

Standard Operating Procedure <b>Fabrication Drawings For Semiconductor</b>	SOP No. 5.003
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DCR No.: 02015  
Revision No.: 3

**Effective:** 12-4-95  
**Supersedes:** 4-22-99  
**Revision Date:** 6-26-03  
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- 1 Purpose
  - 1.1 To establish a standard format for documenting the configuration of pipe, fittings, valves, and the location of welds.
- 2 Scope
  - 2.1 This procedure applies to all piping, whether prefabricated or installed in the field.
- 3 Responsibility
  - 3.1 The Therma general foreperson or Detail Manager shall assign a lead fabrication detailer (FD). The FD shall be responsible for performing the following procedures.
  - 3.2 The FD shall train and manage all other detailers to guarantee conformance to this procedure.
- 4 Procedures
  - 4.1 Review project specification sheet for specification guidelines.
  - 4.2 Obtain a completed copy of the approved plan/coordination drawings, P&ID's and submittals.
  - 4.3 Follow Therma's drafting symbols set, create a fabrication drawing for every semiconductor title block, FN 5.003.1.
  - 4.4 The fabrication drawing shall include the following items:
    - 4.4.1 Fitting and valve orientation.
    - 4.4.2 Slope arrows and pitch (if applicable).
    - 4.4.3 Pipe lengths/center lines and dimensional notes.
    - 4.4.4 Line designation.
    - 4.4.5 Valves with orientation noted.

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- 4.5 Record the following data in the pre-fab planner section of the title block.
  - 4.5.1 Material Selection
  - 4.5.2 Schedule or Gage
  - 4.5.3 Material Grade
  - 4.5.4 Require Weld Log or Not
  - 4.5.5 Drawing Number
    - 4.5.5.1 The drawing number shall be alphanumeric in the following sequence: System - Line number - Sequential Sheet Number.
    - 4.5.5.2 Example: N2-302-15 denotes a fabrication drawing that details a nitrogen system, line number 302 (as identified on the P&ID), and that is the 15<sup>th</sup> drawing made for this line.
  - 4.5.6 Project Name
  - 4.5.7 Job Number
  - 4.5.8 Ordered by and Nextel number
  - 4.5.9 Date ordered, date needed, date completed, and date shipped.
  - 4.5.10 Revision Number
  - 4.5.11 List all materials in bill of materials block in the title block.
- 5 Review and Approval
  - 5.1 When the drawing is complete, submit the pre-fab planner to general foreperson for review.

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## Document Approval

  
 \_\_\_\_\_  
 Detail Manager

6-26-03  
 Date

  
 \_\_\_\_\_  
 Quality Control Manager

6.9.03  
 Date

  
 \_\_\_\_\_  
 Field Operation Manager

6-10-03  
 Date

  
 \_\_\_\_\_  
 Quality Assurance Manager

6-26-03  
 Date

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