



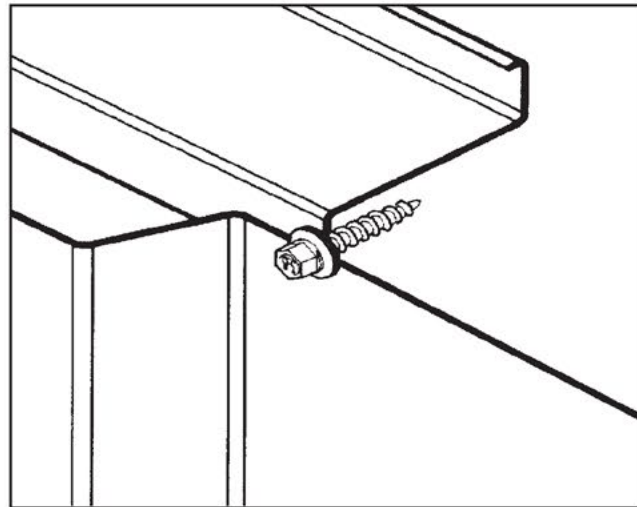
METAL FASTENING

S y s t e m s , I n c

www.metalfasteningsystems.com

Tap-Lock

Metal to Metal or Wood Self-Tapping Screws



TYPICAL APPLICATION

Charlotte, NC.
7670 Mikron Dr
Stanley, NC. 28164
(704) 822-3562

Raleigh, NC.
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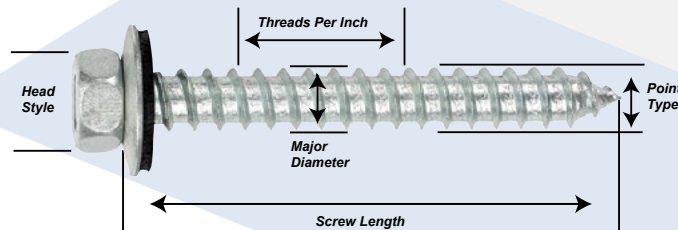
THE NEXT GENERATION OF HIGH PERFORMANCE FASTENERS AND ACCESSORIES

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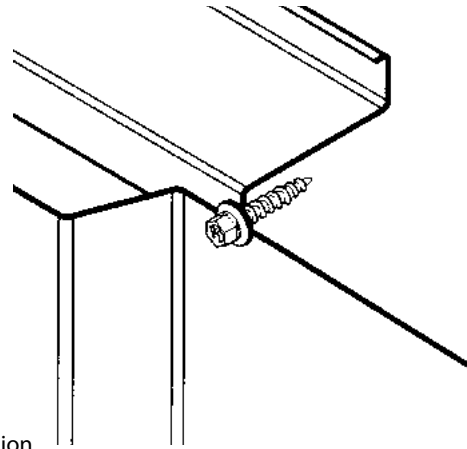
Screw Terminology

Description: 14-10 X 1-1/2" HH Type A
with Sealing Washer Zinc Plated



Major Diameter	Threads Per Inch	Screw Length	Point Type	Head Style
#14-10 X 1-1/2" Type A HH				

#14 Type A Self-tapping Metal to Metal Fastener



Features and Benefits

- Zinc plated carbon steel
- Available with no sealing washer or with bond seal washer
- Long lengths available for specialty applications

Application

Metal panel to light and medium gauge metal application

Product Selection

Material No.	Fastener Length	Thread Length*	Description	Carton Wt. (lbs.)	Carton Qty.
783137	3/4"	Full	#14 X 3/4" HHA Tap-Lock W/W	33	2,500
783245	1"	Full	#14 X 1" HHA Tap-Lock W/W	40	2,500
783598	1-1/4"	Full	#14 X 1-1/4" HHA Tap-Lock W/W	36	2,000
783873	1-1/2"	Full	#14 X 1-1/2" HHA Tap-Lock W/W	40	2,000
783923	2"	Full	#14 X 2" HHA Tap-Lock W/W	38	1,500
784086	2-1/2"	Full	#14 X 2-1/2" HHA Tap-Lock W/W	45	1,500
784127	3"	Full	#14 X 3" HHA Tap-Lock W/W	53	1,500
784146	3-1/2"	3"	#14 X 3-1/2" HHA Tap-Lock W/W	46	1,250
784153	4"	3"	#14 X 4" HHA Tap-Lock W/W	42	1,000
784170	5"	3"	#14 X 5" HHA Tap-Lock W/W	37	750
784181	6"	3"	#14 X 6" HHA Tap-Lock W/W	30	500

Plain product bagged 250 pieces, unless otherwise noted.

*Note - Thread length measured from tip of point to top of the threads.

