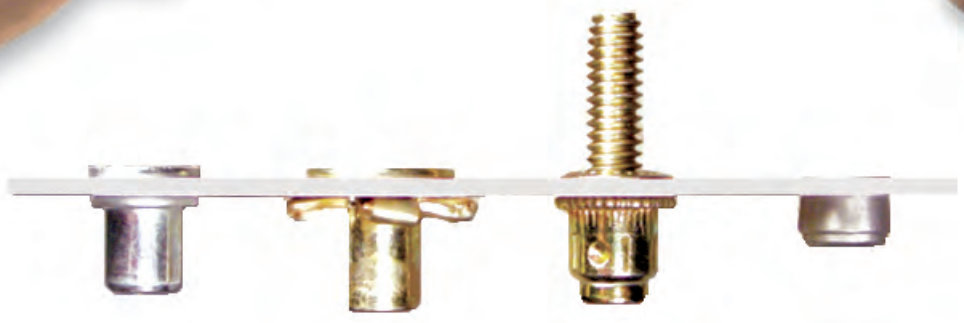
SHEREX FASTENING SOLUTIONS

RIVET NUT INSERT



ISO/TS 16949:2002 CERTIFIED

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SHEREX FASTENING SOLUTIONS

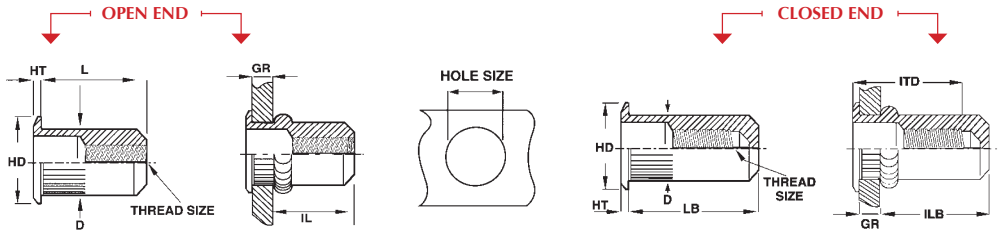
IMPERIAL/INCH BODY STYLE RIVET NUTS

- 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.

SHEREX FASTENING SOLUTIONS

Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

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	6.76
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

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 4-Monel 5-Brass	Thread Size	Grip Range	Empty-Open End B-Closed End T-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 26-28.

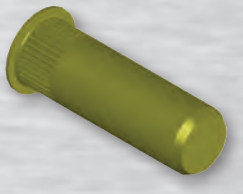
Sherex rivet nuts are compatible with the following hardware:
GRADE 2, GRADE 5, CLASS 8.8 and CLASS 9.8
Please contact Sherex when using other grade fasteners.

Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

SHEREX FASTENING SOLUTIONS

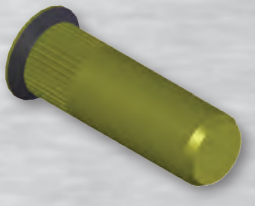
CAL series

- 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

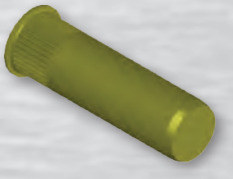


SEALED HEAD

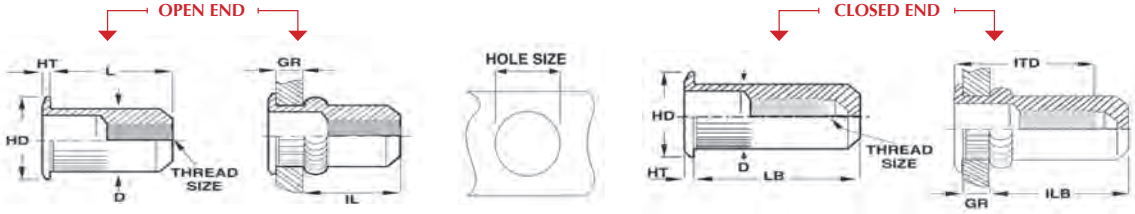
CAK SMALL FLANGE KNURLED BODY THIN WALL SERIES

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

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 4-Monel 5-Brass	Thread Size	Grip Range	Empty-Open End B-Closed End T-Trivalent

Special finish or material available upon request

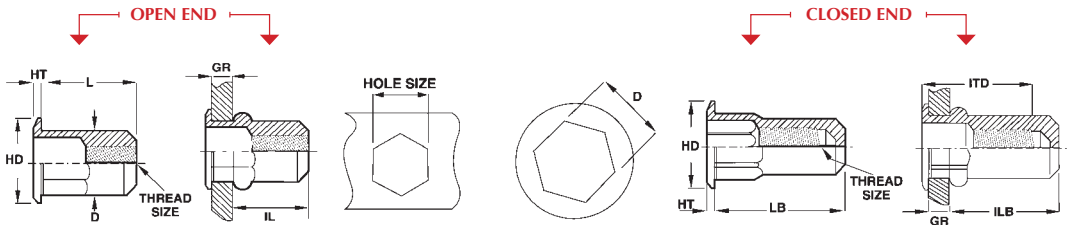
*Contact Sherex for exact product dimensions in Stainless Steel.
Grip range can be affected by parent material and hole size. Sherex recommends trial installations to determine the proper grip range for the application. Contact Sherex for details.
CAK style rivet nuts are available in closed end designs. 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 26-28.

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
Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

CAH HALF HEX BODY LARGE FLANGE 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.	+.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	IL	LB	ILB	ITD	Hole Size
		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

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 4-Monel 5-Brass	Thread Size	Grip Range	Empty-Open End B-Closed End T-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 26-28.

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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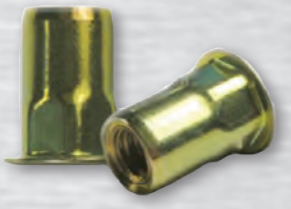
SHEREX FASTENING SOLUTIONS

CAH series

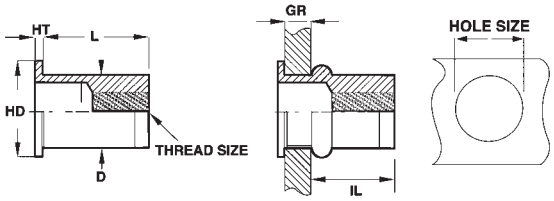


- The CAH series offers a semi hex body for excellent resistance to spin out in the hole.

