

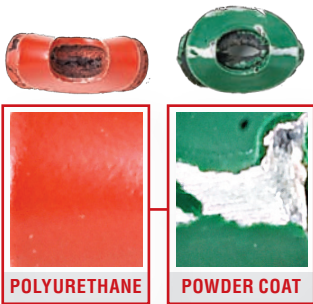
*BUILDING FASTENERS*

# QUIKGRIP

*METAL TO WOOD FASTENERS*



# Painting Options



**Crimped washer heads** show polyurethane's superior durability while powder coating can chip and flake.

## + MATCHTECH

The world's best fasteners - now in any color, any time.

MatchTech™ is Marco Industries' state-of-the-art, high quality polyurethane paint for all of your fastener needs. MatchTech™ uses Imron 6000 from DuPont. Due to the added amount of polyurethane in Imron 6000, it produces a rubber-based material which eliminates chipping, especially when lobe sockets are used.

**QUALITY:**  
Offers unsurpassed durability and chemical resistance.

**CONSISTENCY:**  
High quality coating makes your fasteners last, and keeps

you coming back for more.

**LIMITLESS POSSIBILITIES:**  
There are endless color possibilities with this state of the art color system.

**QUICK:**  
Non-standard color matches can be produced within a 24 to 48 hour turn around using our in house color eye computer station.

### SUPERIOR POLYURETHANE PAINT COATING

Marco's use of polyurethane paint makes it the most durable paint coating technology in the industry.

Unlike typical powder coating paint processes, which can end up cracking, flaking, chipping, and disintegrating under pressure, polyurethane paint has a rubbery

compound that allows it to bend and bounce back under stress without cracking, flaking, or chipping.



# Testing **Laboratory**

## Marco Industries and Sherry Laboratories

Marco Industries has partnered with Sherry Laboratories for product testing and validation. Marco's partnership with Sherry Laboratories ensures that all products can withstand the most brutal elements in the harshest climates North America has to offer.

Sherry Laboratories has built a reputation as an industry leader in the field of metallurgical testing by meeting and exceeding customers' expectations for accuracy and time requirements for more than 60 years.

Sherry Holdings LLC is five premier testing companies combining to provide uniquely accredited testing, technical expertise and services of superior quality through eight testing facilities. Founded in 1947, Sherry has been adding value to Marco Industries by providing efficient, timely and responsive testing services.

Few laboratories around the world carry the range of professional accreditations and approvals enjoyed by Sherry Laboratories.

Sherry's metallurgical laboratories have been accredited through Nadcap and the American Association of Laboratory Accreditation (A2LA). They also meet the requirements of ISO 17025, and the general requirements for the Competence of Calibration and Testing Laboratories for Mechanical, Chemical and Fastener testing as outlined in the Fastener Quality Act (FQA).

OEMs, fabricators and end users rely on Sherry Laboratories to test their metals, exotic alloys and polymers in accordance with standards set forth by a number of organizations, including the American Society for Testing and Materials (ASTM), American Society of Mechanical Engineers (ASME), American Petroleum Institute (API), American Welding Society (AWS), American Association of State Highway and Transportation Officials (AASHTO), Federal, Military or individual customer specifications.



**QUIKGRIP™**  
**METAL2WOOD**

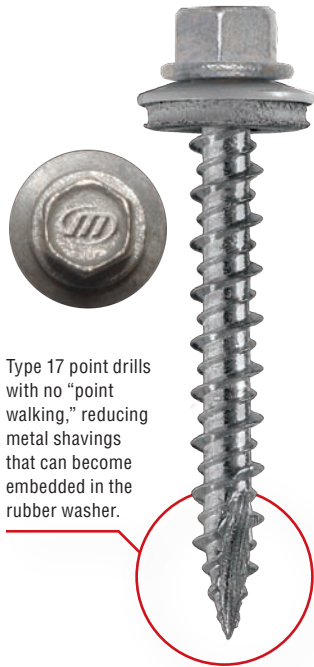
The Metal2Wood fastener is designed to attach steel roofing and siding used in post-frame and residential metal roofing applications.

