



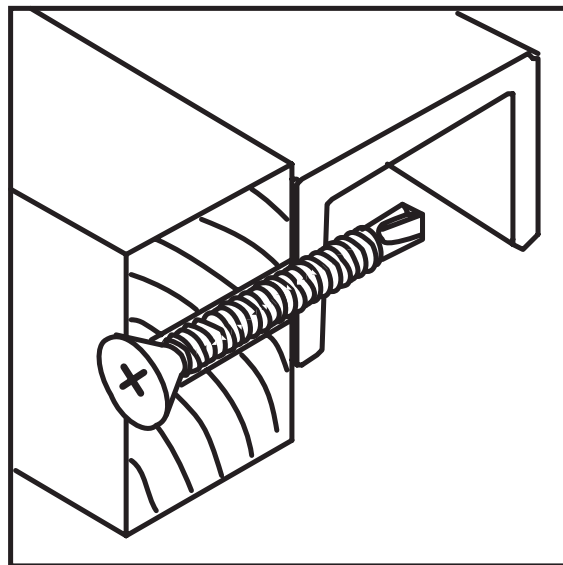
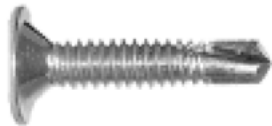
**METAL FASTENING**

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# Dril-Quik

*Self-Drilling Screws For Wood to Metal Applications*



TYPICAL APPLICATION

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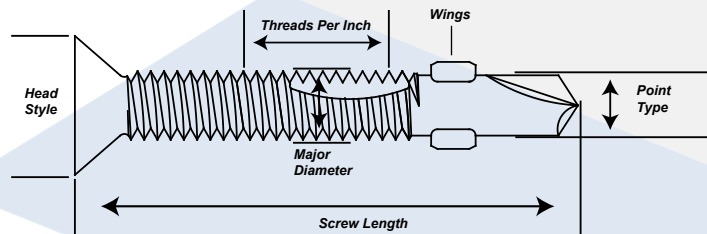
THE NEXT GENERATION OF HIGH PERFORMANCE FASTENERS AND ACCESSORIES

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## Screw Terminology

Description: 1/4-20 X 2-3/4" Phil Flat Head Reamer W/Wings W.A.R. Coated



Major Diameter	Threads Per Inch	Screw Length	Point Type	Head Style
<b>1/4</b>	<b>- 20</b>	<b>X 2-3/4"</b>	<b>SD4</b>	<b>PFH</b>



**STRONG-POINT<sup>®</sup> PHILLIPS BUGLE HEAD, ZINC PLATED \*SOME SIZES AVAILABLE IN 410 STAINLESS STEEL\***

Size	Part#	Pt.	Case Qty.	Description
6-20 x 1	D610Z	2	10M	Phillips Bugle Head, Zinc Plated
6-20 x 1-1/8	D611Z	2	10M	Phillips Bugle Head, Zinc Plated
6-20 x 1-1/4	D614Z	2	8M	Phillips Bugle Head, Zinc Plated
6-20 x 1-5/8	D615Z	2	5M	Phillips Bugle Head, Zinc Plated
6-20 x 1-7/8	D617Z	2	4M	Phillips Bugle Head, Zinc Plated

**Application:** Attaches gypsum, insulation and wood to metal.  
 Drill Capacity (in.): .035 - .090

- Specifications:**
- Meets ASTM<sup>1</sup> C 1513 for cold-formed steel framing connections
  - Meets ASTM A 510 for carbon steel manufacturing
  - Meets ASTM C 954 for attaching track to steel studs
  - Manufactured to SAE<sup>2</sup> J78 for dimensional specifications
  - Meets F.I.P.<sup>3</sup>-1000.7 for torsional strength and drill speed
  - Meets ASTM F1941 for corrosion resistance

**Installation:** A standard screw gun with torque limiting nose piece set at a maximum of 2500 RPM drive speed recommended. Phillips drive bit. Do not over torque as it can cause the head to snap or stripping of the recess. The bugle head fastener is properly seated when the head sits flush or slightly countersunk with the sheathing surface. Installed fastener must penetrate a minimum of three full threads beyond the metal structure.

