

# 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

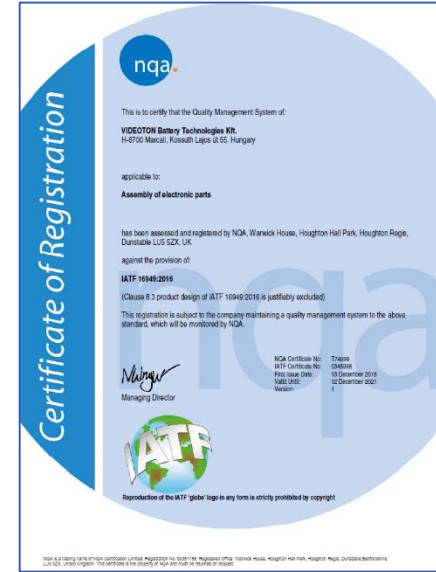
## IATF 16949:2016

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

**QUALITY MANAGEMENT SYSTEM CERTIFICATE**

No. 4-538-135-2012

The NEOEMKI National Medical Device Conformity Assessment and Certification LLC,  
as a Certification Body with ID No. NAI-4-0996/2016  
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:  
**Manufacture of injection moulded plastic parts and assembly of products  
for medical device manufacturers**

Registry number of the related audit report: NE/1084/2020

This certificate is valid until **2023-12-06** supposed that the results of the regular yearly  
surveillance audits are satisfactory.

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

Budapest, 2020-12-07

  
László Imre  
Managing Director

  
NEOEMKI Nemzeti Orvostechnikai Eszköz Megfelelőségértékelő és Tanúsító Kft.  
neoEMKI National Medical Device Conformity Assessment and Certification LLC

  
EMKI 2627

The authenticity and validity of the certificate are verifiable at NEOEMKI LLC.

neoEMKI Nemzeti Orvostechnikai Eszköz Megfelelőségértékelő és Tanúsító Kft.  
neoEMKI National Medical Device Conformity Assessment and Certification LLC  
H-1097 Budapest, Albert Flórián út 3/A, tel: +36 20 268 75 95, e-mail: cert@emki.hu  
www.emki.hu



# QUALITY STAFF

	VTEP	VTBT
Workshop QA manager	3	1
Quality engineer	7	3
SQA engineer	2	-
Supplier development engineer	1	-
Supplier quality technician	2	1
Quality technician	7	-
Incoming inspector	2	1
Quality inspector	30	7
<b>Total:</b>	<b>53</b>	<b>13</b>