The mechanical zinc plating provides extended corrosion resistance.

The high hex washer head provides driving stability, its HiLo threads make for superior holding strength, and the Type 17 point allows for quick installation. The bonded seal washer creates a truly Weather-Tite seal – even when driven at an angle.

**STANDARD**

**OPTIONAL**



Type 17 point drills with no “point walking,” reducing metal shavings that can become embedded in the rubber washer.

SIZE	HEAD	CARTON QTY	WEIGHT/M
🇨🇦 10 x 1"	1/4" HWH	2500	8.25
🇨🇦 10 x 1-1/2"	1/4" HWH	2500	10.321
🇨🇦 10 x 2"	1/4" HWH	2000	12.495
🇨🇦 10 x 2-1/2"	1/4" HWH	1500	15.068
🇨🇦 10 x 3"	1/4" HWH	1000	16.867
12 x 3/4" STITCH	1/4" HWH	5000	10.587

WASHER SIZES	
#10 HiLo	
ID	OD
.214"	.470"

All fasteners listed are available in the U.S.

🇨🇦 Also available in Canada, in Electroplate finish only.

**QUIKGRIP™**  
**METAL2WOOD HD**  
HEAVY DUTY

The Metal2Wood HD is your “rescue screw.” It can replace nails or fasteners that have loosened and backed out of metal roofing and siding.

metal roof. The mechanical zinc plating provides extended corrosion resistance.

The EPDM rubber is vulcanized to the steel washer to prevent delaminating to form an excellent seal - even when driven at an angle. The 5/16" HWH with bonded sealing washer will cover the existing hole entirely, creating a watertight seal, even if stretched out by movement of the

**STANDARD**

**OPTIONAL**



SIZE	HEAD	CARTON QTY	WEIGHT/M
14 x 1"	5/16" HWH	2500	8.25
14 x 1-1/2"	5/16" HWH	2000	10.321
14 x 2"	5/16" HWH	1500	12.495

WASHER SIZES	
#10 HiLo	
ID	OD
.275"	.590"

All fasteners listed are available in the U.S.

🇨🇦 Also available in Canada, in Electroplate finish only.



<i>POINT DIAMETER</i>	<b>MAJOR DIAMETER</b>	<b>MINOR DIAMETER</b>	<b>HEAD ACROSS FLAT</b>	<b>NOMINAL TENSILE</b>	<b>MINIMUM TORSIONAL</b>	<b>NOMINAL SHEAR</b>
<b>25° TYPE 17</b>	.191 / .202	.130 / .126	.246 / .251	2293 LBS.	60 IN-LBS.	1890 LBS.

<b>PULL OUT STRENGTH</b> <i>(LBS ULT)</i>	<b>SUBSTRATES</b>										
	PLYWOOD			OSB	SOUTHERN PINE		SPRUCE PINE FIR		OAK	HEMLOCK FIR	
	3/4	5/8	1/2	7/16	1"	1-1/2"	1"	1-1/2"	1"	1"	1-1/2"
	709	594	403	313	710	1185	495	1043	1895	654	1210

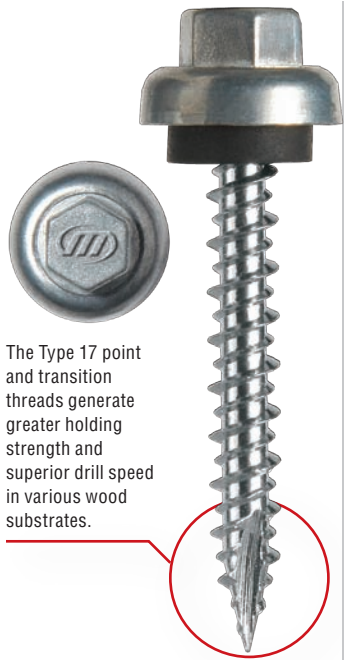
<b>PULL OVER STRENGTH</b> <i>(LBS ULT)</i>	<i>DESIGNATION</i>	<b>MATERIAL</b>								
		<b>AZ55 GALVALUME</b>								
	NOM. GAUGE	29			26			24		
	THICKNESS	.015			.019			.024		
	#10 x .472	379			630			723		
	#10 x .500	422			655			795		

