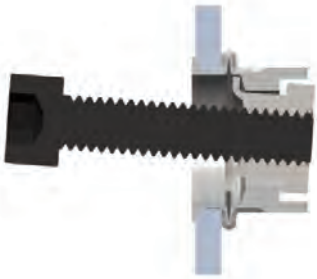
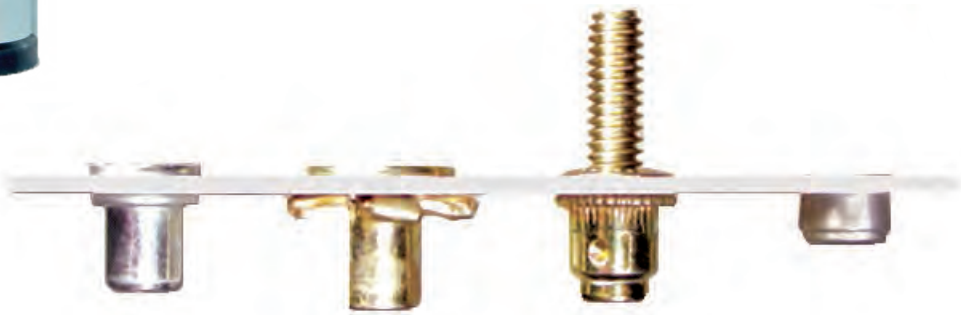
SHEREX FASTENING SOLUTIONS®

RIVET NUT INSERT





SHEREX®

ISO/TS 16949:2009 CERTIFIED

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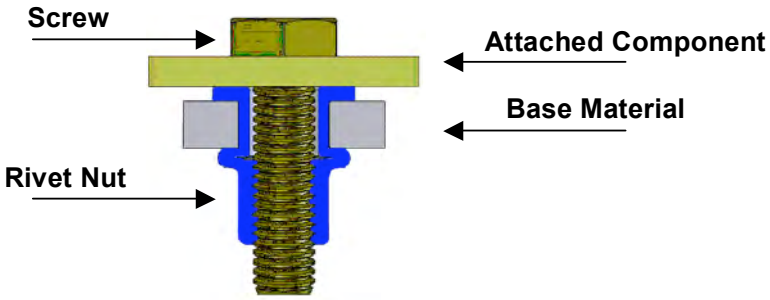
SHEREX FASTENING SOLUTIONS

RIVET NUT INTRODUCTION

RIVET NUT INTRODUCTION

Blind Rivet Nuts provide load-bearing threads in thin sheet materials that are too thin for a tapped thread. Blind Rivet Nuts also are used when an application has little or no access to the backside as they can be installed from the front side of the work piece.



ADVANTAGES OF RIVET NUTS

- Rivet Nuts provide a strong thread in thin materials that cannot be tapped.
- Rivet Nuts can be installed from one side of the work piece, also known as a “Blind Application.”
- Rivet Nuts work great when easy disassembly and reassembly of products is required.
- Rivet nuts can be installed in many different kinds of material including steel, plastic and fiberglass.
- Once Rivet Nuts are installed additional components with threaded fasteners can be attached.
- Rivet Nuts do not need to be welded to the base material.
- Prepainted material will not be damaged during the Rivet Nut installation process.
- Rivet Nuts are available in many different styles & materials for many different kinds of applications.

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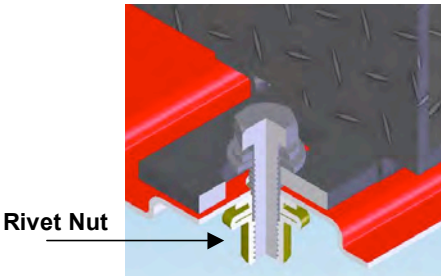
APPLICATIONS: INDUSTRIES

Rivet nuts are used in a variety of industries:

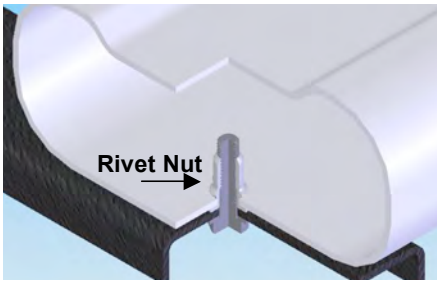
- Automotive
- HVAC
- Aerospace
- Ag/Construction Equipment
- Lighting
- Electronics
- Medical
- Railways
- Any manufacturing that uses thin materials

Examples are shown below.

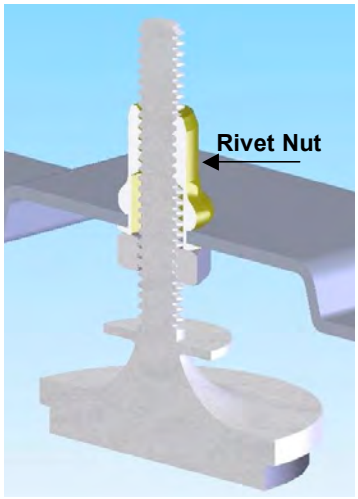
EXAMPLES OF RIVET NUT APPLICATIONS



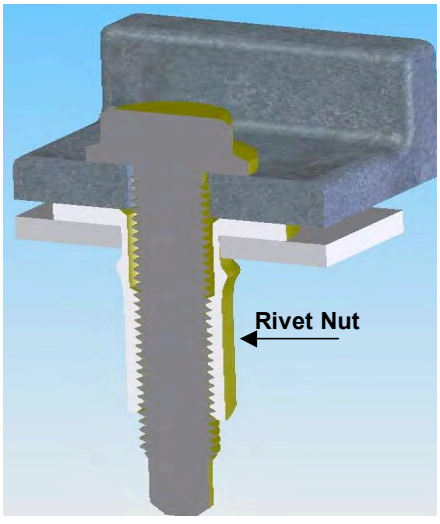
After Market Vehicle Retrofit - Tool Box



Vehicle Accessory - Pickup Side Rail



Appliance - Washer Tub Base



Agricultural – High Strength Rivet Nut

IMPERIAL/INCH BODY STYLE RIVET NUTS

- Imperial/Inch body styles are designed to be placed in fractional or common inch drill/punch hole sizes.
- The most common styles used in the American marketplace.
- Most of the inch/imperial body styles are available with metric threads.
- All parts are manufactured by Sherex Taiwan, our ISO/TS 16949 certified production facility.
- Special designs are available to meet customer specific requirements. Contact Sherex with your application information.

CATALOG ATTRIBUTES - INCH BODY STYLE

Grip Range	Material Thickness	**D(A/F)**	Diameter Across Flats
L	Length	**IL**	Installed Length
HD	Head Diameter	**LB**	Length Closed End
HT	Head Thickness	**ILB**	Installed Length Closed End
D	Diameter	**ITD**	Installed Thread Depth

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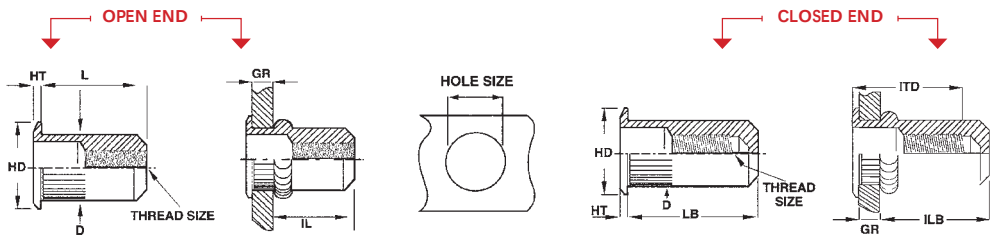
CAL LARGE FLANGE KNURLED BODY THIN WALL SERIES



UNIFIED THREAD (UNIT - INCHES)

Part Number (Steel)	Thread Size	Grip Range		L	HD	HT	D	IL	LB	ILB	ITD	Hole Size
		Min.	Max.	± .015	±.010 ±.025*	± .003	Max.	Max.	± .015	Max.	Ref.	+.006/-.000
CAL2-0632-080	6-32 UNC	.020	.080	.420	.390	.030	.265	.305	.740	.640	.610	.266
CAL2-0632-130	6-32 UNC	.080	.130	.470	.390	.030	.265	.305	.740	.580	.670	.266
CAL2-0832-080	8-32 UNC	.020	.080	.420	.390	.030	.265	.305	.740	.640	.610	.266
CAL2-0832-130	8-32 UNC	.080	.130	.470	.390	.030	.265	.305	.740	.580	.670	.266
CAL2-1024-130	10-24 UNC	.020	.130	.475	.415	.030	.296	.315	.990	.845	.730	.297
CAL2-1024-225	10-24 UNC	.130	.225	.585	.415	.030	.296	.315	.990	.735	.840	.297
CAL2-1032-130	10-32 UNF	.020	.130	.475	.415	.030	.296	.315	.990	.845	.730	.297
CAL2-1032-225	10-32 UNF	.130	.225	.585	.415	.030	.296	.315	.990	.735	.840	.297
CAL2-2520-165	1/4-20 UNC	.027	.165	.580	.500	.030	.390	.380	1.190	1.005	.895	.391
CAL-2-2520-260	1/4-20 UNC	.165	.260	.680	.500	.030	.390	.380	1.190	.905	1.035	.391
CAL2-2528-165	1/4-28 UNF	.027	.165	.580	.500	.030	.390	.380	1.190	1.005	.895	.391
CAL2-2528-260	1/4-28 UNF	.165	.260	.680	.500	.030	.390	.380	1.190	.905	1.035	.391
CAL2-3118-150	5/16-18 UNC	.027	.150	.690	.685*	.035	.530	.470	1.390	1.175	.995	.531
CAL2-3118-312	5/16-18 UNC	.150	.312	.805	.685*	.035	.530	.425	1.390	1.025	1.120	.531
CAL2-3124-150	5/16-24 UNF	.027	.150	.690	.685*	.035	.530	.470	1.390	1.175	.995	.531
CAL2-3124-312	5/16-24 UNF	.150	.312	.805	.685*	.035	.530	.425	1.390	1.025	1.120	.531
CAL2-3716-150	3/8-16 UNC	.027	.150	.690	.685*	.035	.530	.470	1.390	1.175	.995	.531
CAL2-3716-312	3/8-16 UNC	.150	.312	.805	.685*	.035	.530	.425	1.390	1.025	1.120	.531
CAL2-3724-150	3/8-24 UNF	.027	.150	.690	.685*	.035	.530	.470	1.390	1.175	.995	.531
CAL2-3724-312	3/8-24 UNF	.150	.312	.805	.685*	.035	.530	.425	1.390	1.025	1.120	.531
CAL2-5013-200	1/2-13 UNC	.063	.200	1.150	.865*	.047	.685	.850	2.365	2.070	1.505	.688
CAL2-5013-350	1/2-13 UNC	.200	.350	1.300	.865*	.047	.685	.850	2.365	1.920	1.505	.688

METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range		L	HD	HT	D	IL	LB	ILB	ITD	Hole Size
		Min.	Max.	± .38	±.25 ±.64*	± .08	Max.	Max.	± .38	Max.	Ref.	+.15/-.000
CAL2-470-2.0	M4x0.7 ISO	0.50	2.00	10.68	9.91	0.76	6.73	7.75	18.80	16.26	15.49	6.75
CAL2-470-3.3	M4x0.7 ISO	2.00	3.30	11.94	9.91	0.76	6.73	7.75	18.80	14.73	17.02	6.75
CAL2-580-3.3	M5x0.8 ISO	0.50	3.30	12.07	10.54	0.76	7.52	8.00	25.15	21.46	18.54	7.60
CAL2-580-5.7	M5x0.8 ISO	3.30	5.70	14.86	10.54	0.76	7.52	8.00	25.15	18.67	21.34	7.60
CAL2-610-4.2	M6x1.0 ISO	0.70	4.20	14.73	12.70	0.76	9.91	9.65	30.23	25.53	22.73	10.00
CAL2-610-6.6	M6x1.0 ISO	4.20	6.60	17.27	12.70	0.76	9.91	9.65	30.23	22.99	26.29	10.00
CAL2-8125-3.8	M8x1.25 ISO	0.70	3.80	17.53	17.40*	0.89	13.46	11.94	35.31	29.85	25.27	13.50
CAL2-8125-7.9	M8x1.25 ISO	3.80	7.90	20.45	17.40*	0.89	13.46	10.80	35.31	26.04	28.45	13.50
CAL2-1015-3.8	M10x1.5 ISO	0.70	3.80	17.53	17.40*	0.89	13.46	11.94	35.31	29.85	25.27	13.50
CAL2-1015-7.9	M10x1.5 ISO	3.80	7.90	20.45	17.40*	0.89	13.46	10.80	35.31	26.04	28.45	13.50
CAL2-12175-5.1	M12x1.75 ISO	1.60	5.10	29.21	21.97*	1.19	17.40	21.59	60.07	52.58	38.23	17.45
CAL2-12175-8.9	M12x1.75 ISO	5.10	8.90	33.02	21.97*	1.19	17.40	21.59	60.07	48.77	38.23	17.45

PART NUMBERING SYSTEM

CAL Specifications

Material: Steel 1008/1010
Stainless Steel 302*
Aluminum 5056

Finish: Zinc Plated-Yellow Dichromate per ASTM B633 Fe/Zn 8, Type II per Sherex spec SFS-01-003, SC-1

RoHS Compliant: Zinc Plated-Clear Trivalent Chromate per Sherex SFS-01-001

Part Number
Example: CAL2-2520-165

CAL	2	2520	165	(_)
Product Style Large Flange Knurled Body Thin Wall Series	Material 1-Stainless Steel 2-Steel 3-Aluminum	Thread Size	Grip Range	Empty-Open End B-Closed End T-Clear Trivalent W-Wedge Head S-Sealed

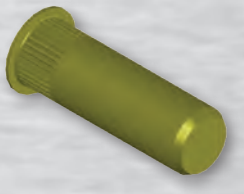
Special finish or material available upon request

*Contact Sherex for exact product dimensions in Stainless Steel.
Grip range can be affected by parent material and hole size. Sherex recommends trial installations to determine the proper grip range for the application. Contact Sherex for details.
CAL style rivet nuts are available in sealed, closed end, and wedge head designs by special order. Other specials available upon request. Contact Sherex for test data.

INSTALLATION TOOLING
CAL Series can be installed with our Hand Tools, Pneumatic Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.
Sherex rivet nuts are compatible with the following hardware:
GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8
Please contact Sherex when using other grade fasteners.

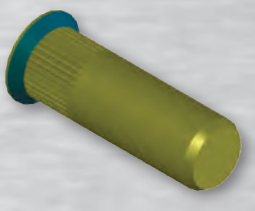
CAL series

- The CAL series has a large flange to provide increased strength in punched and drilled holes.
- Knurled body provides a higher resistance to spin out when installed in soft materials.



CLOSED END

WEDGE HEAD

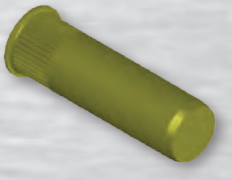


SEALED HEAD

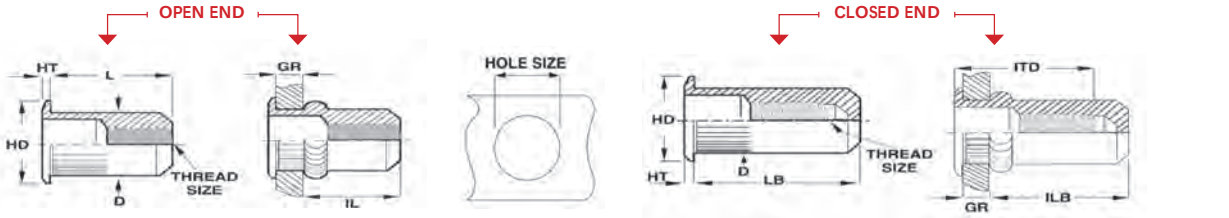
CAK SMALL FLANGE KNURLED BODY THIN WALL SERIES

CAK series

- The CAK series has a small flange for a near flush installation.
- Knurled body provides a higher resistance to spin out when installed in soft materials.



CLOSED END



UNIFIED THREAD (UNIT - INCHES)

Part Number (Steel)	Thread Size	Grip Range		L	HD	HT	D	IL	LB	ILB	ITD	Hole Size
		Min.	Max.	± .015	±.010 ±.015*	± .002	Max.	Max.	± .015	Max.	Ref.	+.006/-.000
CAK2-0632-080	6-32 UNC	.020	.080	.420	.310	.019	.265	.305	.740	.640	.610	.266
CAK2-0632-130	6-32 UNC	.080	.130	.470	.310	.019	.265	.305	.740	.580	.670	.266
CAK2-0832-080	8-32 UNC	.020	.080	.420	.310	.019	.265	.305	.740	.640	.610	.266
CAK2-0832-130	8-32 UNC	.080	.130	.470	.310	.019	.265	.305	.740	.580	.670	.266
CAK2-1024-130	10-24 UNC	.020	.130	.475	.340	.019	.296	.315	.990	.845	.730	.297
CAK2-1024-225	10-24 UNC	.130	.225	.585	.340	.019	.296	.315	.990	.735	.840	.297
CAK2-1032-130	10-32 UNF	.020	.130	.475	.340	.019	.296	.315	.990	.845	.730	.297
CAK2-1032-225	10-32 UNF	.130	.225	.585	.340	.019	.296	.315	.990	.735	.840	.297
CAK2-2520-165	1/4-20 UNC	.027	.165	.580	.455	.022	.390	.380	1.190	1.005	.895	.391
CAK2-2520-260	1/4-20 UNC	.165	.260	.680	.455	.022	.390	.380	1.190	.905	1.035	.391
CAK2-2528-165	1/4-28 UNF	.027	.165	.580	.455	.022	.390	.380	1.190	1.005	.895	.391
CAK2-2528-260	1/4-28 UNF	.165	.260	.680	.455	.022	.390	.380	1.190	.905	1.035	.391
CAK2-3118-150	5/16-18 UNC	.027	.150	.690	.595*	.022	.530	.470	1.390	1.175	.995	.531
CAK2-3118-312	5/16-18 UNC	.150	.312	.805	.595*	.022	.530	.425	1.390	1.025	1.120	.531
CAK2-3124-150	5/16-24 UNF	.027	.150	.690	.595*	.022	.530	.470	1.390	1.175	.995	.531
CAK2-3124-312	5/16-24 UNF	.150	.312	.805	.595*	.022	.530	.425	1.390	1.025	1.120	.531
CAK2-3716-150	3/8-16 UNC	.027	.150	.690	.595*	.022	.530	.470	1.390	1.175	.995	.531
CAK2-3716-312	3/8-16 UNC	.150	.312	.805	.595*	.022	.530	.425	1.390	1.025	1.120	.531
CAK2-3724-150	3/8-24 UNF	.027	.150	.690	.595*	.022	.530	.470	1.390	1.175	.995	.531
CAK2-3724-312	3/8-24 UNF	.150	.312	.805	.595*	.022	.530	.425	1.390	1.025	1.120	.531

METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range		L	HD	HT	D	IL	LB	ILB	ITD	Hole Size
		Min.	Max.	± .38	±.25 ±.38*	± .05	Max.	Max.	± .38	Max.	Ref.	+.15/-.000
CAK2-470-2.0	M4x0.7 ISO	0.50	2.00	10.67	7.87	0.48	6.73	7.75	18.80	16.26	15.49	6.75
CAK2-470-3.3	M4x0.7 ISO	2.00	3.30	11.94	7.87	0.48	6.73	7.75	18.80	14.73	17.02	6.75
CAK2-580-3.3	M5x0.8 ISO	0.50	3.30	12.07	8.64	0.48	7.52	8.00	25.15	21.46	18.54	7.60
CAK2-580-5.7	M5x0.8 ISO	3.30	5.70	14.86	8.64	0.48	7.52	8.00	25.15	18.67	21.34	7.60
CAK2-610-4.2	M6x1.0 ISO	0.70	4.20	14.73	11.56	0.55	9.91	9.65	30.23	25.53	22.73	10.00
CAK2-610-6.6	M6x1.0 ISO	4.20	6.60	17.27	11.56	0.55	9.91	9.65	30.23	22.99	26.29	10.00
CAK2-8125-3.8	M8x1.25 ISO	0.70	3.80	17.53	15.11*	0.55	13.46	11.94	35.31	29.85	25.27	13.50
CAK2-8125-7.9	M8x1.25 ISO	3.80	7.90	20.45	15.11*	0.55	13.46	10.80	35.31	26.04	28.45	13.50
CAK2-1015-3.8	M10x1.5 ISO	0.70	3.80	17.53	15.11*	0.55	13.46	11.94	35.31	29.85	25.27	13.50
CAK2-1015-7.9	M10x1.5 ISO	3.80	7.90	20.45	15.11*	0.55	13.46	10.80	35.31	26.04	28.45	13.50

PART NUMBERING SYSTEM

CAK Specifications

Material: Steel 1008/1010
Stainless Steel 302*
Aluminum 5056

Finish: Zinc Plated-Yellow Dichromate per ASTM B633 Fe/Zn 8, Type II per Sherex spec SFS-01-003, SC-1

RoHS Compliant: Zinc Plated-Clear Trivalent Chromate per Sherex SFS-01-001

Part Number
Example: CAK2-2520-165

CAK	2	2520	165	(_)
Product Style Small Flange Knurled Body Thin Wall Series	Material 1-Stainless Steel 2-Steel 3-Aluminum	Thread Size	Grip Range	Empty-Open End B-Closed End T-Clear Trivalent

Special finish or material available upon request

*Contact Sherex for exact product dimensions in Stainless Steel.
Grip range can be affected by parent material and hole size. Sherex recommends trial installations to determine the proper grip range for the application. Contact Sherex for details.
CAK style rivet nuts are available in closed end designs. Other specials available upon request. Contact Sherex for test data.

