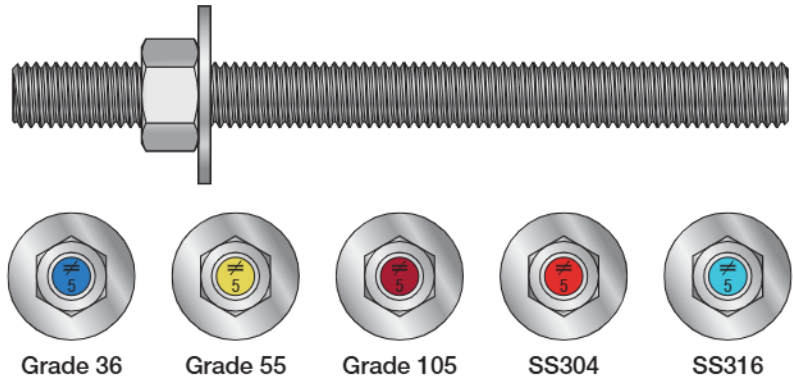


RFB Retrofit Bolts

RFBs are precut threaded rod, supplied with nut and washer, to use with anchoring adhesives to anchor in to existing concrete and masonry. Each end of the threaded rod is stamped with rod length in inches and color-coded indicating the grade or type of steel for quick and easy identification post-installation. For ½" diameters and larger, our distinctive No-Equal® symbol is also stamped. When used with a Simpson Strong-Tie® adhesive, it offers a complete engineered anchoring system.

Material: ASTM F1554 Grade 36, 55 and 105 (B7); Stainless Steel Types 304 and 316

Finish (Carbon Steel only): Zinc plated, hot-dip galvanized



Grade 36

Grade 55

Grade 105

SS304

SS316

Identification (Head Stamp)

Retrofit Bolt Ordering Information

Size. (in.)	Carbon Steel					Stainless Steel	
	Grade 36		Grade 55	Grade 105		Type 304	Type 316
	Zinc	HDG	Zinc	Zinc	HDG		
¾ x 4	RFB#3X4	RFB#3X4HDG	RFB#3X4-55	—	—	—	—
¾ x 6	RFB#3X6	—	RFB#3X6-55	RFB#3X6-105	RFB#3X6-105HDG	RFB#3X6-SS304	RFB#3X6-SS316
¾ x 8	RFB#3X8	—	RFB#3X8-55	—	—	—	—
½ x 4	RFB#4X4	—	RFB#4X4-55	—	—	—	—
½ x 5	RFB#4X5	RFB#4X5HDG	RFB#4X5-55	—	—	—	—
½ x 6	RFB#4X6	RFB#4X6HDG	RFB#4X6-55	RFB#4X6-105	RFB#4X6-105HDG	RFB#4X6-SS304	RFB#4X6-SS316
½ x 7	RFB#4X7	RFB#4X7HDG	—	—	—	—	—
½ x 8	RFB#4X8	RFB#4X8HDG	RFB#4X8-55	—	RFB#4X8-105HDG	RFB#4X8-SS304	RFB#4X8-SS316
½ x 10	RFB#4X10	RFB#4x10HDG	RFB#4X10-55	—	—	RFB#4X10-SS304	RFB#4X10-SS316
⅝ x 5	RFB#5X5	RFB#5X5HDG	RFB#5X5-55	—	—	—	—
⅝ x 8	RFB#5X8	RFB#5X8HDG	RFB#5X8-55	RFB#5X8-105	RFB#5X8-105HDG	RFB#5X8-SS304	RFB#5X8-SS316
⅝ x 10	RFB#5X10	RFB#5X10HDG	RFB#5X10-55	—	RFB#5X10-105HDG	—	RFB#5X10-SS316
⅝ x 12	—	RFB#5X12HDG	—	—	—	—	—
⅝ x 16	RFB#5X16	RFB#5X16HDG	RFB#5X16-55	—	—	—	—
¾ x 6	RFB#6X6	—	RFB#6X6-55	—	—	—	—
¾ x 8	RFB#6X8	RFB#6X8HDG	RFB#6X8-55	—	—	—	—
¾ x 10½	RFB#6X10.5	RFB#6X10.5HDG	RFB#6X10.5-55	RFB#6X10.5-105	RFB#6X10.5-105HDG	RFB#6X10.5-SS304	RFB#6X10.5-SS316
7/8 x 16	—	—	RFB#7X16-55	RFB#7X16-105	—	—	—
1 x 12	—	—	—	RFB#8X12-105	—	—	—
1 x 14	—	—	—	RFB#8X14-105	—	—	—

1. All listed sizes are available in single quantities and cartons. Some sizes also available in retail packs of 2.

2. For full package quantity details, reference strongtie.com.

Retrofit Bolt Steel Design Strength (ACI 318-19 Chapter 17)

Dia. (in.)	Carbon Steel						Stainless Steel	
	Grade 36		Grade 55		Grade 105		Types 304/ 316	
	Tensile, Ø N _{sa} (lb.)	Shear, Ø V _{sa} (lb.)	Tensile, Ø N _{sa} (lb.)	Shear, Ø V _{sa} (lb.)	Tensile, Ø N _{sa} (lb.)	Shear, Ø V _{sa} (lb.)	Tensile, Ø N _{sa} (lb.)	Shear, Ø V _{sa} (lb.)
¾	3,395	1,765	4,390	2,280	7,315	3,805	5,850	3,040
½	6,175	3,210	7,990	4,155	13,315	6,925	10,650	5,540
⅝	9,835	5,110	12,715	6,610	21,190	11,020	16,950	8,815
¾	14,530	7,555	18,790	9,770	31,315	16,285	21,295	11,075
7/8	20,095	10,450	25,990	13,515	43,315	22,525	29,455	15,315
1	26,365	13,710	34,090	17,725	56,815	29,545	38,635	20,090

1. Tensile values are derived in accordance with ACI 318-19 Section 17.6.1.2 with strength reduction factor, Ø, of 0.75 for ductile steel element in tension.