<i>POINT DIAMETER</i>	<b>MAJOR DIAMETER</b>	<b>MINOR DIAMETER</b>	<b>HEAD ACROSS FLAT</b>	<b>NOMINAL TENSILE</b>	<b>MINIMUM TORSIONAL</b>	<b>NOMINAL SHEAR</b>
<b>30° TYPE 17</b>	.245 / .248	.185 / .178	.312 / .305	4272 LBS.	125 IN-LBS.	2995 LBS.

<b>PULL OUT STRENGTH</b> <i>(LBS ULT)</i>	<b>SUBSTRATES</b>										
	PLYWOOD			OSB	SOUTHERN PINE		SPRUCE PINE FIR		OAK	HEMLOCK FIR	
	3/4	5/8	1/2	7/16	1"	1-1/2"	1"	1-1/2"	1"	1"	1-1/2"
	845	646	377	296	1186	-	653	-	-	668	-

<b>PULL OVER STRENGTH</b> <i>(LBS ULT)</i>	<i>DESIGNATION</i>	<b>MATERIAL</b>										
		<b>AZ55 GALVALUME</b>									<b>G-90 GALVANIZED</b>	
	NOM. GAUGE	29			26			24		22		20
	THICKNESS	.015			.019			.024		.032		.038
	14mm x .551	493			781			1079		1352		1609
	HWH	493			721			1042		1196		1420

**QUIKGRIP™**  
**ReZistor**



The Type 17 point and transition threads generate greater holding strength and superior drill speed in various wood substrates.

ReZistor is designed to fasten steel sheeting to wood, plywood, or OSB. It is used in post frame and residential construction.

The 5/16" cupped HWH with molded zinc-aluminum alloy provides protection against red rust on the head and washer. The Zinc Alloy Cap head provides more strength than common alloys.

ReZistor is an excellent choice for Galvalume and other long-life metal roof panels, and has a 40-year warranty – available upon request.

**STANDARD**



**OPTIONAL**



SIZE	HEAD	CARTON QTY	WEIGHT/M
10 x 1"	5/16" CHWH	2500	13.006
10 x 1-1/2"	5/16" CHWH	2500	15.904
10 x 2"	5/16" CHWH	2000	17.326
10 x 3"	5/16" CHWH	1000	22.124
12 x 3/4" STITCH	5/16" CHWH	2500	9.065

WASHER SIZES	
#10 HiLo Zinc Alloy Cap	
ID	OD
-	11mm
THICKNESS	
3mm	

**QUIKGRIP™**  
**ReZistor3**



Type 17 point drills 29 and 26 gauges every time.

ReZistor3 is a smaller, cupped HWH that provides an attractive low-profile appearance versus large HWH fasteners. Intended as an alternative to the zinc-aluminum alloy head. It is also used to fasten steel roofing in post-frame and residential construction projects.

ReZistor3 is an excellent choice for Galvalume or other long-life metal roofs.

With a 40-year warranty – available upon request – ReZistor3's stainless steel cap will never produce red rust.

**STANDARD**



**OPTIONAL**



SIZE	HEAD	CARTON QTY	WEIGHT/M
10 x 1"	1/4" HWH	3000	9.4
10 x 1-1/2"	1/4" HWH	2500	11.0

WASHER SIZES	
#10 HiLo	
ID	OD
-	9mm
THICKNESS	
3mm	



<i>POINT DIAMETER</i>	<b>MAJOR DIAMETER</b>	<b>MINOR DIAMETER</b>	<b>WASHER FACE DIAMETER</b>	<b>NOMINAL TENSILE</b>	<b>MINIMUM TORSIONAL</b>	<b>NOMINAL SHEAR</b>
<b>25° TYPE 17</b>	.191 / .202	.126 / .130	.311 / .305	1344 LBS.	60 IN-LBS.	1804 LBS.

