SLOVENSKI STANDARD
SIST EN 13204:2025

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Nadomešča:
SIST EN 13204:2016

Reševalne naprave za gasilske in reševalne enote - Varnostne zahteve za delovanje

Powered rescue tools for fire and rescue service use - Safety and performance requirements

Angetriebene Rettungsgeräte für Feuerwehr- und Rettungsdienste - Sicherheits- und Leistungsanforderungen

Outils de désincarcération à usage des services d'incendie et de secours - Prescriptions de sécurité et de performance

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Ta slovenski standard je istoveten z: **EN 13204:2025**

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ICS:

11.160	Prva pomoč	First aid
13.220.10	Gašenje požara	Fire-fighting

SIST EN 13204:2025 **en,fr,de**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13204

March 2025

ICS 13.220.10

Supersedes EN 13204:2016

English Version

Powered rescue tools for fire and rescue service use - Safety and performance requirements

Outils de sauvetage motorisés à usage des services d'incendie et de secours - Exigences de sécurité et de performance

Angetriebene Rettungsgeräte für Feuerwehr- und Rettungsdienste - Sicherheits- und Leistungsanforderungen

This European Standard was approved by CEN on 10 February 2025.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 13204:2025) has been prepared by Technical Committee CEN/TC 192 “Fire service equipment”, the secretariat of which is held by BSI.

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 September 2025 and conflicting national standards shall be withdrawn at the latest by September 2025.

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.

This document supersedes EN 13204:2016.

This document includes the following significant technical changes with respect to EN 13204:2016:

— the Title of the document changed from “Double acting hydraulic rescue tools” to “Powered rescue tools”. Powered rescue tools are not exclusive to hydraulic remotely powered tools;

— the Scope was extended to include:

  — self-contained tools (battery powered, hand powered tools);

  — wedge and crusher type tool;

— Clause 3, “Terms and definitions” has been updated;

— extensive changes throughout the standard including:

  — numbering of clauses has been updated;

  — a requirement for all PRTs utilizing electric power has been added regarding compliance with the safety requirements of EN 62841-1:2015 (subclause 4.1.10.1);

  — the term ‘mass’ was changed to ‘mass ready for use’ (subclause 4.2.1.3) for better comparison between non-integrated tools (e.g. hosed tools) and fully-integrated tools (e.g. battery tools);

  — “PRT runtime test” (subclause 4.2.8) has been added to set minimum required cycles for each type of PRT;

  — “PRT endurance test” (subclause 4.2.9) has been added to set minimum lifetime for each type of PRT;

  — “Energy sources” (subclause 4.2.10) has been added to have the number of cycles (subclause 4.2.8) tested until energy source is empty;

  — “System integration level” (subclause 4.2.14) has been added;

  — “Designation of the equipment” (subclause 4.2.15) was changed;

  — mass is no longer part of tool classification;

  — “Cutter classification” (subclause 4.2.15.2): CU1, CU2, CU3 was AC, BC, CC;

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— “Spreader classification” (subclause 4.2.15.3): SP1, SP2, SP3, SP4 was AS, BS, CS;

— “Combi-tool classification” (subclause 4.2.15.4): CT1, CT2, CT3 was AK, BK, CK;

— “Wedge classification” (subclause 4.2.15.6) and “Crusher classification” (subclause 4.2.15.7) have been added;

— VTO to “Powerpack classification” (subclause 4.2.15.8) has been added;

— Emission sound pressure level determination for PRTs (fully- and semi-integrated only) (subclause B.2.2) has been added;

— Annex E, “Mass and runtime data sheet” has been added, with data from performance requirements for mass ready for use, runtime of energy sources and opening and closing times.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of 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 organizations 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.

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Introduction

This document is a type C standard as stated in EN ISO 12100:2010.

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

— machine manufacturers (small, medium and large enterprises);

— health and safety bodies (regulators, accident prevention organizations, market surveillance, etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

— machine users/employers (small, medium and large enterprises);

— machine users/employees (e.g. trade unions, organizations for people with special needs);

— service providers, e.g. for maintenance (small, medium and large enterprises);

— consumers (in the case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the Scope of this document.

When provisions of this type-C standard are different from those which are stated in type-A or type-B standards, the requirements of this type-C standard take precedence over the requirements of the other standards for machines that have been designed and built according to the requirements of this type-C standard.

When compiling this document, it was assumed that:

a) the manufacturer designs and/or uses components without specific requirements in accordance with the good engineering practice and calculation codes, taking into account all foreseeable failure modes;

b) only trained and competent persons will use and operate the machinery;

c) the machinery is kept in good repair and working order, by a trained and competent person, so that the required characteristics remain despite wear;

d) the working place is adequately lit;

e) negotiations occur between the manufacturer and the purchaser concerning particular conditions for the use and places of use for the machinery related to performance and health and safety;

f) the manufacturer considers and minimizes the impact to the environment during all stages of the product life cycle.

