

# VT ElektroPlast VT Battery

ONE COMPANY – INFINITE POSSIBILITIES

—  
Quality Management

TECHNOLOGY

DYNAMISM

PROGRESS

STABILITY

# CONTENT

- Certified standards
- Quality staff
- Documentation system
- Process Map
- Quality management system development
- Supplier evaluation, development, sourcing
- Trainings
- Measurement equipment calibration
- Specific requirements
- Applied quality technics
- Test lab
- Measurement lab

# CERTIFIED STANDARDS – VTEP/VTBT

## ISO 9001:2015

VTEP scope:

- manufacturing of electrical household products, food processors, squeezers, irons, hair-dryers, microphones, head- and earphones, head-lamps, shaver cleaning-charging bases, cleaning machines, electronic and non-electronic assemblies and products and injection moulding parts manufacturing

VTBT scope:

- assembly of electronic parts



# CERTIFIED STANDARDS – VTEP/VTBT

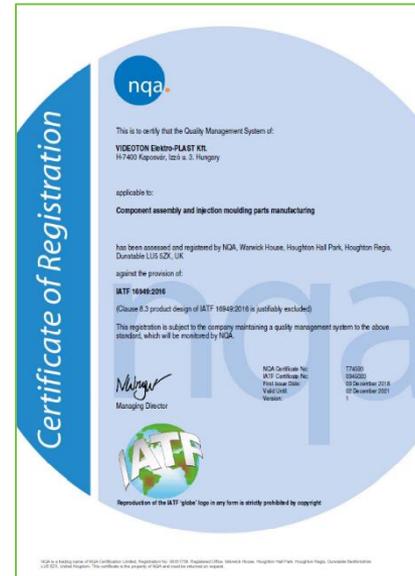
## IATF 16949:2016

VTEP scope:

- component assembly and injection moulding parts manufacturing for automotive industry

VTBT scope:

- assembly of electronic parts



# CERTIFIED STANDARDS - VTEP

## ISO 13485:2016

### Scope:

- manufacture of injection moulded plastic parts and assembly of products for medical device manufacturers

**EMKI** **EMKI** **EMKI** **EMKI** **EMKI** **EMKI** **EMKI** **EMKI**

**QUALITY MANAGEMENT SYSTEM CERTIFICATE**

No. 4-477-135-1712

The Directorate of Device Testing and Clinical Engineering (EMKI)  
as a Certification Body with ID No. NAH-4-0096/2016  
accredited by the National Accreditation Authority for management system certification  
certifies that the quality management system applied by

**VIDEOTON Elektro-PLAST Kft.**  
7400 Kaposvár, Izzó u. 3.  
Hungary

to the exclusion of sub-clause 7.3 Design and development  
meets the requirements of standard

**EN ISO 13485:2016**

in the field:

**Manufacturing of skin-contact electric devices**

Registry number of the related audit report: **43-021-2008**

This certificate is valid until **2020-12-06** supposed that the results of the regular yearly surveillance audits are satisfactory.

The Company has been certified by EMKI since 2008-11-05.

Issue: 2 First issued: 2017-12-07

Budapest, 2019-01-18

  
Head of EMKI



  
EMKI 2167

The authenticity and validity of the certificate are verifiable at EMKI.

Eszközminőség és Kórháztechnikai Igazgatóság  
Directorate of Device Testing and Clinical Engineering  
H-1097 Budapest, Albert Flórián út 3/A, Telefon: +36 20 268 75 95, Fax: +36 1 886 93 33  
E-mail: cert@emki.hu, Web: www.emki.hu  
H-1051 Budapest, Zrínyi u. 3. (1372 P.O. Box 450.)

