

## GENERAL INFORMATION

# PUSH-IN THREAD COUPLER

Steel-to-Steel Threaded Connections

### PRODUCT DESCRIPTION

Push-In Thread Couplers have one end that does not require turning threaded rod elements for placement during installation. These high performance couplings are designed for common industrial and commercial hardware connections. For example, they can be ideal for applications such as mounting prefabricated hardware and hanger assemblies. Push-In Thread Couplers may be considered for use as a replacement for standard threaded couplers (e.g. hex coupling nuts).

### GENERAL APPLICATIONS AND USES

- Rod Hangers and Supports
- Prefabrication Connections
- Trapeze Assemblies
- Threaded Rod Extensions
- Cast-In Inserts and Anchors
- Distribution Systems / Utility Lines
- Replacement for Typical Rod Coupling Nuts

### FEATURES AND BENEFITS

- + Push-In thread does not require turning threaded rod elements during installation
- + Cinch nut mechanism designed to eliminate thread misalignment
- + Threaded rod compatibility can accept burred or oiled common standard UNC threaded rods
- + Separate thread-in and push-in connection ends designed for attaching existing anchor points to pre-fabrication assemblies
- + Hex nut side enables installation with a wrench for threaded end
- + Couplers compatible with 3/8"-16 or 1/2"-13 UNC threads (threaded rods and bolts)

### APPROVALS AND LISTINGS

- International Code Council, Evaluation Service (ICC-ES), ESL-1485 for steel threaded connections
- Code compliant with the 2021 IBC/IRC, 2018 IBC/IRC, 2015 IBC/IRC, and 2012 IBC/IRC
- Tested in accordance with ASTM F606/606M for static loading and in accordance with ACI 355.2/ ASTM E488 and ICC-ES AC193 for seismic loading

### GUIDE SPECIFICATIONS

CSI Divisions: 05 05 23 - Metal Fastenings. Couplers shall be Push-In Thread Coupler as supplied by DEWALT, Towson, MD. Anchors shall be installed in accordance with published instructions and the Authority Having Jurisdiction.

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PUSH-IN THREAD COUPLER  
(INTERNALLY THREADED)

## ANCHOR MATERIALS

- Zinc Plated Carbon Steel Body

## ROD/ANCHOR SIZE RANGE (TYP.)

- 3/8" to 3/8" (UNC)
- 1/2" to 1/2" (UNC)

## INSERT VERSIONS

- Single Push-In Thread

## SUITABLE BASE MATERIALS

- Steel Threaded Connections



**CODE LISTED**  
ICC-ES ESL-1485

**MATERIAL SPECIFICATIONS**

**Push-In Coupler**

Anchor Component	Component Material
Coupler Body	Carbon steel
Zinc Plating	ASTM B633 (Fe/Zn5) Min. plating requirements for mild service condition

**Material Properties for Common Threaded Rods**

Description	Steel Specification (ASTM)	Threaded Rod Diameter (inch)	Minimum Yield Strength, $f_y$ (ksi)	Minimum Ultimate Strength, $f_u$ (ksi)
Standard Carbon Steel	A36	3/8 or 1/2	36.0	58.0
High Strength Carbon Steel	A193, Grade B7	3/8 or 1/2	105.0	125.0

Couplers may be considered for use in conjunction with all grades of continuously threaded carbon steels (all-thread or threaded bolts) that comply with code reference standards and that have thread characteristics comparable with ANSI B1.1 UNC Coarse Thread Series.

**INSTALLATION SPECIFICATIONS**

**Installation Specifications for Push-In Thread Coupler**

Nominal Size	Internal Thread Diameter Size	Approximate Push-In Rod Length	Approximate Outside Diameter	Approximate Length	Hex Nut Size
3/8"	3/8"-16 (both ends)	7/8"	1/2"	1-9/16"	1/2"
1/2"	1/2"-13 (both ends)	1"	21/32"	1-13/16"	3/4"

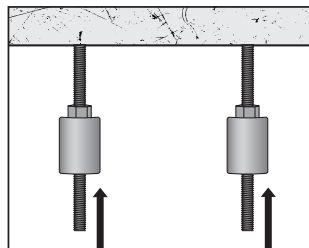
**INSTALLATION INSTRUCTIONS**

**Installation Instructions for Push-In Thread Coupler**

HEX NUT SIDE UP / PUSH-IN SIDE DOWN:



**Step 1**  
Thread couplers onto hanging rod

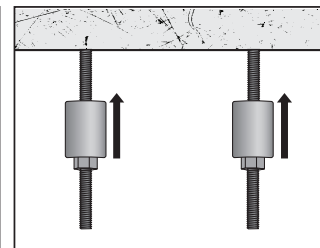


**Step 2**  
Push assembly into couplers

PUSH-IN SIDE UP / HEX NUT SIDE DOWN:



**Step 1**  
Thread couplers onto assembly



**Step 2**  
Push couplers (attached to assembly) into hanging rod

**REFERENCE DATA (ASD)**

**Ultimate and Allowable Load Capacities for Push-In Thread Couplers<sup>1,2,3,4</sup>**

Threaded Rod/Anchor Diameter in.	Tension	
	Ultimate lbs. (kN)	Allowable lbs. (kN)
3/8	12,375 (55.1)	4,125 (18.4)
1/2	18,000 (80.1)	6,000 (26.7)

1. Allowable load capacities are calculated using an applied safety factor of 3.0
2. The tabulated allowable load capacities must be checked against the steel strength of the corresponding steel threaded insert, the lowest load level controls.
3. Allowable load capacities for 3/8-inch-diameter couplers may also be used for seismic tension loading provided the allowable values are reduced by 15 percent.
4. Allowable load capacities for the 1/2-inch-diameter couplers may also be used for seismic tension loading with no additional reduction.

**Allowable Loads Based on Steel Strength for Common Threaded rods<sup>1,2</sup>**

Rod Diameter in.	Tension, lbs.			
	ASTM A36, ASTM F1554 Grade 36 $F_u = 58$ ksi	ASTM A307 $F_u = 60$ ksi	ISO 898 Class 5.8 $F_u = 72.5$ ksi	ASTM A193 Grade B7 $F_u = 125$ ksi
3/8	2,115	2,185	2,640	4,555
1/2	3,755	3,885	4,700	8,100

For St: 1 inch = 25.4 mm; 1 lbf = 0.0044 kN, 1 ksi = 6.894 MPa.

1. Allowable load used in the design must be the lesser of internally threaded coupler values and tabulated steel threaded insert values.
2. Allowable loads for steel strength are calculated using allowable tension equal to  $0.33 \times F_u \times A_{nom}$ .

**ORDERING INFORMATION**

**Push-In Thread Couplers**

Cat. No.	Description	Internal Thread Diameter	Pack Qty.
PFM3613038	3/8"-16 Coupler Push-In	3/8" to 3/8"	20
PFM3613012	1/2"-13 Coupler Push-In	1/2" to 1/2"	20

