

VT ElektroPlast

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

IATF 16949:2016

Scope:

- component assembly and injection moulding parts manufacturing

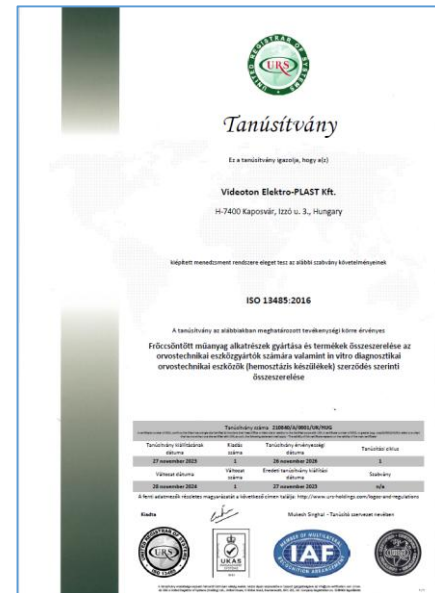


CERTIFIED STANDARDS - VTEP

ISO 13485:2016

Scope:

- Manufacture of injection moulded plastic parts and assembly of products for medical device manufacturers and assembly of in vitro diagnostic medical devices (hemostasis instrument) according contract manufacturing



QUALITY STAFF

Workshop QA manager	4
Quality engineer	15
SQA engineer	2
Supplier development engineer	1
Supplier quality technician	2
Quality technician	9
Incoming inspector	4
Quality inspector	26
Total:	63



