



Expertise in automation



WE DESIGN

WE PRODUCE

WE ASSEMBLE

WE PROGRAM

2022

www.asyst.videoton.hu

www.tipa.hu

CONTENTS

- **Videoton Group**
- VT ASYST / VT TIPA / SRB
- Applied Technologies
- References



- Privately owned, financially strong, vertically integrated industrial group in best-cost Europe
- One of the leading European EMS providers
- Turn-key & flexible contract manufacturing partner for both established multinationals and young innovative emerging companies
- Competent multi-commodity supplier of parts, modules and assemblies
- Complex service provider owning and operating industrial parks

HIGHLIGHTS

Founded in
1938

Private since
1992

Revenue
(2019)
586
Mill €

Equity
No debt since 2005
429
Mill €

1st
Most Valuable
Company in HUN
Ownership*

12
Locations

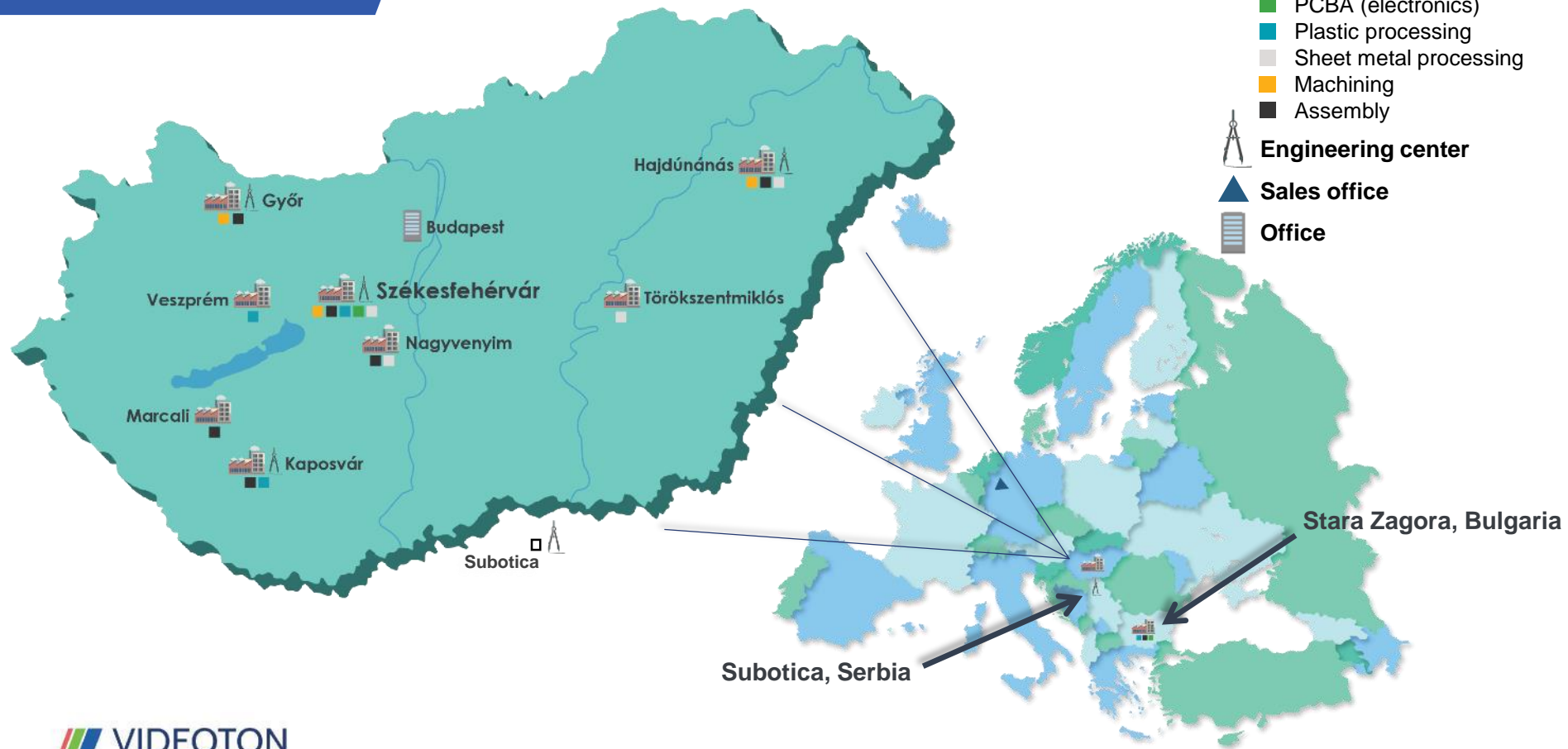
8.600
Employees**
(December 2019)

4th
Among EMS
Companies HQ'd
in Europe

** According to Forbes in 2017 and 2018*

*** 2100 employees in Services*

LOCATIONS



GROUP STRUCTURE

VIDEOTON HOLDING

Property Mgmt

Controlling

Finance

HR

Legal

IT

Business Development

Sourcing

Design & Engineering

Manufacturing Subsidiaries

PCBA & Box build assy.



VT Automotive Electronics
Automotive EMS
Box build assembly



Videoton EAS
Non-automotive EMS
Box build assembly



Videoton EAS Bulgaria
Non-automotive EMS
Box build assembly

Part mfg. & Box build assy.