Product Specifications

Diameter: #14
 Threads Per Inch: 10
 Head Style: 3/8" dia. HH AF
 Washer: 19/32" galvanized and EPDM bond seal

Drill Point: Type A
 Drill Capacity: 0.044"–0.075"
 Thread Major Dia: 0.251"
 Thread Minor Dia: 0.182"

Performance Data ¹

Material Strength		Pull Out Strength Steel		Pull Over Strength Steel	
Tensile	3500 lbf	18 Ga	605 lbf	26 Ga	616 lbf
Shear	2400 lbf	16 Ga	958 lbf	24 Ga	884 lbf
Torsional	125 lbf-in	14 Ga	1318 lbf	22 Ga	1079 lbf

¹ Pull out values based on 45 ksi cold formed sheet steel.

Installation and Application Considerations

Tools: 0–1000 rpm screw gun equipped with depth sensing nose piece.

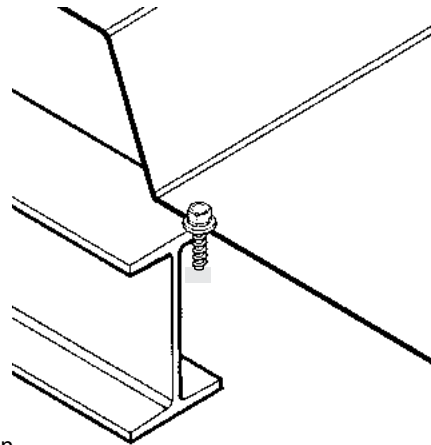
Use of impact guns or hammer drills is not recommended.

Metal thickness	Drill bit size
0.021"–0.026"	1/8"
0.027"–0.050"	3/16"
0.051"–0.075"	#8

The hole size determines installation performance and pull out strength. Thickness is based on normal, single thickness purlin/girt or multiple material thickness combined for total. Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

The details stated are results of tests and/or calculations and therefore are non-binding and do not represent guaranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

1/4-14 Type B Self-tapping Metal to Metal Fastener



Features and Benefits

- Zinc plated carbon steel
- Available with no sealing washer or with bond seal washer
- Long lengths available for specialty applications

Application

Metal panel to medium and heavy gauge metal applications

Product Selection

Material No.	Fastener Length	Thread Length*	Description	Carton Wt. (lbs.)	Carton Qty.
784198	3/4"	Full	#14 X 3/4" HHB Tap-Lock W/W	39	2,500
784208	1"	Full	#14 X 1" HHB Tap-Lock W/W	44	2,500
784232	1-1/2"	Full	#14 X 1-1/2" HHB Tap-Lock W/W	44	2,000
784241	2"	Full	#14 X 2" HHB Tap-Lock W/W	38	1,500
784248	2-1/2"	Full	#14 X 2-1/2" HHB Tap-Lock W/W	45	1,500
784253	3"	2-7/8"	#14 X 3" HHB Tap-Lock W/W	54	1,500
784258	3-1/2"	2-7/8"	#14 X 3-1/2" HHB Tap-Lock W/W	46	1,250
784262	4"	2-7/8"	#14 X 4" HHB Tap-Lock W/W	44	1,000
784268	5"	2-7/8"	#14 X 5" HHB Tap-Lock W/W	41	750
784273	6"	2-7/8"	#14 X 6" HHB Tap-Lock W/W	28	500

Plain product bulk carton packed, unless otherwise noted.

*Note - Thread length measured from tip of point to top of the threads.

Product Specifications

Diameter: 1/4"

Threads Per Inch: 14

Head Style: 3/8" dia. HH AF

Washer: 19/32" galvanized and EPDM bond seal

Drill Point: Type B

Drill Capacity: 0.044"–0.500"

Thread Major Dia: 0.243"

Thread Minor Dia: 0.188"

Performance Data ¹

Material Strength

Tensile	3800 lbf
Shear	2560 lbf
Torsional	142 lbf-in

Pull Out Strength Steel

16 Ga	879 lbf
14 Ga	1277 lbf
12 Ga	2185 lbf

Pull Over Strength Steel

26 Ga	616 lbf
24 Ga	884 lbf
22 Ga	1079 lbf

¹ Pull out values are based on 45 ksi cold formed sheet metal.

Installation and Application Considerations

Tools: 0–1000 rpm screw gun equipped with depth sensing nose piece.

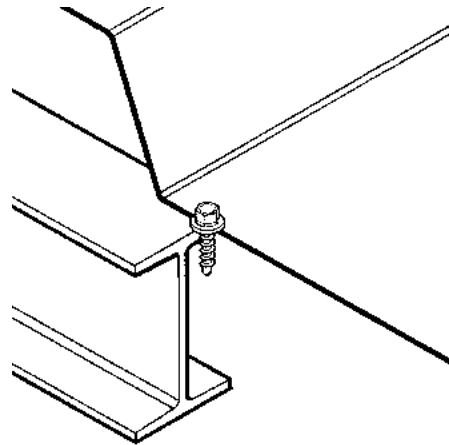
Use of impact guns or hammer drills is not recommended.

