

WELDING QUALITY CONTROL AND INSPECTION STANDARDS

Introduction

Welding quality control ensures structural integrity and safety in fabricated components. Proper welding techniques and inspection procedures prevent failures in critical applications.

Background

Welding defects such as cracks, porosity, incomplete fusion, and slag inclusions can compromise joint strength and lead to catastrophic failures.

Scope

This document outlines quality control procedures for welding operations including visual inspection, non-destructive testing (NDT), welder qualification, and documentation requirements.

Inspection Methods

- Visual inspection (VT)
- Radiographic testing (RT)
- Ultrasonic testing (UT)
- Magnetic particle inspection (MPI)
- Dye penetrant testing (PT)
- Welder performance qualification tests