

Inspection and Test Plan for Bus Duct

No.	Inspection and Test Plan	Reference Document	Acceptance Criteria	Verifying Document	Activity By			Remark
					Manuf.	TPI	Client	
1	Pre-Inspection Meeting	Spec.	Spec.	MOM	H	H	H	-
Before Manufacturing								
2	DWG, Design, Calculation Document	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	DWG, Calculation book	H	R	A	-
3	WPS&PQR	ASME IX	ASME IX	Welding Book	H	R	A	-
4	Welder Qualification Certificates	ASME IX	ASME IX	Certificates	H	R	-	-
5	NDT procedures	ASME V	ASME V	Procedures	H	R	A	-
6	NDE Personnel Certificates	ASME IX	ASME IX	Certificates	H	R	-	-
7	Bus Duct Insulation Resistance Test Procedure	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
8	Bus Duct Withstand Voltage Test	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	IEC, NEC, NEMA, FDF, ISO ANSI, CI, IPCEA	Procedure	H	R	A	
9	Painting Procedure	SSPC	SSPC	Procedure	H	R	A	-
Materials								
10	Raw Material Inspection	ASTM	ASTM	Original Material Certificates	H	H	-	-

11	Review of Certificates	ASTM	ASTM	Certificates	H	H	-	-
12	Material Identification	ASTM	ASTM	Report	H	H	-	
During Fabrication								
13	Assembly Inspection	DWG	DWG	Report	H	SW	-	
14	Welding Inspection for Required Welding Components	WPS	WPS	Report	H	SW	-	
15	Checking of Outline Dimensions, Interface Dimensions, Bus Bar Dimensions and Clearances and other Specified Dimensions	DWG	DWG	Report	H	SW	-	
16	Checking that all Instruments, Compartments, Control Switches etc. are Correctly Rated and are Correctly Located, with Specified Labeling.	DWG	DWG	Report	H	SW	-	
17	Tightness/Torque of Terminals and Degree of Protection	DWG/Spec	DWG/Spec	Report	H	SW	-	

18	Insulation Resistance Test	Procedure	Procedure	Report		H		
19	Withstand Voltage Test (Dielectric Test)	Procedure	Procedure	Report		H		
Final Inspection								
20	Final Visual & Dimensional Check	DWG	DWG	Report	H	H	-	-
21	Surface Preparation and Painting	Procedure	Procedure	Report	H	W	-	-
22	Check of Final Book	Spec.	Spec.	DWG/ P.O	H	R	-	
Documentation								
23	Inspection Reports	Spec./DWG	Spec./DWG	Report	H	R	-	-
24	NCR	Spec./DWG	Spec./DWG	Report	H	R	-	-
25	Review Final Data Report	Spec./DWG	Spec./DWG	Report	H	R	-	-
Pre-Inspection Inspection								
26	Preservation and Packing	Spec.	Spec.	Report	H	H	-	-
27	Marking	Spec.	Spec.	Report	H	H	-	-
28	Loading Inspection	Spec.	Spec.	Report	H	H	-	-
29	Shipping Document Control	Procedure	Spec.	Packing List	H	H	-	-

Abbreviations:

H: Hold Point = Hold on the production till TPI Inspector performs inspection and supervise the required test

www.inspection-for-industry.com

W: Witness Point = Manufacture shall notify client and TPI Inspector but there is no hold on the production;
Client can waive this inspection based on his discretion and informs TPI Inspector accordingly.

R: Document Review = Review means Review document, which includes of material test certificates, WPS, PQR, NDT Procedures and etc.

A: Approval

SW: Spot Witness = for items with spot witness manufacture shall notify TPI inspector as fulfilling the monitoring;
For example one random visit for whole UT tests or one or two visits for whole surface preparation works for painting.

MOM: Minute of Meeting

P.O: Purchase Order

for more information review following articles:

<http://www.inspection-for-industry.com/third-party-inspection-for-bus-duct.html>

<http://www.inspection-for-industry.com/inspection-and-test-plan-for-bus-duct.html>