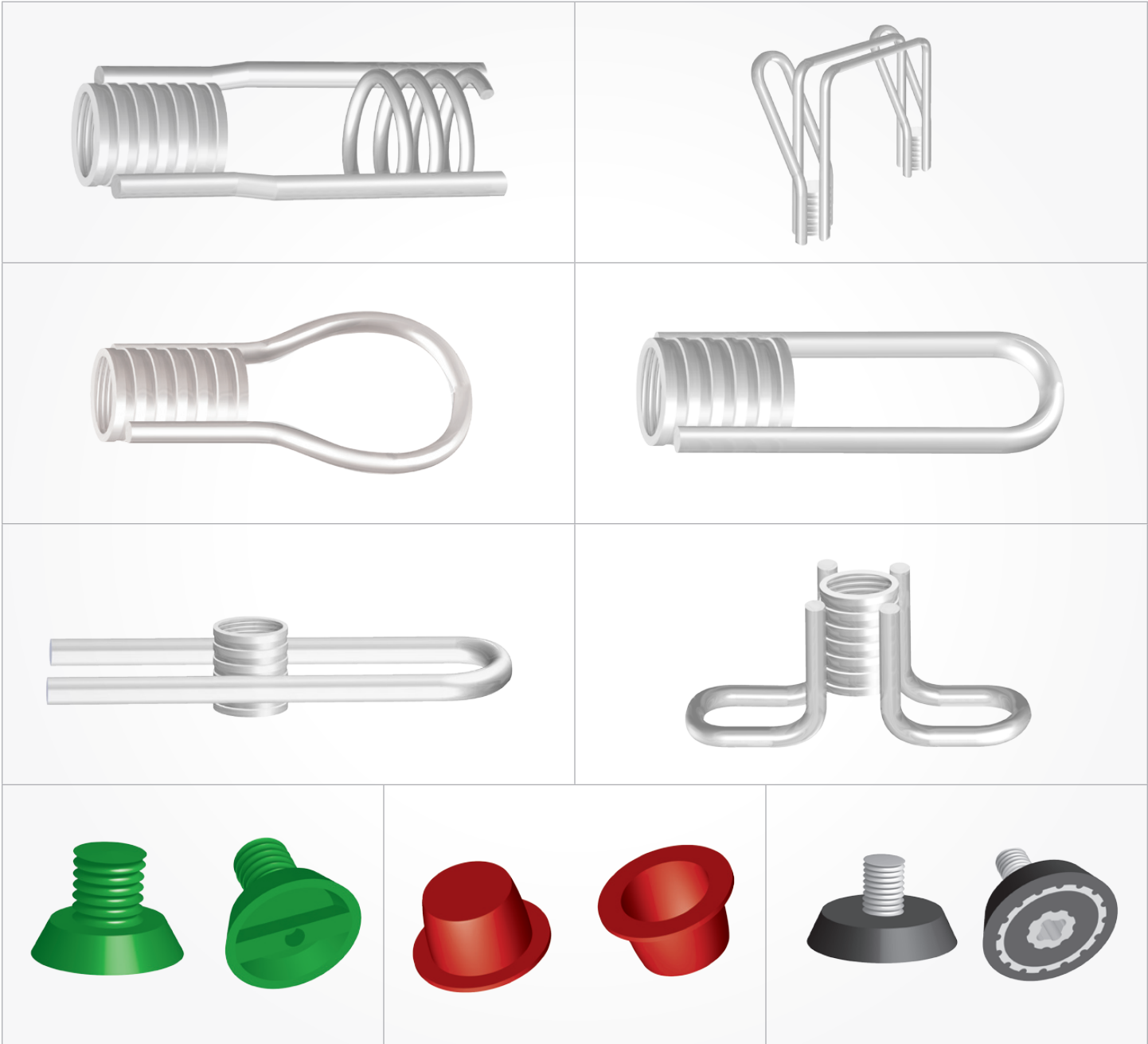
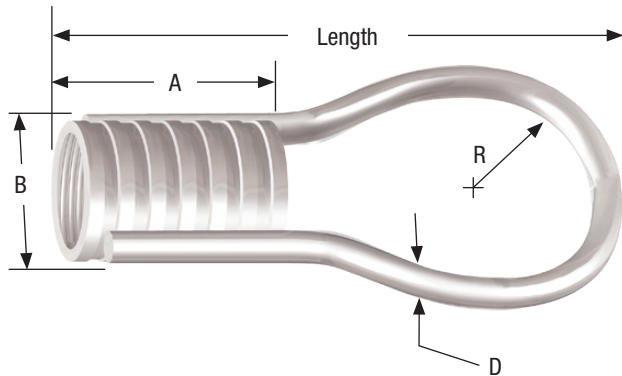