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1 Scope

This document specifies safety and performance requirements for powered rescue tools manufactured after the date of publication.

This document is applicable to powered rescue tools which are intended for use by the firefighting and rescue services, principally for cutting, crushing, spreading, squeezing, pushing or pulling the structural parts of road vehicles, ships, trains, aircraft and building structures involved in accidents. This document is not applicable to hydraulic power packs covered by 2000/14/EC.

Powered rescue tools consist of tool(s) and the necessary system components (e.g. energy source, drive system and prime mover) and intended accessories, as defined in Clause 3.

This document deals with all significant hazards, hazardous situations or hazardous events relevant to the machinery, when it is used as intended and under conditions or misuse which are reasonably foreseeable by the manufacturer.

NOTE 1 The aim of powered rescue tools is to assist the firefighting and rescue services while extracting the casualties or to create a working space for paramedical services taking the local conditions into account.

This document does not include:

— tools with pneumatic drive systems or pneumatic energy sources;

— tools which are single acting (for example spring /gravity return jacks, powered struts, etc.).

It is not applicable to additional requirements for:

a) operation in severe conditions (e.g. extreme environmental conditions such as temperatures outside the range –20 °C and +55 °C, corrosive environment, tropical environment, contaminating environments, strong magnetic fields, potentially explosive atmospheres, underwater use);

b) the risk directly arising from the means provided for the portability, transportability, mobility and decommissioning of powered rescue tools during periods of their operation;

c) generic tools such as, but not limited to, powered drills, angle grinders, saws, not solely intended for extrication purposes;

d) tools intended to lift and/or hoist, not solely intended for extrication purposes.

NOTE 2 EN 13731:2007 deals with lifting bag systems for fire and rescue services.

NOTE 3 For the EU/EEA other Directives can be applicable to the equipment in the scope, for example the Electro Magnetic Compatibility Directive.

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 659:2003+A1:2008,[1] *Protective gloves for firefighters*

EN 837-1:1996,[2] *Pressure gauges - Part 1: Bourdon tube pressure gauges - Dimensions, metrology, requirements and testing*

[1] As impacted by EN 659:2003+A1:2008/AC:2009.

[2] As impacted by EN 837-1:1996/AC:1998.

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EN 853:2015, *Rubber hoses and hose assemblies - Wire braid reinforced hydraulic type - Specification*

EN 854:2015, *Rubber hoses and hose assemblies - Textile reinforced hydraulic type - Specification*

EN 856:2015+AC:2019, *Rubber hoses and hose assemblies - Rubber-covered spiral wire reinforced hydraulic type - Specification*

EN 857:2015, *Rubber hoses and hose assemblies - Wire braid reinforced compact type for hydraulic applications - Specification*

EN 10025-1:2004, *Hot rolled products of structural steels - Part 1: General technical delivery conditions*

EN 10025-2:2019, *Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels*

EN 10210-2:2019, *Hot finished steel structural hollow sections - Part 2: Tolerances, dimensions and sectional properties*

EN 10219-2:2019, *Cold formed welded steel structural hollow sections - Part 2: Tolerances, dimensions and sectional properties*

EN 50565-2:2014, *Electric cables - Guide to use for cables with a rated voltage not exceeding 450/750 V (U0/U) - Part 2: Specific guidance related to EN 50525 cable types*

EN 60529:1991,[3] *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*

EN 62133-1:2017, *Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications - Part 1: Nickel systems (IEC 62133-1:2017)*

EN 62133-2:2017, *Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications - Part 2: Lithium systems (IEC 62133-2:2017)*

EN 62841-1:2015,[4] *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 1: General requirements (IEC 62841-1:2014, modified)*

EN IEC 61000-6-1:2019, *Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments (IEC 61000-6-1:2016)*

EN IEC 61000-6-3:2021, *Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for equipment in residential environments (IEC 61000-6-3:2020)*

EN ISO 1402:2021, *Rubber and plastics hoses and hose assemblies - Hydrostatic testing (ISO 1402:2021)*

EN ISO 3744:2010, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)*

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[3] As impacted by EN 60529:1991/corrigendum May 1993, EN 60529:1991/A1:2000, EN 60529:1991/A2:2013, EN 60529:1991/A2:2013/AC:2019-02 and EN 60529:1991/AC:2016-12.

[4] As impacted by EN 62841-1:2015/AC:2015 and EN 62841-1:2015/A11:2022.

