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Standard Specification for Industrial Perforated Plate and Screens (Round Opening Series)[1]

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This standard has been approved for use by agencies of the Department of Defense.

INTRODUCTION

Industrial perforated plate can be produced in many thousands of combinations of size and shape of opening, bar size, thickness of material, and type of metal. Such variety is often confusing and, to the vast majority of perforated plate users, unnecessary, since each usually requires only a very few specifications.

The purpose of this specification is to simplify this problem by a condensed table of recommended specifications covering a wide range of openings in which industrial perforated plate is made, with several recommended bar sizes and thicknesses of plate for each opening, for use in various grades of service.

By making selections from this specification, the user will be guided to specifications that are being regularly produced, thus avoiding inadvertent selection of specifications that, because of little or no demand, are unobtainable, except on special order (usually quite expensive unless the quantity ordered is sufficient to justify the cost of special tooling).

If a user has a specific application for industrial perforated plate that can not be solved by a selection from this specification, it is recommended that he consult his perforated plate supplier on the availability of an acceptable alternative specification.

1. Scope

1.1 This specification covers the sizes of round opening perforated plate and screens for general industrial uses, including the separating or grading of materials according to designated nominal particle size, and lists standards for openings from 5 in. (125 mm) to 0.020 in. (500 µm) punched with bar sizes and thicknesses of plate for various grades of service. Methods of checking industrial perforated plate and screens are included as information in the Appendix.

1.2 This specification does not apply to perforated plate or screens with square, hexagon, slotted, or other shaped openings.

1.3 The values stated in inch-pound units are to be regarded as the standard.

2. Referenced Documents

2.1 *ASTM Standards:*

E 323 Specification for Perforated-Plate Sieves for Testing Purposes[2]

2.2 *Documents:*

Fed. Std. 123 Marking for Shipments (Civil Agencies)[3]

Mil-Std-129 Marking for Shipment and Storage[3]

3. Standard Specifications

3.1 Standard specifications for industrial perforated plate and screens are listed in Table 1.

3.2 *Openings*—The series of standard openings listed in Table 1 include those of the USA Standard Sieve Series, Specification E 323, and those of the ISO apertures for industrial plate screens,[4] with the addition of those openings in common usage.

3.3 *Relationship of Grades*—The purpose of the several grades is to provide combinations of opening and bar size for various types of service, from medium-light to heavy. Since it

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[2] *Annual Book of ASTM Standards*, Vol 14.02.

[3] Available from Standardization Documents, Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

[4] ISO 2194-1972, Wire Screens and Plate Screens for Industrial Purposes—Nominal Sizes of Apertures.

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