

Checking and Controlling Production Processes

PLATO Control Plan is an instrument for checking and controlling production processes. In the production control plan, the actions and inspection methods used to monitor product and process features are documented. The goal is to achieve stable and controllable processes, and therefore to guarantee the quality of the product.

Charging cradle STD (Control Plan)													
Operations Layout							Methods/Probes						
Process step	No.	Machine/Device	No.	Product Characteristics	Process Characteristics	Class	Specifications/Tolerances	Measurement Technique	Sample Size	Measure	Frequency	Control Method	Reaction Plan
Check assembly parts for completeness	10 a		1		Bill of material		= LS STD 1	Visual inspection	100	%	continuously	BOM allocation in assembly record	RP-11
Visual inspection of assembly parts for damage	10 c		2		Reference pattern catalog		= VMK 47 11	Visual inspection	100	%	continuously	Assembly report	RP-11
Tighten PCB with counter sunk screw	30 b	Torque screwdriver TSD 12	5		Tightening torque	⊕ SC	= 0.5 Nm (+0.05/-0.05)	Automativ tool inspection	100	%	continuously	Maintenance report	calibration of torque and notification to test medium department
		M3 Bil-K-PD	2	Screw length		⊕ SC	= 10 mm (+1/-1)	Visual inspection	1	Test	each batch of screws	Batch report	RP-18
		M3 Bil-K-PD				Incoming goods inspection	5	Tests	each delivery	Incoming goods report	Complaint and supplier audit (if needed)		
			4	Screw thread , standard thread		⊕ SC	acc. to DIN 965	Type inspection	1	Test	each charge of screws	Batch report	RP-18
Apply soldering flux out of dosing onto the contact	50 c	Soldering station SS1	1		Amount of flux	⊕ SC	= 0.5 g (+0.1/-0.1)	Manual dosing test	1	Test	each shift	Work equipment report	Calibration and additional visual inspection of all affected joints
								Automativ tool inspection	100	%	each dosage	Maintenance report	Repetitive calibration

Fig. 1: Control plan

Applications and Use

- Used during the quality planning process and as part of the overall quality process
- Aids in the manufacture of quality products made according to customer requirements
- Provides a logical process organization
- Structured approach to the development and selection of value-creating monitoring methods
- Provides a complete overview of inspection actions and supplies data for inspection plans
- Planning and constant updating of the inspection and monitoring system in HACCP studies

Branches and Standards

PLATO Control Plan is used in industry for production processes.

IATF 16949 and AIAG demand the creation of a control plan. It is a required document for the Production Part Approval Process (PPAP).

The FAO/WHO HACCP standard (ALINORM 97/13A, Annex II) requires the establishment of a monitoring system for critical control points. This standard is used as the basis for legal regulations and safety standards in the food industry.

Primary Focus and Functions

Faster configuration using the Process Configurator

Data from a variety of sources is needed in the control plan. The Process Configurator provides a clear, cross-structure overview of the complex relationships between the process and product structure, machines, and characteristics.

The matrix graphic is easy to understand and allows users to proceed very quickly and systematically.

Once the process is configured, the control plan form is already filled in with the essential data. You only need to add the measuring devices, random samples, control methods, and reaction plans.

Consistent, up-to-date, and easily available data

Changes and updates to process data are automatically propagated to all other forms affected (FMEA, process flow chart, etc.). The data in e1ns.flow is also synchronized when processes are created and modeled visually.

Critical process and product characteristics are consistently indicated and updated.

PLATO Control Plan is a web application, which means no local installation is necessary. Employees from all corporate divisions have easy access – from anywhere in the world.

Individual requirements are taken into account

PLATO Control Plan benefits from the PLATO toolbox concept.

Additional columns or data are added to the standard control plan form if necessary – depending on the internal requirements of the company.

The data output can also be configured individually depending on which documents are needed for projects, customers, or archiving purposes.

PLATO e1ns Database

The control plan provides data for FMEAs, system analyses, and process flow charts via the central PLATO e1ns database. This integration ensures effective and efficient teamwork throughout all departments – revisions and the need to maintain more than one database are eliminated.