

Product Information Report

UltraCon® Masonry Fastening System



Slotted Hex Washer Head



Phillips Flat Head

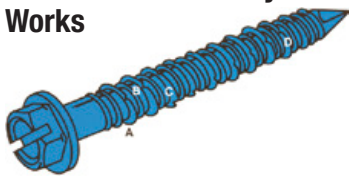


Hex Washer Head

Overview

The UltraCon® Masonry Fastening System is designed specifically to cut threads in all types of masonry including poured concrete, brick and concrete block. In many applications, it replaces expansion anchors, chemical fasteners, and lead and plastic inserts.

How the UltraCon® System Works



The specially-hardened Hi-Lo thread actually cuts threads into masonry materials. The high, sharp thread (A) with its notched cutting edge (B) cuts deeply and easily. The alternating low thread (C) provides stability for fast, accurate driving. The tapered shank (D) creates a progressive tapping action that improves the holding power.

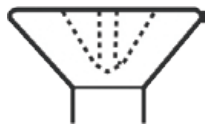
Features/Benefits

- Fast installation – just drill hole, then drive anchor
- Can be removed and re-inserted in the same hole
- Stalgard® coating provides superior corrosion resistance
- Available in multiple head styles



Slotted Hex Washer Head

Washer head provides a bearing surface for fast, secure driving; slot permits removal or adjustment with standard screw driver.



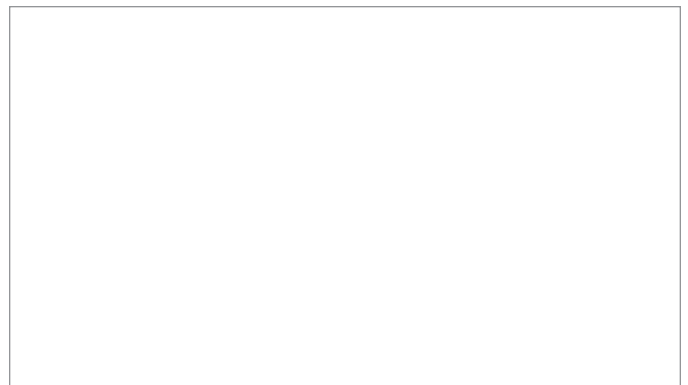
Phillips Flat Head

Used primarily in wood applications to countersink head for finished appearance.

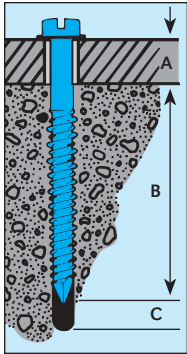


Hex Head with Oversized Washer (5/16" dia. only)

Larger washer diameter (0.530"/0.540") provides larger bearing surface. Ideal for applications that require a washer.



Anchor Sizing

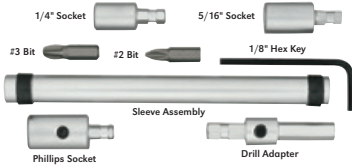


Proper UltraCon® fastener length is determined by combining the thickness of the fixture being attached (A) with the desired depth of embedment in the masonry material (B). It is recommended that a minimum of 1" to 1-3/4" embedment be used in determining fastener length.

Anchor Size (Inches)	For Material Thickness (Inches)	UltraCon® Drill Bit Size (Inches)	Item No.			
			UltraCon® Drill Bit	Slotted Hex Washer Head Anchor	Phillips Flat Head Anchor	Hex Washer Head Anchor
3/16 x 1-1/4	0 – 1/4	5/32 x 3-1/2	96934	96906	96920	–
3/16 x 1-3/4	1/4 – 3/4	5/32 x 3-1/2	96934	96907	96921	–
3/16 x 2-1/4	3/4 – 1-1/4	5/32 x 4-1/2	96935	96908	96922	–
3/16 x 2-3/4	1-1/4 – 1-3/4	5/32 x 4-1/2	96935	96909	96923	–
3/16 x 3-1/4	1-3/4 – 2-1/4	5/32 x 5-1/2	96936	96910	96924	–
3/16 x 3-3/4	2-1/4 – 2-3/4	5/32 x 5-1/2	96936	96911	96925	–
3/16 x 4	2-1/2 – 3	5/32 x 5-1/2	96936	96912	96926	–
1/4 x 1	0 – 1/4	3/16 x 3-1/2	96937	64751	–	–
1/4 x 1-1/4	0 – 1/4	3/16 x 3-1/2	96937	96913	96927	–
1/4 x 1-3/4	1/4 – 3/4	3/16 x 3-1/2	96937	96914	96928	–
1/4 x 2-1/4	3/4 – 1-1/4	3/16 x 4-1/2	96938	96915	96929	–
1/4 x 2-3/4	1-1/4 – 1-3/4	3/16 x 4-1/2	96938	96916	96930	–
1/4 x 3-1/4	1-3/4 – 2-1/4	3/16 x 5-1/2	96939	96917	96931	–
1/4 x 3-3/4	2-1/4 – 2-3/4	3/16 x 5-1/2	96939	96918	96932	–
1/4 x 4	2-1/2 – 3	3/16 x 5-1/2	96939	96919	96933	–
1/4 x 5	3-1/2 – 5	3/16 x 6-1/2	60762	60751	–	–
1/4 x 6	4-1/2 – 5	3/16 x 7-1/2	60763	60752	–	–
1/4 x 5	3-1/2 – 4	3/16 x 6-1/2	60762	–	60756	–
1/4 x 6	4-1/2 – 5	3/16 x 7-1/2	60763	–	60757	–
5/16 x 2	1/2 – 1	1/4 x 4-1/2	60764	–	–	60753
5/16 x 3	1-1/2 – 2	1/4 x 5-1/2	60765	–	–	60754
5/16 x 4	2-1/2 – 3	1/4 x 7-1/2	60766	–	–	–
5/16 x 3	1-1/2 – 2	1/4 x 4-1/2	60764	–	60758	–
5/16 x 4	2-1/2 – 3	1/4 x 5-1/2	60765	–	60759	–
5/16 x 5	3-1/2 – 4	1/4 x 7-1/2	60766	–	60760	–
5/16 x 6	4-1/2 – 5	1/4 x 7-1/2	60766	–	60761	–

