



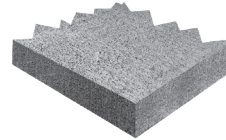
**SPECIFICATIONS, LISTINGS AND APPROVALS**

**Anchor Component:** Carbon steel  
**Anchor Body:** AISI 1018 for 1/4" and AISI 1008 for 3/8"- 3/4"  
**Nut:** Carbon steel, ASTM A563, Grade A  
**Washer:** AISI 1010 carbon steel, meets dimensional requirements of ANSI/ASME 18.22.1, Type A plain  
**Expansion Wedge:** Tempered AISI 1008/1010 carbon steel  
**Zinc Plating:** ASTM B633,SC1, Type III (Fe/Zn 5)  
**All diameters are anchors of CATEGORY 1**

**KEY FEATURES & BENEFITS**

- One-step installation: Anchor size = Hole size
- Fast & easy to install
- Roll formed thread
- Full thread design
- Chamfered head
- Parabolic mandrel

**MATERIALS**



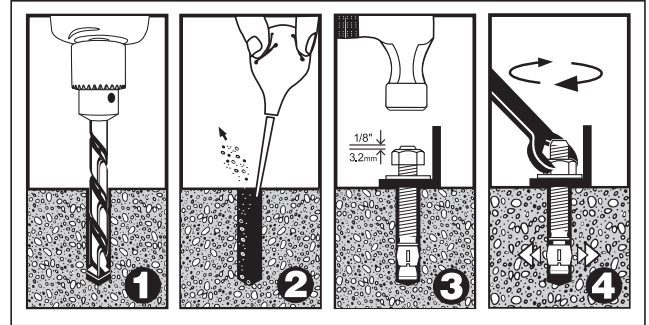
- Nut
- Washer
- Body
- Parabolic Mandrel

