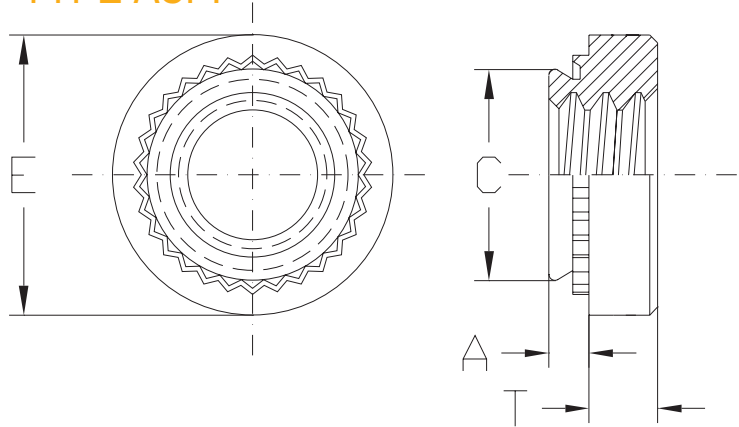
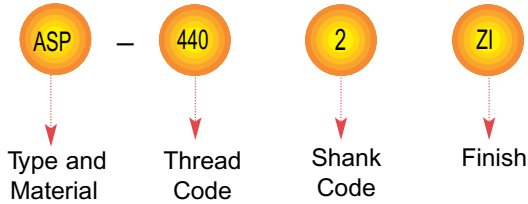


# SELF-CLINCHING NUTS



## SELF-CLINCHING NUTS FOR STAINLESS STEEL TYPE ASP.

### Part Number Designation



UNIFIED (inch)	Thread Size	Type	Thread Code	Shank Code	A (Shank) Max.	Sheet Thickness*	Hole Size In Sheet +.003-.000	C Max.	E ±.010	T ±.010	Min. Dist. Hole C/L To Edge(1)
	.112-40 (#4-40)	ASP	440		0	.030	.030-.039	.166	.165	.25	.07
1					.038	.040-.055					
2					.054	.056 Min.					
.138-32 (#6-32)	ASP	632		0	.030	.030-.039	.1875	.187	.28	.07	.22
				1	.038	.040-.055					
				2	.054	.056 Min.					
.164-32 (#8-32)	ASP	832		0	.030	.030-.039	.213	.212	.31	.09	.27
				1	.038	.040-.055					
				2	.054	.056 Min.					
.190-32 (#10-32)	ASP	032		0	.030	.030-.039	.250	.249	.34	.09	.28
				1	.038	.040-.055					
				2	.054	.056 Min.					
.250-20 (1/4-20)	ASP	0420		1	.054	.056 Min.	.344	.343	.44	.17	.34

METRIC (mm)	Thread Size x Pitch	Type	Thread Code	Shank Code	A (Shank) Max.	Sheet Thickness*	Hole Size In Sheet +0.08	C Max.	E ±0.25	T ±0.25	Min. Dist. Hole C/L To Edge(1)
	M3 x0.5	ASP	M3		0	0.76	0.8-1	4.25	4.22	6.3	1.5
1					0.97	1.01-1.39					
2					1.37	1.4 Min.					
M4 x0.7	ASP	M4		0	0.76	0.8-1	5.4	5.38	7.9	2	6.9
				1	0.97	1.01-1.39					
				2	1.37	1.4 Min.					
M5 x0.8	ASP	M5		0	0.76	0.8-1	6.4	6.38	8.7	2	7.1
				1	0.97	1.01-1.39					
				2	1.37	1.4 Min.					
M6 x1	ASP	M6		1	1.37	1.4 Min.	8.75	8.72	11.1	4.1	8.6

(1) For closer distances consult our Engineering Department.

\* Sheets thinner than .060" (1.5mm) may work harden during installation and cause reduced performance.

## PERFORMANCE DATA<sup>(1)</sup>

UNIFIED (inch)	Type	Thread Code	Shank Code	Test Sheet Material	Installation (lbs.)	Pushout (lbs.)	Torque-out (in. lbs.)
	ASP	440		0	304 Stainless Steel	3000-5000	130
1				165			17
2				290			18
ASP	632		0	304 Stainless Steel	4000-7000	140	18
			1			170	24
			2			340	28
ASP	832		0	304 Stainless Steel	4000-7000	145	30
			1			180	37
			2			360	45
ASP	032		0	304 Stainless Steel	6000-9000	180	35
			1			230	45
			2			400	60
ASP	0420		1	304 Stainless Steel	9000-11000	450	150

METRIC (mm)	Type	Thread Code	Shank Code	Test Sheet Material	Installation (kN)	Pushout (N)	Torque-out (N·m)
	ASP	M3		0	304 Stainless Steel	13-22	575
1				725			1.92
2				1290			2.03
ASP	M4		0	304 Stainless Steel	22-31	645	3.38
			1			800	4.18
			2			1600	5.08
ASP	M5		0	304 Stainless Steel	26-40	800	3.95
			1			1025	5.08
			2			1775	6.77
ASP	M6		1	304 Stainless Steel	40-48	2000	17

