

FULL-LINE CATALOG



THE POWER OF ONE

YOUR PREMIUM FASTENING SOLUTION





paslode.com



grkfasteners.com



tapcon.com



backeronrockon.com



ramset.com



teksscrews.com



redheadanchoring.com



easyanchors.com

Table of Contents

SECTION 1: <i>PASLODE® COMPLETE PRODUCT LINE</i>	4-15	SECTION 10: <i>TAPCON® CONCRETE SCREW ANCHORS</i>	32-33
SECTION 2: <i>R4™ MULTI-PURPOSE FRAMING & DECKING SCREWS</i>	16-17	SECTION 11: <i>TAPCON+® CONCRETE SCREW ANCHORS</i> <i>TRUBOLT® CONCRETE WEDGE ANCHORS</i>	34-35
SECTION 3: <i>RSS™ RUGGED STRUCTURAL SCREWS</i>	18-19	SECTION 12: <i>RED HEAD® CONCRETE ANCHORS</i> <i>RED HEAD® A7+ ADHESIVE ANCHORS</i>	36-37
SECTION 4: <i>FIN/TRIM™ TRIM HEAD SCREWS</i>	20-21	SECTION 13: <i>RAMSET® P.A.T. TOOLS & ACCESSORIES</i>	38-39
SECTION 5: <i>RT COMPOSITE™ TRIM HEAD SCREWS</i>	22-23	SECTION 14: <i>TEKS® METAL FASTENING SCREWS</i>	40-41
SECTION 6: <i>PHEINOX™ STAINLESS STEEL SCREWS</i> - 305 Stainless - 316 Marine Grade Stainless	24-25	SECTION 15: <i>CEMENT BOARD SCREWS, CBS</i> <i>STAR DRIVE BITS & ACCESSORIES</i>	42-43
SECTION 7: <i>LOW PROFILE CABINET™ SCREWS</i>	26-27	SECTION 16: <i>MERCHANDISERS & DISPLAYS</i> <i>FASTENER TECHNICAL DATA</i>	44-54
SECTION 8: <i>CALIBURN™ CONCRETE SCREWS</i> <i>TOP STAR™ SHIM SCREWS</i>	28-29	SECTION 17: <i>FASTENER TECHNICAL BULLETIN</i>	55-62
SECTION 9: <i>MSST™ METAL SIDING SCREWS</i> <i>E-Z ANCHOR® MULTI-USE ANCHORS</i>	30-31		



REPUTATION IS EVERYTHING

INNOVATION.

Innovation in the nailer category doesn't just happen. You have to work at it. Paslode has over 80 years of experience, learning and perfecting every step of the way. You could say we invented the nailer. And you would be right. Ever since we introduced the first pneumatic nailer, cordless framing nailer, and Positive Placement® metal connector system we've continued to improve our nailers and fasteners to be the best in the business. Today, Paslode's latest innovations continue to help people in the trades get the job done right.

QUALITY.

Paslode is committed to one thing. Excellence. We stand by our products above all else. Every Paslode product is engineered with expertise and battle-tested for real-world toughness before it leaves our factory. Our decades of expertise in tool and nail manufacturing help us deliver products that stand up to the demands of the guys who use them. Each nailer we make has thousands of nails fired through it to test its limits and make sure it performs when our customers need it.

REPUTATION.

Nail by nail. Job by job. Day after day. We build our reputation the same way our customers do—one day at a time through hard work, reliability, and dedication. That's how Paslode became the standard by which other pneumatic and cordless fastening systems are measured. Our products are the go-to tools for professionals for framing, sheathing, trim and finish applications, fencing, floor and roof decking, siding, and insulation.





Application	Fuel-Powered Cordless Tools				Pneumatic Tools												
	30° Li-Ion Framing CF325X	16ga Angled Li-Ion Finish IM250ALI	16ga Straight Li-Ion Finish IM250SLI	18ga Brad IM200LI.2, IM200LI	Power Master™ Plus F350-S	Power Master™ Pro F-350P	Power Framer™ PF350-S	Positive Placement® Metal Connector Nailer F250S-PP	Positive Placement® Metal Connector Nailer PF250S-PP	Positive Placement® Metal Connector Nailer PF150S-PP	Positive Placement® Metal Connector Nailer F150S-PP	16ga Angled Finish/Trim T250A-F16	16ga Straight Finish/Trim T250S-F16P, T250S-F16	18ga Brad T200-F18P, T200-F18	16ga Wide Crown Stapler WCS200, S200-W16	16ga Standard Crown Stapler SCS200, S200-S16	CapStapler CS150
Framing																	
Exterior Walls	•				•	•	•										
Interior Walls	•				•	•	•										
Rafters	•				•	•	•										
Joists	•				•	•	•										
Metal Hardware								•	•	•	•						
Headers	•				•	•	•										
Blocking	•				•	•	•										
Bridging	•				•	•	•									•	
Floor Decks	•				•	•	•										
Roof Decks	•				•	•	•									•	
Punchout	•				•	•	•										
Assembly/Sheathing																	
Plywood	•				•	•	•								•	•	
Gypsum Wallboard															•		
Soft Wall															•	•	
Polysterene															•		
Lathing															•	•	
Soffits	•			•												•	
Fascias	•			•												•	
Trim/Finish																	
Bead Paneling		•	•	•								•	•	•			
Baseboards		•	•	•								•	•	•			
Crown Molding		•	•	•								•	•	•			
Cap and Shoe		•	•	•								•	•	•			
Door and Window Jamb		•	•	•								•	•	•			
Door and Window Casings		•	•	•								•	•	•			
Chair Rail Molding		•	•	•								•	•	•			
Roofing																	
Roofing Felt															•		•
Asphalt/Fiberglass Shingles															•		
Cedar Shingles	•				•	•	•										
Siding/Exterior																	
Housewrap															•		•
Wood	•				•	•	•										
Cedar and redwood	•				•	•	•										
Hardboard	•				•	•	•										
Vinyl																▲	
Exterior Fences	•				•	•	•									•	
Recreational Decks	•				•	•	•										
• Tool without shingle guide; ▲ With accessory for vinyl siding																	
Always check with local building codes for fastener compliance																	

CF325XP Cordless Li-ion Framing Nailer



15% More Power to drive nails flush
Works in All Seasons down to 14°F
9,000 shots per battery charge

1 YEAR FULL WARRANTY

CORDLESS 2 YEAR SERVICE PROMISE
NO LIMITATIONS APPLIED



Designed and Assembled in the U.S.A.

Tool Specifications

Model	CF325XP
Part #	905600
Weight	7.20lbs w/battery
Nail Capacity	1 strip (48 nails)
Nail Range	2" - 3 1/4"
Nail Diameter	.113 / .120 / .131
Nail Type	30° Paslode RounDrive® Full Head 30° Paslode Clipped Head
Fuel Type	All-Season Fuel (part# 816008)
Nails per Fuel Cell	Approx. 1,200
Battery	Li-ion battery (part# 902654) and charger (part# 902667)
Battery Life	9,000 nails per charge
Warranty	1-year full coverage 5-year limited

Fuel + Nail Combo Packs:

Our industry leading fuel and nails in one convenient package

Note: 1,000 count cartons contain 1 fuel cell. 3,000 count cartons contain 3 fuel cells



*Features **NEW! POWERBOOST** black tip coating

for consistent drive performance in LVL!

Power Boost Coating

PRO NAILING SYSTEM



FOR NON-STOP NAILING

Cordless Framing Fuel + Nail Combo Packs						
Part #	Length	Diameter	Shank	Finish	#/Box	
650564	2"	.113	Ring	HDG Plus	1,000	
650526	2 3/8"	.113	Ring	HDG Plus	1,000	
650522	2 3/8"	.113	Smooth	Brite	1,000	
650523	2 3/8"	.113	Ring	Brite	1,000	
650565	2 3/8"	.113	Ring	Brite	3,000	
650527	3"	.120	Ring	*HDG Plus	1,000	
650563	3"	.120	Smooth	*HDG Plus	1,000	
650524	3"	.120	Smooth	*Brite	1,000	
650631	3"	.120	Smooth	*Brite	3,000	
650525	3"	.131	Smooth	*Brite	1,000	
650566	3"	.131	Smooth	*Brite	3,000	
650535	3 1/4"	.131	Smooth	*Brite	1,000	
650630	3 1/4"	.131	Smooth	*Brite	3,000	
650615	3 1/4"	.131	Smooth	*HDG Plus	900	

IM250A-Li 16 Gauge Angled Li-ion Finish Nailer



7.4 V Li-ion battery

Drives up to 12,000 nails per charge

Cordless Convenience and Mobility

Less mess and clutter, no dirty hoses to drag around

Compact

The most compact cordless angled finish nailer available! Superior performance in tight spaces

Tool-Free Depth of Drive

Precise control of nail depth, no tools needed

Lightweight

The lightest cordless angled finish nailer available! Superior comfort and control



Designed and Assembled
in the U.S.A.



Tool Specifications

Model	Cordless 16 Ga Angled Finish Nailer
Part #	902400
Weight	4.5 lbs w/battery
Nail Capacity	100 (2 strips)
Nail Range	1¼" - 2½"
Nail Type	Angled 16 Ga - Smooth, Galvanized
Fuel Type	Finish/Trim Fuel (part# 816007)
Nails per Fuel Cell	Approx. 1,200
Battery	Li-ion battery (part# 902654)
Battery Life	12,000 nails per charge
Warranty	90-day normal wear parts 1-year limited 5-year extended limited

IM250S-Li 16 Gauge Straight Li-ion Finish Nailer



7.4 V Li-ion battery

Drives up to 12,000 nails per charge

Compact

The most compact cordless straight finish nailer available! Superior performance in tight spaces

Lightweight

The lightest cordless straight finish nailer available! Superior comfort and control

Open Line of Sight

Allows for accurate nail placement

No-Mar Tip

Protects premium wood surfaces when nailing



Designed and Assembled
in the U.S.A.



Tool Specifications

Model	Cordless 16 Ga Straight Finish Nailer
Part #	916000
Weight	4.6 lbs w/battery
Nail Capacity	100 (2 strips)
Nail Range	1¼" - 2½"
Nail Type	Straight 16 Ga - Smooth, Galvanized
Fuel Type	Finish/Trim Fuel (part# 816007)
Nails per Fuel Cell	Approx. 1,200
Battery	Li-ion battery (part# 902654)
Battery Life	12,000 nails per charge
Warranty	90-day normal wear parts 1-year limited 5-year extended limited

IM200Li & IM200Li.2 18 Gauge Straight Li-ion Brad Nailers



IM200Li



IM200Li.2

7.4V Li-ion Battery

Drives up to 12,000 nails per charge

Lightweight

The lightest cordless brad nailer available! Less fatigue and better handling

Battery Standby Position

Conserves battery power

Tool-Free Depth of Drive

Precise control of nail depth, no tools needed

No-Mar Tip

Protects premium wood surfaces when nailing

Maneuverable

Superior performance in tight spaces



Designed and Assembled
in the U.S.A.



Tool Specifications

Model	Cordless 18 Ga Brad Nailer	
Part #	918000	918100 (Compact Mag)
Weight	4.6 lbs w/battery	4.25 lbs w/battery
Nail Capacity	100 (2 strips)	50 (1 strip)
Nail Range	5/8" - 2"	
Nail Type	18 Ga - Smooth, Galvanized	
Fuel Type	Finish/Trim Fuel (part# 816007)	
Nails per Fuel Cell	Approx. 1,200	
Battery	Li-ion battery (part# 902654)	
Battery Life	12,000 nails per charge	
Warranty	90-day normal wear parts 1-year limited 5-year extended limited	

Part #	Product	Description	Associated Product(s)
816008	All-Season Framing Fuel	1,200 nails; 27-month shelf life	905600 - CF325XP Cordless Framing Nailer 902600 - CF325Li Cordless Framing Nailer
816007	Finish/Trim Fuel (2-pack)	1,200 nails; 21-month shelf life	902400 - Cordless 16 Ga Angled Li-ion Finish Nailer 916000 - Cordless 16 Ga Straight Li-ion Finish Nailer 918000 - Cordless 18 Ga Li-ion Brad Nailer 900078NT - Cordless 16 Ga Stapler (with below adapter)
902550	Yellow Fuel Adapter		900078NT - Cordless 16 Ga Stapler
902654	Paslode Li-Ion Battery	Framing: 9,000 nails per charge Finish: 12,000 nails per charge Full charge in 90 minutes	905600 - CF325XP Cordless Framing Nailer 902400 - Cordless 16 Ga Angled Li-ion Finish Nailer 916000 - Cordless 16 Ga Straight Li-ion Finish Nailer 918000 - Cordless 18 Ga Li-ion Brad Nailer
902667	Paslode Li-Ion Battery Charger	2x faster charge time, 2 minute quick charge drives up to 200 nails	902654 Paslode Li-Ion Battery
219413	Auto Adapter Kit	Charger base and auto adapter cord	All Paslode Li-ion Tools
402500	Paslode Ni-Cd Stick Battery	2 hour charge; 4,000 staples per charge	900078NT - Cordless 16 Ga Stapler
900200	Paslode Ni-Cd Battery Charger	2 hour charge time	404717 - Oval Battery 402500 - Stick Battery
900507	Auto Adapter Charger	Use with 900200 battery charger	900200 - Paslode Battery Charger
404717	Ni-Cd Battery	Drives up to 4,000 nails per charge; Recharges within 2 hours	902200 - CF325 Cordless Framing Nailer 900420 - IMCT Cordless Framing Nailer 900600 - IM250A Impulse Cordless 16 Ga Angled Finish Nailer 901000 - Cordless 18 Ga Brad Nailer 902000 - Cordless 16g Ga Straight Finish Nailer
219377	Cordless Li-ion Framing Tune-up Kit		905600 - CF325XP Cordless Framing Nailer 902600 - CF325Li Cordless Framing Nailer
219409	Cordless Li-ion Finish/Trim Tune-up Kit		902400 - IM250A-Li 16 Ga Angled Li-ion Finish Nailer 916000 - IM250S-Li 16 Ga Straight Li-ion Finish Nailer 918000 - IM200Li 18 Ga Straight Li-ion Brad Nailer
219348	Cordless Tool Cleaner	12oz. Bottle	All Paslode Cordless tools
401482	Cordless Nailer Lubrication Oil	4oz. bottle	All Paslode fuel-powered cordless nailers
902473	No-Mar Tips	3-pack - Angled	902400 - Cordless 16 Ga Angled Finish Nailer
219236	No-Mar Tips	3-pack - Straight	916000 - Cordless 16 Ga Straight Finish Nailer
901252	No-Mar Work Contact Element	1-pack - Framing	905600 - CF325XP Cordless Framing Nailer

F350-S POWERMASTER™ PLUS 30° PNEUMATIC FRAMING NAILER



Proven & Reliable Performance

Consistently delivers and drives nails flush to keep users productive and minimize rework & downtime

Durable

Built to last and requires less maintenance

Compact

Fits between studs, joists, and rafters

Backed with the protection of a one-year full coverage warranty



Designed and Assembled
in the U.S.A.



Tool Specifications

Model	F350-S
Part #	501000
Weight	8.4 lbs
Nail Capacity	84 (2 strips)
Nail Range	2" - 3½"
Nail Diameter	.113 / .120 / .131
Nail Type	30° Paslode RounDrive® Full Head 30° Paslode Clipped Head
Operating Pressure	80-120 psi (5.5-8.3 bar)
Warranty	1-year full 5-year limited

F-350P POWERMASTER™ PRO 30° PNEUMATIC FRAMING NAILER



Dependable

Continues to ensure nails drive flush into the toughest lumber

Lightweight

Only 7.9 lbs., for reduced fatigue

Quick

2-step load helps maintain job-site momentum and productivity

Well-Balanced

Inline magazine provides optimal balance and control

Backed with the protection of a one-year full coverage warranty



Designed and Assembled
in the U.S.A.



Tool Specifications

Model	F-350P
Part #	515000
Weight	7.9 lbs
Nail Capacity	Up to 88 (2 strips)
Nail Range	2" - 3¼"
Nail Diameter	.113 / .120 / .131
Nail Type	30° Paslode RounDrive® Full Head 30° Paslode Clipped Head
Operating Pressure	80-120 psi (5.5-8.3 bar)
Warranty	1-year full 5-year limited

PF350S POWERFRAMER™ 30° PNEUMATIC FRAMING NAILER



Durable Construction

Requires less maintenance

Powerful

Drives nails flush, even in LVL

Compact Size

Fits between studs

Adjustable Rafter Hook

Moves out of the way when not in use

Soft Grip Handle

For maximum comfort

Designed and Assembled
in the U.S.A.



Tool Specifications

Model	PF350S PowerFramer
Part #	502000
Weight	7.95 lbs
Nail Capacity	84 (2 strips)
Nail Range	2" - 3½"
Nail Diameter	.113 / .120 / .131
Nail Type	30° Paslode RounDrive® Full Head 30° Paslode Clipped Head
Operating Pressure	80-120 psi (5.5-8.3 bar)
Warranty	90-day limited on wear parts 6-month limited on magazine parts 1-year limited on housing and cap

F250S-PP POSITIVE PLACEMENT® 1½" + 2½" METAL CONNECTOR NAILER



Hole to Hole Speed

Patented probe quickly locates hardware holes, when engaged, nailer is ready to fire

Reliable

System delivers consistent dependable performance

Powerful

Legendary motor platform consistently drives into the hardest materials, including engineered lumber

Durable

Capable of production use all day, nail lock out prevents blank firing

High Capacity Magazine

Holds up to 2 strips of nails (44 total nails)

Designed and Assembled
in the U.S.A.



Tool Specifications

Model	F250S-PP
Part #	500855
Weight	8.5 lbs
Nail Capacity	44 (2 strips)
Nail Range	1½" + 2½"
Nail Diameter:	.131 / .148 / .162
Nail Type	Positive Placement® Heat Treated Metal Connector Nails - Brite (Smooth) and Mechanically Galvanized
Operating Pressure	80-120 psi (5.5-8.3 bar)
Warranty	90-day limited on wear parts 6-month limited on magazine parts 1-year limited on housing and cap
Dimensions	19.5" L x 5.0" W x 13.88" H

PF150S-PP POSITIVE PLACEMENT® 1½" METAL CONNECTOR NAILER



Durable

Made for tough jobsite conditions and daily use

Accurate

Probing tip guides nails into hardware holes

Compact

Fits in tight spaces and reduces fatigue

Designed and Assembled
in the U.S.A.



Tool Specifications

Model	PF150S-PP
Part #	502300
Weight	6.3 lbs
Nail Capacity	44 (2 strips)
Nail Range	1½"
Nail Diameter:	.131 / .148
Nail Type	Positive Placement® Heat Treated Metal Connector Nails - Brite (Smooth) and Mechanically Galvanized
Operating Pressure	90-120 psi (6.2-8.3 bar)
Warranty	90-day limited on wear parts 6-month limited on magazine parts 1-year limited on housing and cap
Dimensions	17.4" L x 3.7" W x 11.7" H

F150S-PP POSITIVE PLACEMENT® 1½" METAL CONNECTOR NAILER - NEW in 2020



Fast

Positive Placement® probe for fastest hole to hole speed which provides widest angle of approach

Accurate

Probing tip guides nails into hardware holes

Powerful

Drives up to 1½" x .148 Metal Connector Nails flush even into LVL for ALL DAY PERFORMANCE

Designed and Assembled
in the U.S.A.



Tool Specifications

Model	F150S-PP
Part #	515850
Weight	6.25 lbs
Nail Capacity	29 (1 strips)
Nail Range	1½"
Nail Diameter:	.131 / .148
Nail Type	Positive Placement® Heat Treated Metal Connector Nails - Brite (Smooth) and Mechanically Galvanized
Operating Pressure	90-120 psi (6.2-8.3 bar)
Warranty	90-day limited on wear parts 6-month limited on magazine parts 1-year limited on housing and cap
Dimensions	13" L x 3.7" W x 11.7" H

T250S-F16P 16 GAUGE STRAIGHT PNEUMATIC FINISH NAILER



Best in Class Ergonomics

Designed with enhanced features to optimize balance, maximize comfort, reduce fatigue, and increase productivity

Reliability & Durability

Proven performance that saves you time and can keep up with you

Low Maintenance

Oil-free design allows for long term, maintenance-free operation which reduces cleanup time and associated costs

Designed and Assembled
in the U.S.A.



Tool Specifications

Model	T250S-F16P
Part #	515500
Weight	3.9 lbs
Nail Capacity	100 (2 strips)
Nail Range	1" - 2½"
Nail Type	Straight 16 Ga Galvanized
Operating Pressure	80-120 psi (5.5-8.3 bar)
Warranty	5-year limited

T200-F18P 18 GAUGE PNEUMATIC BRAD NAILER



Smaller Nose/Probe

Open line of sight for better accuracy and precision

Nail Lock Out System

Prevents marks on wood

Reversible Belt Hook

Easily reversible, keep both hands free for work positioning

Designed and Assembled
in the U.S.A.