# FERRULE INSERTS AND ACCESSORIES



## FI-42: FLARED LOOP FERRULE INSERT



Fabricated by welding a looped strut to a closed-end ferrule, this versatile insert is commonly used to make structural connections and to suspend pipes and other mechanical equipment. Available in 3/8", 1/2", 5/8", 3/4", 7/8" and 1" sizes. Insert available in plated finish.

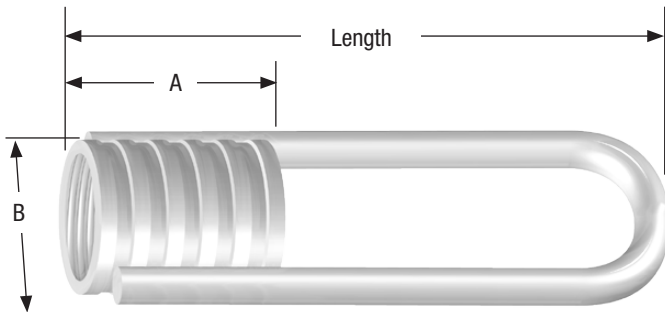
Standard inserts not designed for use with hot dip galvanized bolts. Custom inserts available upon request.

### FLARED LOOP FERRULE INSERT DIMENSIONS AND LOAD CHART

Product Code	Bolt Diameter (N.C. Thread)	Threads per Inch (N.C.)	Length	A	B	R	Wire Diameter D	Ultimate Mechanical Capacity (lbs)	In-Concrete Capacity	
									Min. Edge Distance	3:1 Safe Working Load Tension (lbs)
FI4238P	3/8"	16	2-3/4"	1-1/4"	1"	9/16"	0.243"	6,000	5"	2,000
FI4212P	1/2"	13	2-3/4"	1-3/8"	1-1/8"	9/16"	0.243"	6,000	5"	2,000
FI4258P	5/8"	11	3-1/2"	1-5/8"	1-3/8"	13/16"	0.262"	6,900	5"	2,300
FI4234P	3/4"	10	3-1/2"	1-5/8"	1-5/8"	13/16"	0.262"	7,500	5"	2,500
FI4278P	7/8"	9	6"	1-5/8"	2-1/16"	1-3/8"	0.375"	15,900	8"	5,300
FI421P	1"	8	6"	1-5/8"	2-1/16"	1-3/8"	0.375"	15,900	8"	5,300

- Safe working Load is based on 3,000 psi concrete, 3:1 safety factor and insert setback 1/2" from the concrete surface.
- Minimum spacing of inserts is 2 x (edge distance).

## FI-64: STRAIGHT LOOP FERRULE INSERT



The Straight Loop Ferrule Insert is typically used to attach a precast wall panel to a building frame, as well as to provide attachment of other structural elements that may be required. Available in 1/2", 5/8", 3/4" and 1" sizes, with or without washer. Insert available in plated finish.

Standard inserts not designed for use with hot dip galvanized bolts. Custom inserts available upon request.

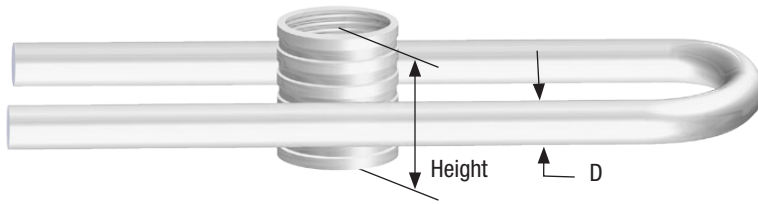
### STRAIGHT LOOP FERRULE INSERT DIMENSIONS AND LOAD CHART

