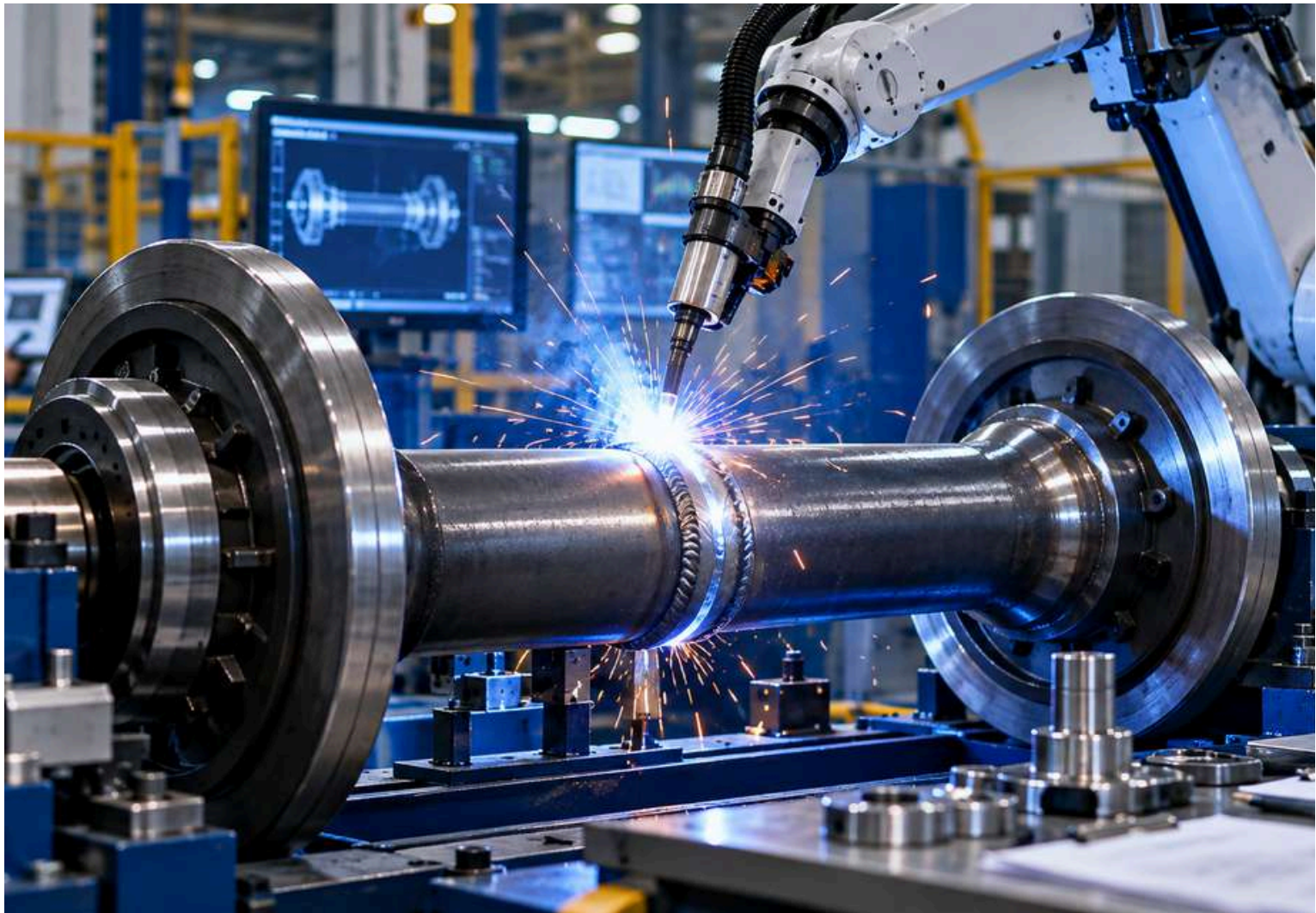


EN ISO 3834 Certification

A PRACTICAL TECHNICAL GUIDE TO EN ISO 3834 WELDING QUALITY REQUIREMENTS

For Manufacturers, Suppliers, Purchasers & Engineering Professionals



First Welding Certification Pvt Ltd (PRVÁ ZVÁRAČSKÁ, a.s.)

