

Global Competency Center Supplemental Quality Requirements Manual

barrywehmiller
BUILDING A BETTER WORLD

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1 Introduction

This manual outlines the additional requirements for supplying product to Barry Wehmiller India Private Limited. Specifically, this manual outlines the requirements for:

- How inspection plans are to be defined
- Statistical sampling is to be performed when permitted
- First article inspection are to be performed
- Production inspection is to be performed; and
- What appearance criteria each part must meet

2 Inspection Plans

The supplier shall define an inspection for each part, which must be approved by Barry Wehmiller India Private Limited. This table defines the requirements for what the inspection plan for each part must contain as well as how it cooperates with BW joint inspections. The supplier may use their own format, but the inspection plan must contain these elements:

Stage	Responsibility	Type	Criteria	Method/Tool	Frequency	Documented Output
Raw Material Inspection	Supplier	Incoming	Chemical and mechanical properties of the material grade, traceability to heat number	Verify test certificate, or conduct 3 rd -party lab analysis	Per batch	Raw Material Inspection Report
In-Process Inspection	Supplier	Process Control	All dimensional requirements and every process	Supplier In-process Inspection Report	100%	In-Process Inspection Checklist
Final Inspection	Supplier	Outgoing / Final	All critical dimensions (features w/ ≤ 50 microns of total tolerance and all GD&T) Appearance Free of burrs Threads fully formed and lack of damage	Methods and tools are to be defined by the supplier but appropriate to ensure results are repeatable and reproducible	100% for critical dimensions Minimum AQL of 0.65 for Others	Final Inspection Report and Photos
Joint Inspection	Supplier: Communicates readiness BW: Performs inspection	Source Inspection	Same as above	Per the part inspection plan and FIR-BWI	As defined by BW	BW: NCR (if any), Joint Inspection report
Quality NC Review	BW: Documents NCs and approves corrective actions Supplier: Takes and documents corrective actions	CAPA Review	Nonconformities and their corrective actions. Issues from past lots and related escape prevention	5-Why, Fishbone, CAPA Form	Per quality alert	CAPA Report, Q-Alert
Important Notes:	First time parts, first parts after revision change, and after quality issue require 100% inspection for all dimensions					
	Please fill out a deviation report in the BWI format and share it with the respective BW quality person with relevant details if you have found any issues in the part during self-inspection or BW Inspection.					

3 Statistical Sampling

The supplier may apply a .65 AQL, or lower, for any features not defined as critical or otherwise requiring 100% inspection as defined in Section 2 of this manual. The supplier is required to reject the lot if 1 or more nonconforming samples are identified among the lot and continue with 100% inspection until corrective action is taken and verified to eliminate the nonconformity.