UltraCon® Anchors not listed here can be obtained by going as a special order.

Installation Tools



UltraCon® is designed to work as a system. Consistent performance and maximum pull-out strength can be assured only when all three elements of the system are used. In addition to UltraCon® Fasteners, the complete system consists of:

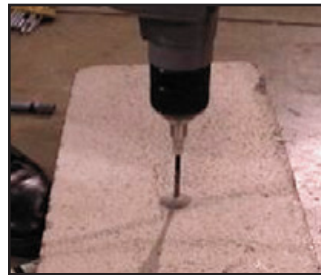
UltraCon® Carbide-Tipped Drill Bits

To provide the proper hole diameter, UltraCon® carbide-tipped drill bits are manufactured to closer standards than those called for in the American National Standard. Using the proper size carbide-tipped drill bit will help ensure consistent fastener performance. The hole depth must be at least 1/4" deeper than the depth of the fastener embedment.

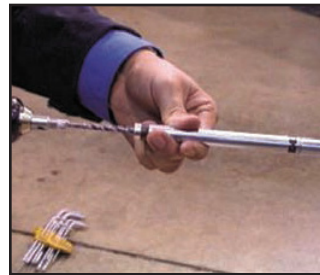
The Model 1000 Installation Tool

A multipurpose tool that is inserted into a 3/8" or 1/2" chuck of a standard hammer drill or electric drill to drive 3/16" and 1/4" Slotted Hex Head and Phillips Flat Head UltraCon® Anchors.

Description	Item No.	Description	Item No.
Model 1000 Installation Tool Kit	96941	5/16" Socket for 1/4" Anchors	96944
1/8" Hex Key (use with adapter 96942)	15303	1/4" Socket for 3/16" Anchors	96945
Drill Adapter	96942	Phillips Socket	96946
Sleeve Assembly	96943	#2 Phillips Bit for 3/16" Anchors	FA5502
		#3 Phillips Bit for 1/4" Anchors	FA5504



1. Drill hole 1/4" deeper than anchor is to be embedded.



2. Install drive sleeve over the drill bit.



3. Place head of anchor in hex socket, positioning the anchor in the drilled hole, and drive anchor until anchor is fully seated.

Strength Characteristics

Diameter (Inches)	Depth of Embedment (Inches)	Hollow Block		Concrete		Wood	
		Pull-Out (PSI)	Shear (PSI)	Pull-Out (PSI)	Shear (PSI)	Pull-Out (PSI)	Shear (PSI)
3/16"	1	–	–	480	823	–	–
	1-1/4	520	938	756	829	–	–
	1-1/2	–	–	856	1,022	–	–
	1-3/4	–	–	1,124	1,075	–	–
1/4"	1	–	–	936	1,479	–	–
	1-1/4	873	1,590	1,140	1,849	–	–
	1-1/2	–	–	1,480	1,859	–	–
	1-3/4	–	–	1,932	1,901	–	–
5/16"	1	–	–	851	1,801	1,454	1,188
	1-1/4	1,145	1,454	–	–	–	–
	1-1/2	–	–	–	–	2,472	1,677
	1-3/4	–	–	2,643	3,404	–	–
	2	–	–	3,347	–	3,233	2,407

Specific Testing Parameters: 3/16" and 1/4" dia. UltraCon® fasteners – Hollow block: 1,500 PSI
 5/16" dia. UltraCon® fasteners – Hollow block: 1,872 PSI, Concrete: 3,513 PSI