INSTALLATION TOOLING
CAK Series can be installed with our Hand Tools, Pneumatic Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

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

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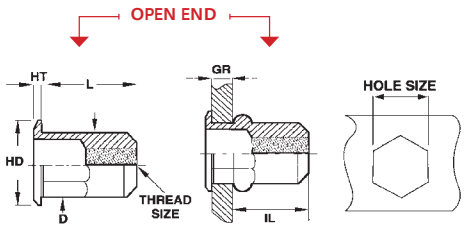
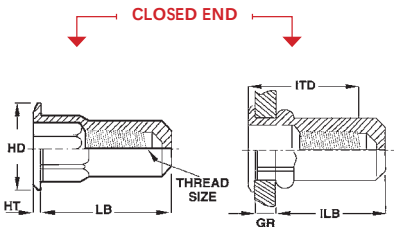
CAH HALF HEX BODY LARGE FLANGE THIN WALL SERIES





UNIFIED THREAD (UNIT - INCHES)

Part Number (Steel)	Thread Size	Grip Range		L	HD	HT	D (A/F)	IL	LB	ILB	ITD	Hole Size (A/F)
		Min.	Max.	± .015	±.010 ±.025*	± .003	Max.	Max.	± .015	Max.	Ref.	+.004/-.000
CAH2-0632-080	6-32 UNC	.020	.080	.385	.375	.027	.249	.295	.740	.640	.575	.250
CAH2-0632-130	6-32 UNC	.080	.130	.435	.375	.027	.249	.295	.740	.580	.640	.250
CAH2-0832-080	8-32 UNC	.020	.080	.385	.375	.027	.249	.295	.740	.640	.575	.250
CAH2-0832-130	8-32 UNC	.080	.130	.435	.375	.027	.249	.295	.740	.580	.640	.250
CAH2-1024-130	10-24 UNC	.020	.130	.435	.390	.027	.280	.275	1.030	.845	.695	.281
CAH2-1024-225	10-24 UNC	.130	.225	.535	.390	.027	.280	.275	1.030	.735	.805	.281
CAH2-1032-130	10-32 UNF	.020	.130	.435	.390	.027	.280	.275	1.030	.845	.695	.281
CAH2-1032-225	10-32 UNF	.130	.225	.535	.390	.027	.280	.275	1.030	.735	.805	.281
CAH2-2520-165	1/4-20 UNC	.027	.165	.585	.510	.030	.374	.400	1.190	1.015	.945	.375
CAH2-2520-260	1/4-20 UNC	.165	.260	.685	.510	.030	.374	.400	1.190	.915	1.085	.375
CAH2-2528-165	1/4-28 UNF	.027	.165	.585	.510	.030	.374	.400	1.190	1.015	.945	.375
CAH2-2528-260	1/4-28 UNF	.165	.260	.685	.510	.030	.374	.400	1.190	.915	1.085	.375
CAH2-3118-150	5/16-18 UNC	.027	.150	.685	.655*	.035	.499	.530	1.445	1.235	1.045	.500
CAH2-3118-312	5/16-18 UNC	.150	.312	.845	.655*	.035	.499	.515	1.445	1.220	1.170	.500
CAH2-3124-150	5/16-24 UNF	.027	.150	.685	.655*	.035	.499	.530	1.445	1.235	1.045	.500
CAH2-3124-312	5/16-24 UNF	.150	.312	.845	.655*	.035	.499	.515	1.445	1.220	1.170	.500
CAH2-3716-150	3/8-16 UNC	.027	.150	.685	.655*	.035	.499	.530	1.445	1.235	1.045	.500
CAH2-3716-312	3/8-16 UNC	.150	.312	.845	.655*	.035	.499	.515	1.445	1.220	1.170	.500
CAH2-3724-150	3/8-24 UNF	027	.150	.685	.655*	.035	.499	.530	1.445	1.235	1.045	.500
CAH2-3724-312	3/8-24 UNF	.150	.312	.845	.655*	.035	.499	.515	1.445	1.220	1.170	.500

METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range		L	HD	HT	D (A/F)	IL	LB	ILB	ITD	Hole Size (A/F)
		Min.	Max.	± .38	±.25 ±.64*	± .08	Max.	Max.	± .38	Max.	Ref.	+.10/-.000
CAH2-470-2.0	M4x0.7 ISO	0.50	2.00	9.78	9.53	0.68	6.35	7.49	18.80	16.26	14.61	6.35
CAH2-470-3.3	M4x0.7 ISO	2.00	3.30	11.05	9.53	0.68	6.35	7.49	18.80	14.73	16.26	6.35
CAH2-580-3.3	M5x0.8 ISO	0.50	3.30	11.05	9.91	0.68	7.10	6.99	26.16	21.46	17.65	7.14
CAH2-580-5.7	M5x0.8 ISO	3.30	5.70	13.59	9.91	0.68	7.10	6.99	26.16	18.67	20.45	7.14
CAH2-610-4.2	M6x1.0 ISO	0.70	4.20	14.86	12.96	0.76	9.50	10.16	30.23	25.78	24.00	9.53
CAH2-610-6.6	M6x1.0 ISO	4.20	6.60	17.40	12.96	0.76	9.50	10.16	30.23	23.24	27.56	9.53
CAH2-8125-3.8	M8x1.25 ISO	0.70	3.80	17.40	16.64*	0.89	12.70	13.46	36.70	31.37	26.54	12.70
CAH2-8125-7.9	M8x1.25 ISO	3.80	7.90	21.46	16.64*	0.89	12.70	13.08	36.70	30.99	29.72	12.70
CAH2-1015-3.8	M10x1.5 ISO	0.70	3.80	17.40	16.64*	0.89	12.70	13.46	36.70	31.37	26.54	12.70
CAH2-1015-7.9	M10x1.5 ISO	3.80	7.90	21.46	16.64*	0.89	12.70	13.08	36.70	30.99	29.72	12.70

PART NUMBERING SYSTEM

CAH Specifications

Material: Steel 1008/1010
Stainless Steel 302*
Aluminum 5056

Finish: Zinc Plated-Yellow Dichromate per ASTM B633 Fe/Zn 8, Type II per Sherex spec SFS-01-003, SC-1

RoHS Compliant: Zinc Plated-Clear Trivalent Chromate per Sherex SFS-01-001

Part Number
Example: CAH2-2520-165

CAH	2	2520	165	(_)
Product Style Semi Hex Thin Wall Series	Material 1-Stainless Steel 2-Steel 3-Aluminum	Thread Size	Grip Range	Empty-Open End Clear B-Closed End T-Clear Trivalent

Special finish or material available upon request

*Contact Sherex for exact product dimensions in Stainless Steel.
Grip range can be affected by parent material and hole size. Sherex recommends trial installations to determine the proper grip range for the application. Contact Sherex for details.
CAH style rivet nuts are available in sealed head and closed end designs. Other specials available upon request. Contact Sherex for test data.

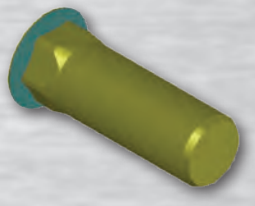
INSTALLATION TOOLING
CAH Series can be installed with our Hand Tools, Pneumatic Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

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

CAH series

- The CAH series offers a semi hex body for excellent resistance to spin out in the hole.

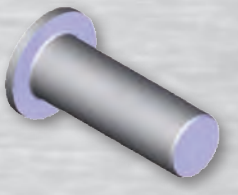
CLOSED END



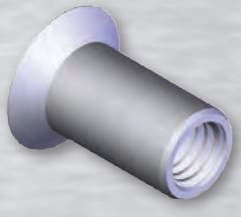
SEALED HEAD

CA series

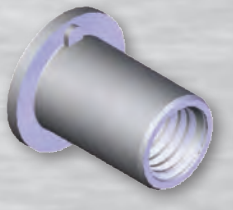
- The CA series offers a thick head and thick collapse chamber wall thickness for heavy duty applications.
- Available with a countersunk head style for a flush installation.
- Available in a keyed head style for reduced spin out



CLOSED END



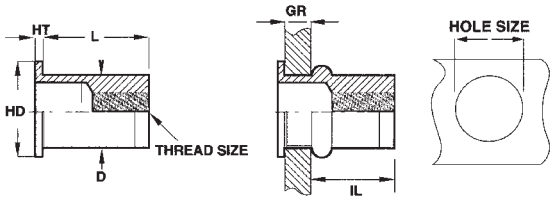
COUNTERSUNK HEAD



KEYED HEAD

MS/NAS available. Contact Sherex for more information.

CA HEAVY DUTY RIVET NUT FLAT HEAD SERIES



UNIFIED THREAD (UNIT - INCHES)

Part Number (Steel)	Thread Size	Grip Range Min.	Grip Range Max.	L ± .015	HD ± .015	HT Nom.	D +.000/-.004	IL Ref.	Hole Size +.003/-.000
CA-0440S-060	4-40 UNC	.010	.060	.345	.270	.025	.155	.230	.155
CA-0440S-085	4-40 UNC	.060	.085	.370	.270	.025	.155	.230	.155
CA-0440S-110	4-40 UNC	.085	.100	.400	.270	.025	.155	.230	.155
CA-0632S-075	6-32 UNC	.010	.075	.438	.325	.032	.189	.300	.189
CA-0632S-120	6-32 UNC	.075	.120	.500	.325	.032	.189	.315	.189
CA-0632S-160	6-32 UNC	.120	.160	.500	.325	.032	.189	.270	.189
CA-0832S-075	8-32 UNC	.010	.075	.438	.357	.032	.221	.300	.221
CA-0832S-120	8-32 UNC	.075	.120	.500	.357	.032	.221	.315	.221
CA-0832S-160	8-32 UNC	.120	.160	.500	.357	.032	.221	.270	.221
CA-1024S-080	10-24 UNC	.010	.080	.531	.406	.038	.250	.380	.250
CA-1024S-130	10-24 UNC	.080	.130	.594	.406	.038	.250	.390	.250
CA-1024S-180	10-24 UNC	.130	.180	.641	.406	.038	.250	.390	.250
CA-1032S-080	10-32 UNF	.010	.080	.531	.406	.038	.250	.380	.250
CA-1032S-130	10-32 UNF	.080	.130	.594	.406	.038	.250	.390	.250
CA-1032S-180	10-32 UNF	.130	.180	.641	.406	.038	.250	.390	.250
CA-2520S-080	1/4-20 UNC	.020	.080	.625	.475	.058	.332	.450	.332
CA-2520S-140	1/4-20 UNC	.080	.140	.687	.475	.058	.332	.450	.332
CA-2520S-200	1/4-20 UNC	.140	.200	.750	.475	.058	.332	.450	.332
CA-3118S-125	5/16-18 UNC	.030	.125	.750	.665	.062	.413	.505	.413
CA-3118S-200	5/16-18 UNC	.125	.200	.875	.665	.062	.413	.555	.413
CA-3118S-275	5/16-18 UNC	.200	.275	.937	.655	.062	.413	.540	.413
CA-3716S-115	3/8-16 UNC	.030	.115	.844	.781	.088	.490	.585	.490
CA-3716S-200	3/8-16 UNC	.115	.200	.938	.781	.088	.490	.595	.490
CA-3716S-285	3/8-16 UNC	.200	.285	1.031	.781	.088	.490	.605	.490
CA-5013S-150	1/2-13 UNC	.050	.150	.906	.906	.085	.625	.605	.625
CA-5013S-250	1/2-13 UNC	.150	.250	1.031	.906	.085	.625	.630	.625
CA-5013S-350	1/2-13 UNC	.250	.350	1.141	.906	.085	.625	.640	.625

PART NUMBERING SYSTEM

CA Specifications

Material: Steel 1008/1010/1110
Non-Magnetic Stainless Steel 302
Stainless Steel 430
Aluminum 5056/6053

Finish: Zinc Plated-Clear Dichromate per ASTM B633 Fe/Zn 8, Type II per Sherex spec SFS-01-003, SC-1

RoHS Compliant: Zinc Plated-Clear Trivalent Chromate per Sherex SFS-01-001

Part Number
Example: CA-2520S-080

CA	2520	Material	(_)	080
Product Style	Thread Size	S-Steel	Empty-Open End	Grip Range
Heavy Duty		A-Aluminum	B-Closed End	
Large Flange		SS-Stainless Steel 430	T-Clear Trivalent	
Smooth Shank		NM-Stainless Steel 302		

Special finish or material available upon request

Grip range can be affected by parent material and hole size. Sherex recommends trial installations to determine the proper grip range for the application. Contact Sherex for details.
CA style rivet nuts are available in closed end, keyed, and countersunk head designs. Other specials available upon request. Contact Sherex for test data.

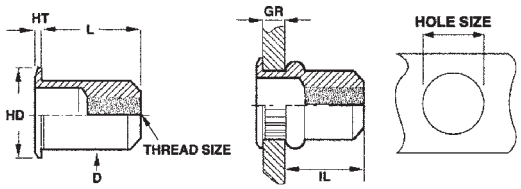
INSTALLATION TOOLING
CA Series can be installed with our Hand Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

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

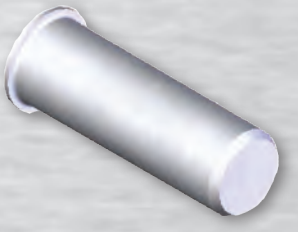
Sherex Fastening Solutions, LLC | Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

CAO SMALL FLANGE SMOOTH BODY THIN WALL SERIES

CAO series



- The CAO series offers a line of body diameters that will fit in common hole sizes.
- The small flange head also allows for near flush installations.



CLOSED END

UNIFIED THREAD (UNIT - INCHES)

Part Number (Steel)	Thread Size	Grip Range		L	HD	HT	D	IL	Hole Size
		Min.	Max.	± .015	± .010 ±.015*	± .003	Max.	Max.	+.006/-.000
CAO2-0632-080	6-32 UNC	.020	.080	.385	.295	.018	.249	.315	.250
CAO2-0832-080	8-32 UNC	.020	.080	.385	.295	.018	.249	.315	.250
CAO2-1024-130	10-24 UNC	.020	.130	.440	.320	.020	.280	.330	.281
CAO2-1032-130	10-32 UNF	.020	.130	.440	.320	.020	.280	.330	.281
CAO2-2520-165	1/4-20 UNC	.030	.165	.580	.425	.022	.374	.440	.375
CAO2-2528-165	1/4-28 UNF	.030	.165	.580	.425	.022	.374	.440	.375
CAO2-3118-200	5/16-18 UNC	.040	.200	.690	.560*	.022	.499	.540	.500
CAO2-3124-200	5/16-24 UNF	.040	.200	.690	.560*	.022	.499	.540	.500
CAO2-3716-200	3/8-16 UNC	.040	.200	.690	.560*	.022	.499	.540	.500
CAO2-3724-200	3/8-24 UNF	.040	.200	.690	.560*	.022	.499	.540	.500

METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range		L	HD	HT	D	IL	Hole Size
		Min.	Max.	± .38	± .25 ± .38*	± .08	Max.	Max.	+.15/-.000
CAO2-470-2.0	M4x0.7 ISO	0.50	2.00	9.78	7.49	0.46	6.32	8.00	6.40
CAO2-580-3.3	M5x0.8 ISO	0.50	3.30	11.18	8.13	0.51	7.11	8.38	7.20
CAO2-610-4.2	M6x1.0 ISO	0.76	4.20	14.73	10.80	0.56	9.50	11.18	9.60
CAO2-8125-5.1	M8x1.25 ISO	1.02	5.10	17.53	14.22*	0.56	12.67	13.72	12.70
CAO2-1015-5.1	M10x1.5 ISO	1.02	5.10	17.53	14.22*	0.56	12.67	13.72	12.70

PART NUMBERING SYSTEM

CAO Specifications
Material: Steel 1008/1010
Aluminum 5056

Finish: Inch: Zinc Plated per ASTM B633 Fe/Zn 8, Type III

Metric: Plated Yellow Dichromate per ASTM B633 Fe/Zn 8, Type II per Sherex spec SFS-01-003, SC-1

RoHS Compliant: Zinc Plated-Clear Trivalent Chromate per Sherex SFS-01-001

Part Number
Example: CAO2-2520-165

CAO	2	2520	165	(_)
Product Style Low Profile Smooth Shank Thin Wall Series	Material 2-Steel 3-Aluminum	Thread Size	Grip Range	Empty-Open End B-Closed End T-Clear Trivalent

Special finish or material available upon request

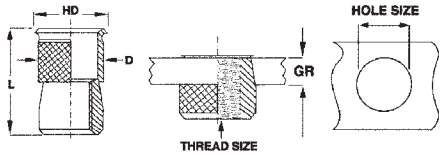
Grip range can be affected by parent material and hole size. Sherex recommends trial installations to determine the proper grip range for the application.
Contact Sherex for details.
Contact Sherex for test data.

INSTALLATION TOOLING
CAO Series can be installed with our Hand Tools, Pneumatic Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

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

CFW/CAW DIAMOND KNURLED 360° SWAGING SERIES

CFW/ CAW series



Material thickness .062"/1.57 min

- The CFW/CAW series offers a knurled body for increased spin out resistance in soft materials such as fiberglass and plywood.
- Increased wall thickness gives increased shear strength.
- Cadmium Free finish allows the CFW Series to be used in any industry, including automotive.