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Metal thickness	Drill bit size
0.065"–0.085"	#8
0.085"–0.115"	#7
0.115"–0.375"	#1
0.375"–0.500"	#1 or larger depending on hardness of steel

The hole size determines installation performance and pull out strength. Thickness is based on normal, single thickness purlin/girt or multiple material thickness combined for total. Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

#1/4-14 Type AB Self-tapping Metal to Metal Fastener



Features and Benefits

- Zinc plated carbon steel
- Available with no sealing washer or with bond seal washer

Application

Metal panel to medium and heavy gauge metal applications

Product Selection

Material No.	Fastener Length	Thread Length*	Description	Carton Wt. (lbs.)	Carton Qty.
784286	3/4"	Full	#14 X 3/4" HHAB Tap-Lock W/W	35	2,500
784520	1"	Full	#14 X 1" HHAB Tap-Lock W/W	38	2,500
784545	1-1/4"	Full	#14 X 1-1/4" HHAB Tap-Lock W/W	43	2,500
1295743	1-1/2"	Full	#14 X 1-1/2" HHAB Tap-Lock W/W	36	2,500

Plain product bulk carton packed, unless otherwise noted.

*Note – Thread length measured from tip of point to top of the threads.

Product Specifications

Diameter: 1/4"
 Threads Per Inch: 14
 Head Style: 3/8" dia. HH AF
 Washer: 19/32" galvanized and EPDM bond seal

Drill Point: Type AB
 Drill Capacity: 0.044"–0.110"
 Thread Major Dia: 0.243"
 Thread Minor Dia: 0.189"

Performance Data ¹

Material Strength		Pull Out Strength Steel		Pull Over Strength Steel	
Tensile	3800 lbf	16 Ga	879 lbf	26 Ga	616 lbf
Shear	2560 lbf	14 Ga	1277 lbf	24 Ga	884 lbf
Torsional	142 lbf-in	12 Ga	2185 lbf	22 Ga	1079 lbf

¹ Pull out values based on 45 ksi cold formed sheet metal.

Installation and Application Considerations

Tools: 0–1000 rpm screw gun equipped with depth sensing nose piece.

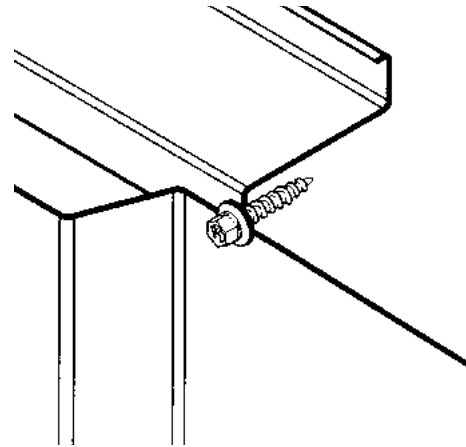
Use of impact guns or hammer drills is not recommended.

Metal thickness	Drill bit size
0.021"–0.026"	1/8"
0.027"–0.050"	5/32"
0.051"–0.075"	#8
0.075"–0.110"	#7

The hole size determines installation performance and pull out strength. Thickness is based on normal, single thickness purlin/girt or multiple material thickness combined for total. Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

The details stated are results of tests and/or calculations and therefore are non-binding and do not represent guaranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

#17 Type AB Self-tapping Metal to Metal Fastener



Features and Benefits

- Zinc plated carbon steel
- Available with no sealing washer or with bond seal washer

Application

Strip out repair of metal panel to light and medium gauge metal applications

Product Selection

Material No.	Fastener Length	Thread Length*	Description	Carton Wt. (lbs.)	Carton Qty.
784798	3/4"	Full	#17 X 3/4" HHAB Tap-Lock W/W	38	2,500
784832	1"	Full	#17 X 1" HHAB Tap-Lock W/W	38	2,000
784938	1-1/2"	Full	#17 X 1-1/2" HHAB Tap-Lock W/W	36	1,500

Plain product bagged 250 pieces, unless otherwise noted.

*Note - Thread length measured from tip of the point to top of the threads.

Product Specifications

Diameter:	#17	Drill Point:	Type AB
Threads Per Inch:	14	Drill Capacity:	0.036"–0.060"
Head Style:	3/8" dia. HH AF	Thread Major Dia:	0.290"
Washer:	19/32" galvanized and EPDM bond seal	Thread Minor Dia:	0.220"

Performance Data ¹

Material Strength	Pull Out Strength Steel	Pull Over Strength Steel
Tensile	14 Ga 986 lbf	26 Ga 599 lbf
Shear	12 Ga 1668 lbf	
Torsional	220 lbf-in	

¹ Pull out values are tested/interpolated based on 50,000 psi hot rolled steel sheet material.

Installation and Application Considerations

Tools: 0–1000 rpm screw gun equipped with depth sensing nose piece.