Product Code	Bolt Diameter	Threads per Inch (N.C.)	Length	A	B	Wire Diameter D	Ultimate Mechanical Capacity (lbs)	In-Concrete Capacity	
								Min. Edge Distance	3:1 Safe Working Load Tension (lbs)
FI64124P	1/2"	13	4-1/8"	1-3/8"	1-1/16"	0.225"	9,000	5"	3,000
FI64126P	1/2"	13	6-1/8"	1-3/8"	1-1/4"	0.206"	12,000	8"	4,000
FI64584P	5/8"	11	4-1/8"	1-5/8"	1-1/4"	0.225"	9,000	5"	3,000
FI64586P	5/8"	11	6-1/8"	1-5/8"	1-9/16"	0.375"	15,000	8"	5,000
FI64344P	3/4"	10	4-1/8"	1-5/8"	1-3/8"	0.225"	9,000	5"	3,000
FI64346P	3/4"	10	6-1/8"	1-5/8"	1-11/16"	0.375"	15,000	9"	5,000
FI6416P	1"	8	6-1/8"	1-5/8"	2-1/16"	0.375"	15,000	9"	5,000

- Safe working Load is based on 3,000 psi concrete, 3:1 safety factor and insert setback 1/2" from the concrete surface.
- Minimum spacing of inserts is 2 x (edge distance).



## FI-44: THIN SLAB FERRULE INSERT



The Thin Slab Ferrule Insert is designed for use where the depth of embedment is limited and where limited capacity is required in both tension and shear. Can be furnished with either two struts welded to the bottom of the ferrule or one strut looped around the ferrule. Available in 1/4", 1/2" and 3/4" sizes. Insert available in plated finish.

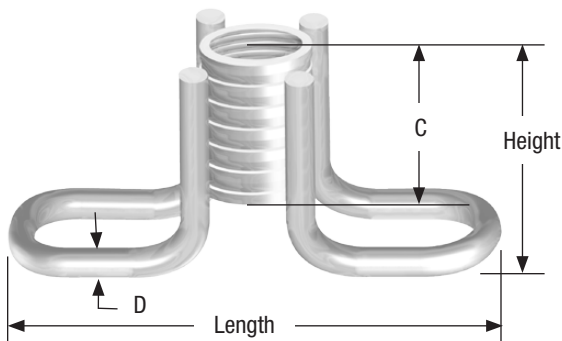
Standard inserts not designed for use with hot dip galvanized bolts. Custom inserts available upon request.

### THIN SLAB FERRULE INSERT DIMENSIONS AND LOAD CHART

Product Code	Bolt Diameter	Threads per Inch (N.C.)	Height	Wire Diameter D	Ultimate Mechanical Capacity (lbs)	In-Concrete Capacity	
						3:1 Safe Working Load Tension (lbs)	
FI4414P	1/4"	20	1-1/4"	0.262"	1,350	450	
FI4412P	1/2"	13	1-3/8"	0.262"	2,700	900	
FI4434P	3/4"	10	1-5/8"	0.262"	4,800	1,600	

Safe working Load is based on 3,000 psi concrete, 3:1 safety factor and insert setback 1/2" from the concrete surface.

## FI-62: FLARED WING FERRULE INSERT



The Flared Wing Ferrule Insert is another option for use where panel thickness is limited. Insert available in 1/2", 3/4" and 1" bolt diameters and offers better tension loads than other thin slab inserts. Insert available in plated finish.

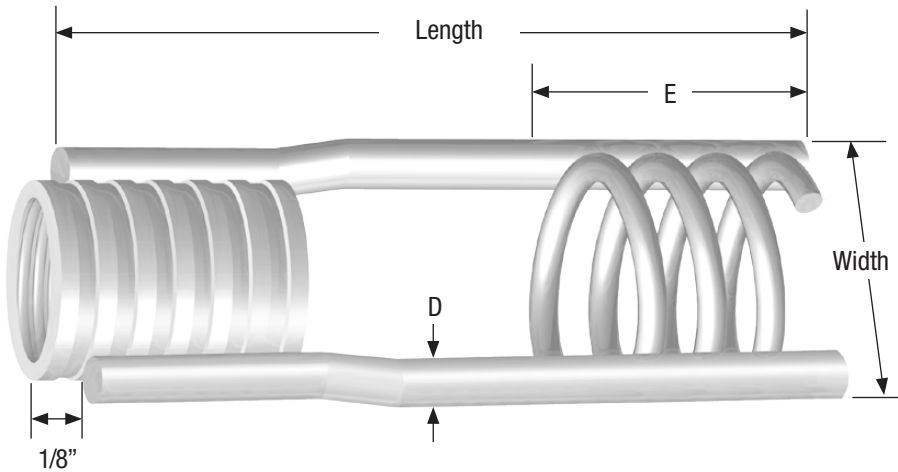
Standard inserts not designed for use with hot dip galvanized bolts. Custom inserts available upon request.