<b>PULL OUT STRENGTH</b> (LBS ULT)	<i>SUBSTRATES</i>										
	PLYWOOD			OSB	SOUTHERN PINE		SPRUCE PINE FIR		OAK	HEMLOCK FIR	
	3/4	5/8	1/2	7/16	1"	1-1/2"	1"	1-1/2"	1"	1"	1-1/2"
	706	593	403	312	708	1186	491	1044	1345	652	814

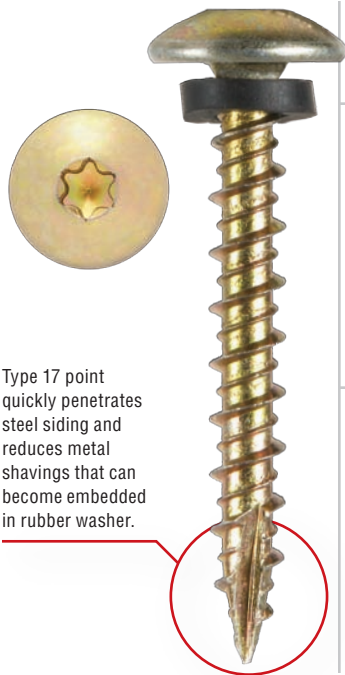
<b>PULL OVER STRENGTH</b> (LBS ULT)	<i>DESIGNATION</i>	<i>MATERIAL</i>	
		<i>AZ55 GALVALUME</i>	
	NOM. GAUGE	29	26
	THICKNESS	.015	.019
	#10 Type 17	655	1025

<i>POINT DIAMETER</i>	<b>MAJOR DIAMETER</b>	<b>MINOR DIAMETER</b>	<b>WASHER FACE DIA</b>	<b>HEAD ACROSS FLAT</b>	<b>NOMINAL TENSILE</b>	<b>MINIMUM TORSIONAL</b>	<b>NOMINAL SHEAR</b>
<b>30° TYPE 17</b>	.191 / .202	.126 / .130	.500	.250 / .244	2099 LBS.	60 IN-LBS.	1804 LBS.

<b>PULL OUT STRENGTH</b> (LBS ULT)	<i>SUBSTRATES</i>				
	PLYWOOD		OSB	SOUTHERN PINE	
	3/4	1/2	7/16	1"	1-1/2"
	669	398	238	1295	-

<b>PULL OVER STRENGTH</b> (LBS ULT)	<i>DESIGNATION</i>	<i>MATERIAL</i>	
		<i>AZ55 GALVALUME</i>	
	NOM. GAUGE	26	
	THICKNESS	.019	
	#14 x .550	724	

**QUIKGRIP™**  
**LoPro™**



Type 17 point quickly penetrates steel siding and reduces metal shavings that can become embedded in rubber washer.

LoPro provides a quality, low profile appearance on sidewall applications installed into wood girts. With a round head with 6-lobe recessed driver, LoPro is specially designed to fit the 6-lobe recess with no paint damage.

The undercut EPDM rubber washer provides a secure seal even when driven at an angle.

And with yellow dichromate zinc plating for a longer

lifetime, LoPro is more rust-proof than typical plated fasteners.

**STANDARD** **OPTIONAL**

LoPro comes with yellow dichromate plating



SIZE	HEAD	CARTON QTY	WEIGHT/M
10 x 1-1/2"	TRUSS	2500	10.1

WASHER SIZES	
#10 T-25 HiLo	
ID	OD
-	8.5mm
THICKNESS	
2mm	

**QUIKGRIP™**  
**300ss**



The 300ss stainless steel HWH and bonded washer provide protection – even in the harshest environments.

