

1. Introduction.

1.1 Scope. This standard establishes the mechanical and performance requirements for structural, positive lock, self-plugging blind rivets suitable for use in joining the component parts of assemblies of varying grip range where maximum tensile and shear strength values are a design requirement. This standard covers sizes 3/16 (4.8 mm), 1/4 (6.4 mm), 5/16 (8 mm), 3/8 (10 mm), and 1/2 (12.7 mm) in the following body/mandrel combinations; steel/steel, stainless steel/stainless steel, aluminum/aluminum.

1.2 Definitions.

1.2.1 Self-plugging rivet. A self-plugging blind rivet is a blind fastener which has a feature on the mandrel (hollow, interference, or other means) that as the mandrel is drawn into the sleeve it expands the sleeve in such a way to expand the sleeve to the diameter of the hole thus plugging or filling the hole in the mating materials. The plugging/hole filling feature along with bearing area of the expanded sleeve and the head of the sleeve prevents axial movement of the mating components.

1.2.2 Structural blind rivet - are blind rivets which leave a portion of the mandrel securely locked within the rivet body such that the body and remaining mandrel are in the shear plane(s) of the fastened assembly components after rivet installation. These rivets usually have a grip length adjustment feature which allows the mandrel to be securely locked in the shear plane throughout the whole grip range of the rivet. Structural blind rivets have a rolled (heat treated or non-heat treated) mandrel. See IFI Glossary of rivet terms for additional definitions.

1.2.3 Definitions of other terms used in this standard are given in IFI-110, *Glossary of Terms Relating to Blind Rivets*.

IFI-134 Structural Self-Plugging Blind Fasteners are produced by numerous manufactures who's design may differ slightly. Because of this, geometry, hole size and grip range may vary from manufacturer to manufacturer. The information in the following charts are for reference/guidance only and actual dimensional data, hole size, and *grip range should be obtained for the specific manufacturer's data sheets and is not confined to information presented in this specification.

* Grip is defined as the material thickness being fastened. Grip Range is defined to be the difference between the maximum material to be fastened and the minimum material thickness to be fastened.

2. Designations.

2.1 Styles. There are several head styles of structural, positive lock, self-plugging blind rivets are designated typically as dome head, truss head and countersunk head (100 degree and 120 degree). See the illustrations above Table 1.

2.2 Grades. The material combinations of structural, positive lock, self-plugging blind rivets have designated material grades, with each material combination representing a different combination of rivet body material and mandrel material as given in Table 2.

2.3 Design. The design of structural, positive lock, self-plugging blind rivets shall be supplied in accordance with the practice of the manufacturer.

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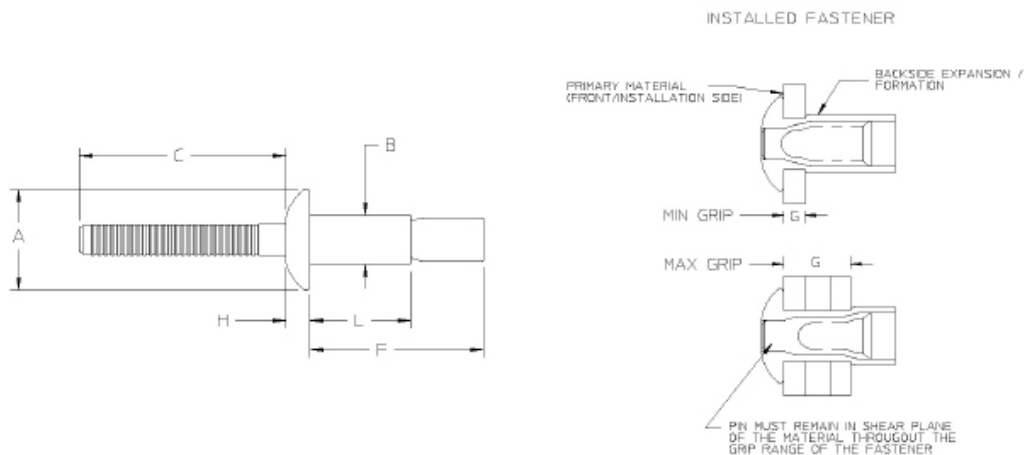
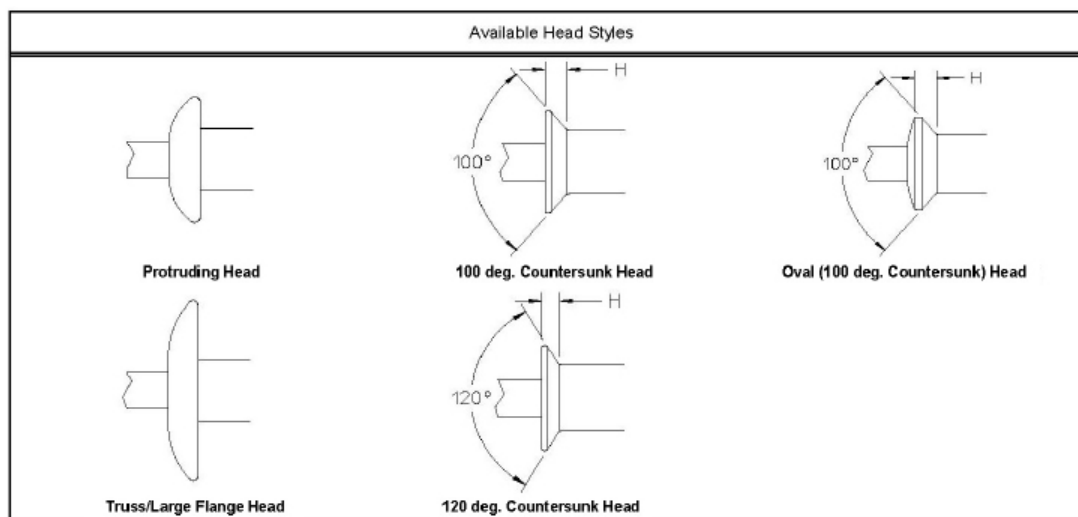


Table 1 Rivet Features

Feature	Description
A	Sleeve Head Height
B	Sleeve Body Diameter
C	Pintail Length
H	Sleeve Head Height
F	OAL (Underhead to end of pin)
G	Grip Minimum to Grip Maximum



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