Tool Specifications

Model	T200-F18P
Part #	515600
Weight	2.9 lbs
Nail Capacity	100 (2 strips)
Nail Range	5/8" - 2"
Magazine Angle	Straight Collation
Nail Type	18 Ga Galvanized
Operating Pressure	80-120 psi (5.5-8.3 bar)
Warranty	90-day limited on wear parts, 6-month limited on magazine parts, 1-year limited on housing and cap parts

CS150 CAPSTAPLER HOUSEWRAP STAPLING SYSTEM



Staples & Caps in One Easy Step

Caps protect against tearing and water damage

Consistent Drive Performance

Save time on installing roofing felt and house wrap

Easy Loading

Open design makes loading and reloading a snap

Use with FasCaps Combo Pack

Tool Specifications

Model	CS150
Part #	502575
Weight	4.8 lbs
Staple Capacity	90 Staples
Cap Capacity	240 Caps/Spool
Staple Range	1" - 1½"
Staple Type	18 Ga 3/8" Narrow Crown
Operating Pressure	70-110 psi (4.8-7.6 bar)
Warranty	90-day, 1-year limited

SCS200 16 GAUGE PNEUMATIC STANDARD 1/2" CROWN STAPLER



Speed

Up to 10 staples per second

Power

Drives flush in all materials

Durable

Heavy duty all metal magazine design



Tool Specifications

Model	SCS200
Part #	515700
Weight	5.6 lbs
Magazine Capacity	Up to 150 staples
Staple Range	¾" - 2"
Staple Type	½" Crown 16 Ga Galvanized
Operating Pressure	80-120 psi (5.5-8.3 bar)
Warranty	1-year full 5-year limited

WCS200 16 GAUGE PNEUMATIC WIDE 15/16" CROWN STAPLER



Speed

Up to 10 staples per second

Power

Drives flush in all materials

Durable

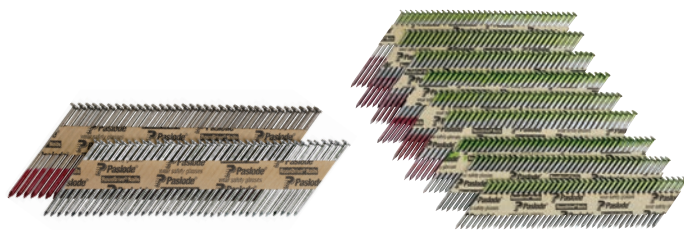
Heavy duty all metal magazine design



Tool Specifications

Model	WCS200
Part #	515800
Weight	5.9 lbs
Magazine Capacity	Up to 150 staples
Staple Range	¾" - 2"
Staple Type	15/16" Crown 16 Ga Galvanized
Operating Pressure	80-120 psi (5.5-8.3 bar)
Warranty	1-year full 5-year limited

FRAMING NAILS 30° PAPER TAPE FRAMING NAILS



RounDrive® Framing Nails

Part #	Length	Diameter	Shank	Finish	#/Box
650272	2"	.113	Smooth	Brite	5,500
650273	2"	.113	Ring	Brite	5,500
405253	2 1/2"	.131	Smooth	Brite	3,000
650237	2 3/8"	.113	Smooth	Brite	5,000
650238	2 3/8"	.113	Ring	Brite	5,000
650836	3"	.120	Smooth	Brite	2,500
650830	3"	.131	Smooth	Brite	2,500
650839	3 1/4"	.131	Smooth	Brite	2,500
650381	2"	.113	Ring	HDG Plus	2,000
650382	2 3/8"	.113	Smooth	HDG Plus	2,000
650383	2 3/8"	.113	Ring	HDG Plus	2,000
650384	3"	.120	Smooth	HDG Plus	2,000
650385	3"	.120	Ring	HDG Plus	2,000
650386	3"	.131	Smooth	HDG Plus	2,000
650387	3"	.131	Ring	HDG Plus	2,000
650388	3 1/4"	.131	Smooth	HDG Plus	2,000
650474	3 1/4"	.131	Ring	HDG Plus	2,000
650476	3 1/2"	.131	Smooth	HDG Plus	2,000

For use with 905600, 511990, 502000, and 515000

Clipped Head Framing Nails

Part #	Length	Diameter	Shank	Finish	#/Box
401548	2 1/4"	.113	Smooth	Brite (Heat Treated)	4,000
097969	2 3/4"	.120	Smooth	Brite	3,500
097970	2 3/4"	.120	Ring	Brite	3,500
097973	3"	.120	Ring	Brite	3,000
097978	3 1/4"	.131	Ring	Brite	2,500
097987	3 1/2"	.131	Smooth	Brite	2,500



Positive Placement® Nail heads marked for easy identification

Positive Placement® Metal Connector Nails

Part #	Length	Diameter	Finish	#/Box
650645	1 1/2"	.131	Brite, Heat Treated	1,000
(4 boxes of 1,000 count/master carton)				
650025	1 1/2"	.131	Brite, Heat Treated	4,000
650646	1 1/2"	.148	Brite, Heat Treated	1,000
(3 boxes of 1,000 count/master carton)				
650026	1 1/2"	.148	Brite, Heat Treated	3,000
650199	2 1/2"	.131	Brite, Heat Treated	2,500
650027	2 1/2"	.148	Brite, Heat Treated	2,500
650028	2 1/2"	.162	Brite, Heat Treated	2,000
650197	1 1/2"	.131	Mechanical Galv, Heat Treated	4,000
650481	1 1/2"	.148	Mechanical Galv, Heat Treated	500
(4 boxes of 500 count/master carton)				
650014	1 1/2"	.148	Mechanical Galv, Heat Treated	3,000
650106	2 1/2"	.148	Mechanical Galv, Heat Treated	2,500
650198	2 1/2"	.162	Mechanical Galv, Heat Treated	2,000

For use with 502300 and 515850 (1½")

For use with 500855 and 511800 (1½" + 2½")

PNEUMATIC ACCESSORIES

Part #	Product	Description	Associated Product(s)
403720	Pneumatic Nailer Lubrication Oil	12oz. bottle	All Paslode pneumatic nailers
219228	No-Mar Nose	Protects wood surfaces	501000 - F350-S PowerMaster Plus

FINISH / TRIM and EXTERIOR NAILS and STAPLES

16 gauge Angled Finish/Trim Nails

Part #	Length	Gauge	Finish	Quantity
650230	1 1/4"	16 ga. Angled	Galvanized	2,000
650231	1 1/2"	16 ga. Angled	Galvanized	2,000
650046	1 3/4"	16 ga. Angled	Galvanized	2,000
650047	2"	16 ga. Angled	Galvanized	2,000
650232	2 1/2"	16 ga. Angled	Galvanized	2,000

6 boxes per carton, 12,000 Qty

For use with 902400, 900600 and 500910

16 gauge Straight Finish/Trim Nails

Part #	Length	Gauge	Finish	Quantity
650282	1 1/4"	16 Ga. Straight	Galvanized	2,000
650283	1 1/2"	16 Ga. Straight	Galvanized	2,000
650284	1 3/4"	16 Ga. Straight	Galvanized	2,000
650285	2"	16 Ga. Straight	Galvanized	2,000
650287	2 1/2"	16 Ga. Straight	Galvanized	2,000

6 boxes per carton, 12,000 Qty

For use with 916000, 515500 and 501680

18 gauge Brad Nails

Part #	Length	Gauge	Finish	Quantity
650212	1"	18 Gauge Brad	Galvanized	2,000
650213	1 1/4"	18 Gauge Brad	Galvanized	2,000
650214	1 1/2"	18 Gauge Brad	Galvanized	2,000
650215	2"	18 Gauge Brad	Galvanized	2,000

6 boxes per carton, 12,000 Qty

For use with 918000, 918100, 515600, and 500959

16 gauge Standard (1/2") Crown Staples

Part #	Length	Wire	Crown	Finish	Quantity
OT5240	3/4"	16 Gauge	1/2"	Galvanized	21,000
OT5242	1"	16 Gauge	1/2"	Galvanized	16,500
OT5243	1 1/8"	16 Gauge	1/2"	Galvanized	15,000
OT5238	1 1/4"	16 Gauge	1/2"	Galvanized	13,500
OT2695	1 1/2"	16 Gauge	1/2"	Galvanized	10,500
OT2250	1 3/4"	16 Gauge	1/2"	Galvanized	9,000
OT2258	2"	16 Gauge	1/2"	Galvanized	7,500

For use with 515700, 900078NT and 501230

16 gauge Wide (15/16") Crown Staples

Part #	Length	Wire	Crown	Finish	Quantity
404068	3/4"	16 Gauge	15/16"	Galvanized	9,000
404069	7/8"	16 Gauge	15/16"	Galvanized	9,000
404070	1"	16 Gauge	15/16"	Galvanized	9,000
404071	1 1/4"	16 Gauge	15/16"	Galvanized	9,000
OT2855	1 1/2"	16 Gauge	15/16"	Galvanized	10,500
650098	1 3/4"	16 Gauge	15/16"	Galvanized	9,000
403471	2"	16 Gauge	15/16"	Galvanized	7,500

For use with 515800 and 501265

FasCaps Plastic Caps and Staples

Part #	Length	Wire	Crown	Finish	Quantity
650592	1"	18 Gauge	3/8"	Galvanized	10,080 Carton
650597	1 1/2"	18 Gauge	3/8"	Galvanized	8,640 Carton

FasCaps are 6 inner boxes per carton

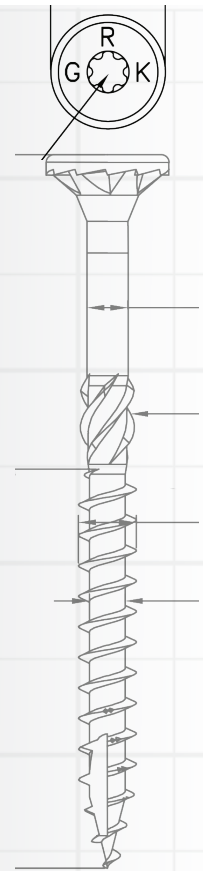
For use with 502575

GRK's R4™ self-countersinking screw has a patented underhead with saw-blade like cutting teeth and six self-contained cutting pockets. Together they act similar to a circular saw-blade, transporting the drill dust away from the edge of the screw hole while cutting a perfectly clean hole into even the most brittle materials without cracking any surface treatment.

This design enhances the R4™'s versatility by allowing the fastener to countersink into even the hardest woods. The head of the screw closes the hole off with precision, leaving no damaged fibers around the head.

R4™ screws 3-1/8" and longer have a four threaded CEE Thread. This enlarges the screw hole for the non-threaded portion of the fastener, allowing the wood to settle easily. It increases the screw's drawing strength and reduces the friction on the screw shank that lowers the driving torque.

GRK
FASTENERS™



R4™ MULTI-PURPOSE FRAMING & DECKING SCREWS

Faster Drive for Improved Productivity



- **Fast Bite Tip:** Eliminates pre-drilling and provides a fast start for one-step installation.
- **W-Cut™:** Low torque, faster drive.
- **Precision Fit:** Reduces wobble between R4 screws and GRK bits for improved productivity.
- **Star Drive:** Zero stripping, with 6 points of contact.
- **Optimized Thread Length:** Improves clamping force for increased drawing power.
- **CEE Thread:** Enlarges hole to reduce splitting.
- **Cutting Teeth:** Cuts wood fiber & provides flush seating.
- **GRK Head Markings:** Easy identification of genuine GRK screws.
- **ESR-3201 Approved** for structural applications.
- **Climatek™ Coating** is AC257 code approved for use in treated lumber.
- For interior / exterior use in: wood, plastic, cement fiber board, particle board, sheet metal, wood decking, and melamine.
- Also available in **PHEINOX™** 305 and 316 grade Stainless Steel.



T-15



T-15



T-25



T-25

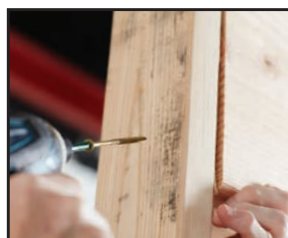


T-25

U.S. (Std.)Size (Dia.x Length)	Bulk Part No.	Bulk Box Qty.	Pro-Pak Part No.	Pro-Pak Pail Qty.	Handy-Pak Part No.	Handy-Pak MC Qty. / Screw Qty. (per EA)
#6 x 1-1/4"	00051†	13,000				
#8 x 1-1/4"			01069†	1,300	96080†	4 / 110
#8 x 1-1/2"	00073†	6,500	01073†	1,000	96085†	4 / 110
#8 x 1-3/4"			01075†	925	02075†	20 / 100
#8 x 2"	00077	4,500	01077	850	02077	20 / 100
#8 x 2-1/2"	00079	3,500	01079	650	02079	20 / 100
#9 x 1-1/4"	00091†	8,000				
#9 x 1-1/2"	00095†	5,200	01095†	820	02095†	20 / 100
#9 x 1-3/4"	00097†	4,500				
#9 x 2"	00099	3,700	01099	690	103099	4 / 110
#9 x 2-1/2"	00101	2,900	01101	575	103101	4 / 100
#9 x 2-3/4"	00103	2,000	01103	480	02103	10 / 100
#9 x 3-1/8"	00105	1,900	01105	425	103105	4 / 80
#10 x 2"	00131	3,200				
#10 x 2-1/2"	00133	2,500	01133	470	103133	4 / 80
#10 x 2-3/4"	00135	2,000				
#10 x 3-1/8"	00137	1,500	01137	350	103137	4 / 70
#10 x 3-1/2"	00139	1,200	01139	300	02139	10 / 50
#10 x 4"	00141	1,000	01141	270	103141	4 / 50
#10 x 4-3/4"	00143	800	01143	230	02143	10 / 50
#12/14 x 5-5/8"	00173	600			96089	4 / 50
#12/14 x 6-3/8"	00177	1,000			02177	9 / 50
#12/14 x 8"	00181	500			02181	9 / 50

R4™ CONTRACTOR PACKS (XL BUCKETS)

U.S. (std.)	Pt. No.	Quantity
#9 x 2"	120990	990
#9 x 2-1/2"	121010	900
#9 x 3-1/8"	121050	720
#10 x 3-1/8"	95200	630
#10 x 4"	121410	450



Some sizes available in **PHEINOX™** hardened Stainless Steel; refer to Section 5. 2" bit included in Pro-Paks. 1" bit w/Handy-Paks. *Does not come with the Zip-Tip™ feature. †Does not have the added CEE-THREAD™ feature. **NOTE:** Pro-Paks need to be ordered in multiples of two.

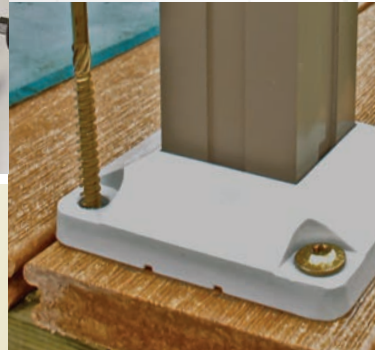
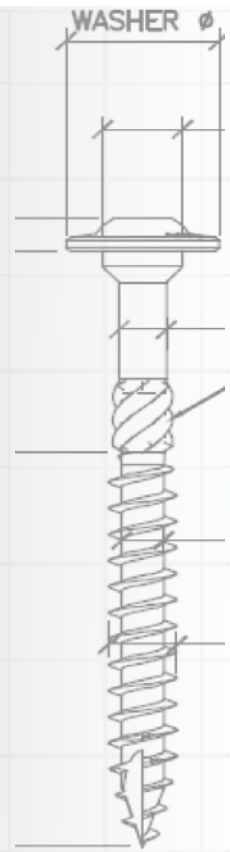
GRK's RSS™ screw is made of specially hardened steel to provide you with high tensile, torque, and shear strength. The sharp threads and points bite instantly into the material (including hardwood), reducing the splitting effect due to smaller shanks.

RSS™ screws that are 3-1/8" and longer have CEE Threads which enlarge the screw hole for the non-threaded portion of the fastener, allowing the wood to settle easily and increases the screw's drawing strength. The CEE Thread also reduces the friction on the screw shank which can result in lowering the driving torque and the likelihood of splitting the wood. This is why the RSS™ screw is an efficient lag screw alternative.

Our round head with built-in shield (washer type head) has no sharp edges like conventional lag screws. The added shoulder (nominal diameter) underneath the washer has the ability to center the RSS™ screw in pre-drilled hardware like hinges and connector plates.

RSS™ JTS - Used for joists and trusses

GRK
FASTENERS™



RSS™ RUGGED STRUCTURAL SCREWS

Easy to Install Lag Alternative



AC257 Treated
Lumber Approved



- **Fast Bite Tip:** Provides an immediate start in wood.
 - *5/16" Diameter Only
- **Zip-Tip™:** Eliminates Pre-drilling.
- **W-Cut™:** Low torque, faster drive.
- **Precision Fit:** Reduces wobble between RSS screws and GRK bits for improved productivity.
 - *5/16" Diameter Only
- **Star Drive:** Zero Stripping, with 6 points of contact.
- **CEE Thread:** Enlarges hole to reduce splitting.
- **Washer Head:** For immense holding power.
- **ESR-2442 Approved** for structural application.
- **Climatek™ Coating is AC257** code approved for use in treated lumber.
- For interior / exterior use in: carrying beams, ledger boards, stair rails, deck posts, playground equipment, and other professional applications.
- Also available in **PHEINOX™** 305 and 316 grade Stainless Steel.



T-25

U.S. (Std.) Size (Dia. x Length)	Bulk Part No.	Bulk Box Qty.	Pro-Pak Part No.	Pro-Pak Pail Qty.	Handy-Pak Part No.	Handy-Pak MC Qty. / Screw Qty. (per EA)
#10 x 2-1/2"	10133†	1,000			12133†	10 / 50
#10 x 3-1/8"	10137	800	11137	236	12137	10 / 50



T-25

1/4" x 1-1/2"	10151*†	1,000			12151*†	20 / 50
1/4" x 2"	10155*†	800			12155*†	10 / 50
1/4" x 2-1/2"	10157†	700				
1/4" x 3-1/8"	10161	500			12161	10 / 50



T-30

5/16" x 2-1/2"	10217†	600			12217†	9 / 100
5/16" x 2-3/4"	10219†	500			12219†	2 / 100
5/16" x 3-1/8"	10221	500			12221	2 / 100
5/16" x 3-1/2"	10223	500			12223	2 / 100
5/16" x 4"	10225	400			12225	2 / 100
5/16" x 5-1/8"	10231	300			12231	9 / 50
5/16" x 6"	10235	300			12235	9 / 50



T-40

3/8" x 3-1/8"	10273	400				
3/8" x 4"	10275	400			12275	9 / 50
3/8" x 6"	10281	300			12281	2 / 50
3/8" x 7-1/4"	10285	200			12285	2 / 50
3/8" x 8"	10287	300			12287	2 / 50
3/8" x 10"	10293	300			12293	2 / 50
3/8" x 12"	10299	300			12299	2 / 50
3/8" x 14-1/8"					12307	2 / 50
3/8" x 16"	10311	100			12311	2 / 50

RSS™ JTS - JOIST AND TRUSS SCREW



T-25

1/4" x 5"					93735	9 / 50
1/4" x 6-3/4"	91743	300			93743	9 / 50

RSS™ MINI HANDY-PAK

U.S. (std.)	Pt. No.	MC Qty./ Screw Qty.
5/16" x 3-1/8"	14221	10 / 25
5/16" x 4"	14225	10 / 25
5/16" x 5-1/8"	14231	10 / 20
5/16" x 6"	14235	10 / 20

RSS™ INDIVIDUALLY TAGGED

U.S. (std.)	Pt. No.	Qty./ Ctn.
5/16" x 3-1/8"	96001	1/50
5/16" x 4"	96005	1/50
5/16" x 5-1/8"	96010	1/50
5/16" x 6"	96015	1/40
3/8" x 8"	96020	1/25
3/8" x 10"	96025	1/25
3/8" x 12"	96030	1/20

Some sizes available in **PHEINOX™** hardened Stainless Steel; refer to Section 5.

NOTE: Pro-Paks need to be ordered in multiples of two. *Does not come with the Zip-Tip™ feature.

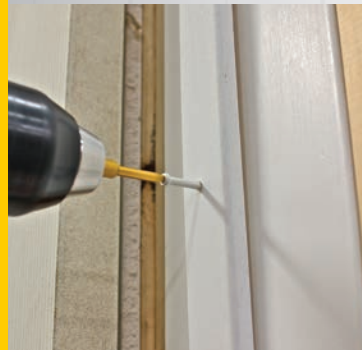
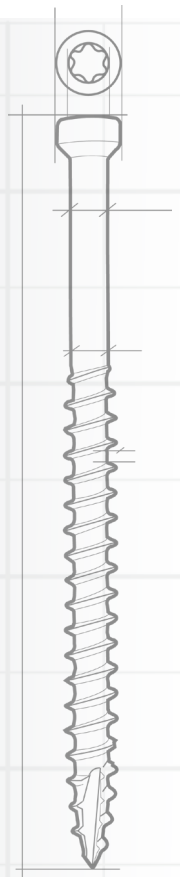
†Does not have the added CEE-THREAD™ feature. 2" bit included in Pro-Paks. 1" bit with Handy-Paks.

GRK's Trim™ Head screws are an excellent choice for most fine carpentry applications, as well as window extension jambs, joining cabinets, and more. Our Trim™ Head screws have the smallest screw head available with screw lengths from 1-1/4" (30 mm) to 5" (125 mm).

Most material splitting is prevented because of the Trim™ Head screw's exceptionally small head and the W-Cut thread design.

Fin/Trim™ screws are also available in white finish to blend in with white wooden trim boards.

GRK
FASTENERS™






FIN/TRIM™ FINISHING TRIM HEAD SCREWS

Install Right the First Time



- **Recessed Star Drive:** Zero Stripping, with 6 points of contact.
- **Trim Head:** For a clean finished look.
- **W-Cut™:** Low torque, faster drive.
- **Zip-Tip™:** No pre-drilling, faster penetration.
- **ESR-3201 Approved** for structural application.
- **Case Hardened Steel:** For high tensile, torque, and shear strength.
- **Climatek™ Coating is AC257** code approved for use in treated lumber.
- For interior / exterior use.
- Available in **Climatek™** or white finish.
- Also available in **PHEINOX™** 305 and 316 grade Stainless Steel.