The HWH design holds the EPDM rubber washer to provide a protected seal, even when driven at an angle.

300ss is an excellent choice for use in aluminum liner panel applications, but can also function well for animal confinement structures.

The type A point will tap a pre-drilled hole in steel, or will self-drill through aluminum lines panels.

**STANDARD** **OPTIONAL**

300ss comes with stainless steel plating



SIZE	HEAD	CARTON QTY	WEIGHT/M
🇨🇦 9 x 1"	1/4" HWH	5000	7.9
🇨🇦 9 x 1-1/2"	1/4" HWH	2500	9.9

WASHER SIZES	
#9	
ID	OD
-	10mm
THICKNESS	
2mm	

All fasteners listed are available in the U.S.  
🇨🇦 Also available in Canada, in Electroplate finish only.



<i>POINT DIAMETER</i>	<b>MAJOR DIAMETER</b>	<b>MINOR DIAMETER</b>	<b>HEAD ACROSS FLAT</b>	<b>NOMINAL TENSILE</b>	<b>MINIMUM TORSIONAL</b>	<b>NOMINAL SHEAR</b>
<b>25° TYPE 17</b>	.191 / .202	.126 / .130	.500 T-25 TRUSS	2094 LBS.	60 IN-LBS.	2418 LBS.

<b>PULL OUT STRENGTH</b> (LBS ULT)	<i>SUBSTRATES</i>										
	PLYWOOD			OSB	SOUTHERN PINE		SPRUCE PINE FIR		OAK	HEMLOCK FIR	
	3/4	5/8	1/2	7/16	1"	1-1/2"	1"	1-1/2"	1"	1"	1-1/2"
	714	513	399	307	1068	-	514	-	1465	-	-

<b>PULL OVER STRENGTH</b> (LBS ULT)	<i>DESIGNATION</i>	<i>MATERIAL</i>									
		<i>AZ55 GALVALUME</i>									
	NOM. GAUGE	29					26				
	THICKNESS	.015					.019				
	#10	690					877				

<i>POINT DIAMETER</i>	<b>MAJOR DIAMETER</b>	<b>MINOR DIAMETER</b>	<b>WASHER FACE DIA</b>	<b>HEAD ACROSS FLAT</b>	<b>NOMINAL TENSILE</b>	<b>MINIMUM TORSIONAL</b>	<b>NOMINAL SHEAR</b>
<b>25° TYPE 17</b>	.189 / .183	.141 / .139	.38 / .32	.250 / .244	1134 LBS.	56 IN-LBS.	1033 LBS.

<b>PULL OUT STRENGTH</b> (LBS ULT)	<i>SUBSTRATES</i>										
	PLYWOOD			OSB	SOUTHERN PINE		SPRUCE PINE FIR		HEMLOCK FIR		
	3/4	5/8	1/2	7/16	1"	1-1/2"	1"	FULL	1"	1-1/2"	
	714	513	399	307	1068	-	514	-	1465	-	

<b>PULL OVER STRENGTH</b> (LBS ULT)	<i>DESIGNATION</i>	<i>MATERIAL</i>									
		<i>AZ55 GALVALUME</i>									
	NOM. GAUGE	29					26				
	THICKNESS	.015					.019				
	300ss TYPE A	685					869				



**QUIKGRIP™**  
**ClipScrews™**

Marco's ClipScrews™ are designed to attach standing seam roof clips to plywood, OSB, or wood purlins.

ClipScrews are designed with a unique head style and configuration to provide superior hold. Material and plating options meet performance requirements to secure roof clips while providing long lasting quality. ClipScrews are engineered with an installation combo drive control for uniform installation performance.

