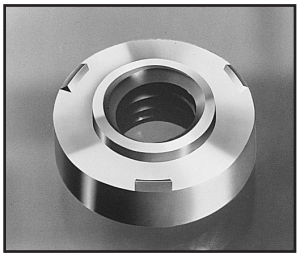
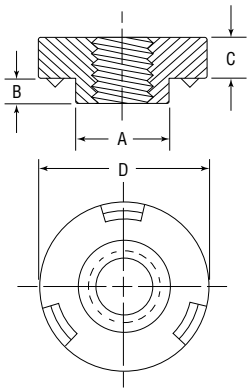


Weld Nuts

Series CFWN & CFWNS

CFWN weld nuts are the solution to providing load bearing threads in sheets that are too thin to tap. They provide three-point projections for fast, easy welding. Captive Fastener weld nuts self align into standard hole sizes, and are dimensionally identical to industry standards. The alignment collar orients the weld nut and prevents weld spatter from entering thread area.



Series	Material	Finish
CFWN	Carbon Steel	Light Oil Coat (Copper Flash Optional)
CFWNS	300 Series Stainless Steel	Passivated ASTM A967

Thread: Internal 2B, ANSI B1.1 (6H, ANSI/ASME B1.13M).

Part Number Structure:

CFWN 632-1

- → Sheet Thickness
- → Thread Code
- → Series

Dimensions & Specifications

	Thread Size	Part Number: Carbon Steel	Part Number: Stainless Steel	Min.	+.004 in. (+.10 mm) –.000(.00)	A Max.	B Max.	C ±.004 in. (±.10 mm)	D +.000 in. (+.00 mm) –.010 in. (–.25 mm)	Min.
INCH (in.)	#4-40	CFWN440	CFWNS440	.030	.173	.172	.030	.065	.308	.154
	#6-32	CFWN632	CFWNS632	.030	.193	.192	.030	.094	.341	.171
		CFWN632-1	N/A	.060	.193	.192	.050			
	#8-32	CFWN832	CFWNS832	.030	.218	.217	.030	.108	.371	.186
		CFWN832-1	N/A	.060	.218	.217	.050			
	#10-24	CFWN1024	CFWNS1024	.030	.250	.249	.030	.156	.440	.220
		CFWN1024-1	N/A	.060	.250	.249	.050			
	#10-32	CFWN1032	CFWNS1032	.030	.250	.249	.030	.156	.440	.220
		CFWN1032-1	N/A	.060	.250	.249	.050			
	1/4-20	CFWN420	CFWNS420	.048	.316	.315	.048	.186	.522	.261
METRIC (mm)	M3 x 0.5	CFWNM3	CFWNSM3	.77	4.39	4.36	.77	1.49	7.82	3.91
	M4 x 0.7	CFWNM4	CFWNSM4	.77	5.53	5.5	.77	2.58	9.42	4.71
	M5 x 0.8	CFWNM5	CFWNSM5	.77	6.35	6.32	.77	3.78	11.17	5.59
	M6 x 1.0	CFWNM6	CFWNSM6	1.24	8.04	8.01	1.22	4.56	13.25	6.63

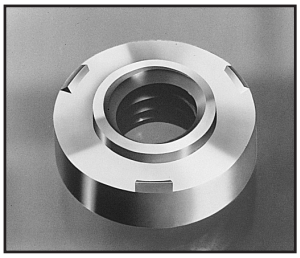
N/A = Not Available

Continued on next page.

Weld Nuts

Series CFWN & CFWNS

Continued from previous page.



Performance Data

	Series	Thread Size	Cold-Rolled Steel .060 in. (1.5 mm) Pushout (lbs.)	Cold-Rolled Steel .060 in. (1.5 mm) Torque-Out (in.-lbs.)	300 Series Stainless Steel .060 in. (1.5mm) Pushout (lbs.)	300 Series Stainless Steel .060 in. (1.5mm) Torque-Out (in.-lbs.)
INCH (in.)	CFWN	#4-40	500	13	N/A	N/A
		#6-32	640	22		
		#8-32	760	33		
		#10-32	880	56		
		1/4-20	1000	185		
	CFWNS	#4-40	N/A	N/A	680	13
		#6-32			800	28
		#8-32			850	45
		#10-32			900	110
		1/4-20			1000	200
METRIC (mm)		Thread Size	Pushout (N)	Torque-Out (N•m)	Pushout (N)	Torque-Out (N•m)
	CFWN	M3	2220	1.4	N/A	N/A
		M4	3380	3.7		
		M5	3910	6.3		
		M6	4445	20.9		
	CFWNS	M3	N/A	N/A	3020	1.4
		M4			3780	5
		M5			4000	12.4
		M6			4445	22.5

Installation Data

	Series	Thread Size	Sheet Material .030 in. (.077mm) to .063 in. (1.6mm) Cold Rolled Steel Electrode Ram Force (lbs.)	Cold Rolled Steel Secondary Current Amps ± 500	Cold Rolled Steel Weld Time Cycles/Sec.	300 Series Stainless Steel Electrode Ram Force (lbs.)	300 Series Stainless Steel Secondary Current Amps ± 500	300 Series Stainless Steel Weld Time Cycles/Sec.
INCH (in.)	CFWN	#4-40	450-500	17,000	6/0.10	N/A	N/A	N/A
		#6-32	450-500	17,000	6/0.10			
		#8-32	450-500	17,000	6/0.10			
		#10-32	500-550	18,000	10/0.17			
		1/4-20	550-600	20,000	10/0.17			
	CFWNS	#4-40	N/A	N/A	N/A	450-500	16,500	6/0.10
		#6-32				450-500	16,500	6/0.10
		#8-32				500-550	16,500	6/0.10
		#10-32				550-600	18,500	6/0.10
		1/4-20				650-700	20,000	6/0.10
METRIC (mm)		Thread Size	Electrode Ram Force (N)	Secondary Current Amps ± 500	Weld Time Cycles/Sec.	Electrode Ram Force (N)	Secondary Current Amps ± 500	Weld Time Cycles/Sec.
	CFWN	M3	2000-2200	17,000	6/0.10	N/A	N/A	N/A
		M4	2000-2200	17,000	6/0.10			
		M5	2220-2440	18,000	10/0.17			
		M6	2440-2670	20,000	10/0.17			
	CFWNS	M3	N/A	N/A	N/A	2000-2220	16,500	6/0.10
		M4				2220-2225	16,500	6/0.10
		M5				2440-2670	18,500	6/0.10
		M6				2890-3110	20,000	6/0.10

TECHNIQUES FOR BETTER WELDING

Be sure the electrodes, sheet material and weld nuts themselves are clean and contain no grease, rust or burrs. If installed welds look good, but pushout performance is poor, check for the following causes:

- ∑ Electrode force too high
- ∑ Low current level
- ∑ Dirty panel
- ∑ Nuts not centered
- ∑ Hold time too short, causing insufficient cooling
- ∑ Inconsistent pressure regulator

If threads are distorted after installation, check for the following causes:

- ∑ Long weld time
- ∑ High current level
- ∑ Electrode force too high

INSTALLATION TIPS

Electrode force is the pressure applied by electrodes on the weld nut and sheet material to squeeze them together and make good contact.

Low electrode force may cause discoloration, flashing, burning or spatter.

High electrode force may compress weld projections before correct temperature is achieved or push projections of the unheated weld nut into the sheet.

Secondary current setting controls the heat applied to the Captive weld nut and sheet material.

N/A = Not Available