ANCHOR PARAMETERS							SAFE WORKING LOAD					
							Concrete: 3,000 psi		Concrete: 4,000 psi		Concrete: 6,000 psi	
Product Number	SKU	Size	Drill Size	Installation Torque ft.lb	Nominal Embedment	Thread Length	TENSION lb	SHEAR lb	TENSION lb	SHEAR lb	TENSION lb	SHEAR lb
010C3440	490C	1/4" x 1-3/4"	1/4"	10	1-1/8"	3/4"	269	228	311	228	380	228
010C3446	491C	1/4" x 2-1/4"	1/4"	10	1-3/4"	1-1/4"	449	228	449	228	449	228
010C3458	492C	1/4" x 3-1/4"	1/4"	10	2-3/4"	2-1/4"	449	228	449	228	449	228
010C3565	494C	3/8" x 2-1/4"	3/8"	30	1-5/8"	1-1/8"	392	392	453	420	555	420
010C3570	495C	3/8" x 2-3/4"	3/8"	30	2"	1-1/2"	604	420	697	420	854	420
010C3572	496C	3/8" x 3"	3/8"	30	2-1/4"	1-3/4"	761	420	878	420	903	420
010C3575	498C	3/8" x 3-3/4"	3/8"	30	2-3/8"	2-1/2"	844	420	903	420	903	420
010C3583	499C	3/8" x 5"	3/8"	30	2-1/2"	3-1/2"	903	420	903	420	903	420
010C3588	485C	3/8" x 6-1/2"	3/8"	30	4-1/4"	3"	903	420	903	420	903	420
010C3623	500C	1/2" x 2-3/4"	1/2"	50	2-1/2"	1-1/2"	949	715	1096	715	1342	715
010C3630	501C	1/2" x 3-3/4"	1/2"	50	2-7/8"	2-1/4"	1248	715	1441	715	1654	715
010C3640	502C	1/2" x 4-1/4"	1/2"	50	3-1/2"	2-3/4"	1654	715	1654	715	1654	715
010C3648	503C	1/2" x 5-1/2"	1/2"	50	4-1/8"	3-1/4"	1654	715	1654	715	1654	715
010C3665	504C	1/2" x 7"	1/2"	50	6"	4"	1654	715	1654	715	1654	715
010C3670	486C	1/2" x 8-1/2"	1/2"	50	6"	3"	1654	715	1654	715	1654	715
010C3672	487C	1/2" x 10"	1/2"	50	6"	3"	1654	715	1654	715	1654	715
010C3725	505C	5/8" x 3-1/2"	5/8"	70	2-7/8"	1-1/2"	1145	1145	1322	1322	1620	1389
010C3733	506C	5/8" x 4-1/2"	5/8"	70	3"	2-1/2"	1248	1248	1441	1389	1765	1389
010C3735	507C	5/8" x 5"	5/8"	70	3-1/2"	3"	1686	1389	1947	1389	2384	1389
010C3739	508C	5/8" x 6"	5/8"	70	4"	4"	2166	1389	2501	1389	2940	1389
010C3743	509C	5/8" x 7"	5/8"	70	4-1/2"	4"	2685	1389	2940	1389	2940	1389
010C3745	510C	5/8" x 8-1/2"	5/8"	70	4-5/8"	3"	2820	1389	2940	1389	2940	1389
010C3747	488C	5/8" x 10"	5/8"	70	7"	3"	2940	1389	2940	1389	2940	1389
010C3748	489C	5/8" x 12"	5/8"	70	7"	3"	2940	1389	2940	1389	2940	1389
010C3770	511C	3/4" x 4-1/4"	3/4"	120	3-3/8"	2"	1461	2665	1688	2665	2067	2665
010C3773	512C	3/4" x 4-3/4"	3/4"	120	4"	2-1/2"	2042	2665	2358	2665	2888	2665
010C3778	513C	3/4" x 5-1/2"	3/4"	120	4-3/4"	3-1/4"	2820	2665	3256	2665	3988	2665
010C3784	514C	3/4" x 6-1/4"	3/4"	120	5"	4"	3097	2665	3577	2665	4380	2665
010C3787	515C	3/4" x 7"	3/4"	120	5-1/2"	4"	3677	2665	4246	2665	4383	2665
010C3790	516C	3/4" x 8-1/2"	3/4"	120	6"	3"	4289	2665	4383	2665	4383	2665
010C3793	518C	3/4" x 10"	3/4"	120	8"	3"	4383	2665	4383	2665	4383	2665
010C3795	519C	3/4" x 12"	3/4"	120	8"	3"	4383	2665	4383	2665	4383	2665
010C3826	520C	7/8" x 6"	7/8"	200	4"	2-1/4"	-	-	4688	-	4688	-
010C3830	521C	7/8" x 8"	7/8"	200	4"	3"	-	-	4688	-	4688	-
010C3835	522C	7/8" x 10"	7/8"	200	4"	3"	-	-	4688	-	4688	-
010C3875	523C	1" x 6"	1"	250	4-1/2"	2-1/4"	-	-	5750	-	5750	-
010C3880	524C	1" x 9"	1"	250	4-1/2"	3"	-	-	5750	-	5750	-
010C3890	525C	1" x 12"	1"	250	4-1/2"	3"	-	-	5750	-	5750	-
010C3935	526C	1-1/4" x 9"	1-1/4"	400	5-1/2"	3"	-	-	8750	-	8750	-
010C3945	527C	1-1/4" x 12"	1-1/4"	400	5-1/2"	3"	-	-	8750	-	8750	-



**INSTALLATION INSTRUCTIONS**

1. Use a carbide bit ANSI B212.15 (-1994) that is the same size as the bolt diameter. Drill hole deeper than bolt embedment (min.0.5 dia.) Do not use core bits. Maintain accurate hole size.
2. Clean hole of debris.
3. Add washer and thread nut 1/8" from the top of bolt. Drive bolt into hole through item to be fastened.
4. To set, tighten nut 3 to 4 full turns or consult chart for guide installation torque.



**ANCHOR SPACING (CENTER TO CENTER SPACING)**

To obtain the maximum tension and shear load, a spacing  $S = 12$  anchor diameters ( $12d$ ) should be used. When using the minimum recommended anchor spacing,  $S = 6$  anchor diameters ( $6d$ ) the load should be reduced by 50%. The following table lists the load reduction factor for each anchor diameter ( $d$ ), based on the center to center anchor spacing.

