CAN/ULC-S520:2022A

STANDARD FOR FIRE HYDRANTS

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E:mail: ULCStandards@ul.com

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The intended primary application of this standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for the particular application.

Copies of this National Standard of Canada may be ordered from ULC Standards.

CETTE NORME NATIONALE DU CANADA EST DISPONIBLE EN VERSIONS FRANÇAISE ET ANGLAISE

Standard for Fire Hydrants, CAN/ULC-S520

Third Edition, Dated June 1, 2016

Summary of Topics

This revision of CAN/ULC-S520 dated August 4, 2022 reissued the July 26, 2022 revisions to correct Table 1 title.

The July 26, 2022 revisions which included Barrel Wall Thickness Requirements, are noted for reference; Section 2A, 5.4.1 and Table 1.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The revised requirements are substantially in accordance with Proposal(s) on this subject dated March 1, 2022 and May 27, 2022.

PLEASE NOTE THAT CERTAIN CODES MAY REFER TO A SUPERSEDED VERSION OF THIS STANDARD. IN THOSE INSTANCES, THE RELEVANT VERSIONS ARE AVAILABLE FOR PURCHASE.

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THIRD EDITION . . . . . JUNE 2016
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W. Jayathilake (Project Manager)	ULC Standards	Canada	Non-Voting

This list represents the membership at the time the Committee balloted on the final text of this edition. Since that time, changes in the membership may have occurred.

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T. Harbour	Mueller Co., Canada
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D. Tiller	Office of the Fire Marshal & Emergency Management, Ontario
Jayathilake, W. (Project Manager)	ULC Standards, Canada

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PREFACE

This is the Third Edition of the Standard for Fire Hydrants, CAN/ULC-S520.

This Edition of the Standard has been formally approved by the ULC Standards Committee on Fire Protection Equipment and Systems

This Standard has been developed in compliance with the requirements of Standards Council of Canada (SCC) for accreditation of a Standards Development Organization.

Appendices A and B, identified as informative, are for information purposes only.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

This Third Edition National Standard of Canada is based on, and now supersedes, the Second Edition.

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

Requests for interpretation of this Standard should be sent to ULC Standards. The requests should be worded in such a manner as to permit a “yes” or “no” answer based on the literal text of the requirement concerned.

This CAN/ULC-S520 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

Comments or proposals for revisions on any part of the Standard may be submitted at any time. Proposals should be submitted via a Proposal Request in the On-Line Collaborative Standards Development System (CSDS) at https://csds.ul.com/canada.

This Standard is intended to be used for conformity assessment.

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1 SCOPE

1.1 This Standard covers dry *barrel* type *hydrants* intended for use in piping systems supplying water for fire protection service.

1.2 *Hydrants* shall be designed for a minimum working pressure of 1000 kPa.

1.3 *Hydrants* of special design, including those having built in hose gates are not covered by this Standard.

1.4 *Hydrants* with replaceable sections or components that are specially designed with lower breaking points than the rest of the unit are not explicitly covered in this Standard. Except for the specially designed breakable sections or components, however, such *hydrants* shall conform to all other requirements of this Standard.

1.5 This Standard does not cover wet *barrel* type *hydrants*. Wet *barrel* type *hydrants* are excluded from coverage by this standard due to the freezing concerns.

1.6 References to the setting and drainage of *hydrants* are not included in this Standard.

2 REFERENCE PUBLICATIONS

2.1 The documents shown below are referenced in the text of this Standard. Unless otherwise stated elsewhere in this Standard such reference shall be considered to indicate the edition and/or revisions of the document available at the date on which the Committee approved this ULC Standard.

Documents Published by the American National Standards Institute/American Water Works Association (ANSI/AWWA)
11 West 42nd Street, New York, NY 10036 U.S.A.
Telephone: (212) 642-4900
www.ansi.org, www.awwa.org

• C110/A21.10-12, Ductile-Iron and Gray-Iron Fittings
• C111/A21.11-12, Rubber-Gasket Joints for Ductile Iron and Fittings
• C550-13, Protective Interior Coatings for Valves and Hydrants

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Documents Published by the American Society for Testing and Materials (ASTM International)
100 Barr Harbour Drive, PO Box C700, West Conshohocken, PA 19428-2959 U.S.A.
Telephone: (610) 832-9585
www.astm.org

• ASTM E145-94(2011), Standard Specification for Gravity-Convection and Forced-Ventilation Ovens

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Documents Published by ULC Standards
171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada
Telephone: (416) 757-3611, ext. 61744; Fax (613) 231-5977, “ATTN: Publications”
E-mail: publications\@ulc.ca
www.ulc.ca

• CAN/ULC-S5430-09-AM1, Standard for Internal Lug Quick Connect Couplings for Fire Hose

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Documents Published by the National Fire Protection Association
1 Batterymarch Park, Quincy, MA 02269-9101 U.S.A.
Telephone: (617) 770-3000, Fax: (617) 770-0700
www.nfpa.org

• NFPA 1963-2014, Standard for Screw Threads and Gaskets for Fire Hose Connections

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Documents Published by Underwriters Laboratories Inc. (ULI)
333 Pfingsten Road, Northbrook, Illinois 60062-2096 U.S.A.
http://ulstandards.ul.com

• UL 157, Standard for Gaskets and Seals

Documents Published by the International Organisation for Standardization (ISO) available from:
ISO Central Secretariat: International Organisation for Standardization (ISO)
BIBC II, 1, Chemin de Blandonnet 8, CP 401, 1214 Vernier Geneva, Switzerland
Telephone: +41 22 749 01 11; Fax +41 22 733 34 30
www.iso.ch

Standards Council of Canada (SCC)
55 Metcalfe Street, Suite 600
Ottawa, ON, K1P 6L5
Telephone: (613) 238-3222; Fax (613) 569-7808
www.scc.ca

• ISO 6509-1:2014, Corrosion of metals and alloys – Determination of dezincification resistance of copper alloys with zinc – Part 1: Test method

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2A UNITS OF MEASUREMENT

2A.1 Where values of measurement are specified in both SI and U.S. Customary units, it is the responsibility of the user of this standard to determine the unit of measurement appropriate for the user's needs.

3 GLOSSARY

NOTE: Terms used in this Standard that are in *italic* print are defined as follows:

3.1 *BARREL*

3.1.1 *Upper barrel* – A part that extends from the *lower barrel* at the ground line to the nozzle section, enclosing the stem. It may be integral with the nozzle section. (When the *upper barrel* is an integral part of the nozzle section, then the term nozzle section would incorporate the term *upper barrel*.)

3.1.2 *Lower barrel* – A part that extends from the top of base inlet or shoe to the ground line, enclosing the stem. The *lower barrel* conducts water from the base to the upper portion of the hydrant.

3.2 *BASE VALVE DESIGN HYDRANT (DRY BARREL)* – A *hydrant* intended for use in all climates where the main valve is installed below the frost line and the main valve is either the compression type, opening with the pressure or against pressure, or gate type with the outlets individually valved or without valves.

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