	U.S. (Std.) Size (Dia. x Length)	Bulk Part No.	Bulk Box Qty.	Pro-Pak Part No.	Pro-Pak Pail Qty.	Handy-Pak Part No.	Handy-Pak MC Qty. / Screw Qty. (per EA)
 T-10	#8 x 1-1/4"					96055	6 / 100
	#8 x 1-1/2"	15724	6,500	116724	600	119724	6 / 100
	#8 x 2"	15728	4,500	116728	510	119728	6 / 100
	#8 x 2-1/2"	15730	3,500	16730	605	119730	6 / 100
	#8 x 2-3/4"					17732	20 / 100
	#8 x 3-1/8"	15734	2,500	115734	300	119734	6 / 100
 T-15	#9 x 4"	15760	1,000			117760	4 / 50
	#9 x 5"	15766	800			117766	4 / 50
WHITE FIN / TRIM™							
 T-10	#8 x 2"			16828	605	96060	4 / 100
	#8 x 2-1/2"			16830	505	96065	4 / 100

Some sizes available in **PHEINOX™** hardened Stainless Steel; refer to Section 5

NOTE: Pro-Paks need to be ordered in multiples of two. 2" bit included in Pro-Paks. 1" bit with Handy-Paks.

**Excellent for all of
your trimwork and fine
carpentry finishing.**

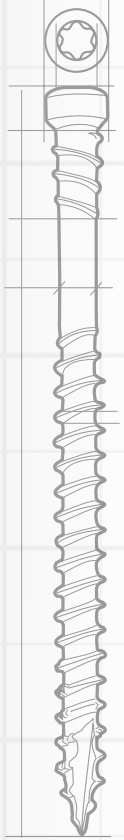


GRK has modified its innovative FIN/Trim™ Head screw to include reverse threading under the head of the fastener. This technology makes the RT Composite™ Trim Screw ideal for use in composite and cellular PVC trim.

Based on extensive tests, GRK has found that the reverse thread helps the screw head disappear beneath the surface of the classic wood composite material, reducing or eliminating the dimple that sometimes appears when using the FIN/Trim™ screw.

The reverse thread feature is available in RT Composite™ screws from 2" to 3-1/8" in length in both regular Climatek™ coating and in white Climatek™ coated finish to blend in with popular white exterior composite and cellular PVC trim.

GRK
FASTENERS™






RT COMPOSITE™ EXTERIOR TRIM SCREWS

Install Right the First Time

- **Recessed Star Drive:** Zero Stripping, with 6 points of contact.
- **Reverse Threads** eliminate mushrooming.
- **Trim Head:** for a clean finished look.
- **W-Cut™:** Low torque, faster drive.
- **Zip-Tip™:** No pre-drilling, faster penetration.
- **Case Hardened Steel:** For high tensile, torque, and shear strength.
- **Climatek™ Coating is AC257** code approved for use in treated lumber.
- For interior / exterior use in; exterior PVC trim (Azek,™ Klear,™ Koma™), no pre-drilling is necessary. Climatek™ coated screws work well with CAMO system.
- Available in **Climatek™** or white Climatek™ coated finish.
- Also available in **PHEINOX™** 305 and 316 grade Stainless Steel.



**AC257 Treated
Lumber Approved**

	U.S. (Std.)Size (Dia.x Length)	Bulk Part No.	Bulk Box Qty.	Pro-Pak Part No.	Pro-Pak Pail Qty.	Handy-Pak Part No.	Handy-Pak MC Qty. / Screw Qty. (per EA)
 T-10	#8 x 2"			16077	725	119077	6 / 100
	#8 x 2-1/2"	15079	3,500	16079	605	119079	6 / 100
	#8 x 3-1/8"	15083	2,500	16083	514	119083	6 / 100
 T-15	#9 x 2-1/2"	15101	2,900	16101	408		
	#9 x 3-1/8"	15105	1,900	16105	348		
WHITE RT COMPOSITE™							
 T-10	#8 x 2"			16628	605	17628	20 / 100
	#8 x 2-1/2"			16630	505	96075	4 / 100
	#8 x 2-3/4"					17632	20 / 100
	#8 x 3-1/8"					17634	10 / 100

Some sizes available in **PHEINOX™** hardened Stainless Steel; refer to Section 5.

NOTE: Pro-Paks need to be ordered in multiples of two. 2" bit included in Pro-Paks. 1" bit with Handy-Paks.

**Supreme Drawing Power
is perfect for trimwork and
deck construction.**





305 STAINLESS STEEL
Corrosion Resistance for Harsh Environments



316 STAINLESS STEEL
Marine Grade Protection for Superior Corrosion Resistance

PHEINOX™ STAINLESS STEEL SCREWS



PHEINOX™ 305 Stainless Steel screws are corrosion and stain resistant fasteners designed to withstand wet environments. PHEINOX™ 316 Stainless Steel screws are designed for coastal applications. GRK's patented R4, RSS, FIN/TRIM and RT composite screws are available in PHEINOX™ stainless steel.

GRK recommends PHEINOX™ 305 stainless steel screws for applications that require superior corrosion resistance in wet environments such as decks, boardwalks, pools, and hot tubs. PHEINOX™ 305 stainless is also recommended for use with cedar, red-wood, and various other wood substrates that have higher acid content as well as for composite deck boards. PHEINOX™ 305 stainless steel screws are recommended for applications located more than 1 mile from the coast.

PHEINOX™ 316 stainless steel screws are recommended for applications exposed to salt water or located within 1 mile of the salt water shoreline.

The Zip-Tip™ feature of the screw allows a faster start and eliminates the need for pre-drilling. Hardened stainless steel provides superior strength and unmatched performance by maximizing torque and increasing bending yield.



**AC257 Treated
Lumber Approved**



Applies to 305 stainless only



PHEINOX™ 305

- For use in cedar, redwood, specialty hardwood, IPE, and Mangaris
- Corrosion resistance for harsh environments
- Corrosion resistance for wet environments
- Stain resistant in specialty wood

PHEINOX™ 316



- For use within 1 mile of the coast
- Marine-Grade protection for Superior corrosion resistance
- Superior Corrosion resistance for coastal environments
- Stain resistant in specialty wood



T-25

U.S. (Std.)Size (Dia.x Length)	Bulk Part No.	Bulk Box Qty.	Pro-Pak Part No.	Pro-Pak Pail Qty.	Handy-Pak Part No.	Handy-Pak MC Qty. / Screw Qty. (per EA)
R4™ SCREWS : PHEINOX™ 305						
#10 x 2-1/2"	25133	2,500	61633	240	61733	4 / 80
#10 x 3-1/8"	25137	1,500	61637	210	61737	4 / 70



T-30

RSS™ SCREWS: PHEINOX™ 305						
5/16" x 3-1/8"	30221	500				
5/16" x 4"	30225	400			62225	4 / 45
5/16" x 5-1/8"					132231	4 / 40
5/16" x 6"	30235	300				



T-10

RT COMPOSITE™ TRIM SCREWS: PHEINOX™ 305						
#8 x 2"			36077	600		
#8 x 2-1/2"	35079	3,500	36079	560	37079	20 / 100
#9 x 2-1/2"			36101	365		



T-15

FIN / TRIM™ SCREWS: PHEINOX™ 305						
#8 x 1-1/2"					37724	20 / 100
#8 x 2"			61728	510	67728	6 / 100
#8 x 2-1/2"			61730	420	67730	6 / 100
#8 x 3-1/8"			36734	385	37734	10 / 100
#9 x 2-1/2"			36752	365		



T-10



T-15



T-25

R4™ SCREWS: PHEINOX™ 316						
#10 x 2-1/2"					137133	4 / 80
#10 x 3-1/8"					137147	4 / 70



T-10

FIN / TRIM™ SCREWS: PHEINOX™ 316						
#8 x 2-1/2"					147730	6 / 100

2" bit included in Pro-Paks. 1" bit with Handy-Paks. *Does not come with the Zip-Tip™ feature.
†Does not have the added CEE-THREAD™ feature.



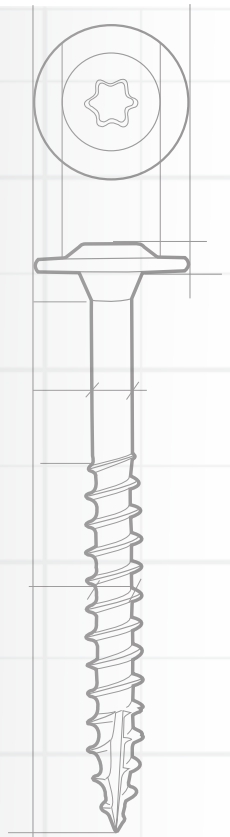
GRK's Cabinet™ screws are designed specifically for use in cabinet construction and installation. Cabinet™ screws are manufactured in a #8 gauge (4 mm) diameter for universal size convenience.

These screws are thin enough to prevent most material splitting, while providing sufficient strength to guarantee a secure installation. The washer head design presses flush against any material surface.

The Cabinet screw can also be used for light duty framing applications where a smaller diameter shank is necessary, yet a need exists for drawing power delivered by the washer head.

White Cabinet Screws match perfectly with white cabinet frames without the need of sticker covers. Specialized Powder Coated heads will not chip while being driven in, allowing for a clean finish. They are ideally suited for a wide variety of interior applications, including closets and garage organizational systems.

GRK
FASTENERS™



LOW PROFILE CABINET™ SCREWS

Quick and Secure Installation



**AC257 Treated
Lumber Approved**

- **Recessed Star Drive:** Zero Stripping, with 6 points of contact.
- **Washer Head:** Creates a flush, clean hold for a strong and secure installation.
- **W-Cut™:** Low torque, faster drive.
- **Zip-Tip™:** No pre-drilling, faster penetration.
- **Case Hardened Steel:** For high tensile, torque, and shear strength.
- **Climatek™ Coating is AC257 code approved** for use in treated lumber.
- For interior / exterior use.
- **White Cabinet Screw:** For interior use only.



T-15

U.S. (Std.)Size (Dia.x Length)	Bulk Part No.	Bulk Box Qty.	Pro-Pak Part No.	Pro-Pak Pail Qty.	Handy-Pak Part No.	Handy-Pak MC Qty. / Screw Qty. (per EA)
#8 x 1"					96050*	6 / 100
#8 x 1-1/4"	10069	4,000	100069	330	114069	6 / 100
#8 x 1-1/2"	10073	3,000	100073	330	114073	6 / 100
#8 x 1-3/4"	10075	2,000			12075	10 / 100
#8 x 2"	10077	2,000	96077	330	113077	4 / 100
#8 x 2-1/2"	10079	1,500	110079	330	113079	4 / 100
#8 x 2-3/4"					113081	4 / 100
#8 x 3-1/8"	10083	1,000	110083	270	114083	6 / 50

WHITE LOW PROFILE™ CABINET SCREWS



T-15

#8 x 1-1/4"					120680	6 / 80
#8 x 1-1/2"					120670	6 / 80
#8 x 2-1/2"					120660	6 / 80

NOTE: Pro-Paks need to be ordered in multiples of two. 2" bit included in Pro-Paks.

*Does not come with the Zip-Tip™ feature.

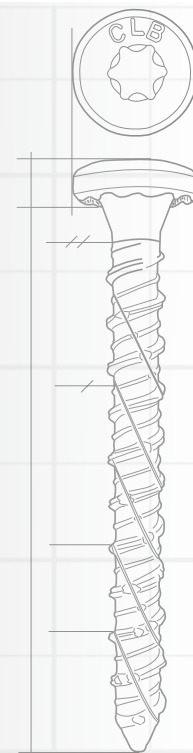


**Ideal for Cabinets
and so much more.
Also excellent for a
variety of interior or
exterior jobs.**

Cailburn™ Concrete screws are professionally engineered fasteners with a patented thread design for ease of driving the screw into concrete and similar applications.

- **Recessed Star Drive:** Zero Stripping, with 6 points of contact.
- **Aggressive Heavy Duty Threads** lock into concrete and can be removed / reinserted without screw damage.
- **Countersinking Bugle Head** locks wood to concrete for complete installation and effective anchoring.
- **Caliburn™ PH** pan head, which is ideal for an exposed finished look including installation of electrical boxes.
- **Caliburn™ XL** washer head design for superior holding power.
- **Climatek™ Coating is AC257** code approved for use in treated lumber.
- Ideal for use in anchoring to concrete or wood to concrete applications including basement framing and sheds.

GRK
FASTENERS™



CALIBURN™ CONCRETE SCREWS

Heavy Duty Concrete and Masonry Fastener

U.S. (Std.)Size (Dia.x Length)	Bulk Part No.	Bulk Box Qty.	Pro-Pak Part No.	Pro-Pak Pail Qty.	Handy-Pak Part No.	Handy-Pak MC Qty. / Screw Qty. (per EA)
1/4" x 1-3/4"	55159	1,000	N/A	N/A	57153	10 / 50
1/4" x 2-1/4"					57156	10 / 50
1/4" x 2-3/4"					57159	10 / 50
1/4" x 3-1/2"					57163	10 / 50
1/4" x 5"					57171	10 / 50
CALIBURN™ PH						
1/4" x 1-3/4"			N/A	N/A	57828	10 / 50
1/4" x 2-1/4"					57831	10 / 50
CALIBURN™ XL						
19/64" x 2-3/4"	55778	400	N/A	N/A	57774	10 / 25
19/64" x 3-1/2"					57778	10 / 25
19/64" x 5"					57785	10 / 25

1" bit included in Handy-Paks



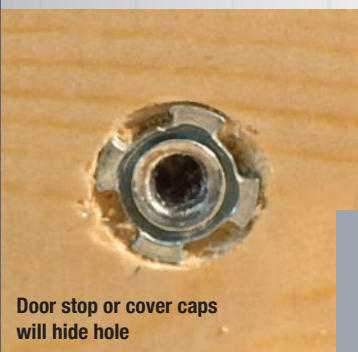
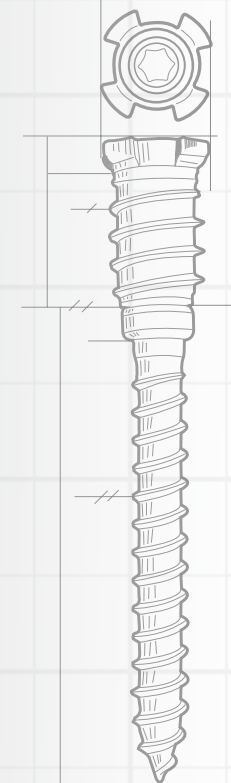
**AC257 Treated
Lumber Approved**

GRK's adjustable Top Star™ shim screw, is in fact a screw within a screw that allows you to install wooden doors or windows without the use of shims.

The quick and easy system reduces labor and allows for hassle-free adjustment to ensure plumb installation.

- **Recessed Star Drive:** Zero Stripping, with 6 points of contact.
- **4-point 3/8" Diameter Threaded Sleeve** provides a secure hold in your wooden frame.
- **Micro-Adjustments** allow for an absolutely plumb installation.
- **Use with GRK's Top Star™ Crown and T-15 Star Bit System.**
- **White Zinc Plated** finish for lasting durability.
- **For Shim Free Installation** of wooden doors, windows, insulation, paneling, built-in wall units, and cabinets.

GRK
FASTENERS™



Door stop or cover caps will hide hole



TOP STAR™ ADJUSTABLE SHIM SCREWS

For Plumb Installation of Wooden Doors and Windows. No More Shims!

The Complete Top Star™ System Includes:

BIT **CROWN** **THREADED SLEEVE**




U.S. (Std.) Size (Dia. x Length)	Pro-Pak Part No.	Pro-Pak Box Qty.
3/8" x 2-1/2"	20157	100
3/8" x 3-1/8"	20161	100

NOTE: Pro-Paks need to be ordered in multiples of two.

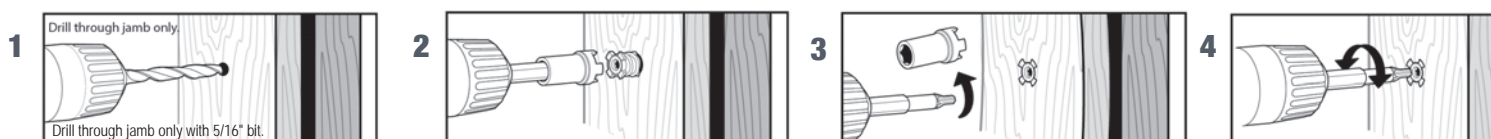
The Bit drives the Top Star™ into the material when the Crown and Bit are combined. Using the Bit without the Crown adjusts the distance.

The Threaded Sleeve moves independently from the Top Star™ unless locked by the Crown. When locked, the Top Star™ gets driven into the material.

Unlocked, the installed Top Star™ is ready for levelling.

CROWN / BIT	Blister-Pak Part No.	Blister-Pak/Qty
 Includes: (1) Crown / Bit with each	86465	1

NOTE: Crown and Star bit system included in each bulk box. 5/16" drill bit not included.

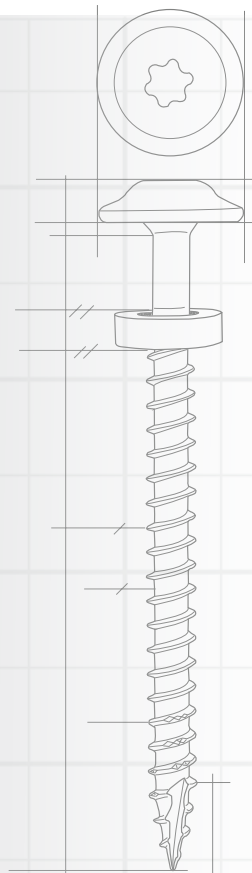


The MSS™ was developed and patented based on the RSS™ model. This screw has an integrated washer-head and is complemented by a rubber washer below the screw head.

This feature also helps protect the washer from prolonged exposure to the sun for long lasting, secure siding installations.

- **White Color, Low Profile Head** produces a clean, finished look which is preferred for moldings, closet organizers, and metal siding.
- **Washer Head** increases holding power.
- **Rubber Washer** seals drill hole from the elements.
- **W-Cut™ Thread Design** tiny saw blades reduce torque by cutting through the material.
- **ZIP-TIP™** for easy starts and no pre-drilling.
- For use in interior or exterior applications including metal siding, garage door trim, and even closet organizers. Not for use with treated lumber.

GRK
FASTENERS™



MSS™ METAL SIDING SCREW

Integrated Head Design with Powder Coating Finish



T-25

U.S. (Std.) Size (Dia. x Length)	Bulk Part No.	Bulk Box Qty.
#9 x 1-1/2"	40090	3,000

1" bit included in Handy-Paks



Self-tapping screws with integrated washer head, for fastening metal siding to a wooden framed structures.

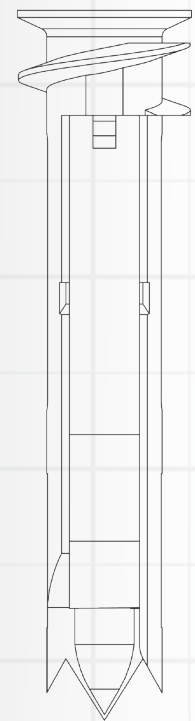
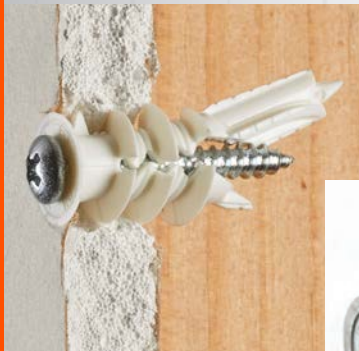
E-Z Anchors® are ideal for hanging accessories, signs, fixtures, and shelving units on drywall. Designed to self-drill flush into drywall for easy and fast installations. No pre-drilling necessary. The threads are formed to provide increased stability and a secure hold.

E-Z Anchor® Twist-N-Lock is designed for light to medium-duty applications. The audible click provides confirmation of the anchor being firmly set. Threads cut deeply to resist pull-out and provide a secure hold.

E-Z Anchor® Stud Solver is designed for light to medium-duty applications. Installs anywhere on a wall, even if you hit a wood stud behind the drywall. Threads cut deeply to resist pull-out and provide a secure hold.

E-Z Anchor® Toggle Lock is designed for heavy-duty drywall applications. The superior 1-piece assembly prevents losing extra pieces behind the wall. The toggle bar swivels easily during assembly to provide a secure hold.

Buildex® Stucco Anchor is designed for light to medium-duty applications in stucco. The zinc plating is designed to be durable in exterior and interior applications. Kits include a drill bit for installation.



E-Z Anchor® Drywall Anchors

Easy to Install with Strong Holding Power

U.S. (Std.) Size (Max Load)	Lg. Pack Part No.	Lg. Pack Qty.	Med. Pack Part No.	Med. Pack Qty.	Small Pack Part No.	Small Pack Qty.
E-Z Anchor Twist-N-Lock Anchors						
50 lbs.	25350	50	25200	25	11353	6
75 lbs.	25310	50	25210	20	11364	4
E-Z Anchor Stud Solver Anchors						
40 lbs.			25225	25	25125	4
50 lbs.	25316	50	25216	20	29503	5
E-Z Anchor / E-Z Toggle Lock Anchor						
100 lbs.	25320	25	25220	10	10006	2
Buildex® Stucco Anchors						
3/16" x 1-1/2" Hex Hd			31810	25	31710	4
3/16" x 1-1/2" Flat Hd			31820	25	31720	4
1/4" x 2-7/8"			31840	25	31740	4

E-Z Anchor Contractor Packs

U.S. (Std.) Size (Max Load)	Contractor Pack Part No.	Contractor Pack Qty.
E-Z Anchor Contractor Twist-N-Lock Anchors		
75 lbs.	25410	100

- **No Pre-Drilling:** Screws directly into drywall with a Phillips screwdriver.
- **Self-Piercing Point:** Positions anchor in desired location without slipping and starts self-drilling faster.
- **Clean Finish:** Installs nails flush into drywall.
- **Strong Holding Power:** Prevents loose connections and items from wobbling.

