BULTEN

P-FH / P-FHS SELF CLINCHING STUD

AN EXTERNALLY-THREADED PRESS-IN FASTENER. UPON INSTALLATION, THE HEAD IS FLUSH WITH THE MATING SURFACE.

A STRONGER SOLUTION

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P-FH / P-FHS SELF CLINCHING STUD

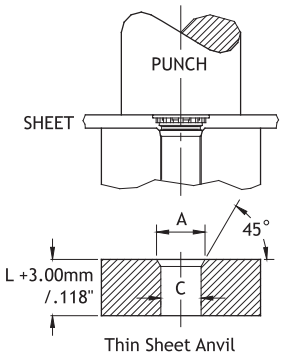
P-FH / P-FHS SELF CLINCHING STUDS are easy to install because no special tooling is necessary. However, it is very important to note that they must always be installed by a squeeze action press rather than a hammer blow. Punched holes are recommended.

METHOD OF ASSEMBLY

1. Punch a hole in the metal sheet to the size recommended in our technical data table. Deburring of the hole is not recommended.
2. Insert the stud through the hole in sheet and into the appropriate anvil as detailed below.
3. Apply squeezing pressure sufficient to install the head flush with top face of sheet.

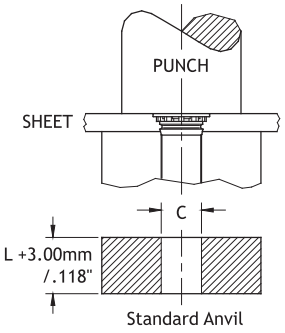
ASSEMBLY DETAIL

Thread Size Metric	Anvil	
	A mm	C mm
2.5	3.10 - 3.20	2.53 - 2.61
3	3.61 - 3.71	3.02 - 3.10
3.5	4.12 - 4.22	3.53 - 3.61
4	4.60 - 4.70	4.01 - 4.07
5	5.66 - 5.77	5.03 - 5.11
6	7.14 - 7.26	6.01 - 6.07
8	9.14 - 9.26	8.01 - 8.08



Thin Sheet Anvil

Thread Size Unified	Anvil	
	A inch	C inch
256	.110 - .114	.087 - .090
440	.136 - .140	.113 - .116
632	.162 - .166	.139 - .142
832	.188 - .192	.165 - .168
032	.216 - .220	.191 - .194
0420	.295 - .300	.250 - .253
0518	.334 - .338	.313 - .316



Standard Anvil

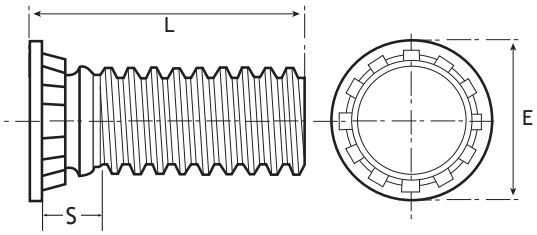
Thin Sheet Anvil Use

M2.5 - M5 for sheet 1.0 - 1.49
M6 for sheet 1.5 - 2.4
M8 for sheet 2.0 – 2.4

256 - 032 for sheet .040" - .060"
0420 for sheet .062" - .092"
0518 for sheet .078" - .092"

P-FH / P-FHS SELF CLINCHING STUD

TECHNICAL DATA



P-FH / P-FHS TYPES (METRIC)

MATERIAL CODES

P-FH - Hardened Steel Zinc Plated

P-FHS - Stainless Steel

STANDARD PLATING FINISH

Zinc & Clear Trivalent Passivation (Z)

GENERAL DIMENSIONS

All dimensions in millimetres

Thread Size / Code	Min Sheet Thickness	Hole Size in Sheet +0.08 -0.00	Max. Hole in Mating Component	S Max	Head Diameter E +/- 0.4	Minimum distance centre line hole to sheet edge
M2.5	1.0	2.5	3.1	1.95	4.1	5.4
M3	1.0	3.0	3.6	2.10	4.6	5.6
M3.5	1.0	3.5	4.1	2.25	5.3	6.4
M4	1.0	4.0	4.6	2.4	5.9	7.2
M5	1.0	5.0	5.6	2.7	6.5	7.2
M6	1.5	6.0	6.6	3.0	8.2	7.9
M8	2.0	8.0	8.6	3.7	9.6	9.6

THREAD & LENGTH DATA

Thread Size / Code	Type		Length Code "L" +/- .04 (Length Code in millimeters)									
	Steel	Stainless Steel										
M2.5	P-FH	P-FHS	6	8	10	12	15	18	N/A	N/A	N/A	N/A
M3	P-FH	P-FHS	6	8	10	12	15	18	20	25	N/A	N/A
M3.5	P-FH	P-FHS	6	8	10	12	15	18	20	25	30	N/A
M4	P-FH	P-FHS	6	8	10	12	15	18	20	25	30	35
M5	P-FH	P-FHS	N/A	8	10	12	15	18	20	25	30	35
M6	P-FH	P-FHS	N/A	N/A	10	12	15	18	20	25	30	35
M8	P-FH	P-FHS	N/A	N/A	N/A	12	15	18	20	25	30	35

HOW TO SPECIFY

P-FH (Steel Standard Sizes)

