

SHEREX FASTENING SOLUTIONS

Fastening Systems Engineered For Performance™



FULL HEX RIVET NUT INSERT





THE NEW STANDARD IN RIVET NUTS™

FEATURES AND BENEFITS

- Proven to meet Class 8 and Grade 5 thread strength.
- Provide increased spin out resistance over round body and half hex body rivet nuts.
- Provide a strong thread in thin sheet materials.
- Available with a small flange (FHK) or a large flange (FHL).
- Can be installed from one side of the work piece.
- Do not need to be welded to the base material.
- Plated with a RoHS compliant zinc trivalent clear plating.

SIZES AVAILABLE FOR FHK AND FHL SERIES

Unified sizes available:

- **1/4-20,** 1st, 2nd, 3rd Grip
- **5/16-18,** 1st, 2nd, 3rd Grip
- 3/8-16, 1st, 2nd, 3rd Grip
- 1/2-13, 1st, 2nd, 3rd Grip

Metric sizes available:

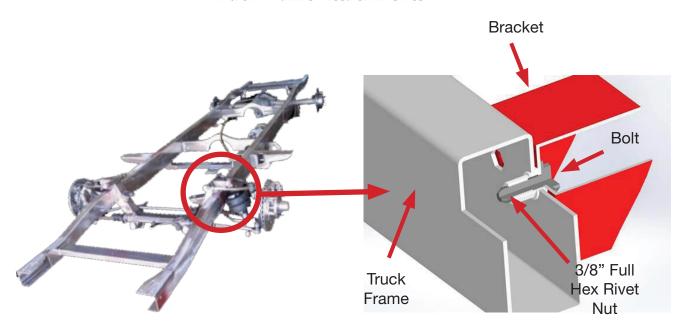
- M6, 1st, 2nd, 3rd Grip
- M8, 1st, 2nd, 3rd Grip
- M10, 1st, 2nd, 3rd Grip
- M12, 1st, 2nd, 3rd Grip







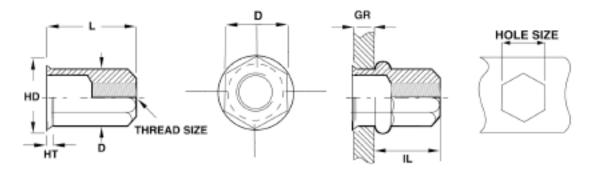
Truck Frame Attachments



Leg Leveler



FHK - SMALL FLANGE HULL HEX SERIES



FHK - SMALL FLANGE UNIFIED THREAD (UNIT - INCHES)

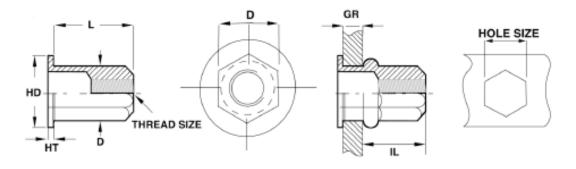
SHEREX		Grip I	Range	L	HD (A/F)	HT	D (A/F)	IL	Hole Size (A/F)
Part Number Inch - Steel	Thread Size	Min.	Max.	± .015	± .010	± .005	Max.	Ref.	+.004/000
FHK2-2520-138	1/4-20 UNC	.039	.138	.673		.016	.354	.469	
FHK2-2520-236		.138	.236	.772	.390				.354
FHK2-2520-335		.236	.335	.870					
FHK2-3118-157	5/16-18 UNC	.031	.157	.787	.457	.016	.432	.535	.433
FHK2-3118-276		.157	.276	.913					
FHK2-3118-394		.276	.394	1.039					
FHK2-3716-177		.039	.177	.955		.025	.511	.689	
FHK2-3716-295	3/8-16 UNC	.177	.295	1.053	.559				.512
FHK2-3716-413		.295	.413	1.191					
FHK2-5013-177	1/2-13 UNC	.039	.177	1.215	.734	.033	.656	.866	.656

FHK - SMALL FLANGE METRIC THREAD (UNIT - MILLIMETERS)