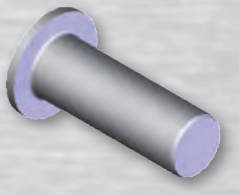
CLOSED END

CA series

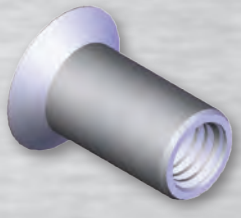
CA HEAVY DUTY RIVET NUT FLAT HEAD SERIES



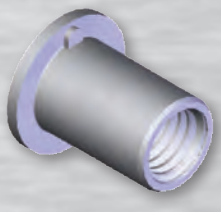
- The CA series offers a thick head and thick collapse chamber wall thickness for heavy duty applications.
- Available with a countersunk head style for a flush installation.
- Available in a keyed head style for reduced spin out



CLOSED END



COUNTERSUNK HEAD



KEYED HEAD

MS/NAS available. Contact Sherex for more information.

UNIFIED THREAD (UNIT - INCHES)

Part Number (Steel)	Thread Size	Grip Range		L	HD	HT	D	IL	Hole Size
		Min.	Max.	± .015	± .015	Nom.	+.000/-.004	Ref.	+.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

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-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 26 & 28.

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
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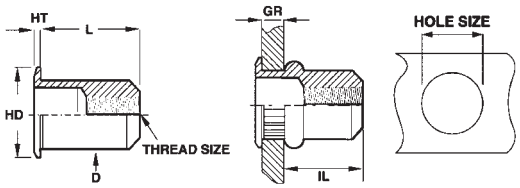
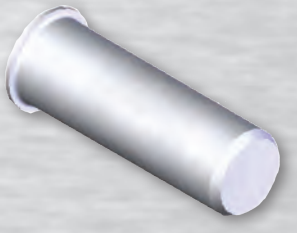
CAO SMALL FLANGE SMOOTH BODY THIN WALL SERIES

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

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-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.

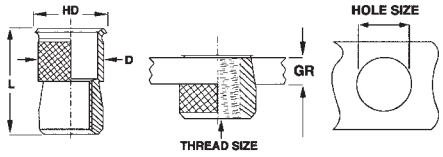
INSTALLATION TOOLING
CAO Series can be installed with our Hand Tools, Pneumatic Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 26-28.

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 series

- 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.

CFW/CAW DIAMOND KNURLED 360° SWAGING SERIES



Material thickness .062"/1.57 min

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	0.255	0.370	0.233	0.234
CAW2-0832	8-32 UNC	N	0.285	0.370	0.264	0.266
CAW2-1024	10-24 UNC	N	0.320	0.370	0.295	0.297
CAW2-1032	10-32 UNF	N	0.320	0.370	0.295	0.297
CAW2-2520	1/4-20 UNC	N	0.415	0.515	0.389	0.391
CAW2-3118	5/16-18 UNC	N	0.550	0.615	0.528	0.531
CAW2-3716	3/8-16 UNC	N	0.615	0.740	0.590	0.594
CFW2-0632	6-32 UNC	Y	0.255	0.370	0.233	0.234
CFW2-0832	8-32 UNC	Y	0.285	0.370	0.264	0.266
CFW2-1024	10-24 UNC	Y	0.320	0.370	0.295	0.297
CFW2-1032	10-32 UNF	Y	0.320	0.370	0.295	0.297
CFW2-2520	1/4-20 UNC	Y	0.415	0.515	0.389	0.391
CFW2-3118	5/16-18 UNC	Y	0.550	0.615	0.528	0.531
CFW2-3716	3/8-16 UNC	Y	0.615	0.740	0.590	0.594

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 CAD 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 26-28.

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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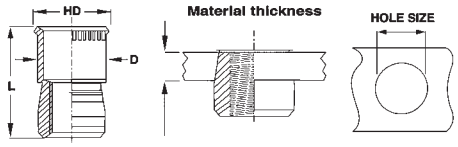
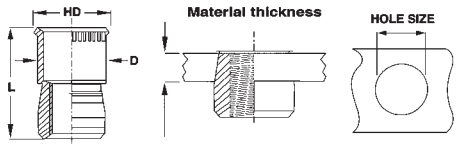
CFT/CAT KNURLED 360° SWAGING SERIES





UNIFIED THREAD (UNIT - INCHES)

Part Number (Steel)	Thread Size	Cadmium Free & RoHS Compliant	HD ± .005	L ± .015	D Max.	Recommended Hole Size MAT. THICK .030-.090	MAT. THICK .091-.124	MAT. THICK .125-.186	MAT. THICK .187-Over
CAT2-0440	4-40 UNC	N	0.211	0.370	0.1875	0.1875	0.1935	0.1935	0.1960
CAT2-0632	6-32 UNC	N	0.240	0.370	0.2185	0.2188	0.2210	0.2280	0.2280
CAT2-0832	8-32 UNC	N	0.269	0.370	0.2495	0.2500	0.2570	0.2656	0.2656
CAT2-1024	10-24 UNC	N	0.306	0.370	0.2805	0.2812	0.2900	0.2900	0.2969
CAT2-1032	10-32 UNF	N	0.306	0.370	0.2805	0.2812	0.2900	0.2900	0.2969
CAT2-2520	1/4-20 UNC	N	0.400	0.515	0.3745	0.3750	0.3750	0.3860	0.3906
CAT2-3118	5/16-18 UNC	N	0.528	0.615	0.4995	0.5000	0.5000	0.5156	0.5156
CAT2-3716	3/8-16 UNC	N	0.588	0.745	0.5615	0.5625	0.5625	0.5781	0.5781
CAT2-5013	1/2-13 UNC	N	0.800	0.935	0.7485	0.7500	0.7656	0.7810	0.7970
CFT2-0440	4-40 UNC	Y	0.211	0.370	0.1875	0.1875	0.1935	0.1935	0.1960
CFT2-0632	6-32 UNC	Y	0.240	0.370	0.2185	0.2188	0.2210	0.2280	0.2280
CFT2-0832	8-32 UNC	Y	0.269	0.370	0.2495	0.2500	0.2570	0.2656	0.2656
CFT2-1024	10-24 UNC	Y	0.306	0.370	0.2805	0.2812	0.2900	0.2900	0.2969
CFT2-1032	10-32 UNF	Y	0.306	0.370	0.2805	0.2812	0.2900	0.2900	0.2969
CFT2-2520	1/4-20 UNC	Y	0.400	0.515	0.3745	0.3750	0.3750	0.3860	0.3906
CFT2-3118	5/16-18 UNC	Y	0.528	0.615	0.4995	0.5000	0.5000	0.5156	0.5156
CFT2-3716	3/8-16 UNC	Y	0.588	0.745	0.5615	0.5625	0.5625	0.5781	0.5781
CFT2-5013	1/2-13 UNC	Y	0.800	0.935	0.7485	0.7500	0.7656	0.7810	0.7970

METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Cadmium Free & RoHS Compliant	HD ± .13	L ± .38	D Max.	Recommended Hole Size 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	4.900	4.97
CAT2-470	M4X0.7 ISO	N	6.83	9.40	6.34	6.35	6.52	6.740	6.74
CAT2-580	M5X0.8 ISO	N	7.77	9.40	7.12	7.14	7.36	7.360	7.54
CAT2-610	M6X1.0 ISO	N	10.16	13.08	9.51	9.52	9.52	9.800	9.92
CAT2-8125	M8X1.25 ISO	N	13.41	15.62	12.69	12.70	12.70	13.090	13.09
CAT2-1015	M10X1.5 ISO	N	14.94	18.92	14.26	14.28	14.28	14.680	14.68
CAT2-12175	M12X1.75 ISO	N	20.32	23.75	19.01	19.05	19.44	19.830	20.24
CFT2-350	M3X0.5 ISO	Y	5.36	9.40	4.76	4.75	4.90	4.900	4.97
CFT2-470	M4X0.7 ISO	Y	6.83	9.40	6.34	6.35	6.52	6.740	6.74
CFT2-580	M5X0.8 ISO	Y	7.77	9.40	7.12	7.14	7.36	7.360	7.54
CFT2-610	M6X1.0 ISO	Y	10.16	13.08	9.51	9.52	9.52	9.800	9.92
CFT2-8125	M8X1.25 ISO	Y	13.41	15.62	12.69	12.70	12.70	13.090	13.09
CFT2-1015	M10X1.5 ISO	Y	14.94	18.92	14.26	14.28	14.28	14.680	14.68
CFT2-12175	M12X1.75 ISO	Y	20.32	23.75	19.01	19.05	19.44	19.830	20.24

PART NUMBERING SYSTEM

CFT/CAT Specifications

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

Finish: CAT is CAD 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 26-28.

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.

CFT/ CAT series

- The CFT/CAT series offers one rivet nut for materials of any thickness greater than .0020 inches.
- Cadmium Free finish allows the CFT Series to be used in any industry, including automotive.
- CFT series should be used in metal applications.

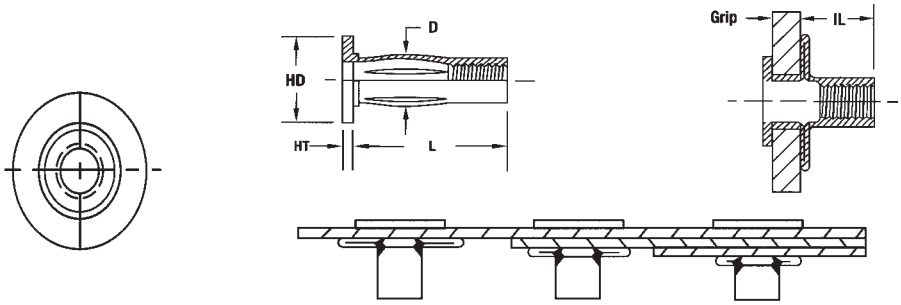
CPB PREBULBED SLOTTED BODY SERIES

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

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-Trivalent W-Wedge Head TR-Trim Head

Special finish or material available upon request

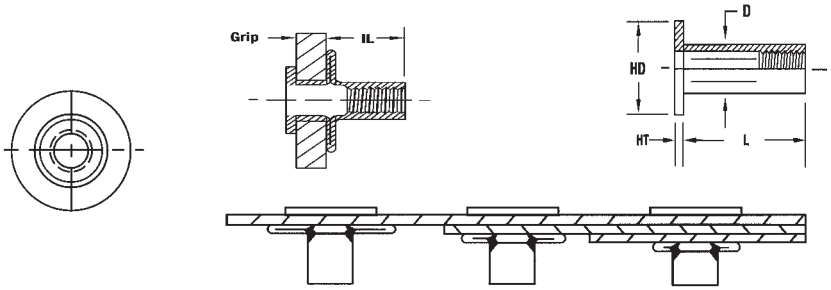
Grip range can be affected by parent material and hole size.
Sherex recommends trials installations to determine the proper grip range for the application.
Contact Sherex for details.
Contact Sherex for test data.

INSTALLATION TOOLING
CPB Series can be installed with our Hand Tools, Pneumatic Tools, and Hydro-Pneumatic Tools.
For additional tooling information see pages 26-28.

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
Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

CPN STRAIGHT SHANK SLOTTED BODY SERIES



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
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.	+0.15/-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

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

Part Number
Example: CPN2-2520-280

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

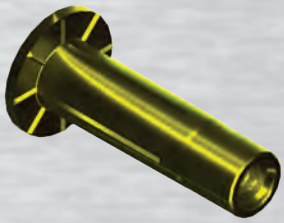
INSTALLATION TOOLING
CPN Series must be installed with spin pull tooling.
For more information see page 28.

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

CPN series

- 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.



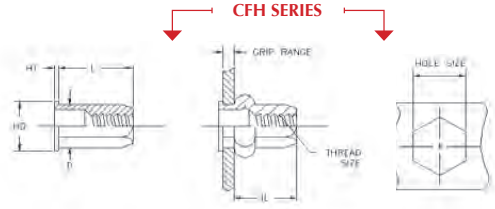
WEDGE HEAD

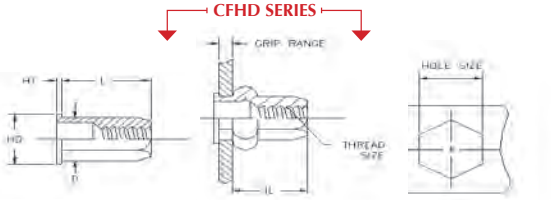
CFH & CFHD FULL HEX BODY SERIES

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		HD		L	HT	D	IL	Hole Size
		Min.	Max.	Min.	Max.	± .015	Nom.	Max.	Ref.	±.005/-.000
CFH2-1024-085	10-24 UNC	0.010	0.085	0.329	0.359	0.344	0.043	0.223	0.200	0.224
CFH2-1024-135	10-24 UNC	0.085	0.135	0.329	0.359	0.406	0.043	0.223	0.210	0.224
CFH2-1024-185	10-24 UNC	0.135	0.185	0.329	0.359	0.453	0.043	0.223	0.210	0.224
CFH2-1032-085	10-32 UNF	0.010	0.085	0.329	0.359	0.344	0.043	0.223	0.200	0.224
CFH2-1032-135	10-32 UNF	0.085	0.135	0.329	0.359	0.406	0.043	0.223	0.210	0.224
CFH2-1032-185	10-32 UNF	0.135	0.185	0.329	0.359	0.453	0.043	0.223	0.210	0.224
CFH2-2520-085	1/4-20 UNC	0.020	0.085	0.422	0.452	0.406	0.043	0.296	0.250	0.297
CFH2-2520-145	1/4-20 UNC	0.085	0.145	0.422	0.452	0.469	0.043	0.296	0.250	0.297
CFH2-2520-205	1/4-20 UNC	0.145	0.205	0.422	0.452	0.531	0.043	0.296	0.250	0.297
CFH2-3118-105	5/16-18 UNC	0.030	0.105	0.547	0.577	0.562	0.048	0.368	0.375	0.369
CFH2-3118-175	5/16-18 UNC	0.105	0.175	0.547	0.577	0.640	0.048	0.368	0.380	0.369
CFH2-3118-245	5/16-18 UNC	0.175	0.245	0.547	0.577	0.703	0.048	0.368	0.375	0.369
CFH2-3716-115	3/8-16 UNC	0.030	0.115	0.641	0.671	0.625	0.058	0.437	0.400	0.438
CFH2-3716-205	3/8-16 UNC	0.115	0.205	0.641	0.671	0.718	0.058	0.437	0.405	0.438
CFH2-3716-295	3/8-16 UNC	0.205	0.295	0.641	0.671	0.812	0.058	0.437	0.410	0.438