# SELF-CLINCHING NUTS

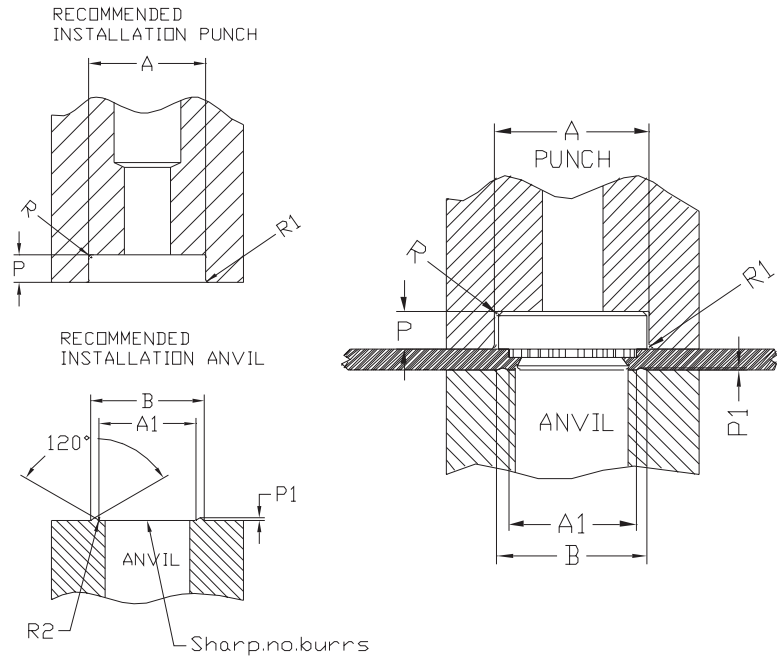


## SELF-CLINCHING NUTS FOR STAINLESS STEEL TYPE ASP.

### INSTALLATION

#### Type ASP <sup>(1)</sup>

Type ASP nuts are installed by placing them in punched or drilled holes in the sheet material and squeezing them into place with any standard press. A special punch with a pilot pin to align the nut and a special anvil with a pilot pin to align the sheet and a raised ring is required to create a proper installation. The raised ring acts as a second displacer of the stainless sheet material, thereby ensuring that the annular groove of the nut is filled.



### INSTALLATION REQUIREMENTS

1. Sheet hardness must be less than 90 on the Rockwell "B" scale.
2. Hole punch should be kept sharp to minimize work hardening around hole.
3. Nuts should be installed in punch side of hole.
4. Nuts should not be installed near bends or other highly cold worked areas where sheet hardness may be greater than 90 on the Rockwell "B" scale.

UNIFIED (inch)	Thread Code	Punch Dimensions (in.)				Punch Part No.
		A ±.002	P ±.001	R Max.	R <sub>1</sub> +.005	
	440	.255	.066	.010	.005	8002691
	632	.286	.066	.010	.005	8002692
	832	.317	.089	.010	.005	8002693
	032	.348	.089	.010	.005	8002694

UNIFIED (inch)	Thread Code	Anvil Dimensions (in.)				Anvil Part No.
		A <sub>1</sub> +.002 -.000	B Nom.	P <sub>1</sub> <sup>(2)</sup> +.001 -.000	R <sub>2</sub> Max.	
	440	.199	.261	.009	.003	8002687
	632	.218	.280	.009	.003	8002688
	832	.243	.305	.009	.003	8002689
	032	.288	.350	.009	.003	8002690

METRIC (mm)	Thread Code	Punch Dimensions (mm)				Punch Part No.
		A ±0.02	P ±0.01	R Max.	R <sub>1</sub> +0.13	
	M3	6.48	1.42	0.25	0.13	8002695
	M3.5	7.26	1.42	0.25	0.13	8002696
	M4	8.05	1.93	0.25	0.13	8002697
	M5	8.84	1.93	0.25	0.13	8002698

METRIC (mm)	Thread Code	Anvil Dimensions (mm)				Anvil Part No.
		A <sub>1</sub> +.05	B Nom.	P <sub>1</sub> <sup>(2)</sup> +.03	R <sub>2</sub> Max.	
	M3	5.05	6.63	.23	.08	8002687
	M3.5	5.54	7.11	.23	.08	8002688
	M4	6.17	7.75	.23	.08	8002689
	M5	7.34	8.89	.23	.08	8002690

- (1) To meet the published performance data, we recommend using the installation punch and anvil shown. You may use a flat punch and anvil, but reduced performance may result.
- (2) We recommend replacing installation anvil when the height of the "P" dimension is reduced to .005" / 0.13 mm due to wear. Reductions in performance may occur as the height of the protrusion wears. Variations in hole preparation, installation force, and sheet material type, thickness, and hardness will affect both performance and tooling life.

### MATERIAL & FINISH SPECIFICATIONS

Type	Threads			Fastener Materials				Standard Finishes				Optional Finish (1)	For Use in Sheet Hardness:					
	Internal, ANSI B1.1 2B/ANSI/ASME B1.13M, 6H	Meets Torque Requirements for IFI 100/107 Grade B (unified) and ANSI B18.16.1M	3 Cycle Locking Performance PEM spec PRS-C90	Heat Treated Carbon Steel	#302/303 Stainless Steel	2024-T4 Aluminum	Carbon Steel	Precipitation Hardening Grade Stainless Steel	Passivated and/or Tested per ASTM A380	Zinc per ASTM B 633 SC1 (5µm) Type III, Colorless	Cadmium Spec SAE AMS-QQ-P-416, Type I, Class 3, Plus Clear Chromate Passivation	No Finish (2) (3)	Zinc per ASTM B 633 SC1 (5µm), Type II, Yellow	90 or Less on the Rockwell "B" Scale	80 or Less on the Rockwell "B" Scale	70 or Less on the Rockwell "B" Scale	60 or Less on the Rockwell "B" Scale	50 or Less on the Rockwell "B" Scale
ASP	.						.	.					.					
Part number codes for finishes									None	ZI	CI	X	C					

- (1) Special order with additional charge.
- (2) Part numbers for aluminum nuts have no plating suffix.
- (3) Unplated threads are sized to accept a basic go gauge after .00025" plating.