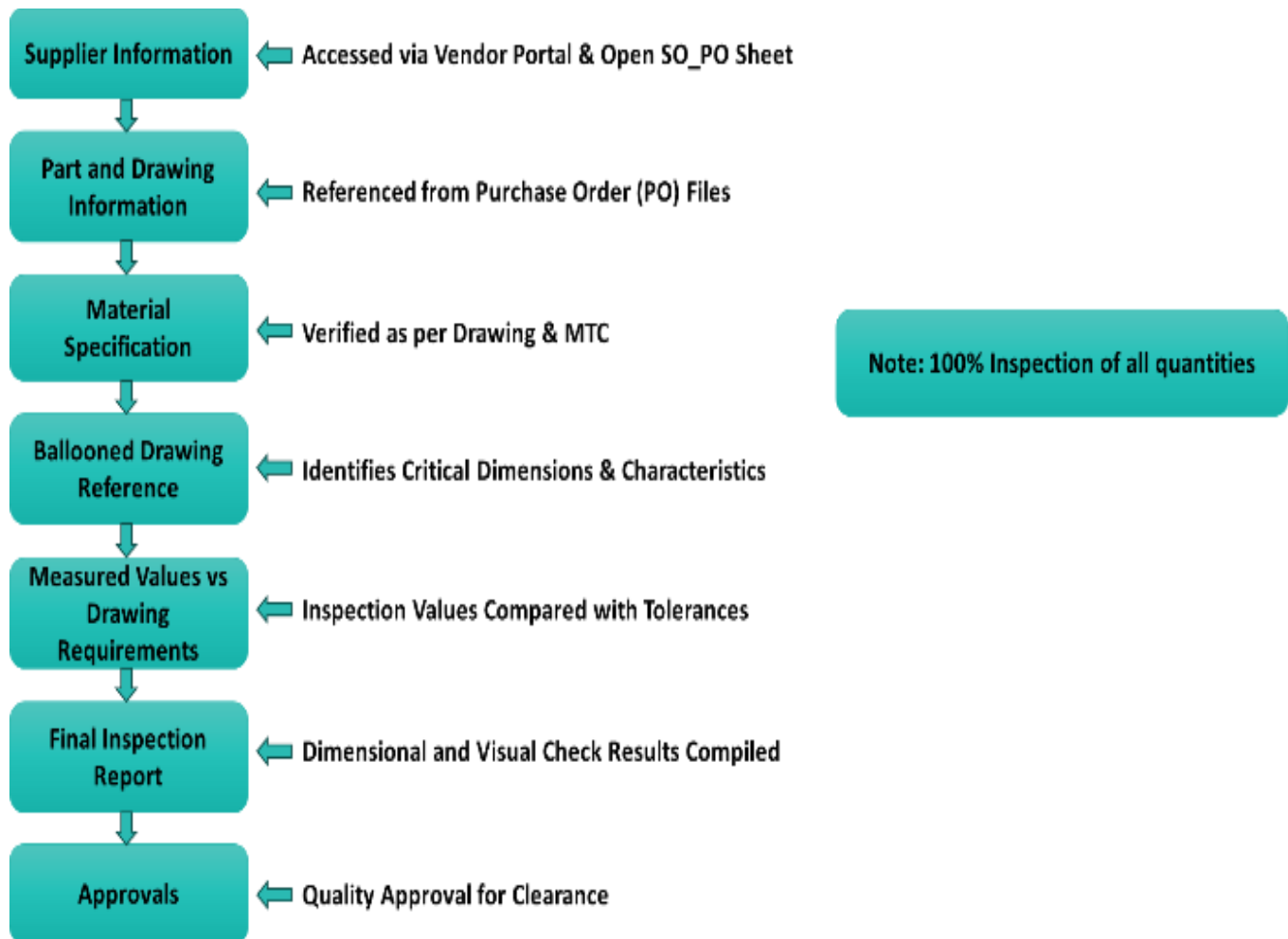
Reference: chart from ANSI/ASQ Z1.4 standard

C = 0 SAMPLING PLANS ASSOCIATED AQLS																
	.010	.015	.025	.040	.065	.10	.15	.25	.40	.65	1.0	1.5	2.5	4.0	6.5	10.0
LOT SIZE	SAMPLE SIZE															
2 TO 8	*	*	*	*	*	*	*	*	*	*	*	*	5	3	2	2
9 TO 15	*	*	*	*	*	*	*	*	*	*	13	8	5	3	2	2
16 TO 25	*	*	*	*	*	*	*	*	*	20	13	8	5	3	3	2
26 TO 50	*	*	*	*	*	*	*	*	32	20	13	8	5	5	5	3
51 TO 90	*	*	*	*	*	*	80	50	32	20	13	8	7	6	5	4
91 TO 150	*	*	*	*	*	125	80	50	32	20	13	12	11	7	6	5
151 TO 280	*	*	*	*	200	125	80	50	32	20	20	19	13	10	7	6
281 TO 500	*	*	*	315	200	125	80	50	48	47	29	21	16	11	9	7
501 TO 1200	*	800	500	315	200	125	80	75	73	47	34	27	19	15	11	8
1201 TO 3200	1250	800	500	315	200	125	120	116	73	53	42	35	23	18	13	9
3201 TO 10,000	1250	800	500	315	200	192	189	116	86	68	50	38	29	22	15	9
10,001 TO 35,000	1250	800	500	315	300	294	189	135	108	77	60	46	35	20	15	9
35,001 TO 150,000	1250	800	500	490	476	294	218	170	123	96	74	56	40	29	15	9
150,001 TO 500,00	1250	800	750	715	476	435	270	200	156	119	96	74	40	29	15	9
500,001 AND OVER	1250	1200	1112	715	556	345	303	244	189	143	102	64	40	29	15	9

* Indicates entire lot must be inspected
NOTE: The Acceptance Number in all cases is ZERO