CFH METRIC THREAD (UNIT - MILLIMETERS)

SHEREX Part Number	Thread Size	Grip Range		HD		L	HT	D	IL	Hole Size
		Min.	Max.	Min.	Max.	± .038	Nom.	Max.	Ref.	±.005/-.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		HD		L	HT	D	IL	Hole Size
		Min.	Max.	Min.	Max.	± .015	Nom.	Max.	Ref.	±.005/-.000
CFHD2-2520-080	1/4-20 UNC	0.020	0.080	0.454	0.484	0.500	0.058	0.312	0.340	0.312
CFHD2-2520-150	1/4-20 UNC	0.080	0.150	0.454	0.484	0.578	0.058	0.312	0.345	0.312
CFHD2-3118-100	5/16-18 UNC	0.020	0.100	0.579	0.609	0.625	0.062	0.397	0.405	0.397
CFHD2-3118-180	5/16-18 UNC	0.100	0.180	0.579	0.609	0.703	0.062	0.397	0.405	0.397
CFHD2-3716-125	3/8-16 UNC	0.020	0.125	0.673	0.703	0.703	0.088	0.468	0.450	0.468
CFHD2-3716-230	3/8-16 UNC	0.125	0.230	0.673	0.703	0.812	0.088	0.468	0.450	0.468

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	2520	2	(_)
Full Hex Heavy Duty Large Flange CFHD - High Strength	Thread Size	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
Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

NOTES

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.

SHEREX FASTENING SOLUTIONS
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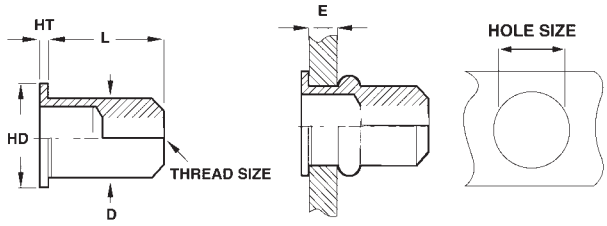
UPO LARGE FLANGE EUROPEAN SERIES

UPO series



METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range (E)		L	HD	HT	D	Hole Size
		Min.	Max.					
TU-SM3UPO20	M3X0.5 ISO	0,5	2,0	9,75	8,0	0,75	5,0	5,1
TU-SM3UPO30	M3X0.5 ISO	2,0	3,0	10,75				
TU-SM4UPO30	M4X0.7 ISO	0,5	3,0	10,75	10,0	0,75	6,0	6,0
TU-SM4UPO45	M4X0.7 ISO	3,0	4,5	12,25				
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	19,75	18,5	2,25	12,4	12,5
TU-SM10UPO60	M10X1.5 ISO	3,5	6,0	22,75				
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

Part Number
Example: TU-SM5UPO30

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

Finish:
Zinc Plated-Yellow Dichromate
RoHS Compliant: Zinc Top

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 27 & 28.

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.

Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

SHEREX FASTENING SOLUTIONS

- 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.

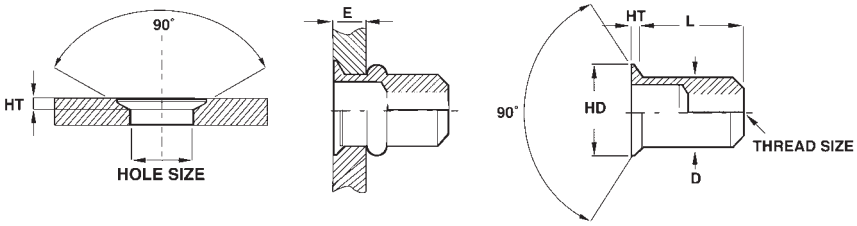
CLOSED END

UFO COUNTERSUNK HEAD EUROPEAN 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.

CLOSED END



METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range (E) Min.	Grip Range (E) Max.	L	HD	HT	D	Hole Size
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 — **Part Number** Example: TU-SM5UFO35

TU Product Style: European	S Material S-Steel A-Aluminum SS-304 Stainless Steel	M5 Thread Size	UF Product Type Smooth Shank Countersunk Head Metric Body	O O-Open End X-Closed End	35 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 27 & 28.

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.

SHEREX FASTENING SOLUTIONS
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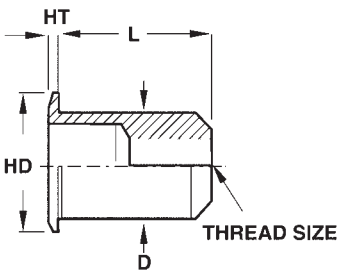
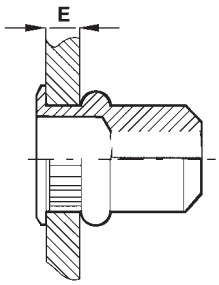
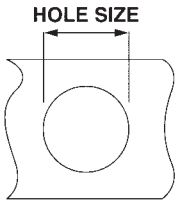
UKO SMALL FLANGE EUROPEAN SERIES







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

CLOSED END

METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range (E)		L	HD	HT	D	Hole Size
		Min.	Max.					
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	12,5	12,5

PART NUMBERING SYSTEM

UKO Specifications **Part Number**
Example: TU-SM5UKO30

TU Product Style: European	S Material S-Steel A-Aluminum SS-304 Stainless Steel ***316-316 Stainless Steel**	M5 Thread Size	UK Product Type Smooth Shank Small Flange, Round Body Metric Body	O O-Open End X-Closed End	30 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 27 & 28.