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EN ISO 3949:2020, *Plastics hoses and hose assemblies - Textile-reinforced types for hydraulic applications - Specification (ISO 3949:2020, Corrected version 2020-12)*

EN ISO 4413:2010, *Hydraulic fluid power - General rules and safety requirements for systems and their components (ISO 4413:2010)*

EN ISO 4871:2009, *Acoustics - Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 7751:2016, *Rubber and plastics hoses and hose assemblies - Ratios of proof and burst pressure to maximum working pressure (ISO 7751:2016)*

EN ISO 10619-1:2018, *Rubber and plastics hoses and tubing - Measurement of flexibility and stiffness - Part 1: Bending tests at ambient temperature (ISO 10619-1:2017)*

EN ISO 11201:2010, *Acoustics - Noise emitted by machinery and equipment - Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201:2010)*

EN ISO 12100:2010, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13732-1:2008, *Ergonomics of the thermal environment - Methods for the assessment of human responses to contact with surfaces - Part 1: Hot surfaces (ISO 13732-1:2006)*

EN ISO 14120:2015, *Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards (ISO 14120:2015)*

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3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply.

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ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp/

— IEC Electropedia: available at https://www.electropedia.org/

NOTE All figures in this document only give an example of the principle not limiting other shapes or designs.

3.1
powered rescue tool
PRT
tool and components intended for use by the firefighting and rescue services, principally for cutting, crushing, spreading, squeezing, pushing or pulling the structural parts of road vehicles, ships, trains, aircraft and building structures involved in accidents and driven by electrical, hydraulic or other non-manual force

Note 1 to entry: See Figure 1 and Tables 1 and 2.

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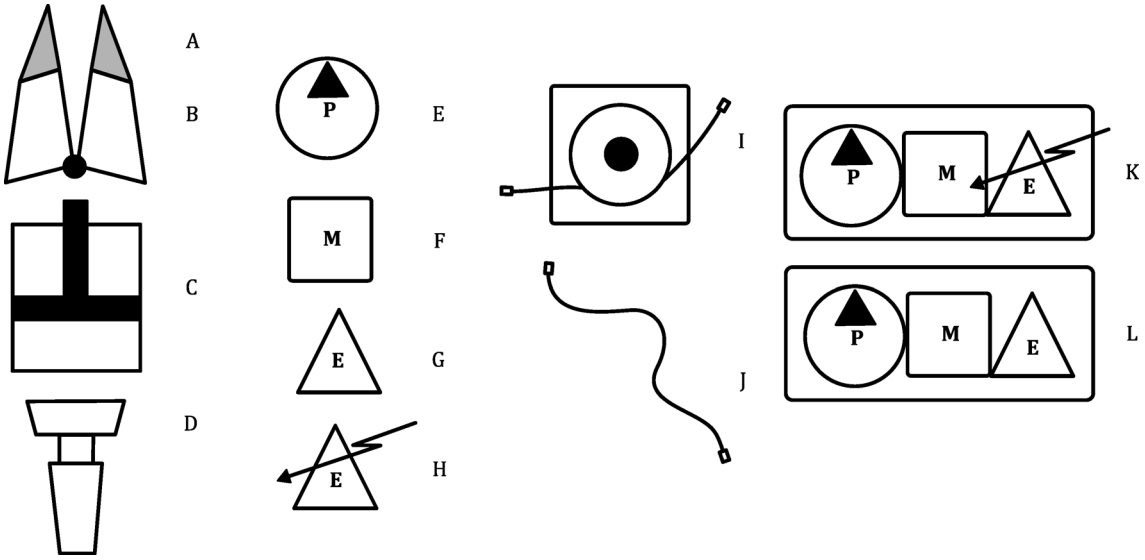

Key

A tips
B functional part
C drive system
D control device & manual control actuator
E principal power output device
F motor
G replaceable energy source or internal energy source
H external energy source (e.g. mains power)
I hose reel
J hose or cable assembly
K hand pump or powerpack powered by external energy source
L powerpack with replaceable or internal energy source

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Figure 1 — Components of the system

3.2 PRT integration level

3.2.1
non-integrated PRT
PRT where the energy source (replaceable and/or integrated and/or external) and prime mover are not integrated as part of the tool

3.2.2
semi integrated PRT
PRT where the prime mover is integrated as part of the tool, and the energy source (replaceable and/or external) is not integrated as part of the tool

3.2.3
fully integrated PRT
PRT where the energy source (replaceable and/or integrated) and prime mover are integrated as part of the tool without any cables or hose assemblies attached during use

Note 1 to entry: Tools with human powered prime mover are considered as fully integrated system.

