

ECP explosionproof enclosures

Cl. I, Div. 1 & 2, Groups B, C, D
 Cl. II, Div. 1 & 2, Groups E, F, G
 Cl. III
 NEMA 3, 3R, 4, 7BCD, 9EFG

Explosionproof

1E

Featuring an optimized design and fast lead times for OEMs, ECP enclosures are available in 40 standard sizes with optional conduit and device drilling and tapping.

Applications:

- For housing terminal blocks
- For housing relays, breakers or other arcing and sparking devices
- In areas which are hazardous due to the presence of hazardous gases, vapors, dusts or fibers

Features:

- Aluminum hinges standard on sizes 121204 and larger, and available on sizes 081006 through 101406 by adding suffix S598
- Stainless cover bolts and hinges are available by adding suffix S391
- Stroke sanded finish creates smooth surface for installation of pushbutton/pilot light operators
- Optional epoxy coat finish available for NEMA 4X requirements
- Factory drilled and tapped, internal mounting pads enable the installer to add a mounting plate in the field; standard on all sizes
- Bolt-on/tap-in mounting feet allow for easy field replacement in case mounting feet are damaged or broken
- Neoprene gasket comes standard in all sizes; provides NEMA 4 enclosure rating
- Factory machined, drilled and tapped entries up to 3" in diameter
- UL/cUL certified for field addition of drilled and tapped entries on sides, top, bottom or back of enclosure
- Optional aluminum plate cover provides greater surface area for installation of pushbutton/pilot light operators; allows for installation of windows in plate cover

Standard materials:

- Body and cover – copper free aluminum
- Gasket – neoprene
- Cover bolts – steel
- Hinges – aluminum

Certifications and compliances:

NEC/CEC:

- Class I, Divisions 1 & 2, Groups B, C, D
- Class II, Divisions 1 & 2, Groups E, F, G
- Class III

UL standard:

- UL1203

CSA standard:

- cUL to CSA C22.2 Nos. 30, 25

IECEX:

- Ex db IIB + H₂ Gb
- Ex tb III C Db IP66
- -20°C ≤ Ta ≤ +60°C
- IECEx ETL 13.0022U

ATEX:

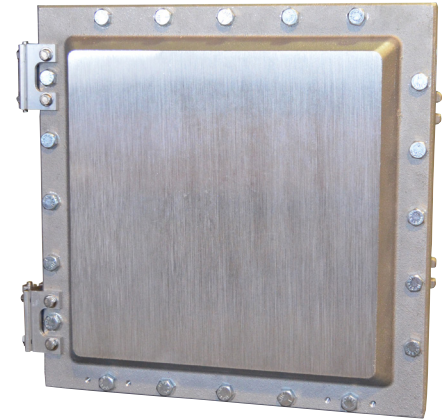
- II 2 G D Ex db IIB + H₂ Gb
- Ex tb IIIC Db IP66
- -20°C ≤ Ta ≤ +60°C
- ITS13ATEX17813U certified

Environmental ratings:

- NEMA Type 3, 3R, 4, 7BCD, 9EFG
- Enclosure Type 4X (with 4X option)

Cover devices:

- Pilot lights
- Pushbuttons
- Selector switches
- Circuit breaker handles
- PLT cover (allows for window)



Options:

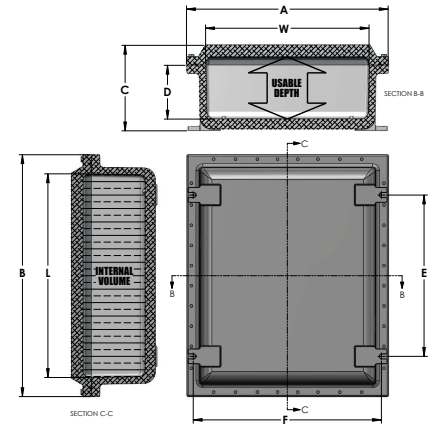
- | Description | Suffix |
|--|------------------------|
| • Flat aluminum plate cover | PLT^A |
| • Aluminum mounting plate installed | MP |
| • Epoxy powder coat finish, exterior | S752 |
| • Epoxy powder coat finish, interior and exterior..... | S753 |
| • Stainless steel cover bolts and hinges | S391 |
| • Breather and drain..... | S756V |
| • Stainless steel cover bolts, hinges and external epoxy powder coat | 4X |
| • ATEX and IECEx certified..... | ATEX |

