

## *RSS™ Screw Features*

*(Rugged Structural Screw)*



- patented -

- Sharp threads & points
- Built-in washer
- CEE thread
- Climatek™ coated & hardened steel
- W-Cut™ thread design
- ICC Report ER-5883

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 which are 3”1/8 and longer have a six threaded CEE thread that enlarges the screw hole for the non-threaded portion of the fastener, allowing the wood to settle easily and increasing the screw’s drawing strength. The CEE thread also reduces the likelihood of splitting the wood and the friction on the screw shank which can result in lowering the driving torque.

Our round head with built-in shield (washer type head) has no sharp edges such as on 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.

The #30 Star Drive will deliver approximately 650 lbs of energy, eliminating the need to drill a pilot hole.

The RSS™ screw may be used for lag screw replacement.

Some sizes available in **PHEINOX™** Stainless Steel, see blue tabbed pages.

GRK Fasteners<sup>TM</sup> utilizes strict quality control procedures. Every batch of screws produced is independently random sampled and quality controlled to the highest standards.

Accreditations for independent test laboratories include:  
 ISO, ICC, CNLA, TÜV, DAR, Ü

## TECHNICAL DATA

<b>RSS<sup>TM</sup> STRUCTURAL &amp; R4<sup>TM</sup> MULTIPURPOSE SCREWS</b>			
<b><u>Pull Out Test Results for RSS<sup>TM</sup> Structural Screws</u></b>		<b><u>Shear Strength Test Results for RSS<sup>TM</sup> Structural Screws</u></b>	
	<b>Sidegrain:</b>	<b>Endgrain:</b>	
5/16 x 2 1/2"	791 kg/1740 lb	556 kg/1223 lb	5/16 x 2 1/2" 377 kg/829 lb
5/16 x 3 1/8"	934 kg/2054 lb	1055 kg/2321 lb	5/16 x 3 1/8" 385 kg/847 lb
5/16 x 4"	1202 kg/2644 lb	1166 kg/2565 lb	5/16 x 4" 604 kg/1328 lb
5/16 x 5 1/8"	1248 kg/ 2745 lb	1286 kg/2829 lb	5/16 x 5 1/8" 605 kg/1331 lb
5/16 x 6"	1645 kg/3619 lb	1601 kg/3522 lb	5/16 x 6" 607 kg/1335 lb
3/8 x 7 1/4"	1801 kg/3962 lb	1782 kg/3920 lb	3/8 x 7 1/4" 583 kg/1282 lb
3/8 x 8"	1984 kg/4364 lb	2119 kg/4661 lb	3/8 x 8" 630 kg/1386 lb
3/8 x 10"	2200 kg/4840 lb	2320 kg/5104 lb	3/8 x 10" 684 kg/1504 lb
3/8 x 12"	2390 kg/5258 lb	2293 kg/5044 lb	3/8 x 12" 864 kg/1900 lb
3/8 x 14 1/8"	2412 kg/5306 lb	2351 kg/5172 lb	3/8 x 14 1/8" 890 kg/1958 lb
3/8 x 16"	2723 kg/5990 lb	2615 kg/5753 lb	3/8 x 16" 939 kg/2065 lb
**test stopped after wood failure or 1/8" screw displacement			**test stopped after wood failure or 1/8" screw displacement
<b><u>Head Pull Through Test Results for RSS<sup>TM</sup> Structural Screws</u></b>		<b><u>Shear Test Result for R4<sup>TM</sup> Multipurpose Screws</u></b>	
5/16" screws:	avg. 825 lbs.		#4 139 lb
Shaft diameter:	0.198"		#6 301 lb
Head diameter:	0.616"		#8 361 lb
3/8" screws:	avg. 889 lbs.		#9 452 lb
Shaft diameter:	0.220"		#10 687 lb
Head diameter:	0.711"		#12 720 lb
**test stopped after wood failure or 1/8" screw displacement			**test stopped after wood failure or 1/8" screw displacement
<b><u>Minimum Tensile Strength</u></b>		<b><u>Minimum Bending Angle</u></b>	
GRK Spec:	139,000 PSI		GRK Spec: 35 degrees
Code Spec:	45,000 PSI		Industry Spec: 15 degrees
<b><u>Bending Yield Moment Test for RSS<sup>TM</sup> Structural Screws</u></b>		<b><u>GRK Certifications include</u></b>	
5/16":	159,073 PSI		ISO 9001
3/8":	177,241 PSI		ICC (ER-5883)
			Ü - German Institute for Building Technology
<p>All tests were conducted at independent laboratories in the United States, Germany and Taiwan. Tests were conducted in accordance with ASTM and/or DIN norms. Testing is ongoing and is conducted on every production series. All posted results are Average Ultimate Load Values.</p> <p>For construction design purposes an applicable safety margin should be applied. An architect or engineer should be consulted for this.</p> <p>Laboratory accreditations include ICC, CNLA, TÜV, Ü, ISO, DAR.</p>			

**RSS**