**EMKI**

# QUALITY STAFF

|                         | VTEP | VTBT |
|-------------------------|------|------|
| Quality manager         | 6    | 1    |
| Quality engineer        | 15   | 3    |
| Process engineer        | 7    | 3    |
| SQA engineer            | 3    | -    |
| Supplier quality techn. | 3    | -    |
| Quality technician      | 7    | -    |
| Incoming inspector      | 5    | 1    |
| Quality inspector       | 43   | 8    |



# DOCUMENTATION SYSTEM

Electronic system on a safe intranet with authorized access

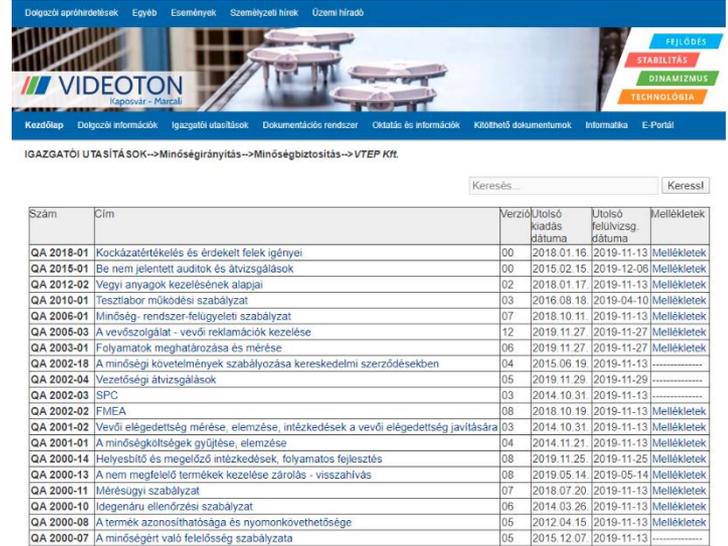
Level 1 Quality Manual

Level 2 Standard Operation Procedures

Level 3 Work Instructions

Level 4 Records

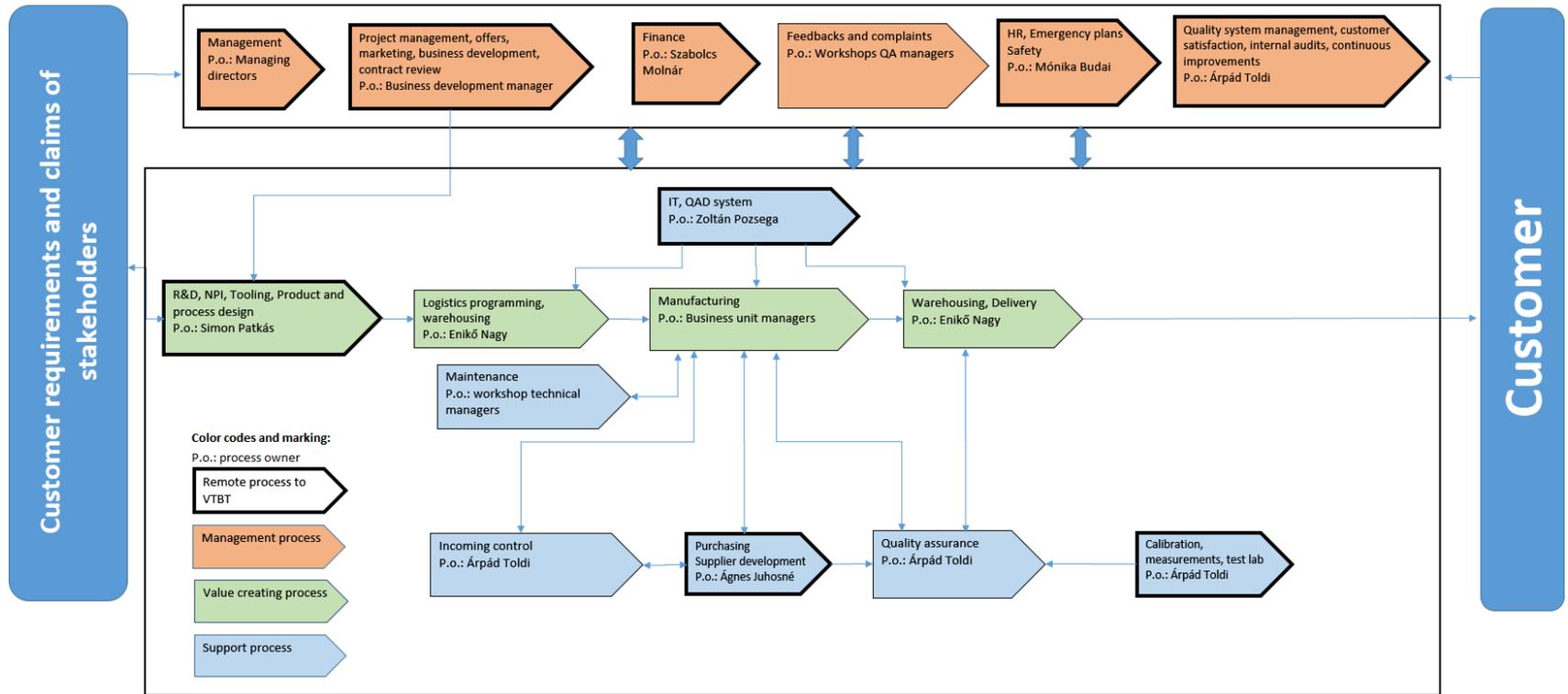
- Processed based documentation
- PPAP documents for all products and produced parts
- All the documentations are available for authorized users