2. Shear values are derived in accordance with ACI 318-19 Section 17.7.1.2 with strength reduction factor, Ø, of 0.65 for ductile steel element in shear.

3. This table includes only the design strength of steel element. Design strengths of substrate and adhesive bond must be taken into consideration to determine anchorage design strength.

RFB

Retrofit Bolt

RFBs are **optional** precut threaded rods, supplied with a nut and washer, to use with Simpson Strong-Tie adhesives to anchor into existing concrete and masonry. Each end of the threaded rod (for diameters ½" and above) is stamped with rod length conversion and material grade for easy identification after installation.

Material: ASTM F1554 Grade 36 and 55. Grade 105 (B7) available for some models. Stainless steel grade 304 and 316.

Finish: Zinc plated or HDG; some products available in stainless steel.

Web Applications: Visit app.strongtie.com/pfd to access our Post-to-Foundation Designer web application.



RFB

For more information on corrosion protection, see pp. 13–19.

Dia. (in.)	Length (in.)	Grade 36		Grade 55	Grade 105		Stainless Steel		Package Qty.	Carton Qty.
		Zinc	HDG	Zinc	Zinc	HDG	304	316		
¾	4	RFB#3X4	RFB#3X4HDG	RFB#3X4-55	—	—	—	—	1	50
	6	RFB#3X6	—	RFB#3X6-55	RFB#3X6-105	RFB#3X6-105HDG	RFB#3X6-SS304	RFB#3X6-SS316	1	50
	8	RFB#3X8	—	RFB#3X8-55	—	—	—	—	1	50
½	4	RFB#4X4	—	RFB#4X4-55	—	—	—	—	1	25
	5	RFB#4X5	RFB#4X5HDG	RFB#4X5-55	—	—	—	—	1	50
		—	RFB#4X5HDGP2	—	—	—	—	—	2	5
	6	RFB#4X6	RFB#4X6HDG	RFB#4X6-55	RFB#4X6-105	RFB#4X6-105HDG	RFB#4X6-SS304	RFB#4X6-SS316	1	50
		—	—	—	—	—	—	RFB#4X6-SS316P2	2	5
	7	RFB#4X7	RFB#4X7HDG	—	—	—	—	—	1	50
	8	RFB#4X8	RFB#4X8HDG	RFB#4X8-55	—	RFB#4X8-105HDG	RFB#4X8-SS304	RFB#4X8-SS316	1	50
		—	RFB#4X8HDGP2	—	—	—	—	RFB#4X8-SS316P2	2	5
	10	RFB#4X10	—	RFB#4X10-55	—	—	RFB#4X10-SS304	RFB#4X10-SS316	1	50
		—	RFB#4X10HDG	—	—	—	—	—	1	25
¾	5	RFB#5X5	RFB#5X5HDG	RFB#5X5-55	—	—	—	—	1	25
		—	RFB#5X5HDGP2	—	—	—	—	—	2	5
	8	RFB#5X8	RFB#5X8HDG	RFB#5X8-55	RFB#5X8-105	RFB#5X8-105HDG	RFB#5X8-SS304	RFB#5X8-SS316	1	50
		—	RFB#5X8HDGP2	—	—	—	—	RFB#5X8-SS316P2	2	5
	10	RFB#5X10	RFB#5X10HDG	RFB#5X10-55	—	RFB#5X10-105HDG	—	RFB#5X10-SS316	1	50
		—	—	—	—	—	—	RFB#5X10-SS316P2	2	5
	12	—	RFB#5X12HDG	—	—	—	—	—	1	50
		—	RFB#5X12HDGP2	—	—	—	—	—	2	5
	16	RFB#5X16	RFB#5X16HDG	RFB#5X16-55	—	—	—	—	1	25
		—	RFB#5X16HDGP2	—	—	—	—	RFB#5X16-SS316P2	2	5
¾	6	RFB#6X6	—	RFB#6X6-55	—	—	—	—	1	50
	8	RFB#6X8	RFB#6X8HDG	RFB#6X8-55	—	—	—	—	1	50
	10½	RFB#6X10.5	RFB#6X10.5HDG	RFB#6X10.5-55	RFB#6X10.5-105	RFB#6X10.5-105HDG	RFB#6X10.5-SS304	RFB#6X10.5-SS316	1	50
¾	12	—	—	RFB#7X12-55	RFB#7X12-105	—	—	—	1	10
1	16	—	—	RFB#8X16-55	RFB#8X16-105	—	—	—	1	10

1. Washer and nut provided on all RFBs.
2. Single-count RFBs sold by the carton.
3. Two-count RFBs sold in 5-pack cartons (10 bolts total).