UNIFIED THREAD (UNIT - INCHES)

Part Number (Steel)	Thread Size	Cadmium Free & RoHS Compliant	HD ± .005	L ± .015	D Max.	Hole Size +.005/-.00
CAW2-0632	6-32 UNC	N	.255	.370	.233	.234
CAW2-0832	8-32 UNC	N	.285	.370	.264	.266
CAW2-1024	10-24 UNC	N	.320	.370	.295	.297
CAW2-1032	10-32 UNF	N	.320	.370	.295	.297
CAW2-2520	1/4-20 UNC	N	.415	.515	.389	.391
CAW2-3118	5/16-18 UNC	N	.550	.615	.528	.531
CAW2-3716	3/8-16 UNC	N	.615	.740	.590	.594
CFW2-0632	6-32 UNC	Y	.255	.370	.233	.234
CFW2-0832	8-32 UNC	Y	.285	.370	.264	.266
CFW2-1024	10-24 UNC	Y	.320	.370	.295	.297
CFW2-1032	10-32 UNF	Y	.320	.370	.295	.297
CFW2-2520	1/4-20 UNC	Y	.415	.515	.389	.391
CFW2-3118	5/16-18 UNC	Y	.550	.615	.528	.531
CFW2-3716	3/8-16 UNC	Y	.615	.740	.590	.594

METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Cadmium Free & RoHS Compliant	HD ± .13	L ± .38	D Max.	Hole Size +.13/-.00
CAW2-470	M4X0.7 ISO	N	7.24	9.40	6.71	6.75
CAW2-580	M5X0.8 ISO	N	8.13	9.40	7.50	7.54
CAW2-610	M6X1.0 ISO	N	10.54	13.08	9.88	9.92
CAW2-8125	M8X1.25 ISO	N	13.97	15.62	13.41	13.49
CAW2-1015	M10X1.5 ISO	N	15.62	18.80	14.99	15.00
CFW2-470	M4X0.7 ISO	Y	7.24	9.40	6.71	6.75
CFW2-580	M5X0.8 ISO	Y	8.13	9.40	7.50	7.54
CFW2-610	M6X1.0 ISO	Y	10.54	13.08	9.88	9.92
CFW2-8125	M8X1.25 ISO	Y	13.97	15.62	13.41	13.49
CFW2-1015	M10X1.5 ISO	Y	15.62	18.80	14.99	15.00

PART NUMBERING SYSTEM

CFW/CAW Specifications

Material: Stainless Steel, 304 L
Steel, 12L14
Steel, 1215

Finish: CAW is Cadmium Plated per QQP-416 Type 1, Class 3 with clear protective coating

CFW is Proprietary Tin Plated

Part Number
Example: CAW2-2520

CAW Cadmium W series Featuring 360° Swaging	2 Material 1-Stainless Steel 2-Steel 3-Aluminum	2520 Thread Size

Special finish or material available upon request

***CFW and CAW rivet nut styles are dimensionally the same. CFW is Cadmium Free and RoHS Compliant.**

Actual hole size can be affected by parent material and material thickness. Contact Sherex for details.
CFW/CAW series available in different finishes. Other specials available upon request.
Contact Sherex for test data.

INSTALLATION TOOLING
CFW/CAW Series can be installed with our Hand Tools, Pneumatic Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

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

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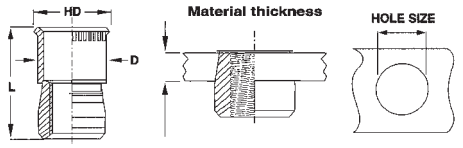
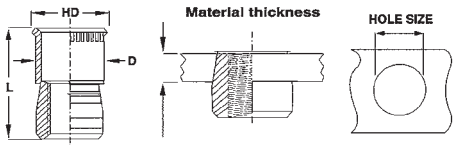
CFT/CAT KNURLED 360° SWAGING SERIES





UNIFIED THREAD (UNIT - INCHES)

						Recommended Hole Size +.005/-.00			
Part Number (Steel)	**Thread Size**	**Cadmium Free & RoHS Compliant**	**HD** ± .005	**L** ± .015	**D** Max.	**MAT. THICK** .030-.090	**MAT. THICK** .091-.124	**MAT. THICK** .125-.186	**MAT. THICK** .187-Over
CAT2-0440	4-40 UNC	N	.211	.370	.1875	.1875	.1935	.1935	.1960
CAT2-0632	6-32 UNC	N	.240	.370	.2185	.2188	.2210	.2280	.2280
CAT2-0832	8-32 UNC	N	.269	.370	.2495	.2500	.2570	.2656	.2656
CAT2-1024	10-24 UNC	N	.306	.370	.2805	.2812	.2900	.2900	.2969
CAT2-1032	10-32 UNF	N	.306	.370	.2805	.2812	.2900	.2900	.2969
CAT2-2520	1/4-20 UNC	N	.400	.515	.3745	.3750	.3750	.3860	.3906
CAT2-3118	5/16-18 UNC	N	.528	.615	.4995	.5000	.5000	.5156	.5156
CAT2-3716	3/8-16 UNC	N	.588	.745	.5615	.5625	.5625	.5781	.5781
CAT2-5013	1/2-13 UNC	N	.800	.935	.7485	.7500	.7656	.7810	.7970
CFT2-0440	4-40 UNC	Y	.211	.370	.1875	.1875	.1935	.1935	.1960
CFT2-0632	6-32 UNC	Y	.240	.370	.2185	.2188	.2210	.2280	.2280
CFT2-0832	8-32 UNC	Y	.269	.370	.2495	.2500	.2570	.2656	.2656
CFT2-1024	10-24 UNC	Y	.306	.370	.2805	.2812	.2900	.2900	.2969
CFT2-1032	10-32 UNF	Y	.306	.370	.2805	.2812	.2900	.2900	.2969
CFT2-2520	1/4-20 UNC	Y	.400	.515	.3745	.3750	.3750	.3860	.3906
CFT2-3118	5/16-18 UNC	Y	.528	.615	.4995	.5000	.5000	.5156	.5156
CFT2-3716	3/8-16 UNC	Y	.588	.745	.5615	.5625	.5625	.5781	.5781
CFT2-5013	1/2-13 UNC	Y	.800	.935	.7485	.7500	.7656	.7810	.7970

METRIC THREAD (UNIT - MILLIMETERS)

						Recommended Hole Size +.13/-.00			
Part Number (Steel)	**Thread Size**	**Cadmium Free & RoHS Compliant**	**HD** ± .13	**L** ± .38	**D** Max.	**MAT. THICK** 0.76-2.29	**MAT. THICK** 2.31-3.15	**MAT. THICK** 3.17-4.72	**MAT. THICK** 4.72-Over
CAT2-350	M3X0.5 ISO	N	5.36	9.40	4.76	4.75	4.90	4.90	4.97
CAT2-470	M4X0.7 ISO	N	6.83	9.40	6.34	6.35	6.52	6.74	6.74
CAT2-580	M5X0.8 ISO	N	7.77	9.40	7.12	7.14	7.36	7.36	7.54
CAT2-610	M6X1.0 ISO	N	10.16	13.08	9.51	9.52	9.52	9.80	9.92
CAT2-8125	M8X1.25 ISO	N	13.41	15.62	12.69	12.70	12.70	13.09	13.09
CAT2-1015	M10X1.5 ISO	N	14.94	18.92	14.26	14.28	14.28	14.68	14.68
CAT2-12175	M12X1.75 ISO	N	20.32	23.75	19.01	19.05	19.44	19.83	20.24
CFT2-350	M3X0.5 ISO	Y	5.36	9.40	4.76	4.75	4.90	4.90	4.97
CFT2-470	M4X0.7 ISO	Y	6.83	9.40	6.34	6.35	6.52	6.74	6.74
CFT2-580	M5X0.8 ISO	Y	7.77	9.40	7.12	7.14	7.36	7.36	7.54
CFT2-610	M6X1.0 ISO	Y	10.16	13.08	9.51	9.52	9.52	9.80	9.92
CFT2-8125	M8X1.25 ISO	Y	13.41	15.62	12.69	12.70	12.70	13.09	13.09
CFT2-1015	M10X1.5 ISO	Y	14.94	18.92	14.26	14.28	14.28	14.68	14.68
CFT2-12175	M12X1.75 ISO	Y	20.32	23.75	19.01	19.05	19.44	19.83	20.24

PART NUMBERING SYSTEM

CFT/CAT Specifications

Material: Stainless Steel, 304 L
Steel, 12L14
Steel, 1215

Finish: CAT is Cadmium Plated per QQP-416 Type 1, Class 3 with clear protective coating

CFT is Proprietary Tin Plated

Part Number
Example: CAT2-2520

CAT Cadmium T series Featuring 360° Swaging	2 Material 1-Stainless Steel 2-Steel 3-Aluminum	2520 Thread Size

Special finish or material available upon request

***CFT and CAT rivet nut styles are dimensionally the same. CFT is Cadmium Free and RoHS Compliant.**

Actual hole size can be affected by parent material and material thickness. Contact Sherex for details.
CFT/CAT series available in different finishes. Other specials available upon request.
Contact Sherex for test data.

INSTALLATION TOOLING
CFT/CAT Series can be installed with our Hand Tools, Pneumatic Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

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

- The CFT/CAT series offers one rivet nut for materials of any thickness greater than .030 inches.
- Cadmium Free finish allows the CFT Series to be used in any industry, including automotive.
- CFT series should be used in metal applications.

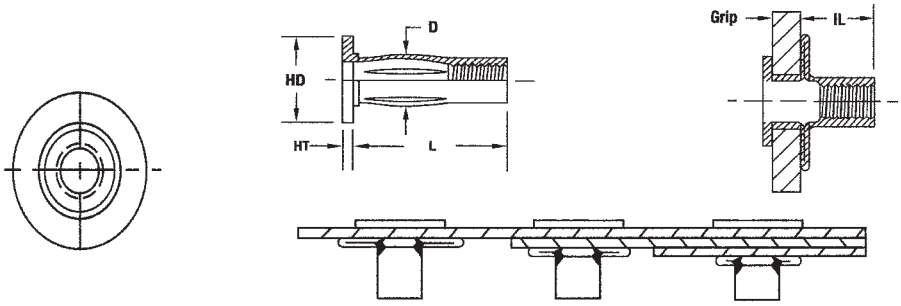
CPB PREBULBED SLOTTED BODY SERIES

CPB series

- The CPB series offers a large grip range for installation into single, variable or multiple thickness materials.
- Large backside footprint provides increased pull out resistance.
- The CPB Series can be installed into thin plastics and will not distort the base material.

WEDGE HEAD

TRIM HEAD



Installs into single, variable, or multiple thickness materials.

UNIFIED THREAD (UNIT - INCHES)

Part Number (Steel)	Thread Size	Grip Range		HD		L	HT	D	IL	Hole Size
		Min.	Max.	Min.	Max.	±.015	±.005	Max.	Ref.	+.006/-.000
CPB2-1024-175	10-24 UNC	.020	.175	.490	.510	.828	.038	.329	.410	.336
CPB2-1024-320	10-24 UNC	.175	.320	.490	.510	.921	.038	.329	.410	.336
CPB2-1032-175	10-32 UNF	.020	.175	.490	.510	.828	.038	.329	.410	.336
CPB2-1032-320	10-32 UNF	.175	.320	.490	.510	.921	.038	.329	.410	.336
CPB2-2520-280	1/4-20 UNC	.020	.280	.610	.645	1.000	.059	.382	.505	.390
CPB2-2520-500	1/4-20 UNC	.280	.500	.610	.645	1.234	.059	.382	.505	.390
CPB2-3118-280	5/16-18 UNC	.020	.280	.740	.770	1.141	.062	.495	.570	.500
CPB2-3118-500	5/16-18 UNC	.280	.500	.740	.770	1.375	.062	.495	.570	.500

METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range		HD		L	HT	D	IL	Hole Size
		Min.	Max.	Min.	Max.	±.0.38	±.0.13	Max.	Ref.	+.15/-.000
CPB2-580-4.45	M5x0.8 ISO	0.50	4.45	12.45	12.95	21.03	0.96	8.35	10.00	8.55
CPB2-580-8.1	M5x0.8 ISO	4.45	8.10	12.45	12.95	23.80	0.96	8.35	10.00	8.55
CPB2-610-7.1	M6x1.0 ISO	0.50	7.10	15.50	16.38	25.40	1.50	9.70	12.80	10.00
CPB2-610-12.7	M6x1.0 ISO	7.10	12.70	15.50	16.38	31.32	1.50	9.70	12.80	10.00
CPB2-8125-7.1	M8x1.25 ISO	0.50	7.10	18.80	19.65	28.95	1.57	12.57	14.48	12.70
CPB2-8125-12.7	M8x1.25 ISO	7.10	12.70	18.80	19.65	34.90	1.57	12.57	14.48	12.70

PART NUMBERING SYSTEM

CPB Specifications
Material: Steel 1008/1010
Aluminum 5056

Finish: Zinc Plated-Yellow Dichromate per ASTM B633 Fe/Zn 8, Type II per Sherex spec SFS-01-003, SC-1

RoHS Compliant: Zinc Plated-Clear Trivalent Chromate per Sherex SFS-01-001

Part Number
Example: CPB2-2520-280

CPB	2	2520	280	(_)
Product Style Slotted Body Pre-bulbed	2-Steel 3-Aluminum	Thread Size	Grip Range	Empty-Open End B-Closed End T-Clear Trivalent W-Wedge Head TR-Trim Head

Special finish or material available upon request

Grip range can be affected by parent material and hole size.
Sherex recommends trials installations to determine the proper grip range for the application.
Contact Sherex for details.
Contact Sherex for test data.

INSTALLATION TOOLING
CPB Series can be installed with our Hand Tools, Pneumatic Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

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

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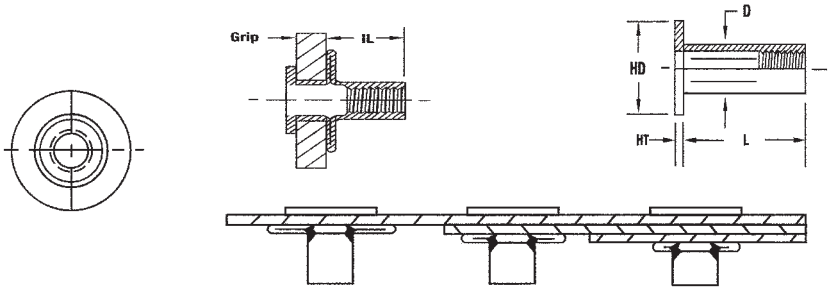
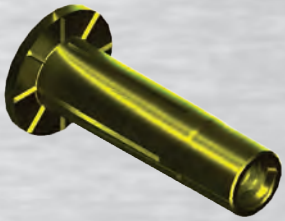
CPN STRAIGHT SHANK SLOTTED BODY SERIES

CPN series



Installs into single, variable, or multiple thickness materials.

- The CPN series offers a large grip range for installation into single, variable or multiple thickness materials.
- Large backside footprint provides increased pull out resistance.
- The CPN series can be installed into thin plastics and will not distort the base material.
- CPN must be installed with spin-pull installation tooling.



WEDGE HEAD

UNIFIED THREAD (UNIT - INCHES)

Part Number (Steel)	Thread Size	Grip Range		HD		L	HT	D	IL	Hole Size
		Min.	Max.	Min.	Max	± .015	± .005	Max.	Ref.	+.006/-.000
CPN2-1024-175	10-24 UNC	.020	.175	.490	.510	.781	.038	.272	.425	.273
CPN2-1024-320	10-24 UNC	.175	.320	.490	.510	.921	.038	.272	.425	.273
CPN2-1032-175	10-32 UNF	.020	.175	.490	.510	.781	.038	.272	.425	.273
CPN2-1032-320	10-32 UNF	.175	.320	.490	.510	.921	.038	.272	.425	.273
CPN2-2520-280	1/4-20 UNC	.020	.280	.610	.645	1.000	.059	.346	.505	.347
CPN2-2520-500	1/4-20 UNC	.280	.500	.610	.645	1.234	.059	.346	.505	.347
CPN2-3118-280	5/16-18 UNC	.020	.280	.740	.770	1.141	.062	.437	.570	.438
CPN2-3118-500	5/16-18 UNC	.280	.500	.740	.770	1.375	.062	.437	.570	.438

METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range		HD		L	HT	D	IL	Hole Size
		Min.	Max.	Min.	Max	± 0.38	± .13	Max.	Ref.	+.15/-0.00
CPN2-580-4.45	M5x0.8 ISO	0.50	4.45	12.45	12.95	21.03	0.96	7.47	9.90	7.48
CPN2-580-8.1	M5x0.8 ISO	4.45	8.10	12.45	12.95	23.80	0.96	7.47	9.90	7.48
CPN2-610-7.1	M6x1.0 ISO	0.50	7.10	15.50	16.38	25.40	1.50	8.79	12.80	8.80
CPN2-610-12.7	M6x1.0 ISO	7.10	12.70	15.50	16.38	31.32	1.50	8.79	12.80	8.80
CPN2-8125-7.1	M8x1.25 ISO	0.50	7.10	18.80	19.65	28.95	1.57	11.10	14.48	11.11
CPN2-8125-12.7	M8x1.25 ISO	7.10	12.70	18.80	19.65	34.90	1.57	11.10	14.48	11.11

PART NUMBERING SYSTEM

CPN Specifications

Material: Steel 1008/1010
Aluminum 5056

Finish: Zinc Plated-Yellow Dichromate per ASTM B633 Fe/Zn 8, Type II per Sherex spec SFS-01-003, SC-1

RoHS Compliant: Zinc Plated-Clear Trivalent Chromate per Sherex SFS-01-001

Part Number
Example: CPN2-2520-280

CPN	2	2520	280	(_)
Product Style	2-Steel	Thread Size	Grip Range	Empty-Open End
Slotted Body	3-Aluminum			B-Closed End
Straight Shank				T-Clear Trivalent
				W-Wedge Head

Special finish or material available upon request

Grip range can be affected by parent material and hole size.
Sherex recommends trials installations to determine the proper grip range for the application.
Contact Sherex for details.
Contact Sherex for test data.

INSTALLATION TOOLING
CPN Series must be installed with spin pull tooling.
For more information see pages 33-38.

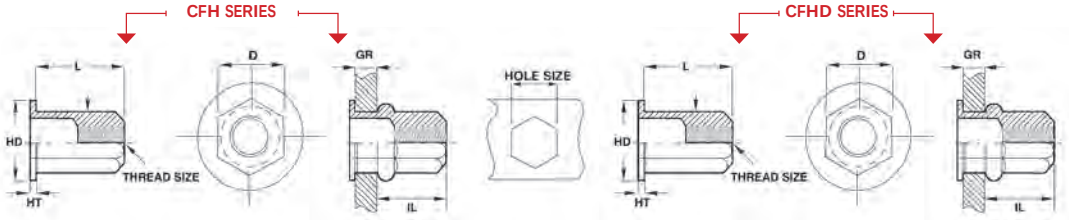
Sherex rivet nuts are compatible with the following hardware:
GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8
Please contact Sherex when using other grade fasteners.

CFH & CFHD FULL HEX BODY SERIES

CFH/ CFHD series

- The CFH series offers a full hexagonal body for exceptional spin out resistance

- The CFHD series offers the same benefits as the CFH series but with higher strength.