# DOCUMENTATION SYSTEM

Electronic system on a safe intranet with authorized access

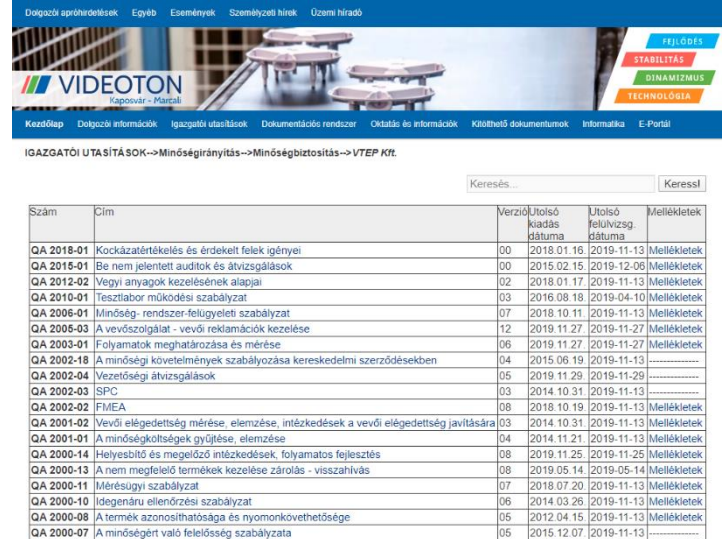
Level 1 Quality Manual

Level 2 Standard Operation Procedures

Level 3 Work Instructions

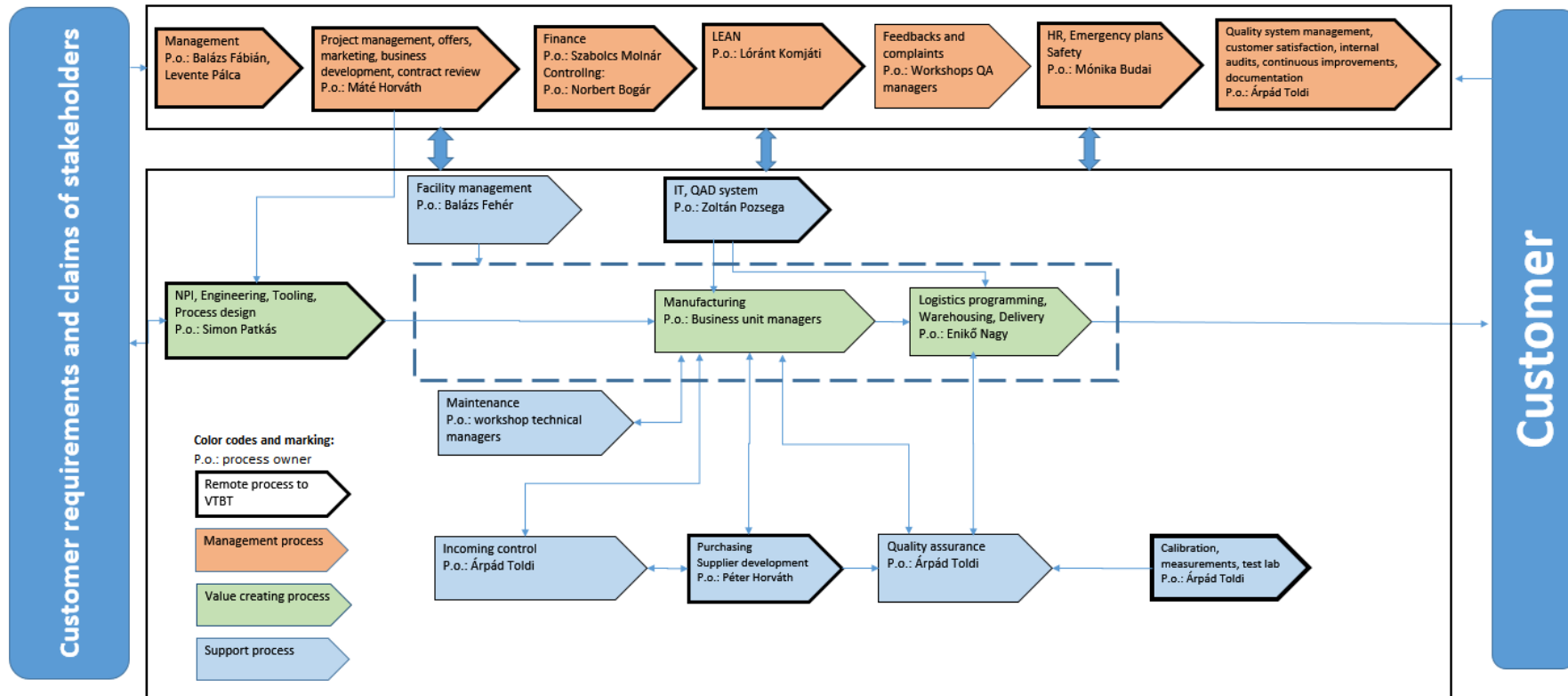
Level 4 Records

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



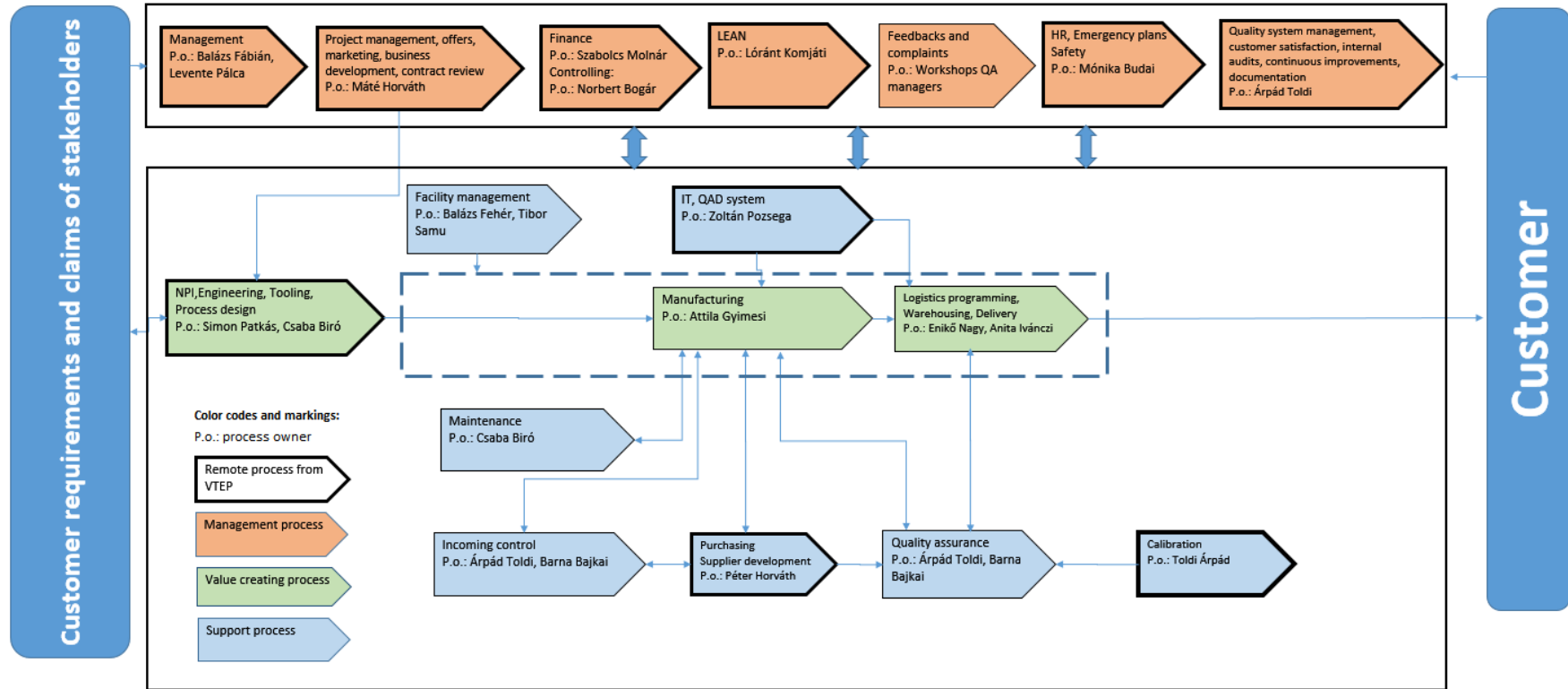
Szám	Cím	Verzió	Utolsó kiadás dátuma	Utolsó felülvizsg. dátuma	Mellékletek
QA 2018-01	Kockázateértékelés és érdekelt felek igényei	00	2018.01.16	2019-11-13	Mellékletek