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 EUROPEAN SERIES

HUPO/ HUKO series

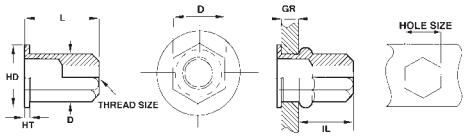
- The HUPO series has a large flange that provides increased strength.
- Hexagonal shank body for improved spin out.
- The metric body dimensions allow for use in metric holes.

- 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.

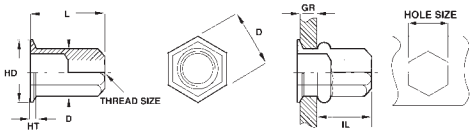
HUPX – CLOSED END

HUKX – CLOSED END

HUPO SERIES



HUKO SERIES



HUPO METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range (E)		L	HD	HT	D	Hole Size
		Min.	Max.					
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)		L	HD	HT	D	Hole Size
		Min.	Max.					
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

Part Number
Example: TU-SM5HUPO30

TU Product Style European	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 European	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

***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 27 & 28.

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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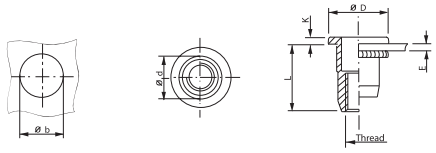
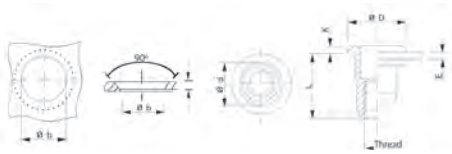
UPO RS & UFO RS LARGE AND COUNTERSUNK KNURLED EUROPEAN SERIES

UPO RS SERIES



UFO RS SERIES



UPO RS METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range (E)		L	D	K	b+01	Hole Size
		Min.	Max.					
TU-SM4UPO30R	M4X0.7 ISO	0,5	3,0	10,75	10,0	0,75	6,4	6,3
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	7,4	7,3
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	9,4	9,3
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	11,5	11,4
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	13,0	12,9
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	b+01	Hole Size
		Min.	Max.					
TU-SM4UFO35R	M4X0.7 ISO	1,7	3,5	11,5	9,0	1,5	6,4	6,3
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	7,4	7,3
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	9,4	9,3
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	11,5	11,4
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	13,0	12,9
TU-SM10UFO65R	M10X1.5 ISO	4,5	6,5	23,0				

PART NUMBERING SYSTEM

UPO RS/UFO RS Specifications

Part Number
Example: TU-SM5UPO30R

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

Part Number
Example: SM5UFO40R

TU Product Style: European	S Material S-Steel	M5 Thread Size	UF Product Type Smooth Shank Countersunk Head Metric Body	O O-Open End	R 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 27 & 28.

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.

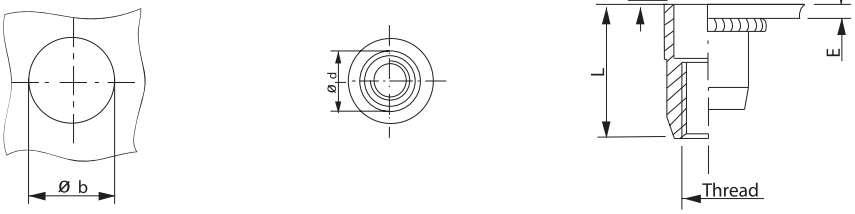
- The UPO RS series has a large flange that provides increased strength and better containment of round or oversized holes.
- Unique knurling increases spin out resistance in soft materials.

- 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

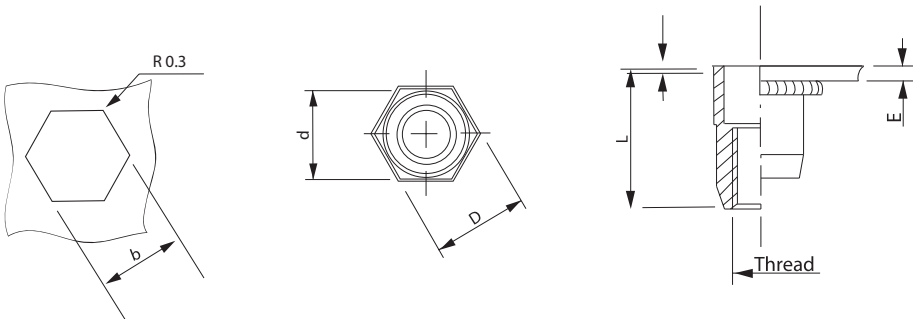
- UKO inch series has a smaller flange head that gives a near flush installation.
- Round shank body.
- Dimensions in inches.



UKO UNIFIED THREAD (UNIT - INCHES)

Part Number (304 Stainless Steel)	Thread Size	Grip Range (E)		L	D	K	Diameter - Inch ($b^{+0,1}$)	Diameter - Metric ($b^{+0,1}$)	Hole Size
		Min.	Max.						
TU-SS1032UKO30	10-32 UNF	.020	.118	0.472	0.295	.020	0.276	7,0	0.276
TU-SS2520UKO30	1/4-20 UNC	.020	.118	0.571	0.374	.020	0.354	9,0	0.354
TU-SS3118UKO30	5/16-18 UNC	.020	.118	0.630	0.453	.020	0.433	11,0	0.433

- 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 ($b^{+0,1}$)	Diameter - Metric ($b^{+0,1}$)	Hole Size
		Min.	Max.						
TU-SS1032HUKO30	10-32 UNF	.020	.118	0.472	0.295	.020	0.276	7,0	0.276
TU-SS2520HUKO30	1/4-20 UNC	.020	.118	0.571	0.374	.020	0.354	9,0	0.354
TU-SS3118HUKO30	5/16-18 UNC	.020	.118	0.630	0.453	.020	0.433	11,0	0.433

PART NUMBERING SYSTEM

UKO/HUKO Specifications

Part Number
Example: SS1032HUKO30

TU	SS	1032	HUK	O	30
Product Style	Material	Thread Size	Product Type	O-Open End	Grip Range
European	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 27 & 28.

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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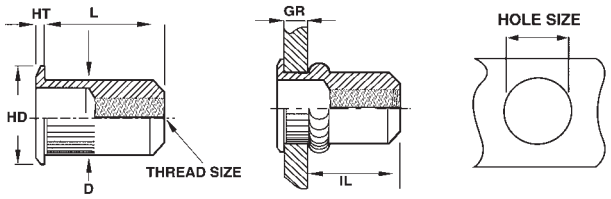
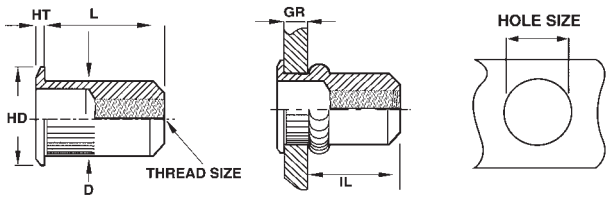
CLM & CKM LARGE & SMALL FLANGE KNURLED METRIC BODY SERIES



CLM METRIC THREAD (UNIT - MILLIMETERS)

Part Number (Steel)	Thread Size	Grip Range		L	HD		HT	D	IL	Hole Size
		Min.	Max.	Nom.	Min.	Max.	± .13	Max.	Ref.	+.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)

Part Number (Steel)	Thread Size	Grip Range		L	HD		HT	D	IL	Hole Size
		Min.	Max.	Nom.	Min.	Max.	± .13	Max.	Ref.	+.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 26 & 28.