CFH UNIFIED THREAD (UNIT - INCHES)

SHEREX Part Number	Thread Size	Grip Range Min.	Grip Range Max.	HD Min.	HD Max.	L ± .015	HT Nom.	D (A/F) Max.	IL Ref.	Hole Size (A/F) +.005/-.000
CFH2-1024-085	10-24 UNC	.010	.085	.329	.359	.344	.043	.223	.200	.224
CFH2-1024-135	10-24 UNC	.085	.135	.329	.359	.406	.043	.223	.210	.224
CFH2-1024-185	10-24 UNC	.135	.185	.329	.359	.453	.043	.223	.210	.224
CFH2-1032-085	10-32 UNF	.010	.085	.329	.359	.344	.043	.223	.200	.224
CFH2-1032-135	10-32 UNF	.085	.135	.329	.359	.406	.043	.223	.210	.224
CFH2-1032-185	10-32 UNF	.135	.185	.329	.359	.453	.043	.223	.210	.224
CFH2-2520-085	1/4-20 UNC	.020	.085	.422	.452	.406	.043	.296	.250	.297
CFH2-2520-145	1/4-20 UNC	.085	.145	.422	.452	.469	.043	.296	.250	.297
CFH2-2520-205	1/4-20 UNC	.145	.205	.422	.452	.531	.043	.296	.250	.297
CFH2-3118-105	5/16-18 UNC	.030	.105	.547	.577	.562	.048	.368	.375	.369
CFH2-3118-175	5/16-18 UNC	.105	.175	.547	.577	.640	.048	.368	.380	.369
CFH2-3118-245	5/16-18 UNC	.175	.245	.547	.577	.703	.048	.368	.375	.369
CFH2-3716-115	3/8-16 UNC	.030	.115	.641	.671	.625	.058	.437	.400	.438
CFH2-3716-205	3/8-16 UNC	.115	.205	.641	.671	.718	.058	.437	.405	.438
CFH2-3716-295	3/8-16 UNC	.205	.295	.641	.671	.812	.058	.437	.410	.438

CFH METRIC THREAD (UNIT - MILLIMETERS)

SHEREX Part Number	Thread Size	Grip Range Min.	Grip Range Max.	HD Min.	HD Max.	L ± .38	HT Nom.	D (A/F) Max.	IL Ref.	Hole Size (A/F) +.13/-.000
CFH2-580-2.1	M5x0.8 ISO	0.50	2.15	9.14	9.90	10.30	1.09	6.35	6.72	6.35
CFH2-580-3.5	M5x0.8 ISO	2.15	3.55	9.14	9.90	11.90	1.09	6.35	6.72	6.35
CFH2-580-5.0	M5x0.8 ISO	3.55	5.05	9.14	9.90	13.48	1.09	6.35	6.72	6.35
CFH2-610-2.1	M6x1.0 ISO	0.50	2.15	10.71	11.47	10.30	1.09	7.51	6.22	7.51
CFH2-610-3.6	M6x1.0 ISO	2.15	3.65	10.71	11.47	11.90	1.09	7.51	6.22	7.51
CFH2-610-5.2	M6x1.0 ISO	3.65	5.20	10.71	11.47	13.48	1.09	7.51	6.22	7.51
CFH2-8125-2.5	M8x1.25 ISO	0.50	2.55	14.69	15.45	15.86	1.57	10.08	10.35	10.08
CFH2-8125-4.5	M8x1.25 ISO	2.50	4.55	14.69	15.45	17.84	1.57	10.08	10.35	10.08
CFH2-8125-6.6	M8x1.25 ISO	4.55	6.60	14.69	15.45	19.82	1.57	10.08	10.35	10.08
CFH2-1015-2.9	M10x1.50 ISO	0.75	2.95	17.10	17.86	15.88	1.57	11.89	13.08	11.89
CFH2-1015-5.2	M10x1.50 ISO	2.95	5.20	17.10	17.86	18.24	1.57	11.89	13.08	11.89
CFH2-1015-7.5	M10x1.50 ISO	5.20	7.50	17.10	17.86	20.62	1.57	11.89	13.08	11.89

CFHD UNIFIED THREAD (UNIT - INCHES)

SHEREX Part Number	Thread Size	Grip Range Min.	Grip Range Max.	HD Min.	HD Max.	L ± .015	HT Nom.	D (A/F) Max.	IL Ref.	Hole Size (A/F) +.010/-.000
CFHD2-2520-080	1/4-20 UNC	.020	.080	.454	.484	.500	.058	.312	.340	.312
CFHD2-2520-150	1/4-20 UNC	.080	.150	.454	.484	.578	.058	.312	.345	.312
CFHD2-3118-100	5/16-18 UNC	.020	.100	.579	.609	.625	.062	.397	.405	.397
CFHD2-3118-180	5/16-18 UNC	.100	.180	.579	.609	.703	.062	.397	.405	.397
CFHD2-3716-125	3/8-16 UNC	.020	.125	.673	.703	.703	.088	.468	.450	.468
CFHD2-3716-230	3/8-16 UNC	.125	.230	.673	.703	.812	.088	.468	.450	.468

PART NUMBERING SYSTEM

CFH/CFHD Specifications

Material: Steel 1008/1010
Stainless Steel 302
Aluminum 5056

Finish: Zinc Plated - Yellow Dichromate per ASTM B633 Fe/Zn 8, Type II

RoHS Compliant: Zinc Plated-Clear Trivalent Chromate per Sherex SFS-01-001

Part Number
Example: CFH2-2520-085

CFH Full Hex Heavy Duty Large Flange CFHD - High Strength	2520 Thread Size	2 Material 1-Stainless Steel 2-Steel 3-Aluminum	(_) Empty-Open End B-Closed End

Special finish or material available upon request

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

Sherex Fastening Solutions, LLC | Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

NOTES

SHEREX FASTENING SOLUTIONS

METRIC BODY STYLE RIVET NUTS

- Metric body styles are designed to be placed into metric drill/punched holes.
- Many of the metric body styles are available with inch/imperial thread.
- Manufactured in our ISO/TS 16949 certified production facility or by our Belgium partner Dejond.
- Special designs are available to meet customer specific requirements. Contact Sherex with your application information.

CATALOG ATTRIBUTES - METRIC BODY STYLE

Grip Range(E)	Material Thickness	**d**	Diameter
L	Length	**d(A/F)**	Diameter Across Flats
D	Head Diameter	**b**	Hole Size
K	Head Thickness		

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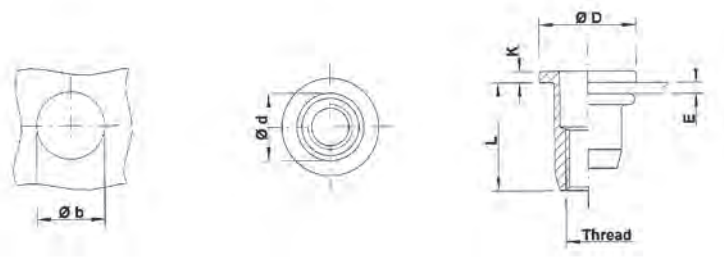
UPO LARGE FLANGE METRIC SERIES

UPO series



- The UPO series offers a large flange for increased strength and better containment of round or oversized holes.
- The metric body dimensions allow for use in metric holes.

METRIC THREAD (UNIT - MILLIMETERS)

Part Number Steel	Thread Size	Grip Range (E)		L ± 0.35	D ± 0.35	K ± 0.15	d -0.02/-0.15	Hole Size ($b^{+0.1}$)
		Min.	Max.					
TU-SM3UPO20	M3X0.5 ISO	0.5	2.0	9.8	8.0	0.8	5.0	5.1
TU-SM3UPO30	M3X0.5 ISO	2.0	3.0	10.8				
TU-SM4UPO30	M4X0.7 ISO	0.5	3.0	10.8	10.0	0.8	6.0	6.0
TU-SM4UPO45	M4X0.7 ISO	3.0	4.5	12.3				
TU-SM5UPO30	M5X0.8 ISO	0.5	3.0	12.0	11.0	1.0	7.0	7.0
TU-SM5UPO55	M5X0.8 ISO	3.0	5.5	15.0				
TU-SM6UPO30	M6X1.0 ISO	0.5	3.0	14.5	13.0	1.5	9.0	9.0
TU-SM6UPO55	M6X1.0 ISO	3.0	5.5	16.5				
TU-SM6UPO80	M6X1.0 ISO	5.5	8.0	19.0				
TU-SM8UPO30	M8X1.25 ISO	0.5	3.0	16.0	16.0	1.5	11.0	11.0
TU-SM8UPO55	M8X1.25 ISO	3.0	5.5	18.5				
TU-SM8UPO80	M8X1.25 ISO	5.5	8.0	21.5				
TU-SM10UPO35	M10X1.5 ISO	0.8	3.5	19.8	18.5	2.3	12.4	12.5
TU-SM10UPO60	M10X1.5 ISO	3.5	6.0	22.8				
TU-SM10SPO35	M10X1.5 ISO	0.8	3.5	21.0	19.0	2.0	13.0	13.0
TU-SM10SPO60	M10X1.5 ISO	3.5	6.0	24.0				
TU-SM12UPO40	M12X1.75 ISO	1.0	4.0	25.0	23.0	2.0	16.0	16.0
TU-SM12UPO70	M12X1.75 ISO	4.0	7.0	28.0				

PART NUMBERING SYSTEM

UPO Specifications
Material
Steel QST 34-3
Stainless Steel 304 Cu
Stainless Steel 316 Cu
Aluminum ALMG 2.5

Finish:
Zinc Plated - Yellow Dichromate
RoHs Compliant: Zinktop (Clear)
96 w / 480 r

Part Number
Example: TU-SM5UPO30

TU	S	M5	UP	O	30
Product Style	Material	Thread Size	Product Type	O-Open End	Grip Range
Metric	S-Steel		Large Flange, Flat Head	X-Closed End	
	A-Aluminum		Metric Body		
	SS-304 Stainless Steel				
	***316-316 Stainless Steel**				

Special finish or material available upon request

***316 Stainless Steel has extra corrosion resistance and can be used in the medical, chemical and food industries.**

Grip Range can be affected by parent material and hole size.
Sherex recommends trial installations to determine the proper grip range for the application.
Closed End sizes available: M4, M5, M6, and M8.
Also available with imperial threads - minimum order quantity is 25,000 pieces if not in stock.
Contact Sherex for test data.

INSTALLATION TOOLING
UPO Series can be installed with our Hand Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

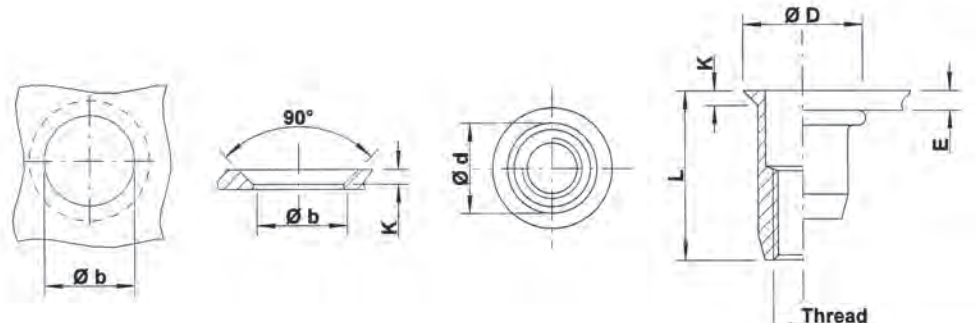
All Parts have been manufactured by: DEJOND

TUBTARA®- A DEJOND PRODUCT
Sherex rivet nuts are compatible with the following hardware:
GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8
Please contact Sherex when using other grade fasteners.

UFO COUNTERSUNK HEAD METRIC SERIES

UFO series

- The UFO series offers a contersunk head for flush installation into the parent materials.
- The metric body dimensions allow for use in metric holes.



METRIC THREAD (UNIT - MILLIMETERS)

Part Number Steel	Thread Size	Grip Range (E)		L	D	K	d	Hole Size
		Min.	Max.	± 0.35	+0.00/-0.5	+0.3/-0.05	-0.02/-0.15	($b^{+0.1}$)
TU-SM3UFO35	M3X0.5 ISO	1.7	3.5	11.25	8.0	1.5	5.0	5.1
TU-SM4UFO35	M4X0.7 ISO	1.7	3.5	11.5	9.0	1.5	6.0	6.0
TU-SM4UFO50	M4X0.7 ISO	3.5	5.0	13.0				
TU-SM5UFO40	M5X0.8 ISO	1.7	4.0	13.0	10.0	1.5	7.0	7.0
TU-SM5UFO65	M5X0.8 ISO	4.0	6.5	16.0				
TU-SM6UFO45	M6X1.0 ISO	1.7	4.5	17.0	12.0	1.5	9.0	9.0
TU-SM6UFO65	M6X1.0 ISO	4.5	6.5	19.0				
TU-SM8UFO45	M8X1.25 ISO	1.7	4.5	19.0	14.0	1.5	11.0	11.0
TU-SM8UFO65	M8X1.25 ISO	4.5	6.5	21.0				
TU-SM10UFO45	M10X1.5 ISO	1.7	4.5	21.0	15.4	1.5	12.4	12.5
TU-SM10UFO65	M10X1.5 ISO	4.5	6.5	23.0				
TU-SM12UFO45	M12X1.75 ISO	2.0	4.5	26.0	19.0	1.8	16.0	16.0
TU-SM12UFO75	M12X1.75 ISO	4.5	7.5	29.0				

PART NUMBERING SYSTEM

UFO Specifications
Material:
Steel QST 34-3
Stainless Steel 304 Cu
Aluminum ALMG 2.5

Finish:
Zinc Plated - Yellow Dichromate
RoHs Compliant: Zinktop (Clear)
96 w / 480 r

Part Number
Example: TU-SM5UFO35

TU	S	M5	UF	O	35
Product Style: Metric	Material S-Steel A-Aluminum SS-304 Stainless Steel	Thread Size	Product Type Smooth Shank Countersunk Head Metric Body	O-Open End X-Closed End	Grip range

Special finish or material available upon request

Grip Range can be affected by parent material and hole size.
Sherex recommends trial installations to determine the proper grip range for the application.
Closed end sizes available: M4, M5, M6, and M8.
Also available with imperial threads - minimum order quantity is 25,000 pieces if not in stock.
Contact Sherex for test data.

INSTALLATION TOOLING
UFO Series can be installed with our Hand Tools and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

All Parts have been manufactured by: DEJOND

TUBTARA®- A DEJOND PRODUCT
Sherex rivet nuts are compatible with the following hardware:
GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8
Please contact Sherex when using other grade fasteners.

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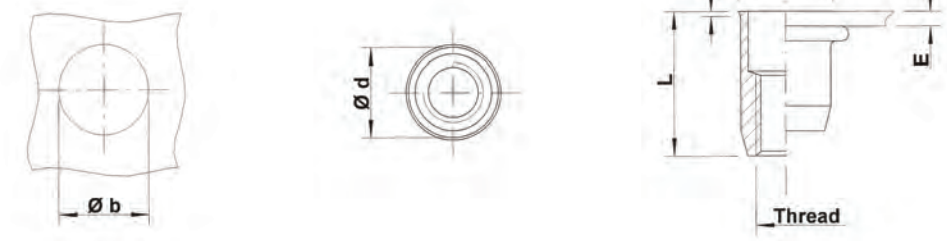
UKO SMALL FLANGE METRIC SERIES

UKO series

- The UKO series offers a small flange head for near flush installation.
- The metric body dimensions allow for use in metric size holes.



METRIC THREAD (UNIT - MILLIMETERS)

Part Number Steel	Thread Size	Grip Range (E)		L	D	K	d	Hole Size
		Min.	Max.	± 0.35	+0.3/- 0.15	+0.3/-0.05	-0.02/-0.15	($b^{+0.1}$)
TU-SM4UKO30	M4X0.7 ISO	0.5	3.0	10.75	6.5	0.5	6.0	6.0
TU-SM5UKO30	M5X0.8 ISO	0.5	3.0	12.0	7.5	0.5	7.0	7.0
TU-SM5UKO55	M5X0.8 ISO	3.0	5.5	15.0				
TU-SM6UKO30	M6X1.0 ISO	0.5	3.0	14.5	9.5	0.5	9.0	9.0
TU-SM6UKO55	M6X1.0 ISO	3.0	5.5	16.5				
TU-SM8UKO30	M8X1.25 ISO	0.5	3.0	16.0	11.5	0.5	11.0	11.0
TU-SM8UKO55	M8X1.25 ISO	3.0	5.5	18.5				
TU-SM10UKO35	M10X1.5 ISO	0.8	3.5	19.5	12.9	0.5	12.4	12.5

PART NUMBERING SYSTEM

UKO Specifications
Material:
Steel QST 34-3
Stainless Steel 304 Cu
Stainless Steel 316 Cu
Aluminum ALMG 2.5

Finish:
Zinc Plated - Yellow Dichromate
RoHs Compliant: Zinktop (Clear)
96 w / 480 r

Part Number
Example: TU-SM5UKO30

TU	S	M5	UK	O	30
Product Style: Metric	Material S-Steel A-Aluminum SS-304 Stainless Steel ***316-316 Stainless Steel**	Thread Size	Product Type Smooth Shank Small Flange, Round Body Metric Body	O-Open End X-Closed End	Grip range

Special finish or material available upon request

***316 Stainless Steel has extra corrosion resistance and can be used in the medical, chemical and food industries.**

Grip Range can be affected by parent material and hole size.
Sherex recommends trial installations to determine the proper grip range for the application.
Closed End sizes available: M4, M5, M6, and M8.
Also available with imperial threads - minimum order quantity is 25,000 pieces if not in stock.
Contact Sherex for test data.

INSTALLATION TOOLING
UKO Series can be installed with our Hand Tools and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

All Parts have been manufactured by: DEJOND

TUBTARA®- A DEJOND PRODUCT
Sherex rivet nuts are compatible with the following hardware:
GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8
Please contact Sherex when using other grade fasteners.

HUPO & HUKO LARGE AND SMALL FLANGE HEXAGONAL METRIC SERIES

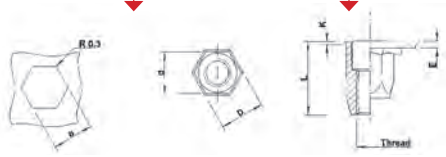
HUPO/ HUKO series

- The HUPO series has a large flange that provides increased strength.
- Hexagonal shank body for improved spin out.
- The metric body dimensions allow for use in metric holes.

- The HUKO series has a smaller flange head that gives a near flush installation into the parent material.
- Hexagonal shank body for improved spin out.
- The metric body dimensions allow for use in metric holes.

HUPO SERIES

HUKO SERIES



HUPO METRIC THREAD (UNIT - MILLIMETERS)

Part Number Steel	Thread Size	Grip Range (E) Min.	Grip Range (E) Max.	L ± 0.35	D ± 0.35	K ± 0.15	d (A/F) -0.02/-0.15	Hole Size ($b^{+0.1}$) (A/F)
TU-SM4HUPO20	M4X0.7 ISO	0.5	2.0	10.0	9.0	1.0	6.0	6.0
TU-SM5HUPO30	M5X0.8 ISO	0.5	3.0	13.0	10.0	1.0	7.0	7.0
TU-SM6HUPO30	M6X1.0 ISO	0.5	3.0	14.5	13.0	1.5	9.0	9.0
TU-SM6HUPO55	M6X1.0 ISO	3.0	5.5	16.5				
TU-SM8HUPO30	M8X1.25 ISO	0.5	3.0	16.5	16.0	1.5	11.0	11.0
TU-SM8HUPO55	M8X1.25 ISO	3.0	5.5	19.0				
TU-SM8HUPO80	M8X1.25 ISO	5.5	8.0	22.0				
TU-SM10HSPO35	M10X1.5 ISO	0.8	3.5	21.0	19.0	2.0	13.0	13.0
TU-SM10HSPO60	M10X1.5 ISO	3.5	6.0	23.5				
*TU-SM12HUPO40	M12X1.75 ISO	1.0	4.0	25.0	23.0	2.0	16.0	16.0

HUKO METRIC THREAD (UNIT - MILLIMETERS)

Part Number Steel	Thread Size	Grip Range (E) Min.	Grip Range (E) Max.	L ± 0.35	D +0.3/-0.15	K +0.3/-0.05	d (A/F) -0.02/-0.15	Hole Size ($b^{+0.1}$) (A/F)
TU-SM4HUKO20	M4X0.7 ISO	0.5	2.0	11.0	6.6	0.6	6.0	6.0
TU-SM5HUKO30	M5X0.8 ISO	0.5	3.0	14.0	7.7	0.6	7.0	7.0
TU-SM5HUKO55	M5X0.8 ISO	3.0	5.5	16.5				
TU-SM6HUKO30	M6X1.0 ISO	0.5	3.0	16.0	9.8	0.7	9.0	9.0
TU-SM6HUKO55	M6X1.0 ISO	3.0	5.5	18.5				
TU-SM8HUKO30	M8X1.25 ISO	0.5	3.0	18.0	11.8	0.7	11.0	11.0
TU-SM8HUKO55	M8X1.25 ISO	3.0	5.5	20.5				
TU-SM10HUKO35	M10X1.5 ISO	0.8	3.5	23.0	13.8	0.7	13.0	13.0

PART NUMBERING SYSTEM

HUPO/HUKO Specifications

Material:
Steel QST 34-3
Stainless Steel 304 Cu
Stainless Steel 316 Cu

Finish:
Zinc Plated - Yellow Dichromate
RoHs Compliant: Zinktop (Clear)
96 w / 480 r

Part Number
Example: TU-SM5HUPO30

TU Product Style Metric	S Material S-Steel SS-304 Stainless Steel ***316-316 Stainless Steel**	M5 Thread Size	HUP Product Type Large Flange Flat Head Hexagonal Shank Metic Body *Semi-Hexagonal Shank	O O-Open End X-Closed End	30 Grip Range

Part Number
Example: TU-SM5HUKO30

TU Product Style Metric	S Material S-Steel SS-304 Stainless Steel ***316-316 Stainless Steel**	M5 Thread Size	HUK Product Type Small Flange Round Body Hexagonal Shank Metric Body	O O-Open End X-Closed End	30 Grip Range

Special finish or material available upon request
All Stainless Steel parts are semi-hexagonal shank.

***316 Stainless Steel has extra corrosion resistance and can be used in the medical, chemical and food industries**

Grip Range can be affected by parent material and hole size.
Sherex recommends trial installations to determine the proper grip range for the application.
RoHS Compliant Trivalent Plating available upon request.
Closed End sizes available: M4, M5, M6, M8. Also available with imperial threads - minimum order quantity is 25,000 pieces if not in stock.
Contact Sherex for test data.

