

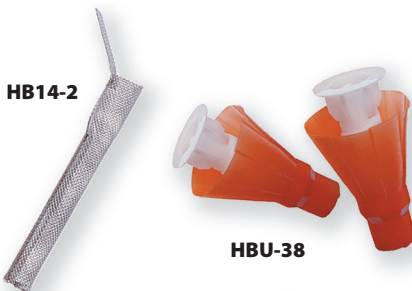
# Umbrella Inserts and Screen Tubes

**High Performance  
Adhesive Systems  
for Fastening to  
Hollow Base Materials**



A7P-10

A7P-28



HBU-38

## DESCRIPTION/ADVANTAGES

### Hollow Block Fastening with A7+/C6+/G5+ Adhesive

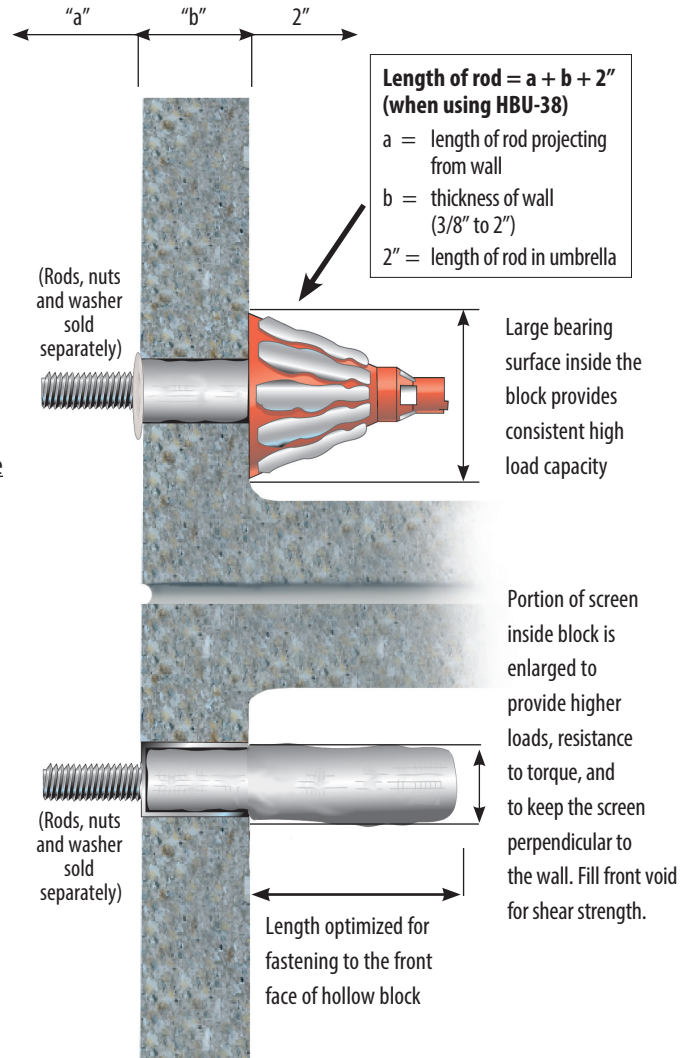
#### HBU-38

Umbrella Inserts—specially designed for fastening to the face of hollow concrete block, brick, clay tile or terra cotta. Accepts rods 1/4", 3/8" and 1/2"

For umbrella to open correctly, air gap must be a minimum of 2-1/4"

#### SHORT SCREENS

Specially designed stainless steel screens provide maximum performance for a screen in the front face of hollow concrete block. Screens available for rods 1/4" to 5/8"



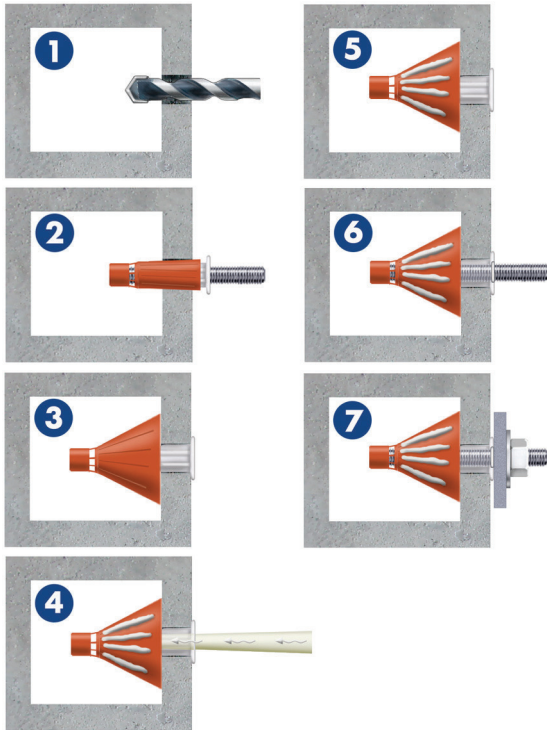
Section View—Concrete Block

**COMBINE WITH A7+/C6+/G5+ TO CREATE AN ADHESIVE FASTENING SYSTEM IDEAL FOR HOLLOW BLOCK, TERRA COTTA, CLAY TILE, MASONRY AND MORE**