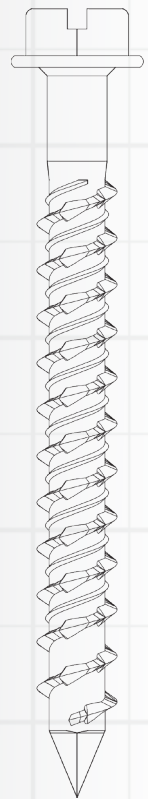
Warning: Do not use Twist-N-Lock or Stud Solver anchors for ceiling applications. Do not use for mounting televisions. Load ratings are for items hung flush to the wall. Load ratings decrease when hanging items that project from the wall.

For decades, Tapcon products have enabled professionals to get their light to medium-duty concrete anchoring jobs done right the first time, every time. Designed to deliver 30% less torque and 20% more holding power, Tapcon anchors are the #1 choice of professionals.

Tapcon concrete screw anchors are designed to deliver superior holding power in all forms of masonry (concrete, CMU, and brick). The advanced WERCS threadform turns any anchoring job into a fast and easy process.

Offering everything from the anchors needed to fasten any fixture to concrete, to the drill bits that deliver a more precise hole and maximize holding power, to the Tapcon Pro Installation Kit that makes jobs faster and easier, Tapcon provides professionals with all the tools they need for confidence in a job done right.

Tapcon
GENUINE Concrete Screw Anchors



TAPCON® CONCRETE SCREW ANCHORS

Nothing Anchors Like Tapcon

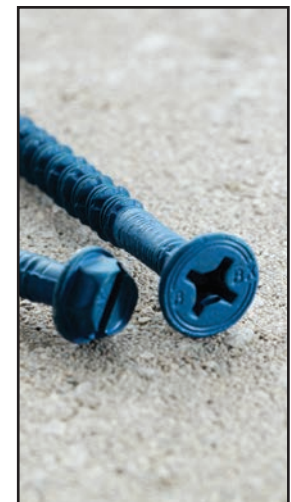
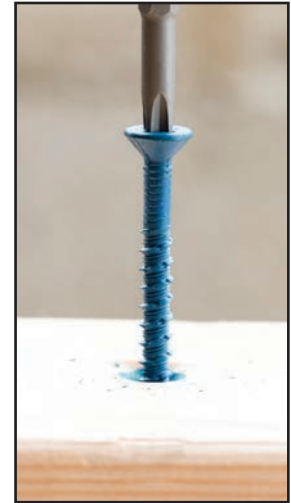


- **Superior Holding Strength** for confidence in a job done right.
- **Corrosion-resistance and long-lasting performance** from the innovative Climaseal blue coating.
- **Advanced WERCS Threadform** reduces the installation torque & allows for use in a wider range of materials.
- **ICC-ES** approved for use in anchoring into concrete (ESR-2202).
- A long-standing reputation for quality, strength, and ease of installation from industry professionals.

With over one billion anchors sold, Tapcon concrete anchors deliver the ease of use, superior precision, and unparalleled performance that professionals demand.



U.S. (Std.) Size (Dia. x Length)	Bucket Part No.	Bucket Qty.	Lg. Clam Part No.	Lg. Clam Qty.	Med. Pack Part No.	Med. Pack Qty.	Sm. Pack Part No.	Sm. Pack Qty.
PHILLIPS HEAD								
3/16" x 1-1/4"	24550	225	24350	75	24250	25	24150	8
3/16" x 1-3/4"	24555	225	24355	75	24255	25	24155	8
3/16" x 2-1/4"	24560	225	24360	75	24260	25	24160	8
3/16" x 2-3/4"	24565	225	24365	75	24265	25	24165	8
1/4" x 1-3/4"	25575	225	24375	75	24275	25	24175	8
1/4" x 2-1/4"			24380	75	24280	25	24180	8
1/4" x 2-3/4"	24585	150	24385	75	24285	25	24185	8
1/4" x 3-3/4"			24395	75	24390	25		
1/4" x 4"					24397	25		
HEX HEAD								
3/16" x 1-1/4"			24300	75	24200	25	24100	8
3/16" x 1-3/4"			24305	75	24205	25	24105	8
3/16" x 2-3/4"			24310	75	24210	25	24110	8
1/4" x 1-1/4"	24515	225	24315	75	24215	25	24115	8
1/4" x 1-3/4"	24520	225	24320	75	24220	25	24120	8
1/4" x 2-1/4"	24525	225	24325	75	24225	25	24125	8
1/4" x 2-3/4"	24530	150	24330	75	24230	25	24130	8
1/4" x 3-1/4"	24501	150	24301	75			24101	8
1/4" x 3-3/4"			24340	75	24335	25		
1/4" x 4"					24345	25		
WHITE ULTRASHIELD TAPCON								
3/16" x 1-3/4"			24371	75			24171	8
3/16" x 2-1/4"			24372	75			24172	8
3/16" x 2-3/4"			24367	75			24167	8
1/4" x 2-3/4"			24388	75	24288	25	24188	8
1/4" x 3-1/4"			24391	75				
1/4" x 3-3/4"			24392	75				
410 STAINLESS STEEL TAPCON								
3/16" x 1-3/4"							26155	8
3/16" x 2-3/4"							26165	8
1/4" x 1-3/4"							26120	8
1/4" x 2-3/4"							26130	8
MAXI-SET TAPCON								
1/4" x 2-1/4"			24326	50				
1/4" x 2-1/4"			24323	50				
White								
TAPCON DRILL BITS								
5/32" x 3-1/2"							11256	1
5/32" x 4-1/2"					11249	4	11247	1
5/32" x 5-1/2"							11363	1
3/16" x 3-1/2"							11257	1
3/16" x 4-1/2"					11250	4	11248	1
3/16" x 5-1/2"							11362	1
5/32" x 7" SDS							11492	1
3/16" x 7" SDS							11491	1
1/4" x 7" SDS							11493	1
3/8" x 8" SDS							11494	1
1/2" x 10" SDS							11495	1
TAPCON PRO INSTALLATION KIT								
Tapcon Pro Install Tool							79012	1

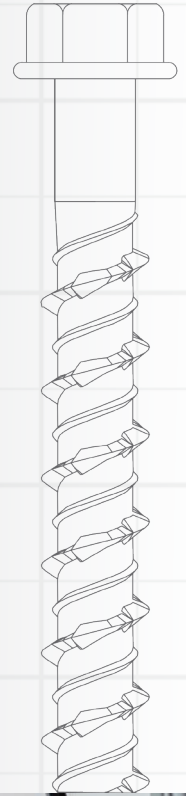


Ideal for projects that require heavy-duty holding power, Tapcon+ concrete screw anchors are the stronger, faster, and easier masonry anchoring solution. This heavy-duty screw anchor features a high-strength body that's built to resist both high wind and seismic tension and is ICC-ES approved for use in both cracked and un-cracked concrete.

Superior to wedge and sleeve anchors, Tapcon+ installs in less than half the time while delivering 20% more holding power and the flexibility to install closer to the edge of the concrete and closer to one another.

- **ICC-ES Approved** for use in uncracked & cracked concrete and seismic conditions (ESR-3699).
- **Heavy-Duty Holding Power** in all concrete conditions.
- **Flexibility** to install closer to the edge & closer together with confidence.
- A long-standing reputation for quality, strength, and ease of installation from industry professionals.

HEAVY DUTY
Tapcon+
Concrete Screw Anchors



TAPCON[®] CONCRETE SCREW ANCHORS

Stronger. Faster. Easier.

U.S. (Std.) Size (Dia. x Length)	Pro-Pak Part No.	Pro-Pak Qty.	Handy-Pak Part No.	Handy-Pak Pail Qty.	Part No.	Qty.
5/16" x 2-1/4"			24292	15	24192	4
5/16" x 3"			24293	15	24193	4
3/8" x 3"	11413	10			50403	2
3/8" x 4"	11414	10			50404	2
1/2" x 4"	11420	10			50408	2
1/2" x 6"	11421	10			50426	2



ICC-ES ESR-3699
2015 IBC
Compliant

Trubolt Wedge Anchors offer maximum strength and ultimate flexibility making them the PRO choice for heavy-duty anchoring. This wedge anchor features a high-strength body that is built to resist tension and shear loads, and it is code approved for use in uncracked concrete per ICC-ES ESR-2251.

Not only is Trubolt code recognized, but this wedge anchor offers a full line of diameter options and a variety of lengths. Trubolt wedge anchors are also available in both electrogalvanized and hot-dip galvanized finishes to perform in various applications. For additional application versatility, Trubolt wedge anchors are fully threaded to accommodate a greater range of fixture thicknesses. The wedge anchor's stainless steel clip provides extended corrosion resistance to ensure the long term integrity of connections.

- **ICC-ES Approved** for use in uncracked concrete (ICC-ES-ESR-2251).
- **Heavy-Duty Holding Power** in concrete conditions.
- **Fully Threaded Anchor Design** for application versatility.
- **Stainless Steel Clip** provides additional corrosion protection.
- A long-standing reputation for quality, strength, and ease of installation from industry professionals.



TRUBOLT® WEDGE ANCHORS

Maximum Strength for Heavy-Duty Concrete Anchoring

U.S. (Std.) Size (Dia. x Length)	Pro-Pak Part No.	Pro-Pak Qty.	Handy-Pak Part No.	Handy-Pak Pail Qty.	Poly-Bag Part No.	Poly-Bag Qty.
1/4" x 2-1/4"			12377	25	50080	1
3/8" x 2-1/4"	12367	50	12015	15	50081	1
3/8" x 3"	03014	50			50082	1
3/8" x 3-3/4"	12370	50	12016	15	50083	1
3/8" x 5"			12022	15	50084	1
1/2" x 2-3/4"					50085	1
1/2" x 3-3/4"	12371	25	12017	10	50181	1
1/2" x 4-1/4"	12372	25	12020	10	50086	1
1/2" x 5-1/2"	12373	25	12019	10	50087	1
1/2" x 7"					50088	1
5/8" x 5"	12310	10			50089	1
5/8" x 6"	03041	10				
5/8" x 7"	03044	10			51030	1
5/8" x 8-1/2"					50305	1
3/4" x 5-1/2"	02992	10			51001	1
HOT-DIPPED GALVANIZED						
1/2" x 5-1/2" HDG			12021	10	50303	1
1/2" x 7" HDG	12029	10			50307	1



As the company that invented concrete anchoring technology, Red Head holds a unique place in the history of construction and building. The Red Head brand has become synonymous with the anchoring product category it invented. That's why Red Head can help you get any job done right, from heavy-duty ceiling applications to light-duty work in block and brick.

Our sleeve anchor line is our most versatile anchor with the ability to fasten in block, brick, masonry, and solid concrete.

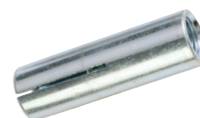
For a lighter duty project, Poly-Set and Hammer-Set are great choices for block, brick, and concrete and allow for quick and easy installation. For heavy-duty overhead applications, use our Drop-In anchors. Use the complete family of anchors and SDS bits to ensure precise hole depth and diameter when using our anchors.



RED HEAD® CONCRETE ANCHORS

Versatile Anchoring Solutions for Construction & Building

U.S. (Std.) Size (Dia. x Length)	Pro-Pak Part No.	Pro-Pak Qty.	Handy-Pak Part No.	Handy-Pak Pail Qty.	Poly-Bag Part No.	Poly-Bag Qty.
SLEEVE ANCHORS						
1/4" x 2-1/4" Acorn Hd					50122	1
1/4" x 2-1/4" Threshold Hd					50123	1
1/4" x 3-1/8" Flat Hd					50121	1
5/16" x 1-1/2" Hex Hd					50112	1
5/16" x 2-1/2" Hex Hd					50113	1
3/8" x 1-7/8" Hex Hd					50114	1
3/8" x 3" Hex Hd	11281	50	11013	15	50115	1
1/2" x 2-1/4" Hex Hd					50116	1
1/2" x 3" Hex Hd	11283	25	11014	10	50117	1
1/2" x 4" Hex Hd	11285	25	11018	10	50118	1
5/8" x 4-1/4" Hex Hd					50119	1
5/8" x 6" Hex Hd					50120	1
POLY-SET ANCHORS						
1-1/4"			35220	50		
1-7/16"			35225	50		
HAMMER-SET ANCHORS						
1/4" x 1"	35300	75	35200	25		
1/4" x 1-1/2"	35303	50	35203	15		
1/4" x 2"	35305	50	35205	15		
1/4" x 3"	35207	25				
DROP-IN ANCHORS						
3/8" Anchor	01891	50			50125	1
1/2" Anchor					50126	1
3/8" Setting Tool					07499	1
1/2" Setting Tool					07501	1



For jobs requiring versatility, high performance, and efficiency, Red Head's A7+ Concrete Adhesive Anchor is the one anchoring solution that does it all. A7+ takes only 45 minutes to fully cure and can be used in challenging conditions like cold temperatures and water-filled holes. A7+ is also ICC-ES approved for cracked concrete and seismic building code requirements.

A7+ can also be used in any standard medium-duty caulk gun, eliminating the inconvenience of needing a special dispensing tool. Combine the simplicity of dispensing with the quick-curing product, and installation is fast, easy, and doesn't take time away from the rest of the project.

The A7+ concrete adhesive anchoring solution is a high-performing anchor that rivals other products on the market in both price and features. This high performance and efficiency allows for less time on the job and more productivity.

Providing code approved performance and a fast 45 minute cure time, Red Head A7+ is the concrete anchoring adhesive that delivers.

A7+

 **RED HEAD®**



RED HEAD® A7+ ADHESIVE ANCHORS

High Strength Adhesive Anchoring Solution for Harsh Conditions



- **ICC-ES Approved** for use in cracked concrete and seismic conditions (ICC-ES ESR-3903).
- **Quick 45 Minute Cure Time** for fast installation.
- **Easy Dispensing** with a standard caulk gun, eliminating the need for any special tools.
- A successful cure in cold temperatures, as low as 14° F.
- Increased productivity with a successful cure in saturated concrete and water-filled holes.
- A long-standing reputation for quality, strength, and ease of installation from industry professionals.



ICC-ES ESR-3903
2015 IBC
Compliant

U.S. (Std.)Size	Part No.	Qty.
9.5 oz. Cartridge	07111	1

Ramset is a leading line of powder actuated tools and fasteners for residential and commercial remodeling. As the developer of the very first powder actuated tool in 1948, Ramset has a history of reliability, innovation, and market-leading performance. Ramset has supplied more than a million tools to professional contractors specialty tradesmen and continues to deliver products that drive jobsite speed. Utilizing the whole line of Ramset tools, powder loads, and fasteners increases jobsite productivity and leads to a job done right.

From tools that display the market leading innovation, like Cobra+ and MasterShot, to the full range of drive pins and powder loads for your applications, you can be sure to find what you need with the Ramset family of products.



RAMSET® TOOLS AND FASTENERS

Powder Actuated Tools for Residential & Commercial Remodeling.

- Powder actuated tools for concrete or steel.
- Drives jobsite speed through quick and efficient fastening.
- Market leading tool innovations help you get the job done right.
- The Powder Actuated Tool choice for PROs.

Item / Tools	Part No.	Qty.
Cobra+ .27 Caliber Semi-Automatic Powder Actuated Tool	16942	1
MasterShot .22 Caliber Single-Shot Powder Actuated Tool	40088	1
TriggerShot .22 Caliber Single-Shot Powder Actuated Tool	40066	1
HammerShot .22 Caliber Single-Shot Powder Actuated Tool	00022	1



U.S. (Std.)Size	Large Box Part No.	Large Box Quantity	Small Clam Part No.	Small Clam Quantity
DRIVE PINS				
.300 x 1/2"	06171	100		
.300 x 3/4"	00747	100		
.300 x 1"	00759	100		
.300 x 1-1/2"	00774	100		
.300 x 2"	00780	100		
.300 x 2-1/2"	00786	100	00787	25
.300 x 3"	00794	100		

DRIVE PINS WITH WASHERS				
.300 x 1"	00797	100		
.300 x 1-1/2"	00803	100	00804	25
.300 x 1-1/4"	00800	100		
.300 x 2"	00806	100		
.300 x 2-1/2"	00809	100	00810	15
.300 x 3"	07886	100	07887	15

RAMGUARD DRIVE PINS FOR USE IN TREATED LUMBER				
.300 x 2-1/2"	09167	100		
.300 x 2-1/2" with Washers	09173	100		
.300 x 3" with Washers	09176	100		

Caliber	Color	Type	Strip Load Part No.	Qty.	Single Shot Box Pt. #	Single Shot Box Qty.	Single Shot Blister Pt.#	Single Shot Blister Qty.
---------	-------	------	------------------------	------	--------------------------	-------------------------	-----------------------------	-----------------------------

POWDER LOADS								
.22	Brown	Powder			00594	100		
.22	Green	Powder			00601	100		
.22	Yellow	Powder			00607	100	50077	25
.27	Green	Strip	00652	100				
.27	Yellow	Strip	00667	100				
.27	Red	Strip	00682	100				

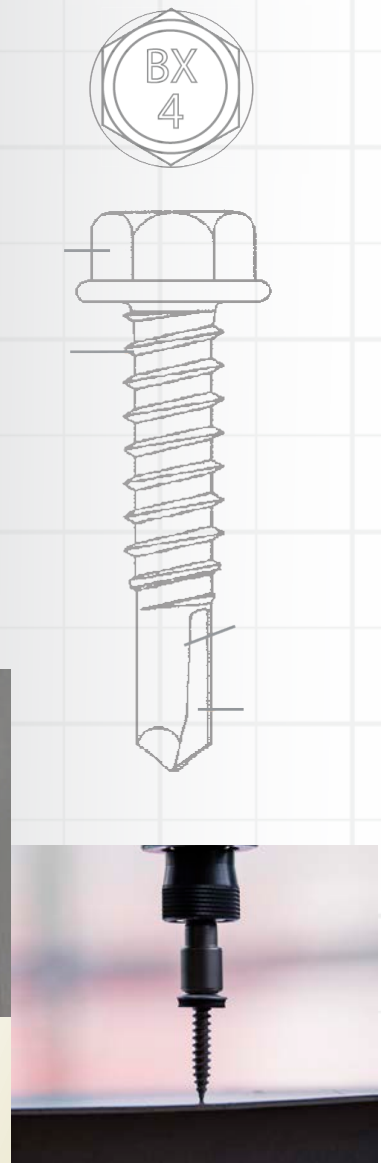


Teks® fasteners are the leading choice of self-tapping screws for use in interior/exterior applications; including metal-to-metal, wood-to-metal, and roofing applications. Professionals are able to drill faster with less force even in heavy gauge metal. The self-tapping threads are designed to tap holes while providing superior holding power ensuring strong connections between materials.

Teks® fasteners are offered in sharp and drill points that easily penetrate light to heavy gauge metal and wood. Professionals no longer have to struggle when engaging their work surface.

Teks® fasteners are offered in a wide variety of head styles to meet professionals installation needs. No tool slippage or cam-outs even with old sockets and worn bits. Professionals can drill, tap, and fasten – all in one motion.

Teks®
THE ORIGINAL



TEKS® METAL FASTENERS

Securely Fasten Metal with Speed



- **Drive surface and recess:** Reduces cam-outs to prevent slipping during installation.
- **Drill Points:** Self-drills through light to heavy gauge metal with ease.
- **Sharp Points:** Self-pierces into light gauge metal to start drilling faster.
- **Self-Tapping Threads:** Taps their own threads to provide less effort when fastening into metal.
- **Corrosion Resistant Finish:** Protects the job's appearance with long lasting coating.
- **Neoprene Washer:** Roofing screws feature a neoprene washer that provides a waterproof seal.
- **Reamer Wings:** Winged screws self-drill into wood and engage metal to provide a secure hold.
- **Lath head:** Lath Screws feature a low-profile head for a semi-flush finish for virtually any application.

U.S. (Std.)Size (Dia.x Length)	Pro-Pak Part No.	Pro-Pak Pail Qty.	Handy-Pak Part No.	Handy-Pak Ctn. Size/Qty.
TEKS® METAL TO METAL SCREWS				
HEX WASHER HEAD / DRILL POINT (METAL TO METAL)				
8 x 1/2"	21322	450	21308	S/280
8 x 3/4"			21312	S/180
8 x 1"			21316	S/170
10 x 5/8"			21396	S/170
10 x 3/4"			21320	S/150
10 x 1"			21328	M/140
10 x 1-1/2"			21332	M/90
12 x 3/4"	21341	400	21336	M/120
12 x 1"			21340	M/100
12 x 1-1/2"			21344	M/80
12 x 2"			21348	M/60
12/14 x 2"			21820	M/60
14 x 3/4"			21349	S/100
14 x 1"			21351	S/60
14 x 1-1/2"	21358	120	21352	M/50
14 x 2-1/2"			21356	M/30
HEX WASHER HEAD / SHARP POINT (METAL TO METAL)				
6 x 1/2"			21301	S/320
8 x 1-1/2"			21318	M/85
10 x 3/4"			21327	M/150
PAN HEAD / DRILL POINT (METAL TO METAL)				
8 x 1/2"			21360	S/300
8 x 3/4"			21364	S/240
10 x 3/4"			21372	S/170
PAN HEAD / SHARP POINT (METAL TO METAL)				
6 x 1/2"			21359	S/300
PANCAKE HEAD / DRILL POINT (METAL TO METAL)				
10 x 5/8"			21376	S/190
TEKS® WOOD TO METAL SCREWS				
PHILLIPS FLAT HEAD / DRILL POINT W/REAMER WINGS (WOOD TO METAL)				
1/4-20 x 3"			21378	M/40
10 x 1-7/16"	21381	300	21380	S/100
12 x 2-3/4"	21386	200	21384	S/40

U.S. (Std.) Size (Dia. x Length)	Pro-Pak Part No.	Pro-Pak Pail Qty.	Handy-Pak Part No.	Handy-Pak Ctn. Size/Qty.
TEKS® ROOFING SCREWS				
HEX WASHER HEAD / SHARP POINT (METAL TO WOOD)				
9 x 1"	21401	360	21400	M/120
9 x 1-1/2"	21406	400	21404	M/100
9 x 2-1/2"			21407	M/60
HEX WASHER HEAD / DRILL POINT (METAL TO METAL)				
12 x 3/4"			21408	M/90
12 x 1"	21418	400	21412	M/80
12 x 1-1/2"	21422	300		
12 x 2"	21427	150	21416	M/50
TEKS® LATH SCREWS				
MODIFIED TRUSS HEAD / SHARP POINT (METAL TO METAL)				
8 x 1/2"			21500	S/260
8 x 3/4"	21506	600	21504	S/200
8 x 1"	21510	510	21508	S/170
8 x 1-1/4"			21512	M/140
8 x 1-5/8"			21516	M/120
8 x 2"			21518	M/100
8 x 2-1/2"			21519	M/80
MODIFIED TRUSS HEAD / DRILL POINT (METAL TO METAL)				
8 x 1/2"			21520	S/260
8 x 3/4"	21525	600	21524	S/200
8 x 1"	21530	510	21528	S/170
8 x 1-1/4"			21532	M/140
8 x 1-5/8"			21536	M/120
8 x 2"			21538	M/100
8 x 2-1/2"			21540	M/80

Pro-Paks and Handy-Paks must be ordered in eaches but in Master Carton Quantities.