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

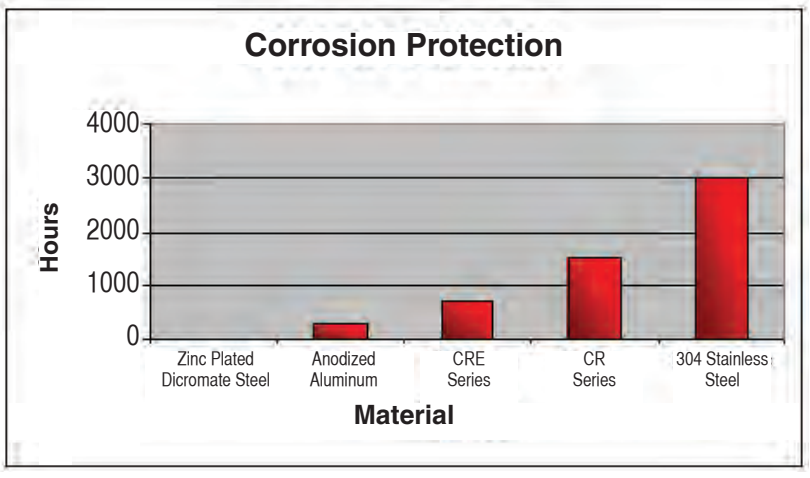
- Proprietary Zinc Nickel Plating
- CR Series is certified to over 1,000 hrs of corrosion protection before red rust
- Available on all rivet nuts in silver (standard), black, or yellow

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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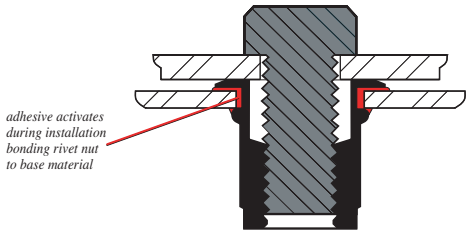
SHEREX LOCSERT®

Sherex Locsert® 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.

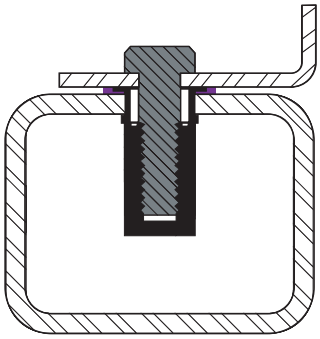
Base Material: 1018 steel, 70HRB, .063 thickness

Part Number	Spin Out (in./lbs)	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

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.

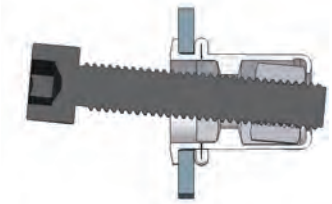


BENEFITS

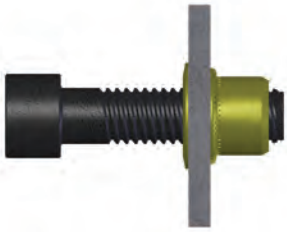
- Resistant to automotive fluids.
- Can withstand temperatures up to 150° C.
- Has been pressure tested to 160 psi of backside pressure with no leakage.
- Seal 2 processed rivet nuts can be installed into any finished materials.
- Seal 2 can pass through a paint bake or other baking process for up to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



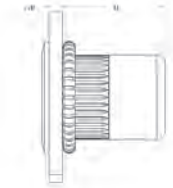
CROSS SECTION OF
RIV-FLOAT® INSTALLED



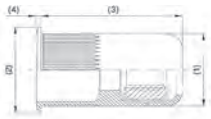
STANDARD RIVET
NUT INSTALLED

FEATURES AND BENEFITS

- Floating nut aligns to drive angle of screw 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
- Designed with higher thread strength than regular rivet nuts
- Mechanically locked RIV-FLOAT® is available with prevailing torque feature to IFI spec 100/107
- Installed with MS 50 hydro-pneumatic tool with RIV-FLOAT® nose piece



INSTALLED



UNINSTALLED

RFK INCH/METRIC SMALL FLANGE THREAD SIZES

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 SIZES

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	.391

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 patent pending

SHEREX FASTENING SOLUTIONS
Phone: 866-474-3739 | Fax: 716-875-0358 | www.sherex.com | E-mail: info@sherex.com

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 availability and lead times
Private label available upon request
RIV-FLOAT® is patent pending

HAND TOOLS

LHF 202 (Imperial Tool) Includes: 8-32, 10-24, 1/4-20, 5/16-18, 3/8-16, and 1/2-13 set ups

LHF 202M (Metric Tool) Includes: M4, M5, M6, M8, M10, and M12 set ups

Thread Size	Mandrel	Anvil
6-32	LHFM 0632	LHFA 0632
8-32	LHFM 0832	LHFA 0832
10-24	LHFM 1024	LHFA 1024
10-32	LHFM 1032	LHFA 1032
1/4-20	LHFM 2520	LHFA 2520
1/4-28	LHFM 2528	LHFA 2528
5/16-18	LHFM 3118	LHFA 3118
5/16-24	LHFM 3124	LHFA 3124
3/8-16	LHFM 3716	LHFA 3716
3/8-24	LHFM 3724	LHFA 3724
1/2-13	LHFM 5013	LHFA 5013
1/2-20	LHFM 5020	LHFA 5020
M4	LHFM M4	LHFA M4
M5	LHFM M5	LHFA M5
M6	LHFM M6	LHFA M6
M8	LHFM M8	LHFA M8
M10	LHFM M10	LHFA M10
M12	LHFM M12	LHFA M12

Introducing the new LHF 202 Hand Tool! This hand tool was designed to install any rivet nut raning in size from 6-32 to 1/2-20 (M4-M12). This tool is ideal for small production work and prototyping. It replaces previous offered hand tools (MS510, MS511, and MS480). RIV-FLOAT® can be installed with LHF 202 Hand Tool. Contact Sherex for RIV-FLOAT® mandrel and anvil part numbers.