- Accepts 1/4", 3/8, and 1/2" threaded rods
- Use with A7+ Acrylic adhesive for fast dispensing, fast curing installation
- Use with C6+ Epoxy for fast curing extended working time installation

# Umbrella Inserts and Screens

## INSTALLATION STEPS




1. Drill 3/4" diameter hole, 3-3/4" deep using rotation only drilling mode and carbide tipped drill bit. Clean out hole with forced air. Complete hole preparation with use of a brush and repeat cleaning with compressed air (leave no dust or slurry).
2. Place umbrella on piece of threaded rod, stretch umbrella over the rod by pulling the white collar back approximately 1". Squeeze orange portion of umbrella and push umbrella into hole.
3. With the rod, push umbrella body through the hole and completely into void until umbrella opens behind wall. Remove threaded rod. (Do not use in solid base materials. For anchoring into block web, ends and mortar joints, use screens.)
4. Dispense and discard a sufficient amount of adhesive from new cartridge until a uniform adhesive mix is achieved. Inject approximately 1-1/2 fl. oz. of adhesive into umbrella (7 to 8 pumps using manual dispenser) to completely fill umbrella.
5. 3/8" rod uses a centering ring (supplied with inserts) to keep rod perpendicular to the wall.
6. Insert rod into the filled umbrella using a slow, soft twisting motion until it contacts the back of umbrella.
7. Wait for appropriate temperature/cure time before tightening fixture to the recommended torque of 10 ft./lbs.

Installation instructions for screens provided on page 63.

## SELECTION CHART

### Umbrella Inserts



DESCRIPTION	PART NO.	BOX CONTENTS
Umbrella Anchor 	HBV-38	20 Umbrellas 20 Centering Rings

## SELECTION CHART

### Short Screen Tubes



PART NO.	DESCRIPTION	QTY/BOX
HB14-2	1/4" x 2" Stainless Screen	100
HB38-312	3/8" x 3-1/2" Stainless Screen	100
HB12-312	1/2" x 3-1/2" Stainless Screen	50
HB58-412	5/8" x 4-1/2" Stainless Screen	50

## ESTIMATING TABLE

### Umbrella Inserts

**Number of Anchoring Installations Per Cartridge\* Using Threaded Rod and Umbrella Inserts with A7+ in Hollow Block**

ROD		DRILL HOLE DIA. INCHES	VOLUME OF CARTRIDGE	UMBRELLA INSERT WITH EMBEDMENT OF 3-3/4"
in.	(mm)			
3/8	(9.5)	3/4	A7+ 9.5 fluid oz.	6
			A7+ 28 fluid oz.	17

\* These estimates do not account for waste.

## ESTIMATING TABLE

### Short Screens

**Number of Anchoring Installations per Cartridge\***  
**Threaded Rod using Short Screen Tubes in A7+ in Hollow Block**

ROD		DRILL HOLE DIA. INCHES	VOLUME OF CARTRIDGE		SCREEN LENGTH PLUS 1 DIAMETER (inches)		
in.	(mm)				2"	3-1/2"	4-1/2"
1/4	(6.4)	3/8	A7+	9.5 fluid oz.	48		
			A7+	28 fluid oz.	135		
3/8	(9.5)	1/2	A7+	9.5 fluid oz.		21	
			A7+	28 fluid oz.		62	
1/2	(12.7)	5/8	A7+	9.5 fluid oz.		15	
			A7+	28 fluid oz.		43	
5/8	(15.9)	3/4	A7+	9.5 fluid oz.			11
			A7+	28 fluid oz.			24

\*These estimates do not account for waste

## PERFORMANCE TABLE

### Load Values<sup>1,2</sup>

**Hollow Concrete Block: Ultimate Tension and Shear Loads  
using Umbrellas and Short Screen Tubes<sup>1,2</sup>**

	ROD DIA.		MAX CLAMPING FORCE AFTER PROPER CURE		DRILL HOLE DIA.		EMBEDMENT (SCREEN LENGTH)		ULTIMATE TENSION		ULTIMATE SHEAR	
	in.	(mm)	ft. lbs.	(Nm)	in.	(mm)	in.	(mm)	lbs.	(Kn)	lbs.	(Kn)
Umbrella	3/8	(9.5)	10	(13)	3/4	(19.1)	3-3/4	(95.3)	3,600	(16)	3,200	(14.2)
	1/2"	(12.7)	10	(13)	3/4	(19.1)	3-3/4	(95.3)	3,600	(16)	3,200	(14.2)
Short Screen Tubes	1/4	(6.4)	4	(5)	3/8	(9.5)	2 - 1/4	(57.1)	1,550	(6.9)	1,900	(8.5)
	3/8	(9.5)	7	(9)	1/2	(12.7)	3-7/8	(98.4)	1,661	(7.4)	2,071	(9.2)
	1/2	(12.7)	10	(13)	5/8	(15.9)	4	(101.6)	2,458	(10.9)	4,467	(19.9)
	5/8	(15.9)	13	(17)	3/4	(19.1)	5-1/8	(130.2)	2,543	(10.9)	5,047	(22.4)

1 Allowable working loads should not exceed 20% ultimate capacity. Based upon testing using ASTM A193, Grade B7 rod. Divide by 5.

2 The tabulated values are for anchors installed at a minimum 12 inch edge distance and minimum 8 inch spacing.