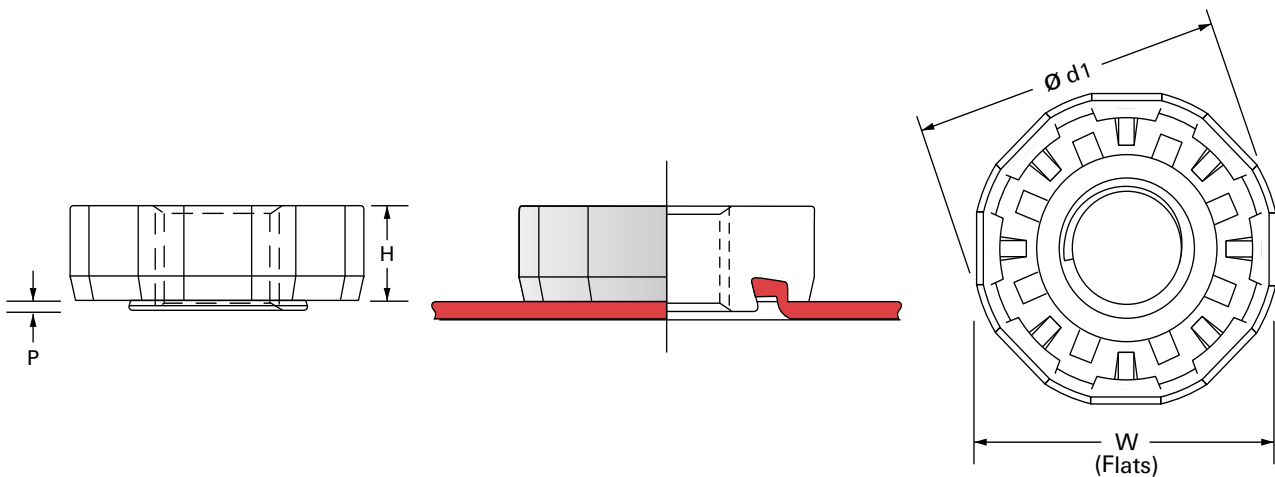




MHN Series Round Pierce Nut

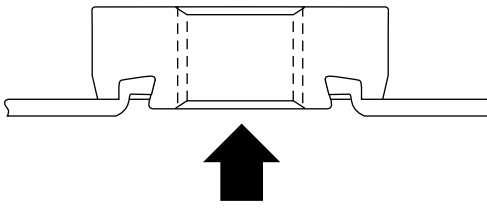
SELF-PIERCING ROUND PIERCE NUTS FOR GENERAL VEHICLE APPLICATIONS

FabriSteel's MHN series Round Pierce Nuts are self-piercing fasteners available in 6mm - 12mm thread sizes. These automatically fed fasteners can pierce metal up to 3.5mm and are used in all areas of the vehicle. The unique design of the MHN Pierce Nut results in a secure, permanent installation with high torque characteristics. Available in bulk form, these Pierce Nuts meet ISO Class 9 or ISO Class 10 requirements as needed.

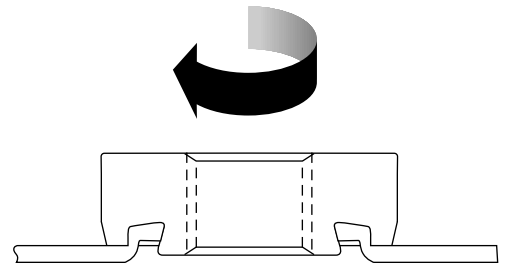


All dimensions below in millimeters.

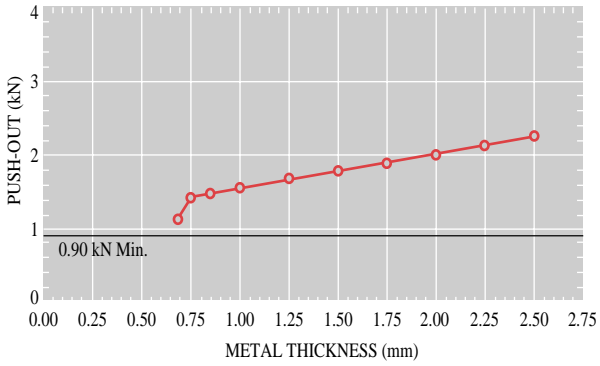
PIERCE NUT NUMBER	THREAD SIZE (6 g. TOL.)	PROPERTY CLASS GRADE	METAL RANGE	INSTALL. LOAD (TONS)	Ø d1 NUT DIA.	W (FLATS)	H NUT THICKNESS	P (REF.)
MHN06	M6 x 1.0	9	0.70-2.50	11.0	18.3	17.8	4.65	.55
MHN08	M8 x 1.25	9	0.70-2.50	16.0	20.5	20.0	6.00	.60
MHN10	M10 x 1.5	9/10	1.00-3.00	17.5	24.0	23.4	7.20	.80
MHN12	M12 x 1.75	9/10	1.50-3.50	19.0	28.0	27.2	7.90	.90