Enclosure size (W x L)	Maximum number of cover devices	Device layout
04 x 06	2	1 x 2
04 x 16	5	1 x 5
06 x 08	6	2 x 3
06 x 12	8	2 x 4
08 x 08	9	3 x 3
08 x 10	9	3 x 3
08 x 12	12	3 x 4
10 x 10	9	3 x 3
12 x 12	16	4 x 4
12 x 18	24	6 x 4
14 x 14	25	5 x 5
16 x 16	36	6 x 6
16 x 24	54	9 x 6
18 x 30	66	11 x 6
24 x 30	99	11 x 9
24 x 36	117	13 x 9

^AAvailable for sizes 12 x 12 and larger.

Ordering information and dimensions:

Cat. #	Inside nominal dimensions			Usable depth [Ⓟ]	Overall dimensions			Mounting		Weight lbs. (kg.)	Cat. # Mounting plate
	W	L	D		A	B	C	E	F		
ECP040604	04	06	04	4 ⁵ / ₈	8 ¹¹ / ₃₂	10 ¹¹ / ₃₂	6 ⁵ / ₁₆	5	7 ¹ / ₂	16 (7)	MP0406
ECP041604	04	16	04	4 ⁵ / ₈	8 ¹ / ₂	20 ¹ / ₂	6 ⁵ / ₃₂	15	7 ⁷ / ₈	33 (15)	MP0416
ECP060804	06	08	04	4 ⁵ / ₈	10 ¹⁵ / ₃₂	12 ¹⁵ / ₃₂	6 ³ / ₁₆	7	9 ¹ / ₈	24 (11)	MP0608
ECP060806	06	08	06	6 ⁵ / ₈	10 ¹⁵ / ₃₂	12 ¹⁵ / ₃₂	8 ³ / ₁₆	7	9 ¹ / ₈	32 (15)	MP0608
ECP061204	06	12	04	4 ⁵ / ₈	10 ¹ / ₂	16 ¹ / ₂	6 ³ / ₁₆	11	9 ¹ / ₈	32 (15)	MP0612
ECP080806	08	08	06	6 ⁵ / ₈	12 ¹⁵ / ₃₂	12 ¹⁵ / ₃₂	8 ³ / ₃₂	7	11 ¹ / ₈	37 (17)	MP0808
ECP081006	08	10	06	6 ⁵ / ₈	12 ²¹ / ₃₂	14 ²¹ / ₃₂	8 ³ / ₁₆	9	11 ¹ / ₈	45 (20)	MP0810
ECP081204	08	12	04	4 ⁵ / ₈	12 ¹ / ₂	16 ¹ / ₂	6 ³ / ₁₆	11	11 ¹ / ₈	39 (18)	MP0812
ECP081206	08	12	06	6 ⁵ / ₈	12 ¹ / ₂	16 ¹ / ₂	8 ³ / ₁₆	11	11 ¹ / ₈	53 (24)	MP0812
ECP081208	08	12	08	8 ⁵ / ₈	12 ¹ / ₂	16 ¹ / ₂	10 ³ / ₈	11	11 ¹ / ₈	56 (25)	MP0812
ECP101006	10	10	06	6 ⁵ / ₈	14 ²¹ / ₃₂	14 ²¹ / ₃₂	8 ³ / ₁₆	9	13 ¹ / ₈	52 (24)	MP1010
ECP101008	10	10	08	8 ⁵ / ₈	14 ²¹ / ₃₂	14 ²¹ / ₃₂	10 ³ / ₈	9	13 ¹ / ₈	59 (27)	MP1010
ECP101406	10	14	06	6 ⁵ / ₈	14 ²¹ / ₃₂	18 ²¹ / ₃₂	8 ¹⁵ / ₃₂	13	13 ¹ / ₈	66 (30)	MP1014
ECP121204	12	12	04	4 ³ / ₈ 6 ⁴ / ₈	16 ²⁷ / ₆₄	16 ²⁷ / ₆₄	7 ¹ / ₁₆	7	14 ¹⁵ / ₁₆	62 (28)	MP1212
ECP121206	12	12	06	7	16 ²⁷ / ₃₂	16 ²⁷ / ₃₂	9 ¹ / ₈	7	15 ¹ / ₁₆	68 (31)	MP1212
ECP121208	12	12	08	9	16 ²⁷ / ₃₂	16 ²⁷ / ₃₂	11 ¹ / ₈	7	15 ¹ / ₁₆	74 (34)	MP1212
ECP121806	12	18	06	6 ²⁵ / ₃₂	17 ¹ / ₈	23 ¹ / ₈	8 ³¹ / ₃₂	12	14 ¹⁵ / ₁₆	102 (46)	MP1218