VT Elektro-PLAST
Assembly & box build
Plastic injection moulding



VT Battery Technology
Battery pack assembly



VTES
Sheet metal fabrication
Enclosure manufacturing
Box build assembly



VTBH (Bulgaria)
Electromechanical and mechanical
assembly & box build services



VT Mechatronics
High complexity assembly
and machining



VT ASYST
Robotized assembly lines
Testers



VT TIPA
Robotized assembly lines
Testers

Part mfg. & Heavy duty assy.



VT Plastic
Automotive-focused injection
moulding



VT Bulplast (Bulgaria)
Thermoplast injection and thermoset
injection and compression moulding
Tooling



VT METAL
Medium to high volume machining
Electroplating, KTL



KVJ Muvek
Stamping w/ presses



VT Precizios
Injection moulds



VENTIFILT
Heavy-duty fans, filters
Large steel fabs



VT Systemtechnics
Shelter / container mfg.

Services Subsidiaries



Pannonjob
HR services



Industrial Park
Building lease & services

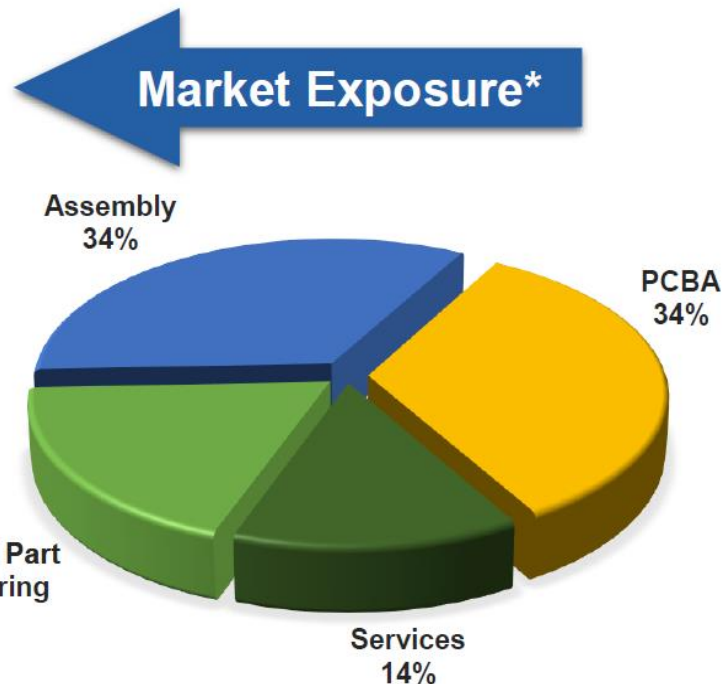
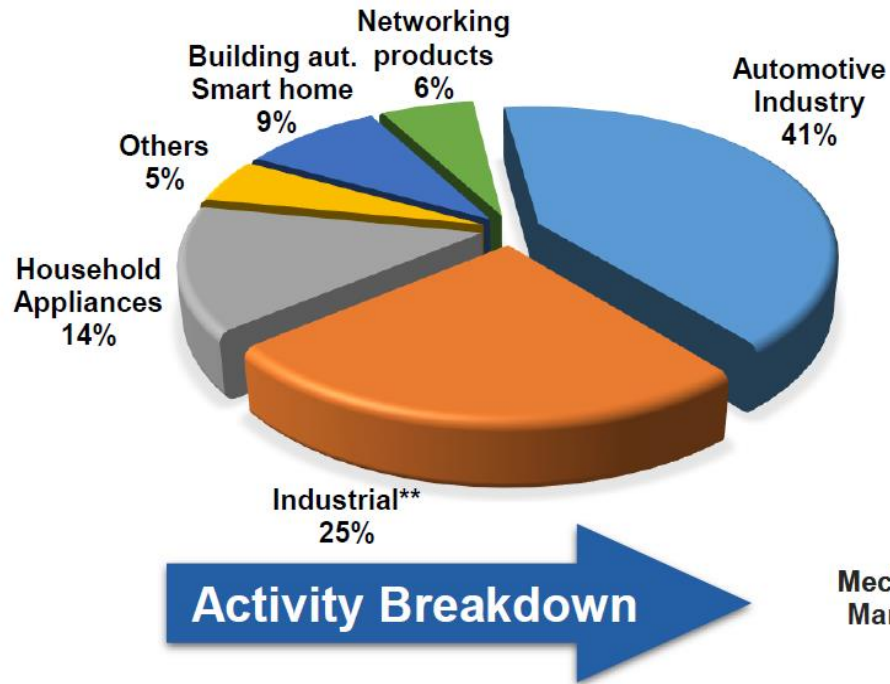


VT ARtrans
Logistics services



Pannonfacility
Facility management

MARKETS & ACTIVITIES 2019



* Turnover without Services

** Including Electrical safety, Power generation, UPS, Instrumentation & Measurement, Semiconductor industry, Photovoltaics, Terminals & vending machines, Commercial and Industrial HVACR, LED Lighting, 3D printers, Robotics, Water treatment, Elevators, Power tools, Professional floor care machines