Pullout Values (Avg. Lbs.)									
Fastener		Steel Gauge							
Size	Pt.	22	20	18	16	14	12	1/8	3/16
6-20	2	126	218	366	496	825	1004		

Shear Values (Avg. Lbs.)									
Fastener		Steel Gauge (Lapped)							
Size	Pt.	22	20	18	16	14	12	1/8	3/16
6-20	2	444	721	875	912				

The values listed are averages achieved under laboratory conditions and imply no warranty. Appropriate safety factors should be applied to these values for design purposes.

<sup>1</sup>(American Society of Testing Materials)

<sup>2</sup>(Society of Automotive Engineers)

<sup>3</sup>(Fastener Inspection Products)



**STRONG-POINT<sup>®</sup> PHILLIPS BUGLE HEAD, ZINC PLATED \*SOME SIZES AVAILABLE IN 410 STAINLESS STEEL\***

Size	Part#	Pt.	Case Qty.	Description
8-18 x 2-3/8	D823Z	2	2.5M	Phillips Bugle Head, Zinc Plated
8-18 x 2-5/8	D825Z	2	2M	Phillips Bugle Head, Zinc Plated
8-18 x 3	D830Z	2	2M	Phillips Bugle Head, Zinc Plated

**Application:** Attaches gypsum, insulation and wood to metal.  
 Drill Capacity (in.): .035 - .100

- Specifications:**
- Meets ASTM<sup>1</sup> C 1513 for cold-formed steel framing connections
  - Meets ASTM A 510 for carbon steel manufacturing
  - Meets ASTM C 954 for attaching track to steel studs
  - Manufactured to SAE<sup>2</sup> J78 for dimensional specifications
  - Meets F.I.P.<sup>3</sup>-1000.7 for torsional strength and drill speed
  - Meets ASTM F1941 for corrosion resistance

**Installation:** A standard screw gun with torque limiting nose piece set at a maximum of 2500 RPM drive speed recommended. Do not over torque as it can cause the head to snap or stripping of the recess. The bugle head fastener is properly seated when the head sits flush or slightly countersunk with the sheathing surface. Installed fasteners must penetrate a minimum of three full threads beyond the metal structure.

Pullout Values (Avg. Lbs.)

Fastener		Steel Gauge							
Size	Pt.	22	20	18	16	14	12	1/8	3/16
8-18	2	168	227	398	502	888	1050		

Shear Values (Avg. Lbs.)

Fastener		Steel Gauge (Lapped)							
Size	Pt.	22	20	18	16	14	12	1/8	3/16
8-18	2	522	780	937	1025				

The values listed are averages achieved under laboratory conditions and imply no warranty. Appropriate safety factors should be applied to these values for design purposes.

<sup>1</sup>(American Society of Testing Materials)

<sup>2</sup>(Society of Automotive Engineers)

<sup>3</sup>(Fastener Inspection Products)

D823Z\_D830Z\_Rev. A (8/28/17)



**STRONG-POINT<sup>1</sup> PHILLIPS BUGLE HEAD, ZINC PLATED \*SOME SIZES AVAILABLE IN 410 STAINLESS STEEL\***

Size	Part#	Pt.	Case Qty.	Description
10-16 x 3-1/2	D1031Z	2	1M	Phillips Bugle Head, Zinc Plated
10-16 x 4	D1040Z	2	1M	Phillips Bugle Head, Zinc Plated
10-16 x 5	D1050Z	2	.5M	Phillips Bugle Head, Zinc Plated

**Application:** Attaches gypsum, insulation and wood to metal.  
 Drill Capacity (in.): .035 - .110

- Specifications:**
- Meets ASTM<sup>1</sup> C 1513 for cold-formed steel framing connections
  - Meets ASTM A 510 for carbon steel manufacturing
  - Meets ASTM C 954 for attaching track to steel studs
  - Manufactured to SAE<sup>2</sup> J78 for dimensional specifications
  - Meets F.I.P.<sup>3</sup>-1000.7 for torsional strength and drill speed
  - Meets ASTM F1941 for corrosion resistance

**Installation:** A standard screw gun with torque limiting nose piece set at a maximum of 2500 RPM drive speed recommended. Do not over torque as it can cause the head to snap or stripping of the recess. The bugle head fastener is properly seated when the head sits flush or slightly countersunk with the sheathing surface. Installed fasteners must penetrate a minimum of three full threads beyond the metal structure.