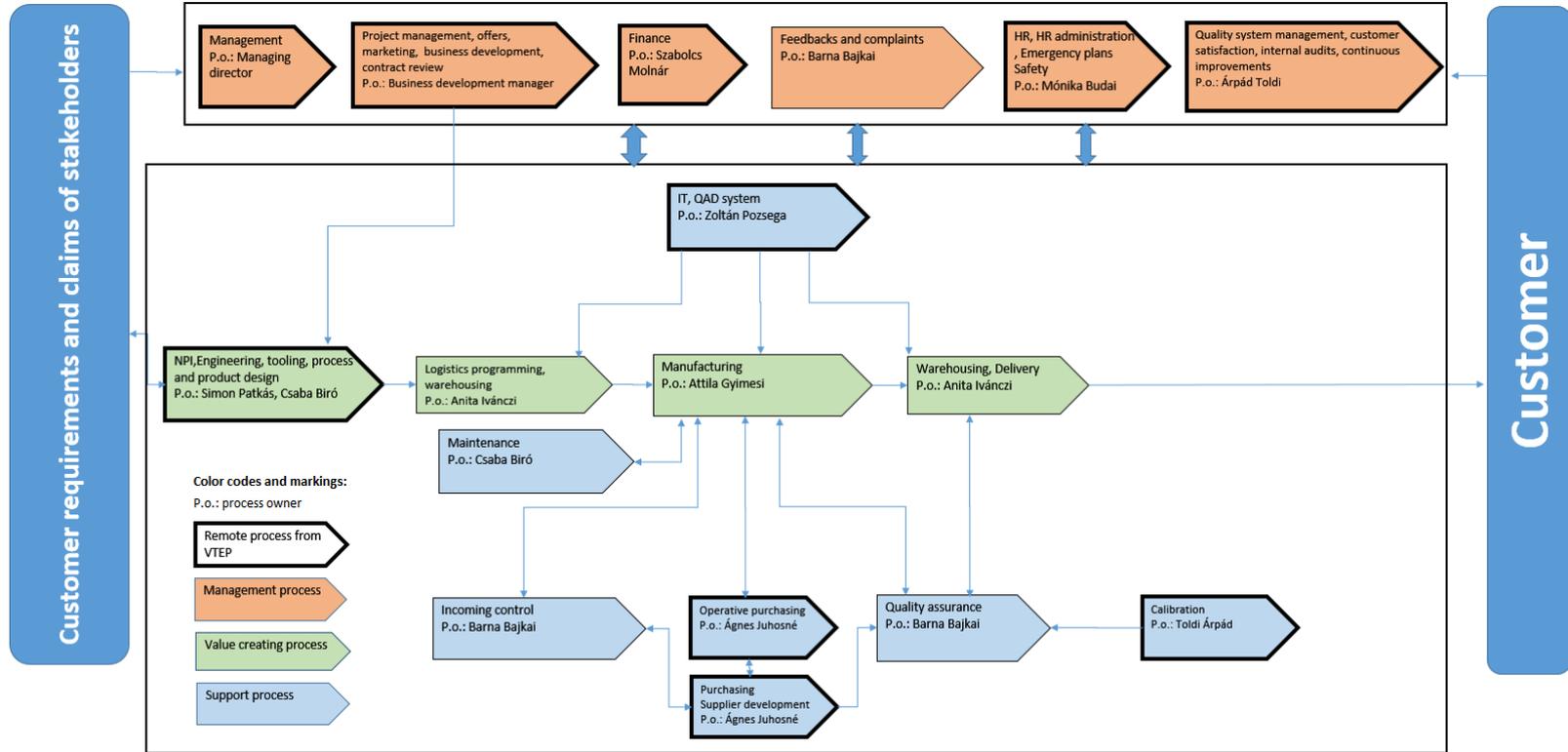
IGAZGATÓI UTASÍTÁSOK->Minőségirányítás->Minőségbiztosítás->VTEP Kft.