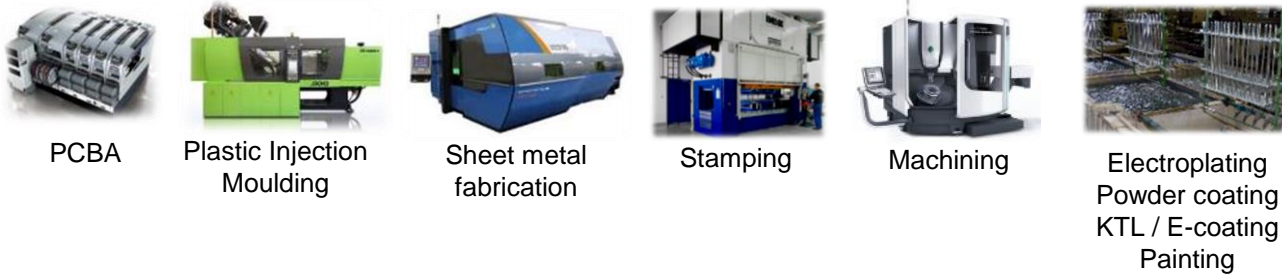
INTEGRATED MANUFACTURING SERVICES

Value chain / Vertical integration

Box build assembly & System integration



Core technologies



PCBA

Plastic Injection
Moulding

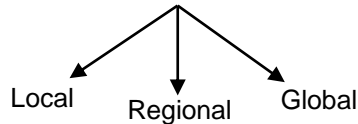
Sheet metal
fabrication

Stamping

Machining

Electroplating
Powder coating
KTL / E-coating
Painting

Supply chain

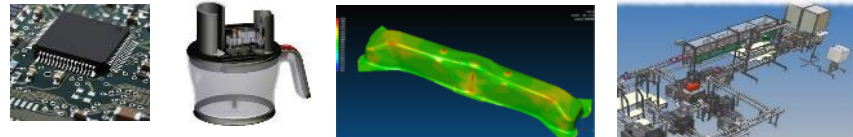


Local

Regional

Global

Design & Engineering



Co-design of
mechanics & PCBAs,
early involvement

DfX, services
Production engineering

Industrialization

FURTHER MANUFACTURING COMPETENCES

**ROBOTIZED ASSEMBLY
LINES, TESTERS**



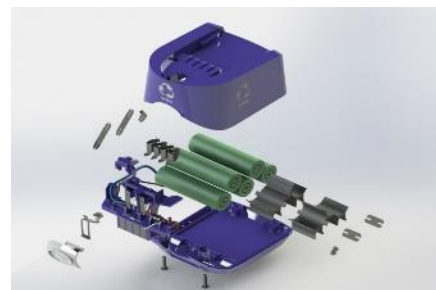
**HIGH PRECISION
EQUIPMENT ASSEMBLY**



**CUSTOMER-SPECIFIC
SHELTERS**



**BATTERY PACKS
ASSEMBLY**



**LARGE WELDED
STEEL CONSTRUCTIONS**



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SUMMARIZED HIGHLIGHTS

Established

1995

TIPA

Established

1996

ASYST (as BU)

Revenue
(2020)

11 mill €

ASYST + TIPA 2020

93%

Automotive

Engineering

65

Engineers



Machining

20

Millers, turners

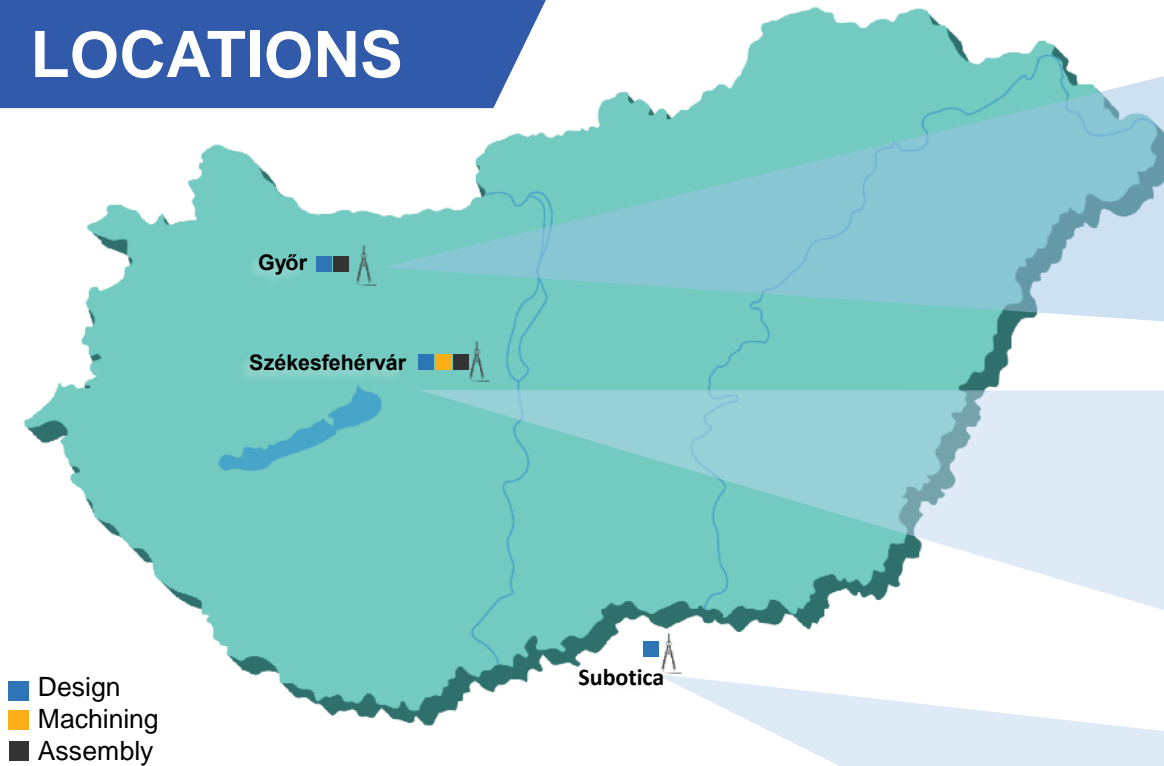
Assembling

31

Technicians

Engineering, machining, assembly, programming, install. All parts of making special machines are in one hand. With a strong background support of VIDEOTON.