### FLARED WING FERRULE INSERT DIMENSIONS AND LOAD CHART

Product Code	Bolt Diameter	Threads per Inch (N.C.)	Height	Length	C	Wire Diameter D	Ultimate Mechanical Capacity (lbs)	In-Concrete Capacity	
								Min. Edge Distance	3:1 Safe Working Load Tension (lbs)
FI6212134P	1/2"	13	1-3/4"	4-1/2"	1-3/8"	0.225"	3,600	5"	1,200
FI62342716P	3/4"	10	2-7/16"	4-7/8"	1-5/8"	0.306"	7,950	6"	2,650
FI6234358P	3/4"	10	3-5/8"	4-7/8"	1-5/8"	0.306"	13,500	8"	4,500
FI6212716P	1"	8	2-7/16"	5-1/8"	1-5/8"	0.375"	9,240	6"	3,080

Safe working Load is based on 3,000 psi concrete, 3:1 safety factor and insert setback 1/2" from the concrete surface.

## FI-57, FI-59, FI-61: EXPANDED COIL, FERRULE INSERT



The Expanded Coil, Ferrule Insert is a high-strength, highly versatile insert available for numerous precast concrete applications. It is available in 3/4", 1", 1-1/4" and 1-1/2" bolt diameters. The insert is constructed with a NC threaded ferrule, shaped struts (two, four or six depending on model) and an expanded wire coil. This efficient design increases the shear cone surface area thus increasing the load capacity of the insert. Insert is available in plated finish.

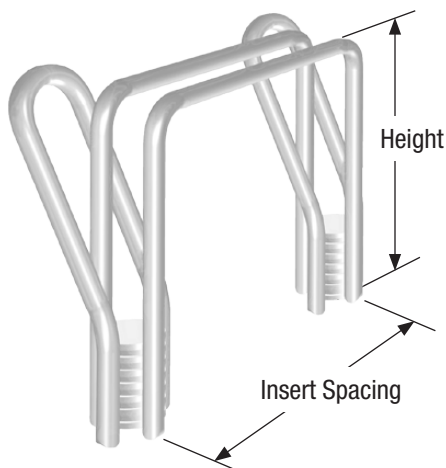
Standard inserts not designed for use with hot dip galvanized bolts. Custom inserts available upon request.

### EXPANDED COIL, FERRULE INSERT DIMENSIONS AND LOAD CHART

Product Code	Bolt Diameter	Threads per Inch (N.C.)	Length	Width	# of Struts	Wire Diameter D	E	Ultimate Mechanical Capacity (lbs)	In-Concrete Capacity		
									Min. Edge Distance	3:1 Safe Working Load (Tension)	3:1 Safe Working Load (Shear)
FI5734412P	3/4"	10	4-1/2"	2-3/8"	2	0.375"	1-1/2"	17,000	14"	5,665	5,665
FI571512P	1"	8	5-1/2"	2-7/8"	2	0.440"	2-1/8"	25,000	16"	8,330	8,330
FI59114712P	1-1/4"	7	7-1/2"	3-1/8"	4	0.433"	2-7/8"	48,800	18"	16,000	16,000
FI61112912P	1-1/2"	6	9-1/2"	3-3/8"	6	0.433"	3-7/8"	81,000	22"	18,680	18,680

Safe working Load is based on 3,000 psi concrete, 3:1 safety factor and insert setback 1/2" from the concrete surface.

## FIWW: WING WALL ANCHOR



Fabricated for a precast concrete retaining wall which forms a wing wall for a precast concrete culvert unit, the Wing Wall Anchor supports a concrete footer projecting laterally from the wing wall into the back-filled soil behind the wing wall. Insert is available in plated finish.

