

Quality plan - Applicable specifications

Below is a typical list of specifications for a metal fabrication for an OEM in the power or oil & gas industries. An actual list could be 2-3 times as long as this one.

Part number:	123abc	Rev:	2
Drawing number	Oem123456		2

<u>Source</u>	<u>Spec number</u>	<u>Rev</u>	<u>Name</u>
OEM	Oem1	2019	Supplier quality requirements
OEM	Oem2	2019	General fabrication requirements
OEM	Oem3	2019	Welding, weld NDT requirements, weld acceptance criteria
OEM	Oem4	2019	Surface preparation and coating of stainless steel
OEM	Oem5	2019	Surface preparation and coating of carbon steel
OEM	Oem6	2019	Electrical test requirements
OEM	Oem7	2019	Packaging requirements
ASME	Y14.5	2018	Dimensioning, tolerancing, engineering drawings
AWS	A2.4	2012	Weld symbols
ASTM	A240	18	Chromium Nickel stainless steel plate
ASTM	A36/M	19	Carbon structural steel
ASNT	SNT-TDC-1A	2011	Weld NDT - visual testing
ASTM	E165/M	18	Weld NDT - liquid penetrant testing
ASTM	E709	15	Weld NDT - magnetic particle testing guide
SSPC	SP-1	2016	Solvent cleaning
SSPC / NACE	SP-10 / No. 2	2007	Near-white metal blast cleaning

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Manufacturing and Quality Plan

Manufacturer name: Qualified Industrial LLC  
 Part number / rev: 123abc Rev: 2  
 Drawing number / rev: Oem123456 Rev: 2

Part desc.: Stainless steel air filter housing  
 Customer: Large power OEM  
 PO number: 410288392 Rev: 1

See notes at bottom of sheet for field explanations.

Step / process	Specification	Characteristic	Inspection or test	CTQ?	Role	Tool / Gauge	Pass /	
							fail	Init.
Purchase material	ASTM A240 304L		verify cert		QA			
	ASTM A36/M		verify cert		QA			
Cut panels to length	Oem2	dimensions	measure	y	QA	tape measure		
	Oem123456							
Drill holes	Oem2	debur			QA			
	Oem123456	dimensions		y	QA	tape measure		
Bend	Oem2	dimensions	measure	y	QA	tape measure		
Weld assembly	Oem2	dimensions	measure	y	QA	tape measure		
	Oem123456							
Final welding	Oem3	weld size, quality	weld visual testing	y	WI	weld gauges		
	Oem123456		weld liquid penetrant testing					
	ASNT SNT-TDC-1A ASTM E165/M							
Solvent clean	SSPC SP-1	surface dirt	inspect for oils, dirt	y	QA	cloth		
Media blast	SSPC SP-10	surface profile	test profie	y	QA	electronic profile gauge or Testex tape		
	Oem4							

Manufacturing and Quality Plan

Step / process	Specification	Characteristic	Inspection or test	CTQ?	Role	Tool / Gauge	Pass /		
							fail	Init.	Date
Electrical / mechanical assy	Oem123456			y	QA				
	Oem6		electrical continuity checks	y	QA				
Final inspection	Oem123456				QA	quality checklist			
Packaging	Oem7	correct materials and construction method		y	QA	quality checklist			

Notes:

CTQ indicates whether a characteristic is critical to quality of the end product. All drawing requirements must be met on each unit, however CTQ aspects are 100% verified on each and every unit.

Role indicates what role in the manufacturing company will perform the test. QA indicates a quality analyst.

WI indicates weld inspector.

Pass / fail - indicates whether the test or measurement successfully passed the requirement.

When the plan is complete, all steps should state "pass".

Init. - Initials of inspector or test analyst who verified characteristic

Date - enter the date on which the inspection was passed.