ANCHOR SPACING (S) in inches							
dia. = d	12d	11d	10d	9d	8d	7d	6d
1/4"	3"	2-3/4"	2-1/2"	2-1/4"	2"	1-3/4"	1-1/2"
5/16"	3-3/4"	3-3/8"	3-1/8"	2-7/8"	2-1/2"	2-1/4"	1-7/8"
3/8"	4-1/2"	4-1/8"	3-3/4"	3-3/8"	3"	2-5/8"	2-1/4"
1/2"	6"	5-1/2"	5"	4-1/2"	4"	3-1/2"	3"
5/8"	7-1/2"	6-7/8"	6-1/4"	5-5/8"	5"	4-3/8"	3-3/4"
3/4"	9"	8-1/4"	7-1/2"	6-3/4"	6"	5-1/4"	4-1/2"
7/8"	10-1/2"	9-5/8"	8-3/4"	7-7/8"	7"	6-1/8"	5-1/4"
1"	12"	11"	10"	9"	8"	7"	6"
1-1/4"	15"	13-3/4"	12-1/2"	11-1/4"	10"	8-3/4"	7-1/2"
REDUCTION FACTOR - ANCHOR CAPACITY							
Tension/Shear	1.00	0.91	0.83	0.75	0.65	0.55	0.5

**EDGE DISTANCE (CENTER TO EDGE SPACING)**

To obtain the maximum tension and shear load, an edge distance  $E = 12$  anchor diameters ( $12d$ ) should be used. When using the minimum recommended edge distance  $E = 6$  anchor diameters ( $6d$ ), the tension load should be reduced by 50% and the shear load by 20%. The following table lists the load reduction factor for each anchor diameter ( $d$ ) based on the anchor center to edge distance.

ANCHOR SPACING (E) in inches							
dia. = d	12d	11d	10d	9d	8d	7d	6d
1/4"	3"	2-3/4"	2-1/2"	2-1/4"	2"	1-3/4"	1-1/2"
5/16"	3-3/4"	3-1/2"	3-1/8"	2-7/8"	2-1/2"	2-1/4"	1-7/8"
3/8"	4-1/2"	4-1/8"	3-3/4"	3-3/8"	3"	2-5/8"	2-1/4"
1/2"	6"	5-1/2"	5"	4-1/2"	4"	3-1/2"	3"
5/8"	7-1/2"	6-7/8"	6-1/4"	5-5/8"	5"	4-3/8"	3-3/4"
3/4"	9"	8-1/4"	7-1/2"	6-3/4"	6"	5-1/4"	4-1/2"
7/8"	10-1/2"	9-5/8"	8-3/4"	7-7/8"	7"	6-1/8"	5-1/4"
1"	12"	11"	10"	9"	8"	7"	6"
1-1/4"	15"	13-1/4"	12-1/2"	11-1/4"	10"	8-3/4"	7-1/2"
REDUCTION FACTOR - ANCHOR CAPACITY							
Tension	1.00	0.91	0.83	0.75	0.65	0.55	0.5
Shear	1.00	0.97	0.94	0.91	0.89	0.83	0.8

**LENGTH IDENTIFICATION CODE**

Stamp on Anchor		A	B	C	D	E	F	G	H	I	J	K	L
Anchor Size	From:	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"
	Up to:	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"	7-1/2"



**NOTE:** Installing in concrete that is cured for less than 28 days will greatly reduce the anchor's strength.

**WARNING:** WEAR SAFETY GOGGLES

Installation instructions and warnings packaged with products must be followed precisely or holding power will be significantly lower. Safety goggles must be worn when working with all products.

All test data provided were from tests performed to ASTM E-488-81 and conducted in normal weight, hard rock aggregate concrete of the specific strength with a 28-day curing time designated in each chart.

Ultimate values of tensile and shear loads shown in test data should be used purely as a guide. Actual results may vary and are dependent on such factors as concrete strength, concrete curing time, grade of steel, embedment depth, and proper installation. All drill sizes are per ANSI B212.15.

Note: PARAWEDGE concrete anchors must be installed at the recommended spacing and edge distances to obtain full working load.

General industry practice for static loads is to use a safety factor of 4:1 to obtain safe working loads. In all installations, it is recommended that tests to simulate actual conditions are to be carried out to determine the suitability of the products for a particular application. For technical information and product performance data, contact Cobra Anchors Co. Ltd.