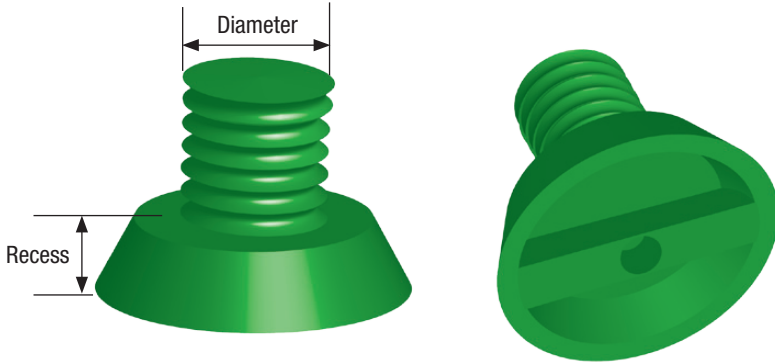
Standard inserts not designed for use with hot dip galvanized bolts. Custom inserts available upon request.

### WING WALL ANCHOR DIMENSIONS

Product Code	Bolt Diameter	Insert Spacing	Height
FIWW1668P	1"	6"	6"
FIWW168P	1"	6"	8"

## FP-74: NC THREADED PLASTIC PLUG

The NC Threaded Plastic Plug is used as a setting plug and for thread protection. This is an excellent and economical way to attach ferrule/NC threaded inserts to the form.

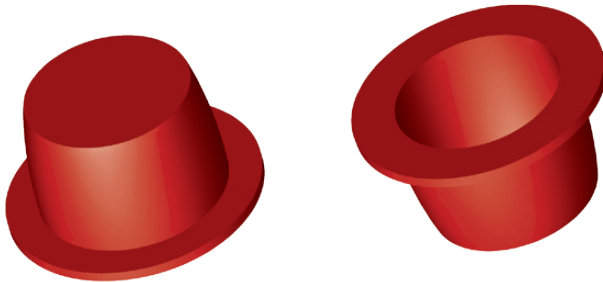


### NC THREADED PLASTIC PLUG INFORMATION

Product Code	Diameter	Recess	Color
FP7412	1/2"	1/4"	BLUE
FP7458	5/8"	1/4"	YELLOW
FP7434	3/4"	1/4"	GREEN
FP7478	7/8"	1/4"	ORANGE
FP7401	1"	1/4"	BLACK

## FP-45: PLASTIC CAP PLUG

The Plastic Cap Plug is used for positioning NC Threaded Inserts and is easily nailed to a wood form. Simply place the insert onto the cap and press. Available in 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/4" and 1-1/2" diameters.

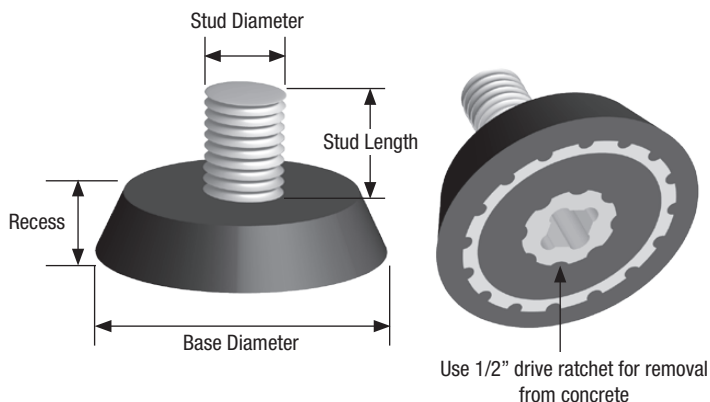


### PLASTIC CAP PLUG INFORMATION

Product Code	Bolt Diameter
FP4538	3/8"
FP4512	1/2"
FP4558	5/8"
FP4534	3/4"
FP4578	7/8"
FP451	1"
FP45114	1-1/4"
FP45112	1-1/2"

## MAGNETIC FERRULE INSERT LOCATORS

Magnetic Insert Locators are used to mount NC threaded inserts to a steel form instead of drilling holes. Magnets are removed from the concrete using a 1/2" drive ratchet. Available in 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1" and 1-1/4" diameters.



### MAGNETIC INSERT LOCATORS INFORMATION

Product Code	Stud Diameter	Stud Length	Recess	Diameter
TKFMB250	1/4"	1/2"	1/2"	2-5/8"
TKFMB375	3/8"	1/2"		
TKFMB500	1/2"	3/4"		
TKFMB625	5/8"	3/4"		
TKFMB750	3/4"	3/4"		
TKFMB875	7/8"	3/4"		
TKFMB1000	1"	3/4"		
TKFMB1125	1-1/4"	2"		