**Pullout Values (Avg. Lbs.)**

Fastener		Steel Gauge							
Size	Pt.	22	20	18	16	14	12	1/8	3/16
10-16	2	267	360	534	763	1005	1606		

**Shear Values (Avg. Lbs.)**

Fastener		Steel Gauge (Lapped)							
Size	Pt.	22	20	18	16	14	12	1/8	3/16
10-16	2	574	808	1173	1233				

The values listed are averages achieved under laboratory conditions and imply no warranty. Appropriate safety factors should be applied to these values for design purposes.

<sup>1</sup>(American Society of Testing Materials)

<sup>2</sup>(Society of Automotive Engineers)

<sup>3</sup>(Fastener Inspection Products)

D1031Z\_D1040Z\_Rev. A (8/28/17)



**STRONG-POINT<sup>1</sup> PHILLIPS WAFER HEAD, ZINC PLATED \*SOME SIZES ARE AVAILABLE IN 410 STAINLESS STEEL\***

Size	Part#	Pt.	Case Qty.	Wood Attach. Range	Description
10-24 x 3/4	W103	3	7M	1/4" - 3/8"	Phillips Wafer Head, Zinc Plated
10-24 x 1	W104	3	5M	1/4" - 1/2"	Phillips Bugle Head, Zinc Plated
10-24 x 1-1/4	W105	3	3M	1/4" - 3/4"	Phillips Wafer Head, Zinc Plated
10-24 x 1-1/2	W106	3	2M	1/4" - 1"	Phillips Wafer Head, Zinc Plated
10-24 x 2	W108	3	2M	1/4" - 1-1/2"	Phillips Wafer Head, Zinc Plated

**Application:** Attaches plywood to metal.  
 Drill Capacity (in.): .035 - .176

- Specifications:**
- Meets ASTM C 1513 for cold-formed steel framing connections
  - Meets ASTM A 510 for carbon steel manufacturing
  - Manufactured to SAE<sup>2</sup> J78 for dimensional specifications
  - Meets F.I.P.<sup>3</sup>-1000.7 for torsional strength and drill speed
  - Meets ASTM F1941 for corrosion resistance

**Installation:** A standard screw gun with torque limiting nose piece set at a maximum of 2500 RPM drive speed recommended. Do not over torque as it can cause the head to snap or stripping of the recess. Installed fasteners must penetrate a minimum of three full threads beyond the metal structure.

**Pullout Values (Avg. Lbs.)**

Fastener		Steel Gauge							
Size	Pt.	22	20	18	16	14	12	1/8	3/16
10-24	3		335	496	702	901	1469	2112	2668

**Shear Values (Avg. Lbs.)**

Fastener		Steel Gauge (Lapped)							
Size	Pt.	22	20	18	16	14	12	1/8	3/16
10-24	3		709	1231	1497	1508			

The values listed are averages achieved under laboratory conditions and imply no warranty. Appropriate safety factors should be applied to these values for design purposes.

<sup>1</sup>(American Society of Testing Materials)

<sup>2</sup>(Society of Automotive Engineers)

<sup>3</sup>(Fastener Inspection Products)

W103\_W108\_Rev. A (5/27/15)



**STRONG-POINT<sup>®</sup> PHILLIPS WAFER HEAD w/WINGS, WAR COATED \*SOME SIZES AVAILABLE IN 410 STAINLESS STEEL\***

Size	Part#	Pt.	Case Qty.	Wood Attach. Range	Description
10-24 x 1-7/16	R107W	3	4M	1/4" - 3/4"	Phillips Wafer Head w/Wings, WAR Coated

Application: Attaches plywood to metal.  
 Drill Capacity (in.): .035 - .176

- Specifications:
- Meets ASTM<sup>1</sup> C 1513 for cold-formed steel framing connections
  - Meets ASTM A 510 for carbon steel manufacturing
  - Manufactured to SAE<sup>2</sup> J78 for dimensional specifications
  - Meets F.I.P.<sup>3</sup>-1000.7 for torsional strength and drill speed
  - WAR coating exceeds 1,000/hr. salt spray resistance



- Features:
- Designed to work with ACQ treated lumber
  - Wings ream hole in wood preventing "jacking action"

Installation: A standard screw gun with torque limiting nose piece set at a maximum of 2500 RPM drive speed recommended. Do not over torque as it can cause the head to snap or stripping of the recess. Installed fasteners must penetrate a minimum of three full threads beyond the metal structure.