**STANDARD**      **OPTIONAL**



SIZE	HEAD STYLE	CARTON QTY	WEIGHT/M
🇨🇦 10 x 1"	#2 Phillips Square Pancake	5000	6.776
10 x 1-1/2"	#2 Phillips Square Pancake	2500	9.268

All fasteners listed are available in the U.S.  
🇨🇦 Also available in Canada, in Electroplate finish only.



**QUIKGRIP™**  
**ULTRALO ClipScrews™**

UltraLo is designed to attach standing seam roof clips to Plywood, OSB, or wood purlins.

This ultra thin wafer head is designed for standing seam panels that utilize no clip but require a thin head so as to not dimple the roof panel. This ultra low style head also provides exceptional pull over strength.

**STANDARD**      **OPTIONAL**



SIZE	HEAD STYLE	CARTON QTY	WEIGHT/M
10 x 1-1/8"	#2 Phillips Square Wafer	5000	6.776
10 x 2	#2 Phillips Square Wafer	2500	9.268
10 x 3	#2 Phillips Square Wafer	2000	6.141

<i>POINT DIAMETER</i>	<b>MAJOR DIAMETER</b>	<b>MINOR DIAMETER</b>	<b>HEAD DIAMETER</b>	<b>NOMINAL TENSILE</b>	<b>MINIMUM TORSIONAL</b>	<b>NOMINAL SHEAR</b>
<b>28° TYPE 17</b>	.194 / .188	.133 / .126	.44	2140 LBS.	60 IN-LBS.	1545 LBS.

<b>PULL OUT STRENGTH</b> <i>(LBS ULT)</i>	<b>SUBSTRATES</b>										
	PLYWOOD			OSB	SOUTHERN PINE		SPRUCE PINE FIR		OAK	HEMLOCK FIR	
	3/4	5/8	1/2	7/16	1"	1-1/2"	1"	1-1/2"	1"	1"	1-1/2"
	656	274	358	274	988	-	510	-	-	771	-

<b>PULL OVER STRENGTH</b> <i>(LBS ULT)</i>	<i>DESIGNATION</i>	<b>MATERIAL</b>			
		<b>AZ55 GALVALUME</b>			
	NOM. GAUGE	29	26	24	22
	THICKNESS	.015	.019	.024	.032
	ClipScrew	529	778	1128	1512

<i>POINT DIAMETER</i>	<b>MAJOR DIAMETER</b>	<b>MINOR DIAMETER</b>	<b>HEAD DIAMETER</b>	<b>NOMINAL TENSILE</b>	<b>MINIMUM TORSIONAL</b>	<b>NOMINAL SHEAR</b>
<b>35° SHARP</b>	.204 / .198	.128 / .122	.450	1920 LBS.	61 IN-LBS.	1633 LBS.

<b>PULL OUT STRENGTH</b> <i>(LBS ULT)</i>	<b>SUBSTRATES</b>										
	PLYWOOD			OSB	SOUTHERN PINE		SPRUCE PINE FIR		HEMLOCK FIR		
	3/4	5/8	1/2	7/16	1"	1-1/2"	1"	FULL	1"	1-1/2"	
	-	-	358	274	898	-	431	-	538	-	

<b>PULL OVER STRENGTH</b> <i>(LBS ULT)</i>	<i>DESIGNATION</i>	<b>MATERIAL</b>			
		<b>AZ55 GALVALUME</b>			
	NOM. GAUGE	29	26	24	22
	THICKNESS	.015	.019	.024	.032
	UltraLo	685	-	-	-

**QUIKGRIP™**  
**METAL2Wood XD**  
XTREME



Metal2Wood-XD is available in three point styles – AB, B, and A.

Marco offers a full range of carbon steel and stainless steel self-tapping screws. Available to meet all your fastener requirements for wood and light gauge metal with a pre-drilled hole.