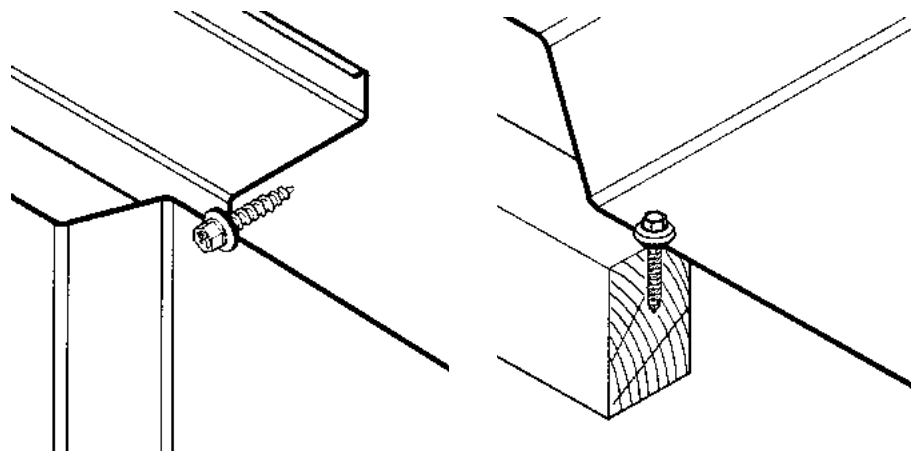
Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

Use of impact guns or hammer drills is not recommended.

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Tap-Lock

#1/4–14 Zinc Alloy Capped Type AB Self-Tapping Metal to Wood or Metal Fastener



Features and Benefits

- Zinc alloy cap head that will never red rust
- Assembled EPDM sealing washer for a consistent weather tight seal
- Long life fastener limited warranty

Application

Metal panel to medium metal applications or metal panel to wood applications

Product Selection

Material No.	Fastener Length	Thread* Length	Description	Carton Wt. (lbs.)	Carton Qty.
784403	1"	Full	#14 X 1" ZAC AB Tap-Lock W/W	44	2,000
784552	1-1/2"	Full	#14 X 1-1/2" ZAC AB Tap-Lock W/W	42	1,500
784691	2"	Full	#14 X 2" ZAC AB Tap-Lock W/W	33	1,000
784654	2-1/2"	Full	#14 X 2-1/2" ZAC AB Tap-Lock W/W	38	1,000

Plain product bagged 250 pieces, unless otherwise noted.

*Note – Thread length measured from tip of point to top of the threads.

Product Specifications

Diameter:	1/4"	Drill Point:	Type AB Milled Point
Threads Per Inch:	14	Drill Capacity:	0.044"–0.110"
Head Style:	3/8" dia. HH AF	Thread Major Dia:	0.243"
Washer:	EPDM sealing washer	Thread Minor Dia:	0.188"

Performance Data ¹

Material Strength

Tensile	3800 lbf
Shear	2560 lbf
Torsional	142 lbf·in

Pull Over Strength Steel

26 Ga	616 lbf
24 Ga	884 lbf
22 Ga	1079 lbf

Pull Out Strength Steel

16 Ga	879 lbf
14 Ga	1277 lbf
12 Ga	2185 lbf

Thickness is based on normal, single thickness purlin/girt or multiple material thickness combined for total. Minimum depth penetration into wood substructure: 1" (25.4 mm)

Metal thickness	Drill bit size
0.021"–0.026" (0.53 mm–0.66 mm)	1/8" (3.18 mm)
0.027"–0.050" (0.69 mm–1.27 mm)	5/32" (3.97 mm)
0.051"–0.075" (1.29 mm–1.9 mm)	#8 (5.05 mm)
0.075"–0.110" (1.9 mm–2.79 mm)	#7 (5.11 mm)

The hole size determines installation performance and pull out strength.

Pull Out Strength Wood

SPF 1" penetration	697 lbf
SPF 1-1/2" penetration	1038 lbf
3/4" Plywood	619 lbf
5/8" Plywood	425 lbf
1/2" Plywood	335 lbf

Installation and Application Considerations

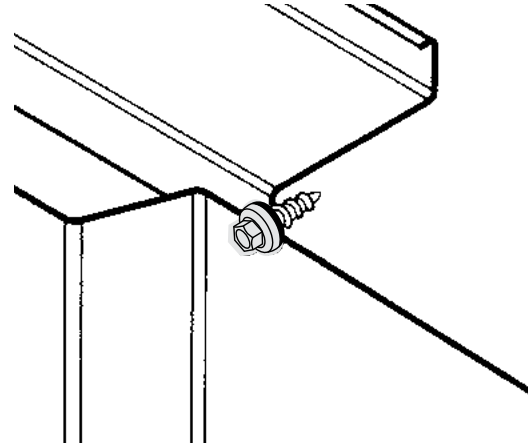
Tools: Metal to metal application: 0–1000 rpm screw gun equipped with depth sensing nose piece. Metal to wood application: 0–2500 rpm screw gun equipped with depth sensing nose piece.