DOCUMENTATION SYSTEM

Electronic system on a safe intranet with authorized access

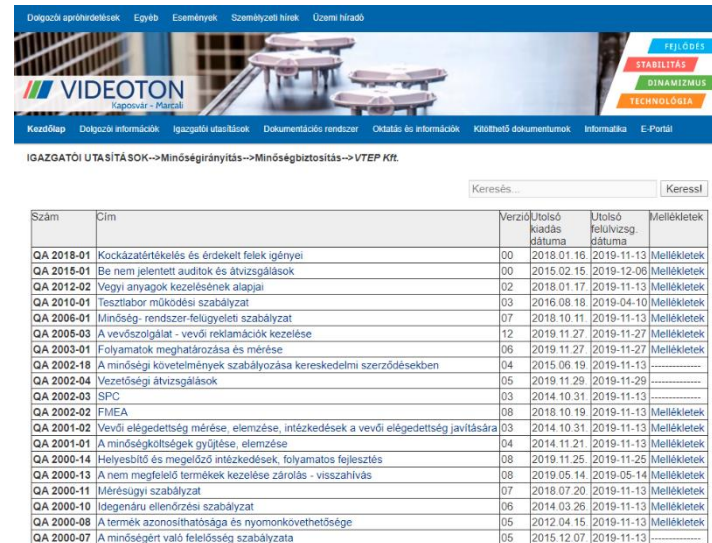
Level 1 Quality Manual

Level 2 Standard Operation Procedures

Level 3 Work Instructions

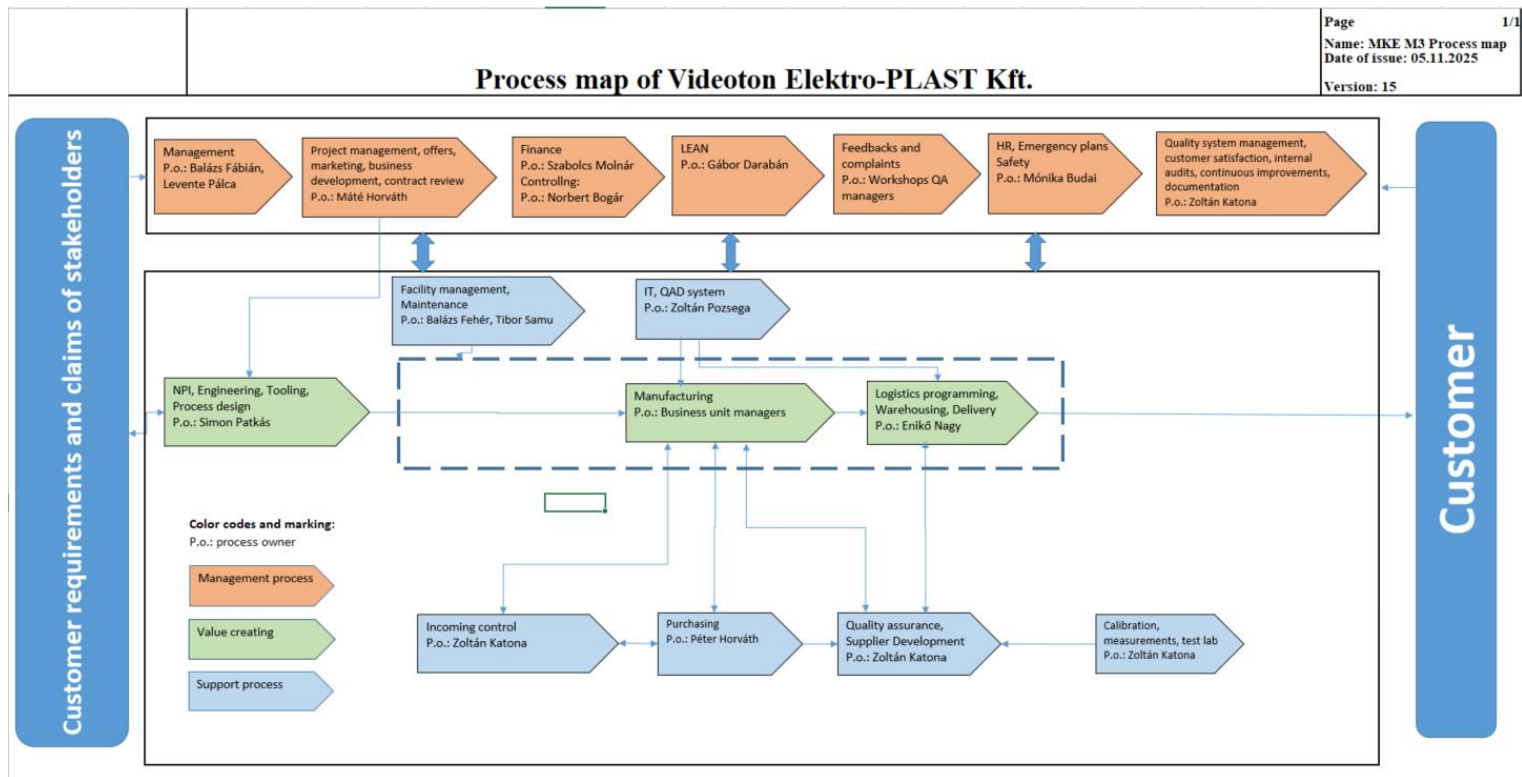
Level 4 Records

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

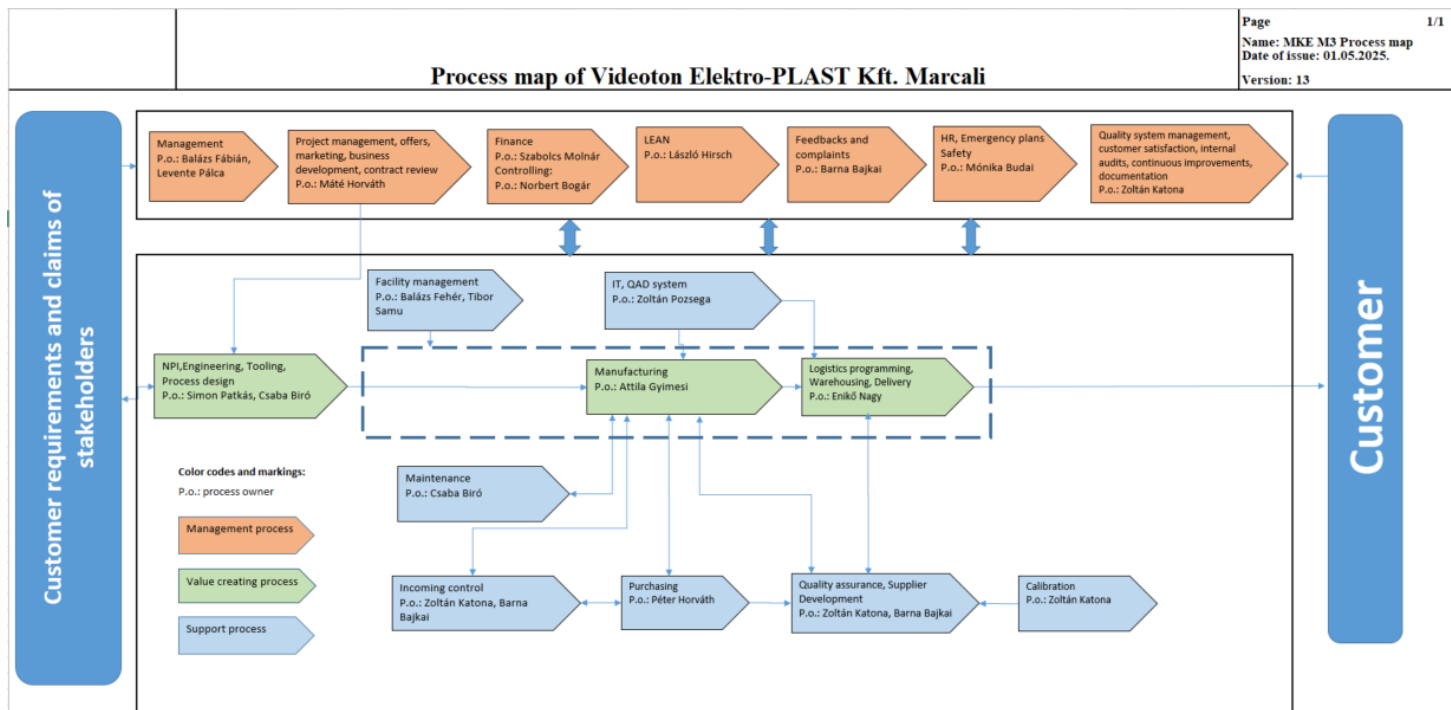


Szám	Cím	Verzió	Utolsó kiadás dátuma	Utolsó felülvizsg. dátuma	Mellékletek
QA 2018-01	Kockázatelemzés és érdekelt felek igényei	00	2018.01.16	2019-11-13	Mellékletek