INSTALLATION TOOLING
HUPO/HUKO Series can be installed with our Hand Tools and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

All Parts have been manufactured by: DEJOND

TUBTARA®- A DEJOND PRODUCT
Sherex rivet nuts are compatible with the following hardware:
GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8
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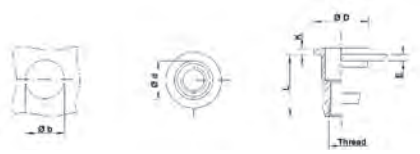
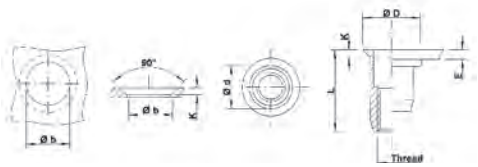
UPO RS & UFO RS LARGE AND COUNTERSUNK KNURLED METRIC SERIES

UPO RS/ UFO RS series

UPO RS SERIES



UFO RS SERIES



UPO RS METRIC THREAD (UNIT - MILLIMETERS)

Part Number Steel	Thread Size	Grip Range (E)		L	D	K	d	Hole Size
		Min.	Max.	± 0.35	± 0.35	± 0.15	-0.02/-0.15	(b$^{+0.1}$)
TU-SM4UPO30R	M4X0.7 ISO	0.5	3.0	10.75	10.0	0.75	6.3	6.4
TU-SM4UPO45R	M4X0.7 ISO	3.0	4.5	12.25				
TU-SM5UPO30R	M5X0.8 ISO	0.5	3.0	12.0	11.0	1.0	7.3	7.4
TU-SM5UPO55R	M5X0.8 ISO	3.0	5.5	15.0				
TU-SM6UPO30R	M6X1.0 ISO	0.5	3.0	14.5	13.0	1.5	9.3	9.4
TU-SM6UPO55R	M6X1.0 ISO	3.0	5.5	16.5				
TU-SM8UPO30R	M8X1.25 ISO	0.5	3.0	16.0	16.0	1.5	11.4	11.5
TU-SM8UPO55R	M8X1.25 ISO	3.0	5.5	18.5				
TU-SM10UPO35R	M10X1.5 ISO	0.8	3.5	19.75	18.5	2.25	12.9	13.0
TU-SM10UPO60R	M10X1.5 ISO	3.5	6.0	22.75				

UFO RS METRIC THREAD (UNIT - MILLIMETERS)

Part Number Steel	Thread Size	Grip Range (E)		L	D	K	d	Hole Size
		Min.	Max.	± 0.35	+0.00/-0.5	+0.3/-0.05	-0.02/-0.15	(b$^{+0.1}$)
TU-SM4UFO35R	M4X0.7 ISO	1.7	3.5	11.5	9.0	1.5	6.3	6.4
TU-SM4UFO50R	M4X0.7 ISO	3.5	5.0	13.0				
TU-SM5UFO40R	M5X0.8 ISO	1.7	4.0	13.0	10.0	1.5	7.3	7.4
TU-SM5UFO65R	M5X0.8 ISO	4.0	6.5	16.0				
TU-SM6UFO45R	M6X1.0 ISO	1.7	4.5	17.0	12.0	1.5	9.3	9.4
TU-SM6UFO65R	M6X1.0 ISO	4.5	6.5	19.0				
TU-SM8UFO45R	M8X1.25 ISO	1.7	4.5	19.0	14.0	1.5	11.4	11.5
TU-SM8UFO65R	M8X1.25 ISO	4.5	6.5	21.0				
TU-SM10UFO45R	M10X1.5 ISO	1.7	4.5	21.0	15.4	1.5	12.9	13.0
TU-SM10UFO65R	M10X1.5 ISO	4.5	6.5	23.0				

PART NUMBERING SYSTEM

UPO RS/UFO RS Specifications

Material:
Steel QST 34-3

Finish:
Zinc Plated - Yellow Dichromate
RoHs Compliant: Zinktop (Clear)
96 w / 480 r

Part Number
Example: TU-SM5UPO30R

TU	S	M5	UP	O	30	R
Product Style: Metric	Material S-Steel	Thread Size	Product Type Large Flange, Flat Head Metic Body	O-Open End	Grip	Ribbed

Part Number
Example: SM5UFO40R

TU	S	M5	UF	O	30	R
Product Style: Metric	Material S-Steel	Thread Size	Product Type Smooth Shank Countersunk Head Metric Body	O-Open End	Grip	Ribbed

Special finish or material available upon request

Grip Range can be affected by parent material and hole size.
Sherex recommends trial installations to determine the proper grip range for the application.
RoHS Compliant Trivalent Plating available upon request.
Also available with imperial threads - minimum order quantity is 25,000 pieces if not in stock.
Contact Sherex for test data.

INSTALLATION TOOLING
UPO RS/ UFO RS Series can be installed with our Hand Tools and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

All Parts have been manufactured by: DEJOND

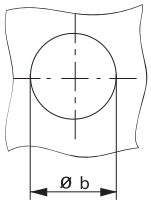
TUBTARA®- A DEJOND PRODUCT
Sherex rivet nuts are compatible with the following hardware:
GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8
Please contact Sherex when using other grade fasteners.

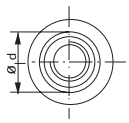
- The UPO RS series has a large flange that provides increased strength and better containment of round or oversized holes.
- Unique knurling increases spin out resistance in soft materials.

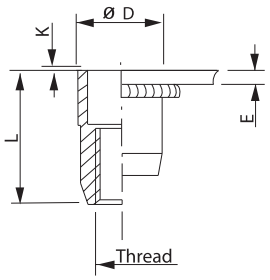
- The UFO RS has a countersunk head style for flush installations.
- Unique knurling increases spin out resistance.

UKO/ HUKO INCH series

UKO AND HUKO IMPERIAL THREAD SERIES - STAINLESS STEEL



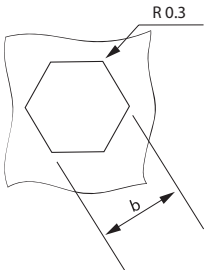


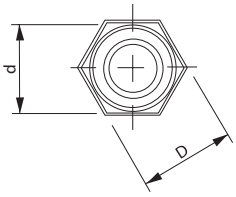


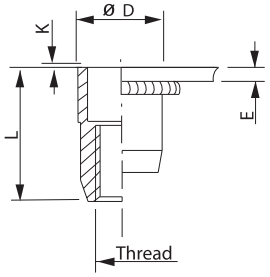
- UKO inch series has a smaller flange head that gives a near flush installation.
- Round shank body.
- Dimensions in inches.

UKO UNIFIED THREAD (UNIT - INCHES)

Part Number (304 Stainless Steel)	Thread Size	Grip Range (E)		L	D	K	Diameter-Inch (d)	Diameter-Metric (d)	Hole Size - Inch ($b^{+.004}$)	Hole Size - Metric ($b^{+0.1}$)
		Min.	Max.							
TU-SS1032UKO30	10-32 UNF	.020	.118	.472	.295	.020	.276	7.0	.276	7.0
TU-SS2520UKO30	1/4-20 UNC	.020	.118	.571	.374	.020	.354	9.0	.354	9.0
TU-SS3118UKO30	5/16-18 UNC	.020	.118	.630	.453	.020	.433	11.0	.433	11.0







- HUKO inch series has a smaller flange head that gives a near flush installation.
- Hexagonal shank body.
- Dimensions in inches.

HUKO UNIFIED THREAD (UNIT - INCHES)

Part Number (304 Stainless Steel)	Thread Size	Grip Range (E)		L	D	K	Diameter-Inch (d) (A/F)	Diameter-Metric (d) (A/F)	Hole Size - Inch ($b^{+.004}$) (A/F)	Hole Size - Metric ($b^{+0.1}$)(A/F)
		Min.	Max.							
TU-SS1032HUKO30	10-32 UNF	.020	.118	.472	.295	.020	.276	7.0	.276	7.0
TU-SS2520HUKO30	1/4-20 UNC	.020	.118	.571	.374	.020	.354	9.0	.354	9.0
TU-SS3118HUKO30	5/16-18 UNC	.020	.118	.630	.453	.020	.433	11.0	.433	11.0

PART NUMBERING SYSTEM

UKO/HUKO Specifications
Material:
Stainless Steel 304 Cu
Stainless Steel 316 Cu

Part Number
Example: SS1032HUKO30

TU	SS	1032	HUK	O	30
Product Style	Material	Thread Size	Product Type	O-Open End	Grip Range
Metric	SS-304 Stainless Steel		Small Flange	X-Closed End	
	***316-316 Stainless Steel**		Hexagonal Shank		
			Inch Body		

Special finish or material available upon request

***316 Stainless Steel has extra corrosion resistance and can be used in the medical, chemical and food industries**

Grip Range can be affected by parent material and hole size.
Sherex recommends trial installations to determine the proper grip range for the application.
RoHS Compliant Trivalent Plating available upon request.
Also available with imperial threads - minimum order quantity is 25,000 pieces if not in stock.
Contact Sherex for test data.

INSTALLATION TOOLING

UKO/HUKO Inch Series can be installed with our Hand Tools and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

All Parts have been manufactured by: DEJOND

TUBTARA®- A DEJOND PRODUCT
Sherex rivet nuts are compatible with the following hardware:
GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8
Please contact Sherex when using other grade fasteners.

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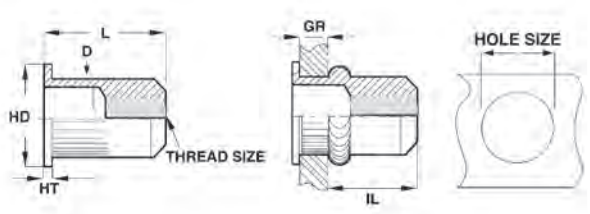
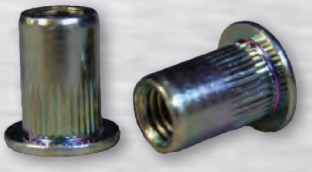
CLM & CKM LARGE & SMALL FLANGE KNURLED METRIC BODY SERIES

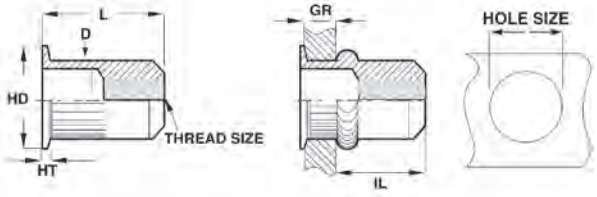


CLM METRIC THREAD (UNIT - MILLIMETERS)

Sherex Part Number Metric - Steel	Thread Size	Grip Range (GR)		L	HD		HT	D	IL	Hole Size
		Min.	Max.	Nom.	Min.	Max.	±.013	Max.	Ref.	+0.10/-.000
CLM2-470-3.0	M4X0.7 ISO	0.25	3.00	11.5	8.62	9.38	0.75	5.95	7.10	6.00
CLM2-580-3.0	M5X0.8 ISO	0.25	3.00	13.0	9.62	10.38	1.00	6.95	7.90	7.00
CLM2-610-3.0	M6X1.0 ISO	0.50	3.00	16.0	12.62	13.38	1.50	8.95	9.40	9.00
CLM2-8125-3.0	M8X1.25 ISO	0.50	3.00	17.5	15.62	16.38	1.50	10.95	11.00	11.00
CLM2-1015-3.5	M10X1.5 ISO	0.50	3.50	22.0	18.12	18.88	2.25	12.95	14.50	13.00



- The CLM series is the true metric version of the CAL series.



CKM METRIC THREAD (UNIT - MILLIMETERS)

Sherex Part Number Metric - Steel	Thread Size	Grip Range (GR)		L	HD		HT	D	IL	Hole Size
		Min.	Max.	Nom.	Min.	Max.	±.013	Max.	Ref.	+0.10/ - .000
CKM2 -470-3.0	M4X0.7 ISO	0.25	3.00	11.3	6.70	7.20	0.46	5.95	7.10	6.00
CKM2 -580-3.0	M5X0.8 ISO	0.25	3.00	12.7	7.70	8.20	0.46	6.95	7.90	7.00
CKM2 -610-3.0	M6X1.0 ISO	0.50	3.00	15.3	9.70	10.20	0.50	8.95	9.40	9.00
CKM2 -8125-3.0	M8X1.25 ISO	0.50	3.00	17.3	11.62	12.38	0.63	10.95	11.00	11.00
CKM2 -1015-3.5	M10X1.5 ISO	0.50	3.50	20.4	13.62	14.38	0.80	12.95	14.50	13.00

- The CKM series is the true metric version of the CAK series.

PART NUMBERING SYSTEM

CLM/CKM Specifications
Material: Steel 1008/1010
Aluminum 5056

Finish: Zinc Plated-Yellow Dichromate per ASTM B633 Fe/Zn 8, Type II

RoHS Compliant: Zinc Plated-Clear Trivalent Chromate per Sherex SFS-01-001

Part Number
Example: CLM2-610-3.0

CLM Product Style Large Flange Knurled Body Metric Body	2 Material 2-Steel 3-Aluminum	610 Thread Size	3.0 Grip Range	(_) Empty-Open End B-Closed End T-Trivalent
CKM Product Style Small Flange Knurled Body Metric Body	2 Material 2-Steel 3-Aluminum	610 Thread Size	3.0 Grip Range	(_) Empty-Open End B-Closed End T-Trivalent

Special finish or material available upon request

Grip range can be affected by parent material and hole size. Sherex recommends trial installations to determine the proper grip range for the application.
Contact Sherex for details.
CLM & CKM style rivet nut specials available upon request.
Contact Sherex for test data.

INSTALLATION TOOLING

CLM/CKM Series can be installed with our Hand Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 33-38.

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

SHEREX CR/CRE SERIES

PLATING: CR AND CRE SERIES

Corrosion Resistant - Long Life Plating Options

CR SERIES

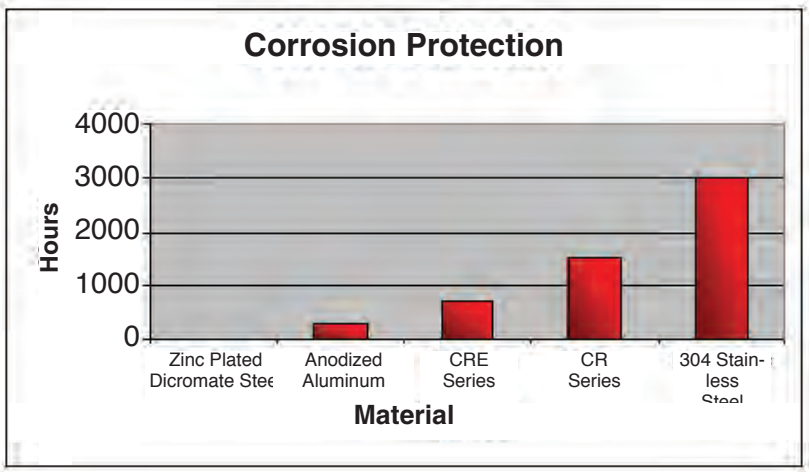
- Proprietary Zinc Nickel Plating
- CR Series is certified to over 1,000 hrs of corrosion protection before red rust
- Available on all rivet nuts in silver (standard), black, or yellow

CRE SERIES

- Proprietary Zinc Plating
- More economical for lower corrosion resistant requirements
- CRE Series is certified to over 500 hrs of corrosion protection before red rust
- Available in silver (standard) or black

RoHS REQUIREMENTS

- The CR & CRE Series are RoHS compliant
- Our plating process contains neither hexavalent nor trivalent chromate
- This saves cost as now there is no need to test for hexavalent presence



Additional information and Sherex white paper available at www.sherex.com

RoHS Requirements

The **CR and CRE Series** are RoHS Compliant. Our plating process contains neither hexavalent nor trivalent chromate. This saves cost as now there is no need to test for hexavalent presence.

Ordering & Inquires

When inquiring about the **CR and CRE Series** finishes, simply replace the first 2 letters of the part number with **CR** or **CRE.**
Example: **CAL2-2520-165** becomes **CREL2-2520-165**
For non-standard finish, contact Sherex for ordering details.
Sherex CR Black = **CRB**, Sherex CR Yellow = **CRY**, Sherex CRE Black = **CREB**

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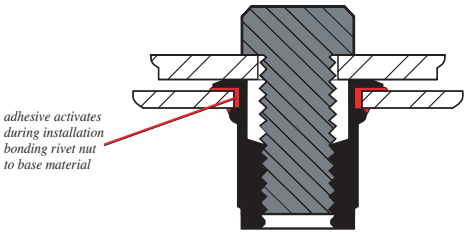
SHEREX LOCSERT®

SHEREX LOCSERT®

Sherex Locsert® is a proprietary adhesive that is pre-applied under the head of the rivet nut. When installed, the adhesive bonds the rivet nut to the base material which greatly increases the force required to spin the rivet nut. This is commonly referred to as, "spin out."



PRODUCT FEATURES AND BENEFITS

- Base material must be a ferrous or non-ferrous metal.
- Base material should not be painted or powder coated (finish will reduce performance).
- Base material should be as clean as possible prior to rivet nut installation.
- Hole should be relatively free of burrs.
- Bonding begins immediately, but allow 2-3 hours for approximately 75% curing. Locsert® will be fully cured within 24 hours.
- Locsert® performance will improve 20-30% when post bake associated with e-coat, powdercoat or paint finish is performed AFTER Locsert® installation.

Base Material: 1018 steel, 70HRB, .063 thickness

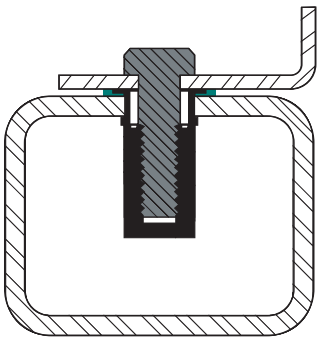
Part Number	Spin Out (in - lb)	As Locsert®	Set Time
CAL2-2520-165	42.90	90.08	3 hours

For additional testing data, please contact Sherex

SHEREX SEAL 2 SEALING SYSTEM

SEAL 2 sealing system

Sherex Seal 2 has been designed for use in applications where it is necessary to seal fluid or air leakage from under the head. Seal 2 provides greater performance over conventional sealing materials such as PVC foam.



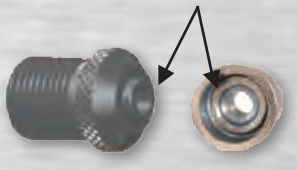
BENEFITS

- Resistant to automotive fluids.
- Can withstand temperatures up to 150° C.
- Has been pressure tested to 160 psi of backside pressure with no leakage.
- Seal 2 processed rivet nuts can be installed into any finished materials.
- Seal 2 can pass through a paint bake or other baking process for up to 30 minutes with no reduction in sealing capabilities.
- Can be applied to a standard rivet nut.

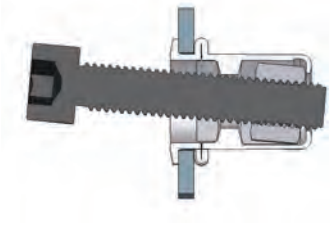
RIV-FLOAT®

- Ensure easy, accurate, and fast attachment of components in off-center applications.

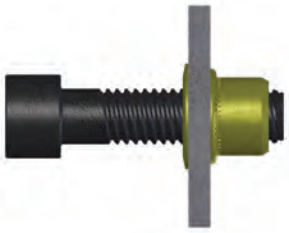
CENTERING NOSEPIECE



- RIV-FLOAT® is installed with FLEX-5 Hydro-Pneumatic Tool with RIV-FLOAT® Anvil.