ECP121808	12	18	08	8 ²⁵ / ₃₂	17 ¹ / ₈	23 ¹ / ₈	11 ¹ / ₈	12	14 ¹⁵ / ₁₆	110 (50)	MP1218
ECP122408	12	24	08	8 ¹⁵ / ₁₆	17 ¹ / ₄	29 ¹ / ₄	11 ⁵ / ₈	18	14 ¹⁵ / ₁₆	149 (68)	MP1224
ECP122410	12	24	10	10 ¹⁵ / ₁₆	17 ¹ / ₄	29 ¹ / ₄	13 ⁵ / ₈	18	14 ¹⁵ / ₁₆	158 (72)	MP1224
ECP123608	12	36	08	8 ¹⁵ / ₁₆	17	41 ³ / ₆₄	11 ⁵⁹ / ₆₄	30	14 ¹⁵ / ₁₆	247 (112)	MP1236
ECP141406	14	14	06	7	18 ⁷ / ₈	18 ⁷ / ₈	9 ³ / ₈	9	17 ⁵ / ₁₆	93 (42)	MP1414
ECP141408	14	14	08	9	18 ⁷ / ₈	18 ⁷ / ₈	11 ³ / ₈	9	17 ⁵ / ₁₆	101 (46)	MP1414
ECP141410	14	14	10	11	18 ⁷ / ₈	18 ⁷ / ₈	13 ³ / ₈	9	17 ⁵ / ₁₆	108 (49)	MP1414
ECP161606	16	16	06	7 ⁹ / ₁₆	20 ²¹ / ₆₄	20 ²¹ / ₆₄	9 ³¹ / ₆₄	10	18 ¹⁵ / ₁₆	117 (53)	MP1616
ECP161608	16	16	08	9 ⁹ / ₁₆	20 ²¹ / ₆₄	20 ²¹ / ₆₄	11 ³¹ / ₆₄	10	18 ¹⁵ / ₁₆	125 (57)	MP1616
ECP162408	16	24	08	9 ³ / ₈	20 ⁷ / ₈	28 ⁷ / ₈	12 ¹ / ₁₆	18	20	195 (89)	MP1624
ECP181806	18	18	06	7 ³ / ₈	22 ⁷ / ₈	22 ⁷ / ₈	10 ⁷ / ₁₆	12	21 ⁵ / ₁₆	153 (70)	MP1818
ECP181808	18	18	08	9 ¹ / ₄	22 ⁷ / ₈	22 ⁷ / ₈	12 ⁷ / ₁₆	12	21 ⁵ / ₁₆	164 (74)	MP1818
ECP181810	18	18	10	10 ⁹ / ₁₆	22 ⁷ / ₈	22 ⁷ / ₈	14 ⁷ / ₁₆	12	21 ⁵ / ₁₆	175 (79)	MP1818
ECP182408	18	24	08	9 ¹ / ₈	23 ¹³ / ₃₂	29 ¹³ / ₃₂	12 ⁷ / ₁₆	18	22 ³ / ₈	223 (101)	MP1824
ECP182410	18	24	10	11 ⁷ / ₁₆	23 ¹³ / ₃₂	29 ¹³ / ₃₂	14 ⁷ / ₁₆	18	22 ³ / ₈	235 (107)	MP1824
ECP183008	18	30	08	9 ³ / ₈	24	36	12 ⁵ / ₈	24	22	304 (138)	MP1830
ECP183608	18	36	08	9 ¹¹ / ₃₂	23 ²¹ / ₃₂	41 ²¹ / ₃₂	12 ²⁹ / ₆₄	30	22 ³ / ₈	355 (161)	MP1836
ECP183610	18	36	10	11 ²¹ / ₆₄	23 ²¹ / ₃₂	41 ²¹ / ₃₂	14 ⁵⁹ / ₆₄	30	22 ³ / ₈	376 (171)	MP1836
ECP242408	24	24	08	9 ¹ / ₈	29 ²¹ / ₆₄	29 ²¹ / ₆₄	12 ⁷ / ₃₂	18	28 ³ / ₈	279 (127)	MP2424
ECP242410	24	24	10	11 ⁷ / ₁₆	29 ²¹ / ₆₄	29 ²¹ / ₆₄	14 ⁷ / ₃₂	18	28 ³ / ₈	301 (137)	MP2424
ECP243008	24	30	08	9 ¹ / ₄	30	36	13 ³ / ₈	24	28	428 (194)	MP2430
ECP243608	24	36	08	9 ¹ / ₄	29 ¹⁵ / ₁₆	41 ¹⁵ / ₁₆	13 ³ / ₄	30	29 ¹ / ₂	481 (218)	MP2436
ECP243610	24	36	10	11 ¹ / ₄	29 ²⁵ / ₆₄	41 ²⁵ / ₆₄	15 ¹ / ₈	30	29	533 (242)	MP2436



