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Westfield Fasteners Product Specification:

Rivet Nuts - Rivet Nut with a Flat Head, Part Hexagonal Shank, Open Type

This product guide contains the specification for blind rivet nuts with a flat head, part hexagonal body and open end: a stock item available from Westfield Fasteners.

Product Description

Flat topped rivet nuts offer the best strength and stability as they spread the load over a greater surface area. The hexagonal body shape will prevent the nut from turning within an appropriate sized hexagonal hole in the host material. The part hexagonal bodied rivet nuts are similar to flat head full hexagon open, but have a slight reduction in torque loadings. The open end of the rivet nut allows bolts of any length to be used.

Used in a multitude of industries such as aerospace, automotive, rail, HVAC, white goods, electronics, as well as the manufacture of heavy goods, bumper systems, seating and vehicle chassis.

Blind rivet nuts are used for attachments into sheet metals and thin metal gauge parts, such as panels, tubes and castings. The riveted nut will then allow you to attach and detach components easily using the correct sized bolt. The larger sized rivet nuts can clamp together multiple layers of materials. Blind rivet nuts are also known as riv nuts, blind nuts and nutserts.

Install by inserting the rivet nut into a correctly sized and shaped hole within the sheet material. Compress the rivet nut using a pneumatic powered or hand rivet nut tool, which grips it firmly to the sheet material. In the compression process, the thinner walled section without the thread collapses to form a collar on the blind side of the sheet material. This prevents the nut from being pulled back though the hole and fixes it securely to the sheet material. Like blind rivets, blind rivet nuts do not require access to the back of the material.

The strength of the riveted joint will vary for each application, as factors such as the material strengths, the diameter of the rivet nut, the spacing between the rivet nuts will all effect the final shear and tensile strengths.

Product Information

See the tables below for dimensions for sizes from M3 to M12, along with information on grip range, pre-drilled hole sizes, tensile strength and tightening torque. The tightening torque specifications are guide values depending on the material of the original component and must be checked by testing the component.

The grip range is the total thickness of the materials to be joined.

This type of rivet nut is available in A2 and A4 Stainless Steel. A2 will provides good corrosion and oxidation resistance for both indoor and outdoors. A4 is a marine grade, which offers better corrosion and oxidation resistance and is best for wet and salty environments. Zinc plated steel variants are also available and offer the best value.

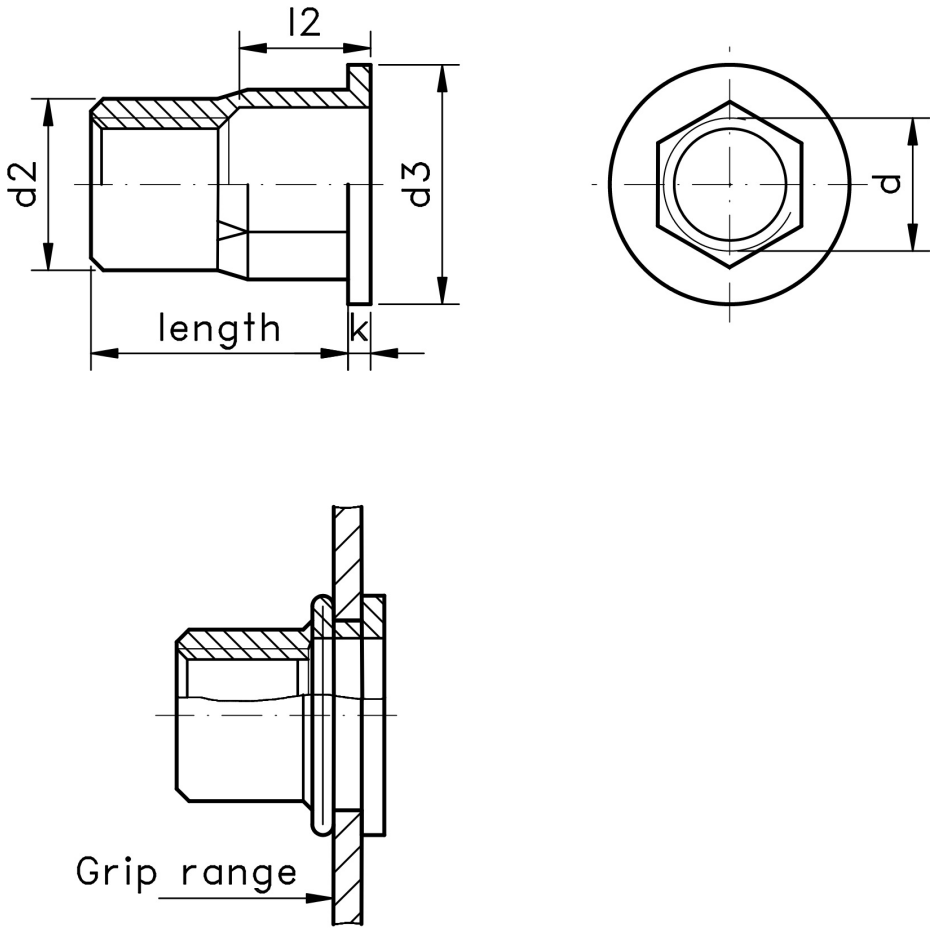

Figure 1: Blind rivet nut with a flat head, part hexagonal body and open end

Table 1: Dimensions & Tolerances (mm) for Stainless Steel Variants

Thread (d)	Grip Range	Hole Size	Body Diameter (d2)	Flange Diameter (d3)	Flange Thickness (k)	Overall Body Length	Length 2 (l2)	Shear Force(N)	Tensile Strength (N)
M3	0.3 - 1.8	5	4.9	8	0.75	9	4.3	900	3900
M4	0.5 - 2.0	6	5.9	9.3	1	11.5	4.8	1500	6800
M5	0.5 - 3.0	7	6.9	10.3	1	13.5	6.5	2000	11500
M6	0.5 - 3.0	9	8.9	12.3	1.5	15.5	7	3000	16500
M8	0.5 - 3.0	11	10.9	14.3	1.5	17.5	7.8	4400	25000
M10	1.0 - 4.0	13	12.9	16.3	2	22	9.7	5000	32000
M12	1.0 - 4.0	16	15.9	23	2	26	10.5	6500	34000

Table 2: Dimensions & Tolerances (mm) for Bright Zinc Plated Ranges

Thread (d)	Grip Range	Hole Size	Body Diameter (d2)	Flange Diameter (d3)	Flange Thickness (k)	Length	Overall Body Length	Max Tightening Torque (Nm)	Tensile Strength (N)
M4	0.5 - 2.0	6.0	5.9	9.0	0.8	10.2	11.0	4.0	6800
M5	0.5 - 2.5	7.0	6.9	10.0	1.0	12	13.0	6.5	10000
M6	0.5 - 3.0	9.0	8.9	12.5	1.4	14.1	15.5	12.0	15000
M8	1.0 - 3.5	11.0	10.9	16.0	1.5	16.5	18.0	31.0	27000
M10	1.0 - 3.5	13.0	12.9	18.0	1.7	19.3	21.0	42.0	28500