Pullout Values (Avg. Lbs.)

Fastener		Steel Gauge							
Size	Pt.	22	20	18	16	14	12	1/8	3/16
10-24	3		335	496	702	901	1469	2112	2668

Shear Values (Avg. Lbs.)

Fastener		Steel Gauge (Lapped)							
Size	Pt.	22	20	18	16	14	12	1/8	3/16
10-24	3		709	1231	1497	1508			

The values listed are averages achieved under laboratory conditions and imply no warranty. Appropriate safety factors should be applied to these values for design purposes.

<sup>1</sup>(American Society of Testing Materials)

<sup>2</sup>(Society of Automotive Engineers)

<sup>3</sup>(Fastener Inspection Products)

R107W\_Rev. A (5/27/15)



**STRONG-POINT<sup>1</sup> PHILLIPS FLAT HEAD REAMER w/WINGS, WAR COATED \*ALSO AVAILABLE IN 410 STAINLESS STEEL\***

Size	Part#	Pt.	Case Qty.	Wood Attach. Range	Description
12-24 x 2	R200W	3	2M	1/2" - 1-1/8"	Phillips Flat Head Reamer w/Wings, WAR Coated

**Application:** Attaches wood to metal.  
 Drill Capacity (in.): .110 - .210

- Specifications:**
- Meets ASTM C 1513 for cold-formed steel framing connections
  - Meets ASTM A 510 for carbon steel manufacturing
  - Manufactured to SAE<sup>2</sup> J78 for dimensional specifications
  - Meets F.I.P.<sup>3</sup>-1000.7 for torsional strength and drill speed
  - WAR coating exceeds 1,000/hr. salt spray resistance



- Features:**
- Designed to work with ACQ treated lumber
  - Wings ream hole in wood preventing "jacking action"

**Installation:** A standard screw gun with torque limiting nose piece set at a maximum of 2000 RPM drive speed recommended. Do not over torque as it can cause the head to snap or stripping of the recess. Installed fasteners must penetrate a minimum of three full threads beyond the metal structure.

Pullout Values (Avg. Lbs.)

Fastener		18	16	14	12	1/8	3/16	1/4
Size	Pt.							
12-24	3	484	679	959	1489	2371	3384	3732

Shear Values (Avg. Lbs.)

Fastener		18	16	14	12	1/8	3/16	1/4
Size	Pt.							
12-24	3				1989	1972		

The values listed are averages achieved under laboratory conditions and imply no warranty. Appropriate safety factors should be applied to these values for design purposes.

<sup>1</sup>(American Society of Testing Materials)

<sup>2</sup>(Society of Automotive Engineers)

<sup>3</sup>(Fastener Inspection Products)

R200W\_Rev. A (8/24/17)





**STRONG-POINT<sup>1</sup> PHILLIPS FLAT HEAD REAMER w/WINGS, WAR COATED \*ALSO AVAILABLE IN 410 STAINLESS STEEL\***

Size	Part#	Pt.	Case Qty.	Wood Attach. Range	Description
12-24 x 2-1/2	R212W	4	1.5M	1/2" - 1-1/2"	Phillips Flat Head Reamer w/Wings, WAR Coated

**Application:** Attaches wood to metal.  
 Drill Capacity (in.): .110 - .250

- Specifications:**
- Meets ASTM C 1513 for cold-formed steel framing connections
  - Meets ASTM A 510 for carbon steel manufacturing
  - Manufactured to SAE<sup>2</sup> J78 for dimensional specifications
  - Meets F.I.P.<sup>3</sup>-1000.7 for torsional strength and drill speed
  - WAR coating exceeds 1,000/hr. salt spray resistance



- Features:**
- Designed to work with ACQ treated lumber
  - Wings ream hole in wood preventing "jacking action"

**Installation:** A standard screw gun with torque limiting nose piece set at a maximum of 2000 RPM drive speed recommended. Do not over torque as it can cause the head to snap or stripping of the recess. Installed fasteners must penetrate a minimum of three full threads beyond the metal structure.