EN ISO 3834 Certification

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EXECUTIVE INTRODUCTION

Why EN ISO 3834 Matters for Welding Manufacturers

A good-looking weld is not enough to demonstrate controlled welding quality.

Manufacturers increasingly need to show how the welding process was planned, controlled, inspected and documented.

This is where EN ISO 3834 certification becomes important.

ISO 3834 specifies quality requirements for fusion welding of metallic materials. It addresses welding quality across the manufacturing process rather than focusing only on the finished weld.

For a manufacturer, this means controlling the complete welding chain:

Technical requirements → Welding procedures → Qualified personnel → Materials → Welding production → Inspection → Traceability → Records

A welding manufacturer may have experienced welders and modern equipment, but certification assessment also considers whether the organization has appropriate procedures, responsibilities, controls and documented evidence.

Key Areas Covered

Technical and contractual requirement review

Welding procedure qualification

Welding Procedure Specifications (WPS)

Welding Procedure Qualification Records (WPQR/PQR)

Welder and welding operator qualification

Welding coordination

Parent material control

Welding consumable control

Welding equipment control

Inspection and testing

Traceability

Nonconformity control

Quality records

Who Should Read This PDF?

This guide is relevant for:

- Welding manufacturers
- Steel fabricators
- Railway manufacturers
- Structural steel manufacturers
- Pressure equipment manufacturers
- Shipbuilding companies
- Oil & gas manufacturers
- Heavy engineering companies
- Industrial machinery manufacturers
- EPC and manufacturing supply chains
- Companies exporting welded products

Learn more:

[EN ISO 3834 Certification – Quality Requirements for Fusion Welding of Metallic Materials](#)

WHAT IS EN ISO 3834?

What Is EN ISO 3834 Certification?

EN ISO 3834 is a series of standards specifying quality requirements for fusion welding of metallic materials.

The standard provides a structured approach to controlling welding activities from technical review and planning through production, inspection and documentation.

It can be applied to both individual production and series/mass production, depending on the manufacturing environment and applicable requirements.

The objective is to establish appropriate welding quality controls based on the product, application and required quality level.

ISO 3834 Is About the Welding Process

ISO 3834 does not simply ask:

"Does the finished weld look acceptable?"

It asks whether the manufacturer has appropriate controls for producing conforming welds consistently.

This includes:

People

Are personnel qualified and competent for their assigned work?

Procedures

Are appropriate welding procedures available and qualified?

Materials

Are parent materials and welding consumables properly identified and controlled?

Equipment

Are production and inspection equipment suitable, maintained and controlled?

Inspection

Are required inspections and tests planned, performed and recorded?