QA 2015-01	Be nem jelentett auditok és átvizsgálások	00	2015.02.15	2019-12-06	Mellékletek
QA 2012-02	Vegyi anyagok kezelésének alapjai	02	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 minőség 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, folyamatok 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	Időgenárú 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



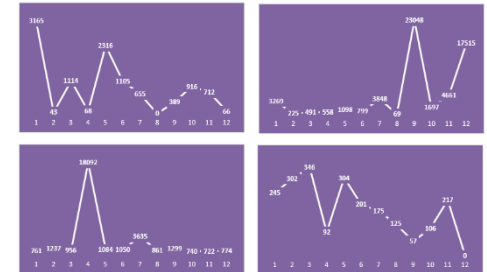
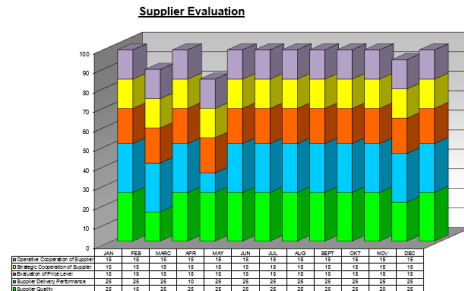
Suppliers are ranked

A - B - C - D categories

Monthly detailed evaluation

Focus on C and D category suppliers (improvement requests)