ECP enclosures are furnished with or without drilled and tapped openings. Drilling and tapping of conduit openings and device openings in the cover and body are subject to the limitations of maximum size and number of openings, as well as spacings. All machining must be done prior to installation.

Drilling and tapping for entries:

The location, quantity and maximum sizes must be in accordance with the following tables.

Drilled and tapped conduit openings Minimum center-to-center distance (in.)

Conduit size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
1/2"	1 1/2							
3/4"	1 5/8	1 3/4						
1"	1 3/4	1 7/8	2					
1 1/4"	2	2 1/8	2 1/4	2 1/2				
1 1/2"	2 1/8	2 1/4	2 3/8	2 5/8	2 3/4			
2"	2 3/8	2 1/2	2 5/8	2 7/8	3	3 1/4		
2 1/2"	2 7/8	2 7/8	3 1/8	3 1/4	3 3/8	3 3/8	3 3/8	
3"	3 3/8	3 1/4	3 3/8	3 1/2	3 5/8	4	4 1/4	4 5/8

Note: Minimum clearance for unions only.

Metric equivalents

NPT conduit size	Metric opening
1/2"	M16 x 1.5
3/4"	M20 x 1.5
1"	M25 x 1.5
1 1/4"	M32 x 1.5
1 1/2"	M40 x 1.5
2"	M50 x 1.5
2 1/2"	M63 x 1.5
3"	M75 x 1.5

[Ⓟ] Usable depth is reduced by 1/8" when adding a mounting plate.

ECP explosionproof enclosures

Cl. I, Div. 1 & 2, Groups B, C, D
Cl. II, Div. 1 & 2, Groups E, F, G
Cl. III
NEMA 3, 3R, 4, 7BCD, 9EFG

