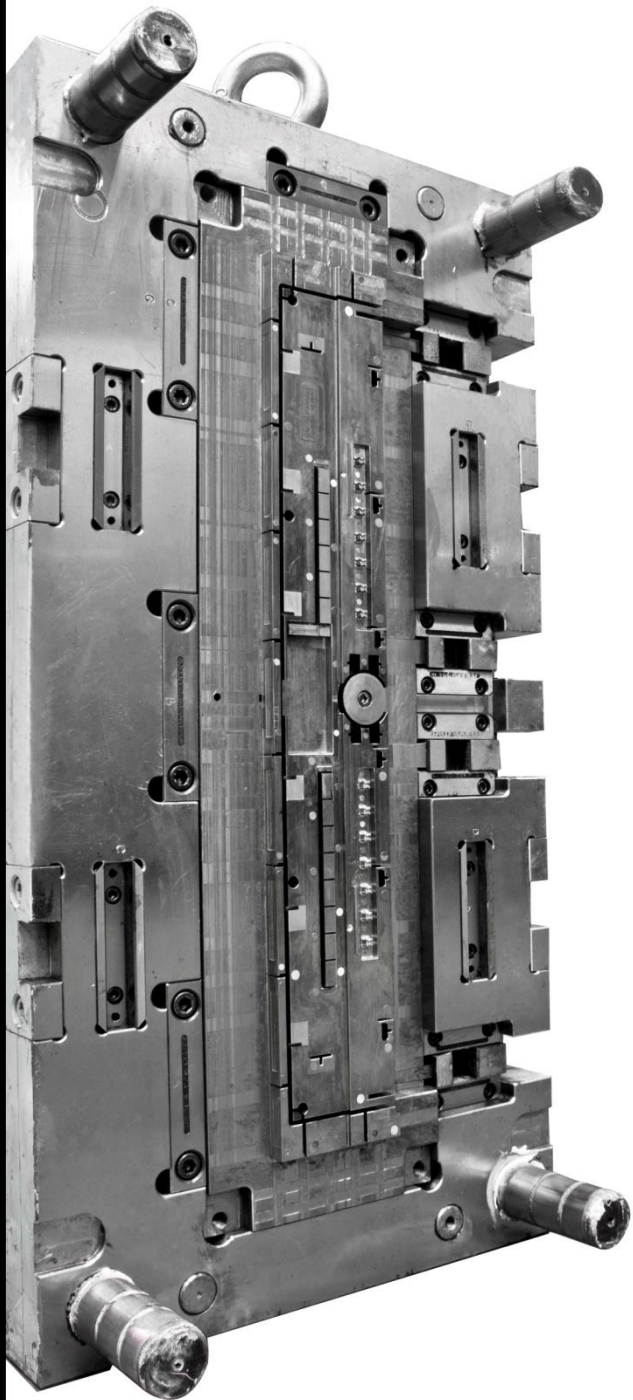
PRODUCT LENGTH UP TO 600 MM



BUILT-IN MICROWAVE OVEN



WARPAGE CONTROL UP TO 0.5 MM



# FABRICATION & MODIFICATION CAPABILITY

CNC HIGH SPEED

CNC MILLING

WIRECUT

EDM MACHINE

GRINDING MACHINE

LATHE MACHINE

MILLING MACHINE



# METAL STAMPING

ESTABLISHED IN 2002





**17 UNITS STAMPING MACHINES**  
**RANGING FROM 45-300 TONNAGES**





# HEATSINK

- PLASMA TV HEAT SINK
- CAR AUDIO HEAT SINK
- POWER SUPPLY HEAT SINK



# MICROWAVE OVEN PANEL

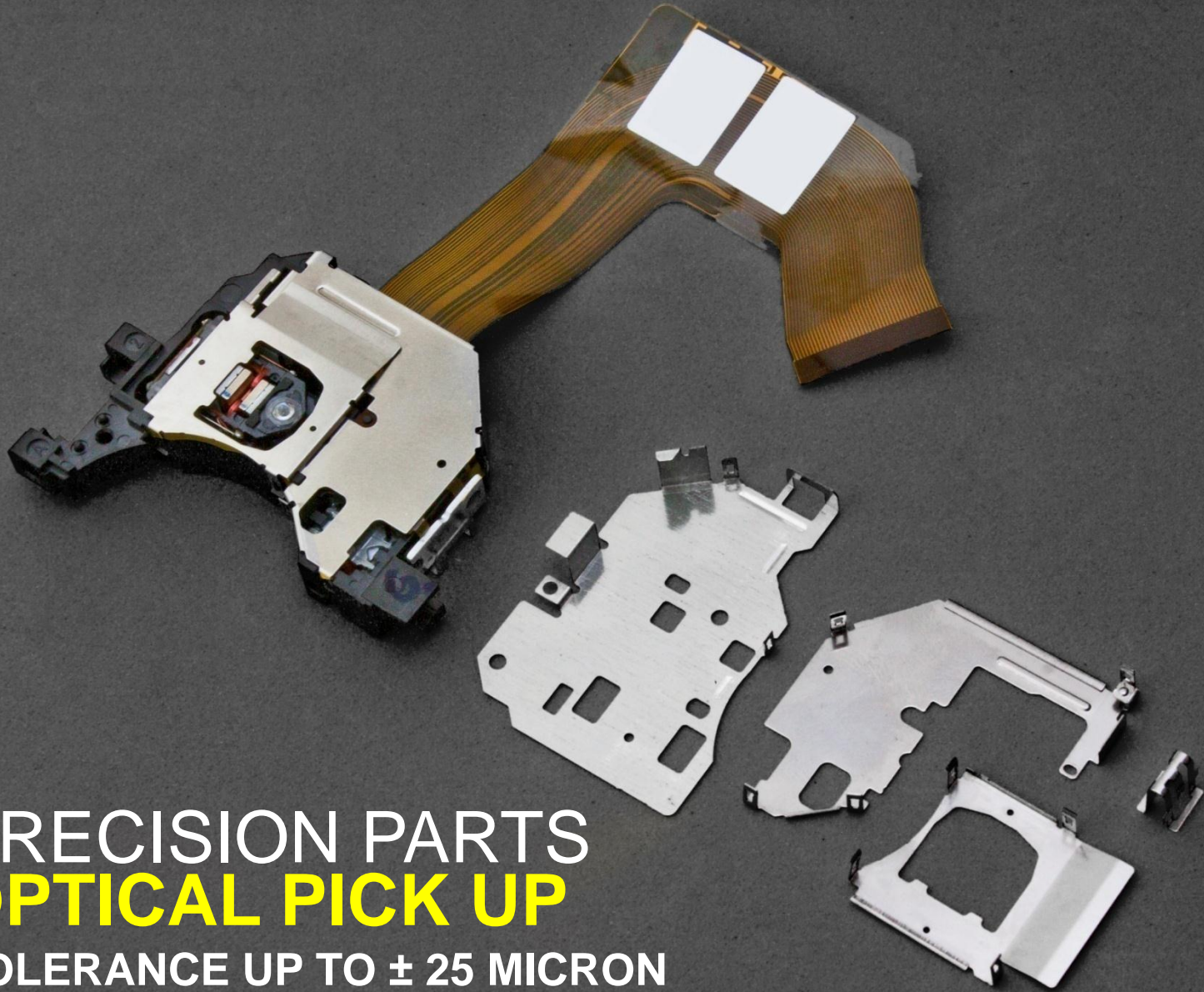
CLEAR ANODIZED COATING

# MECHANISM PARTS

TOLERANCE UP TO 15 MICRON

FLATNESS UP TO 0.1 MM





PRECISION PARTS  
**OPTICAL PICK UP**

TOLERANCE UP TO  $\pm 25$  MICRON

FLATNESS UP TO 10 MICRON

# KENWOOD CAR AUDIO

SME PRODUCES 100% METAL  
PARTS



# TOOLING DESIGN FABRICATION AND MODIFICATION

WIRE CUT MACHINE

SUPER DRILL

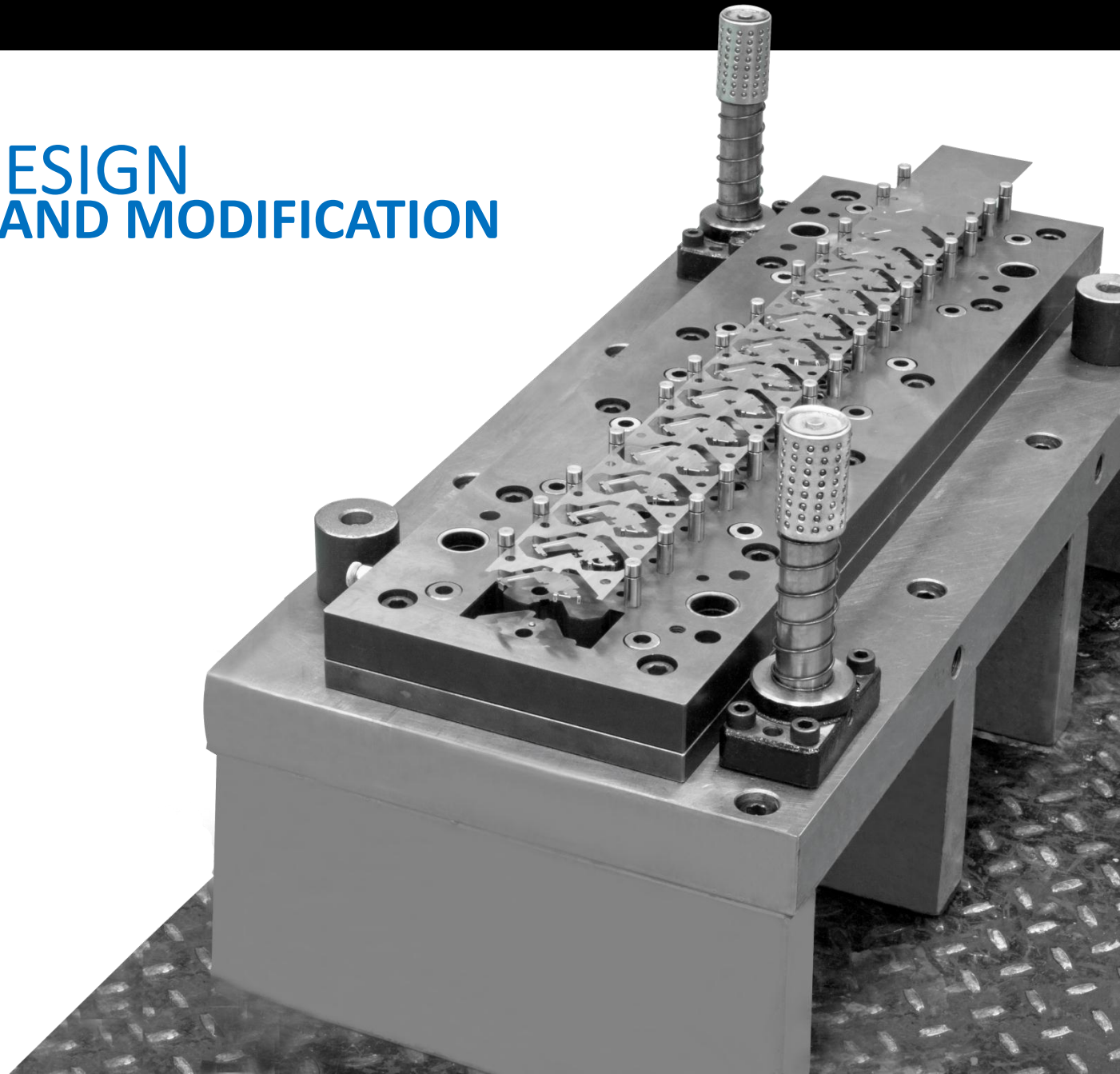
VERTICAL MILLING

HIGH PRECISION LATHE

GRINDER

RADIAL DRILLING

AUTOCAD INVENTOR