Traceability

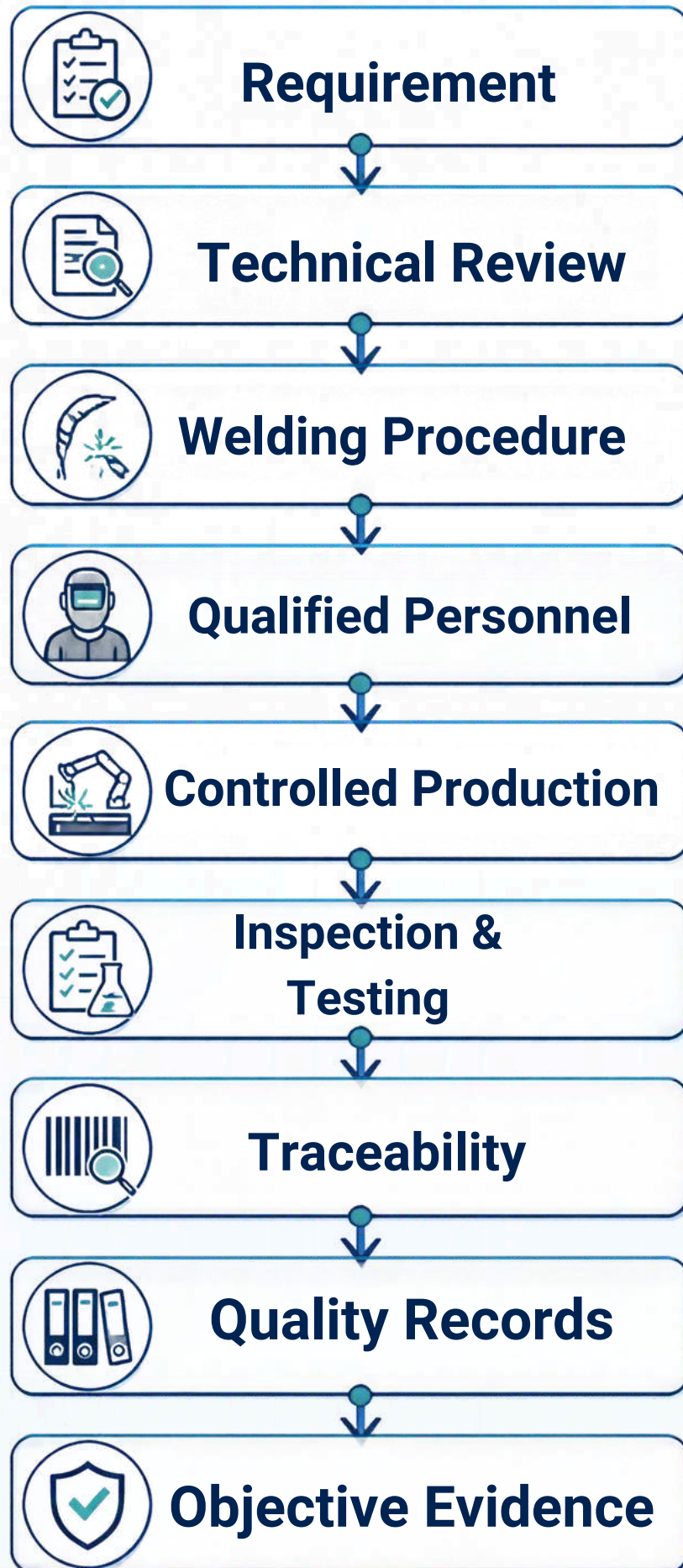
Can welding activities be connected to relevant materials, personnel, procedures and inspection records?

Key Message

EN ISO 3834 certification is about demonstrating controlled welding quality through defined processes and objective evidence.

Internal Link

ISO 3834 Quality Chain



ISO 3834 PARTS AND QUALITY LEVELS

ISO 3834-2 vs ISO 3834-3 vs ISO 3834-4

One of the most important decisions for a manufacturer is determining which quality requirement level applies.

ISO 3834 provides three principal quality requirement levels:

ISO 3834-2

Comprehensive Quality Requirements

This level provides the most comprehensive set of welding quality requirements.

It may be relevant where the product, application, safety requirements, contractual requirements or technical complexity demand extensive welding quality controls.

ISO 3834-3

Standard Quality Requirements

This level establishes standard quality requirements for welding manufacturers where the applicable product and manufacturing conditions require a structured but less comprehensive set of controls than ISO 3834-2.

ISO 3834-4

Elementary Quality Requirements

This level provides elementary quality requirements for applications where the applicable product and manufacturing conditions permit a simpler level of welding quality control.

Standard	Quality Requirement Level	Typical Consideration
ISO 3834-2	Comprehensive	Higher complexity, critical applications, extensive controls
ISO 3834-3	Standard	General controlled welding manufacturing
ISO 3834-4	Elementary	Applications requiring elementary welding controls

Important: The appropriate level should be determined according to the applicable product standard, contractual requirements, product/application characteristics and required welding quality.

How Should a Manufacturer Choose?

Consider:

- Product requirements
- Applicable product standards
- Customer requirements
- Regulatory requirements
- Welding complexity
- Safety significance
- Industry sector
- Contract specifications

KEY REQUIREMENTS

8 Critical Areas of EN ISO 3834

A strong welding quality system connects technical requirements with production controls and objective evidence.

01 – Technical & Contractual Review

Before welding begins, the manufacturer should identify relevant:

- Product requirements
- Applicable standards
- Welding requirements
- Inspection requirements & Acceptance criteria
- Documentation requirements & Customer specifications

02 – Welding Procedures

Applicable welding procedures should be established and qualified where required.