Hex Washer Head



Flat Head



Pan Head



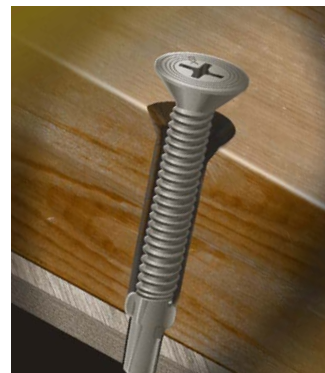
Modified Truss Head



ROOFING SCREWS



LATH SCREWS



WOOD TO METAL SCREWS



METAL TO METAL SCREWS

Backer-On® cement screws are designed for attaching Hardie-Backer® cement board and Rock-On® cement board screws are designed for attaching Durock® cement board to wood or light gauge steel studs. The patented serrated head design countersinks for a flush finish even at angle, providing a smooth surface for tile installation. The T-25 Star Drive recess provides Stikfit™ for one-handed installation. Climacoat corrosion resistant finish prevents rust from bleeding into grout. Making it perfect for use in high moisture areas such as bathrooms and kitchens.

Backer-On® and Rock-On® cement board screws comply with ANSI standards for cement board installation as specified by cement board manufacturers. Cement board manufacturers require ANSI compliance in order to remain eligible for warranty.

- **Serrated Head:** Designed to drive flush even at an angle.
- **Star Drive with T-25 Bit:** Provides Stikfit™ for easy one-handed installation and eliminates cam-outs.
- **Hi-Lo / Single Threads:** Starts quickly and drives smooth in cement boards.
- **Sharp Points:** Offers immediate pick-up and eliminates the need to pre-drill.
- **Climacoat Finish:** Corrosion resistant for preventing rust from bleeding into tile.

BACKER-ON® ROCK-ON® CEMENT BOARD SCREWS

Fasten Cement Board Right with a Smooth & Corrosion-Resistant Finish

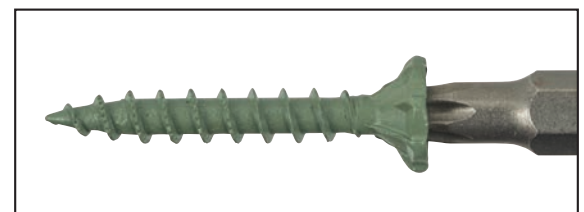


U.S. (Std.) Size (Dia. x Length)	Pro-Pak Part No.	Pro-Pak Pail Qty.	Handy-Pak Part No.	Handy-Pak Ctn. Size/Qty.
BACKER-ON® SCREWS				
#9 x 1-1/4"	23406	750	23401	M/185
#9 x 1-5/8"	23416	575	23411	M/140
#9 x 2-1/4"			23421	M/100
ROCK-ON® SCREWS				
#9 x 1-1/4"	23306	750	23301	M/185
#9 x 1-5/8"	23316	575	23311	M/140
#9 x 2-1/4"			23321	M/100

2" T25 Star Drive bit included in Backer-On and Rock-On handy-paks and Pro-paks.

BACKER-ON® / ROCK-ON® StikFit Bit		
SIZE POINT	PART NO.	CARDER QUANTITY / PER PACK
#T-25 2"	24000	(2) StikFit Bits

The T-25 StikFit Bits modified tip eliminates wobble and offers one-handed installation only for Backer-On/Rock-On cement board screws. The bits are made with S2 modified steel for long lasting bit life.



Pro Tip: Standard roofing nails, dry wall screws, and other alternatives to cement board screws are typically not specified by cement board manufacturers and not ANSI compliant.

Star Drive Bits, Crown / Bit



Bit Size	Bit Color	Fits	Bulk Part No.	Bulk Box Qty.	Carded Part No.	Carded Qty/per pack
T-10 2" T-10 3"	Yellow Yellow	Trim™ Head #8	86419	25	187419 87421	2 2
T-15 2" T-15 3"	Red Red	R4™ Screw #6 & 8 Trim™ Head #9 Cabinet™ Screw	86427	25	187427 87429	2 2
T-20 2"	Purple		86435	25	187435	2
T-25 2" T-25 3"	Green Green	R4™ #9,10 & 12 RSS™ #10 & 1/4" MSS™ #9	86443	25	187443 87445	2 2
T-30 2" T-30 3"	Black Black	RSS™ Structural Screw 5/16" Caliburn™ & Caliburn PH™	86451	25	187451 87453	2 2
T-40 2"	Blue	Caliburn XL™ Screws RSS™ Structural Screw 3/8"	86459	25	187459	2
CROWN / BIT						
		TOP STAR™			86465	1

High Impact Merchandisers Designed to Drive Sales

Displays are free with qualifying order.

Rolling Rack:

GRK5432 Formerly #89001-GRK
(includes header)

Ideal for secondary placement. Can be moved around retail space. Holds Pro-Paks, Handy-Paks, Blister-Paks and/or open stock in bins.

Universal Display and Header:

GRK# 99900 Display Header# 98023 (not included)
Ideal for end-cap with large selection of GRK product.



2ft Tapcon Display (includes header)

The premier Tapcon offering consisting of the top-selling Tapcon skus the PRO seeks.



3ft Concrete Anchoring Set:

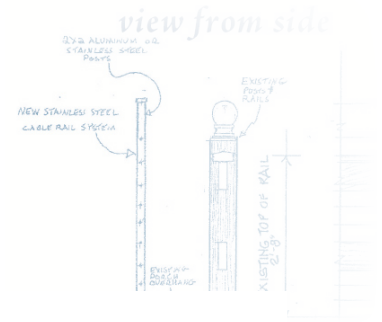
Ideal for in-line placement on existing shelving. Offers complete coverage from light to heavy duty concrete anchoring.



CBS Rolling Rack (includes header)

Holds our top selling cement board screws in convenience and pro packs. Ideal for placement near Durock® and HardieBacker® cement boards.





FASTENER TECHNICAL DATA

RSS™

TABLE 1—RSS™ FASTENER SPECIFICATIONS

FASTENER DESIGNATION N	LENGTH ¹ (inches)	THREAD LENGTH ² (inches)	MINOR THREAD DIAMETER (inch)	SHANK DIAMETER (inch)	OUTSIDE THREAD DIAMETER (inch)	NOMINAL BENDING YIELD STRENGTH ³ F _y (psi)	ALLOWABLE STEEL STRENGTH	
							TENSILE (lbf)	SHEAR (lbf)
RSS	1/4 x 2 1/2"	2 3/8	1 1/2	0.152	0.169	170,400	1112	754
	1/4 x 2 3/4"	2 3/4	1 3/4					
	1/4 x 3 1/8"	3 1/8	2					
	1/4 x 3 1/2"	3 1/2	2 3/8					
	5/16 x 2 1/2"	2 3/8	1 1/2	0.167	0.195	190,900	1415	982
	5/16 x 2 3/4"	2 3/4	1 3/4					
	5/16 x 3 1/8"	3 1/8	2 1/8					
	5/16 x 3 1/2"	3 1/2	2 1/2					
	5/16 x 4"	3 7/8	2 3/4					
	5/16 x 5 1/8"	5	3 1/2					
	5/16 x 6"	5 7/8	3 7/8					
	3/8 x 3 1/8"	3 1/8	2 1/8	0.191	0.219	178,000	1941	1231
	3/8 x 4"	3 7/8	2 3/4					
	3/8 x 5 1/8"	5 1/8	3 1/2					
	3/8 x 6"	5 7/8	4					
	3/8 x 7 1/4"	7	4 1/2					
	3/8 x 8"	7 7/8	4 3/8					
	3/8 x 10"	9 3/4	5					
	3/8 x 12"	11 7/8	5 7/8					
	3/8 x 14 1/8"	14 1/8	5 7/8					
	3/8 x 16"	15 5/8	5 3/4					
LPS	1/4 x 8"	7 7/8	2 7/8	0.152	0.171	172,600	1051	666
LTF	3/8 x 8"	7 7/8	3 7/8	0.191	0.219	167,600	1714	1094
	3/8 x 10"	9 7/8	3 7/8					
	3/8 x 12"	11 3/4	3 7/8					
RSS PHEInox	1/4 x 2 1/2"	2 3/8	1 1/2	0.152	0.169	111,400	628	546
	1/4 x 3 1/8"	3 1/8	2					
	5/16 x 2 1/2"	2 3/8	1 5/8	.167	0.195	118,300	806	668
	5/16 x 3 1/8"	3 1/8	2 1/8					
	5/16 x 4"	3 7/8	2 1/2					
	5/16 x 5 1/8"	5 1/8	3 3/8					
JTS	1/4 x 3 3/8"	3 3/8	1 3/8	0.152	0.171	226,300	1104	769
	1/4 x 5"	5	1 5/8					
	1/4 x 6 3/4"	6 3/4	1 1/2					

For SI: 1 inch = 25.4 mm; 1 psi = 6.9 kPa; 1 lbf = 4.4 N.

¹The length of fasteners is measured from the underside of the head to bottom of the tip. See Figure 1.

²Length of thread includes tip. See Figure 1.

³Bending yield strength determined in accordance with ASTM F1575 using the minor thread diameter.

⁴See Figure 1 for additional dimensional information.

RSS™

TABLE 2—RSS™ REFERENCE WITHDRAWAL (W) AND PULL-THROUGH (P) DESIGN VALUES¹

FASTENER DESIGNATION		THREAD LENGTH (inches)	W (lbf/ in.) ²		P (lbf) ³		WET SERVICE FACTOR, C _M
			For Specific Gravities of:		For Specific Gravities of:		
			0.42 ≤ G < 0.55	0.55 ≤ G < 0.67	0.42 ≤ G < 0.55	0.55 ≤ G < 0.67	
RSS	¹ / ₄ × 2 ¹ / ₂ "	1 ¹ / ₂	151	186	165	275	0.70
	¹ / ₄ × 2 ³ / ₄ "	1 ³ / ₄					
	¹ / ₄ × 3 ¹ / ₈ "	2					
	¹ / ₄ × 3 ¹ / ₂ "	2 ³ / ₈					
	⁵ / ₁₆ × 2 ¹ / ₂ "	1 ¹ / ₂	165	227	207	418	
	⁵ / ₁₆ × 2 ³ / ₄ "	1 ³ / ₄					
	⁵ / ₁₆ × 3 ¹ / ₈ "	2 ¹ / ₈					
	⁵ / ₁₆ × 3 ¹ / ₂ "	2 ¹ / ₂					
	⁵ / ₁₆ × 4"	2 ³ / ₄	180	259	196	351	
	⁵ / ₁₆ × 5 ¹ / ₈ "	3 ¹ / ₂					
	⁵ / ₁₆ × 6"	3 ⁷ / ₈					
	³ / ₈ × 3 ¹ / ₈ "	2 ¹ / ₈					
	³ / ₈ × 4"	2 ³ / ₄					
	³ / ₈ × 5 ¹ / ₈ "	3 ¹ / ₂					
	³ / ₈ × 6"	4					
	³ / ₈ × 7 ¹ / ₄ "	4 ¹ / ₂					
	³ / ₈ × 8"	4 ³ / ₈					
	³ / ₈ × 10"	5					
	³ / ₈ × 12"	5 ⁷ / ₈					
	³ / ₈ × 14 ¹ / ₈ "	5 ⁷ / ₈					
	³ / ₈ × 16"	5 ³ / ₄					
LPS	¹ / ₄ × 8"	2 ⁷ / ₈	128	201	136	395	0.52
LTF	³ / ₈ × 8"	3 ⁷ / ₈	163	216	202	373	0.70
	³ / ₈ × 10"	3 ⁷ / ₈					
	³ / ₈ × 12"	3 ⁷ / ₈					
PHEinox	¹ / ₄ × 2 ¹ / ₂ "	1 ¹ / ₂	134	187	162	306	0.70
	¹ / ₄ × 3 ¹ / ₈ "	2					
	⁵ / ₁₆ × 2 ¹ / ₂ "	1 ⁵ / ₈	136	202	199	254	
	⁵ / ₁₆ × 3 ¹ / ₈ "	2 ¹ / ₈					
	⁵ / ₁₆ × 4"	2 ¹ / ₂					
	⁵ / ₁₆ × 5 ¹ / ₈ "	3 ³ / ₈					
	⁵ / ₁₆ × 6"	3 ⁷ / ₈					
JTS	¹ / ₄ × 3 ³ / ₈ "	1 ³ / ₈	152	191	154	372	0.68
	¹ / ₄ × 5"	1 ⁵ / ₈					
	¹ / ₄ × 6 ³ / ₄ "	1 ¹ / ₂					

For SI: 1 inch = 25.4 mm; 1 lbf = 4.4 N.

¹Values must be multiplied by all applicable adjustment factors, in accordance with the NDS. When the fasteners are used in wet service conditions, the wet service factors shown in the table are applicable.

²Tabulated reference withdrawal design values are in pounds per inch of thread penetration into the side grain of the main member, and must be multiplied by the thread length embedded in the member in order to get the total withdrawal design value in pounds. Length of CEE threads must not be included in the withdrawal value determination.

³Tabulated pull-through design values are based on a minimum side member thickness of 3/4 inch.

**These figures are only offered as a guide and are not reduced by any safety factor.
For safety factor requirements in your area, contact your local building official, architect, or engineer.**

TABLE 3—RSS™ REFERENCE LATERAL DESIGN VALUES (Z) FOR SINGLE SHEAR (TWO-MEMBER) CONNECTIONS¹
[For Sawn Lumber with Both Members of Identical Specific Gravity]

FASTENER DESIGNATION		SIDE MEMBER THICKNESS, t (inches)	FASTENER PENETRATION INTO MAIN MEMBER, p (inches)	REFERENCE LATERAL DESIGN VALUE, Z (lbf) FOR SPECIFIC GRAVITIES OF:				WET SERVICE FACTOR, C _M
				0.42 ≤ G < 0.55		0.55 ≤ G < 0.67		
				Parallel to Grain, Z	Perpendicular to Grain, Z _⊥	Parallel to Grain, Z	Perpendicular to Grain, Z _⊥	
RSS	1/4 x 2 1/2"	3/4	1 5/8	153	137	175	175	0.70
	1/4 x 2 3/4"	3/4	2					
	1/4 x 3 1/8"	3/4	2 3/8					
	1/4 x 3 1/2"	3/4	2 3/4					
	5/16 x 2 1/2"	3/4	1 5/8	168	133	214	178	
	5/16 x 2 3/4"	3/4	2					
	5/16 x 3 1/8"	3/4	2 3/8					
	5/16 x 3 1/2"	3/4	2 3/4					
	5/16 x 4"	1 1/2	2 3/8	239	236	333	257	
	5/16 x 5 1/8"	1 1/2	3 1/2					
	5/16 x 6"	2	3 7/8	265	299	472	289	
	3/8 x 3 1/8"	3/4	2 3/8	188	156	251	220	
	3/8 x 4"	1 1/2	2 3/8	224	205	274	264	
	3/8 x 5 1/8"	1 1/2	3 5/8					
	3/8 x 6"	2	3 7/8	270	296	325	288	
	3/8 x 7 1/4"	2 3/4	4 1/4	423	291	593	304	
	3/8 x 8"	3 1/2	4 3/8					
	3/8 x 10"	3 1/2	6 1/4					
3/8 x 12"	3 1/2	8 3/8						
3/8 x 14 1/8"	3 1/2	10 5/8						
3/8 x 16"	3 1/2	12 1/8						
LPS	1/4 x 8"	5	2 7/8	249	257	358	219	0.62
LTF	3/8 x 8"	4	3 7/8	433	315	556	402	0.70
	3/8 x 10"	6	3 7/8					
	3/8 x 12"	8	3 3/4					
PHEinox	1/4 x 2 1/2"	3/4	1 5/8	162	134	215	185	0.70
	1/4 x 3 1/8"	3/4	2 3/8					
	5/16 x 2 1/2"	3/4	1 5/8	151	149	181	175	
	5/16 x 3 1/8"	3/4	2 3/8					
	5/16 x 4"	1 1/2	2 3/8	249	229	337	272	
	5/16 x 5 1/8"	1 1/2	3 5/8					
	5/16 x 6"	2	3 7/8	302	340	449	358	
JTS	1/4 x 3 3/8"	1 3/4	1 5/8	157	168	217	217	0.70
	1/4 x 5"	1 3/4	3 1/4	168	221	241	237	
	1/4 x 6 3/4"	1 3/4	5					

For SI: 1 inch = 25.4 mm ; 1 lbf = 4.4 N.

¹Values must be multiplied by all applicable adjustment factors, in accordance with the NDS. When the fasteners are used in wet service conditions, the wet service factors shown in the table are applicable.

These figures are only offered as a guide and are not reduced by any safety factor.
For safety factor requirements in your area, contact your local building official, architect, or engineer.

FASTENER TECHNICAL DATA

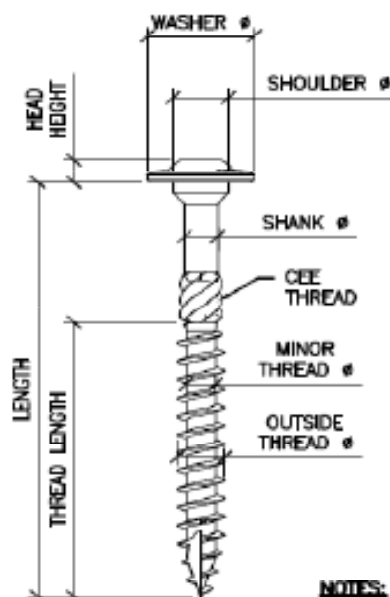
RSS™







TABLE 4 - CONNECTION GEOMETRY

CONNECTION GEOMETRY / CRITERIA	DIAMETERS ¹	RSS, LPS, JTS & PHEINOX™ 1/4" NOMINAL DIAMETER (inches)	RSS & PHEINOX™ 5/16" NOMINAL DIAMETER (inches)	RSS & LTF 3/8" NOMINAL DIAMETER (inches)
Minimum Edge Distance				
Loading Parallel to Grain	8	1 1/2	1 5/8	1 7/8
Loading Perpendicular to grain, Loaded Edge	8	1 1/2	1 5/8	1 7/8
Loading perpendicular to grain, Unloaded Edge	8	1 1/2	1 5/8	1 7/8
Minimum End Distance				
Tension Load Parallel to Grain	15	2 5/8	3	3 3/8
Compression Load Parallel to Grain	10	1 3/4	2	2 1/4
Load Perpendicular to Grain	10	1 3/4	2	2 1/4
Spacing (Pitch) Between Fasteners in a Row				
Parallel to Grain	15	2 5/8	3	3 3/8
Perpendicular to Grain	10	1 3/4	2	2 1/4
Spacing (Gage) Between Rows of Fasteners				
In-Line	5	7/8	1	1 1/8
Staggered	2.5	1/2	1/2	5/8
Minimum Penetration into Main Member For Single Shear Connections	6	1 1/8	1 1/4	1 3/8

For SI: 1 inch = 25.4mm

¹Diameter is the shank diameter as specified in Table 1



SCREW TYPE	HEAD STAMP	WASHER Ø ± 0.020	HEAD HEIGHT ± 0.010	SHOULDER Ø ± 0.010	CEE THREAD ²
RSS 1/4 (6.0mm)		0.533	0.110	0.244	LENGTH ≥ 3/8"
RSS 5/16 (7.0mm)		0.620	0.157	0.301	LENGTH ≥ 3/8"
RSS 3/8 (8.0mm)		0.689	0.181	0.364	LENGTH ≥ 3/8"
LTF 3/8 (8.0mm)		0.688	0.181	0.364	LENGTH ≥ 3/8"
LPS 1/4 (6.0mm)		0.535	0.090	0.244	NO
JTS 1/4 (6.3mm)		0.534	0.090	0.244	LENGTH ≥ 5"

NOTES:

- SEE TABLE 1 FOR OVERALL LENGTH, THREAD LENGTH, SHANK DIAMETER, OUTSIDE THREAD DIAMETER AND MINOR THREAD DIAMETER.
- CEE THREAD ON SCREWS WITH LENGTHS GREATER THAN OR EQUAL TO THOSE INDICATED. NOT USED FOR CALCULATIONS.

