Ideagen Quality Control

Control Plan Example and Guide

Control plans are a critical part of the overall quality process. They are living documents that are updated as processes change and improve throughout the product lifecycle. Control plans are also one of the elements of the **Production Part Approval Process (PPAP).**

A control plan describes the methods for controlling product and process variation in order to produce quality parts that meet customer requirements.

The purpose of this guide is to provide an example of a control plan and an explanation of each component.

Control plan formats and information may vary based on specific customer requirements.

This guide should be used only as an example and reference.

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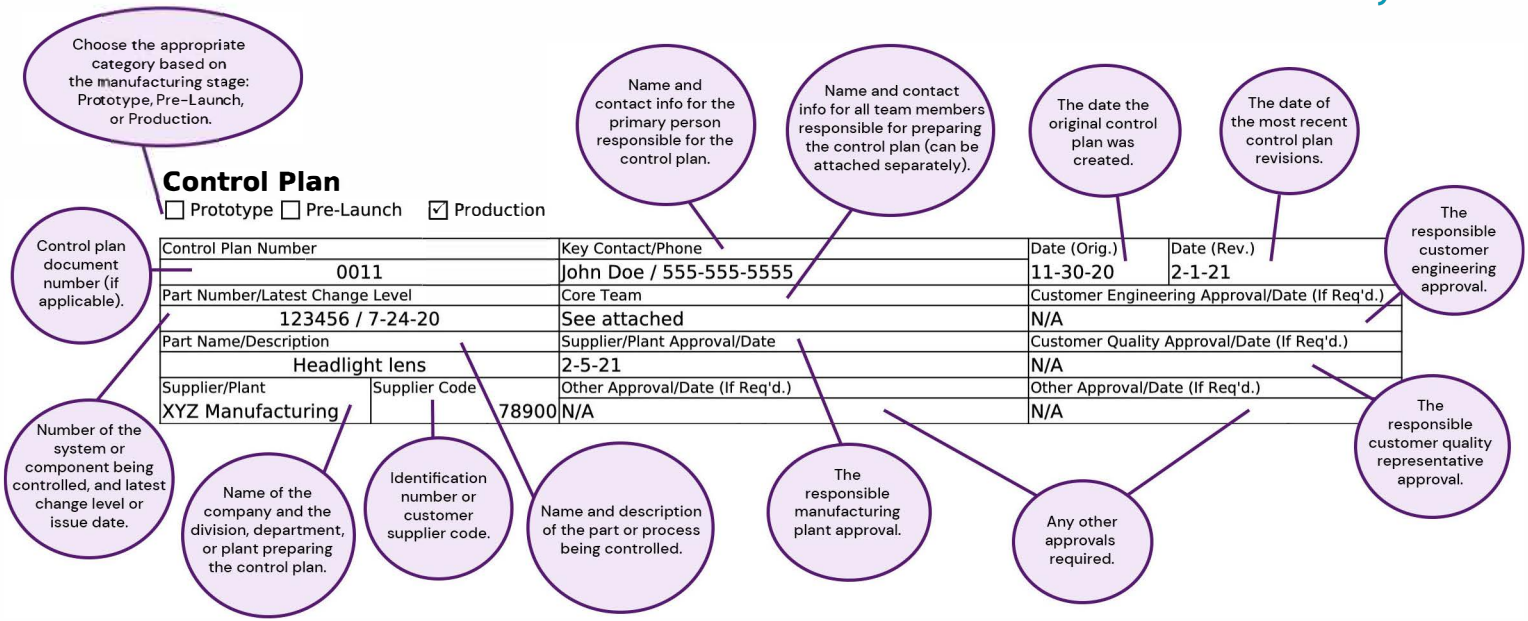
Ideagen Quality Control

Control Plan

☐ Prototype ☐ Pre-Launch ☑ Production

Control Plan Number	Key Contact/Phone	Date (Orig.)	Date (Rev.)
0011	ohn Doe / 555-555-5555	11-30-20	2-1-21
Part Number/Latest Change Level	Core Team	Customer Engineering Approval/Date (If Req'd.)	
123456 / 7-24-20	See attached	N/A	
Part Name/Description	Supplier/Plant Approval/Date	Customer Quality Approval/Date (If Req'd.)	
Headlight lens	2-5-21	N/A	
Supplier/Plant / Supplier Code	Other Approval/Date (If Req'd.)	Other Approval/Date (If Req'd.)	
XYZ Manufacturing 78900	N/A	N/A	

Part / Process Number	Process Name / Operation Description	Machine, Device, Jig, Tools for Manufacturing, etc...	CHARACTERISTICS			Classification	METHODS					Reaction Plan
			Number	Product	Process		Product / Process Specification / Tolerance	Evaluation / Measurement Technique	SAMPLE SIZE	SAMPLE FREQ.	Control Method	
4	Plastic Injection Molding	Plastic Injection Molding Machine No. 3	12	Appearance		*	No blemishes	Visual inspection	100%	Ongoing	100% visual inspection	Adjust machine and retest Notify supervisor
		Plastic Injection Molding Machine No. 3	13	Mounting hole		*	Mounting hole "B" location 16 ± 1 mm	Fixture #8	1st piece	Each run	Check sheet	Adjust machine and retest
		Plastic Injection Molding Machine No. 3	14		Setup of injection molding machine		See attached instructions	Review machine setup instructions and settings		Each machine setup	Settings verification; 1st piece approval	Adjust machine and retest



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The part number or numbers, typically found in the Process Flow Chart.

The process or operation name from the flow diagram providing the steps for manufacturing the system or component.

Special characteristic classification if required (symbols used by the customer to mark important features), or leave blank for other undesignated features.

Specifications and tolerances from relevant engineering documents (including drawings, design reviews, etc).

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The specific corrective actions for avoiding production of nonconforming products. This section can reference a separate reaction plan and assign the responsible team members.

The processing equipment or manufacturing tools used in the operation.

Cross reference number for all relevant documents. This would be the same number across ballooned part drawings, process flow diagrams, FMEAs, or other documents.

All special characteristics or features of a part, component, or assembly, compiled from drawings or other sources. This can also include other features that typically involve process control tracking.

The process or input variables that must be controlled to decrease product variation. There can be one or more process characteristics that affect each listed product characteristic.

The measurement system used for each part, feature, process, or manufacturing equipment (gages, tools, test equipment, etc). This should be evaluated using a measurement systems analysis.

Sample size and frequency when sampling is required.

Description of how the operation will be controlled, based on the strategy and analysis of the manufacturing process, type of process, and risks found during quality planning. This is a key part of the control plan and should be regularly evaluated. Control methods can include inspection, statisical process control, and others.