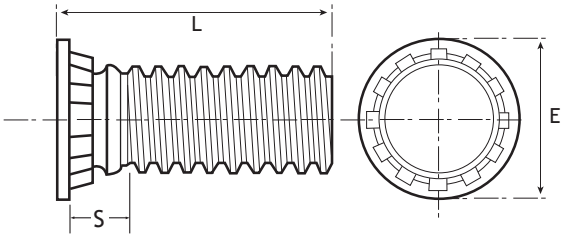
Product Code	**P-FH**-M4-10-Z
Thread Size	P-FH-**M4**-10-Z
Length Code	P-FH-M4-**10**-Z
Plating Code	P-FH-M4-10-**Z**

P-FHS (Stainless Steel Standard Sizes)

Product Code	**P-FHS**-M4-10
Thread Size	P-FHS-**M4**-10
Length Code	P-FHS-M4-**10**

P-FH / P-FHS SELF CLINCHING STUD

TECHNICAL DATA



P-FH / P-FHS TYPES (UNIFIED)

MATERIAL CODES

P-FH - Hardened Steel Zinc Plated

P-FHS - Stainless Steel

STANDARD PLATING FINISH

Zinc & Clear Trivalent Passivation (Z)

GENERAL DIMENSIONS

All dimensions in inches

Thread Size / Code	Min Sheet Thickness	Hole Size in Sheet + .003 - .000	Max. Hole in Mating Component	S Max	Head Diameter E +/- 0.015	Minimum distance centre line hole to sheet edge
256	.040	.085	.105	.075	.144	.187
440	.040	.111	.135	.085	.176	.219
632	.040	.137	.160	.090	.206	.250
832	.040	.163	.185	.090	.237	.281
032/024	.040	.189	.210	.100	.256	.281
0420/0428	.062	.249	.270	.135	.337	.312
0518/0524	.093	.311	.333	.160	.376	.375

THREAD & LENGTH DATA

Thread Size / Code	Type		Length Code "L" +/- .015 (Length Code in 16ths of an inch)									
	Steel	Stainless Steel	1/4 .250	5/16 .312	3/8 .375	1/2 .500	5/8 .625	3/4 .750	7/8 .875	1 1.00	1.1/4 1.25	1.1/2 1.50
256	P-FH	P-FHS	4	5	6	8	10	12	N/A	N/A	N/A	N/A
440	P-FH	P-FHS	4	5	6	8	10	12	14	16	N/A	N/A
632	P-FH	P-FHS	4	5	6	8	10	12	14	16	20	24
832	P-FH	P-FHS	4	5	6	8	10	12	14	16	20	24
032 / 024	P-FH	P-FHS	N/A	5	6	8	10	12	14	16	20	24
0420 / 0428	P-FH	P-FHS	N/A	N/A	6	8	10	12	14	16	20	24
0518 / 0524	P-FH	P-FHS	N/A	N/A	N/A	8	10	12	14	16	20	24

HOW TO SPECIFY

P-FH (Steel Standard Sizes)

Product Code	**P-FH**-832-10-Z
Thread Size	P-FH-**832**-10-Z
Length Code	P-FH-832-**10**-Z
Plating Code	P-FH-832-10-**Z**

P-FHS (Stainless Steel Standard Sizes)

Product Code	**P-FHS**-832-10
Thread Size	P-FHS-**832**-10
Length Code	P-FHS-832-**10**

P-FH / P-FHS SELF CLINCHING STUD

PERFORMANCE DATA (METRIC)

Thread Code	Stud Type	Test Sheet Material						
		Max Nut Tightening Torque (Nm)	Cold Rolled Steel			Aluminum		
			Installation (kN)	Pushout (N)	Torque-out (Nm)	Installation (kN)	Pushout (N)	Torque-out (Nm)
M2.5	Steel	0.41	14	800	1.2	12	500	1.0
	Stainless Steel							
M3	Steel	0.85	17	900	1.9	14	600	1.7
	Stainless Steel							
M3.5	Steel	1.15	23	1400	2.8	16	850	2.0
	Stainless Steel							
M4	Steel	1.9	26	1800	4.0	20	1050	3.0
	Stainless Steel							
M5	Steel	3.8	30	2300	7.0	25	1300	4.0
	Stainless Steel							
M6	Steel	8.0	40	2800	12.0	30	1700	7.0
	Stainless Steel							
M8	Steel	14.0	50	3200	22.0	35	1950	12.0
	Stainless Steel							

PERFORMANCE DATA (UNIFIED)

Thread Code	Stud Type	Test Sheet Material						
		Max Nut Tightening Torque (in/lbs)	Cold Rolled Steel			Aluminum		
			Installation (lbs)	Pushout (lbs)	Torque-out (in/lbs)	Installation (lbs)	Pushout (lbs)	Torque-out (in/lbs)
256	Steel	2.5	2800	160	7.0	2000	100	6.0
	Stainless Steel							
440	Steel	5.0	3800	240	12.0	3000	150	12.0
	Stainless Steel							
632	Steel	9.0	5000	315	23.0	3600	190	18.0
	Stainless Steel							
832	Steel	18.0	6300	400	38.0	4800	250	22.0
	Stainless Steel							
032	Steel	32	7000	500	60.0	5500	290	35.0
	Stainless Steel							
0420	Steel	70.0	9000	630	105.0	6700	380	65.0
	Stainless Steel							
0518	Steel	130.0	11200	720	190.0	7800	440	105.0
	Stainless Steel							

Note: The above values are averages when correct installation is performed. Variations in holes size, material and installation will affect these results. For specific advice we strongly recommend consultation with your Bulten Technology Centre.