### Pullout Values (Avg. Lbs.)

Fastener		18	16	14	12	1/8	3/16	1/4
Size	Pt.							
12-24	4	484	679	959	1489	2371	3384	3732

### Shear Values (Avg. Lbs.)

Fastener		18	16	14	12	1/8	3/16	1/4
Size	Pt.							
12-24	4				1989	1972		

The values listed are averages achieved under laboratory conditions and imply no warranty. Appropriate safety factors should be applied to these values for design purposes.

<sup>1</sup>(American Society of Testing Materials)

<sup>2</sup>(Society of Automotive Engineers)

<sup>3</sup>(Fastener Inspection Products)

R212W\_Rev. A (8/24/17)





STRONG-POINT™ PHILLIPS FLAT HEAD REAMER w/WINGS, WAR COATED \*SOME SIZES AVAILABLE IN 410 STAINLESS STEEL\*

Size	Part#	Pt.	Case Qty.	Wood Attach. Range	Description
1/4-20 x 2-3/4	R234W	4	1M	3/4" - 1-3/4"	Phillips Flat Head Reamer w/Wings, WAR Coated
1/4-20 x 3-1/4	R314W	4	1M	3/4" - 2-1/4"	Phillips Flat Head Reamer w/Wings, WAR Coated
1/4-20 x 3-1/2	R312W	4	.8M	3/4" - 2-1/2"	Phillips Flat Head Reamer w/Wings, WAR Coated
1/4-20 x 3-3/4	R334W	4	.5M	3/4" - 2-3/4"	Phillips Flat Head Reamer w/Wings, WAR Coated
1/4-20 x 4-3/4	R434W	4	.5M	3/4" - 3-3/4"	Phillips Flat Head Reamer w/Wings, WAR Coated

Application: Attaches wood to metal.  
 Drill Capacity (in.): .110 - .375

- Specifications:
- Meets ASTM<sup>1</sup> C 1513 for cold-formed steel framing connections
  - Manufactured to SAE<sup>2</sup> J78 for dimensional specifications
  - Meets F.I.P.<sup>3</sup>-1000.7 for torsional strength and drill speed
  - WAR coating exceeds 1,000/hr. salt spray resistance



- Features:
- Designed to work with ACQ treated lumber
  - Wings ream hole in wood preventing "jacking action"

Installation: A standard screw gun with torque limiting nose piece set at a maximum of 1750 RPM drive speed recommended. Do not over torque as it can cause the head to snap or stripping of the recess. Installed fasteners must penetrate a minimum of three full threads beyond the metal structure.

Pullout Values (Avg. Lbs.)										
Fastener		Steel Gauge								
Size	Pt.	22	20	18	16	14	12	1/8	3/16	1/4
1/4-20	4			595	856	1114	1805	2337	4416	4885

Shear Values (Avg. Lbs.)										
Fastener		Steel Gauge (Lapped)								
Size	Pt.	22	20	18	16	14	12	1/8	3/16	1/4
1/4-20	4				2040	2509	2573	2738		

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<sup>1</sup>(American Society of Testing Materials)

<sup>2</sup>(Society of Automotive Engineers)

<sup>3</sup>(Fastener Inspection Products)

R234W\_R434W\_Rev. A (4/25/18)

### 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

### Drill Capacity Guideline

Point	Diameter	.050	.100	.150	.200	.250	.300	.350	.400	.500	.600	Drill Speed
1	1/4	.018 -- .090										2000
2	6	.035 -- .090										2500
2	8	.035 ---- .100										2500
2	10	.035 ---- .110										2500
3	10	.035 ----- .176										2500
3	12	.035 ----- .210										2000
3	1/4	.060 ----- .220										1750
4	12	.125 ----- .250										1500
5	12	.125 ----- .500										1500

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## Coating Comparison

Coating	Salt Spray	Application
Clear Zinc	24 hrs.	Used indoors for dry, non-corrosive applications
*WAR	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.

**WAR:** 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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