Typical documentation includes: **WPS + WPQR/PQR**

The WPS specifies how the welding operation should be performed.

The WPQR/PQR provides evidence from qualification testing that the welding procedure meets the applicable requirements.

03. Personnel Qualification

Personnel performing welding-related activities should have appropriate qualifications and competence.

This can include:

- Welders
- Welding operators
- Welding coordinators
- Inspection personnel
- NDT personnel where applicable

04. Welding Coordination

Welding responsibilities should be clearly assigned.

The welding coordination function is important for controlling technical welding activities.

05. Material & Consumable Control

Manufacturers need appropriate control over:

- Parent materials
- Material identification
- Welding consumables
- Storage conditions
- Consumable issue
- Consumable traceability

06. Equipment Control

Production and inspection equipment should be:

- Suitable
- Maintained
- Verified where applicable
- Calibrated where required
- Properly identified

07. Inspection & Testing

Inspection should be planned according to applicable requirements.

This may include:

- Visual & Dimensional inspection
- NDT & Mechanical testing
- Other required tests

08.Records & Traceability

Records provide objective evidence that required controls were implemented.

WPS, WPQR AND WELDER QUALIFICATION

WPQR & Welder Qualification: What Is the Difference?

These three elements are frequently confused.

WPS – Welding Procedure Specification

A WPS is a controlled welding document that specifies the parameters and conditions to be followed during production welding.

Depending on the applicable standard and process, it can include:

- Welding process
- Parent material
- Joint configuration
- Welding position
- Welding parameters
- Filler material
- Shielding gas
- Preheating
- Interpass temperature
- Post-weld heat treatment
- Other essential welding variables

WPQR / PQR – Welding Procedure Qualification Record

The WPQR/PQR records the qualification test and its results.

It provides evidence that the welding procedure has been qualified within the applicable range.

Welder Qualification

Welder qualification demonstrates that a welder has successfully completed the required test under specified conditions.

A welder qualification is not the same thing as a WPS or WPQR.

WPQR/PQR to Inspection & Records



Why This Relationship Matters

A manufacturer should not assume that having a WPS automatically means that every possible welding application is qualified.

The applicable qualification range must be checked against the relevant procedure qualification.

Similarly, a welder qualification only covers the applicable range established by the relevant qualification standard.

WELDING COORDINATION & PERSONNEL

Welding Coordination: A Core Part of Welding Quality

Welding quality depends not only on the welder.

It also depends on how welding activities are technically planned, controlled and monitored.

EN ISO 3834 places importance on appropriate welding coordination arrangements.

Welding Coordinator Responsibilities May Include

- Reviewing welding requirements
- Coordinating welding procedures
- Reviewing qualification requirements
- Monitoring welding activities
- Managing welding-related technical documentation
- Checking welding personnel qualifications
- Reviewing welding quality issues
- Supporting control of welding-related records
- Ensuring applicable technical requirements are considered

Personnel Competence

The organization should identify responsibilities and ensure personnel performing welding-related functions have the necessary competence.

Potential roles include:

Welding Coordinator

Technical responsibility for welding-related activities.

Welder / Welding Operator

Performs welding within the applicable qualification and production requirements.

Inspector

Performs inspection activities according to defined requirements.

NDT Personnel

Conducts applicable NDT activities within their qualification and certification scope.

WELDING COORDINATION & PERSONNEL



MATERIALS, CONSUMABLES & TRACEABILITY

Material Traceability in Welding Manufacturing

A controlled welding system needs more than material certificates stored in a folder.

The manufacturer should be able to establish appropriate identification and traceability between the materials used and the manufactured component, where required.

Parent Material Control

Important information may include:

- Material designation
- Heat/batch identification
- Material certificate
- Thickness
- Component identification
- Storage and handling
- Transfer of identification where applicable

Welding Consumable Control

Depending on the applicable welding process and requirements, manufacturers may need to control:

- Consumable type
- Batch/lot identification
- Storage
- Drying/re-drying where applicable
- Issue records
- Handling
- Expiry or condition where relevant



Example

A customer asks:

"Which material, WPS, welder and inspection record were associated with this weld?"

A mature welding quality system should make it possible to retrieve the relevant information efficiently.