Explosionproof

1E

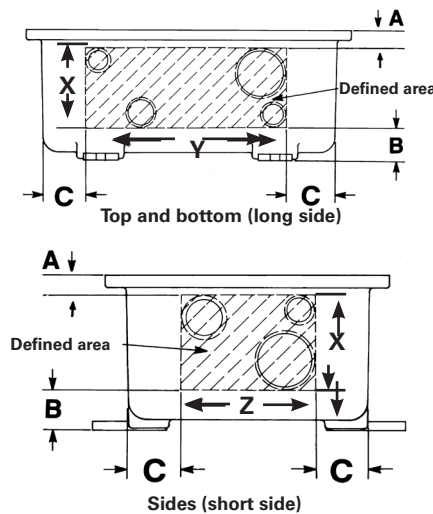
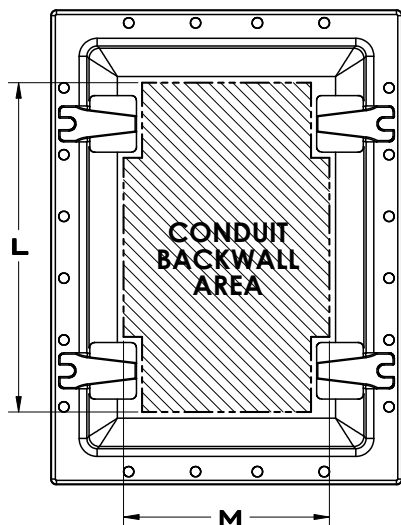
Defined area dimensions – side wall and back wall:

The number of entries is limited by the total removed area of the entries. To calculate, add up all individual entry areas and cross-check with the total removed area allowed in the tables below.

Cat. #	Defined area – side wall						Defined area – back wall	
	A	B	C	X	Y	Z	L	M
ECP040604	1.00	1.58	1.19	2.38	4.75	2.75	N/A	N/A
ECP041604	1.00	1.58	1.19	2.41	14.75	2.75	N/A	N/A
ECP060804	1.00	1.54	1.19	2.44	6.75	4.75	N/A	N/A
ECP060806	1.00	1.54	1.44	4.44	6.75	4.75	N/A	N/A
ECP061204	1.00	1.44	1.19	2.44	10.75	4.75	N/A	N/A
ECP080806	1.00	1.53	1.44	4.47	6.75	6.75	N/A	N/A
ECP081006	1.00	1.53	1.44	4.73	8.75	6.75	N/A	N/A
ECP081204	1.00	1.44	1.19	2.61	10.75	6.75	N/A	N/A
ECP081206	1.00	1.53	1.44	4.61	10.75	6.75	N/A	N/A
ECP081208	1.00	1.44	1.44	6.61	10.75	6.75	N/A	N/A
ECP101006	1.13	1.53	1.44	4.49	8.75	8.75	N/A	N/A
ECP101008	1.13	1.44	1.44	6.49	8.75	8.75	N/A	N/A
ECP101406	1.13	1.44	1.44	4.96	12.75	8.75	N/A	N/A
ECP121204	1.13	2.08	1.25	2.10	11.31	11.31	9.85	9.85
ECP121206	1.09	2.00	1.25	4.20	10.88	10.88	9.85	9.85
ECP121208	1.19	2.09	1.25	6.04	10.85	10.85	9.85	9.85
ECP121806	1.11	1.92	1.25	4.05	16.50	10.50	15.85	9.85
ECP121808	1.13	2.15	1.25	5.97	16.85	10.85	15.85	9.85
ECP122408	1.44	2.19	1.38	5.81	23.43	11.43	21.88	9.88
ECP122410	1.44	2.19	1.38	7.81	23.36	11.36	21.88	9.88
ECP123608	1.42	2.42	1.38	5.77	34.97	10.97	33.67	9.88
ECP141406	1.13	2.13	1.25	4.00	12.85	12.85	11.53	11.53
ECP141408	1.13	2.13	1.25	6.00	12.85	12.85	11.53	11.53
ECP141410	1.13	2.13	1.25	8.00	12.85	12.85	11.53	11.53
ECP161606	1.13	1.98	1.25	3.93	15.13	15.13	13.66	13.66
ECP161608	1.19	1.98	1.25	5.87	15.06	15.06	13.66	13.66
ECP162408	1.50	2.75	1.38	5.38	22.81	14.81	21.05	13.05
ECP181806	1.38	2.25	1.38	3.75	16.80	16.80	15.72	15.72
ECP181808	1.38	2.25	1.38	5.75	16.80	16.80	15.72	15.72
ECP181810	1.38	2.25	1.38	7.75	16.80	16.80	15.72	15.72
ECP182408	1.44	2.56	1.38	5.50	22.72	16.72	21.79	15.79
ECP182410	1.44	2.63	1.38	7.43	23.01	17.01	21.79	15.79
ECP183008	1.63	2.88	1.38	5.25	29.05	17.05	27.30	15.30
ECP183608	1.44	2.88	1.38	5.40	35.08	17.08	33.78	15.78
ECP183610	1.44	2.81	1.63	7.76	35.40	17.40	33.78	15.78
ECP242408	1.44	2.72	1.38	5.43	22.73	22.73	20.73	20.73
ECP242410	1.44	2.72	1.38	7.43	22.73	22.73	20.73	20.73
ECP243008	1.75	3.25	1.50	5.13	29.04	23.04	27.03	21.03
ECP243608	1.50	3.38	2.00	5.37	35.05	23.05	33.19	21.19
ECP243610	1.75	3.25	1.50	7.13	35.20	23.20	33.19	21.19