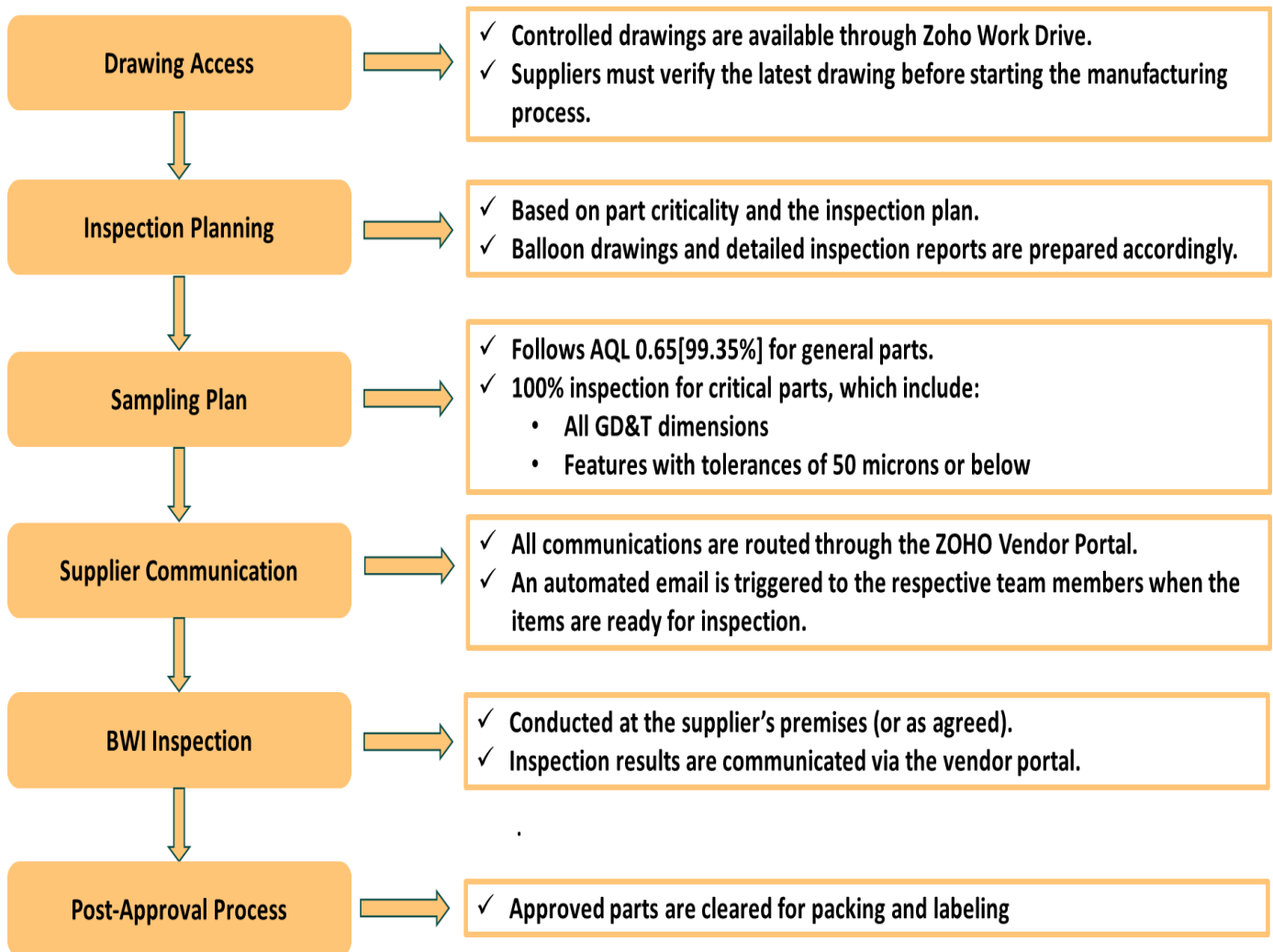
4 First Article Inspection (FAI) Report Structure

The purpose of this section is to define the required sections and order of an FAI report. The supplier may use their own format so long as these content requirements are met.



5 Supplier Quality Inspection Structure

The purpose of this section is to direct the supplier's process for inspection planning and communication of inspection results in preparation for a joint inspection.



6 Visual Inspection Criteria

The following are the appearance criteria each piece provided to BW are required to meet. The reaction plan shall be followed, per the supplier's BW-approved part inspection plan, when any of the following nonconformities are identified:

Surface Finish and Handling Guidelines:

Unless otherwise specified on the part drawing, all surfaces shall meet the specified finish requirements (Ra) on all noted surfaces. Visually detectable dings, scratches, and dents shall be referred with a profilometer to verify conformity to drawing requirements. A 32 Ra Max finish shall apply where no surface finish is specified.

General Handling Instructions:

Do not use hand grinders on any surfaces.

Use drills to remove burrs from holes.

Do not use scribes or any tools that may cause scratches.

Surface Finish Requirements:

No scratches, dents, damages, step marks, line marks, or chattering marks are allowed.

All areas must have a uniform texture and finish.

For non-sheet metal parts, machining is performed to achieve a better surface finish.

For sheet metal parts, shot blasting and sand blasting are carried out before the final finish.