STANDARD	OPTIONAL

SIZE	HEAD STYLE	CARTON QTY	WEIGHT/M
14 x 3/4"	3/8" HWH	2000	12.62
14 x 1"	3/8" HWH	2000	16.91
🍁 14 x 1-1/4"	3/8" HWH	2000	17.63
🍁 14 x 1-1/2"	3/8" HWH	1500	24.60
🍁 14 x 2"	3/8" HWH	1000	26.02
14 x 2-1/2"	3/8" HWH	1000	30.80
14 x 3"	3/8" HWH	1000	35.91
1/4 x 3/4" – AB	3/8" HWH	2000	12.62
17 x 3/4" – AB	3/8" HWH	2000	14.02
17 x 1" – AB	3/8" HWH	2000	18.00
17 x 1-1/4" – AB	3/8" HWH	2000	22.03

All fasteners listed are available in the U.S.  
 🍁 Also available in Canada, in Electroplate finish only.

POINT DIAMETER	MAJOR DIAMETER	MINOR DIAMETER	HEAD DIAMETER	NOMINAL TENSILE	MINIMUM TORSIONAL	NOMINAL SHEAR
30° SHARP 14	.254 / .248	.185 / .178	.375 / .367	4281 LBS.	125 IN-LBS.	2999 LBS.
30° SHARP 17	.280 / .273	.220 NOM	.375 / .367	5167 LBS.	220 IN-LBS.	3957 LBS.

PULL OUT STRENGTH (LBS ULT)	SUBSTRATES										
	PLYWOOD			OSB	YELLOW PINE		HEMLOCK	SPRUCE	HRS PRIME ONLY		
	3/4	5/8	1/2	7/16	1"	1-1/2"	1"	1-1/2"	16 / .065	14 / .07	12 / .106
#14	845	650	379	295	747	1187	672	655	806	1252	2020
#17	-	-	-	-	-	-	-	-	1411	1432	2150

PULL OVER STRENGTH (LBS ULT)	DESIGNATION	MATERIAL				
		AZ55 GALVALUME				G-90 GALVANIZED
	NOM. GAUGE	29	26	24	22	20
	THICKNESS	.015	.019	.024	.032	.038
#14/17 x 16mm (.062")	559	892	1200	1275	1610	

# Fastener Selection

## POINT TYPE

## NOMINAL DIAMETER & ALLOY

A



SIZE	INCHES	NOTES
#10	.190"	Drill bit sizes are for new construction applications
#12	.210"	Drill bit sizes are for new construction applications
#14	.250"	Drill bit sizes are for new construction applications
#14 304 SS	.250"	Requires 600-800 rpm screw gun

## STEEL PANEL OR STRUCTURAL THICKNESS

	.010	.020	.030	.040	.050	.060	.070	.080	.090	.100	.110	.120	.130	.140	.150	.160	.170	.180
#10			1/8"		9/64"													
#12			9/64"		9/64"													
#14	1/8"		3/16"		#8													
#14 SS			3/16"		#8													

AB



SIZE	INCHES	NOTES
#12	.210"	Drill bit sizes are for new construction applications
1/4"	.240"	Drill bit sizes are for new construction applications
#17	.285"	Repair screw for stripped 1/4" 11 ga. steel
1/4" 304 SS		Requires 600-800 rpm screw gun
#17 304 SS		Requires 600-800 rpm screw gun / Repair screw for stripped 1/4" 11 ga. steel

	.010	.020	.030	.040	.050	.060	.070	.080	.090	.100	.110	.120	.130	.140	.150	.160	.170	.180
#12			1/8"		9/64"		11/64"											
1/4"			1/8"		#8		#7				#1							
#17			3/16"			1/4"					17/64"							
1/4" SS	1/8"		3/16"		#8		#7				#1							
#17 SS			3/16"			1/4"					17/64"							

B



SIZE	INCHES	NOTES
#12	.210"	Drill bit sizes are for new construction applications
1/4"	.240"	Drill bit sizes are for new construction applications
1/4" 304 SS		Requires 600-800 rpm screw gun

	.010	.020	.030	.040	.050	.060	.070	.080	.090	.100	.110	.120	.130	.140	.150	.160	.170	.180
#12							11/64"			3/16"								
1/4"						#8	#7							#1				
1/4" SS						#8	#7							#1				

All screws listed other than 304 Stainless Steel are carbon steel with zinc plating.