Total removed area per enclosure allowed Allowable area to remove

Cat. #	Long side (in. ²)	Short side (in. ²)	Back (in. ²)
ECP040604	3.87	3.87	N/A
ECP041604	15.48	3.87	N/A
ECP060804	7.74	3.87	N/A
ECP060806	11.22	11.22	N/A
ECP061204	11.61	3.87	N/A
ECP080806	11.22	11.22	N/A
ECP081006	16.95	11.22	N/A
ECP081204	11.61	7.74	N/A
ECP081206	22.44	11.22	N/A
ECP081208	29.04	14.52	N/A
ECP101006	16.95	16.95	N/A
ECP101008	14.52	14.52	N/A
ECP101406	25.43	16.95	N/A
ECP121204	9.50	9.50	21.81
ECP121206	18.27	18.27	21.81
ECP121208	26.21	26.21	21.81
ECP121806	26.73	17.01	35.09
ECP121808	40.24	25.91	35.09
ECP122408	54.45	26.56	48.44
ECP122410	72.98	35.49	48.44
ECP123608	80.71	25.32	74.55
ECP141406	20.56	20.56	51.22
ECP141408	30.84	30.84	51.22
ECP141410	41.12	41.12	51.22
ECP161606	23.78	23.78	46.64
ECP161608	35.36	35.36	46.64
ECP162408	49.04	31.84	81.15
ECP181806	25.20	25.20	83.40
ECP181808	38.64	38.64	83.40
ECP181810	52.08	52.08	83.40
ECP182408	49.98	36.78	82.50
ECP182410	68.39	50.55	82.50
ECP183008	61.01	35.81	127.20
ECP183608	75.77	36.89	127.89
ECP183610	109.88	54.01	127.89
ECP242408	49.37	49.37	115.80
ECP242410	67.55	67.55	115.80
ECP243008	59.53	47.23	169.60
ECP243608	75.29	49.51	196.75
ECP243610	100.32	66.12	203.52



Removed area per threaded entry size Minimum surface area removed (in.²)

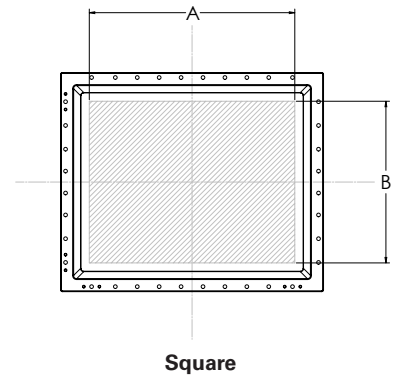
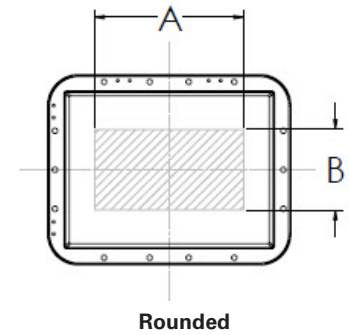
Conduit size	1 hole	2 holes	3 holes	4 holes
1/2"	0.41	0.81	1.22	1.62
3/4"	0.69	1.38	2.07	2.76
1"	1.08	2.16	3.24	4.31
1 1/4"	1.77	3.53	5.30	7.07
1 1/2"	2.41	4.81	7.22	9.62
2"	3.87	7.74	11.61	15.48
2 1/2"	5.41	10.82	16.24	21.65
3"	8.48	16.95	25.43	33.90