FIGURE 1 — FASTENER DIMENSIONS

FASTENER TECHNICAL DATA

R4™, Trim™



TABLE 1A—CARBON STEEL FASTENER SPECIFICATIONS

FASTENER DESIGNATION	OVERALL LENGTH ¹ (inches)	THREAD LENGTH ² (inches)	HEAD DIAMETER (inch)	HEAD RECESS	ROOT DIAMETER (inch)	SHANK DIAMETER (inch)	OUTSIDE THREAD DIAMETER (inch)	BENDING YIELD STRENGTH ³ F _y (psi)	ALLOWABLE STEEL STRENGTH	
									Tensile (lbf)	Shear (lbf)
R4	9x2"	2	1 1/4	0.329	Star drive T-25	0.112	0.128	158,800	627	428
	9x2 1/2"	2 1/2	1 1/2							
	9x2 3/4"	2 3/4	1 5/8							
	9x3 1/8"	3 1/8	1 7/8 (2 1/8)							
	10x2 1/2"	2 1/2	1 1/2	0.368	Star drive T-25	0.124	0.142	143,590	846	542
	10x2 3/4"	2 3/4	1 5/8							
	10x3 1/8"	3 1/8	1 7/8 (2 1/8)							
	10x3 1/2"	3 1/2	2 (2 1/8)							
	10x4"	3 1/8	2 1/8	0.439	Star drive T-25	0.148	0.171	134,280	1134	655
	10x4 1/4"	4 1/8	3							
FIN/TRIM	8x2 1/2"	2 1/2	1 1/2	0.197	Star drive T-10	0.100	0.111	148,410	499	360
	8x2 3/4"	2 3/4	1 5/8							
	8x3 1/8"	3 1/8	2 1/8							
	9x2 1/2"	2 1/2	1 1/2	0.230	Star drive T-15	0.112	0.128	147,280	576	425
	9x2 3/4"	2 3/4	1 5/8							
	9x3 1/8"	3 1/8	2 1/8							

TABLE 1B—PHEINOX™ FASTENER SPECIFICATIONS

FASTENER DESIGNATION	OVERALL LENGTH ¹ (inches)	THREAD LENGTH ² (inches)	HEAD DIAMETER (inch)	DRIVER SIZE	ROOT DIAMETER (inch)	SHANK DIAMETER (inch)	OUTSIDE THREAD DIAMETER (inch)	BENDING YIELD STRENGTH ³ F _y (psi)	ALLOWABLE STEEL STRENGTH	
									Tensile (lbf)	Shear (lbf)
R4	9x2"	2	1 1/4	Star drive T-25	0.112	0.128	0.173	113,340	467	334
	10x2 1/2"	2 1/2	1 1/2	Star drive T-25	0.124	0.142	0.193	170,220	490	424
	10x2 3/4"	2 3/4	1 5/8							
	10x3 1/8"	3 1/8	1 7/8 (2 1/8)							
	10x4"	3 1/8	2 1/8							
FIN/TRIM RT COMPOSITE	8x2 1/2"	2 1/2	1 1/2	Star drive T-10	0.100	0.111	0.156	117,540	350	267
	8x2 3/4"	2 3/4	1 5/8							
	8x3 1/8"	3 1/8	2 1/8							
	9x2 1/2"	2 1/2	1 1/2	Star drive T-15	0.112	0.128	0.175	66,340	394	319
	9x2 3/4"	2 3/4	1 5/8							
	9x3 1/8"	3 1/8	2 1/8							

For SI: 1 inch = 25.4 mm; 1 psi = 6.9 kPa.

¹Overall length of fastener is measured from the top of the head to bottom of the tip. See Figure 1.

²Length of thread includes tip. Where two thread lengths are shown, the first refers to thread length of screws marked with "GRK" on the fastener head, and the one in parentheses refers to screws which do not have this marking on the head. See detailed illustrations in Figure 1.

³Bending yield strength determined in accordance with ASTM F1575 using the root diameter.

FASTENER TECHNICAL DATA

R4™, Trim™

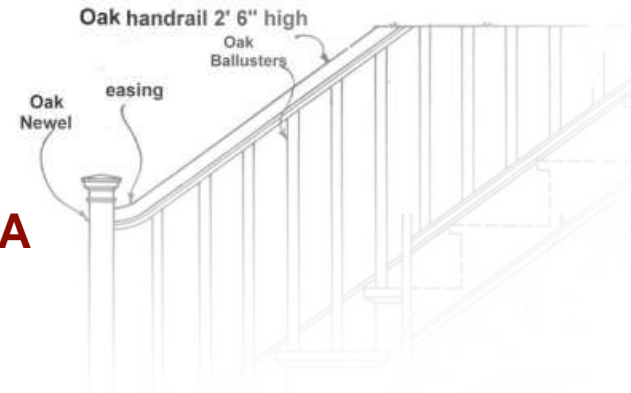


TABLE 2A—REFERENCE WITHDRAWAL DESIGN VALUES (W) FOR CLIMATEK™ COATED FASTENERS^{1,2}

FASTENER DESIGNATION	THREAD LENGTH ³ (inches)	W (lb/in.) FOR SPECIFIC GRAVITIES (SG) OF:			
		SG ≥ 0.67 ⁴	0.58 ≤ SG ≤ 0.55	0.55 > SG ≥ 0.49	0.49 > SG ≥ 0.42
R4	9x2"	179	221	172	124
	9x2 1/2"				
	9x2 3/4"				
	9x3 1/8"				
	10x2 1/2"	249	228	155	133
	10x2 3/4"				
	10x3 1/8"				
	10x3 1/2"				
	10x4"	255	217	209	141
	10x4 1/4"				
	12x4 1/4"				
	12x5 1/8"				
FIN/TRIM	8x2 1/2"	175	n/a	n/a	n/a
	8x2 3/4"				
	8x3 1/8"				
	9x2 1/2"				
	9x2 3/4"	221	n/a	n/a	n/a
	9x3 1/8"				
	10x2 1/2"				
	10x2 3/4"				
	10x3 1/8"				
	10x4"				

For S1: 1 inch = 25.4 mm; 1 lb/in = 175 N/m.

¹Tabulated reference withdrawal design values (W) are in pounds per inch of thread penetration into side grain of main member.
²Values must be multiplied by applicable adjustment factors, in accordance with the NDS, and must be multiplied by the length of thread penetration in the main member, including tip.
³Where two thread lengths are shown, the first refers to thread length of screws marked with "GRK" on the fastener head, and the second refers to screws which do not have this marking on the head.
⁴Pilot holes equal to 70% of the root diameter of the screw are required, and the tabulated values are applicable to connections subject to tension load only, due to differing pilot hole requirements for lateral connections.

TABLE 2B—REFERENCE WITHDRAWAL DESIGN VALUES (W) FOR PHEINOX™ STAINLESS STEEL FASTENERS^{1,2}

FASTENER DESIGNATION	THREAD LENGTH ³ (inches)	W (lb/in.) FOR SPECIFIC GRAVITIES (SG) OF:			
		SG ≥ 0.67 ⁴	0.58 ≤ SG ≤ 0.55	0.55 > SG ≥ 0.49	0.49 > SG ≥ 0.42
R4	9x2"	213	215	179	125
	10x2 1/2"				
	10x2 3/4"				
	10x3 1/8"				
	10x4"	123	240	193	144
FIN/TRIM RT COMPOSITE	8x2 1/2"				
	8x2 3/4"				
	8x3 1/8"				
	9x2 1/2"	106	n/a	n/a	n/a
	9x2 3/4"				
	9x3 1/8"				
	10x2 1/2"				
	10x2 3/4"	115	n/a	n/a	n/a
	10x3 1/8"				
	10x4"				
	10x4 1/4"				

For S1: 1 inch = 25.4 mm; 1 lb/in = 175 N/m.

¹Tabulated reference withdrawal design values (W) are in pounds per inch of thread penetration into side grain of main member.
²Values must be multiplied by applicable adjustment factors, in accordance with the NDS, and must be multiplied by the length of thread penetration in the main member, including tip.
³Where two thread lengths are shown, the first refers to thread length of screws marked with "GRK" on the fastener head, and the second refers to screws which do not have this marking on the head.
⁴Pilot holes equal to 70% of the root diameter of the screw are required, and the tabulated values are applicable to connections subject to tension load only, due to differing pilot hole requirements for lateral connections.

TABLE 3A—REFERENCE PULL-THROUGH DESIGN VALUES (P) FOR CLIMATEK™ COATED FASTENERS¹

FASTENER DESIGNATION	MINIMUM SIDE MEMBER THICKNESS (inch)	P (lb) FOR SPECIFIC GRAVITIES (SG) OF:			
		SG ≥ 0.67 ²	0.58 ≤ SG ≤ 0.55	0.55 > SG ≥ 0.49	0.49 > SG ≥ 0.42
R4	9x2"	162	119	107	83
	9x2 1/2"				
	9x2 3/4"				
	9x3 1/8"				
	10x2 1/2"	275	140	126	103
	10x2 3/4"				
	10x3 1/8"				
	10x3 1/2"				
	10x4"	407	176	171	126
	10x4 1/4"				
	12x4 1/4"				
	12x5 1/8"				
FIN/TRIM	8x2 1/2"	61	n/a	n/a	n/a
	8x2 3/4"				
	8x3 1/8"				
	9x2 1/2"				
	9x2 3/4"	94	n/a	n/a	n/a
	9x3 1/8"				
	10x2 1/2"				
	10x2 3/4"				
	10x3 1/8"				
	10x4"				

For S1: 1 inch = 25.4 mm; 1 lb = 4.45 N.

¹Values must be multiplied by applicable adjustment factors, in accordance with the NDS.

²Pilot holes equal to 90% of the root diameter of the screw are required, and the tabulated values are applicable to connections subject to tension load only.

TABLE 3B—REFERENCE PULL-THROUGH DESIGN VALUES (P) FOR PHEINOX™ STAINLESS STEEL FASTENERS¹

FASTENER DESIGNATION	MINIMUM SIDE MEMBER THICKNESS (inch)	P (lb) FOR SPECIFIC GRAVITIES (SG) OF:			
		SG ≥ 0.67 ²	0.58 ≤ SG ≤ 0.55	0.55 > SG ≥ 0.49	0.49 > SG ≥ 0.42
R4	9x2"	184	119	107	83
	10x2 1/2"				
	10x2 3/4"				
	10x3 1/8"				
	10x4"	220	140	126	103
FIN/TRIM RT COMPOSITE	8x2 1/2"				
	8x2 3/4"				
	8x3 1/8"				
	9x2 1/2"	70	n/a	n/a	n/a
	9x2 3/4"				
	9x3 1/8"				
	10x2 1/2"				
	10x2 3/4"	124	n/a	n/a	n/a
	10x3 1/8"				
	10x4"				
	10x4 1/4"				

For S1: 1 inch = 25.4 mm; 1 lb = 4.45 N.

¹Values must be multiplied by applicable adjustment factors, in accordance with the NDS.

²Pilot holes equal to 90% of the root diameter of the screw are required, and the tabulated values are applicable to connections subject to tension load only.



TABLE 4A—REFERENCE LATERAL DESIGN VALUES (Z) FOR WOOD-TO-WOOD CONNECTIONS USING CLIMATEK™ COATED FASTENERS¹

FASTENER DESIGNATION		SIDE MEMBER THICKNESS (inch)	MINIMUM MAIN MEMBER PENETRATION (inches)	Z (lbf) FOR SPECIFIC GRAVITIES (SG) OF:			
				SG ≥ 0.67 ²	0.58 ≥ SG ≥ 0.55	0.55 > SG ≥ 0.49	0.49 > SG ≥ 0.42
R4	9x2"	3/4	1 1/4	175	103	89	75
	9x2 1/2"						
	9x2 3/4"						
	9x3 1/8"						
	10x2 1/2"	3/4	1 3/4	203	121	97	95
	10x2 3/4"						
	10x3 1/8"						
	10x3 1/2"						
	10x4"						
	10x4 3/4"						
	12x4 3/4"	3/4	4	242	122	119	110
	12x5 5/8"						
	12x6 3/8"						
	12x7 1/4"						
	12x8"						
	12x10"						
	12x12"						
FIN/TRIM	8x2 1/2"	3/4	1 3/4	84	—	—	—
	8x2 3/4"						
	8x3 1/8"						
	9x2 1/2"	3/4	1 3/4	104	—	—	—
	9x2 3/4"						
	9x3 1/8"						

For SI: 1 inch = 25.4 mm; 1 lbf = 4.45 N.

¹Values must be multiplied by applicable adjustment factors, in accordance with the NDS.

²Pilot holes equal to 90% of the root diameter of the screw are required, and the tabulated values are applicable to connections subject to lateral load only, due to differing pilot hole requirements for tension connections.

TABLE 4B—REFERENCE LATERAL DESIGN VALUES (Z) FOR WOOD-TO-WOOD CONNECTIONS USING PHEINOX™ STAINLESS STEEL FASTENERS¹

FASTENER DESIGNATION		SIDE MEMBER THICKNESS (inch)	MINIMUM MAIN MEMBER PENETRATION (inches)	Z (lbf) FOR SPECIFIC GRAVITIES (SG) OF:			
				SG ≥ 0.67 ²	0.67 > SG ≥ 0.55	0.55 > SG ≥ 0.49	0.49 > SG ≥ 0.42
R4	9x2"	3/4	1 1/4	212	128	110	87
	10x2 1/2"	3/4	1 3/4	235	135	110	102
	10x2 3/4"						
	10x3 1/8"						
	10x4"						
FIN/TRIM	8x2 1/2"	3/4	1 3/4	78	—	—	—
	8x2 3/4"						
	8x3 1/8"						
	9x2 1/2"	3/4	1 3/4	108	—	—	—
	9x2 3/4"						
RT COMPOSITE	9x3 1/8"	3/4	1 3/4	107	—	—	—
	8x2 1/2"						
	8x2 3/4"						
	8x3 1/8"						
	9x2 1/2"						
	9x2 3/4"	3/4	1 3/4	151	—	—	—
	9x3 1/8"						

For SI: 1 inch = 25.4 mm; 1 lbf = 4.45 N.

¹Values must be multiplied by applicable adjustment factors, in accordance with the NDS.

²Pilot holes equal to 90% of the root diameter of the screw are required, and the tabulated values are applicable to connections subject to lateral load only, due to differing pilot hole requirements for tension connections.

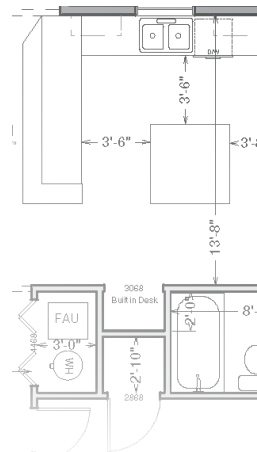


TABLE 5—CONNECTION GEOMETRY REQUIREMENTS^{1,2}

CONDITION		MINIMUM DISTANCE OR SPACING (inches)			
		D = 0.111"	D = 0.128-0.134"	D = 0.142"	D = 0.171"
End distance	Loading toward end	2	2	2 ¹ / ₈	2 ⁵ / ₈
	Loading away from end	1 ¹ / ₈	1 ¹ / ₄	1 ³ / ₈	1 ³ / ₄
	Loading perpendicular to grain	NA ³	NA ³	NA ³	NA ³
Edge distance	Loading parallel to grain	1	1	1 ¹ / ₈	1 ³ / ₈
	Loading perpendicular to grain	NA ³	NA ³	NA ³	NA ³
Spacing between fasteners in a row	Loading parallel to grain	1 ³ / ₄	2	2 ¹ / ₈	2 ⁵ / ₈
	Loading perpendicular to grain	NA ³	NA ³	NA ³	NA ³
Spacing between rows	In-line rows	⁵ / ₈	⁵ / ₈	³ / ₄	⁷ / ₈
	Staggered rows ⁴	¹ / ₄	³ / ₈	³ / ₈	³ / ₈

For SI: 1 inch = 25.4 mm.

¹End distances, edge distances and screw spacing must be sufficient to prevent splitting of the wood, or as required by this table, whichever is the more restrictive. See Section 4.2.

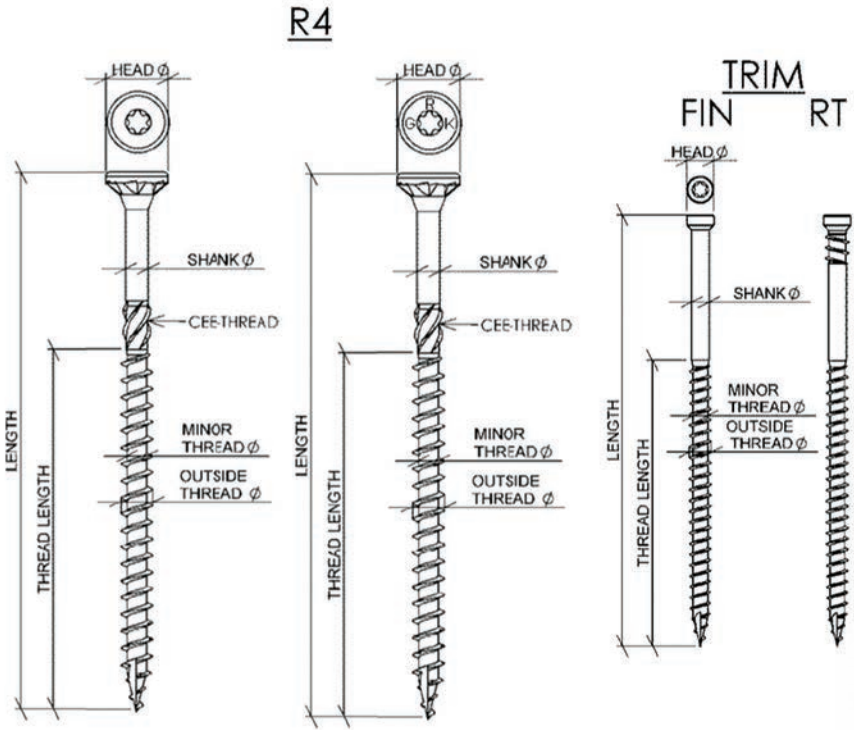
²The term *D* is the shank diameter, as specified in Table 1.

³Loading perpendicular to grain is outside the scope of this evaluation report.

⁴Values for spacing between staggered rows apply where screws in adjacent rows are offset by half of the spacing between screws in a row.

TABLE 6—EXPOSURE CONDITIONS FOR FASTENERS WITH INTENDED USE AND LIMITATIONS OF RECOGNITION

EXPOSURE CONDITION	TYPICAL APPLICATIONS	RECOGNITION LIMITATIONS
Corrosion Resistance of Fasteners		
1	Treated wood in dry use applications	Limited to use where equilibrium moisture content of the chemically treated wood meets the dry service conditions as described in the NDS.
3	General construction	Limited to freshwater and chemically treated wood exposure, i.e., no saltwater exposure.

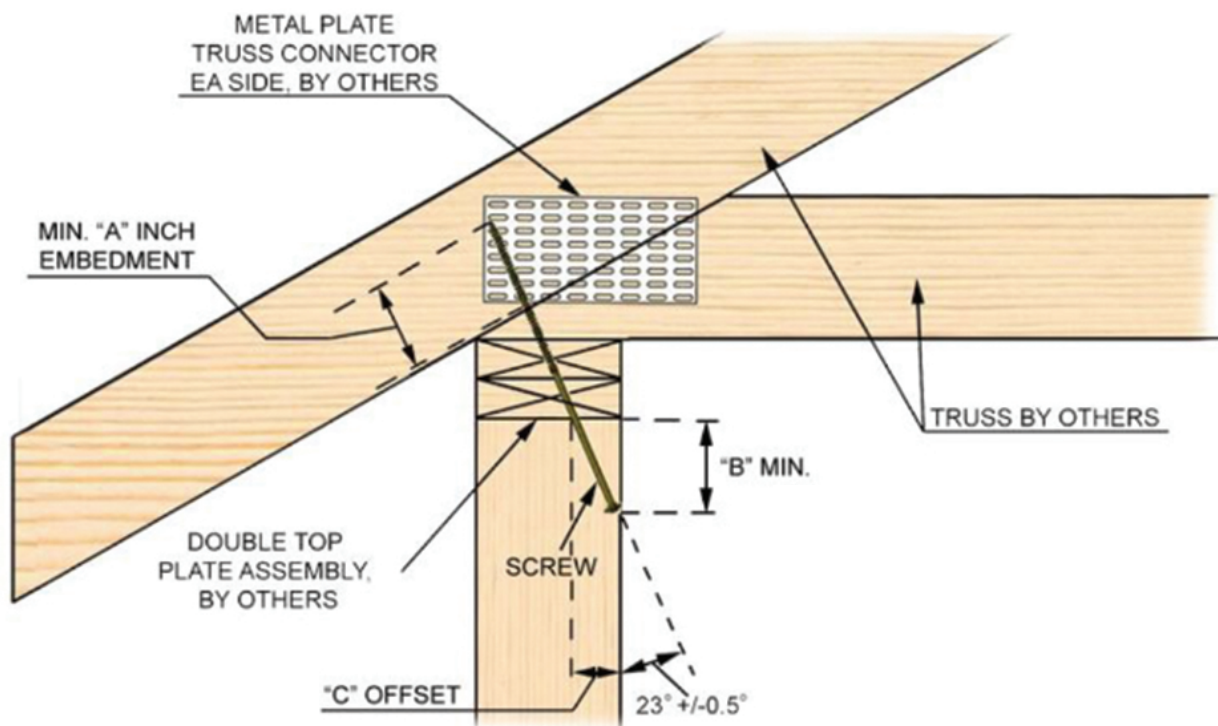


Roof Joist or Roof Truss to Top Plate or Stud Connection

Table 1 Allowable Design Loads for Roof Joist or Roof Truss to Top Plate Connections

Load Type	Screw Type	Wood Species		
		SP (Southern Pine)	DFL (Douglas Fir Larch)	SPF (Spruce Pine Fir)
Allowable Uplift in lbs	Ø3/8 RSS	1230	1017	717
Allowable Shear / Lateral in lbs		528	480	393
Allowable Uplift in lbs	# 12 R4	873	722	509
Allowable Shear / Lateral in lbs		352	322	273
Allowable Uplift in lbs	Ø1/4 LPS/RSS	562	465	328
Allowable Shear / Lateral in lbs		242	221	188