LOCATIONS



3 Subsidiaries, 3 Locations, 3 Areas
With the same way of thinking for one goal.

DESIGN

- Mechanical design and control techniques
- 3D modelling, FEM simulation
- Robot simulation & integration
- Prototypes for technological test



<i>Engineers</i>	ASYST	TIPA	SRB
Mechanical Designer	12	13	6
Automat. Engineer (PLC)	8	8	-
Electrical Engineer	4	5	-
PC Software Engineer	4	2	1
Robot program Engineer	2	2	-

PRODUCTION OF PARTS

The VT ASYST has its own tool shop, therefore we are able to manufacture the designed parts in-house. Our main machines are supported by CAM.



Milling, Welding, Grinding, Turning, etc.



KUNZMANN
FRÄSMASCHINEN

RENISHAW
apply innovation™

HEXAGON
MANUFACTURING INTELLIGENCE

vero edgecam
Software

We are able to produce all parts of our machines.

ASSEMBLY

Where parts become machines...

- Mechanical-assy, electrical-assy, wiring, adjusting on ~1750 sqm
- Assembly is supported by engineers and 3D modell
- STATIC-ACCURACY MEASURING by portable measuring arm



Only fully functional machines are delivered after Factory Acceptance Test (FAT).



PROGRAM

- PLC experiences
- Software design
- HMI design
- Robot programming
- Traceability (RFID)
- MES communication
- Data Acquisition



SIEMENS



OMRON
Industrial Automation

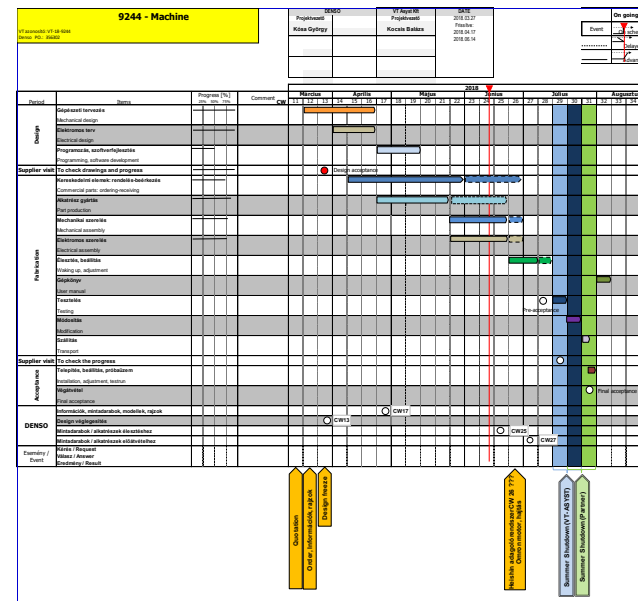
BECKHOFF

 **VIDEOTON**

PROJECT MANAGEMENT

Project management

- Surveying and negotiating customer needs in personal meetings, via email, using on-line business platforms
- Communication in four languages (English / German / Serbian / Hungarian)
- Detailed quotation, Schedule, Weekly report
- Customer care after order
- One person contact



EDUCATION / TRAINING

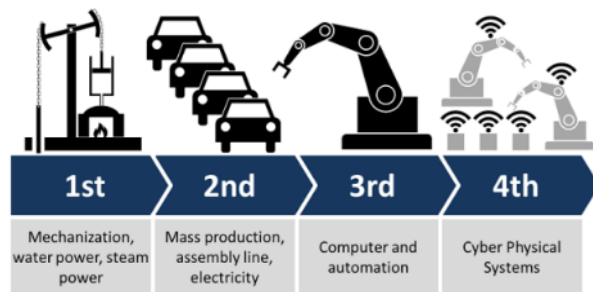


Training (5.S - Shitsuke):

Training, education and different type of courses for every engineer in every month.

Education:

We are in active cooperation with local universities, train skilled workers by ourselves and contribute to the Industry 4.0 National Technological Platform of Hungary.



QUALITY ASSURANCE

Quality Standard:

