ICS 23.040.01 SLOVENSKÁ TECHNICKÁ NORMA August 2025

STN	**Potrubia diaľkového (teplovodného) vykurovania a diaľkového chladenia Združené potrubné systémy pre predizolované bezkanálové rozvody teplej a studenej vody Časť 2: Priemyselne vyrábané zostavy oceľových armatúr pre údržbu pre oceľové potrubia s polyuretánovou tepelnou izoláciou a s vonkajším plášťom z polyetylénu**	**STN EN 488-2** 38 3373

District heating and district cooling pipes - Bonded pipe systems for directly buried hot and cold water networks - Part 2: Factory made steel service valve assembly for steel service pipes, polyurethane thermal insulation and a casing of polyethylene

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/25

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EUROPEAN STANDARD
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English Version

District heating and district cooling pipes - Bonded pipe systems for directly buried hot and cold water networks - Part 2: Factory made steel service valve assembly for steel service pipes, polyurethane thermal insulation and a casing of polyethylene

Tuyaux de chauffage urbain et réseaux d'eau glacée - Systèmes bloqués de tuyaux préisolés pour les réseaux d'eau chaude et froide enterrés directement - Partie 2 : Assemblage d'appareils de robinetterie de service en acier manufacturés pour tubes de service en acier, isolation thermique en polyuréthane et enveloppe en polyéthylène

Fernwärme- und Fernkälterohre - Rohr-Verbundsysteme für erdverlegte Fernwärme- und Fernkältenetze - Teil 2: Werkmäßig gefertigte Baueinheiten für Wartungsarmaturen aus Stahl für Stahlmediumrohre, einer Wärmedämmung aus Polyurethan und einer Ummantelung aus Polyethylen

This European Standard was approved by CEN on 27 January 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 488-2:2025) has been prepared by Technical Committee CEN/TC 107 “District heating and cooling systems”, the secretariat of which is held by DS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by month year of DOP, and conflicting national standards shall be withdrawn at the latest by month year of DOW.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

The EN 488 series is currently composed of the following parts:

— EN 488-1, *District heating pipes – Bonded single pipe systems for directly buried hot water networks – Part 1: Factory made steel shut-off valve assembly for steel service pipes, polyurethane thermal insulation and a casing of polyethylene*;

— EN 488-2, *District heating pipes – Bonded single pipe systems for directly buried hot water networks – Part 2: Factory made steel service valve assembly for steel service pipes, polyurethane thermal insulation and a casing of polyethylene* (this document).

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

Other standards from CEN/TC 107 are:

— EN 253, *District heating pipes — Bonded single pipe systems for directly buried hot water networks — Factory made pipe assembly of steel service pipe, polyurethane thermal insulation and a casing of polyethylene*

— EN 448, *District heating pipes — Bonded single pipe systems for directly buried hot water networks — Factory made fitting assemblies of steel service pipes, polyurethane thermal insulation and a casing of polyethylene*

— EN 488-1, *District heating pipes — Bonded single pipe systems for directly buried hot water networks — Part 1: Factory made steel shut-off valve assembly for steel service pipes, polyurethane thermal insulation and a casing of polyethylene*;

— EN 489-1, *District heating pipes — Bonded single and twin pipe systems for buried hot water networks — Part 1: Joint casing assemblies and thermal insulation for hot water networks in accordance with EN 13941-1*;

— EN 13941-1, *District heating pipes — Design and installation of thermal insulated bonded single and twin pipe systems for directly buried hot water networks — Part 1: Design*

— EN 13941-2, *District heating pipes — Design and installation of thermal insulated bonded single and twin pipe systems for directly buried hot water networks — Part 2: Installation*

— EN 14419, *District heating pipes — Bonded single and twin pipe systems for buried hot water networks — Surveillance systems*

— EN 15632 (all parts), *District heating pipes — Factory made flexible pipe systems*

— EN 15698-1, *District heating pipes — Bonded twin pipe systems for directly buried hot water networks — Part 1: Factory made twin pipe assembly of steel service pipes, polyurethane thermal insulation and one casing of polyethylene*

— EN 15698-2, *District heating pipes — Bonded twin pipe systems for directly buried hot water networks — Part 2: Factory made fitting and valve assemblies of steel service pipes, polyurethane thermal insulation and one casing of polyethylene*

— EN 17248, *District heating and district cooling pipe systems — Terms and definitions*

— EN 17414 (all parts), *District cooling pipes — Factory made flexible pipe systems*

— EN 17415 (all parts), *District cooling pipes — Bonded single pipe systems for directly buried cold water networks*

— EN 17878 (all parts), *District heating pipes — Factory made flexible pipe systems with a lower temperature profile*

Waste management and recycling of materials is dealt with in Annex B.

1 Scope

This document specifies requirements for factory made thermally insulated bonded steel service valve assemblies for filling, draining, venting and operation purposes for directly buried hot and cold water networks in accordance with EN 13941-1, comprising a steel service valve, steel service pipe, polyurethane (PUR) foam thermal insulation and a casing of polyethylene (PE).

This document applies of steel service valve assemblies with an internal pressure of maximum 2,5 MPa.

The principles of this document can be applied to thermal insulated bonded steel service valve assemblies with internal pressures higher than 2,5 MPa, provided that special attention is paid to the effects of pressure.

The steel service valve assembly can also include the following additional elements: measuring wires, spacers, and diffusion barriers.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 19, *Industrial valves — Marking of metallic valves*

EN 253, *District heating pipes — Bonded single pipe systems for directly buried hot water networks — Factory made pipe assembly of steel service pipe, polyurethane thermal insulation and a casing of polyethylene*

EN 736-1, *Valves — Terminology — Part 1: Definition of types of valves*

EN 736-3, *Valves — Terminology — Part 3: Definition of terms*

EN 1092-1, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 1: Steel flanges*

EN 1514, *Flanges and their joints — Dimensions of gaskets for PN-designated flanges*

EN 1515-4, *Flanges and their joints — Bolting — Part 4: Selection of bolting for equipment subject to the Pressure Equipment Directive 2014/68/EU*

EN 10204, *Metallic products — Types of inspection documents*

EN 12266-1, *Industrial valves — Testing of metallic valves — Part 1: Pressure tests, test procedures and acceptance criteria — Mandatory requirements*

EN 13941-1, *District heating pipes — Design and installation of thermal insulated bonded single and twin pipe systems for directly buried hot water networks — Part 1: Design*

EN 14419, *District heating pipes — Bonded single and twin pipe systems for buried hot water networks — Surveillance systems*

EN 16668, *Industrial valves — Requirements and testing for metallic valves as pressure accessories*

EN 17248, *District heating and district cooling pipe systems — Terms and definitions*

EN ISO 7090, *Plain washers, chamfered — Normal series — Product grade A (ISO 7090)*