FIGURE 1 Typical Connection Details



Multiple Sawn Lumber & Engineered Wood Beams

Table 1 MFR Lumber G=0.5

JTS Screw	# of Screw rows	Fastener Spacing in inches	Allowable Face Mounted Loads Per Foot (PLF)					
			Assembly per Table 3					
A	B	C	D	E	F			
¼ x 3-3/8"	2	24	212					
	2	16	318					
	2	12	424					
	3	24	318					
	3	16	477					
	3	12	636					
¼ x 5"	2	24		212		238		
	2	16		318		357		
	2	12		424		476		
	3	24		318		357		
	3	16		477		536		
	3	12		636		714		
¼ x 6-3/4"	2	24			212		255	238
	2	16			318		383	357
	2	12			424		510	476
	3	24			318		383	357
	3	16			477		575	536
	3	12			636		766	714

Note: 1. Applied load from joist are assumed to be uniform

2. Fastener capacity is based on fastener spacing, not joist spacing

Table 2 Sawn Lumber with Varying Specific Gravity values

RSS	# of Screw rows	Fastener Spacing in inches	Allowable Face Mounted Loads Per Foot (PLF)			
			S.Pine G=0.55	D.Fir G=0.50	SPF G=0.42	Assembly per Table 3
¼ x 2-3/4"	2	24	190	165	127	G
	2	16	285	248	191	
	2	12	380	330	254	
	3	24	285	248	191	
	3	16	428	372	286	
	3	12	570	495	381	
5/16 x 4"	2	24	257	214	210	H
	2	16	386	321	315	
	2	12	514	428	420	
	3	24	386	321	315	
	3	16	578	482	473	
	3	12	771	642	630	
5/16 x 6"	2	24	257	214	210	I
	2	16	386	321	315	
	2	12	514	428	420	
	3	24	386	321	315	
	3	16	578	482	473	
	3	12	771	642	630	

Note: 1. Applied load from joist are assumed to be uniform

2. Fastener capacity is based on fastener spacing, not joist spacing

Table 3 Assembly Types (Cutting Plane 'A-A' per Fig.3)

MFR Lumber		
A 2 x 1-3/4"	B 3 x 1-3/4"	C 4 x 1-3/4"
D 1 x 1-3/4" to 3-1/2"	E 2 x 3-1/2"	F 1-3/4" ES of 3- 1/2"
Sawn Lumber		
G 2 x 1-1/2"	H 3 x 1-1/2"	I 4 x 1-1/2"

Note: Load should be applied to the face w/the screw head

ABBREVIATIONS:

D.Fir	= Douglas Fir-Larch
ES	= each side
H. Fir	= Hem-Fir
JTS	= Joist and Truss Screw
MFR	= Manufactured structural composite lumber
PLF	= Pounds per linear foot
RSS	= Rugged Structural Screw
SPF	= Spruce-Pine-Fir
S.Pine	= Southern Pine
tm	= Thickness of main member
ts	= Thickness of side member
TYP	= Typical
o.c.	= on center

Minimum Spacing Geometry - perpendicular to grain loading

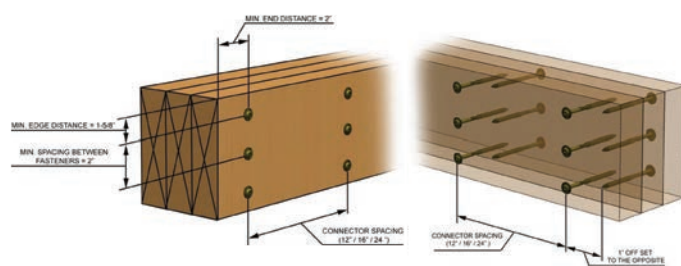


Figure 1 a

Figure 1 b

Multi-Ply Beam with One Face Loaded

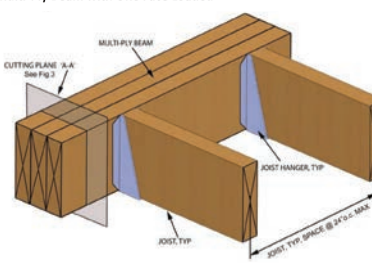


Figure 2

Cutting Plane 'A-A'

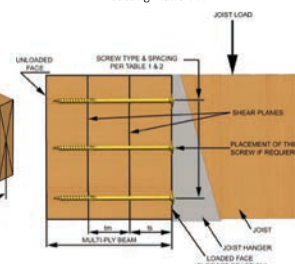
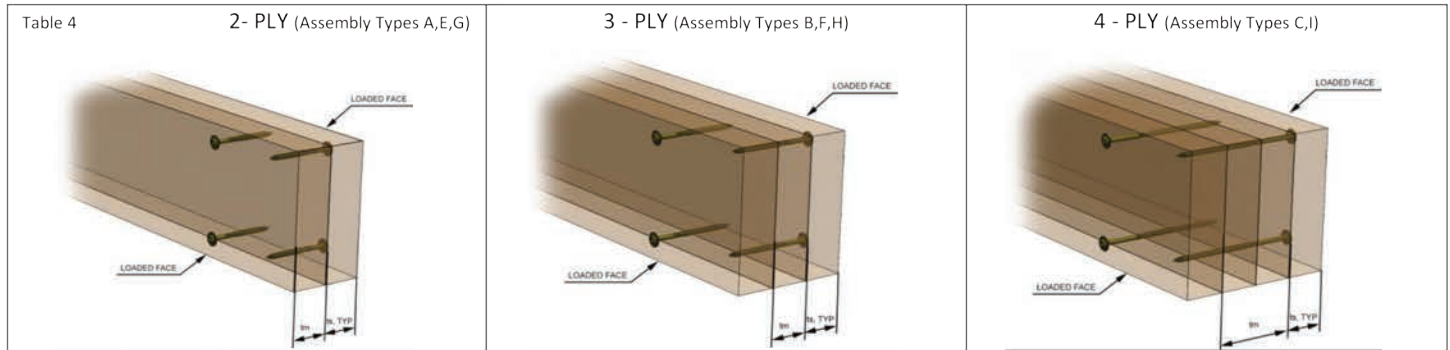


Figure 3

Multi-Ply Beams w/loads on Both Faces



Note: 1. See Tables 1 & 2 for load carrying capacity.
2. RSS/JTS screws shall be sized to penetrate laminations from both sides.

Multi-Ply Beam Point Load

Table 5 MFR Lumber G=0.5

JTS Screw	# Screws	Max Point Load to One Side of Member **					
		A	B	C	D	E	F
1/4 x 3-3/8"	4	848					
	6	1272					
	8	1696					
1/4 x 5"	4		848		952		
	6		1272		1428		
	8		1696		1904		
1/4 x 6-3/4"	4			848		1020	952
	6			1272		1530	1428
	8			1696		2040	1904

Table 6 Sawn Lumber with Varying Specific Gravity values

RSS	# Screws	Max Point Load to One Side of Member **			
		S.Pine G=0.55	D.Fir G=0.50	SPF G=0.42	Assembly
1/4 x 2-3/4"	4	760	660	508	G
	6	1140	990	762	
	8	1520	1320	1016	
5/16 x 4"	4	1028	856	840	H
	6	1542	1284	1260	
	8	2056	1712	1680	
5/16 x 6"	4	1028	856	840	I
	6	1542	1284	1260	
	8	2056	1712	1680	

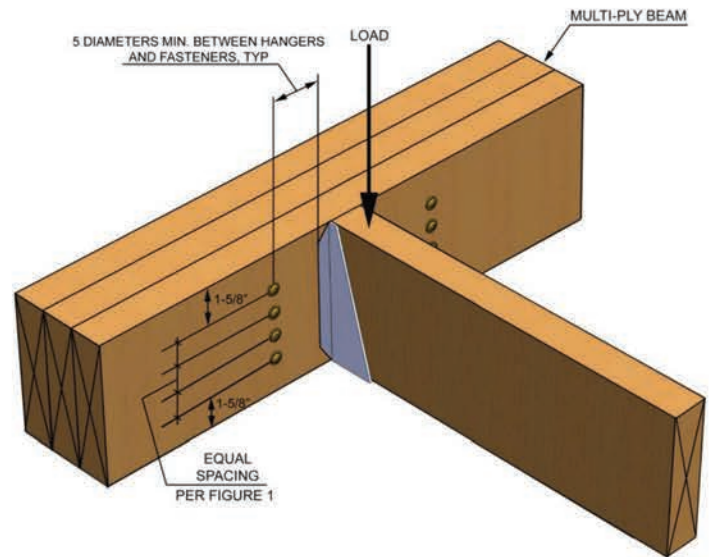
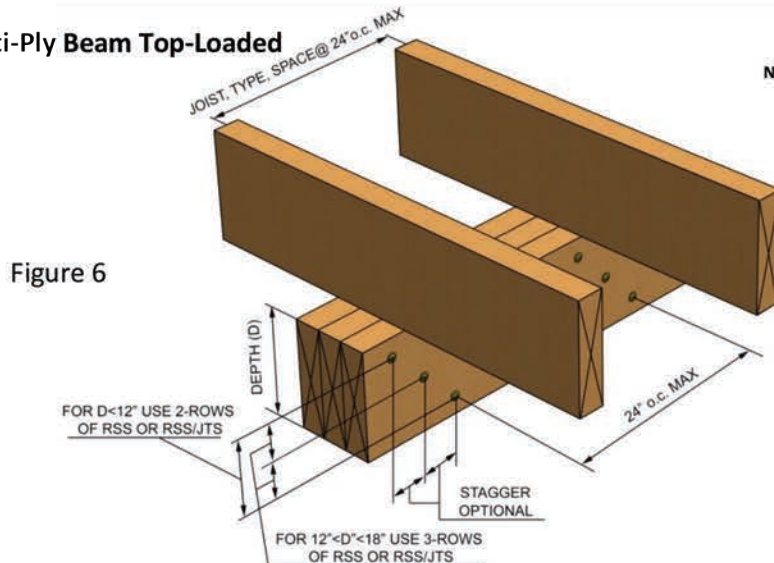


Figure 5

** Note when applying loads on both faces of built up beam, screws determined from table 5 & 6 shall be installed on both sides 1" offset for rows on opposite face.

Multi-Ply Beam Top-Loaded



Note: 1. Load must be applied evenly across entire beam width.
Otherwise, use connection for side-loaded beams.
2. RSS/JTS screw shall be sized to penetrate through all plies
3. For beams with 4 or more plies, install screws on both faces 1" offset between rows on opposite faces.

For ICC Report ESR-2442,
please visit:
www.icc-es.org/reports/pdf-files/icc-es/ESR-2442.pdf

Ledger Board: Structural Screw

Table 1

RSS 5/16 x 4"			Joist span				
			6 ft	8 ft	10 ft	12 ft	14 ft
Live load (psf)	Wood Species	Screw Shear Capacity (lb/ft)	Screw Spacing in inches				
40	G = 0.42 / SPF	182	14	10	8	7	6
40	G = 0.50 / DF-PSL-LVL-LSV	213	17	12	10	8	7
40	G = 0.55 / SP	252	20	15	12	10	8
60	G = 0.42 / SPF	182	10	7	6	5	4
60	G = 0.50 / DF-PSL-LVL-LSV	213	12	9	7	6	5
60	G = 0.55 / SP	252	14	10	8	7	6

NOTE: 1. Deck Dead Load = 10 psf

Table 2 (wet-use in- service)

RSS 5/16 x 4"			Joist span				
			6 ft	8 ft	10 ft	12 ft	14 ft
Live load (psf)	Wood Species	Screw Shear Capacity (lb/ft)	Screw Spacing in inches/ <u>wet-use in- service</u>				
40	G = 0.42 / SPF	127	10	7	6	5	4
40	G = 0.50 / DF-PSL-LVL-LSV	150	12	9	7	6	5
40	G = 0.55 / SP	176	14	10	8	7	6
60	G = 0.42 / SPF	127	7	5	4	3	3
60	G = 0.50 / DF-PSL-LVL-LSV	150	8	6	5	4	3
60	G = 0.55 / SP	176	10	7	6	5	4

NOTE: 1. Deck Dead Load = 10 psf

Table 3

PHEINOX RSS 5/16 x 4" (Stainless steel)			Joist span				
			6 ft	8 ft	10 ft	12 ft	14 ft
Live load (psf)	Wood Species	Screw Shear Capacity (lb/ft)	Screw Spacing in inches				
40	G = 0.42 / SPF	151	12	9	7	6	5
40	G = 0.50 / DF-PSL-LVL-LSV	187	14	11	8	7	6
40	G = 0.55 / SP	204	16	12	9	8	6
60	G = 0.42 / SPF	151	8	6	5	4	3
60	G = 0.50 / DF-PSL-LVL-LSV	187	10	8	6	5	4
60	G = 0.55 / SP	204	11	8	6	5	4

NOTE: 1. Deck Dead Load = 10 psf

Table 4 (wet-use in- service)

PHEINOX RSS 5/16 x 4" (Stainless steel)			Joist span				
			6 ft	8 ft	10 ft	12 ft	14 ft
Live load (psf)	Wood Species	Screw Shear Capacity (lb/ft)	Screw Spacing in inches/ <u>wet-use in- service</u>				
40	G = 0.42 / SPF	106	8	6	5	4	3
40	G = 0.50 / DF-PSL-LVL-LSV	131	10	7	6	5	4
40	G = 0.55 / SP	143	11	8	6	5	4
60	G = 0.42 / SPF	106	6	4	3	3	2
60	G = 0.50 / DF-PSL-LVL-LSV	131	7	5	4	3	3
60	G = 0.55 / SP	143	8	6	4	4	3

NOTE: 1. Deck Dead Load = 10 psf

Table 5 Wood Species Specific Gravities

Species	Specific Gravity (G)
Spruce-Pine Fir (SPF)	G = 0.42
Hem-Fir (HF)	G = 0.43
Douglas Fir Larch (DFL)	G = 0.50
Parallel Strand Lumber (PSL)	G = 0.50
Laminated Veneer Lumber (LVL)	G = 0.50
Laminated Strand Lumber (LSL)	G = 0.50
Southern Pine (SP)	G = 0.55

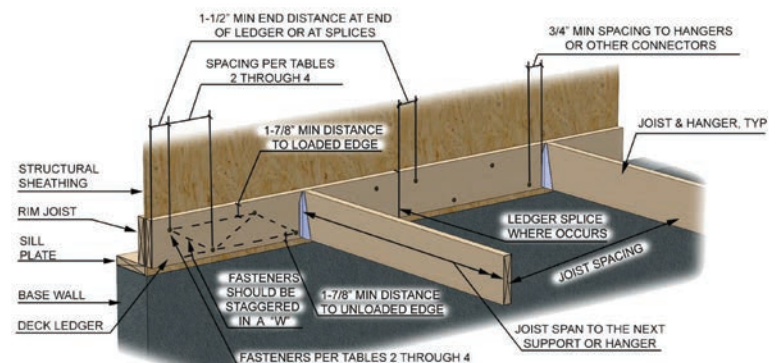


TABLE 2—TENSION STRENGTH DESIGN INFORMATION FOR TAPCON® SCREW ANCHOR¹

CHARACTERISTIC	SYMBOL ⁵	UNITS	NOMINAL ANCHOR DIAMETER (inch) ⁴	
			³ / ₁₆	¹ / ₄
Head Style	—	—	Hex Head/ Phillips Head	Hex Head/ Phillips Head
Drill bit specification		in.	⁵ / ₃₂ Tapcon® Bit	³ / ₁₆ Tapcon® Bit
Anchor category	1, 2 or 3	—	1	1
Effective embedment depth	h_{ef}	in.	1.50	1.50
Minimum concrete member thickness	h_{min}	in.	4	4
Critical edge distance	c_{ac}	in.	4	4
Data for Steel Strength in Tension				
Minimum specified yield strength	f_y	psi	100,000	100,000
Minimum specified ultimate strength	$f_{uta} (f_{ut})^5$	psi	125,000	125,000
Effective tensile stress area	A_{se}	in ²	0.0147	0.0241
Steel strength in tension	N_{sa}	lbf	2,025	3,800
Strength reduction factor ϕ for tension, steel failure modes ²	ϕ_{sa}	—	0.65	0.65
Data for Concrete Breakout Strength in Tension				
Effectiveness factor -uncracked concrete	k_{uncr}	—	24	24
Modification factor for cracked and uncracked concrete ³	$\Psi_{c,N} (\Psi_3)^4$	—	1.0	1.0
Strength reduction factor ϕ for tension, concrete failure modes, Condition B ³	ϕ_{cb}	—	0.65	0.65
Data for Pullout Strength in Tension				
Pullout strength, uncracked concrete	$N_{p,uncr}$	lbf	590	795
Strength reduction factor ϕ for tension, pullout failure modes, Condition B ³	ϕ_p	—	0.65	0.65
Additional Anchor Data				
Axial stiffness in service load range in uncracked concrete	β_{uncr}	lbf /in	317,000	467,000

For SI: 1 inch = 25.4 mm, 1 ft-lbf = 1.356 N-m.

TABLE 3—SHEAR STRENGTH DESIGN INFORMATION FOR TAPCON® SCREW ANCHOR¹

CHARACTERISTIC	SYMBOL ⁵	UNITS	NOMINAL ANCHOR DIAMETER (inch) ⁴	
			³ / ₁₆	¹ / ₄
Head Style	—	—	Hex Head/Phillips Head	Hex Head/Phillips Head
Drill bit specification		in.	⁵ / ₃₂ Tapcon® Bit	³ / ₁₆ Tapcon® Bit
Anchor category	1, 2 or 3	—	1	1
Effective embedment depth	h_{ef}	in.	1.50	1.50
Minimum concrete member thickness	h_{min}	in.	4	4
Critical edge distance	c_{ac}	in.	4	4
Data for Steel Strengths in Shear				
Minimum specified yield strength	f_y	psi	100,000	100,000
Minimum specified ultimate strength	$f_{uta} (f_{ut})^4$	psi	125,000	125,000
Effective shear stress area	A_{se}	in ²	0.0147	0.0241
Steel strength in shear - static	V_{sa}	lbf	715	1,300
Strength reduction factor ϕ for shear, steel failure modes ²	ϕ_{sa}	—	0.60	0.60
Data for Concrete Breakout and Concrete Pryout Strengths in Shear				
Nominal Outside diameter (shank)	$d_s (d_o)^4$	in.	0.15	0.19
Load bearing length of anchor	ℓ_e	—	1.50	1.50
Coefficient for Pryout Strength	K_{cp}	—	1.0	1.0
Strength reduction factor for shear, concrete breakout ³	ϕ_{cb}	—	0.70	0.70
Strength reduction factor for shear, pryout ³	ϕ_{cp}	—	0.70	0.70

For SI: 1 inch = 25.4 mm, 1 ft-lbf = 1.356 N-m.

TABLE 1—INSTALLATION INFORMATION FOR TAPCON+ SCREW ANCHORS

CHARACTERISTIC	SYMBOL	UNITS	NOMINAL ANCHOR DIAMETER (inch)					
			$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$		
Head Style	—	—		Hex Head	Hex Head	Hex Head		
Nominal Outside diameter (Shank)	d_s (d_o)	in.	0.25	0.25	0.38	0.50		
Nominal Outside diameter (threads)	—	in.	0.33	0.33	0.46	0.59		
Drill bit specification	d_{bit}	in.	$\frac{1}{4}$ Tapcon+ Bit	$\frac{1}{4}$ Tapcon+ Bit	$\frac{1}{4}$ ANSI Bit	$\frac{3}{8}$ ANSI Bit	$\frac{1}{2}$ ANSI Bit	
Minimum base plate clearance hole diameter	d_h	in.	Not applicable ²	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$		
Maximum installation torque ³	$T_{inst, max}$	ft-lbf	Not applicable ⁴	20	50	70		
Maximum Impact Wrench Torque Rating	$T_{impact, max}$	ft-lbf	Not applicable ⁴	115	200	345		
Effective embedment depth	h_{ef}	in.	1.67	1.45	1.78	1.32	2.17	3.02
Minimum nominal embedment depth ⁵	h_{nom}	in.	$2\frac{1}{4}$	2	$2\frac{1}{2}$	2	3	4
Minimum hole depth	h_{hole}	in.	$2\frac{1}{2}$	$2\frac{1}{4}$	$2\frac{3}{4}$	$2\frac{1}{4}$	$3\frac{1}{4}$	$4\frac{1}{4}$
Minimum concrete member thickness	h_{min}	in.	4	4	4	4	6	
Critical edge distance	c_{ac}	in.	$2\frac{1}{2}$	$2\frac{1}{2}$	$4\frac{1}{2}$	3	4	5
Minimum edge distance	c_{min}	in.	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$2\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{1}{2}$
Minimum spacing	s_{min}	in.	3	3	3	3	$3\frac{1}{2}$	3

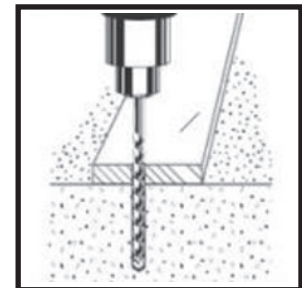
For SI: 1 inch = 25.4 mm, 1 ft-lbf = 1.356 N-m.