➤ ISO 9001:2015



OUR PARTNERS



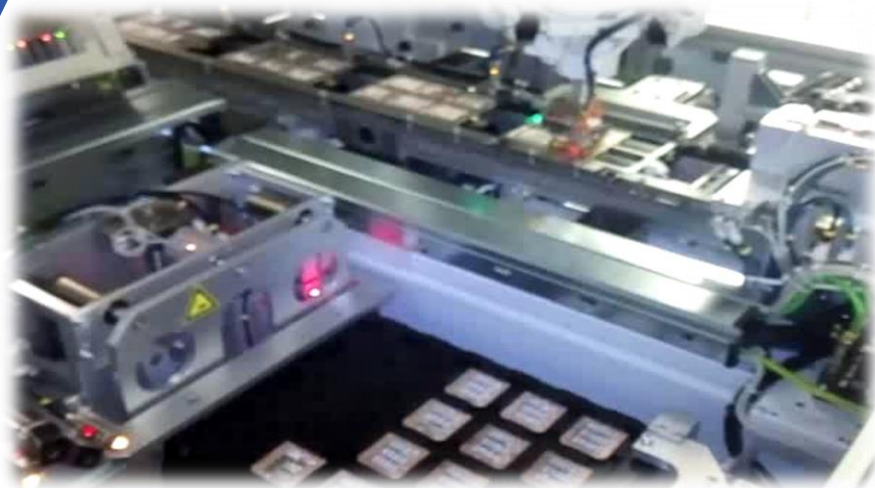
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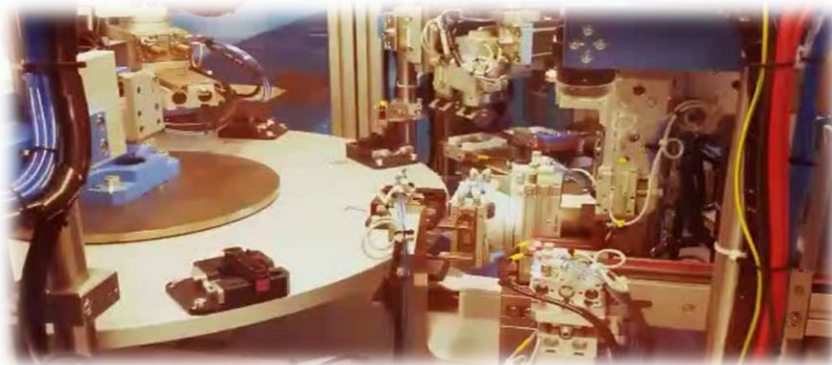
APPLIED TECHNOLOGIES



Feeding



Palettizing



Assembly - Packaging



Handling

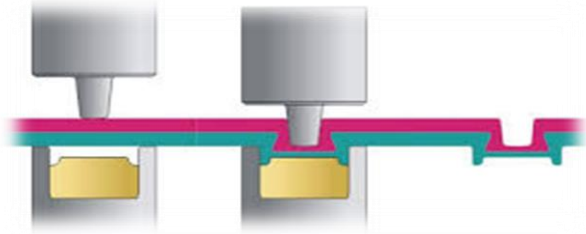
APPLIED TECHNOLOGIES



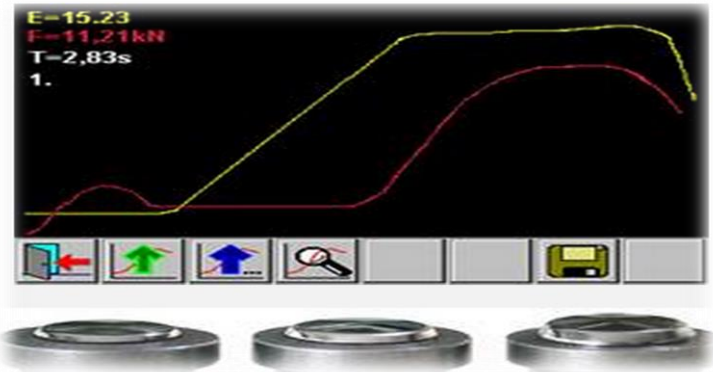
Screwing



Press-Fitting



TOXing



Rivetting

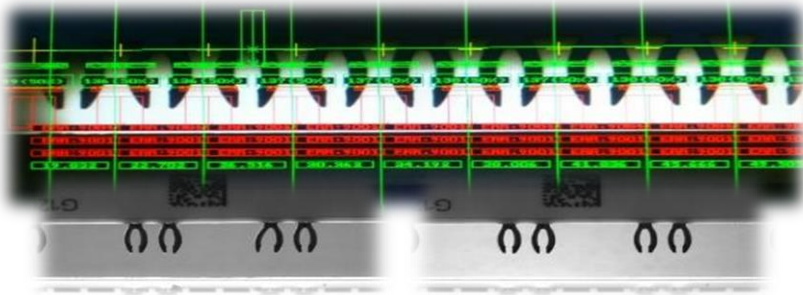
APPLIED TECHNOLOGIES



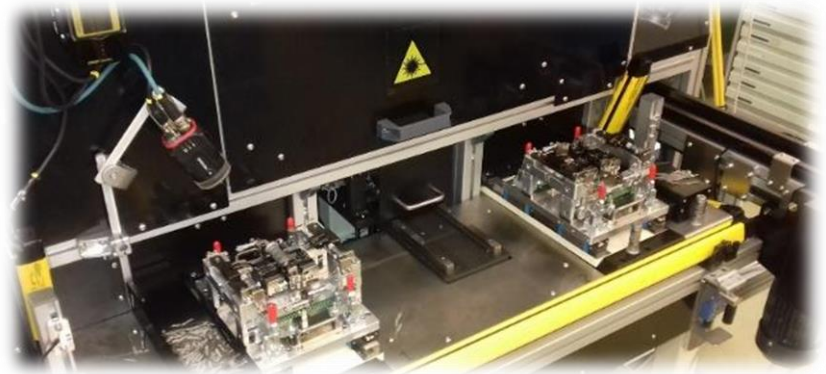
Marking (laser, ink-jet, label)



Welding



Vision (measuring, recognizing, checking)