**TOOLS REQUIRED**



July 6, 2018



**SELECTION CHART**

ORDER INFORMATIONS				ANCHOR PARAMETERS				CERTIFICATIONS			
Product Number	SKU	Size	Industrial pack /Qty	Drill Size	Installation Torque ft. lb	Nominal Embedment	Thread Length	UL LISTED PIPE HANGER 6N38	FM APPROVED	ICC ES	LARR #26043
010C3440	490C	1/4" x 1-3/4"	100	1/4"	10	1-1/8"	3/4"			•	
010C3446	491C	1/4" x 2-1/4"	100	1/4"	10	1-3/4"	1-1/4"			•	•
010C3458	492C	1/4" x 3-1/4"	100	1/4"	10	2-3/4"	2-1/4"			•	•
010C3565	494C	3/8" x 2-1/4"	50	3/8"	30	1-5/8"	1-1/8"	•	•	•	•
010C3570	495C	3/8" x 2-3/4"	50	3/8"	30	2"	1-1/2"	•	•	•	•
010C3572	496C	3/8" x 3"	50	3/8"	30	2-1/4"	1-3/4"	•	•	•	•
010C3575	498C	3/8" x 3-3/4"	50	3/8"	30	2-3/8"	2-1/2"	•	•	•	•
010C3583	499C	3/8" x 5"	50	3/8"	30	2-1/2"	3-1/2"	•	•	•	•
010C3588	485C	3/8" x 6-1/2"	50	3/8"	30	4-1/4"	3"		•		
010C3623	500C	1/2" x 2-3/4"	50	1/2"	50	2-1/2"	1-1/2"	•	•	•	•
010C3630	501C	1/2" x 3-3/4"	50	1/2"	50	2-7/8"	2-1/4"	•	•	•	•
010C3640	502C	1/2" x 4-1/4"	50	1/2"	50	3-1/2"	2-3/4"	•	•	•	•
010C3648	503C	1/2" x 5-1/2"	25	1/2"	50	4-1/8"	3-1/4"	•	•	•	•
010C3665	504C	1/2" x 7"	25	1/2"	50	6"	4"		•	•	•
010C3670	486C	1/2" x 8-1/2"	25	1/2"	50	6"	3"		•		
010C3672	487C	1/2" x 10"	25	1/2"	50	6"	3"		•		
010C3725	505C	5/8" x 3-1/2"	20	5/8"	70	2-7/8"	1-1/2"	•	•	•	•
010C3733	506C	5/8" x 4-1/2"	20	5/8"	70	3"	2-1/2"	•	•	•	•
010C3735	507C	5/8" x 5"	20	5/8"	70	3-1/2"	3"	•	•	•	•
010C3739	508C	5/8" x 6"	20	5/8"	70	4"	4"	•	•	•	•
010C3743	509C	5/8" x 7"	20	5/8"	70	4-1/2"	4"		•	•	•
010C3745	510C	5/8" x 8-1/2"	10	5/8"	70	4-5/8"	3"		•		
010C3747	488C	5/8" x 10"	10	5/8"	70	7"	3"		•		
010C3748	489C	5/8" x 12"	10	5/8"	70	7"	3"				
010C3770	511C	3/4" x 4-1/4"	10	3/4"	120	3-3/8"	2"	•	•	•	•
010C3773	512C	3/4" x 4-3/4"	10	3/4"	120	4"	2-1/2"	•	•	•	•
010C3778	513C	3/4" x 5-1/2"	10	3/4"	120	4-3/4"	3-1/4"	•	•	•	•
010C3784	514C	3/4" x 6-1/4"	10	3/4"	120	5"	4"	•	•	•	•
010C3787	515C	3/4" x 7"	10	3/4"	120	5-1/2"	4"		•	•	•
010C3790	516C	3/4" x 8-1/2"	10	3/4"	120	6"	3"		•		
010C3793	518C	3/4" x 10"	10	3/4"	120	8"	3"		•		
010C3795	519C	3/4" x 12"	10	3/4"	120	8"	3"		•		
010C3826	520C	7/8" x 6"	10	7/8"	200	4"	2-1/4"				
010C3830	521C	7/8" x 8"	10	7/8"	200	4"	3"				
010C3835	522C	7/8" x 10"	10	7/8"	200	4"	3"				
010C3875	523C	1" x 6"	5	1"	250	4-1/2"	2-1/4"				
010C3880	524C	1" x 9"	5	1"	250	4-1/2"	3"				
010C3890	525C	1" x 12"	5	1"	250	4-1/2"	3"				
010C3935	526C	1-1/4" x 9"	5	1-1/4"	400	5-1/2"	3"				
010C3945	527C	1-1/4" x 12"	5	1-1/4"	400	5-1/2"	3"				



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