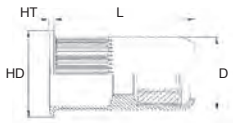
CROSS SECTION OF RIV-FLOAT® INSTALLED



STANDARD RIVET NUT INSTALLED

FEATURES AND BENEFITS

- Accounts for tolerance stack up in joint design and misalignment during service of the joint.
- Floating nut aligns to drive angle of screw virtually eliminating cross threading and spin out.
- Allows for installation in post painted or powder coat applications where weld nuts or cage nuts are typically used
- RoHS compliant Zinc electroplate to 8µm with trivalent chromate - 96/240 hrs (WR/RR)
- Designed with higher thread strength than regular rivet nuts
- Mechanically locked RIV-FLOAT® is available with prevailing torque feature to IFI spec 100/107



UNINSTALLED

INSTALLED

RFK INCH/METRIC SMALL FLANGE THREAD SERIES

Part Number Inch (Steel)	Thread Size	Radial Deflection	Grip Range		L	HD	HT	D	IL	Hole Size
			Min.	Max.	± .0215	± .010	± .002	Max.	Ref.	+.006/-.000
RFK2-0832-130	8-32 UNC	0.020	0.027	.130	.7195	.455	.022	.390	.522	.391
RFK2-1032-150	10-32 UNF	0.015	0.027	.150	.7195	.455	.022	.390	.522	.391
RFK2-2520-150	1/4-20 UNC	0.030	0.027	.150	.8190	.595	.022	.530	.630	.531

Part Number Metric (Steel)	Thread Size	Radial Deflection	Grip Range		L	HD	HT	D	IL	Hole Size
			Min.	Max.	± .55	± .25	± .05	Max.	Ref.	+.15/-.000
RFK2-470-3.3	M4x0.7 ISO	0.51	0.7	3.3	18.28	11.56	0.55	9.91	13.25	10.00
RFK2-580-3.8	M5X0.8 ISO	0.38	0.7	3.8	18.28	11.56	0.55	9.91	13.25	10.00
RFK2-610-3.8	M6x1.0 ISO	0.76	0.7	3.8	20.80	15.11	0.55	13.46	16.00	13.50

RFL INCH/METRIC LARGE FLANGE THREAD SERIES

Part Number Inch (Steel)	Thread Size	Radial Deflection	Grip Range		L	HD	HT	D	IL	Hole Size
			Min.	Max.	± .0215	± .010	± .003	Max.	Ref.	+.006/-.000
RFL2-0832-130	8-32 UNC	0.020	.027	.130	.7195	.500	.030	.390	.522	.391
RFL2-1032-150	10-32 UNF	0.015	.027	.150	.7195	.500	.030	.390	.522	.391
RFL2-2520-150	1/4-20 UNC	0.030	.027	.150	.8190	.685	.035	.530	.630	.531

Part Number Metric (Steel)	Thread Size	Radial Deflection	Grip Range		L	HD	HT	D	IL	Hole Size
			Min.	Max.	± .55	± .25	± .08	Max.	Ref.	+.15/-.000
RFL2-470-3.3	M4x0.7 ISO	0.51	0.7	3.3	18.28	12.70	0.76	9.91	13.25	10.00
RFL2-580-3.8	M5x0.8 ISO	0.38	0.7	3.8	18.28	12.70	0.76	9.91	13.25	10.00
RFL2-610-3.8	M6x1.0 ISO	0.76	0.7	3.8	20.80	17.40	0.89	13.46	16.00	13.50

RIV-FLOAT® is covered under US Patent No. "7,713,011"

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TEST DATA

Thread Size	Material Thickness (Steel)	Pull Out	Failure Mode (Pull Out)	Torque Out	Failure Mode (Torque Out)	Suggested Assembly Torque Grade 5 Class 8.8
# 8-32 UNC	.130"	2205 lbf	Bolt Breaks	71 in-lb	Bolt Breaks	22.0 in-lb
# 10-32 UNF	.150"	3530 lbf	Bolt Breaks	128 in-lb	Bolt Breaks	36.0 in-lb
1/4-20 UNC	.150"	5510 lbf	Bolt Breaks	265 in-lb	Bolt Breaks	75.0 in-lb
M4x0.7 ISO	3.3 mm	1000 kgf	Bolt Breaks	9 N•m	Bolt Breaks	2.5 N•m
M5x0.8 ISO	3.8 mm	1900 kgf	Bolt Breaks	21 N•m	Bolt Breaks	5.0 N•m
M6x1.0 ISO	3.8 mm	2500 kgf	Bolt Breaks	30 N•m	Bolt Breaks	8.6 N•m

RIV-FLOAT® Rivet Nut Hand Tool Kits

	Inch Kit	Metric Kit	6-32 / 8-32 Mini Inch Kit	10-32 / ¼-20 Mini Inch Kit
Part Number:	RNHT RF INCH KIT	RNHT RF METRIC KIT	RNHT 6-32/8-32 RF MINI KIT	RNHT 10-32/2520 RF MINI KIT
Tools Sizes:	6-32 to ¼-20	M4 to M6	¼-28	10-32 and ¼-20
Rivet Nuts:	30 pieces of RFL2-0632-130	30 pieces of RFL2-470-3.3	20 pieces of RFL2-0632-130	20 pieces of RFL2-1032-150
	30 pieces of RFL2-0832-130	30 pieces of RFL2-580-3.8	20 pieces of RFL2-0832-130	10 pieces of RFL2-2520-150
	30 pieces of RFL2-1032-150	20 pieces of RFL2-610-3.8		
	20 pieces of RFL2-2520-150			

Each tool comes with an extra mandrel

MECHANICALLY LOCKED PARTS

	Mechanically Locked Inch Kit	Mechanically Locked Metric Kit
Part Number:	RNHT RF ML INCH KIT	RNHT RF ML METRIC KIT
Tools Sizes:	¼-28	¼-28
Rivet Nuts:	20 pieces of SH-22-0632	20 pieces of SH-22-470
	20 pieces of SH-22-0832	20 pieces of SH-22-580
	20 pieces of SH-22-1032	

Each tool comes with an extra mandrel

RIV-FLOAT® Rivet Nut Hand Tool Bag

	6-32 BAG	8-32 BAG	10-32 BAG	¼-20 BAG
Part Number:	RNHT-0632RF BAG	RNHT-0832RF BAG	RNHT-1032RF BAG	RNHT-2520RF BAG
Tools Sizes:	¼-28	¼-28	10-32	¼-20
Rivet Nuts:	15 pieces of RFL2-0632-130	15 pieces of RFL2-0832-130	15 pieces of RFL2-1032-150	10 pieces of RFL2-2520-150

Each tool comes with an extra mandrel

	M4 BAG	M5 BAG	M6 BAG
Part Number:	RNHT-M4RF BAG	RNHT-M5RF BAG	RNHT-M6RF BAG
Tools Sizes:	¼-28	M5	M6
Rivet Nuts:	15 pieces of RFL2-470-3.3	15 pieces of RFL2-580-3.8	10 pieces of RFL2-610-3.8

Each tool comes with an extra mandrel

MECHANICALLY LOCKED PARTS

	Mechanically Locked 6-32 BAG	Mechanically Locked 8-32 BAG	Mechanically Locked 10-32 BAG
Part Number:	RNHT-0632RF ML BAG	RNHT-0832RF ML BAG	RNHT-1032RF ML BAG
Tools Sizes:	¼-28	¼-28	¼-28
Rivet Nuts:	15 pieces of SH-22-0632	15 pieces of SH-22-0832	15 pieces of SH-22-1032

Each tool comes with an extra mandrel

MECHANICALLY LOCKED PARTS

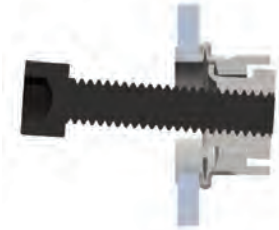
	Mechanically Locked M4 BAG	Mechanically Locked M5 BAG
Part Number:	RNHT-M4RF ML BAG	RNHT-M5RF ML BAG
Tools Sizes:	¼-28	¼-28
Rivet Nuts:	15 pieces of SH-22-470	15 pieces of SH-22-580

Each tool comes with an extra mandrel

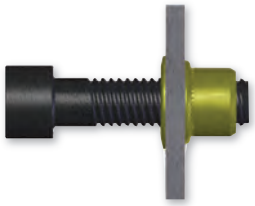
Contact Sherex for Riv-Float® Short kits and bags
Contact Sherex for availability and lead times
Private label available upon request
RIV-FLOAT® is covered under US Patent No. "7,713,011"

RIV-FLOAT® SHORT

- Ensure easy, accurate, and fast attachment of components in off-center applications.



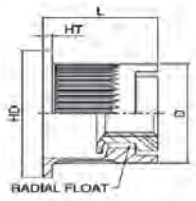
CROSS SECTION OF RIV-FLOAT® - SHORT Installed



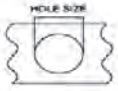
Standard Rivet Nut Installed

FEATURES AND BENEFITS

- Accounts for tolerance stack up in joint design and misalignment during service of the joint.
- New Low-Profile design provides greater backside clearance.
- Allows for installation post finish in applications where weld nuts or cage nuts are typically used.
- Mechanically locked RIV-FLOAT®- Short available with prevailing torque feature to IFI SPEC 100/107
- 0.020" Radial Float
- RoHS Compliant



Uninstalled



Installed

RFK INCH/METRIC SMALL FLANGE THREAD SERIES

SHEREX Part Number Inch - Steel	Thread Size	Radial Float	Grip Range		L	HD	HT	D	IL	Hole Size
			Min.	Max.	± .01	± .012	± .003	Max.	Ref.	+.006/-.000
RFSK2-0832-100	8-32 UNC	0.020	.020	.100	.394	.480	.025	.431	.246	.433
RFSK2-1024-100	10-24 UNC	0.020	.020	.100	.394	.480	.025	.431	.246	.433
RFSK2-1032-100	10-32 UNF	0.020	.020	.100	.394	.480	.025	.431	.246	.433

SHEREX Part Number Metric - Steel	Thread Size	Radial Float	Grip Range		L	HD	HT	D	IL	Hole Size
			Min.	Max.	± .25	± .30	± .07	Max.	Ref.	+.15/-.00
RFSK2-470-2.5	M4x0.7 ISO	0.50	0.50	2.50	10.00	12.20	.63	10.95	6.25	11.00
RFSK2-580-2.5	M5X0.8 ISO	0.50	0.50	2.50	10.00	12.20	.63	10.95	6.25	11.00

RFL INCH/METRIC LARGE FLANGE THREAD SERIES

SHEREX Part Number Inch - Steel	Thread Size	Radial Float	Grip Range		L	HD	HT	D	IL	Hole Size
			Min.	Max.	± .01	± .015	± .003	Max.	Ref.	+.006/-.000
RFSL2-0832-100	8-32 UNC	0.020	.020	.100	.406	.555	.033	.431	.246	.433
RFSL2-1024-100	10-24 UNC	0.020	.020	.100	.406	.555	.033	.431	.246	.433
RFSL2-1032-100	10-32 UNF	0.020	.020	.100	.406	.555	.033	.431	.246	.433

SHEREX Part Number Metric - Steel	Thread Size	Radial Float	Grip Range		L	HD	HT	D	IL	Hole Size
			Min.	Max.	± .30	± .38	± .08	Max.	Ref.	+.15/-.00
RFSL2-470-2.5	M4x0.7 ISO	0.50	0.50	2.50	10.30	14.10	.85	10.95	6.25	11.00
RFSL2-580-2.5	M5x0.8 ISO	0.50	0.50	2.50	10.30	14.10	.85	10.95	6.25	11.00

RIV-FLOAT® -Short is patent pending

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FLOATING TECHNOLOGIES

RIV-FLOAT® -SHORT vs. Riveted Nut Plates vs. Cage Nuts

RIVETED NUT PLATE

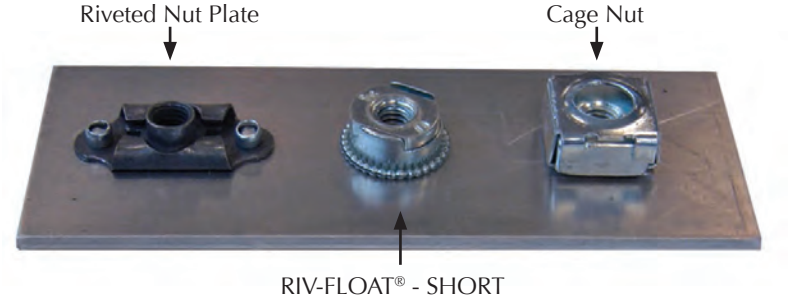
- Requires three holes to be drilled (1 for the plate & 2 for the rivets)
- Requires access to both sides of the work piece
- 15-20 second installation time

CAGE NUT

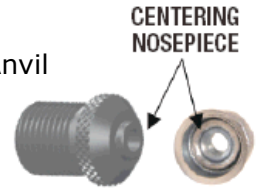
- Requires a Square Hole to be punched
- Requires access to both sides of the work piece
- 15-20 second installation time

RIV-FLOAT® -SHORT

- Only 1 round hole needs to be drilled
- Access from only one side of the work is necessary for installation
- 2-3 second installation time



RIV-FLOAT®-SHORT is installed with **FLEX-5**
Hydro-Pneumatic Tool with RIV-FLOAT®-SHORT Anvil



RIV-FLOAT®-Short is patent pending

LARGE & IN CHARGE

The first product line of its kind offering Rivet Nuts up to ¾-10 (M20)

FEATURES AND BENEFITS

- Provide a Strong Thread in Thin Sheet Materials
- Can be Installed from One Side of the Work Piece
- Do Not Need to be Welded to the Base Material
- Available in a Round Body or a Full Hex Body for Increased Spin Out Resistance
- Plated with a ROHS Complaint Zinc Trivalent Clear Plating

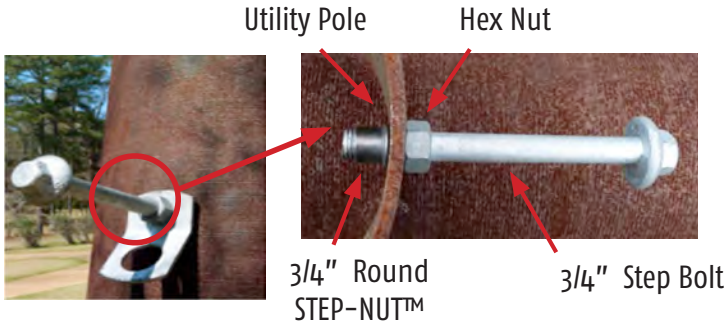
SIZES AND STYLES

- Unified Sizes Available:
  - 1/2″ Round Body & Hex Body
  - 5/8″ Round Body & Hex Body
  - 3/4″ Round Body
- Metric Sizes Available:
  - M12 Round Body & Hex Body
  - M16 Round Body & Hex Body

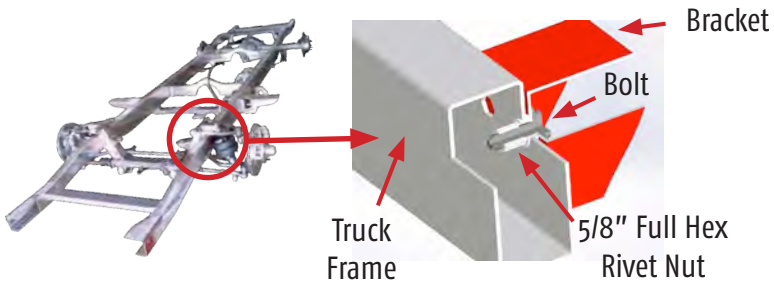
All LARGE thread Rivet Nuts are installed with the Sherex Flex 18

See Page 38 for details

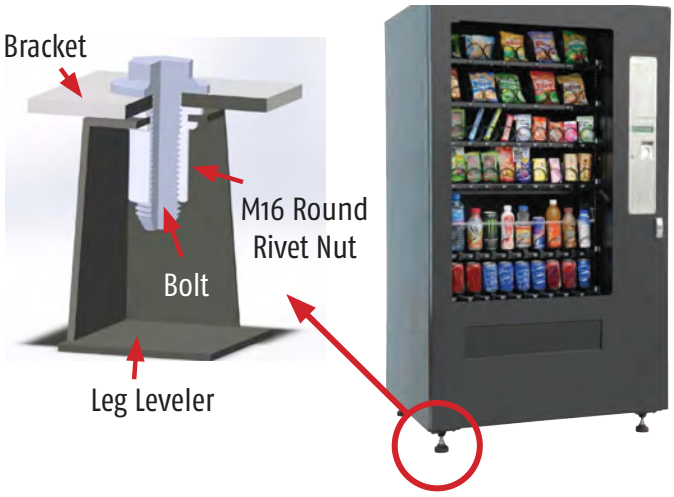
Utility Poles Attachments



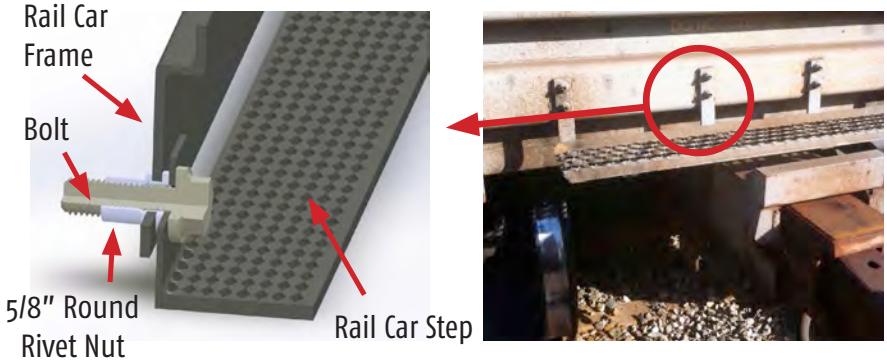
Truck Frame Attachments



Vending Machine Leg Leveler

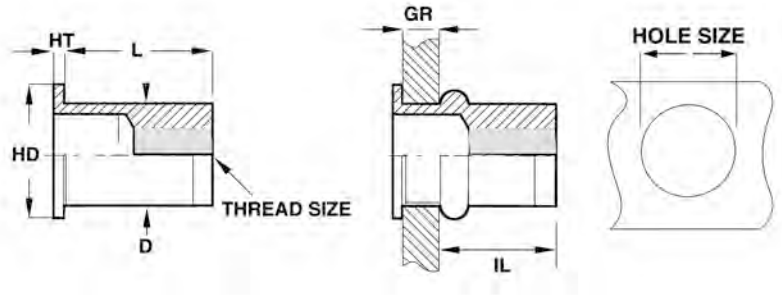


Attach Components on Railcars



LARGE THREAD RIVET NUT SPECIFICATIONS

Round Body

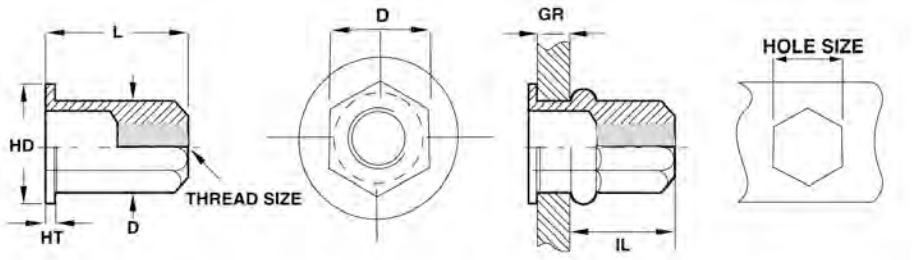


LRGR SERIES - ROUND BODY

SHEREX Part Number Inch - Steel	Thread Size	Grip Range		L	HD	HT	D	IL	Hole Size
		Min.	Max.	± .015	± .025	± .004	Max.	Ref.	+.010/-.000
LRGR2-5013-150	1/2-13 UNC	.050	.150	1.260	.945	.085	.656	.984	.656
LRGR2-6211-200	5/8-11 UNC	.080	.200	1.428	1.181	.098	.826	1.142	.827
LRGR2-7510-250	3/4-10 UNC	.010	.250	1.210	1.235	.118	.906	.878	.907

SHEREX Part Number Metric - Steel	Thread Size	Grip Range		L	HD	HT	D	IL	Hole Size
		Min.	Max.	± .38	± .64	± .10	Max.	Ref.	+.25/-.000
LRGR2-12175-3.8	M12x1.75 ISO	1.27	3.80	32.00	24.00	2.16	16.65	25.00	16.66
LRGR2-1620-5.0	M16x2.0 ISO	2.00	5.00	36.27	30.00	2.50	20.98	29.00	21.00

Full Hex Body



LRGH SERIES - FULL HEX BODY

SHEREX Part Number Inch - Steel	Thread Size	Grip Range		L	HD	HT	D (A/F)	IL	Hole Size (A/F)
		Min.	Max.	± .015	± .025	± .004	Max.	Ref.	+.010/-.000
LRGH2-5013-150	1/2-13 UNC	.050	.150	1.181	1.024	.085	.656	.866	.656
LRGH2-6211-200	5/8-11 UNC	.080	.200	1.260	1.260	.118	.826	.965	.827

SHEREX Part Number Metric - Steel	Thread Size	Grip Range		L	HD	HT	D (A/F)	IL	Hole Size (A/F)
		Min.	Max.	± .38	± .64	± .10	Max.	Ref.	+.25/-.000
LRGH2-12175-3.8	M12x1.75 ISO	1.27	3.80	30.00	26.00	2.16	16.65	22.00	16.66
LRGH2-1620-5.0	M16x2.0 ISO	2.00	5.00	32.00	32.00	3.00	20.98	24.50	21.00

Contact Sherex for test data.
Sherex rivet nuts are compatible with the following hardware:
GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8
Please contact Sherex when using other grade fasteners.

