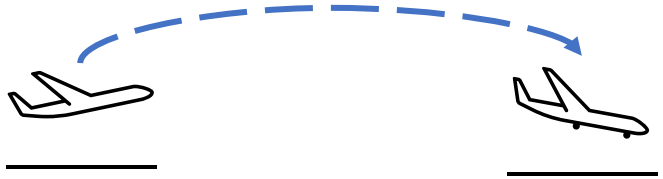
PROCESS CONTROL METODS - Relationship with AS13100, Chapter C

RM13006's APQP flight path…



DESIGN ORG | **MAKE ORG**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

APQP Phase 1: Planning
- Product Requirements (RM13145)
- Project Targets (RM13145)

APQP Phase 2: Product Design and Development
- Product Design (RM13008)
- Design Record (RM13008)
- Design FMEA (RM13004)
- Design Verification Plan (RM13008)
- Product Key Characteristics (RM13008)
- 2

APQP Phase 3: Process Design and Development
- Process Flow Diagram (RM13004)
- Characteristic Matrix (RM13004)
- Process FMEA (RM13004)
- Control Plan (RM13004)
- Process Key Characteristics
- MSA Plan (RM13145)
- Work Station Documentation (RM13145)
- Preventive Maintenance/ Asset Care
- 9, 10, 12, 13

APQP Phase 4: Product & Process Validation
- Measurement System Analysis (RM13003)
- Initial Process Capability Studies (RM13006)
- Dimensional Nondimensional Results (RM13145)
- Initial Manufacturing Studies (RM13145)
- 21

APQP Phase 5:
- Process Control (RM13006)

Develop the Process Control system required to prevent and/or contain failure modes while achieving all targets

Process Controls working in a sustained manner time after time, lot after lot, in a serial production environment

RM13006 – PROCESS CONTROL METHODS and the relationship with AS13100, Chapter B

Phase 2 | **Phase 3** | **Phase 4**

DESIGN ORG | **MAKE ORG**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

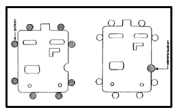
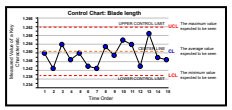
	2	4	7	9	10	12	13	19	21	27
SMIG Flight Path (Enablers)	Design FMEA	Product CI & KC	Prelim Sourcing Plan Risk Analysis	Process Flow Diagram	PFMEA	Process KC	Control Plan	Production Process Run(s)	Initial Process Studies	PPAP Submission & Approval Form
RM13145 Table C1									X	

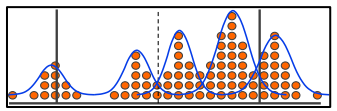
Our manual advises…

Chapter 5 Control Methods
(Nine process control method examples with associated reaction plans)
Chapter 6 Process Capability
Chapter 7 Guidance for Non-Normal Data

Selecting Control Charts and Process Capability methods

Relationship with PPAP

Initial Process Studies: SPC data and Control Charts are used as "Evidence" for PPAP. Success is achieving targets, i.e., Ppk >/= 1.33

AS13100

Chapter A: Table 1; Para. 9.1.1.1; Table 18 Chapter B: Table 13, Para. 19.1
Chapter C: Para. 20.1 (Fig. 6); Para. 21.8 Appendix A (Table 18)