

AS9145 Compliance Drives 6 Business Benefits



In our aerospace and defense practice, we are finding greater emphasis on suppliers to comply with the AS9145 standard and expect this to continue over the next five years. A growing number of aerospace and defense OEM's, such as Boeing, are now requesting that their suppliers submit evidence of process capability to qualify suppliers. The AS9145 (APQP/PPAP) is a structured methodology that provides objective evidence to the customer (Boeing, Lockheed, etc.) that their suppliers' processes are reliable, capable and in control. It was created to define the aviation, space, and defense process requirements for Advanced Product Quality Planning (APQP) and Production Part Approval Process (PPAP). The APQP aspects of this standard define a methodology for ensuring that the product development processes deployed are fully integrated, phased processes that extend from concept and design through manufacturing process planning and execution, and on into product use, service, and customer feedback. The PPAP is an output of APQP confirming that the production process has demonstrated the potential to produce products that consistently fulfill all requirements at the customer demand rate.

Link between Stability and Capability

Process capability is an assessment of the ability to meet specification. However, if a process is unstable, we cannot predict its capability. Any estimate of process capability we make depends entirely on where the process happens. For example, if the process average is shifting over time, an estimate of the process capability is only reflective of where the process is at that point in time; not where it may go next. It is not enough to know that a process is capable at some point in time - the process must achieve this capability consistently - and that's where process stability comes into play. However, without any evidence of process stability over time – the capability data is useless!

Barriers and Obstacles to Achieving Capable Processes

Some of the most common obstacles to achieving capable and reliable processes include:

- Slowed production
- Wasted time and resources
- Difficulty meeting customer expectations
- Mismatched process flows, lack of applying tools such as FMEAs, and control plans
- Missed opportunities in continual improvement and early detection

Leveraging an Experienced Firm to Achieve AS9145 Compliance Drive Six Benefits

The AS9145 standard is both far-reaching and plentiful when properly implemented. Because it is designed to touch all elements of an organization, including its suppliers, the benefits companies can expect to realize are:

1. Lower development and manufacturing cost
2. Enhanced communication with the customer, suppliers and internal stakeholders
3. Improved capability to meet customer needs, requirements, and expectations
4. Early detection of quality and design problems to mitigate costs
5. Benchmark standards from which the organization can build and grow upon
6. Opportunity for continuous improvement

Partnering with Implementation Engineers and their experts in AS9145 compliance is a great first step toward achieving these benefits.