

Steel Fabrications

HydroFlo Tech, LLC. Quality Assurance Program

Steel Fabrications

The following procedures are employed to ensure conformance with quality and design specifications for steel weldment fabrications:

1. Steel fabrication facilities are pre-inspected and are categorized according to their capability and experience in the following areas:

- * Truck access for raw material and fabricated weldments.
- * Steel stock storage capability.
- * Lifting, bending, shearing capabilities.
- * Welding area size and access capability.
- * Welding equipment type and capability.
- * Welders AWS or ASME current certification and qualification levels.
- * General shop appearance, neat, orderly, safe.
- * Safety procedures documentation.
- * Personnel protective equipment use, familiarity, and condition.

1. Design and fabrication drawings are produced at HydroFlo Tech. Final drawings are approved by an Engineering Department designee for completeness, conformance with project specification, conformance with in-house specifications, and safety.

2. Fabrication of steel weldments is inspected by a HydroFlo Tech Production Department designee for conformance with HydroFlo Tech fabrication drawings prior to acceptance by HydroFlo Tech. The following are minimum conformance inspection procedures:

- * Nozzle type, placement, size.
- * Dimensional conformance, entire weldment.
- * Warp or other disfiguration.
- * Weld porosity and appearance.
- * Weld leak testing with dye penetrant.
- * Special appurtenance detail conformance.
- * All edges checked for smoothness. NO sharp edges allowed!

1. Steel coating facilities are pre-inspected and are categorized according to their capability and experience in the following areas:

- * Truck access for fabricated weldments.
- * Coating stock storage capability.
- * Surface preparation systems capabilities.
- * Coating area size and access capability.
- * Coating equipment type and capability.
- * Coating application personnel's current certification and qualification levels (if any).
- * General shop appearance, neat, orderly, safe.
- * Safety procedures documentation.
- * Personnel protective equipment use, familiarity, and condition.

1. Coating of steel weldments is inspected by a HydroFlo Tech Production Department designee for conformance with HydroFlo Tech fabrication drawings and coatings specifications prior to acceptance by HydroFlo Tech. The following are minimum conformance inspection procedures:

- * Surface preparation conformity including steel exposure limits prior to coating application.
- * DFT and WFT conformity (as applicable).
- * Holiday investigation.
- * Weld coatings appearance.
- * All edges checked for smoothness and coating coverage. NO sharp edges allowed!

1. Final shop inspection at HydroFlo Tech during and after final assembly is performed by the HydroFlo Tech Production Manager. Final inspections include at minimum:

- * Conformity of the entire system to the fabrication and shop assembly drawings and documents.
- * Form/fit/and function of all major and minor components and appurtenance.
- * Electrical system checkout including logic controls for proper operation, load and configuration.
- * Proper preparation for shipment and storage.
- * Protective enclosures and skids, temporary preservative coatings.
- * Partial disassembly and packaging of certain components for secure shipment.
- * Lifting, trucking, safety, and handling labels.
- * Shipping document preparation and notification of receiving party.

1. Field follow-up includes phone contact with project manager or other appropriate designee to obtain immediate feedback. Long term quality feedback includes a quality satisfaction survey form sent to the project manager or other appropriate designee to solicit feedback. Any problems listed on the quality survey form are immediately addressed by HydroFlo Tech management. Quality excursions (if any) are addressed with the appropriate department and steps are implemented to ensure elimination of problem areas.