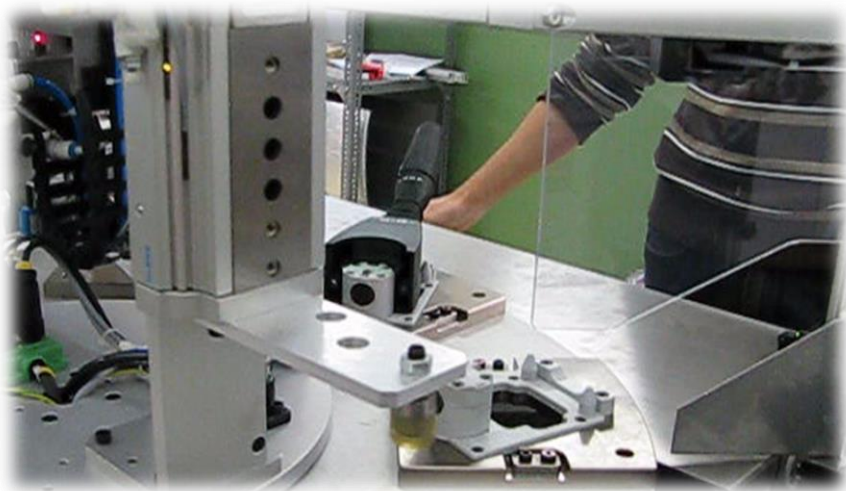


Laser Welding

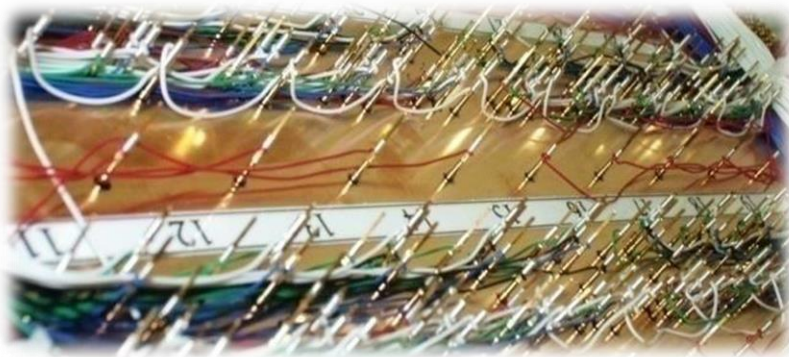
APPLIED TECHNOLOGIES



Electrical Function testing



Mechanical Function Testing

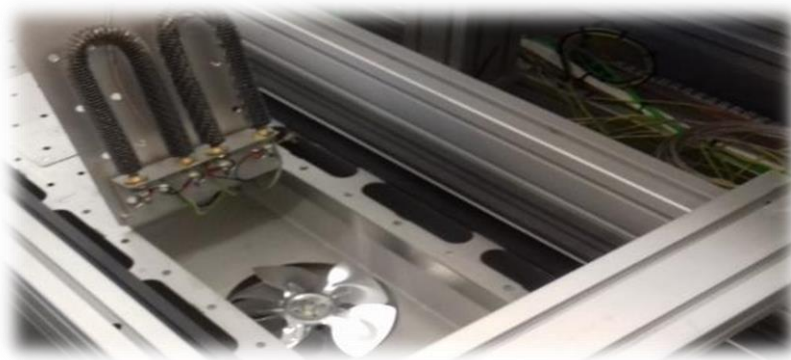


PCBA Testing



Leakage testing

APPLIED TECHNOLOGIES



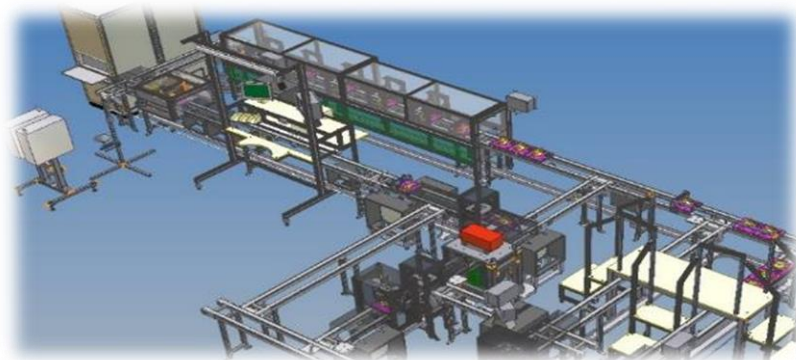
Thermal Processing (Heating / Cooling)



Dispensing / Potting / Glueing



Cutting / drilling/ taping



Assembly – Line building

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Powerbar welding unit



Laser welding production line:

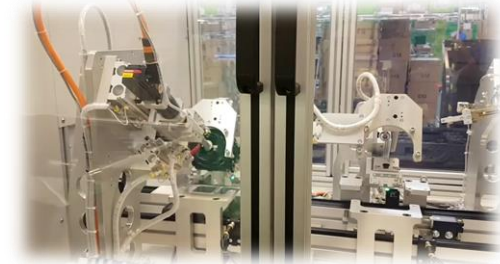
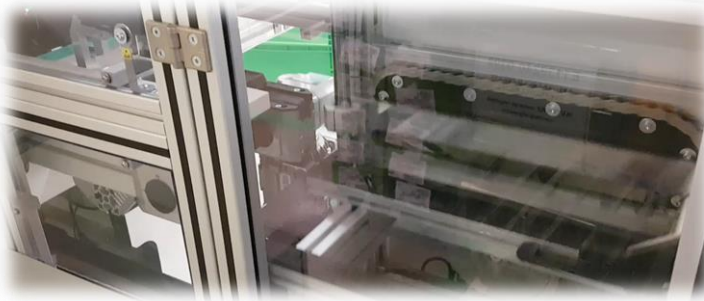
- Hot rivetting
- Laser welding
- Camera checking
- Eletrical testing

WE MADE IT...