Use of impact guns or hammer drills is not recommended.

¹ Pull out values based on 45 ksi cold formed sheet metal.

The details stated are results of tests and/or calculations and therefore are non-binding and do not represent warranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

#17 Zinc Alloy Cap Type AB Self-Tapping Metal to Metal Fastener



Features and Benefits

- Zinc alloy cap head that will never red rust
- Assembled EPDM sealing washer for a consistent weather tight seal
- Long life fastener limited warranty

Application

Strip out repair of metal panel to light and medium gauge metal applications

Product Selection

Material No.	Fastener Length	Thread* Length	Description	Carton Wt. (lbs.)	Carton Qty.
784892	1"	Full	#17 X 1" ZAC Tap-Lock AB W/W	38	1,500
784946	1-1/2"	Full	#17 X 1-1/2" ZAC Tap-Lock AB W/W	30	1,000

Plain product bagged 250 pieces, unless otherwise noted.

*Note - Thread length measured from tip of point to top of the threads.

Product Specifications

Diameter: #17
 Threads Per Inch: 14
 Head Style: 3/8" dia. Zinc aluminum capped
 HWH AF

Washer: EPDM sealing washer
 Drill Point: Type AB
 Attachment Thickness: 0.036"-0.060"
 Thread Major Dia: 0.290"
 Thread Minor Dia: 0.220"

Performance Data ¹

Material Strength	Pull Out Strength Steel		Pull Over Strength Steel	
Tensile	5136 lbf	14 Ga 986 lbf	26 Ga	599 lbf
Shear	4830 lbf	12 Ga 1668 lbf		
Torsional	220 lbf-in			

¹ Pull out values are tested/interpolated based on 50,000 psi hot rolled steel sheet material.

Installation and Application Considerations

Tools: 0-1000 rpm screw gun equipped with depth sensing nose piece.

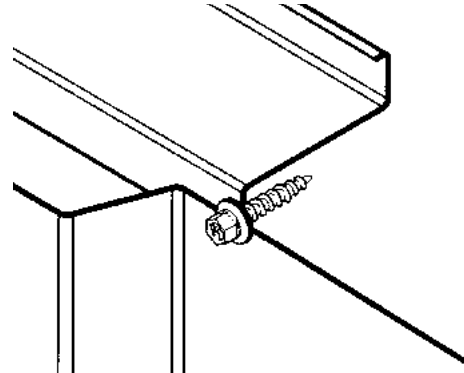
Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

Use of impact guns or hammer drills is not recommended.

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Tap-Lock

#14 Type A 304 S.S. Self-tapping Metal to Metal Fastener



Features and Benefits

- Zinc plated 304 stainless steel for corrosion resistance
- Available with no sealing washer or with stainless bond seal washer
- Long lengths available for specialty applications

Application

Metal panel to light gauge metal application for use in highly corrosive environments

Product Selection

Material No.	Fastener Length	Thread Length*	Description	Carton Wt. (lbs.)	Carton Qty.
790380	3/4"	Full	#14 X 3/4" HHA Tap-Lock W/W 304 S.S.	33	2,500
790396	1"	Full	#14 X 1" HHA Tap-Lock W/W 304 S.S.	40	2,500
790432	1-1/4"	Full	#14 X 1-1/4" HHA Tap-Lock W/W 304 S.S.	36	2,000
790443	1-1/2"	Full	#14 X 1-1/2" HHA Tap-Lock W/W 304 S.S.	40	2,000
790470	2"	Full	#14 X 2" HHA Tap-Lock W/W 304 S.S.	50	2,000
790489	2-1/2"	Full	#14 X 2-1/2" HHA Tap-Lock W/W 304 S.S.	45	1,500
790513	3"	Full	#14 X 3" HHA Tap-Lock W/W 304 S.S.	53	1,500
790527	3-1/2"	3"	#14 X 3-1/2" HHA Tap-Lock W/W 304 S.S.	46	1,250
790533	4"	3"	#14 X 4" HHA Tap-Lock W/W 304 S.S.	42	1,000
790548	5"	3"	#14 X 5" HHA Tap-Lock W/W 304 S.S.	37	750
790556	6"	3"	#14 X 6" HHA Tap-Lock W/W 304 S.S.	33	500
790561	7"	3"	#14 X 7" HHA Tap-Lock W/W 304 S.S.	36	500
790566	8"	3"	#14 X 8" HHA Tap-Lock W/W 304 S.S.	41	500

Plain product bagged 250 pieces, unless otherwise noted.

*Note - Thread length measured from tip of point to top of the threads.