FINAL ASSEMBLY

# VARIOUS COMPUTER HUB

HIGH SPEED EXPANSION MODULES

16-LAYER PCB

52 ETHERNET PORTS





# CISCO POWER SUPPLY UNIT

POWER VOLTAGE FROM 1300 WATT – 4200 WATT

SMT | METAL STAMPING | ASSEMBLY | ELECTRICAL TESTING | BURN-IN





# KENWOOD CAR AUDIO

SMT | METAL STAMPING | PLASTIC MOLDING | FINAL ASSEMBLY | DIRECT SHIPMENT TO END-CUSTOMERS



# BATTERY PACKAGING ADVANTAGES

- | HANDLE MORE THAN 350 MODELS
- | DIRECT SHIPMENT TO END CUSTOMERS
- | OEM GP CERTIFIED SINCE DECEMBER 2007
- | 83% PARTS LOCALIZE THROUGH TAKARAJIMA PROJECT

# EXPANSION

YEAR 2010

WITH TOTAL BUILDING AREA OF 7,800 M<sup>2</sup>



**FACTORY 11**  
COMPLETED APRIL 2011



**3<sup>rd</sup> FLOOR 2,600 M<sup>2</sup> FREE SPACE**

# Our Main Customer

1. Panasonic AVC Network (S) Pte. Ltd.
2. Panasonic Industrial Devices (S) Pte. Ltd.
3. Sony Energy Device Corporation (SEND)
4. Sony Energy Technology Singapore (SETS)
5. Sony EMCS (Malaysia) Sdn Bhd
6. Kenwood Electronics-Technologies Malaysia, Sdn. Bhd