SHEREX		Grip I	Range	L	HD (A/F)	HT	D (A/F)	IL	Hole Size (A/F)
Part Number Metric - Steel	Thread Size	Min.	Max.	± .38	± .25	± .13	Max.	Ref.	+.10/000
FHK2-610-3.5		1.0	3.5	17.10		0.41	8.98	11.9	9.0
FHK2-610-6.0	M6 X 1.0 ISO	3.5	6.0	19.60	9.92				
FHK2-610-8.5		6.0	8.5	22.10					
FHK2-8125-4.0	M8 X 1.25 ISO	0.8	4.0	20.00	11.60	0.41	10.98	13.6	11.0
FHK2-8125-7.0		4.0	7.0	23.20					
FHK2-8125-10.0		7.0	10.0	26.40					
FHK2-1015-4.5		1.0	4.5	24.25	14.20		12.98	17.5	13.0
FHK2-1015-7.5	M10 X 1.5 ISO	4.5	7.5	26.75		0.64			
FHK2-1015-10.5		7.5	10.5	30.25					
FHK2-12175-4.5	M12 X 1.75 ISO	1.0	4.5	30.85	18.65	0.85	16.65	22.0	16.66

Sherex full hex rivet nuts are compatible with the following: GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8. Please contact Sherex when using other grade fasteners.





F	HL - LAR	GE FLAI	NGE L	JNIFIE	о тн	READ	(UNI	T - IN	ICHES	5)
	SHEREX		Grip I	Range	L	HD (A/F)	HT	D (A/F)	IL	Hole Size (A/F)
	Part Number Inch - Steel		Min.	Max.	± .015	± .014	± .006	Max.	Ref.	+.004/000
	FHL2-2520-138	1/4-20 UNC	.039	.138	.657					.354
	FHL2-2520-236		.138	.236	.756	.511	.059	.354	.469	
	FHL2-2520-335		.236	.335	.854					
	FHL2-3118-157	5/16-18 UNC	.031	.157	.771	.630	.059	.432	.535	.433
	FHL2-3118-276		.157	.276	.897					
	FHL2-3118-394		.276	.394	1.020					
	FHL2-3716-177		.039	.177	.910		.079	.511	.689	.512
	FHL2-3716-295	3/8-16 UNC	.177	.295	1.010	.748				
	FHL2-3716-413		.295	.413	1.140					
	SHEREX		Grip I	Range	L	HD (A/F)	HT	D (A/F)	IL	Hole Size (A/F)
	Part Number Inch - Steel	Thread Size	Min.	Max.	± .015	± .025	± .006	Max.	Ref.	+.010/000
	LRGH2-5013-177	1/2-13 UNC	.039	.177	1.181	.959	.085	.656	.866	.656

SHEREX		Grip I	Range	L	HD (A/F)	HT	D (A/F)	IL	Hole Size (A/F
Part Number Metric - Steel	Thread Size	Min.	Max.	± .38	± .35	± .15	Max.	Ref.	+.10/000
FHL2-610-3.5		1.0	3.5	16.70		1.50		11.9	9.0
FHL2-610-6.0	M6 X 1.0 ISO	3.5	6.0	19.20	13.00		8.98		
FHL2-610-8.5		6.0	8.5	21.70	1				
FHL2-8125-4.0	M8 X 1.25 ISO	0.8	4.0	19.60	16.00	1.50	10.98	13.6	11.0
FHL2-8125-7.0		4.0	7.0	22.80					
FHL2-8125-10.0		7.0	10.0	26.00					
FHL2-1015-4.5		1.0	4.5	23.10		2.00	12.98	17.5	13.0
FHL2-1015-7.5	M10 X 1.5 ISO	4.5	7.5	25.60	19.00				
FHL2-1015-10.5		7.5	10.5	29.10					
SHEREX		Grip	Range	L	HD (A/F)	HT	D (A/F)	IL	Hole Size (A/F
Part Number Metric - Steel	Thread Size	Min.	Max.	± .38	± .64	± .15	Max.	Ref.	+.25/000
LRGH2-12175-4.5	M12 X 1.75 ISO	1.0	4.5	30.00	24.36	2.16	16.65	22.0	16.66

Sherex full hex rivet nuts are compatible with the following: GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8. Please contact Sherex when using other grade fasteners.



FLEX-5 TOOL



FEATURES AND BENEFITS

One tool with Pull to Pressure and Pull to Stroke Capabilities.