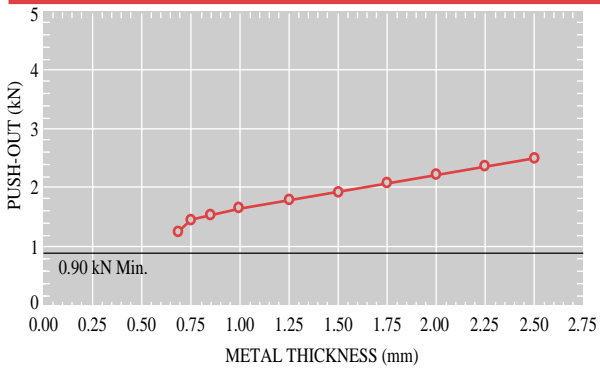
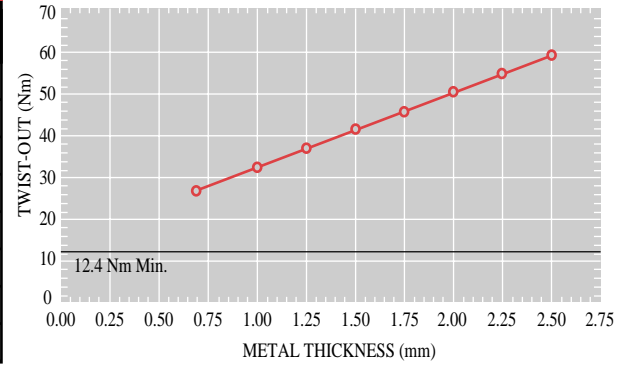
PUSH-OUT



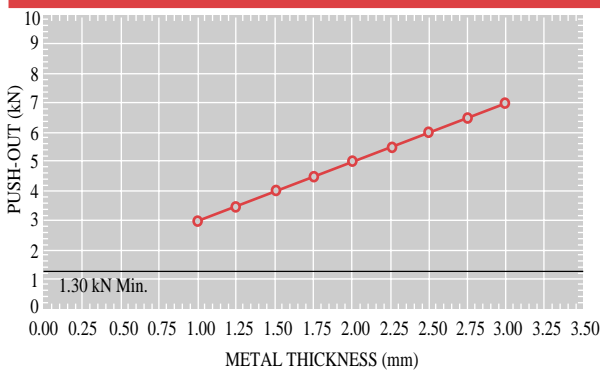
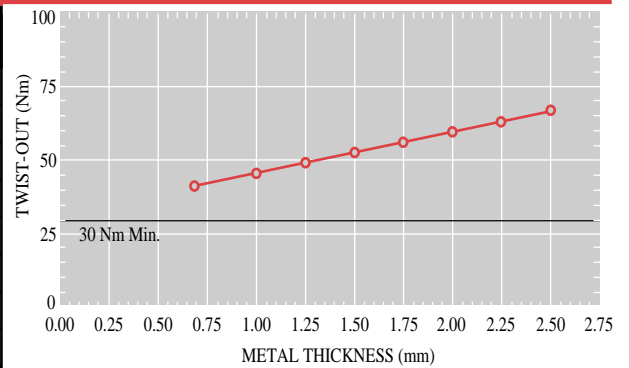
TWIST-OUT