Key Concept

Traceability transforms manufacturing activity into objective evidence.

EQUIPMENT CONTROL & INSPECTION

Equipment Control Under EN ISO 3834

Welding equipment directly affects process consistency.

Equipment control can include production equipment as well as measuring, inspection and testing equipment relevant to welding quality.

Equipment Management

Manufacturers should consider:

- Equipment identification
- Equipment suitability
- Maintenance
- Verification
- Calibration where applicable
- Inspection status
- Repair records
- Preventive maintenance
- Measurement accuracy

Typical Equipment

- Welding power sources
- Welding machines
- Measuring instruments
- Temperature measurement equipment
- Inspection equipment
- Testing equipment
- NDT equipment where applicable

Inspection & Testing

Inspection should be planned according to the applicable requirements.

Before Welding

Check:

- Material
- Joint preparation
- WPS
- Welder qualification
- Welding consumables
- Preheating requirements
- Equipment condition

During Welding

Monitor relevant:

- Welding parameters
- Interpass temperature
- Consumable usage
- Joint condition
- Welding sequence
- Production conditions

After Welding

Check:

- Visual appearance
- Dimensions
- Weld profile
- Surface condition
- NDT where required
- Other applicable tests

To Learn more on this read our

[EN ISO 3834 Equipment Control: Calibration, Verification and Maintenance](#)

EN ISO 3834 CERTIFICATION PROCESS

From Application to Certification

A certification project should be approached systematically.

PROCESS FLOW

01 – INITIAL INQUIRY

Manufacturer submits the certification request and relevant company/application information.

02 – REQUIREMENT REVIEW

Applicable scope, activities, products and certification requirements are reviewed.

03 – COMMERCIAL OFFER

A commercial offer is prepared based on the applicable certification requirements and scope.

04 – ORDER CONFIRMATION

Certification proceeds after confirmation of the commercial arrangement.

05 – REGISTRATION

The certification process and audit arrangements are formally registered.

06 – STAGE 1 AUDIT

The organization's documentation and readiness are assessed according to the applicable certification requirements.

07 – FINAL CERTIFICATION AUDIT

Implementation of welding quality requirements is assessed through the applicable audit activities.

08 – CERTIFICATION DECISION

Audit findings and certification requirements are evaluated.

09 – CERTIFICATE RELEASE

Subject to successful completion of the certification process, the applicable certificate is issued.

CERTIFICATION AUDIT PREPARATION

EN ISO 3834 Pre-Certification Checklist

Before an assessment, manufacturers should review whether their welding quality system is implemented and supported by objective evidence.

Documentation

- ☐ Welding procedures available
- ☐ Applicable WPQR/PQR available
- ☐ Welder qualification records available
- ☐ Welding coordinator responsibilities defined
- ☐ Technical requirements reviewed
- ☐ Inspection plans available where required
- ☐ Quality records controlled

Materials

- ☐ Parent materials identified
- ☐ Material certificates controlled
- ☐ Material traceability maintained
- ☐ Welding consumables controlled
- ☐ Consumable storage requirements followed

Production

- ☐ Approved welding procedures used
- ☐ Qualified personnel assigned
- ☐ Welding parameters controlled
- ☐ Welding equipment maintained
- ☐ Preheating requirements controlled where applicable
- ☐ Interpass temperature controlled where required

Inspection

- ☐ Inspection requirements identified
- ☐ Visual inspection records maintained
- ☐ NDT records available where applicable

- ❑ Testing records available where applicable
- ❑ Nonconformities recorded
- ❑ Repair activities controlled

Records

- ❑ Welding records retrievable
- ❑ Traceability records maintained
- ❑ Equipment records available
- ❑ Qualification records current
- ❑ Inspection records linked to production

Audit Preparation Principle

Do not prepare only the documents. Prepare the system.

A document may show what should happen.

A record demonstrates what actually happened.

EN ISO 3834 AND OTHER STANDARDS

How ISO 3834 Connects With Other Welding Standards

Manufacturers often work with several standards simultaneously.

ISO 3834 can form part of a wider technical and regulatory compliance framework.

ISO 3834 + EN 1090

For structural steel and aluminium manufacturing, welding quality controls can form an important part of the manufacturing and conformity framework.

