

Standard Operating Procedure Bonding Procedure for Polypropylene (PP) and Polyvinylidene Fluoride (PVDF) Infrared Fusion	SOP No. 5.051
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1 Purpose

- 1.1 To establish a standard procedure for all Therma bonders performing polypropylene (PP) and polyvinylidene fluoride (PVDF) infrared fusion method.

2 Scope

- 2.1 This procedure applies to all Therma bonders or bonding operators performing the PP and PVDF fusion method

3 Responsibility

- 3.1 All bonders will be qualified under the direct supervision of the quality control department.
- 3.2 Only qualified bonders are to perform the following procedures.

4 References

- 4.1 ASME B31.3 Process Piping section of ASME Code for Pressure Piping, B31, Current Edition.

5 Storage Requirements

- 5.1 All PP and PVDF materials shall be stored in a clean dry storage area.
- 5.2 The material in the storage area shall be sufficiently supported so as to prevent bowing.

6 Procedures

6.1 Gowning

- 6.1.1 Wear clean powder free gloves to handle all cleaned PP and PVDF pipe and components
- 6.1.2 When fabricating in clean areas (i.e. Class 10 or 10,000), wear clean room garments.

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6.1.3 Follow project specification for gowning procedure as required when performing this procedure in the field.

6.2 Tool Cleaning

6.2.1 Clean all hand tools (including pipe cutters, chamfering and peeling tools) with isopropyl alcohol (IPA).

6.2.2 Blow dry the hand tools with filtered nitrogen.

6.3 Material

6.3.1 Use only manufacturer's quality certified material. Verify that applicable certificate of conformance is received and inserted into turnover package as required.

6.3.2 Join only materials from the same manufacturer.

6.4 Cleaning

6.4.1 Clean outside surface of pipe and face of fitting using IPA and clean room grade wipes.

6.5 Heating

6.5.1 Fit the clamping inserts of the required pipe size into the clamping devices.

6.5.2 Follow manufacturer's instructions for setting time and language.

6.5.3 Follow manufacturer's instructions for selecting pipe data.

6.5.4 Follow manufacturer's instructions for facing operation.

6.5.5 Follow manufacturer's instructions for joining and heating.

6.6 Completion

6.6.1 If required submit the test assembly (e.g. coupon) to quality control department for visual inspection. The inspection acceptance criteria are provided below.

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6.6.1.1 Continuous uninterrupted bead inside diameter (ID) and outside diameter (OD).

6.6.1.2 Ensure that a complete fusion has occurred and allow for slightly wider bead at the bottom due to gravitation effect.

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Document Approval



 Field Operations Manager

9/28/11

 Date



 Quality Control Manager

9/28/11

 Date



 Engineering Manager

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 Date

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