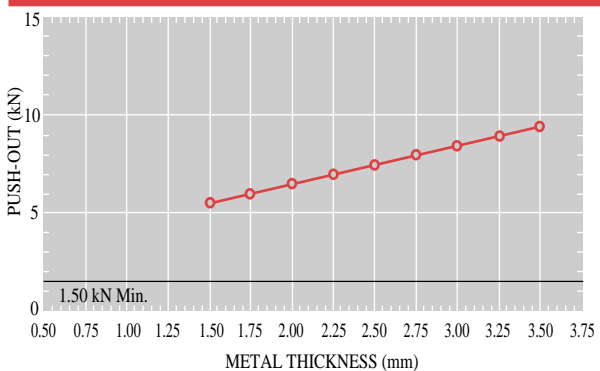
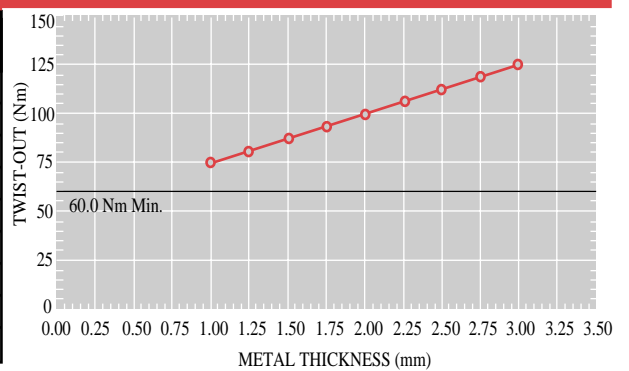
MHN 06		
PANEL THICKNESS (MM)	PUSH-OUT PERFORMANCE (kN)	TWIST-OUT PERFORMANCE (Nm)
0.70	1.10	27.35
1.00	1.50	32.70
1.25	1.63	37.20
1.50	1.75	41.70
1.75	1.88	46.15
2.00	2.00	50.65
2.25	2.13	55.10
2.50	2.25	59.60



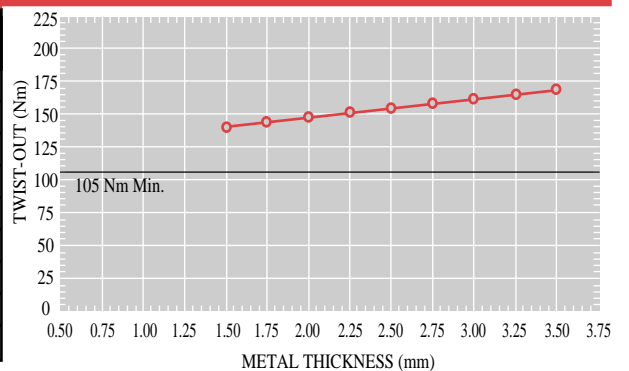
MHN 08		
PANEL THICKNESS (MM)	PUSH-OUT PERFORMANCE (kN)	TWIST-OUT PERFORMANCE (Nm)
0.70	1.20	42.65
1.00	1.60	46.65
1.25	1.75	50.00
1.50	1.90	53.30
1.75	2.05	56.65
2.00	2.20	60.00
2.25	2.35	63.35
2.50	2.50	66.65



MHN 10		
PANEL THICKNESS (MM)	PUSH-OUT PERFORMANCE (kN)	TWIST-OUT PERFORMANCE (Nm)
1.00	3.00	75.00
1.25	3.50	81.25
1.50	4.00	87.50
1.75	4.50	93.75
2.00	5.00	100.00
2.25	5.50	106.25
2.50	6.00	112.50
2.75	6.50	118.75
3.00	7.00	125.00



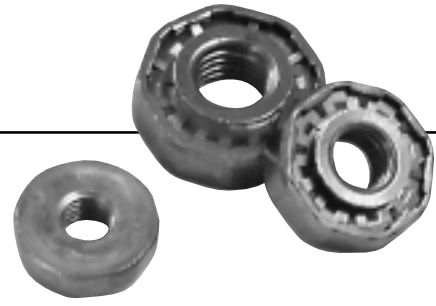
MHN 12		
PANEL THICKNESS (MM)	PUSH-OUT PERFORMANCE (kN)	TWIST-OUT PERFORMANCE (Nm)
1.50	5.50	140.00
1.75	6.00	143.75
2.00	6.50	147.50
2.25	7.00	151.25
2.50	7.50	155.00
2.75	8.00	158.75
3.00	8.50	162.50
3.25	9.00	166.25
3.50	9.50	170.00



Note: All data are mean-3sigma for nuts installed in 1008/1010 mild steel.

