

AR 15
July 2024

Approval requirement 15

Steel pipes for welding or threading



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Foreword

This approval requirement (AR) is approved by the Board of Experts (BoE) GASTEC QA, in which relevant parties in the field of gas related products are represented. This Board of Experts supervises the certification activities and where necessary require the GASTEC QA approval requirement to be revised. All references to Board of Experts in this GASTEC QA approval requirement pertain to the above-mentioned Board of Experts.

This AR will be used by Kiwa Nederland BV in conjunction with the GASTEC QA general requirements and the KIWA regulations for certification.

In this AR is established which requirements a product and the requestor/ certificate holder of the GASTEC QA product certificate should meet and the matter to which Kiwa evaluates this.

Kiwa has a method which is established in the certification procedure for the execution of:

- The investigation for provisioning and maintaining a GASTEC QA product certificate based on this AR.
- The periodic evaluations of the certified products for the purpose of maintaining a provided GASTEC QA product certificate based on this AR.

Approved by the Board of Experts: 12/07/2024

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The use of this approval requirement by third parties, for any purpose whatsoever, is only allowed after a written agreement is made with Kiwa to this end

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1 Introduction

1.1 General

This GASTEC QA approval requirement (AR) in combination with the GASTEC QA general requirements, is applied by Kiwa as the basis for the issuing and maintaining the GASTEC QA product certificate for steel pipes for welding or threading.

With this product certificate, the certificate holder can demonstrate to his or her customers that an expert independent organization monitors the production process of the certificate holder, the quality of the product and the related quality assurance.

Next to the requirements established in this AR and the general requirements, Kiwa has additional requirements in the sense of general procedural requirements for certification, as laid down in the internal certification procedures.

This GASTEC QA approval requirement replaces the version of September 2019.

List of changes:

- These approval requirements have been fully reviewed textually.
- The requirement for resistance to high temperatures has been removed.
- Change of paragraphs
- List of definitions extended
- Update of list of referenced documents.

The product requirements have not changed.

1.2 Scope

This approval requirement specifies the requirements for steel pipes for welding and treading. The steel pipes are used for the transport of gaseous fuels in accordance with the 2nd and 3rd family as per EN 437. These pipes shall be manufactured by a seamless or longitudinally welded process provided with sockets, threaded ends or with plain ends.

2 Definitions

In this approval requirement, the following terms and definitions are applicable:

Board of Experts (BoE): The Board of Experts GASTEC QA.

Maximum operating pressure (MOP): Maximum pressure that a component is capable of withstanding continuously in service under normal operating conditions.

See also the definitions mentioned in the GASTEC QA general requirements.

3 Material and product requirements

This chapter contains the requirements for the properties of the raw materials, materials and semi-products used during the production of the products to be certified under this AR (e.g., support bushes).

3.1 General

The products shall comply with EN 10255 with the following addition.

3.2 Wall thickness and threaded ends

The pipes shall have a wall thickness as specified in EN 10255, table 2: heavy series H or medium series M and three types of designated thickness L.

The pipes shall have threaded ends in accordance with EN 10226-1 and the maximum allowed thread size is 2".

4 Marking

4.1 Marking

The pipes shall be marked in accordance with EN 10255, article 10 and Annex ZA.3 with the following addition:

- GASTEC QA word mark, logo, or punch mark.

5 Quality system requirements

The requirements for the quality system are described in the GASTEC QA general requirements. An important part of this are the requirements for drawing up a risk analysis (e.g., an FMEA) of the product and the production process in accordance with chapters 3.1.1.1 and 3.1.2.1. This risk analysis shall be available for inspection by Kiwa.

6 Summary of tests

This chapter contains a summary of tests to be carried out during:

- The initial product assessment
- The periodic product verification

6.1 Test matrix

Description of requirement	Clause EN 10255	Test within the scope of		
		Initial product assessment	Product verification	
			Inspection	Frequency
Manufacturing process	6	X		
Delivery conditions	7	X		
Chemical composition	8.2	X	X	1x/ year
Appearance	8.3	X	X	1x/ year
Dimensions, masses, and tolerances	8.4	X	X	1x/ year
Leak tightness	8.5	X		
Dangerous substances	8.6	X		
Reaction to fire	8.7	X		
Tensile strength and elongation test	9.3	X	X	1x/year
Bending test	9.4	X		
Flattening test (deformability)	9.5	X		
Marking	10	X	X	1x/ year
Additional GASTEC QA requirements:				
General	3.1	X	X	1x/ year
Wall thickness and threaded ends	3.2	X	X	1x/ year
Marking	4.1	X	X	1x/ year

Product verification tests will be assessed by the auditor at the manufacturer's location. The product verification tests depend on the options as specified in the EN 10255.

7 List of referenced documents

7.1 Standards / normative documents

All normative references in this Approval Requirement refer to the editions of the standards as mentioned in the list below.

EN 10255: 2004 + A1: 2007

Non-alloy steel tubes suitable for welding and threading – technical delivery conditions.

EN 10226-1: 2004

Pipe threads where pressure tight joints are male on the treads – Part 1 taper external threads and parallel internal threads.

7.2 Source of informative documents

EN 437: 2021

Test gases- test pressure – appliance categories.

NEN 1078: 2024

Supply for gas with an operating pressure up to and including 500 mbar - Performance requirements - new estate.

General requirements GASTEC QA