Sherex Fastening Solutions, LLC | Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

LHF 202 (Imperial Tool) Includes: 8-32, 10-24, 1/4-20 head sets

LHF 202M (Metric Tool) Includes: M4, M5, M6 head sets

This hand tool was designed to install any rivet nut ranging in size from 6-32 to 1/4-28 (M4-M6). This tool is ideal for small production work and prototyping. It replaces previously offered hand tools (MS510, MS511, and MS480).

RIV-FLOAT® Thread Size	RIV-FLOAT® Mandrel	RIV-FLOAT® Anvil
6-32	LHFM 2528	LHFA 25
8-32	LHFM 2528	LHFA 25
10-32	LHFM 1032	LHFA 10RF
1/4-20	LHFM 2520	LHFA 25RF
M4	LHFM 2528	LHFA 25
M5	LHFM M5	LHFA M5RF
M6	LHFM M6	LHFA M6RF

Thread Size	Mandrel	Anvil
6-32	LHFM 0632	LHFA 0632
8-32	LHFM 0832	LHFA 0832
10-24	LHFM 1024	LHFA 10
10-32	LHFM 1032	LHFA 10
1/4-20	LHFM 2520	LHFA 25
1/4-28	LHFM 2528	LHFA 25
5/16-18	LHFM 3118	LHFA 31
5/16-24	LHFM 3124	LHFA 31
3/8-16	LHFM 3716	LHFA 37

M4 (Imperial Tool) Includes: 1/4-20, 5/16-18, 3/8-16, and 1/2-13 head sets
M4 (Metric Tool) Includes: M6, M8, M10, and M12 head sets

M5 (Imperial Tool) Includes: 10-32, 1/4-20, 5/16-18, and 3/8-16 head sets
M5 (Metric Tool) Includes: M5, M6, M8, and M10 head sets

HEAVY DUTY

M4 HAND TOOL

RATCHET STYLE

M5 HAND TOOL

Thread Size	Head Sets (Includes Anvil & Mandrel)	Anvil	Mandrel
6-32	MHS-0632	MA-0632	M-0632
8-32	MHS-0832	MA-0832	M-0832
10-24	MHS-1024	MA-1024	M-1024
10-32	MHS-1032	MA-1032	M-1032
1/4-20	MHS-2520	MA-2520	M-2520
1/4-28	MHS-2528	MA-2528	M-2528
5/16-18	MHS-3118	MA-3118	M-3118
5/16-24	MHS-3124	MA-3124	M-3124
3/8-16	MHS-3716	MA-3716	M-3716
3/8-24	MHS-3724	MA-3724	M-3724
1/2-13	MHS-5013	MA-5013	M-5013
1/2-20	MHS-5020	MA-5020	M-5020
M4	MHS-M4	MA-M4	M-M4
M5	MHS-M5	MA-M5	M-M5
M6	MHS-M6	MA-M6	M-M6
M8	MHS-M8	MA-M8	M-M8
M10	MHS-M10	MA-M10	M-M10
M12	MHS-M12	MA-M12	M-M12

Part Number	Thread
RNHT-0632	6-32
RNHT-0832	8-32
RNHT-1024	10-24
RNHT-1032	10-32
RNHT-2520	1/4-20
RNHT-2528	1/4-28
RNHT-3118	5/16-18
RNHT-3124	5/16-24
RNHT-3716	3/8-16
RNHT-3724	3/8-24
RNHT-4320	7/16-20
RNHT-M3	M3
RNHT-M4	M4
RNHT-M5	M5
RNHT-M6	M6
RNHT-M8	M8

RIV-FLOAT® Thread Size	RIV-FLOAT® Part Number
6-32	RNHT-2528RF
8-32	RNHT-2528RF
10-32	RNHT-1032RF
1/4-20	RNHT-2520RF
M4	RNHT-2528RF
M5	RNHT-M5RF
M6	RNHT-M6RF

Rivet Nut Hand Tool - The Only Hand Tool You Will Ever Need!

Tired of buying multiple tools to install the different styles of rivet nuts? Presenting the Sherex design hand installation tool, which is capable of handling all styles of rivet nuts from 6-32 to 3/8 and M3 to M10. Tools may be purchased individually by size or in a wide variety of convenient kits. Each tool has the same body size, thereby requiring only 11/16" ratchet and one 7/8" wrench to install all sizes and styles of rivet nuts. In addition, this line of hand installation tool uses a standard socket head cap screw as a mandrel, making replacement convenient and economical.

RIVET NUT PNEUMATIC SPIN - SPIN TOOLS

Designed for installing steel or aluminum CAL, CAK, CAH, CAO, CFT/CAT*, CFW/CAW* and CPB rivet nut inserts. Features quick change nose piece for head set replacement without tools.

*Can install stainless in these series

SSG-800 PISTOL STYLE SERIES

SSG-910 RIGHT ANGLE STYLE SERIES

SSG-900 INLINE STYLE SERIES

Part Number	Thread Size	Tool RPM	Air Pressure (Dynamic)	Weight	Air Inlet	Air Use	Minimum Hose Size	Complete Head Assembly	Hex Driver	Mandrel	Bearing Set	Complete Head Assembly Rivet Nut Stud
			PSI	LBS	NPT	CFM	IN		Make Up Complete Head Assembly			
SSG - 801, 901 & 911	4-40	3000	35-45	3.0	1/4"	5	3/8	HS-0440	HD-4	M-0440-150	BS-4	
	6-32	3000	70-80	3.0	1/4"	5	3/8	HS-0632	HD-6	M-0632-150	BS-6	HSS-0632
	8-32	3000	70-90	3.0	1/4"	5	3/8	HS-0832	HD-8	M-0832-150	BS-8	
	M3	3000	35-45	3.0	1/4"	5	3/8	HS-M3	HD-M3	M-M3-30	BS-M3	
	M4	3000	35-45	3.0	1/4"	5	3/8	HS-M4	HD-M4	M-M4-35	BS-M4	
SSG - 802, 902 & 912	10-24	1500	60-80	3.0	1/4"	5	3/8	HS-1024	HD-10	M-1024-175	BS-10	
	10-32	1500	60-80	3.0	1/4"	5	3/8	HS-1032	HD-10	M-1032-175	BS-10	HSS-1032
	1/4-20	1500	70-90	3.0	1/4"	5	3/8	HS-2520	HD-25	M-2520-175	BS-25	HSS-2520
	1/4-28	1500	70-90	3.0	1/4"	5	3/8	HS-2528	HD-25	M-2528-200	BS-25	
	M5	1500	70-80	3.0	1/4"	5	3/8	HS-M5	HD-M5	M-M5-40	BS-M5	HSS-M5
	M6	1500	70-80	3.0	1/4"	5	3/8	HS-M6	HD-M6	M-M6-40	BS-M6	HSS-M6
SSG - 803, 903 & 913	5/16-18	600	90-110	3.0	1/4"	5	3/8	HS-3118	HD-31	M-3118-175	BS-31	
	5/16-24	600	90-110	3.0	1/4"	5	3/8	HS-3124	HD-31	M-3124-175	BS-31	
	3/8-16	600	90-110	3.0	1/4"	5	3/8	HS-3716	HD-37	M-3716-200	BS-37	HSS-3716
	3/8-24	600	90-110	3.0	1/4"	5	3/8	HS-3724	HD-37	M-3724-200	BS-37	
	M8	600	90-110	3.0	1/4"	5	3/8	HS-M8	HD-M8	M-M8-40	BS-M8	HSS-M8
	M10	600	90-110	3.0	1/4"	5	3/8	HS-M10	HD-M10	M-M10-45	BS-M10	
SSG - 804	5/16-18	400	90-110	3.0	1/4"	5	3/8	HS-3118	HD-31	M-3118-175	BS-31	
	5/16-24	400	90-110	3.0	1/4"	5	3/8	HS-3124	HD-31	M-3124-175	BS-31	
	3/8-16	400	90-110	3.0	1/4"	5	3/8	HS-3716	HD-37	M-3716-200	BS-37	
	3/8-24	400	90-110	3.0	1/4"	5	3/8	HS-3724	HD-37	M-3724-200	BS-37	
	M8	400	90-110	3.0	1/4"	5	3/8	HS-M8	HD-M8	M-M8-40	BS-M8	HSS-M8
	M10	400	90-110	3.0	1/4"	5	3/8	HS-M10	HD-M10	M-M10-45	BS-M10	
SSG-808	1/2-13	275	75-120	4.0	1/4"	5	3/8	HS-5013	HD-50	M-5013-250	BS-50	*Contact Sherex for additional thread sizes
	1/2-20	275	75-120	4.0	1/4"	5	3/8	HS-5020	HD-50	M-5020-225	BS-50	
	M12	275	75-120	4.0	1/4"	5	3/8	HS-M12	HD-M12	M-M12-60	BS-M12	

*Contact Sherex for Prebulbed (CPB) Mandrel part numbers

Contact SHEREX for SSG Replacement part numbers.

*Weight for 800 series only.
High temperature grease should be used to lubricate the bearing set. Contact Sherex for availability.

Sherex recommends the use of an air regulator, air filter, and lubrication system to reduce the wear of internal components. It is also recommended to lubricate the mandrel to increase performance. Mandrels should be replaced when excessive thread wear occurs with a high quality socket head cap screw.

Sherex Fastening Solutions, LLC | Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

One Tool With Pull to Pressure & Pull to Stroke Capabilities

FLEX-5P: The Sherex FLEX-5P utilizes a Pull to Pressure method of installation. This method allows the same insert type to be installed into varying material thicknesses (within the Grip Range of the part) without any adjustment to the tool.

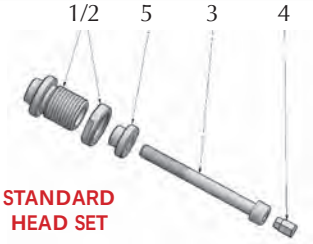
FLEX-5S: The Sherex FLEX-5S utilizes a Pull to Stroke method of installation. This method allows the insert to be installed to the same distance each time. This is helpful when installing into soft materials (prevents crushing of the base material) or when a specific Installed Length is required.

*Check out our FLEX-5 videos at www.sherex.com

FEATURES AND BENEFITS

Change over kit for converting between pull to pressure and pull to stroke

- Installs Rivet Nuts from: M3-M10 and #4-40-3/8-16
- Push to start nose piece to spin on fastener
- Single stage trigger
- Automatic reverse with manual reverse bypass
- Quick change mandrel design
- Light weight tool (4.2 lbs)
- Can be suspended from a balancer
- Socket head cap screw mandrel
- Installs Rivet Nut Studs from: M5-M8 and #10-24-5/16-24
- Available in an in-line version
- Split tool available (remote booster for lighter tool)
- Upgradeable to process monitoring
- 5,000 lbs (22 kN) pulling force at 90 psi
- 7 mm (0.276 in.) of available stroke
- 2-3 second cycle time
- All aluminum design for improved durability

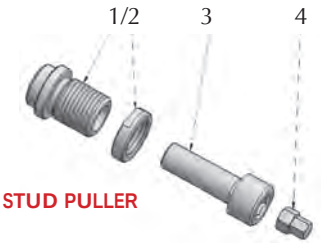


STANDARD HEAD SET

HEAD SETS FOR STANDARD RIVET NUTS

Thread Size	Complete Headset	Anvil (1 + 2)	Mandrel (3)	Hex Driver (4)	Reducing sleeve (5)
M3	FL5 - HS- M3	FL5 - HS - 00903	M -M3 -40	FL5 - HS - 01003	FL5 - HS - 09103
M4	FL5 - HS - M4	FL5 - HS - 00904	M -M4 - 55	FL5 - HS - 01004	FL5 - HS - 09104
M5	FL5 - HS - M5	FL5 - HS - 00905	M -M5 - 65	FL5 - HS - 01005	FL5 - HS - 09105
M6	FL5 - HS - M6	FL5 - HS - 00906	M -M6 - 65	FL5 - HS - 01006	FL5 - HS - 09106
M8	FL5 - HS - M8	FL5 - HS - 00908	M -M8 - 65	FL5 - HS - 01008	FL5 - HS - 09108
M10	FL5 - HS - M10	FL5 - HS- 00910	M -M10 - 65	FL5 - HS - 01010	XXXX
# 4- 40 UNC	FL5 - HS - 0440	FL5 - HS- 00854	M -0440 - 175	FL5 - HS - 00754	FL5 - HS - 09154
# 6-32 UNC	FL5 - HS - 0632	FL5 - HS - 00856	M -0632 - 175	FL5 - HS - 00756	FL5 - HS - 09156
# 8-32 UNC	FL5 - HS - 0832	FL5 - HS - 00858	M -0832 - 175	FL5 - HS - 00758	FL5 - HS - 09158
# 10-24 UNC	FL5 - HS - 1024	FL5 - HS -00850	M -1024 - 250	FL5 - HS - 00750	FL5 - HS - 09150
# 10-32 UNF	FL5 - HS - 1032	FL5 - HS - 00850	M -1032 - 250	FL5 - HS - 00750	FL5 - HS - 09150
1/4-20 UNC	FL5 - HS - 2520	FL5 - HS - 00848	M -2520 - 250	FL5 - HS - 00748	FL5 - HS - 09148
1/4-28 UNF	FL5 - HS - 2528	FL5 - HS - 00848	M -2528 - 250	FL5 - HS - 00748	FL5 - HS - 09148
5/16-18 UNC	FL5 - HS - 3118	FL5 - HS - 00840	M -3118 - 250	FL5 - HS - 00740	FL5 - HS - 09140
5/16-24 UNF	FL5 - HS - 3124	FL5 - HS - 00840	M -3124 - 250	FL5 - HS - 00740	FL5 - HS - 09140
3/8-16 UNC	FL5 - HS - 3716	FL5 - HS - 00842	M -3716 - 250	FL5 - HS - 00742	XXXX
3/8-24 UNF	FL5 - HS - 3724	FL5 - HS - 00842	M -3724 - 250	FL5 - HS - 00742	XXXX

HYDRO-PNEUMATIC FLEX-5 TOOL

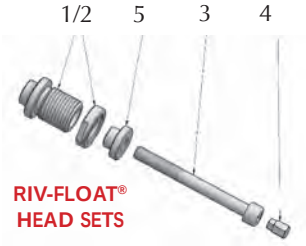


STUD PULLER

HEAD SETS FOR RIVET NUT STUDS

Thread Size	Complete Headset	Anvil (1 + 2)	Mandrel (3)	Hex Driver (4)	Reducing sleeve (5)
M5	FL5-HS-M5S	FL5-HS-S0905	FL5-HS-0S005	FL5-HS-01010	XXXX
M6	FL5-HS-M6S	FL5-HS-S0906	FL5-HS-0S006	FL5-HS-01010	XXXX
M8*	FL5-HS-M8S	FL5-HS-S0908	FL5-HS-0S008	FL5-HS-01010	XXXX
# 10-24 UNC	FL5-HS-1024S	FL5-HS-S0850	FL5-HS-S1024	FL5-HS-01010	XXXX
# 10-32 UNF	FL5-HS-1032S	FL5-HS-S0850	FL5-HS-S1032	FL5-HS-01010	XXXX
1/4-20 UNC	FL5-HS-2520S	FL5-HS-S0848	FL5-HS-S2520	FL5-HS-01010	XXXX
1/4-28 UNF	FL5-HS-2528S	FL5-HS-S0848	FL5-HS-S2528	FL5-HS-01010	XXXX
5/16-18 UNC*	FL5-HS-3118S	FL5-HS-S0840	FL5-HS-S3118	FL5-HS-01010	XXXX
5/16-24 UNF*	FL5-HS-3124S	FL5-HS-S0840	FL5-HS-S3124	FL5-HS-01010	XXXX

*Head sets include p/n FL5-HS-12S92 adaptor nut



RIV-FLOAT® HEAD SETS

HEAD SETS FOR RIV-FLOAT®

Thread Size	Complete Headset	Anvil (1 + 2)	Mandrel (3)	Hex Driver (4)	Reducing sleeve (5)
M4	FL5-HS-2528R	FL5-HS-00848	M-2528-225	FL5-HS-00748	FL5-HS-09148
M5	FL5-HS-M5R	FL5-HS-R0995	M-M5-65	FL5-HS-01005	FL5-HS-09105
M6	FL5-HS-M6R	FL5-HS-R0996	M-M6-65	FL5-HS-01006	FL5-HS-09106
#4-40 UNC	FL5-HS-2528R	FL5-HS-00848	M-2528-225	FL5-HS-00748	FL5-HS-09148
#6-32 UNC	FL5-HS-2528R	FL5-HS-00848	M-2528-225	FL5-HS-00748	FL5-HS-09148
#8-32 UNC	FL5-HS-2528R	FL5-HS-00848	M-2528-225	FL5-HS-00748	FL5-HS-09148
#10-24 UNC	FL5-HS-1024R	FL5-HS-R0950	M-1024-250	FL5-HS-00750	FL5-HS-09150
#10-32 UNF	FL5-HS-1032R	FL5-HS-R0950	M-1032-250	FL5-HS-00750	FL5-HS-09150
1/4-20 UNC	FL5-HS-2520R	FL5-HS-R0948	M-2520-250	FL5-HS-00748	FL5-HS-09148
1/4-28 UNF	FL5-HS-2528R1	FL5-HS-R0948	M-2528-250	FL5-HS-00748	FL5-HS-09148

HEAD SETS FOR RIV-FLOAT® SHORT

Thread Size	Complete Headset	Anvil (1 + 2)	Mandrel (3)	Hex Driver (4)	Reducing sleeve (5)
M4	FL5-HS-M4SR	FL5-HS-SR0994	M-M4-55	FL5-HS-01004	FL5-HS-09104
M5	FL5-HS-M5SR	FL5-HS-SR0995	M-M5-65	FL5-HS-01005	FL5-HS-09105
#8-32 UNC	FL5-HS-0832SR	FL5-HS-SR0858	M-0832-150	FL5-HS-00758	FL5-HS-09158
#10-24 UNC	FL5-HS-1024SR	FL5-HS-SR0950	M-1024-225	FL5-HS-00750	FL5-HS-09150
#10-32 UNF	FL5-HS-1032SR	FL5-HS-SR0950	M-1032-225	FL5-HS-00750	FL5-HS-09150

MS 100 RIVET NUT TOOL

MS100		
Thread Size	Mandrel	Anvil
5/16-18	MA-373-3118	MA-369-3118
5/16-24	MA-377-3124	MA-369-3118
3/8-16	MA-374-3716	MA-370-3716
3/8-24	MA-378-3724	MA-370-3716
7/16-14	MA-375-4314	MA-371-4314
7/16-20	MA-301-4320	MA-371-4314
1/2-13	MA-376-5013	MA-372-5013
1/2-20	MA-379-5020	MA-372-5013
M8	MA-308-08MM	MA-318-08MM
M10	MA-310-10MM	MA-320-10MM
M12	MA-312-12MM	MA-322-12MM
M14	MA-314-14MM	MA-324-14MM

The MS 100 Rivet Nut installation tool installs rivet nuts from 5/16-18 to 1/2-20 and M8 and M14. It also installs 5/16 -18 and M8 Riv-Float®. The MS 100 tool comes with one mandrel and one anvil.

The MS 100 Rivet Nut Installation tools should be operated at 80-100 psi. Sherex recommends the use of an air regulator, air filter and lubrication system to reduce the wear of internal components. It is also recommended to lubricate the mandrel to increase performance. Mandrels should be replaced when excessive thread wear occurs.