QA 2015-01	Be nem jelentett auditek és átvizsgálások	00	2015.02.15	2019-12-06	Mellékletek
QA 2012-02	Vegyí anyagok kezelésének alapjai	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 on a yearly base

# SUPPLIER EVALUATION, DEVELOPMENT, SOURCING

## Monthly based evaluation on

- Quality performance
- Delivery performance



## Suppliers are ranked

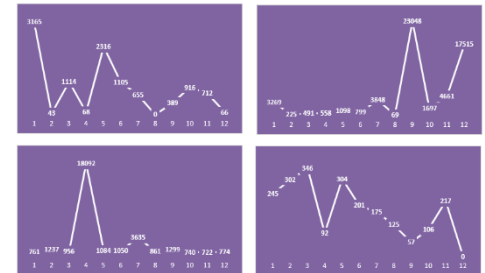
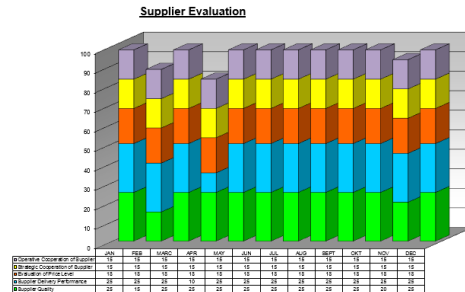
A - B - C - D categories

Monthly detailed evaluation

Focus on C and D category suppliers  
(improvement requests)