Product Specifications

Diameter: #14
 Threads Per Inch: 10
 Head Style: 3/8" dia. HH AF
 Washer: 19/32" galvanized and EPDM bond seal

Drill Point: Type A
 Drill Capacity: 0.044"–0.075"
 Thread Major Dia: 0.251"
 Thread Minor Dia: 0.182"

Performance Data ¹

Material Strength

Tensile	3200 lbf
Shear	1450 lbf
Torsional	125 lbf-in

Pull Out Strength Steel

16 Ga	1110 lbf
14 Ga	1232 lbf

Pull Over Strength Steel

26 Ga	648 lbf
24 Ga	904 lbf
22 Ga	1258 lbf

Metal thickness Drill bit size
 0.021"–0.026" 1/8"
 0.027"–0.050" 3/16"
 0.051"–0.075" #8

The hole size determines installation performance and pull out strength. Thickness is based on normal, single thickness parting or multiple material thickness combined for total. Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

¹ Pull out values based on 45 ksi cold formed sheet steel.

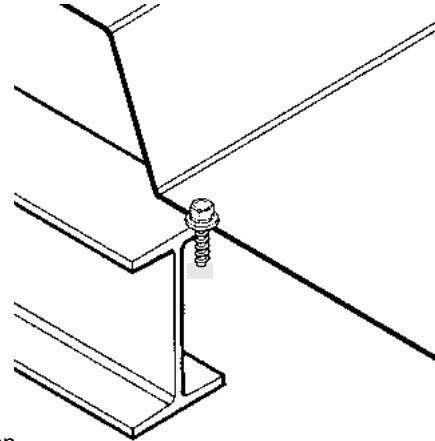
Installation and Application Considerations

Tools: 0–1000 rpm screw gun equipped with depth sensing nose piece.
 Use of impact guns or hammer drills is not recommended.

The details stated are results of tests and/or calculations and therefore are non-binding and do not represent warranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

Tap-Lock

1/4-14 Type B 304 S.S. Self-tapping Metal to Metal Fastener



Features and Benefits

- Zinc plated 304 stainless steel for corrosion resistance
- Available with no sealing washer or with bond seal washer
- Wax surface treatment for added lubricity
- Long lengths available for specialty applications

Application

Metal panel to medium and heavy gauge metal applications for use in highly corrosive environments

Product Selection

Material No.	Fastener Length	Thread Length*	Description	Carton Wt. (lbs.)	Carton Qty.
1297746	3/4"	Full	#14 X 3/4" HHB Tap-Lock W/W 304 S.S.	39	2,500
1297754	1"	Full	#14 X 1" HHB Tap-Lock W/W 304 S.S.	44	2,500
1297779	1-1/2"	Full	#14 X 1-1/2" HHB Tap-Lock W/W 304 S.S.	44	2,000
1297799	2"	Full	#14 X 2" HHB Tap-Lock W/W 304 S.S.	38	1,500
1297811	2-1/2"	Full	#14 X 2-1/2" HHB Tap-Lock W/W 304 S.S.	45	1,500
1382358	3"	Full	#14 X 3" HHB Tap-Lock W/W 304 S.S.	54	750
1297829	3-1/2"	3"	#14 X 3-1/2" HHB W/W 304 S.S.	46	1,250
1297832	4"	3"	#14 X 4" HHB Tap-Lock W/W 304 S.S.	44	1,000
790642 ☒	5"	3"	#14 X 5" HHB Tap-Lock W/W 304 S.S.	41	750
1297843	6"	3"	#14 X 6" HHB Tap-Lock W/W 304 S.S.	28	500
1297849	7"	3"	#14 X 7" HHB Tap-Lock W/W 304 S.S.	37	500
790654 ☒	8"	3"	#14 X 8" HHB Tap-Lock W/W 304 S.S.	42	500

Plain product bulk carton packed, unless otherwise noted.

*Note – Thread length measured from tip of point to top of the threads.

Product Specifications

Diameter: 1/4"
 Threads Per Inch: 14
 Head Style: 3/8" dia. HH AF
 Washer: 19/32" galvanized and EPDM bond seal

Drill Point: Type B
 Drill Capacity: 0.044" – 0.500"
 Thread Major Dia: 0.243"
 Thread Minor Dia: 0.188"

Performance Data ¹

Material Strength	Pull Out Strength Steel		Pull Over Strength Steel		
Tensile	3600 lbf	16 Ga	699 lbf	26 Ga	648 lbf
Shear	2330 lbf	14 Ga	1083 lbf	24 Ga	904 lbf
Torsional	150 lbf-in	12 Ga	2119 lbf	22 Ga	1258 lbf

¹ Pull out values are based on 45 ksi cold formed sheet metal.

Installation and Application Considerations

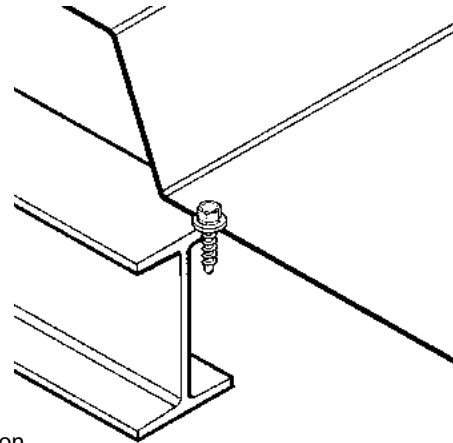
Tools: 0–1000 rpm screw gun equipped with depth sensing nose piece.
 Use of impact guns or hammer drills is not recommended.