PPM Performance monitoring



SUPPLIER EVALUATION, DEVELOPMENT, SOURCING

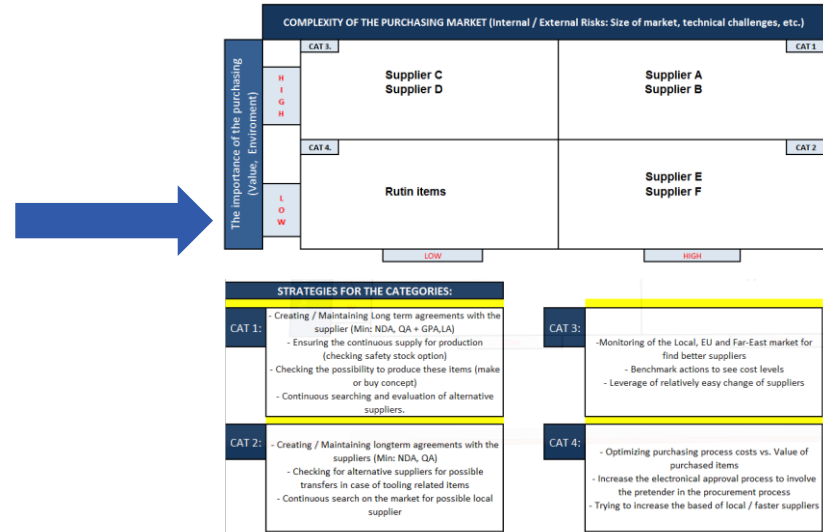
Supplier development

- 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.

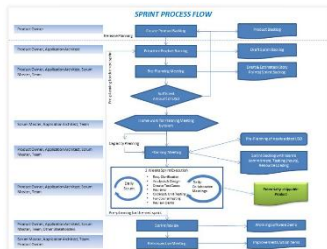


IMDS (International Material Data System)

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.