Part Design Guidelines

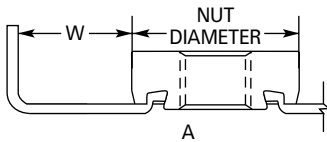
MHN SERIES ROUND PIERCE NUTS



MHN Series Round Pierce Nuts are precision made, work hardened, high quality threaded fasteners that can be installed in sheet metal stampings by the same presses and the same dies used to form the part. Available in bulk form, MHN Series Round Pierce Nuts pierce their own hole through a sheet metal panel, offering substantial savings in time and materials over other fasteners. MHN Series Round Pierce Nuts are also available with non-threaded holes, ideal for thread forming screws.

WHEN A FORMING OPERATION FOLLOWS A PIERCE NUT OPERATION.

Do not form part closer than width of nut (W) when nut is installed as shown in "A", below. Tooling alterations are necessary to reduce " W " below 7 mm (1/4 in.); consult your representative.

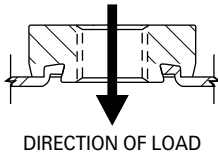


APPLICATION IN SPECIAL MATERIALS.

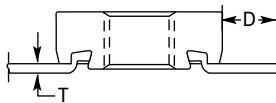
For HSLA, stainless steel, aluminum, or plastic material, consult your representative.

DIRECTION OF ASSEMBLED LOAD.

Assembled load must be against shoulders of nut.



NUT EDGE TO PANEL EDGE DISTANCE.



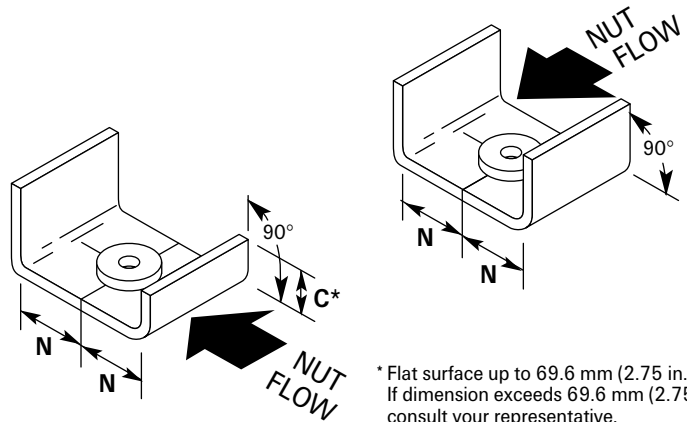
T (METAL RANGE)	D (MIN)	
	MM	IN
1.5 mm OR LESS .060 in.	3.0	0.12
1.6 mm OR MORE .061 in.	2 x T	2 x T

EMBOSS REQUIREMENTS

MHN Series Round Pierce Nuts require no emboss.

NUT TO FLANGE DISTANCES (WITH STANDARD INSTALLATION TOOLING).

Note: Closer nut-to-flange distances may be achieved using altered standard and/or special tooling. Consult your representative.



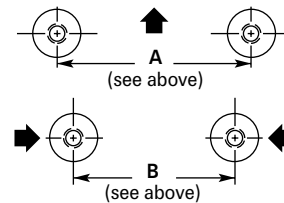
* Flat surface up to 69.6 mm (2.75 in.).
If dimension exceeds 69.6 mm (2.75 in.)
consult your representative.

All dimensions below in millimeters.

NUT NUMBER	N	A	B
MHN06	18.0	68.0	52.0
MHN08	19.0	68.0	52.0
MHN10	20.5	68.0	52.0
MHN12	22.5	80.0	58.0

MINIMUM NUT SPACING (WITH STANDARD INSTALLATION TOOLING).

Closer spacing may be achieved using altered standard and/or special tooling. Consult your representative.