Metal thickness
 0.065"–0.085" #8
 0.085"–0.115" #7
 0.115"–0.375" #1
 0.375"–0.500" #1 or larger depending on hardness of steel

The hole size determines installation performance and pull out strength. Thickness is based on normal, single thickness pull-in/grip or multiple material thickness combined for total. Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

The details stated are results of tests and/or calculations and therefore are non-binding and do not represent warranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

#1/4-14 Type AB 304 S.S. Self-tapping Metal to Metal Fastener



Features and Benefits

- Zinc plated 304 stainless steel for corrosion resistance
- Available with no sealing washer or with bond seal washer

Application

Metal panel to medium and heavy gauge metal applications for use in high corrosive environments or with dissimilar metals where corrosion resistance and long building life are critical factors.

Product Selection

Material No.	Fastener Length	Thread Length*	Description	Carton Wt. (lbs.)	Carton Qty.
790659	3/4"	Full	#14 X 3/4" HHAB Tap-Lock W/W 304 S.S.	35	2,500
790681	1"	Full	#14 X 1" HHAB Tap-Lock W/W 304 S.S.	38	2,500
790689	1-1/4"	Full	#14 X 1-1/4" HHAB Tap-Lock W/W 304 S.S.	36	2,000
790701	1-1/2"	Full	#14 X 1-1/2" HHAB Tap-Lock W/W 304 S.S.	42	2,000

Plain product bulk carton packed, unless otherwise noted.

*Note - Thread length measured from tip of point to top of the threads.

Product Specifications

Diameter:	1/4"	Drill Point:	Type AB
Threads Per Inch:	14	Drill Capacity:	0.044"–0.104"
Head Style:	3/8" dia. HH AF	Thread Major Dia:	0.243"
Washer:	19/32" galvanized and EPDM bond seal	Thread Minor Dia:	0.189"

Performance Data ¹

Material Strength		Pull Out Strength Steel		Pull Over Strength Steel	
Tensile	3600 lbf	16 Ga	699 lbf	26 Ga	648 lbf
Shear	2330 lbf	14 Ga	1083 lbf	24 Ga	908 lbf
Torsional	150 lbf-in	12 Ga	2119 lbf	22 Ga	1258 lbf

¹ Pull out values based on 45 ksi cold formed sheet metal.

Installation and Application Considerations

Tools: 0–1000 rpm screw gun equipped with depth sensing nose piece.

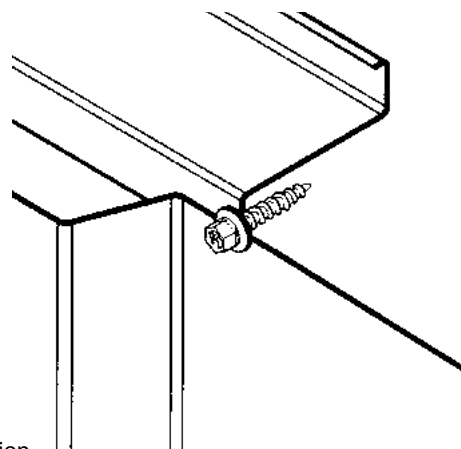
Use of impact guns or hammer drills is not recommended.

The details stated are results of tests and/or calculations and therefore are non-binding and do not represent warranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

Metal thickness	Drill bit size
0.021"–0.026"	1/8"
0.027"–0.050"	5/32"
0.051"–0.075"	#8
0.075"–0.110"	#7

The hole size determines installation performance and pull out strength. Thickness is based on normal, single thickness purlin/girt or multiple material thickness combined for total. Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

#17 Type AB 304 S.S. Self-tapping Metal to Metal Fastener



Application

Strip out repair of metal panel to light and medium gauge metal applications for use in high corrosive environments or with dissimilar metals where corrosion resistance and long building life are critical factors.

Features and Benefits

- Zinc plated 304 stainless steel for corrosion resistance
- Available with no sealing washer or with bond seal washer

Product Selection

Material No.	Fastener Length	Thread Length*	Description	Carton Wt. (lbs.)	Carton Qty.
1382061	3/4"	Full	#17 X 3/4" HHAB Tap-Lock W/W 304 S.S.	38	2,500
1305496	1"	Full	#17 X 1" HHAB Tap-Lock W/W 304 S.S.	38	2,000
1297909	1-1/2"	Full	#17 X 1-1/2" HHAB Tap-Lock W/W 304 S.S.	36	1,500

Plain product bagged 250 pieces, unless otherwise noted.

