



Work Instruction


Ceramic Infrared Heater Functional Flow

Revision: 03

Procedure No.: WI-8.2.4.31

Date Effective: 5/20/2016

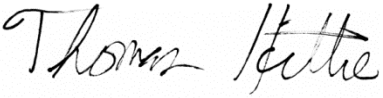
	Operation Description	Documentation Clarifying Characteristics (As applicable for each operation)	Monitoring & Measurement Activities	Monitoring & Measurement Records/Check Lists
1	Coil Preparation	Procedure WI-8.2.4.26 Specification Sheet	100% resistance check; Visual Verification	
2	Green Production	Procedure WI-8.2.4.44 Specification Sheet	Visual Verification	Order Tracker
3	Marking (ID & Traceability)	Procedure WI-8.2.4.28 Specification Sheet	Visual Verification	
4	Head Attachment (applies only to hollow heaters)	Specification Sheet	Visual Verification	
5	Glazing	Procedure WI-8.2.4.29 Specification Sheet	Visual Verification	Order Tracker
6	Firing	Procedure WI-8.2.4.30	Kiln reference temperatures; Visual Verification	Order Tracker
7a	Series Braze (as required, only for Edison-base heaters)	Procedure WI-8.2.4.18 Specification Sheet	Visual Verification	
7b	Cement Edison-base shell (only for Edison-base heaters)	Procedure WI-8.2.4.42 for adhesives and coatings	Visual Verification	
7c	Termination Braze and/or Solder (only for Edison-base heaters)	Procedure WI-8.2.4.18 (brazing) Procedure WI-8.2.4.40 (solder) Specification Sheet	Visual Verification	
8	Marking (on heater face, if necessary)	Specification Sheet	Visual Verification	
9	Termination (all other heaters except Edison-base heaters)	Specification Sheet	Visual Verification	
9	Final Test	Specification Sheet	100% resistance check using ohmmeter or multimeter; 100% hipot for UL-marked heaters	Order Tracker
10	Specification Sheet and Manufacturing Order are Matched Up	Specification Sheet Manufacturing Order	Verify P/N, MO#, part description	None Required
11	Final Quality Assurance Inspection	Specification Sheet Manufacturing Order	Dimensional and electrical inspection/test performed on all drawing/ specification requirements on a random sample basis	QC Log Evaluation record of Final Inspections Electrical Test Data if applicable Engineering Verification Form when requested

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Revision History

REVISION LEVEL	DATE OF REVISION	SECTIONS	DESCRIPTION OF CHANGE
00	05/25/2009	All	Initial release
01	02/22/2010	All	Added Order Tracker input in different sections
02	06/11/2012	All	Remove Pre-production Preparations; separate Green Production from Marking on heater face; separate Termination and Final Test; added Edison-style base heater termination steps; added Head Attachment
03	05/20/2016	All	Filled in procedure number for green production (#2) and for adhesives and coatings (#7b); adhesives and coatings was cement mixture (#7b)

Authorization

Position	Held By	Signature
Product Manager	Thomas Hittie	
Senior Management Representative	Abraham Joseph	