# Plating Options



## SURESHIELD

### Standard mechanical plating

Marco's standard plating is 1 mil of mechanical plating. This provides all our fasteners with maximum plating protection.

Salt spray tests for our standard SureShield plated fasteners exceed 1,000 salt spray hours. Our mechanical plating eliminates all hydrogen embrittlement.

**MARCO'S FASTENER SALT SPRAY TEST RESULTS AVAILABLE UPON REQUEST.**



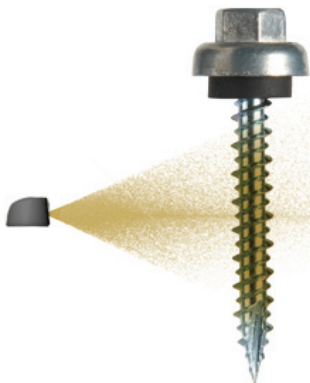
## ELECTROPLATE

Marco's electroplating technology.

Marco uses .005 electroplating for all fasteners, with the option to add additional coatings as well. This provides excellent salt spray and Kesternich ratings. Electroplating also provides good lubricity and wear resistance for both the QuikGrip and QuikDrill fastener families.

**MARCO'S FASTENER SALT SPRAY TEST RESULTS AVAILABLE UPON REQUEST.**

# Coating Options



## TRIPLEGUARD

The one coating with three times the protection.

Extend the life of your fasteners by choosing Marco TripleGuard. This fastener coating combines an electroplated zinc and chromate substrate with an organic topcoat. The electroplated zinc layer provides sacrificial protection of the steel substrate while the topcoat creates a durable barrier.

TripleGuard is engineered to provide extended field life

and improve the mechanical performance of fasteners. It is also engineered with integrated friction modifiers to eliminate the need for sealers or post-coating lubricants.

TripleGuard provides superior product performance in fewer layers than comparable finishes. Fewer processing steps result in improved quality and reduced cost.

# FastenerTerms

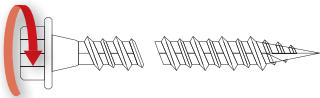


## TENSIONSTRENGTH

The point at which a fastener fails under a load exerted in two direct and opposite directions.

Fastener tension is created when a fastener elongates

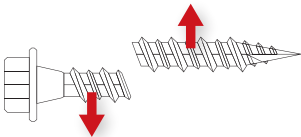
during tightening, producing the clamp load that prevents movement between joint members. Such movement is arguably the most common cause of structural joint failures.



## TORSIONSTRENGTH

With Torsion testing, we are able to simulate real life service conditions, check product quality, and ensure proper manufacturing techniques. Torsion tests are performed by applying rotational forces or by applying

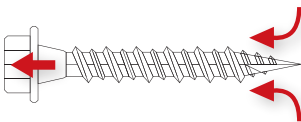
both compression and rotational forces. Types of torsion testing vary from product to product but can usually be classified as failure, proof, or product operation testing.



## SHEARSTRENGTH

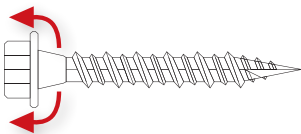
Shear is accomplished by exerting shear force (pressure) in the crosswise surface of the fastener until shear failure occurs.

Shear force causes the two adjacent portions of the fastener to slide in opposite directions parallel to their contact surface.



## PULLOUTPERFORMANCE

Pullout is the capacity of a fastener's thread connection with a particular medium to remain intact and resist being pulled out of the medium.



## PULLOVERPERFORMANCE

Pullover performance relates to the capacity of a fastener to resist the pulling of the fastened sheet material over the head of the fastener.

The resistance to pullover is related to the strength and diameter of the fastener washer as well as the strength and thickness of the metal panel used.



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