*Note - Thread length measured from tip of the point to top of the threads.

Product Specifications

Diameter:	#17	Drill Point:	Type AB
Threads Per Inch:	14	Drill Capacity:	0.036"–0.060"
Head Style:	3/8" dia. HH AF	Thread Major Dia:	0.290"
Washer:	19/32" galvanized and EPDM bond seal	Thread Minor Dia:	0.220"

Performance Data ¹

Material Strength	Pull Out Strength Steel	Pull Over Strength Steel
Tensile	14 Ga 1059 lbf	26 Ga 562 lbf
Shear	12 Ga 2518 lbf	24 Ga 1110 lbf
Torsional	180 lbf-in	

Installation and Application Considerations

Tools: 0–1000 rpm screw gun equipped with depth sensing nose piece.

Fastener length should provide for a minimum of 3/16" penetration of fully developed threads into metal substrate.

Use of impact guns or hammer drills is not recommended.

The details stated are results of tests and/or calculations and therefore are non-binding and do not represent warranties or warranted characteristics for not specified applications. All calculations therefore have to be checked and approved by the responsible planner ahead of execution. The user is responsible to assure compliance with all applicable laws and regulations.

Coating Comparison

Coating	Salt Spray	Application
Clear Zinc	24 hrs.	Used indoors for dry, non-corrosive applications
*Ruspert	1,000 hrs.	Used indoors and outdoors for high corrosive applications
E-Coat	500 hrs.	Used outdoors for medium corrosive applications
*410 Stainless Steel	500 hrs.	Used outdoors for medium corrosive applications
*304 Stainless Steel	2,000+ hrs.	Used outdoors for high corrosive applications
*316 Stainless Steel	2,000+ hrs.	Used outdoors for severely corrosive applications

*ACQ Compatible

Coating Description

Clear Zinc: A coating that is applied electrically to fasteners that prevents oxidation of steel by forming a protective barrier.

Ruspert: A high-grade metal surface processing technology that prevents corrosion. The coating system consists of three layers: a metallic zinc layer, a high-grade anti-corrosion chemical conversion film, and a baked ceramic surface coating.

E-Coat: A electrical current to deposit the coating material and oven cured.

410 Stainless Steel: A low-carbon grade of hardenable stainless steel. Good corrosion in mild atmospheres.

304 Stainless Steel: A nickel-chromium austenitic grade of stainless steel that has a high resistance to corrosion.

316 Stainless Steel: A nickel-chromium austenitic grade of stainless steel that provides a level of corrosion protection suitable for severe environments.

*(Tested in accordance with the American Society of Testing Materials - ASTM B 117)

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Inches to Decimal

Inches	Decimal	Inches	Decimal	Inches	Decimal	Inches	Decimal
1/32	.0312	9/32	.2812	17/32	.5312	25/32	.7812
1/16	.0625	5/16	.312	9/16	.5625	13/16	.8125
3/32	.0937	11/32	.3437	19/32	.5937	27/32	.8437
1/8	.125	3/8	.375	5/8	.625	7/8	.875
5/32	.1562	13/32	.4062	21/32	.6562	29/32	.9062
3/16	.1875	7/16	.4375	11/16	.687	15/16	.9375
7/32	.2187	15/32	.4687	23/32	.7187	31/32	.9687
1/4	.250	1/2	.500	3/4	.750	1	1.00

Gauges to Decimal

Gauge	Decimal	Gauge	Decimal	Gauge	Decimal	Gauge	Decimal
3	.239	12	.105	21	.033	30	.0120
4	.224	13	.090	22	.030	31	.0105
5	.209	14	.075	23	.027	32	.0097
6	.194	15	.067	24	.024	33	.0090
7	.179	16	.060	25	.021	34	.0082
8	.164	17	.054	26	.018	35	.0075
9	.150	18	.048	27	.016	36	.0067
10	.135	19	.042	28	.015	37	.0064
11	.120	20	.036	29	.014	38	.0060

Suggested Drill Size/Pullout Values (#14 Diameters)

Steel Thickness	Point Type	Drill Size	Avg. Ultimate Pullout
24	A-AB	5/32" (.156)	243 lbs.
22	A-AB	5/32" (.156)	340 lbs.
20	A-AB	5/32" (.156)	372 lbs.
18	A-AB	3/16" (.187)	412 lbs.
16	A-AB-B	3/16" (.187)	850 lbs.
14	AB-B	#7 (.201)	1,318 lbs.
12	AB-B	#7 (.201)	2,185 lbs.
1/8"	AB-B	#2 (.221)	1,780 lbs.
10	AB-B	#2 (.221)	1,812 lbs.
3/16"	B	#1 (.228)	2,677 lbs.
1/4"	B	#1 (.228)	3,134 lbs.
3/8"	B	#1 (.228)	(exceeds tensile strength)
1/2"	B	#1 (.228)	(exceeds tensile strength)

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