PPM Performance

monitoring



# SUPPLIER EVALUATION, DEVELOPMENT, SOURCING

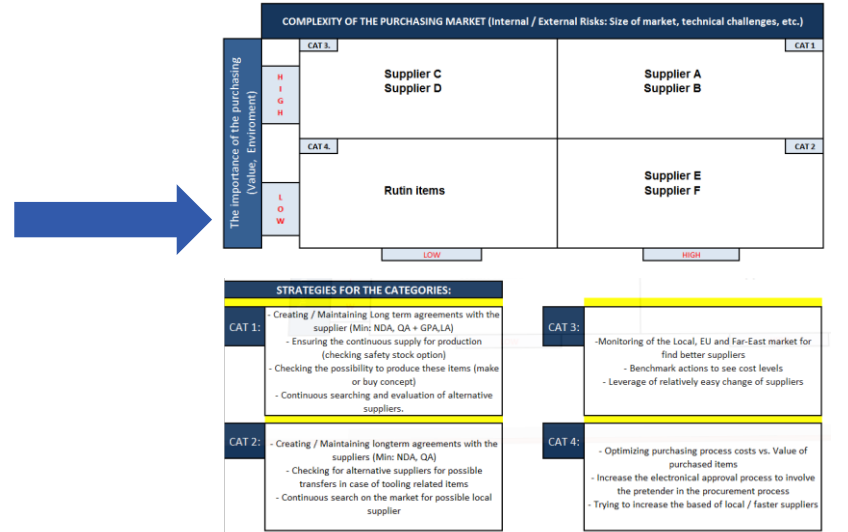
## Supplier development

- Dedicated Supplier Development Engineer
- Support in quality issues for SQA engineers in supplier related quality problems
- Visits and audits at suppliers
- Improvement of communication and co-operation
- Monitoring of Reach, RoHS, Conflict Mineral, IMDS, Food Contact, BOMcheck with declarations
- Suggestions and requirements for improvements
- Determine short- and long-term improvement actions
- Pre-qualification in the case of 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
- Defining strategic actions toward suppliers, based on classification (Development / Hold / Phase Out / make 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 45001)
- 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 1500 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)



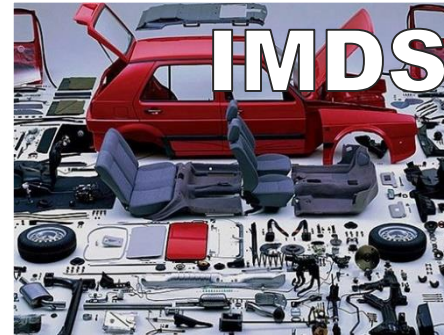
# SPECIAL REQUIREMENTS

## 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.

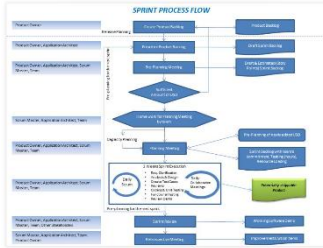
## IMDS (International Material Data System)

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.



# APPLIED QUALITY TECHNICS

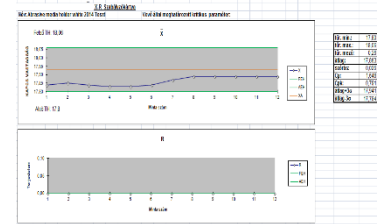
## Process flow chart



## Control Plan

Item No.	Item Description	Control Method	Frequency	Control Point	Control Method	Control Method	Control Method	Control Method	Control Method	Control Method
1	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request
2	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction

## SPC



## PFMEA - DFMEA

Item No.	Item Description	Control Method	Frequency	Control Point	Control Method	Control Method	Control Method	Control Method	Control Method	Control Method
1	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request
2	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction

## 8D report

Item No.	Item Description	Control Method	Frequency	Control Point	Control Method	Control Method	Control Method	Control Method	Control Method	Control Method
1	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request
2	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction

## MSA Gauge R&R

Item No.	Item Description	Control Method	Frequency	Control Point	Control Method	Control Method	Control Method	Control Method	Control Method	Control Method
1	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request	Customer Request
2	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction	Customer Satisfaction

# 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
- Climatic tests in temperature and humidity chambers
- 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
- Tinius Olsen tensile testing equipment
- Torque meter
- Scale
- Surface roughness meas.
- Hardness meas.



# THANK YOU FOR YOUR KIND ATTENTION!



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