ISO 3834 + EN 15085

Railway manufacturers use controlled welding quality requirements within railway-specific manufacturing requirements.

ISO 3834 + PED 2014/68/EU

For pressure equipment, welding quality and qualification requirements can be relevant to conformity assessment under the applicable PED framework.

ISO 3834 + ISO 9606

ISO 9606 is associated with qualification testing of welders. ISO 3834 addresses welding quality requirements at the organization/process level.

ISO 3834 + WPS/WPQR

WPS and WPQR/PQR form important technical documentation within welding procedure control.

Standard / Document	Main Focus
WPQR/PQR	Welding procedure qualification evidence
ISO 3834	Welding quality requirements
EN 1090	Execution of steel/aluminium structures
EN 15085	Railway welding
PED 2014/68/EU	Pressure equipment
ISO 9606	Welder qualification testing
WPS	Production welding instructions

Important

These standards should not be treated as interchangeable certificates. The applicable requirements depend on the product, sector, contract, regulatory framework and manufacturing scope.

Internal Links

INDUSTRIES AND APPLICATIONS

Who Uses EN ISO 3834?

ISO 3834 can be relevant across many welding-intensive manufacturing sectors.

Railway Manufacturing

- Rail vehicles
- Railway components
- Railway structures
- Maintenance and manufacturing organizations

Structural Steel

- Steel structures
- Bridges
- Girders
- Structural components
- Construction-related fabrication

Pressure Equipment

- Pressure vessels
- Pressure-containing components
- Industrial equipment

Oil & Gas

- Pipeline construction
- Offshore fabrication
- Industrial equipment
- Process equipment

Heavy Engineering

- Mining equipment
- Earth-moving equipment
- Heavy machinery
- Industrial machinery

Shipbuilding & Marine

- Marine structures
- Ship components
- Welded assemblies

Energy

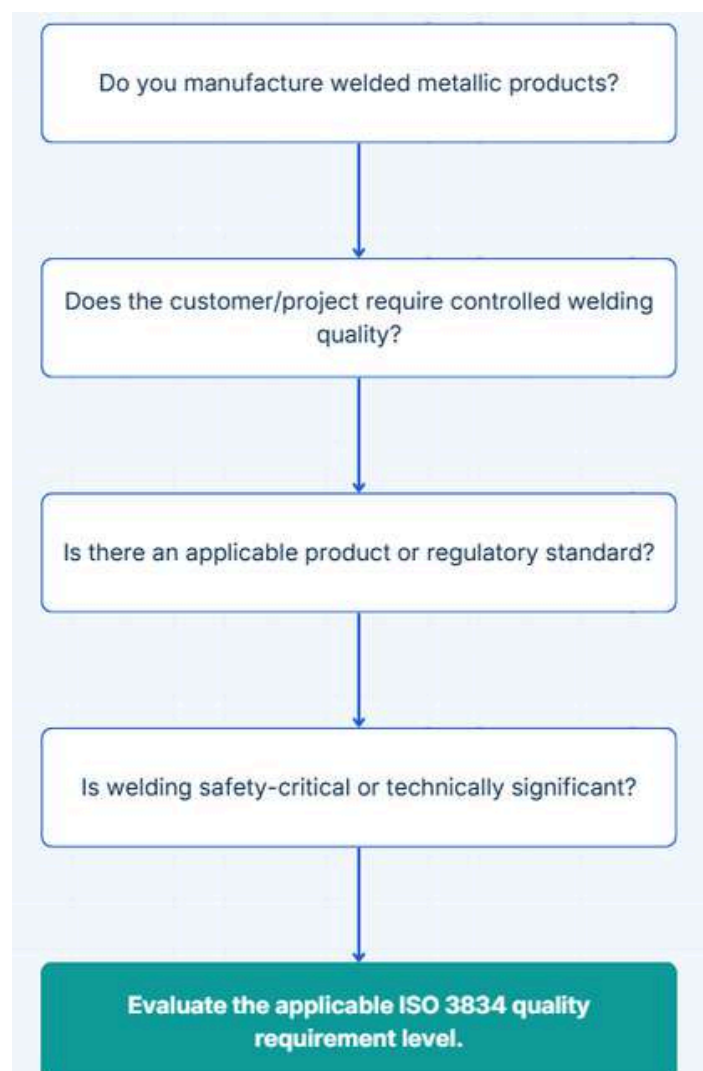
- Power plant components
- Renewable energy structures
- Wind energy components
- Industrial energy equipment

