



AxiRad

Axi-Rad® is a revolutionary thermoplastic retainer that captures threaded fasteners in position on component parts until final fastening operations are performed later in the assembly sequence. FCT can also do the assembly and ship the finished piece. Utilizing a patented lobular design, the Axi-Rad is used in a variety of applications globally, including automotive powertrain and body assemblies, aerospace, heavy truck, industrial equipment and consumer products.

APPLICATION

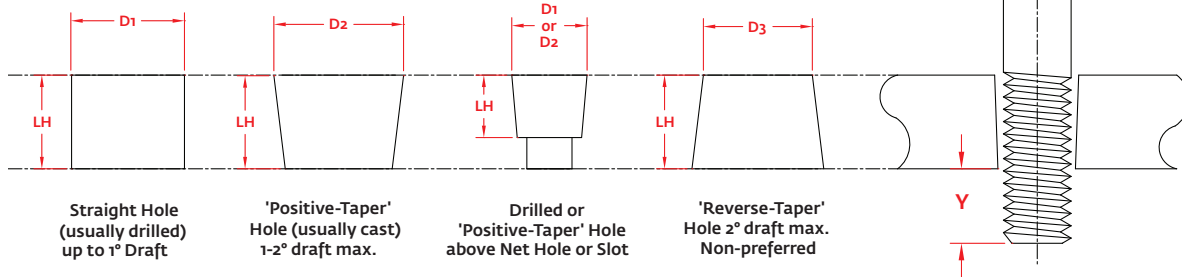
Axi-Rad® is assembled onto a bolt, and the bolt and Axi-Rad are then inserted into the mating hole in the component or casting. With Axi-Rad, the fastener stays in place during shipping and handling so the module arrives ready to place and tighten at final assembly. Commonly used for oil pans, valve covers, alternators and generators, water pumps and electronic devices.

BENEFITS

- Eliminate fastener feeding from final assembly.
- Improve productivity by moving all fastener handling off the final assembly line.
- Eliminate the cost of carrying fastener inventory at the final assembly plant.
- Reduce costs by eliminating the downtime and maintenance associated with automated fastener feeding systems.
- Axi-Rad can be sold in bulk or assembled onto your bolt by FCT.

HOLE CHARACTERISTICS

Bolt Head Side Chamfer or Break Sharp Edges



DIMENSION DEFINITIONS

Description	Dim Ref	M6 Standard (11518792)	M8 Standard (11588327)	M10 Standard (11588328)
Diameter, drilled hole or positive taper cast hole w/draft up to 1° per side	D1	8.0 +/- 0.15 mm	10.0 +/- 0.15 mm	12.0 +/- 0.15 mm
Diameter, positive taper cast hole w/up to 2° max draft per side	D2	8.0 +/- 0.20 mm	10.05 +/- 0.20 mm	12.05 +/- 0.20 mm
Diameter, reverse taper cast hole w/ 2° max draft per side	D3	7.65 +/- 0.20 mm	9.65 +/- 0.15 mm	11.65 +/- 0.15 mm
Chamfer (bolt head side)		Chamfer or break sharp edge for assembly		
Retainer length	L	7.0 +/- 0.25 mm	8.0 +/- 0.25 mm	9.0 +/- 0.25 mm
Preferred min. flange thickness up to 0.5 mm protrusion of retainer allowable	LH	7.25 mm min.	8.25 mm min.	9.25 mm min.
Hole ID surface cleanliness note		Clean of debris and oily residue		
Retainer position as received at plant		Fully in hole		
Preferred fastener length protruding from holeheader point fastener at final assembly ²	Y	2.5 mm	2.8 mm	3.0 mm
Preferred fastener length protruding from hole MAT Point fastener at final assembly ²	Y	5.5 mm	7.0 mm	8.5 mm

² Based on shipping trial results, fasteners may require shipment with head seated against component flange. The GMPT engine plant may then choose to add a process to axially locate fastener per dimension Y before final assembly.

STANDARD PARTS

Size	GM part#	Ford part#	Chrysler part#	Wt. (lbs)
M6	11518792	W712166	06508675AA	.00021
M8	11588327	6E5E-6C792-BA	06508703AA	.00031
M9	11611628			.00036
M10	11588328		06508704AA	.00043
M12	11609395			.00071

- Non-standard lengths are available in M6, M8, M10 and M12 sizes.
- One-time sample requests of 50 pieces or less are supplied at no charge.

DESIGN GUIDE

- A chamfered hole must be used to prevent sharp edges from shaving the retainer and facilitate ease of assembly of the Axi-Rad to the hole.
- To insure proper function of the Axi-Rad, the insertion hole must be clean, free of debris and oily residue.
- It is recommended that no contact be made between the bolt and the dunnage during shipping to prevent movement of the bolt and retainer from their installed position.
- Use with full-bodied fasteners is preferred.

For questions regarding Axi-Rad, pricing and quotes for assembly of the Axi-Rad to your bolt, please contact us.

Aaron Pasadyn
 Product Manager
 apasadyn@forestcitytech.com
 440.647.6918

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ForestCity Technologies
 299 Clay Street PO Box 86
 Wellington, OH 44090

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sales@forestcitytech.com
 440.647.2115 p
 440.647.6889 f