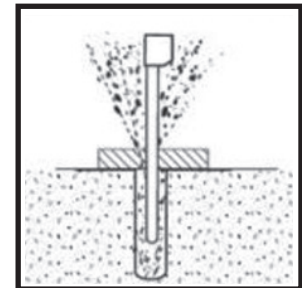
TABLE 2—TENSION STRENGTH DESIGN INFORMATION FOR TAPCON+ SCREW ANCHORS

CHARACTERISTIC	SYMBOL	UNITS	NOMINAL ANCHOR DIAMETER (inch)					
			$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$		
Head Style	—	—		Hex Head	Hex Head	Hex Head		
Drill bit specification		in.	$\frac{1}{4}$ Tapcon+ Bit	$\frac{1}{4}$ Tapcon+ Bit	$\frac{1}{4}$ ANSI Bit	$\frac{3}{8}$ ANSI Bit	$\frac{1}{2}$ ANSI Bit	
Anchor category	1, 2 or 3	—	1	1	2	1	1	
Effective embedment depth	h_{ef}	in.	1.45 ⁵	1.45	1.78	1.32	2.17	3.02
Minimum concrete member thickness	h_{min}	in.	4	4	4	4	6	
Critical edge distance	c_{ac}	in.	$2\frac{1}{2}$	$2\frac{1}{2}$	$4\frac{1}{2}$	3	4	5
Data for Steel Strength in Tension								
Minimum specified yield strength	f_y	psi	Not applicable	100,000	100,000	100,000		
Minimum specified ultimate strength	$f_{uts} (f_{ud})^5$	psi	Not applicable	125,000	125,000	125,000		
Effective tensile stress area	A_{se}	in ²	Not applicable	0.0470	0.098	0.1850		
Steel strength in tension	N_{sa}	lbf	1,822 ⁷	5,900	12,250	23,125		
Strength reduction factor ϕ for tension, steel failure modes ²	ϕ_{sa}	—	0.65	0.65	0.65	0.65		
Data for Concrete Breakout Strength in Tension								
Effectiveness factor - uncracked concrete	k_{uncr}	—	24	24	27	30		
Effectiveness factor - cracked concrete	k_{cr}	—	17	17	17	17		
Modification factor for cracked and uncracked concrete ³	$\psi_{c,N}(\psi_d)^5$	—	1.0	1.0	1.0	1.0		
Strength reduction factor ϕ for tension, concrete failure modes, Condition B ³	ϕ_{cb}	—	0.65	0.65	0.55	0.65		
Data for Pullout Strength in Tension								
Pullout strength, uncracked concrete	$N_{p,uncr}$	lbf	2,107	2,107	See Footnote 4	See Footnote 4		
Pullout strength, cracked concrete	$N_{p,cr}$	lbf	857	857	1,837	See Footnote 4		
Pullout strength for seismic loads	$N_{p,eq}$	lbf	857	857	1,677	See Footnote 4		
Strength reduction factor ϕ for tension, pullout failure modes, Condition B ³	ϕ_b	—	0.65	0.65	0.55	0.65	See Footnote 4	
Additional Anchor Data								
Axial stiffness in service load range in uncracked concrete	β_{uncr}	lbf/in	385,000	385,000	800,000	800,000		
Axial stiffness in service load range in cracked concrete	β_{cr}	lbf/in	225,000	225,000	365,000	365,000		

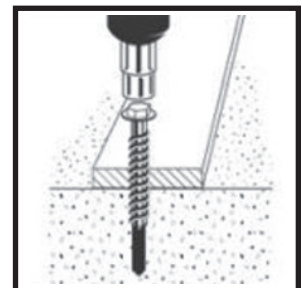
For SI: 1 inch = 25.4 mm, 1 ft-lbf = 1.356 N-m.



1



2



3

TABLE 3—SHEAR STRENGTH DESIGN INFORMATION FOR TAPCON+ SCREW ANCHORS

CHARACTERISTIC	SYMBOL	UNITS	NOMINAL ANCHOR DIAMETER (inch)					
			1/4	1/4	3/8	1/2		
Head Style	—	—		Hex Head	Hex Head	Hex Head		
Drill bit specification		in.	1/4 Tapcon+ Bit	1/4 Tapcon+ Bit	1/4 ANSI Bit	3/8 ANSI Bit	1/2 ANSI Bit	
Anchor category	1, 2 or 3	—	1	1	2	1	1	
Minimum effective embedment depth	h_{ef}	in.	1.45 ⁶	1.45		1.78	1.32	2.17
Minimum concrete member thickness	h_{min}	in.	4	4		4	4	6
Critical edge distance	c_{ac}	in.	2 1/2	2 1/2		4 1/2	3	4
Data for Steel Strengths in Shear								
Minimum specified yield strength	f_y	psi	Not applicable	100,000		100,000		100,000
Minimum specified ultimate strength	$f_{uta} (f_{ut})^4$	psi	Not applicable	125,000		125,000		125,000
Effective shear stress area	A_{se}	in ²	Not applicable	0.047		0.098		0.185
Steel strength in shear - static	V_{sa}	lbf	905 ⁷	2,045		3,621		12,610
Steel strength in shear - seismic	$V_{sa,eq}$		Not applicable ⁵	1,350		2,920		9,300
Strength reduction factor ϕ for shear, steel failure modes ²	ϕ_{sa}	—	0.60	0.60		0.60		0.60
Data for Concrete Breakout and Concrete Pryout Strengths in Shear								
Nominal Outside diameter (shank)	$d_a (d_o)^4$	in.	0.25	0.25		0.38		0.50
Load bearing length of anchor	ℓ_e	—	1.67	1.45		1.78	1.32	2.17
Coefficient for Pryout Strength	K_{cp}	—	1.0	1.0		1.0	1.0	2.0
Strength reduction factor for shear, concrete breakout ³	ϕ_{cb}	—	0.70	0.70		0.70		0.70
Strength reduction factor for shear, pryout ³	ϕ_{cp}	—	0.70	0.70		0.70		0.70

For SI: 1 inch = 25.4 mm, 1 ft-lbf = 1.356 N-m.

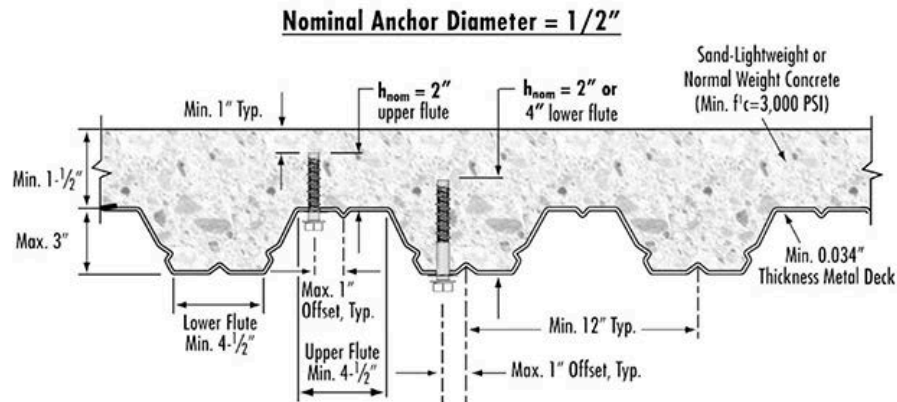


FIGURE 6—TAPCON+ SCREW ANCHOR LOCATED IN THE SOFFIT OF CONCRETE OVER STEEL DECK FLOOR AND ROOF ASSEMBLIES
 (1 inch = 25.4 mm)

TABLE 2—CONCRETE BREAKOUT DESIGN INFORMATION FOR U.S. CUSTOMARY UNIT THREADED ROD ⁽¹⁾

CHARACTERISTIC	SYMBOL	UNITS	NOMINAL ROD DIAMETER (inch)						
			$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{4}$
Effectiveness factor for uncracked concrete	k_{uncr}	-	24	24	24	24	24	24	24
Effectiveness factor for cracked concrete	k_{cr}	-	17	17	17	17	17	17	17
Minimum concrete thickness	h_{min}	in.	$h_{ef} + 1\frac{1}{4}$		$h_{ef} + 2d_o$				
Anchor embedment depth - minimum	$h_{ef,min}$	in.	$2\frac{3}{8}$	$2\frac{3}{4}$	$3\frac{1}{8}$	$3\frac{1}{2}$	$3\frac{1}{2}$	4	5
Minimum spacing	s_{min}	in.	$\frac{15}{16}$	$1\frac{1}{2}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	5
Minimum edge distance	c_{min}	in.	$\frac{15}{16}$	$1\frac{1}{2}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	5
Critical edge distance	c_{ac}	in.	See Section 4.1.10 of this report						
Strength reduction factor for tension, concrete failure mode ¹	ϕ	Cond. B	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Strength reduction factor for shear, concrete failure mode ¹	ϕ	Cond. B	0.70	0.70	0.70	0.70	0.70	0.70	0.70

For SI: 1 inch = 25.4mm, 1 lbf = 4.45N, 1ft-lbf = 1.356 N-M, 1 psi = 0.006895 MPa.

TABLE 3—RED HEAD EPCON A7+ ADHESIVE ANCHOR BOND STRENGTH DESIGN INFORMATION FOR U.S. CUSTOMARY UNIT THREADED ROD ^(1,4)

Characteristic		Symbol	Units	Nominal Rod Diameter (inch)						
				3/8	1/2	5/8	3/4	7/8	1	1 1/4
Anchor embedment depth - minimum		h_{ef}	in.	2 3/8	2 3/4	3 1/8	3 1/2	3 1/2	4	5
Anchor embedment depth - maximum		h_{ef}	in.	7 1/2	10	12 1/2	15	17 1/2	20	25
Temperature Range A ²	Characteristic Bond Strength for Uncracked Concrete	$T_{k,uncr}$	psi	1,770	1,770	1,770	1,770	1,490	1,490	1,490
	Characteristic Bond Strength for Cracked Concrete	$T_{k,cr}$	psi	1,060	790	860	890	695	655	585
Temperature Range B ³	Characteristic Bond Strength for Uncracked Concrete	$T_{k,uncr}$	psi	1,275	1,275	1,275	1,275	1,080	1,080	1,080
	Characteristic Bond Strength for Cracked Concrete	$T_{k,cr}$	psi	765	570	620	640	500	475	420
Continuous Inspection	Strength Reduction Factor - Dry Concrete	$\phi_{dry, ci}$	-	0.65	0.65	0.65	0.65	0.65	0.65	0.65
	Strength Reduction Factor – Water-Saturated Concrete	$\phi_{sat, ci}$	-	0.65	0.65	0.65	0.65	0.65	0.65	0.65
	Strength Reduction Factor - Water-Filled Holes	$\phi_{wf, ci}$	-	0.65	0.65	0.65	0.65	0.65	0.65	0.65
	Strength Reduction Factor - Submerged Concrete	$\phi_{sub, ci}$	-	0.65	0.55	0.55	0.65	0.65	0.55	0.65
Periodic Inspection	Strength Reduction Factor - Dry Concrete	$\phi_{dry, pi}$	-	0.55	0.55	0.55	0.55	0.55	0.55	0.65
	Strength Reduction Factor – Water-Saturated Concrete	$\phi_{sat, pi}$	-	0.65	0.65	0.65	0.65	0.65	0.65	0.65
	Strength Reduction Factor - Water-Filled Holes	$\phi_{wf, pi}$	-	0.65	0.65	0.65	0.65	0.65	0.65	0.65
	Strength Reduction Factor - Submerged Concrete	$\phi_{sub, pi}$	-	0.65	0.45	0.45	0.65	0.55	0.45	0.65
Reduction factor for seismic tension		$\alpha_{N,seis}$	-	0.89	0.75	0.76	0.66	0.77	0.80	0.80

For SI: 1 inch = 25.4mm, 1 lbf = 4.45N, 1ft-lbf = 1.356 N-M, 1 psi = 0.006895 MPa.

TABLE 2—ITW RED HEAD TRUBOLT WEDGE ANCHOR INSTALLATION INFORMATION

	SYMBOL	UNITS	NOMINAL ANCHOR DIAMETER (in.)					
			$\frac{1}{4}$		$\frac{3}{8}$		$\frac{1}{2}$	
Anchor outer diameter	d_a	in. (mm)	0.25 (6.4)		0.375 (9.5)		0.5 (12.7)	
Nominal carbide bit diameter	d_{bit}	in. (mm)	$\frac{1}{4}$		$\frac{3}{8}$		$\frac{1}{2}$	
Effective embedment depth	h_{ef}	in. (mm)	$1\frac{1}{2}$ (38)	2 (51)	$1\frac{3}{4}$ (44)	$2\frac{5}{8}$ (67)	$1\frac{7}{8}$ (48)	$3\frac{3}{8}$ (86)
Nominal Embedment depth	h_{nom}	in. (mm)	$1\frac{3}{4}$ (44)	$2\frac{1}{4}$ (57)	$2\frac{1}{4}$ (57)	$3\frac{1}{8}$ (79)	$2\frac{1}{2}$ (64)	4 (102)
Minimum hole depth	h_o	in. (mm)	2 (51)	$2\frac{1}{2}$ (64)	$2\frac{1}{2}$ (64)	$3\frac{3}{8}$ (86)	$2\frac{3}{4}$ (70)	$4\frac{1}{4}$ (108)
Minimum concrete member thickness	h_{min}	in. (mm)	4 (102)		4 (102)	5 (127)	5 (127)	6 (152)
Critical edge distance	c_{ac}	in. (mm)	$2\frac{5}{8}$ (67)	3 (76)	$2\frac{5}{8}$ (67)	$5\frac{1}{4}$ (133)	$3\frac{3}{4}$ (95)	$6\frac{3}{4}$ (171)
Minimum edge distance	c_{min}	in. (mm)	$1\frac{3}{4}$ (44)	$1\frac{1}{2}$ (38)	$2\frac{1}{4}$ (57)	2 (51)	$3\frac{3}{4}$ (95)	$3\frac{3}{4}$ (95)
Minimum anchor spacing	s_{min}	in. (mm)	$1\frac{3}{4}$ (44)	$1\frac{1}{2}$ (38)	$2\frac{1}{4}$ (57)	2 (51)	$3\frac{3}{4}$ (95)	$3\frac{3}{4}$ (95)
Installation torque	T_{inst}	ft-lb (N-m)	4 (5)		25 (34)		55 (75)	
Reference (attachment) hole diameter	d_h	in. (mm)	$\frac{5}{16}$ (7.9)		$\frac{7}{16}$ (11.1)		$\frac{9}{16}$ (14.3)	

TABLE 3—ITW TRUBOLT WEDGE ANCHOR DESIGN INFORMATION^{2,3}

DESIGN INFORMATION	SYMBOL	UNITS	NOMINAL ANCHOR DIAMETER					
			$\frac{1}{4}$		$\frac{3}{8}$		$\frac{1}{2}$	
Anchor O.D.	d_a	in	0.250		0.375		0.500	
		mm	6.4		9.5		12.7	
Effective min. embedment	h_{ef}	in	$1\frac{1}{2}$	2	$1\frac{3}{4}$	$2\frac{1}{8}$	$1\frac{1}{2}$	$3\frac{3}{8}$
		mm	38	51	44	67	48	86
Minimum member thickness	h_{min}	in	4	4	4	5	5	6
		mm	102	102	102	127	127	152
Installation Torque	T_{inst}	ft-lb	4		25		55	
		N-m	5		34		75	
Critical edge distance	c_{ac}	in	$2\frac{5}{8}$	3	$2\frac{5}{8}$	$5\frac{1}{4}$	$3\frac{3}{4}$	$6\frac{3}{4}$
		mm	67	76	67	133	95	171
Minimum edge distance	c_{min}	in	$1\frac{3}{4}$	$1\frac{1}{2}$	$2\frac{1}{4}$	2	$3\frac{3}{4}$	$3\frac{3}{4}$
		mm	44	38	57	51	95	95
Minimum anchor spacing	s_{min}	in	$1\frac{3}{4}$	$1\frac{1}{2}$	$2\frac{1}{4}$	2	$3\frac{3}{4}$	$3\frac{3}{4}$
		mm	44	38	57	51	95	95
Min. hole depth in concrete	h_o	in	2	$2\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{3}{8}$	$2\frac{3}{4}$	$4\frac{1}{4}$
		mm	51	64	64	86	70	108
Min. Specified Yield Strength	f_y	lb/in ²	55,000					
		N/mm ²	379					
Min. Specified Ultimate Strength	f_u	lb/in ²	75,000					
		N/mm ²	517					
Effective tensile stress area	$A_{st,t}$	in ²	0.032		0.078		0.142	
		mm ²	20.5		50.0		91.5	
Effective shear stress area	$A_{st,v}$	in ²	0.032		0.078		0.142	
		mm ²	20.5		50.0		91.5	
Steel strength in tension	N_{st}	lb	2385		5815		10645	
		kN	10.6		25.9		47.3	
Steel strength in shear	V_{st}	lb	1430		2975		3490	
		kN	6.4		13.2		15.5	
Pullout strength, uncracked concrete	$N_{u,uncr}$	lb	See Table 4					
		kN	See Table 4					

TABLE 3—ITW TRUBOLT WEDGE ANCHOR DESIGN INFORMATION^{2,3}

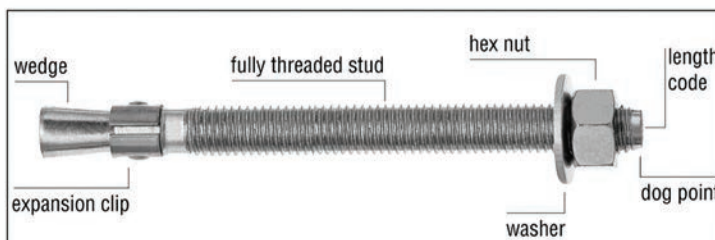
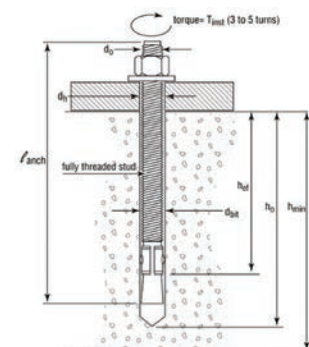
DESIGN INFORMATION	SYMBOL	UNITS	NOMINAL ANCHOR DIAMETER					
			$\frac{1}{4}$		$\frac{3}{8}$		$\frac{1}{2}$	
			in	0.250	0.375	0.500		
Anchor O.D.	d_a	mm	6.4	9.5	12.7			
Anchor Category			1					
Effectiveness factor k_{cr} , uncracked concrete ³			24					
Coefficient for pryout strength	k_{pr}	-	1.0	1.0	1.0	2.0	1.0	2.0
Axial stiffness in service load range	β	lb/in	14,651	9,385	17,515	26,424	32,483	26,136
		kN/mm	2.6	1.6	3.1	4.6	5.7	4.6
Coefficient of variation for axial stiffness in service load range			34	47	28	45	17	33
Strength reduction factor for tension, steel failure modes	ϕ	—	0.75					
Strength reduction factor for shear, steel failure modes	ϕ	—	0.65					
Strength reduction factor for tension, concrete failure modes, Condition B ⁴	ϕ	—	0.65					
Strength reduction factor for shear, concrete failure modes, Condition B ⁴	ϕ	—	0.70					

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45 N, 1 psi = 0.006895 Mpa. For pound-inch units: 1 mm = 0.03937 inch.

TABLE 4—ITW TRUBOLT WEDGE ANCHOR PULLOUT STRENGTH, $N_{u,uncr}$ ^{1,2}

NOMINAL ANCHOR DIAMETER (in.)	EFFECTIVE EMBEDMENT DEPTH (in.)	CONCRETE COMPRESSIVE STRENGTH			
		$f'_c = 2,500$ psi	$f'_c = 3,000$ psi	$f'_c = 4,000$ psi	$f'_c = 6,500$ psi
$\frac{1}{4}$	$1\frac{1}{2}$	1,392	1,525	1,610	1,822
	2	1,706	1,869	1,947	2,151
$\frac{3}{8}$	$1\frac{1}{2}$	2,198	2,408	2,621	3,153
	$2\frac{1}{2}$	3,469	3,800	3,936	4,275
$\frac{1}{2}$	$1\frac{1}{2}$	2,400	2,629	3,172	4,520
	$3\frac{3}{8}$	4,168	4,520	4,520	4,520

For SI: 1 inch = 25.4 mm, 1 lbf = 4.45 N, 1 psi = 0.006895 Mpa.


FIGURE 1—ITW RED HEAD TRUBOLT WEDGE ANCHOR




LIABILITY AND WARRANTIES

GRK Fasteners™ is a distributor of commercial grade fasteners. Conformance to “IFI” specifications is formally requested from our suppliers. The parts that we supply are quality inspected by independent labs.

We maintain lot traceability on all products listed in this catalog as long as they are in their original bulk boxes. Certifications are maintained on all fasteners.

Hydrogen Embrittlement: We require our platers and suppliers of plated fasteners to bake case hardened parts to “IFI” specifications. However, this process does not guarantee that hydrogen embrittlement will not still be present after baking or that it will not occur at a later date while in service. Specialized testing or a substitute part may be required, depending on the application.

Liability: Claims against GRK Fasteners™ shall be limited to a refund or credit for the price billed or paid for faulty or incorrect merchandise. Seller shall not be responsible for buyer's manufacturing costs, labor, alternate purchases, extra freight, replating, plating, lost profit, good will, recall costs, or other incidental or consequential damages.

Warranties: GRK Fasteners™ (“GRK”) warrants to the first retail purchaser that its Climatek™ coated and PHEINOX™ stainless steel screws will not rust under normal environmental conditions when used in accordance with the recommendations listed in GRK's Screw Selection Guide for the life of the project. This warranty is not transferable. Visit www.grkfasteners.com for more information.

Mechanical Fastening Warranty: (Includes Tapcon, Red Head, Ramset, Teks, Rock-On, Backer-On, and E-Z Anchor). ITW Brands warrants that this product is free from defects in material and workmanship. ITW Brands’ sole liability for any breach of this warranty shall be to replace this product or refund the purchase price.

Refunds: In order to receive a refund, the customer must return to us at least 50 of the defective screws (including screw heads) for verification.

THERE ARE NO UNDERSTANDINGS, AGREEMENTS, REPRESENTATIONS OR ADDITIONAL WARRANTIES, EXPRESSED OR IMPLIED (INCLUDING ANY REGARDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), NOT SPECIFIED HEREIN, RESPECTING ANY SALE OF PRODUCTS BY GRK FASTENERS™, (TO THE EXTENT PERMITTED BY LAW).

FULL-LINE CATALOG



Part #99915
March 2020

ITW CONSTRUCTION | RESIDENTIAL AND RENOVATION
155 Harlem Ave., Building N3E | Glenview, IL 60025