Manufacturing Supply Chains

ISO 3834 requirements may become relevant when:

- A customer specifies welding quality requirements
- A product standard requires controlled welding
- A tender requires welding certification
- Export customers require documented welding controls
- The product is safety-critical
- The organization wants formal recognition of its welding quality system

First Welding Certification Pvt Ltd published material identifies applications including railway manufacturing, structural construction, pressure vessel construction, pipeline construction, oil & gas, offshore applications, marine, heavy engineering and other welding-intensive sectors.



ISO 3834 in 2026: What Manufacturers Should Know

Manufacturers searching for "ISO 3834 latest edition 2026" should be careful with terminology.

There is not a standalone standard edition called "ISO 3834:2026."

First Welding Certification Pvt Ltd current published information states that the main ISO 3834 Parts 1–5 were published in 2021, while ISO 3834-6 was revised in 2024 as implementation guidance.

Current Focus Areas for Manufacturers

In 2026, manufacturers should review:

Current applicable ISO 3834 parts

Customer welding requirements

- Product-specific standards
- WPS and WPQR validity
- Welder qualifications
- Welding coordination
- Material traceability
- Equipment control
- Inspection records
- Nonconformity management
- Certification scope

Frequently Asked Questions

1. What is EN ISO 3834 certification?

EN ISO 3834 certification demonstrates that an organization's welding quality system meets the applicable quality requirements for fusion welding of metallic materials.

2. What are ISO 3834-2, ISO 3834-3 and ISO 3834-4?

They represent comprehensive, standard and elementary quality requirement levels respectively.

3. Is ISO 3834 the same as ISO 9001?

No.

ISO 9001 addresses a broader quality management system, while ISO 3834 focuses specifically on quality requirements for fusion welding of metallic materials.

4. Is ISO 3834 required for EN 1090?

Depending on the applicable execution and conformity requirements, welding quality controls under ISO 3834 can form an important part of EN 1090 manufacturing requirements.

5. Does ISO 3834 replace welder qualification?

No.

Welder qualification remains a separate technical requirement where applicable.

EN ISO 3834 CERTIFICATION

Build a Controlled Welding Quality System With Internationally Recognized Requirements

For welding manufacturers, certification is not only about obtaining a certificate.

It is about demonstrating that welding activities are planned, controlled, documented and supported by objective evidence.

First Welding Certification Pvt Ltd provides certification activities for applicable welding quality requirements, including:

ISO 3834-2

Comprehensive Quality Requirements

ISO 3834-3

Standard Quality Requirements

ISO 3834-4

Elementary Quality Requirements

Key Areas Covered

Welding Procedures

WPS and applicable procedure qualification records.

Qualified Personnel

Welder, welding operator and relevant technical personnel qualifications.

Welding Coordination

Defined welding responsibilities and technical control.

Materials

Identification and traceability of parent materials and consumables.

Equipment

Production, inspection and testing equipment control.

Inspection

Planned inspection and testing according to applicable requirements.

Documentation

Controlled welding and quality records.

Traceability

Connection between materials, procedures, personnel, production and inspection evidence.

ISO 3834 Latest Edition 2026

[*2021 Revision, Current Status & What Welding Manufacturers Need to Know*](#)

First Welding Certification Pvt Ltd (PRVÁ ZVÁRAČSKÁ, a. s.)

operates as a certification body focused on welding quality and related conformity requirements.

Certification Areas

EN ISO 3834

EN 15085

EN 1090

EN 10025-1

EN 10204 3.2

PED 2014/68/EU

SPVD 2014/29/EU

ISO 9001

ISO 9712

WPS & WPQR

Welder & Welding Operator Certification

Is Your Welding Quality System Ready for EN ISO 3834 Certification?

Review your welding procedures, personnel qualifications, materials, equipment, inspection controls, traceability and quality records.

Explore [**EN ISO 3834 Certification**](#)

Website: pzvar.in