The MS 7 Titgemeyer hand installation tool is designed for the installation of any rivet nut from 6-32 to 1/4-28 (M3 to M6). This tool is best suited for small production work and prototyping.

Tool Part Number MS 7
For Mandrel and anvil part numbers, refer to page 28.

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

RNHT 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. RIV-FLOAT® can be installed with RNHT Hand Tool. Contact Sherex for RIV-FLOAT® mandrel and anvil part numbers.

The 800 Pistol Style Series

Designed for installing CAL, CAK, CAH, CAO, CAT, CAW and CPB rivet nut inserts.
Features quick change nose piece for head set replacement without tools.

SSG-800 PISTOL STYLE SERIES

RIGHT ANGLE ATTACHMENT SSG-908

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
			PSI	LBS	NPT	CFM	IN				
SSG 801 & 901	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
	8-32	3000	70-90	3.0	1/4"	5	3/8	HS-0832	HD-8	M-0832-150	BS-8
	M3	3000	34-45	3.0	1/4"	5	3/8	HS-M3	HD-M3	M-M3-30	BS-M3
	M4	3000	34-45	3.0	1/4"	5	3/8	HS-M4	HD-M4	M-M4-35	BS-M4
SSG 802 & 902	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
	1/4-20	1500	70-90	3.0	1/4"	5	3/8	HS-2520	HD-25	M-2520-175	BS-25
	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
	M6	1500	70-80	3.0	1/4"	5	3/8	HS-M6	HD-M6	M-M6-40	BS-M6
SSG 803 & 903	5/16-18	600	80-110	3.0	1/4"	5	3/8	HS-3118	HD-31	M-3118-175	BS-31
	5/16-24	600	80-110	3.0	1/4"	5	3/8	HS-3124	HD-31	M-3124-175	BS-31
	3/8-16	600	80-110	3.0	1/4"	5	3/8	HS-3716	HD-37	M-3716-200	BS-37
	3/8-24	600	80-110	3.0	1/4"	5	3/8	HS-3724	HD-37	M-3724-200	BS-37
	M8	600	80-110	3.0	1/4"	5	3/8	HS-M8	HD-M8	M-M8-40	BS-M8
	M10	600	80-110	3.0	1/4"	5	3/8	HS-M10	HD-M10	M-M10-45	BS-M10
SSG-804	5/16-18	400	80-110	3.0	1/4"	5	3/8	HS-3118	HD-31	M-3118-175	BS-31
	5/16-24	400	80-110	3.0	1/4"	5	3/8	HS-3124	HD-31	M-3124-175	BS-31
	3/8-16	400	80-110	3.0	1/4"	5	3/8	HS-3716	HD-37	M-3716-200	BS-37
	3/8-24	400	80-110	3.0	1/4"	5	3/8	HS-3724	HD-37	M-3724-200	BS-37
	M8	400	80-110	3.0	1/4"	5	3/8	HS-M8	HD-M8	M-M8-40	BS-M8
	M10	400	80-110	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
	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

*Weight for 800 series only.

All spin-spin tools that are less than one half inch capacity can be equipped with a right angle attachment for difficult to access applications.

High temperature grease should be used to lubricate the bearing set.

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.

HYDRO-PNEUMATIC SPIN - PULL TOOLS

MS 50

MS 50

Thread Size	Mandrel	Anvil
6-32	MA-364-0632	MA-367-0632
8-32	MA-207-0832	MA-157-0832
10-24	MA-209-1024	MA-159-1032
10-32	MA-162-1032	MA-159-1032
1/4-20	MA-211-2520	MA-161-2520
1/4-28	MA-362-2528	MA-161-2520
5/16-18	MA-365-3118	MA-368-3118
5/16-24	MA-366-3124	MA-368-3118
3/8-16	MA-358-3716	MA-357-3716
3/8-24	MA-363-3724	MA-357-3716
M3	MA-203-03MM	MA-213-03MM
M4	MA-204-04MM	MA-214-04MM
M5	MA-205-05MM	MA-215-05MM
M6	MA-206-06MM	MA-216-06MM
M8	MA-208-08MM	MA-218-08MM
M10	MA-210-10MM	MA-220-10MM

The MS 50 rivet nut installation tool is design for installing heavy duty rivet nuts from 6-32 to 3/8-16 (M3-M10). This all-purpose Spin-Pull tool is adjustable to install rivet nuts in materials of different thickness, and has a one-touch trigger with auto reverse for easy installation. MS 50 tool comes with one mandrel and anvil. RIV-FLOAT® can be installed with the MS 50 tool. Contact Sherex for RIV-FLOAT® mandrel and anvil part numbers.

MS 100

MS 100

	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 installation tool works exactly like the MS 50, but is designed to install rivet nuts from 5/16-18 to 1/2-20. MS 100 tool comes with one mandrel and anvil.

The MS 50 and MS 100 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.

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NEW NOSE ASSEMBLY

All Hydro Pneumatic Installation Tools (MS 50 and MS 100) are now available to come with our new nose piece assembly. This new nose piece utilizes a standard socket head cap screw to replace specially machined mandrels.

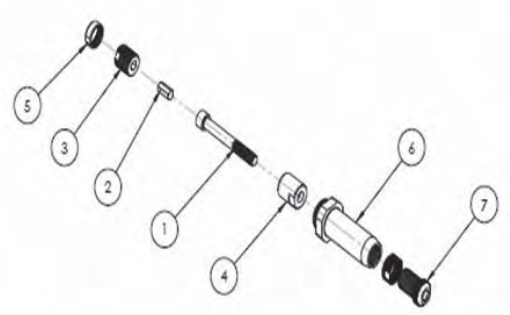
Cost of 10 Mandrels = New Nose Assembly Piece!!

MS 50S
Socket Head Cap Screw

Thread Size	Complete Head Assembly	Mandrel	Anvil
6-32	SH-50-037-0632	M-632-300	MA-367-0632
8-32	SH-50-037-0832	M-832-300	MA-157-0832
10-32	SH-50-037-1032	M-1032-300	MA-159-1032
1/4-20	SH-50-037-2520	M-2520-300	MA-161-2520
5/16-18	SH-50-037-3118	M-3118-300	MA-368-3118
3/8-16	SH-50-037-3716	M-3716-300	MA-357-3716
M5	SH-50-037-580	M-580-70	MA-215-05MM
M6	SH-50-037-610	M-610-70	MA-216-06MM
M8	SH-50-037-8125	M-8125-70	MA-218-08MM
M10	SH-50-037-1015	M-1015-70	MA-220-10MM

MS 100S
Socket Head Cap Screw

Thread Size	Complete Head Assembly	Mandrel	Anvil
5/16-18	SH-50-038-3118	M-3118-400	MA-369-3118
3/8-16	SH-50-038-3716	M-3716-400	MA-370-3716
1/2-13	SH-50-038-5013	M-5013-400	MA-372-5013
M8	SH-50-038-8125	M-8125-100	MA-318-08MM
M10	SH-50-038-1015	M-1015-100	MA-320-10MM
M12	SH-50-038-12175	M-12175-100	MA-322-12MM



Item Number	Description
1	Mandrel
2	Drive Adaptor
3	Drive Adaptor (2)
4	Adaptor Cup
5	Jam Nut
6	Nose Piece
7	Anvil

VALIDATION CAPABILITY

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.