VT ASYST
VIDEOTON Group



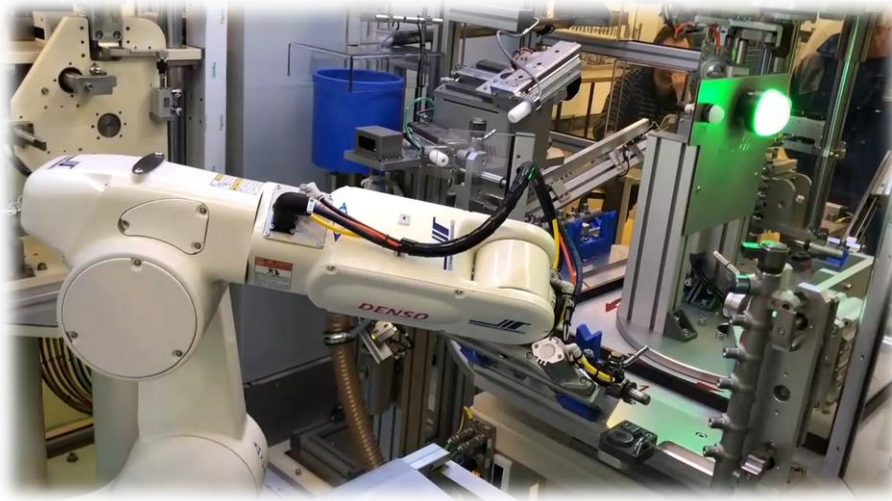
VIDEOTON



Full automated TCM testing line:

- BOSCH transport system
- Electro-mechanical function testing (index, wiper, etc)
- force-way, torque-angle measuring
- laser marking, automatic scrap separator
- Data Acquisition by Beckhoff

WE MADE IT...



Robot applications:

- Robot Handling
- Additional technologies (oiling, screwing, measuring, leaktest, etc.)

WE MADE IT...



Pipe press fitting:

- Feeding,
- Camera checking
- Press-fitting with force-way measuring
- Length measuring by touching probes
- Diameter measuring by laser
- Palettizing



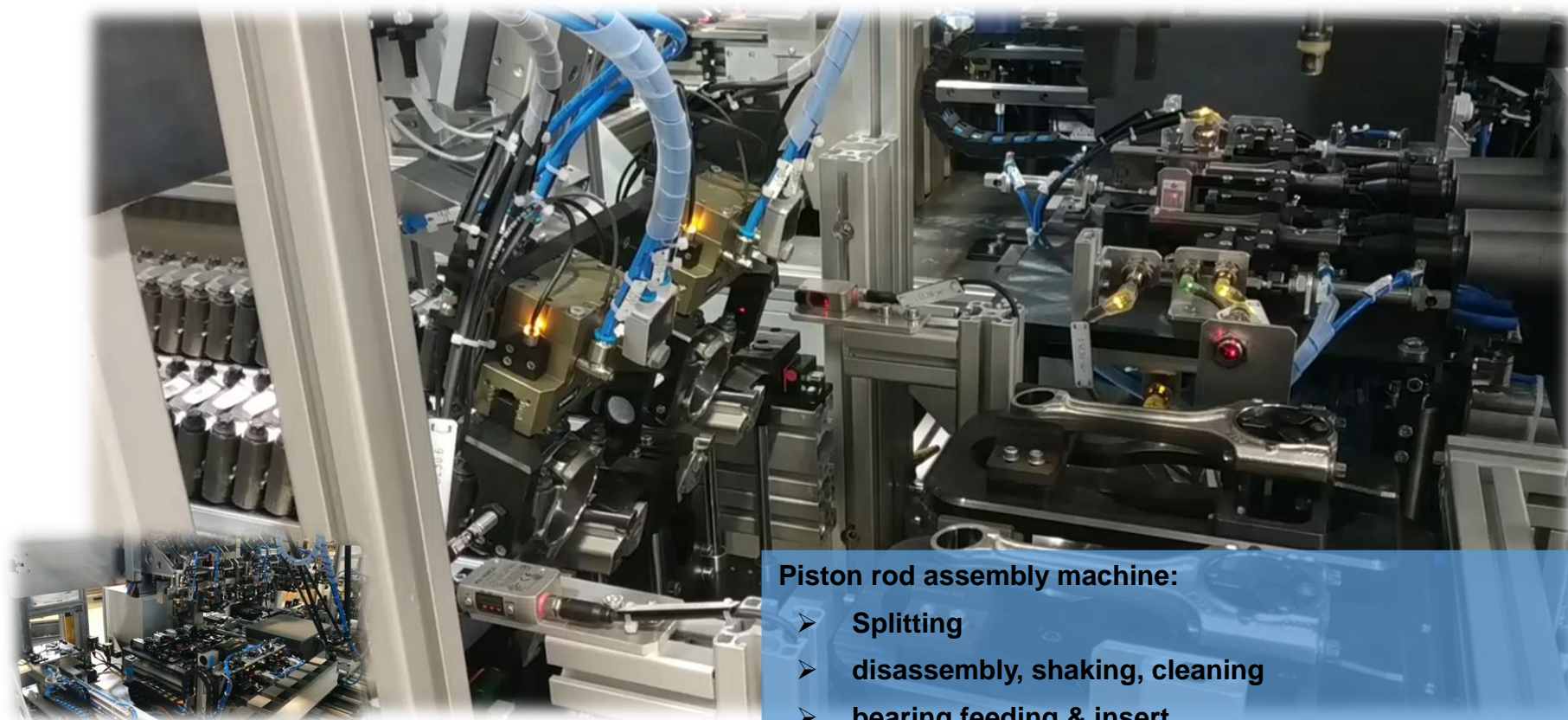
WE MADE IT...