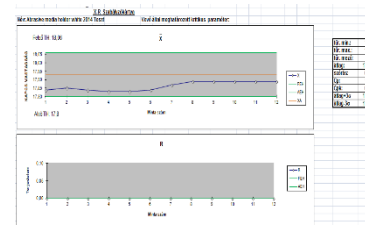
Process flow chart



Control Plan

Customer Information										Product Information		Order Information	
Customer Name: ABC Company Address: 123 Main St, Suite 456 City: New York, NY 10001 Phone: (212) 555-1234 Fax: (212) 555-5678 Email: info@abc.com										Product Name: XYZ Widget SKU: XYZ-001 Description: High quality widget made of stainless steel.		Order Number: 12345 Order Date: 2023-10-27 Order Status: Pending	
Customer Details										Product Details		Order Details	
ID	Name	Address	City	State	Zip	Phone	Fax	Email	Product Name	SKU	Quantity	Unit Price	Total Price
1	ABC Company	123 Main St, Suite 456 New York, NY 10001	New York	NY	10001	(212) 555-1234	(212) 555-5678	info@abc.com	XYZ Widget	XYZ-001	10	\$12.34	\$123.40
2	DEF Company	456 Main St, Suite 789 New York, NY 10002	New York	NY	10002	(212) 555-2345	(212) 555-6789	info@def.com	XYZ Widget	XYZ-001	5	\$12.34	\$61.70
3	GHI Company	789 Main St, Suite 101 New York, NY 10003	New York	NY	10003	(212) 555-3456	(212) 555-7890	info@ghi.com	XYZ Widget	XYZ-001	20	\$12.34	\$246.80
4	JKL Company	101 Main St, Suite 202 New York, NY 10004	New York	NY	10004	(212) 555-4567	(212) 555-8901	info@jkl.com	XYZ Widget	XYZ-001	15	\$12.34	\$185.10
5	MNO Company	202 Main St, Suite 303 New York, NY 10005	New York	NY	10005	(212) 555-5678	(212) 555-9012	info@mno.com	XYZ Widget	XYZ-001	8	\$12.34	\$98.72
6	PQR Company	303 Main St, Suite 404 New York, NY 10006	New York	NY	10006	(212) 555-6789	(212) 555-0123	info@pqr.com	XYZ Widget	XYZ-001	12	\$12.34	\$148.08
7	STU Company	404 Main St, Suite 505 New York, NY 10007	New York	NY	10007	(212) 555-7890	(212) 555-1234	info@stu.com	XYZ Widget	XYZ-001	6	\$12.34	\$74.04
8	VWX Company	505 Main St, Suite 606 New York, NY 10008	New York	NY	10008	(212) 555-8901	(212) 555-2345	info@vwx.com	XYZ Widget	XYZ-001	9	\$12.34	\$111.06
9	YZA Company	606 Main St, Suite 707 New York, NY 10009	New York	NY	10009	(212) 555-9012	(212) 555-3456	info@yza.com	XYZ Widget	XYZ-001	4	\$12.34	\$49.36
10	BCD Company	707 Main St, Suite 808 New York, NY 10010	New York	NY	10010	(212) 555-0123	(212) 555-4567	info@bcd.com	XYZ Widget	XYZ-001	7	\$12.34	\$86.38
11	EFG Company	808 Main St, Suite 909 New York, NY 10011	New York	NY	10011	(212) 555-1234	(212) 555-5678	info@efg.com	XYZ Widget	XYZ-001	3	\$12.34	\$37.02
12	HIJ Company	909 Main St, Suite 1010 New York, NY 10012	New York	NY	10012	(212) 555-2345	(212) 555-6789	info@hij.com	XYZ Widget	XYZ-001	1	\$12.34	\$12.34
13	KLM Company	1010 Main St, Suite 1101 New York, NY 10013	New York	NY	10013	(212) 555-3456	(212) 555-7890	info@klm.com	XYZ Widget	XYZ-001	2	\$12.34	\$24.68
14	NOP Company	1101 Main St, Suite 1202 New York, NY 10014	New York	NY	10014	(212) 555-4567	(212) 555-8901	info@nop.com	XYZ Widget	XYZ-001	1	\$12.34	\$12.34
15	QRS Company	1202 Main St, Suite 1303 New York, NY 10015	New York	NY	10015	(212) 555-5678	(212) 555-9012	info@qrs.com	XYZ Widget	XYZ-001	1	\$12.34	\$12.34
16	TUV Company	1303 Main St, Suite 1404 New York, NY 10016	New York	NY	10016	(212) 555-6789	(212) 555-0123	info@tuv.com	XYZ Widget	XYZ-001	1	\$12.34	\$12.34
17	WXY Company	1404 Main St, Suite 1505 New York, NY 10017	New York	NY	10017	(212) 555-7890	(212) 555-1234	info@wxy.com	XYZ Widget	XYZ-001	1	\$12.34	\$12.34
18	ZAB Company	1505 Main St, Suite 1606 New York, NY 10018	New York	NY	10018	(212) 555-8901	(212) 555-2345	info@zab.com	XYZ Widget	XYZ-001	1	\$12.34	\$12.34
19	CDE Company	1606 Main St, Suite 1707 New York, NY 10019	New York	NY	10019	(212) 555-9012	(212) 555-3456	info@cde.com	XYZ Widget	XYZ-001	1	\$12.34	\$12.34
20	FGH Company	1707 Main St, Suite 1808 New York, NY 10020	New York	NY	10020	(212) 555-0123	(212) 555-4567	info@fgh.com	XYZ Widget	XYZ-001	1	\$12.34	\$12.34

SPC



PFMEA - DFMEA

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8D report

[illegible]

**MSA
Gauge
R&R**

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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

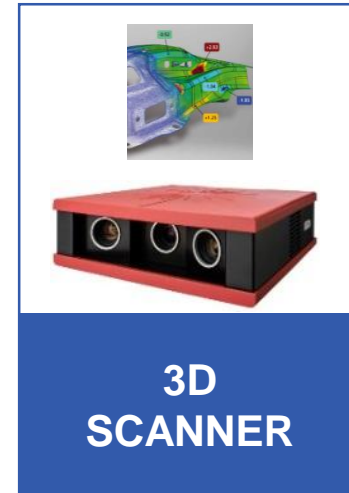
Major activity

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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