HYDRO-PNEUMATIC 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.

- Installs Rivet Nuts from M8 to M16 and 5/16-18 to 3/4-10
- Push to start nose piece to spin on fastener
- Single stage trigger
- Automatic reverse with manual reverse bypass
- Quick change mandrel design
- Socket head cap screw mandrel for sizes up to M12 and 1/2-20
- Can be suspended from a balancer
- **18,000 lbs. (80 kN) of pulling force**
- **15 mm (.591 in) of available stroke**
- Upgradeable to process monitoring
- 2-3 second cycle time
- Light weight handle (8.0 lbs.)
- All aluminum handle design for improved durability

HEAD SETS FOR STANDARD NOSE CASE

Thread Size	Complete Headset	Anvil	Mandrel	Hex Driver	Adaptor Nut
M8	FL18-HS-M8	FL18-HS-00908	M-M8-65	FL5-HS-01008	FL18-HS-09108
M10	FL18-HS-M10	FL18-HS-00910	M-M10-65	FL5-HS-01010	FL18-HS-09110
M12	FL18-HS-M12	FL18-HS-00912	M-M12-65	FL18-HS-01012	FL18-HS-09112
5/16-18 UNC	FL18-HS-3118	FL18-HS-00908	M-3118-250	FL5-HS-00740	FL18-HS-09108
5/16-24 UNF	FL18-HS-3124	FL18-HS-00908	M-3124-250	FL5-HS-00740	FL18-HS-09108
3/8-16 UNC	FL18-HS-3716	FL18-HS-00910	M-3716-300	FL5-HS-00742	FL18-HS-09110
3/8-24 UNF	FL18-HS-3724	FL18-HS-00910	M-3724-300	FL5-HS-00742	FL18-HS-09110
1/2-13 UNC	FL18-HS-5013	FL18-HS-00950	M-5013-300	FL18-HS-00750	FL18-HS-09150
1/2-20 UNF	FL18-HS-5020	FL18-HS-00950	M-5020-300	FL18-HS-00750	FL18-HS-09150

HEAD SETS FOR LARGE THREAD NOSE CASE

Thread Size	Complete Headset	Anvil	Mandrel
M16	FL18-HS-M16	FL18-HS-00916	M-M16-FL18
5/8-11 UNC	FL18-HS-6211	FL18-HS-00962	M-6211-FL18
3/4-10 UNC	FL18-HS-7510	FL18-HS-00975	M-7510-FL18

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This case study is provided to highlight Sherex design support capabilities.
Contact Sherex to review your application.

CASE STUDY

A Tier One automotive manufacturer needed to attach a composite (SMC) covered magnesium roof panel reinforced with aluminum roof bows to an aluminum bracket necessary to attach the roof assembly to the vehicle. The roof assembly weighed approximately 35 kg and the material was 4mm thick at its fastening point.

The manufacturer conducted FEA simulations on the joint, and concluded the fastening points would be subjected to approximately 260 kgF of dynamic loading in service. Based on this, the OEM determined they would use a P.C. 8.8 hex washer head bolt with a dog point to mate with the Sherex recommended CAL2-610-6.6W rivet nuts.

A validation testing program incorporating the principles of Six Sigma (DFSS) was conducted on the actual assembly to assure the hardware selected would meet the necessary performance requirements with appropriate safety factors.

Pull Out - Pull Out testing of the M6 rivet nut installed in the application yielded an average 1563 kgF with an upper specification limit (+3 Sigma) of 1603 kgF and a lower specification limit (-3 Sigma) equal to 1501 kgF. This provides a comfortable safety factor for any in-service dynamic loading the fastening points may see not detected during the FEA simulation.

Torque Out – The rivet nut was required to meet Class 8 performance characteristics after installation. All Sherex rivet nuts are manufactured to meet a minimum of Class 8 thread strength requirements.

Spin Out – The bolts were to be assembled to 8.0 Nm of torque using a DC driver and a "Torque" drive strategy (as opposed to Torque – Angle or Torque – Yield). This drive strategy generally has a torque delivery accuracy of +/- 10%. To account for this variation as well as additional variables introduced in a production environment, a 10.0 Nm minimum performance requirement was established.

Sherex developed a testing program to analyze how different upset forces and distances would affect spin out. Testing concluded that the optimal upset force was 7.5 kN, as it produced the highest average spin-out of 11.6 Nm with minimal performance variation.

Corrosion Resistance – The application would be assembled and disassembled regularly and would be exposed to moisture along with cleaning chemicals quite frequently. Corrosion of the nut could cause binding of the bolt during service which could result in damage to the rivet nut upon bolt removal. If this occurred, the repair procedure would be time consuming and costly.

Additionally, corrosion from the joint could cause staining on the Class A roof surface which would require an expensive service procedure. Stainless Steel was cost prohibitive for the application.

Sherex introduced its CR Series Zinc-Nickel finish as an alternative to stainless steel rivet nuts. CR Series plated rivet nuts were installed in the application and the entire assembly was subjected to salt spray testing to ensure no galvanic corrosion would occur. The application surpassed 1400 hours with no red rust when tested per ASTM B-117 neutral salt spray test procedure. Given it's impressive performance, the CR Series plating is currently the only approved plating for application.

Tooling – Given the critical nature of the application, Sherex recommended and the customer implemented the Sherex process monitoring installation tooling which measures the installation force and upset distance of the rivet nut installation. The system generates an installation curve graphically representing the installation process. A tolerance window is established based on the validation testing performed and if the installation curve falls outside of the tolerance window the system notifies the operator and shuts down the cell to ensure a zero defect production environment.

***Test Data can vary greatly due to application.**
Sherex recommends you contact us to get testing data for your specific application.

TESTING METHODS

PULL OUT

Definition:

- Pull Out occurs when threads are pulled from the rivet nut (ultimate thread strength) or base material is distorted and the entire rivet nut pulls through the base material.

Causes:

- Hole size is too large.
- Forces applied to the joint are higher than anticipated.

SPIN OUT

Definition:

- Spin Out is the amount of torque required to make a rivet nut spin in the hole it was installed in.

Causes:

- Bolt cross threads into the rivet nut causing it to spin.
- Excessive corrosion causes bolt to bind in the nut.
- Using a screw with mechanical locking feature that has higher prevailing torque than the spin out of the rivet nut.

TORQUE OUT

Definition:

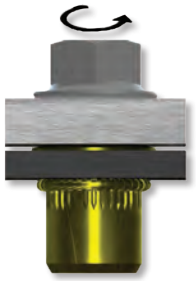
- Torque force required to strip threads out of the rivet nut.
- This method of testing sandwiches the head of the rivet nut between the non-rotational mating part and parent or base panel.
- Spin Out is not a factor because tightening the bolt on the non-rotating part holds the rivet nut in place and prevents it from spinning.

Causes:

- Assembly torque is too high causing thread failure.
- Improper grade of fastener used.

*Torque can be affected by various factors such as coefficient of friction of the finish, prevailing torque, washers, etc… Sherex recommends you test your application.

SUGGESTED ASSEMBLY TORQUE



Definition:

- Recommended torque for assembling a rivet nut joint with class 8.8/grade 5 hardware.

Contact Sherex should you require Grade 8, Class 10 or higher joint strength.

THREAD SIZE	SUGGESTED ASSEMBLY TORQUE INCH LBS. -Nm PLATED SCREW GRADE 5 CLASS 8.8
# 6-32 UNC	12
# 8-32 UNC	22
# 10-24 UNC	32
# 10-32 UNF	36
1/4-20 UNC	75
1/4-28 UNF	75
5/16-18 UNC	156
5/16-24 UNC	156
3/18-16 UNC	276
3/8-24 UNF	276
M4x0.7 ISO	2.5
M5x0.8 ISO	5.0
M6x1.0 ISO	8.6
M8x1.25 ISO	21.0
M10x1.5 ISO	42.0
M12x1.75 ISO	72.0

TEST DATA IS FOR REFERENCE ONLY.
SHEREX RECOMMENDS TESTING YOUR APPLICATION FOR AN EXACT FIGURE.

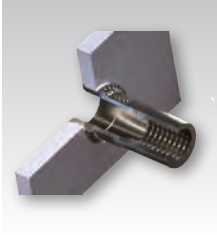
Sherex Fastening Solutions, LLC | Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

M6 stud was developed for an attachment point to a truck frame. Design incorporated wedgehead feature for increased spin out resistance and the MAThread® screw design for reduced cross thread risk during assembly. Application incorporated Sherex Process Monitoring Tooling to ensure each part was properly installed.

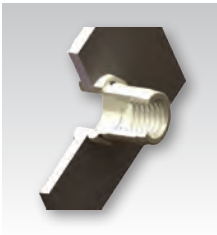
Was developed to attach a molded plastic cover to a base unit. If the rivet nut has an outside thread to accept a nut, the plastic cover could be altered and the external thread of the rivet nut could be used for the attachment point.

Designed with an extra large head to act like a spacer.

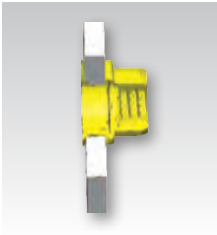
Sherex developed this part to add increased spin out resistance in soft materials. Special knurl design provides increased engagement with the base material. Small flange provided near flush installation.



Special small grip part designed for materials thinner than .030 inches.

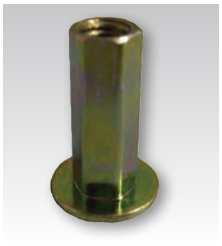


A replacement for a more expensive, machined component that would periodically spin-out. The customer required a low-profile insert with high spin-out resistance. Sherex developed this part has a half-hex body to increase spin performance, 0.145" max installed length, and higher strength threads to withstand installation forces.

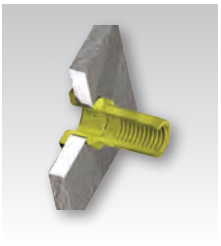


* MAThread® is a registered trademark of MAThread Inc.

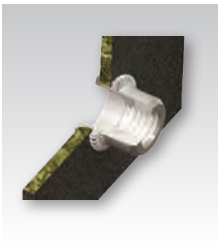
SHEREX PRODUCT SHOWCASE



Sherex developed a high strength rivet nut that is compatible with class 10.9 bolts. This design incorporates a full hex body for increased spin out resistance. It also ensures the bolt is the failure mode, which is a best practice when working with structural applications.



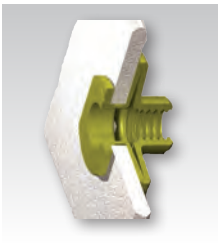
Special head and wedge design to meet spin-out requirements in an application.



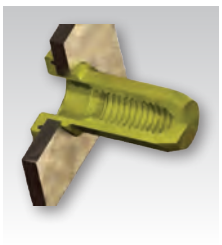
Sherex shouldered rivet nut was developed for attachments in plastics. The shoulder design provides a positive metal to metal installation redirecting the load of the joint through the rivet nut shoulder. This minimizes the plastic from creeping during assembly and maintains joint clamp load.

M6 prebulbed slotted body design incorporated under head wedges to increase the spin out resistance in soft plastic.

5/16-18 prebulbed slotted body style with a trimmed head. This head feature allowed installation in the field by the consumer or assembler when used with a special low cost installation tool. Feature also allows head to sit flush within a slot to prevent spin out.

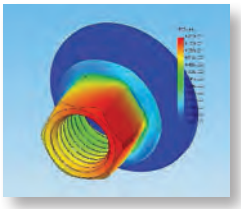


Closed end design with o-ring and o-ring recess under head provides the ultimate sealing solution for attachment points in applications with chemicals and other fluids that breakdown other sealing compounds.



DESIGN SUPPORT CAPABILITIES

- Sherex USA combines design & engineering support
  - Ensures the end user is using the correct fastener for the application
- Sherex USA utilizes Solidworks 3D modeling
  - Simulates specialty rivet nut designs
  - The Finite Element Analysis portion of the software allows us to create simulations of the application to ensure it will meet the load requirements of the application.

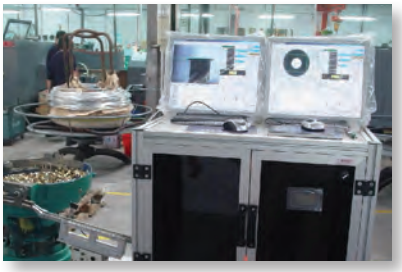


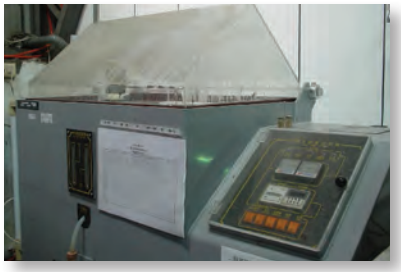
SHEREX PRODUCTION

- Sherex Production Capabilities
  - Multi-station progressive forming machines for deep extrusions
- Production methods used:
  - Machining
  - Tapping
  - Drilling
  - Additional supporting equipment

SHEREX QUALITY

- Statistical Process Control (SPC)
  - Used in the manufacturing process
  - Critical for use in Level 3, Rev 4 PPAP
- Sherex quality labs
  - Use the latest in testing equipment to ensure our products meet stringent quality requirements.
    - Computerized tensile machine
    - Salt spray booth
    - Torque machine
    - Standard measuring equipment
    - Gauging equipment
- Advanced optical sorting equipment is available for automotive and critical parts





SHEREX DECIMAL EQUIVALENTS & DRILL SIZE CHART

Drill Size	Inch (Dec.)	Metric (mm)	Drill Size	Inch (Dec.)	Metric (mm)	Drill Size	Inch (Dec.)	Metric (mm)	Drill Size	Inch (Dec.)	Metric (mm)	Drill Size	Inch (Dec.)	Metric (mm)
80	.0135	,343	50	.0700	1,778	22	.1570	3,988	G	.2610	6,630	31/64	.4844	12,304
79	.0145	,368	49	.0730	1,854	21	.1590	4,039	17/64	.2656	6,746	1/2	.5000	12,700
1/64	.0156	,396	48	.0760	1,930	20	.1610	4,089	H	.2660	6,756	33/64	.5156	13,096
78	.0160	.406	5/64	.0781	1,984	19	.1660	4,216	I	.2720	6,909	17/32	.5312	13,492
77	.0180	.457	47	.0785	1,994	18	.1695	4,305	J	.2770	7,036	35/64	.5469	13,891
76	.0200	,508	46	.0810	2,057	11/64	.1719	4,366	K	.2810	7,137	9/16	.5625	14,288
75	.0210	,533	45	.0820	2,083	17	.1730	4,394	9/32	.2812	7,142	37/64	.5781	14,684
74	.0225	,572	44	.0860	2,184	16	.1770	4,496	L	.2900	7,366	19/32	.5938	15,083
73	.0240	,609	43	.0890	2,261	15	.1800	4,572	M	.2950	7,493	39/64	.6094	15,479
72	.0250	,635	42	.0935	2,375	14	.1820	4,623	19/64	.2969	7,541	5/8	.6250	15,875
71	.0260	,660	3/32	.0938	2,383	13	.1850	4,700	N	.3020	7,671	41/64	.6406	16,271
70	.0280	,711	41	.0960	2,438	3/16	.1875	4,763	5/16	.3125	7,938	21/32	.6562	16,667
69	.0292	,742	40	.0980	2,489	12	.1890	4,801	O	.3160	8,026	43/64	.6719	17,066
68	.0310	,787	39	.0995	2,527	11	.1910	4,851	P	.3230	8,204	11/16	.6875	17,463
1/32	.0312	,792	38	.1015	2,578	10	.1935	4,915	21/64	.3281	8,334	45/64	.7031	17,859
67	.0320	,813	37	.104	2,642	9	.1960	4,978	Q	.3320	8,433	23/32	.7188	18,258
66	.330	,838	36	.1065	2,705	8	.1990	5,055	R	.3390	8,611	47/64	.7344	18,654
65	.0350	,889	7/64	.1094	2,779	7	.2010	5,105	11/32	.3438	8,733	3/4	.7500	19,050
64	.0360	,914	35	.1100	2,794	13/64	.2031	5,159	S	.3480	8.839	49/64	.7656	19,446
63	.0370	,940	34	.1110	2,819	6	.2040	5,182	T	.3580	9,093	25/32	.7812	19,842
62	.0380	,965	33	.1130	2,870	5	.2055	5,220	23/64	.3594	9,129	51/64	.7969	20,241
61	.0390	,991	32	.1160	2,946	4	.2090	5,309	U	.3680	9,347	13/16	.8125	20,638
60	.0400	1,016	31	.1200	3,048	3	.2130	5,410	3/8	.3750	9,525	53/64	.8281	21,034
59	.0410	1,041	1/8	.1250	3,175	7/32	.2188	5,558	V	.3770	9,576	27/32	.8438	21,433
58	.0420	1,067	30	.1285	3,264	2	.2210	5,613	W	.3860	9,804	55/64	.8594	23,829
57	.0430	1,092	29	.1360	3,454	1	.2280	5,791	25/64	.3906	9,921	7/8	.8750	22,225
56	.0465	1,181	28	.1405	3,569	A	.2340	5,944	X	.3970	10,084	57/64	.8906	22,621
3/64	.0469	1,191	9/63	.1406	3,571	15/64	.2344	5,954	Y	.4040	10,262	29/32	.9062	23,017
55	.0520	1,321	27	.1440	3,658	B	.2380	6,045	13/32	.4062	10,317	59/64	.9219	23,416
54	.0550	1,397	26	.1470	3,734	C	.2420	6,147	Z	.4130	10,490	15/16	.9375	23,813
53	.0595	1,511	25	.1495	3,797	D	.2460	6,248	27/64	.4219	10,716	61/64	.9531	24,209
1/16	.0625	1,588	24	.1520	3,861	1/4	.2500	6,350	7/16	.4375	11,113	31/32	.9688	24,608
52	.0635	1,613	23	.1540	3,912	E	.2500	6,350	29/64	.4531	11,509	63/64	.9844	25,004
51	.0670	1,702	5/32	.1562	3,967	F	.2570	6,528	15/32	.4688	11,908	1	1.000	25,400

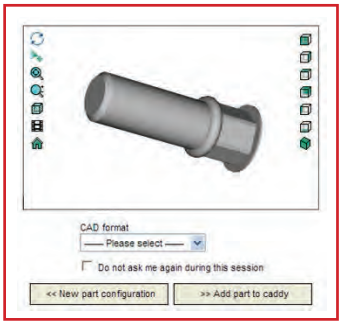
No. of Gauge	Aluminum (B & S)	Steel (U.S. Std.)
10	0.101	0.1345
11	0.0907	0.1196
12	0.0808	0.1046
13	0.072	0.0897
14	0.0641	0.0747
15	0.0571	0.0673
16	0.0508	0.0598
17	0.0453	0.0538
18	0.0403	0.0478
19	0.0359	0.0418
20	0.0320	0.0359

No. of Gauge	Aluminum (B & S)	Steel (U.S. Std.)
21	0.0285	0.0329
22	0.0253	0.0299
23	0.0226	0.0269
24	0.0201	0.0239
25	0.0179	0.0209
26	0.0159	0.0179
27	0.0142	0.0164
28	0.0126	0.0149
29	0.0113	0.0135
30	0.0100	0.0120

SHEREX WEBSITE

- Complete product catalog.
- Download the catalog, drawings, installation methods and installation videos.
- Links to the 3D models.

INSTALLED 3D MODEL DOWNLOAD



- Choose your: style of interest, type of material, material thickness, open or closed end, and thread size.
- Creates an installed 3D model of the fastener for placement into your modeling system.
- The model is available in 21 different file formats.
- Models are available for the Imperial/Inch body style rivet nuts, RIV-FLOAT® and Brass Inserts.

MARKETING TOOLS

Rivet Nut Plate

- Features installed samples of: CAL, CAK, CAH, CA, CAS, CFT, Seal 2, Dejond Tubtara®, RIV-FLOAT® and RIV-FLOAT®-SHORT Rivet Nuts. ACN and ASN Clinch Nuts

Sherex Sample Cases

- Contains various samples of rivet nuts and brass inserts. Ideal for countertop displays.

Sherex Binder

- Filled with useful information, such as: training presentation, specialty rivet nut sell sheets, competitive cross reference guide, and much more.

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