IC cutting, welding & packaging:

- Automatic material handling, cutting, welding, palettizing
- IC cutting, IC pin performing
- Heat staking, welding
- Cycle time: 5,5 sec, 3 types

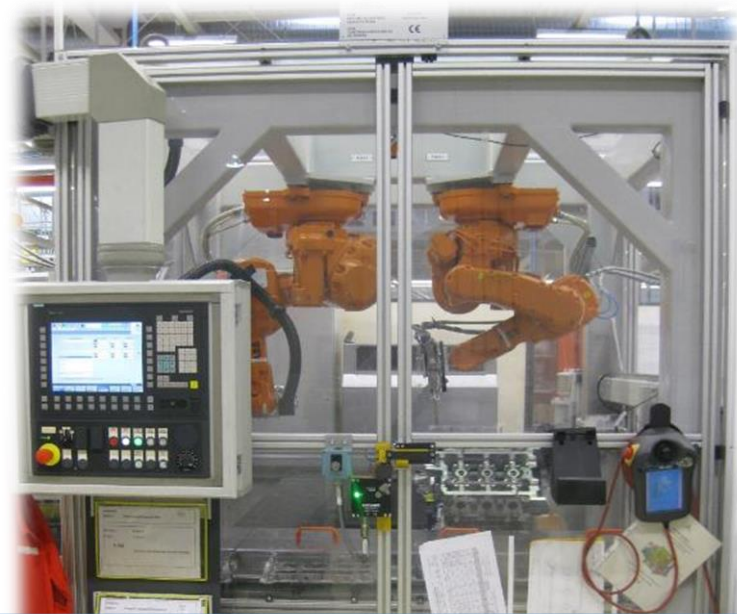
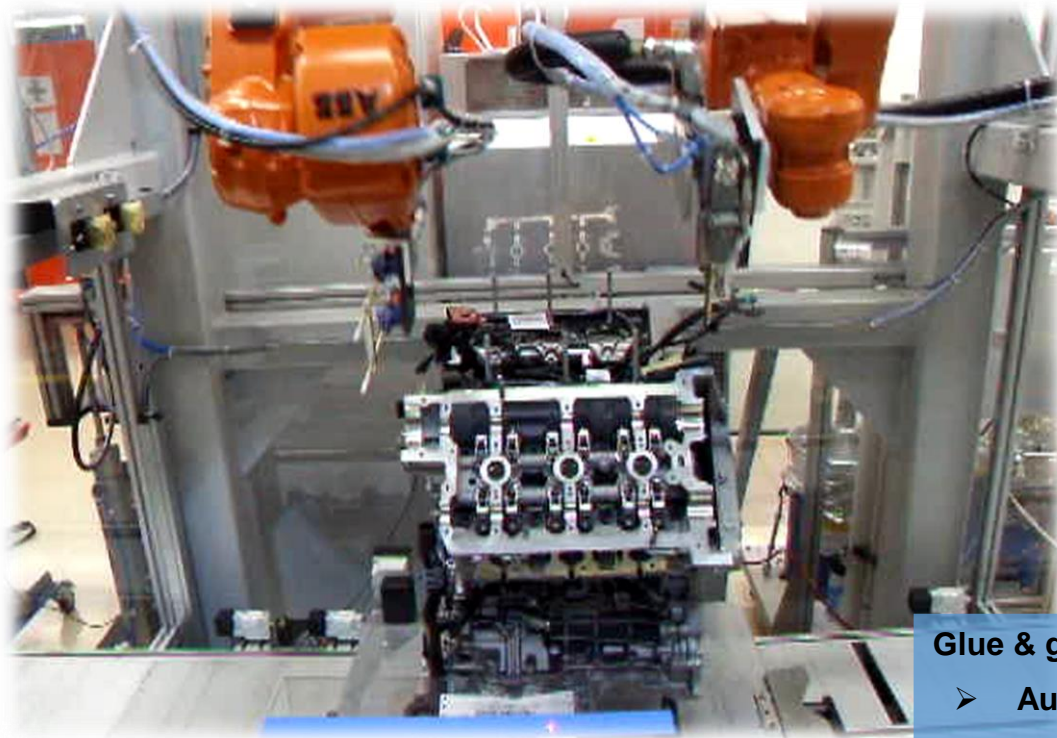
WE MADE IT...



Piston rod assembly machine:

- **Splitting**
- **disassembly, shaking, cleaning**
- **bearing feeding & insert**
- **Cycle time: 14 sec, rods: 2 types / bearings: 7 types**

WE MADE IT...



Glue & grease feeding:

- Automatic material dispensing
- Paralell robot movement
- High precision weight scale
- Cycle time: 50 sec, 5 types

THANK YOU FOR YOUR KIND ATTENTION!



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