7. Singapore Epson Industrial Pte. Ltd.
8. TOA E&I Europe GmbH Singapore Branch
9. Allied Telesyn International (Asia) Pte. Ltd.
10. Japan Servo Motors (S) Pte. Ltd.
11. PT OSI Electronics
12. PT Sanyo Energy (Btm) Corp
13. PT Nidec Seimitsu Batam
14. PT TEAC Indonesia
15. PT Yeakin Plastic Molding
16. APPS Connect Pte. Ltd
17. Bit Wave Pte. Ltd
18. BBS Access Pte. Ltd
19. Doodle labs LLP
20. Ektronics Pte. Ltd
21. Grantech Pte. Ltd
22. Shimano (S) Pte. Ltd
23. Vizmonet (S) Pte Ltd

**Panasonic**  
ideas for life

**SONY**

**KENWOOD**  
Listen to the Future

**EPSON**

  
TOA E&I Europe GmbH  
Singapore Branch

 Allied Telesyn  
Allied Telesyn International  
(Asia) Pte. Ltd.

**SANYO**

**OSI Electronics**  
Manufacturing Services

**TEAC**  
Teac Electronics (M) .Sdn .Bhd

**Nidec**  
All for dreams



BBS Access Pte.Ltd

**JAPAN SERVO**  
PT. Japan Servo Batam

  
YPI GROUP

**SHIMANO**

WE COMMIT TOWARDS COMPLETE CUSTOMER SATISFACTION  
AND CONTINUOUS TECHNOLOGICAL ADVANCEMENT

THANK YOU