| Szám       | Cím   | Verzió | Utolsó kiadás dátuma | Utolsó felülvizsg. dátuma | Mellékletek |
|------------|---|--------|----------------------|---------------------------|-------------|
| QA 2018-01 | Kockázateértékelés és érdekelt felek igényei                                      | 00     | 2018.01.16           | 2019-11-13                | Mellékletek |
| QA 2015-01 | Be nem jelentett auditor és átvizsgálások   | 00     | 2015.02.15           | 2019-12-06                | Mellékletek |
| QA 2012-02 | Vegyí anyagok kezeléseinek alapjai  | 02     | 2018.01.17           | 2019-11-13                | Mellékletek |
| QA 2010-01 | Tesztlabor működési szabályzat  | 03     | 2016.08.18           | 2019-04-10                | Mellékletek |
| QA 2006-01 | Minőség- rendszer-felügyeleti szabályzat  | 07     | 2018.10.11           | 2019-11-13                | Mellékletek |
| QA 2005-03 | A vevőszolgálat - vevői reklamációk kezelése                                      | 12     | 2019.11.27           | 2019-11-27                | Mellékletek |
| QA 2003-01 | Folyamatok meghatározása és mérése  | 06     | 2019.11.27           | 2019-11-27                | Mellékletek |
| QA 2002-18 | A minőségi követelmények szabályozása kereskedelmi szerződésekben                 | 04     | 2015.06.19           | 2019-11-13                | -----       |
| QA 2002-04 | Vezetőségi átvizsgálások  | 05     | 2019.11.29           | 2019-11-29                | -----       |
| QA 2002-03 | SPC   | 03     | 2014.10.31           | 2019-11-13                | -----       |
| QA 2002-02 | FMEA  | 08     | 2018.10.19           | 2019-11-13                | Mellékletek |
| QA 2001-02 | Vevői elégedettség mérése, elemzése, intézkedések a vevői elégedettség javítására | 03     | 2014.10.31           | 2019-11-13                | Mellékletek |
| QA 2001-01 | A minőségköltségek gyűjtése, elemzése   | 04     | 2014.11.21           | 2019-11-13                | Mellékletek |
| QA 2000-14 | Helyesbítő és megelőző intézkedések, folyamatos fejlesztés                        | 08     | 2019.11.25           | 2019-11-25                | Mellékletek |
| QA 2000-13 | A nem megfelelő termékek kezelése zárolás - visszahívás                           | 08     | 2019.05.14           | 2019-05-14                | Mellékletek |
| QA 2000-11 | Mérésügyi szabályzat  | 07     | 2018.07.20           | 2019-11-13                | Mellékletek |
| QA 2000-10 | Idégenáru ellenőrzési szabályzat  | 06     | 2014.03.26           | 2019-11-13                | Mellékletek |
| QA 2000-08 | A termék azonosíthatósága és nyomonkövethetősége                                  | 05     | 2012.04.15           | 2019-11-13                | Mellékletek |
| QA 2000-07 | A minőségért való felelősség szabályzata  | 05     | 2015.12.07           | 2019-11-13                | -----       |

