



Job Description/Training Checklist

Mold & Core-Maker

Foundry Document #JDTC-30-001

Revision No: 2
Revision Date: 10/7/11
Issue No: 1
Issue Date: 9-30-02
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Position: Mold & Core-Maker

Reports To: Foreman/Supervisor

Minimum Qualifications (preferred): High school diploma, or equivalent. Previous work-related skill and knowledge preferred.

Key Responsibilities:

The Mold & Core-Maker assures sand molds and cores meet requirements of quality.

- Job responsibilities and duties for this position:
 - o Adheres to all plant safety rules and procedures.
 - o May help perform calibration of the Sand Mixer.
 - o Communicates with pattern maker concerning patterns having correct date, correct casting markings/identification, etc.
 - o Inspects in-process and finished materials, which consists primarily of patterns, core boxes, tooling, sand molds, and sand cores.
 - o Sprays, applies, brushes, etc. release agent onto tooling sections to facilitate removal of molds from patterns, as required.
 - o Packs sand into mold sections, core boxes, and pattern contours, using hand, pneumatic ramming tools, boards, compaction table, etc.
 - o Properly positions cores into sections of molds as needed and assembles for pouring.
 - o Reinforces cores and molds as needed with re-bar, pipes, etc.
 - o Cuts or adds filters, pop-offs, spouts, gates, runners, risers, and sprues into molds as needed.
 - o Cleans, smoothes and repairs surface imperfections of molds and cores by sanding, blending, etc.
 - o Sprays, brushes, etc. mold wash to cores and molds as required.
 - o Investigates non-conforming molds and cores to determine and correct, or inform proper personnel of, defect.
 - o Applies sealing agents, as needed, and closes molds properly.
 - o Identifies/labels closed molds with appropriate information.
 - o Moves and positions work pieces such as cores and mold sections, patterns and bottom boards, using cranes, manipulators, forklift, etc.
 - o Operate equipment: Sand Mixers (Pep-set & No-Bake), Compaction Tables, Coating Equipment, Mold Manipulators, Cranes, forklift, etc.
 - o Inspects area equipment as directed.
 - o Miscellaneous duties as required by the position or foreman/supervisor.



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- o Basic knowledge of the Manufacturing Documentation system and departmental procedures, work instructions, and forms used during manufacturing (i.e. WI-30-001, Typical Molding Operation Line 1, 2 and 3, WI-30-009, Pattern Inspection, FM-30-006, Molding Line: Daily Production, etc.).

Reviewed / Approved By:	Title:	Date:
Trent Mulloy	President	10/7/11
Revised By: James Dykes	Quality Manager	10/7/11

Employee Name:			Date of Hire:
Sponsor:			(or) Date of Transfer:
Date	Trainer	Trainee	Training Received (List Document #'s Reviewed)
			1. Adheres to all Foundry and Plant Safety rules.
			2. Proper use of Personal Protective Equipment.
			3. Hourly Employee Handbook.
			4. Forklift Training Program. (If required by position or Foreman)
			5. Quality System Orientation Training.
			6. Housekeeping. General clean-up duties and responsibilities including material, plant grounds, buildings, work areas, and equipment.
			7. Loading, unloading, stacking, and moving product or material to and from machines, trucks, forklifts, conveyors, and cranes.
			8. Helps perform sand mixer calibration as needed.
			9. Communicates with Pattern Maker concerning patterns having correct date, correct casting markings/identification, etc.
			10. Inspection of patterns, core boxes, tooling, sand molds and sand cores for material, tooling damage, mold/core damage, etc.
			11. Proper method of applying release agent onto tooling such as patterns to facilitate removal of molds & cores.



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			12. Repairs, or destroys, nonconforming molds and cores. Helps supervisor troubleshoot defects found in molds, cores, and the process used to produce them.
			13. Proper method for attaching slings, ropes, cables, or chains to molds and cores for moving to the floor for pouring and assembly using cranes or manipulators.
			14. Proper method for cleaning molds & cores to remove sand and debris to prevent casting defects after pouring.
			15. Properly fills boxes with sand.
			16. Proper method for inserting cores into molds, sealing and closing molds for pouring.
			17. Reinforces cores and molds as needed with re-bar, pipes, etc.
			18. Cuts/adds filters, pop-offs, spouts, gates, runners, risers, and sprues into molds and properly reinforces molds as required.
			19. Cleans, smoothes and repairs surface imperfections of molds and cores by sanding, blending, etc.
			20. Proper method for applying core or mold wash.
			21. Investigates non-conforming molds/cores.
			22. Applies sealing agents, as needed, and closes mold properly.
			23. Proper method for labeling and identifying molds.
			24. Satisfactorily operates required equipment: Sand Mixers (Pep-set & No-Bake), Compaction Tables, Coating Equipment, Mold Manipulators, Cranes, Forklift, etc.
			25. Inspection of Materials: <ul style="list-style-type: none"> ○ Receiving material inspection ○ In-process material inspection, and ○ Finished product inspection. (OP-30-001) (Inspections will be under direct supervision of immediate supervisor)
			26. Preventive maintenance of equipment, tools, and systems used while performing the duties of this position.
			27. Basic knowledge of the Manufacturing Documentation system and departmental procedures, work instructions, and forms used during manufacturing (i.e. WI-30-001, Typical Molding Operation Line 1, 2 and 3, WI-30-009, Pattern Inspection, FM-30-006, Molding Line: Daily Production, etc.).

Other important information:



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- Never use an obsolete revision of a Foundry Operating procedure, work instruction, form, Job Description, or Training Checklist. If in doubt, the current revision status of a document is available in the Foundry Quality System Binder located in the "yellow" MSDS cabinet or on the departments current computer 'Server' drive.
Always check the calibration status label of calibrated equipment and never use an instrument that is out of calibration.
If a document that you are using needs revision, make the department management or the Quality Assurance office aware so the appropriate changes can be made. If it isn't right, let someone know. You are the most accurate input for changing documents.

I have been trained on each of the items listed above and am comfortable that I can safely perform the tasks specified on my Job Description.

Employee's Signature Date

Sponsor's Signature Date

Foundry Foreman Date