- 5,000 lbs (22kN) pulling force at 90 psi
- 7 mm (0.276in.) of available stroke
- Upgradeable to process monitoring

FLEX-18 TOOL



FEATURES AND BENEFITS

The most powerful tool on the market able to utilize Pull to Pressure and Pull to Stroke installation methods.

- 18,000 lbs. (80 kN) of pulling force
- 15 mm (.591 in) of available stroke
- Upgradeable to process monitoring

LHF 202 HAND TOOL



RNHT TOOL



HEAVY DUTY M4 HAND TOOL



RATCHET STYLE M5 HAND TOOL



Demos can be found at www.sherex.com



FULL HEX PERFORMANCE AND TESTING DATA

FULL HEX SMALL FLANGE (FHK) AND LARGE FLANGE (FHL) SERIES

Thread Size	Proof Load	Pull Out **	Failure Mode	Spin Out**	Failure Mode	Torque Out **	Failure Mode
M6x1.0	17.2 kN	23.9 kN	Retaining Bubble Failure	21 Nm	Rivet Nut Spun	41 Nm	Screw Failed
1/4-20	4,250 lbf	5372 lbf	Retaining Bubble Failure	15.5 ft-lb	Rivet Nut Spun	33 ft-lb	Screw Failed
M8x1.25	31.8 kN	29.6 kN	Retaining Bubble Failure	41 Nm	Rivet Nut Spun	84 Nm	Rivet Nut Threads Stripped
5/16-18	6,950 lbf	6,654 lbf	Retaining Bubble Failure	30.2 ft-lb	Rivet Nut Spun	78 ft-lb	Rivet Nut Threads Stripped
M10x1.5	50.5 kN	36.6 kN	Retaining Bubble Failure	60 Nm	Rivet Nut Spun	100 Nm	Rivet Nut Threads Stripped
3/8-16	10,300 lbf	8,228 lbf	Retaining Bubble Failure	44.3 ft-lb	Rivet Nut Spun	84 ft-lb	Rivet Nut Threads Stripped
M12x1.75	74.2 kN	75.3 kN	Retaining Bubble Failure	120 Nm	No Failure	220 Nm	No Failure
1/2-13	18900 lbf	16,928 lbf	Retaining Bubble Failure	88.5 ft-lb	No Failure	162 ft-lb	No Failure

FHL - FULL HEX, LARGE FLANGE SERIES

Thread Size	Push Out**	Failure Mode
M6x1.0	7.5 kN	Retaining Bubble Failure
1/4-20	1,686 lbf	Retaining Bubble Failure
M8x1.25	10.2 kN	Retaining Bubble Failure
5/16-18	2,293 lbf	Retaining Bubble Failure
M10x1.5	12.6 kN	Retaining Bubble Failure
3/8-16	2,833 lbf	Retaining Bubble Failure
M12x1.75	21.7 kN	Retaining Bubble Failure
1/2-13	4,878 lbf	Retaining Bubble Failure

SPIN OUT

Rivet nuts installed into HRB 50 (MIN) steel test plates, zinc plated; hole size per product specification. Steel, Class 8.8/Grade 5 zinc plated, hex head screws were use for spin out testing. Test plates with installed rivet nuts were clamped to prevent any movement during test.

TORQUE OUT

Rivet nuts installed into HRB 50 (MIN) steel test plates; hole size per product specification. Steel, Class 10.9/Grade 8* flanged hex head, plain and oiled finish screws were use for torque out testing. An HRC 40 (MIN) surface hardness hardened square washer was used between the rivet nut and the screw. Both the test plate and hardened washer were clamped to prevent any movement during test.

The Small Flange (FHK) and Large Flange (FHL) Full Hex Series threads **meet Class 8, Grade 5 Proof Load** using test methods and load equirements specified in ISO 898-2 and SAE J995.



^{*} Class 10.9/Grade 8 bolts were used with the intent of failing the nut thread. In the cases of M6 (1/4-20) and M12 (1/2-13), test results yielded no nut thread failure.

^{**}These results are only averages and variations should be expected in actual use. Variations include finishes on the nut, screw, or mating materials, and operator repeatability.



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