# PROCESS MAP - VTEP



# PROCESS MAP - VTBT



# QUALITY MANAGEMENT SYSTEM DEVELOPMENT

## **Regular internal audits (system and process) based on a yearly plan**

It ensures the quality system is consistently in a state of control

## **Management review**

Ensures that the Quality Management System achieves the established objectives with a successful and effective operation

## **CAPA (Corrective Action/ Preventive Action)**

Ensures that quality system issues are identified, analysed and corrected in a proactive manner to keep quality system effective

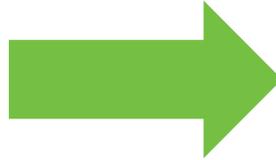
## **Quality Improvement Plan**

Determines improvement actions for all the departments and workshops on a yearly base

# SUPPLIER EVALUATION, DEVELOPMENT, SOURCING

## Monthly based evaluation on

- Quality
- Delivery performance
- Price-Cost
- Strategic co-operation
- Operative co-operation



## Suppliers are ranked

A - B - C - D categories

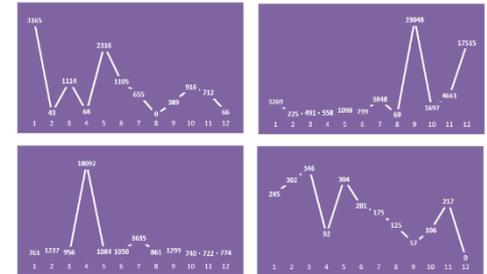
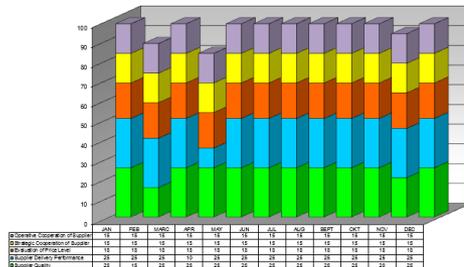
Half-yearly detailed evaluation

Focus on C and D category suppliers  
(improvement requests)

PPM Performance

monitoring

Supplier Evaluation



# SUPPLIER EVALUATION, DEVELOPMENT, SOURCING

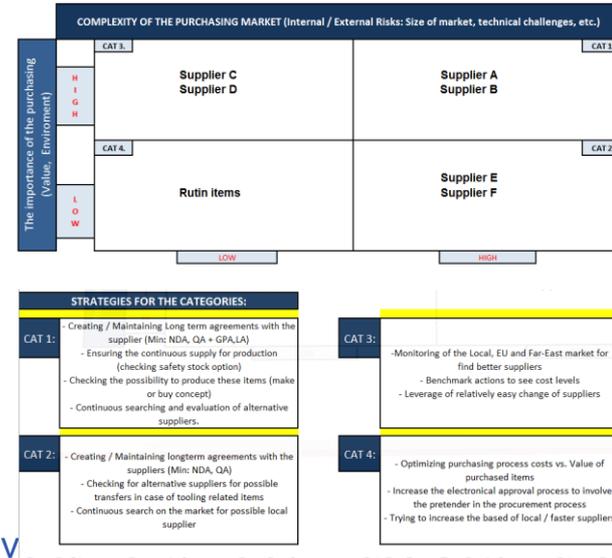
## Supplier development

- Dedicated Supplier Development Engineer
- Support in quality issues for SQA engineers in supplier related quality problems
- Visiting and audit at suppliers and discussion about issues, handle audit reports
- Improve the communication
- Continuous compliance of Conflict Mineral Declaration
- Suggestions and requirements for improvements
- Determine short- and long-term improvement actions
- Pre-qualification in the case of every new suppliers

# SUPPLIER EVALUATION, DEVELOPMENT, SOURCING

## Strategic purchasing

- Commodity driven Sourcing Team
- Supplier classification based on Kraljic matrix
- Continuously updated supplier database
- Seeking and pre-qualifying of new suppliers
- Agreements with suppliers
- Optimization of commercial conditions based on TCO
- Defining tactical actions on supplier base based on classification (Dev or buy)
- Defining Road map for development of suppliers