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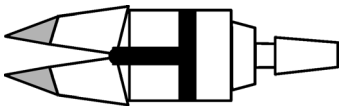
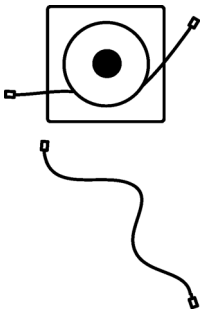
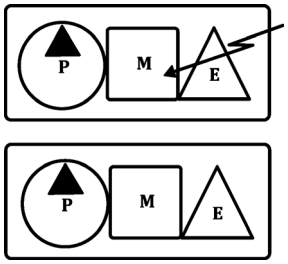
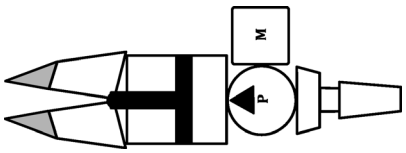
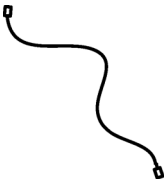
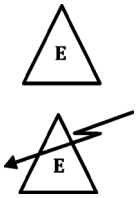
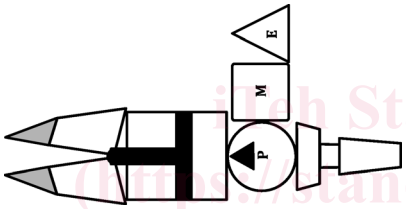
Table 1 — PRT overview

Integration Level	PRT (Powered Rescue Tool)		
	Tool	Components	
NON Integrated PRT			
SEMI Integrated PRT			
FULLY Integrated PRT			
Optional functions are not indicated but will require additional safety testing.			

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3.3 Tools

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3.3.1
tool
handheld device, consisting of all necessary parts, to carry out a particular function

3.3.2
combi-tool
PRT able to perform at least the three functions spreading, squeezing and cutting, without exchange of detachable parts

3.3.3
crusher
PRT able to perform a crushing function on materials such as concrete, brick structure(s)

3.3.4
cutter
PRT able to perform a cutting function

3.3.5
ram
PRT able to perform pushing functions with the aid of detachable parts or integral feet at both ends of the tool operated by a single, double or telescopic piston(s)

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3.3.6
spreader
PRT able to perform at least the three functions spreading, pulling and squeezing, without exchange of detachable parts, pulling attachments excluded

3.3.7
wedge
PRT able to perform a spreading function only and having a tapering to a thin edge that is designed to be positioned between two objects to separate them

3.3.8
manual PRT
PRT powered by hand or foot pump

3.4 PRT components

3.4.1
functional part
part(s) of the tool that is (are) designed to cut, spread, squeeze, pull, crush or push

3.4.2
drive system
part(s) of the PRT that transfer(s) power from the prime mover to the functional part of the tool

EXAMPLES Hydraulic cylinder, worm drive, spindle, etc.

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3.4.3
prime mover
motor used to power the drive system

EXAMPLES Electric motor, internal combustion engine, hydraulic motor, etc.

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3.4.4
external energy source
energy available through external sources such as mains power, portable or truck mounted generators and manual power

3.4.5
replaceable energy source
replaceable container with electric energy (battery) that can be changed by hand without the use of any tools

3.4.6
integrated energy source
container with energy that is a permanent part of the tool

3.4.7
level indicator
visual representation displaying the remaining amount of the total content

3.4.8
accessory
additional detachable part to enable a tool to perform a certain function

EXAMPLES Pulling attachment, pulling chain, pulling strap, saddle, extension tube, etc.

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3.4.9
detachable part
part or component which can be removed by hand (without tools) under no load conditions and without which the PRT cannot perform its function

EXAMPLES Spreader tip, ram head, replaceable energy source (e.g. battery).

3.4.10
manual control actuator
component, located on the tool, which controls the operation of the tool, and is designed to be operated by one person

3.4.11
hold-to-run control device
control device which initiates and maintains machine functions only as long as the manual control (actuator) is actuated

[SOURCE: EN ISO 12100:2010, definition 3.28.3]

3.4.12
powerpack
non-integrated PRT component consisting of a prime mover, the hydraulic principal power output device and the energy source used to power the tool

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3.4.13
smart system
device for automatic energy management

3.4.14
hose assembly
one or more hydraulic hoses complete with hose fittings, one or more quick action couplings and hydraulic fluid

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3.4.15
hose fitting
fitting attached at each end of the hose in order to mount the hose to a tool/pump or to equip it with quick action coupling

3.4.16
quick action coupling
manually operated connector without the use of a tool for the purpose of quickly connecting and disconnecting a hose assembly to/from other matching connector(s)

3.4.17
hose reel
drum-like structure around which length(s) of hose assemblies are stowed

3.4.18
cable assembly
PRT component consisting of the power cable with all permanently attached connectors that connect the tool or the powerpack to the energy source