Defined area dimensions and removal rules – cover:

The number of entries is limited by the total removed area of the entries. To calculate, add up all individual entry areas and cross-check with the total removed area allowed in the tables below.

Defined area – cover

Cat. #	Cover style	Mounting feet	A	B	Allowable area to remove – cover (in. ²)
ECP040604	Rounded	Bolt-on	3.58	0.95	1.43
ECP041604	Rounded	Bolt-on	11.45	0.95	3.57
ECP060804	Rounded	Bolt-on	6.20	3.58	4.28
ECP060806	Rounded	Bolt-on	6.20	3.58	4.28
ECP061204	Rounded	Bolt-on	8.83	3.58	5.71
ECP080806	Rounded	Bolt-on	6.20	6.20	6.42
ECP081006	Rounded	Bolt-on	6.20	6.20	6.42
ECP081204	Rounded	Bolt-on	8.83	6.20	8.56
ECP081206	Rounded	Bolt-on	8.83	6.20	8.56
ECP081208	Rounded	Bolt-on	8.83	6.20	8.56
ECP101006	Rounded	Bolt-on	6.20	6.20	6.42
ECP101008	Rounded	Bolt-on	6.20	6.20	6.42
ECP101406	Rounded	Bolt-on	11.45	6.20	10.70
ECP121204	Square	Tap-in	10.13	10.13	11.42
ECP121206	Square	Tap-in	10.13	10.13	11.42
ECP121208	Square	Tap-in	10.13	10.13	11.42
ECP121806	Square	Tap-in	16.13	10.13	17.12
ECP121808	Square	Tap-in	16.13	10.13	17.12
ECP122408	Square	Tap-in	22.50	10.50	25.69
ECP122410	Square	Tap-in	22.50	10.50	25.69
ECP123608	Square	Tap-in	34.00	10.00	37.10
ECP141406	Square	Tap-in	12.13	12.13	17.84
ECP141408	Square	Tap-in	12.13	12.13	17.84
ECP141410	Square	Tap-in	12.13	12.13	17.84
ECP161606	Square	Tap-in	14.13	14.13	25.69
ECP161608	Square	Tap-in	14.13	14.13	25.69
ECP162408	Square	Tap-in	22.13	14.13	38.53
ECP181806	Square	Tap-in	16.13	16.13	25.69
ECP181808	Square	Tap-in	16.13	16.13	25.69
ECP181810	Square	Tap-in	16.13	16.13	25.69
ECP182408	Square	Tap-in	22.13	16.13	38.53
ECP182410	Square	Tap-in	22.13	16.13	38.53
ECP183008	Square	Tap-in	28.13	16.13	47.09
ECP183608	Square	Tap-in	34.13	16.13	55.65
ECP183610	Square	Tap-in	34.13	16.13	55.65
ECP242408	Square	Tap-in	22.13	22.13	57.79
ECP242410	Square	Tap-in	22.13	22.13	57.79
ECP243008	Square	Tap-in	28.13	22.13	70.64
ECP243608	Square	Tap-in	34.00	22.00	83.48
ECP243610	Square	Tap-in	34.00	22.00	83.48



1E

Surface area removed per threaded operator (in.²)

Thread size and type	Area removed per device
$\frac{3}{4}$ " - 14 NPSM	0.713
$\frac{3}{4}$ " - 20 NEF	0.388
$\frac{7}{8}$ " - 20 NEF	0.539
$\frac{5}{8}$ " - 18 UNF	0.249

Example: A quantity of 22, $\frac{3}{4}$ " - 14 NPSM devices would utilize 15.686 inches², meaning the ECP1212 would not accommodate this number of operators.