# TRAININGS

Wide-spread trainings for all workers at entrance  
(plus half-yearly and yearly) with examination

- Quality (based on ISO 9001, IATF 16949 and ISO 13485 standards)
- Labour-safety (based on ISO 28001)
- Environment (based on ISO 14001)
- Energy management (based on EN ISO 50001–VTEP)
- Dress rules
- General (rules, ethics, culture)



# TRAININGS

Extended trainings for white-collar workers:

- according to the professional field
- further trainings for improving skills (competence, language)
- specialized trainings for management

Regular (monthly) training for blue-collar workers based on:

- operation instruction, failure cards, customer feedbacks etc.
- yearly training plan to improve worker skills



# MEASUREMENT EQUIPMENT CALIBRATION

**Internal calibration** - Mostly simpler equipment: calipers, micro meters, scales, feeler gauges, dials, simple electronic measurement equipment etc.

**External calibration** - All the special measurement equipment, which require external laboratory: coordinate measurement machine, torque meters, functional testers, complex electronic measurement equipment etc.

- More than 1700 pcs measurement equipment
- Electronic data base for proper tracing of validation deadlines
- Calibration in temperature controlled measurement lab

# SPECIAL REQUIREMENTS

## **FDA (Food and Drug Administration)**

At VTEP, it ensures the manufacturing of safe medical devices complying with the mandatory regulation of 21 CFR Part 820 (Quality System Regulation) for the US market. FDA currently applied at Philips medical products.

## **I-Quality**

Requirements for companies, who manufactures Products for P&G (Braun). Determines major principles for Quality Management System. Currently applied at Braun Shaver Cleaning Center products.



# SPECIAL REQUIREMENTS

**REACH** (Registration, Evaluation, Authorisation and Restriction of Chemicals) Its major element is to communicate information on chemicals through the supply chain to restrict the usage of them. It covers those chemicals, that can have potential negative impacts on human, health or environment



**RoHS** (Restriction of Hazardous Substances Directive)  
This directive restricts the use of six hazardous Materials of various types of electronic and electrical equipment:  
Lead (Pb), Mercury (Hg), Cadmium (Cd),  
Hexavalent chromium (Cr6+), Polybrominated, biphenyls (PBB), Polybrominated diphenyl ether (PBDE)



# SPECIAL REQUIREMENTS

## Food contact materials

Materials that are intended to be in contact with food. It determines strict rules for manufacturing, packaging and warehousing of parts and products contacting with food.



## IMDS (International Material Data System)

In the automotive products, it is a requirement to collect information about the used materials (and hazardous content), which must be declared in material data sheet into the IMDS. All supplier must submit data about the parts that sells to customer.





# TEST LAB

## Test types

- Product design tests
- Product release test
- Battery tests in separated test lab
- Product functionality - related test
- Product performance - related test
- RoHS compliance
- Approbation pre-tests
- Internal test for investigation of quality problems

## Measurement equipment

- Programmable AC Power Source (Chroma 6530, Chroma 63113A)
- Insulation/Current Leakage tester (GW Instek GPI-745A)
- Power analyzer (Yokogawa WT210 + GPIB)
- Digital multimeter (Picotest M3500A, Keysight 34461A)
- Hi-pot tester (Hioki 3561-01)
- Force/torque meter (Mecmesin AFG 500)
- Static torque wrench (Mecmesin TW15)
- Contactless RPM meter



XRF TESTER  
(RoHS)



TEMPERATURE  
AND HUMIDITY  
CHAMBER

# MEASUREMENT LAB

## Major activity

Measurement in connection with:

- Initial sample approvals
- Quality problem investigation
- Tool approval, optimization or reparation
- Special demand from customer
- R&D

## Measurement equipment

- Keyence IM-7020 image measurement system
- Atos 3D scanner
- Dea Global CMM
- Global performance cmm
- Optiv classic optical cmm
- Tesa visio optical cmm
- Tesa cmm
- Nikon profile projector
- Tinius Olsen tensile testing equipment
- Torque meter
- Scale
- Surface roughness meas.
- Hardness meas.



# THANK YOU FOR YOUR KIND ATTENTION!



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