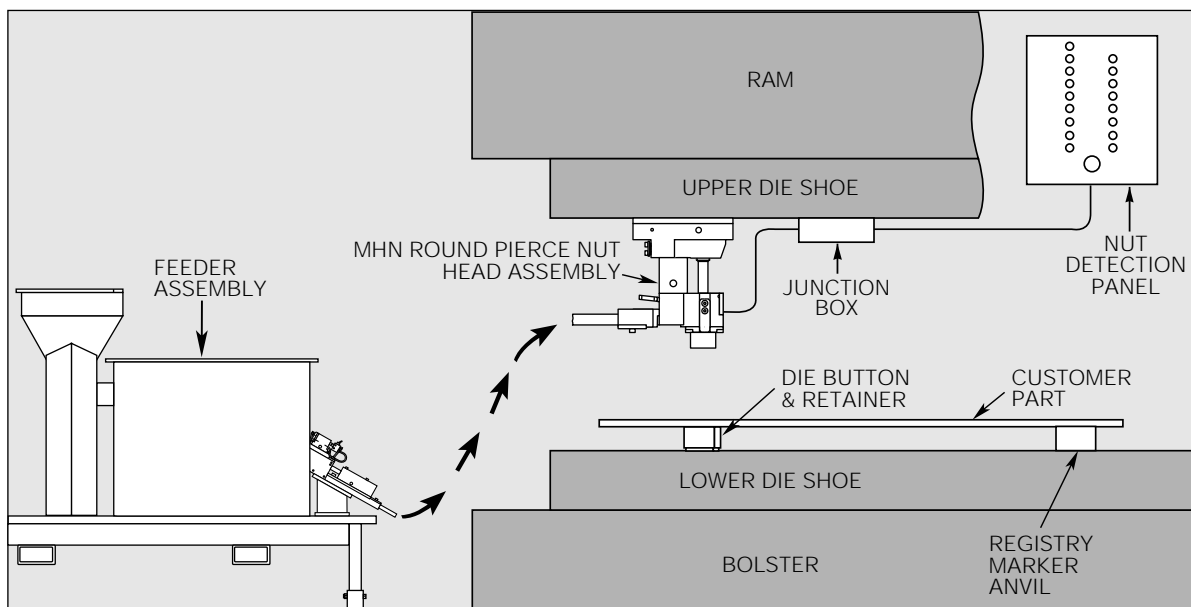
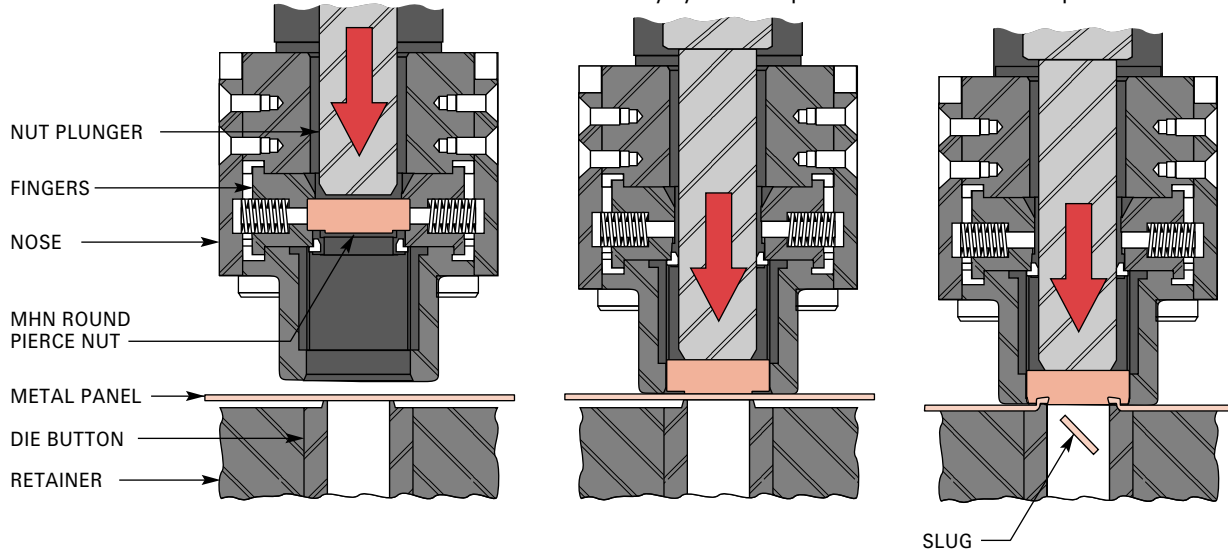


MHN Series Round Pierce Nut Installation. As easy as...

1 The Pierce Nut is automatically placed in position in the Installation Tool (Head) until the metal panel is in position with the die button underneath.

2 As the die closes, the nut plunger pushes the nut through the metal panel. The pilot area of the nut serves as the punch – virtually a new punch with every cycle of the press.

3 The die button forms the metal panel to lock the nut in place. The die-stamped blank (slug), cut by the pilot of the nut, drops through the die button as scrap.



Fasten it. Drive it.®

