



Designation: F2863 – 11 (Reapproved 2023)

Standard Specification for Central Vacuum Hose Inlet Valve Socket Dimensions¹

This standard is issued under the fixed designation F2863; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification establishes requirements and test methods for dimensions and tolerances of central-vacuum hose inlet valve sockets.

1.2 All notes and footnotes shall be considered as non-mandatory requirements of the specification.

1.3 This specification does not apply to inlet valve back-up (or mounting) plates.

1.4 This standard is applicable to universal valves marked with ASTM F2863, and does not limit proprietary valve designs.

1.5 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

[D618 Practice for Conditioning Plastics for Testing](#)

[D1600 Terminology for Abbreviated Terms Relating to Plastics](#)

¹ This specification is under the jurisdiction of ASTM Committee F11 on Vacuum Cleaners and is the direct responsibility of Subcommittee F11.30 on Durability-Reliability.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[D2122 Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings](#)

[D2749 Symbols for Dimensions of Plastic Pipe Fittings](#)

[F412 Terminology Relating to Plastic Piping Systems](#)

3. Terminology

3.1 Definitions are in accordance with Terminology [F412](#), abbreviations are in accordance with Terminology [D1600](#), and dimension symbols are in accordance with Specification [D2749](#).

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *central vacuum hose inlet valve, n*—I.D. controlled valves used to connect vacuum hoses to the central vacuum tubing systems.

3.2.2 *hose cuff, n*—end connector of a flexible central vacuum hose that fits inside the socket of a central vacuum hose inlet valve.

3.2.3 *proprietary valve, n*—valve with unique design specific to manufacturer's system specifications.

3.2.4 *unaided eye, n*—observable without enhancement beyond correction for normal vision.

3.2.5 *universal valve, n*—Valve meeting [Fig. 1](#) dimensional specifications.

4. Significance and Use

4.1 The requirements of this specification are intended to provide inlet valve socket dimensions to establish standardization of connections between central vacuum hose cuff and the socket of the central vacuum hose inlet valve.

5. Materials

5.1 *Basic Materials*—Metallic and non-metallic as specified by the central vacuum inlet valve purchaser and the seller.

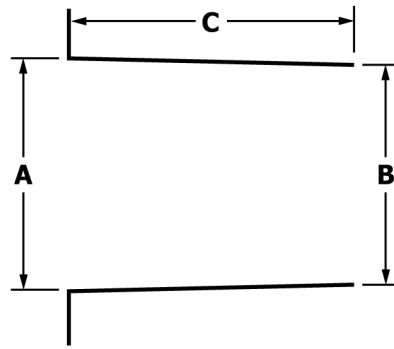
6. Requirements

6.1 *General—Dimensions and Tolerances:*

6.1.1 *Socket Dimensions*—The socket dimensions shall meet the requirements given in [Fig. 1](#), when measured in accordance with Test Method [D2122](#).

7. Test Method

7.1 *Sampling*—The selection of Hose Inlet Valve samples shall be as agreed upon between the purchaser and seller. In



A	TOL.	B	TOL.	C	TOL.
1.515 in (38.5 mm)	± .010 in (.25 mm)	1.445 in (36.7 mm)	± .010 in (.25 mm)	1.595 in (40.5 mm)	± .040 in (1.0 mm)

FIG. 1 Inside Diameters and Tolerances for Central Vacuum Hose Inlet Valve Sockets

case of no prior agreement, samples selected by a testing laboratory shall be deemed adequate.

7.2 *Conditioning*—For time-of-manufacture testing, conditioning shall be permitted at the ambient temperature and humidity of the manufacturer’s facility. For non-metallic referee purposes, conditioning shall be in accordance with procedure A of Practice D618.

7.3 *Testing*—Testing shall be in accordance with Test Method D2122.

8. Retest and Rejection

8.1 If the results of any test(s) do not meet the requirements of this specification, the tests shall be conducted again in accordance with an agreement between the purchaser and the seller. There shall be no agreement to lower the minimum requirements of this specification by such means as omitting

tests that are a part of this specification, substituting or modifying a test method, or by changing the specification limits. In retesting, the product requirements of this specification shall be met, and the test methods designated in the specification shall be followed. If, upon retest, failure occurs, the quantity of product represented by the test(s) does not meet the requirements of this specification.

9. Quality Assurance

9.1 When the product is marked with this designation, ASTM F2863, the manufacturer affirms that the product was manufactured, inspected, sampled, and tested in accordance with this standard and has been found to meet the requirements of this specification.

10. Keywords

10.1 central vacuum hose inlet valve; hose cuffs

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