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PULL OUT

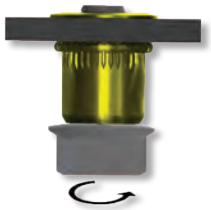
Definition:

- 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:

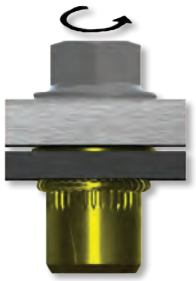
- Torque force required to strip threads out of the rivet nut.
- This method of testing sandwiches the head of the rivet nut between the non-rotational mating part and parent or base panel.
- Spin Out is not a factor because tightening the bolt on the non-rotating part holds the rivet nut in place and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

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

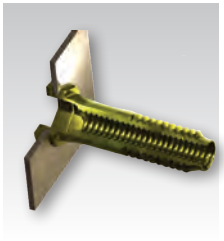
THREAD SIZE	SUGGESTED ASSEMBLY TORQUE INCH LBS. -Nm PLATED SCREW GRADE 5 CLASS 8.8
# 6-32 UNC	12
# 8-32 UNC	22
# 10-24 UNC	32
# 10-32 UNF	36
1/4-20 UNC	75
1/4-28 UNF	75
5/16-18 UNC	156
5/16-24 UNC	156
3/18-16 UNC	276
3/8-24 UNF	276
M4x0.7 ISO	2.5
M5x0.8 ISO	5.0
M6x1.0 ISO	8.6
M8x1.25 ISO	21.0
M10x1.5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

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

SHEREX PRODUCT SHOWCASE

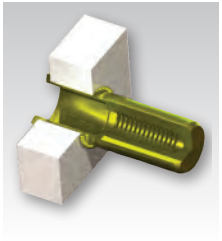
M6 stud was developed for an attachment point to a truck frame. Design incorporated wedgehead feature for increased spin out resistance and the MAThread® screw design for reduced cross thread risk during assembly. Application incorporated Sherex Process Monitoring Tooling to ensure each part was properly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

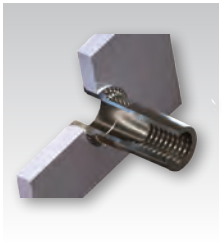


Designed with an extra large head to act like a spacer.

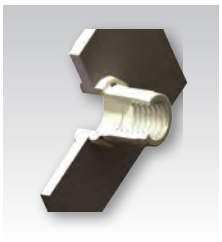
Designed for especially thick blind applications in composite materials.



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.



* MAThread® is a registered trademark of MAThread Inc.

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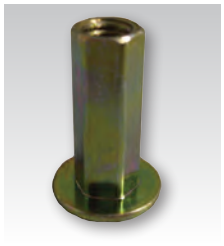
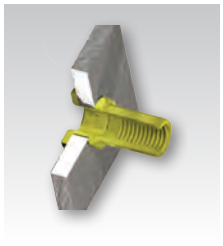
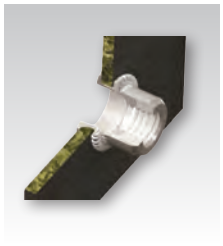


Sherex developed a high strength rivet nut that is compatible with class 10.9 bolts. This design incorporates a full hex body for increased spin out resistance. It also ensures the bolt is the failure mode, which is a best practice when working with structural applications.



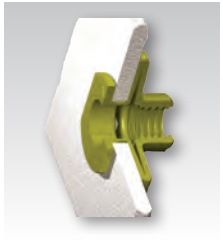
Special head and wedge design to meet spin-out requirements in an application.



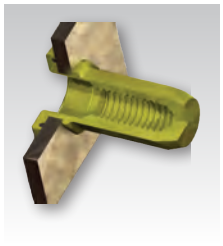
Sherex shouldered rivet nut was developed for attachments in plastics. The shoulder design provides a positive metal to metal installation redirecting the load of the joint through the rivet nut shoulder. This minimizes the plastic from creeping during assembly and maintains joint clamp load.

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.



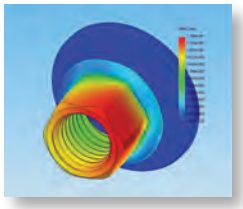
Closed end design with o-ring and o-ring recess under head provides the ultimate sealing solution for attachment points in applications with chemicals and other fluids that breakdown other sealing compounds.



ENGINEERING GUIDE

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.

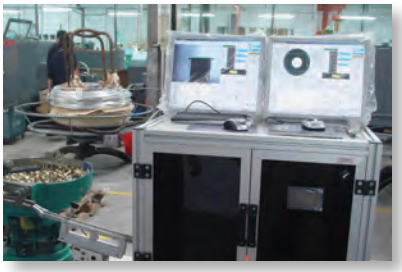


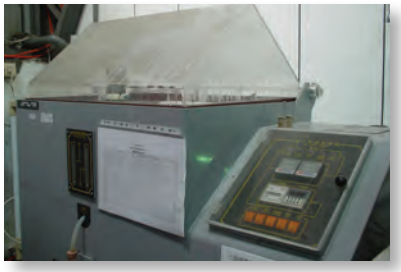
SHEREX PRODUCTION

- 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





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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

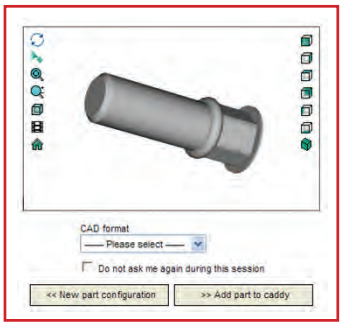
No. of Gauge	Aluminum (B & S)	Steel (U.S. Std.)
21	0.0285	0.0329
22	0.0253	0.0299
23	0.0226	0.0269
24	0.0201	0.0239
25	0.0179	0.0209
26	0.0159	0.0179
27	0.0142	0.0164
28	0.0126	0.0149
29	0.0113	0.0135
30	0.0100	0.0120

ADDITIONAL SHEREX SERVICES

SHEREX WEBSITE

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

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, CAO, CFT, Locsert®, Seal 2, Dejond Aluminum, Dejond Stainless Steel, and RIV-FLOAT®.

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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NOTES

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