



SPECIFICATIONS, LISTINGS AND APPROVALS

CARBON STEEL

Material: Carbon Steel

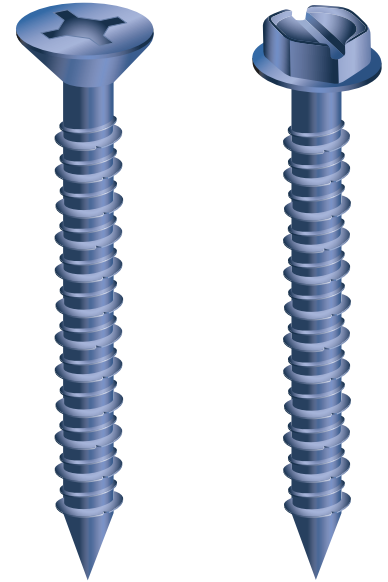
Diameters Available: 3/16" & 1/4" (4.8 mm & 6.4 mm)

Screw Lengths Available : in 3/16" : **from 1-1/4" to 4"** (4.8 mm : from 31.7 mm to 101.6 mm)
in 1/4" : **from 1-1/4" to 6"** (6.4 mm : from 31.7 mm to 152.4 mm)

Type of heads : FLAT OR HEXAGONAL HEAD, THE LOAD WEIGHTS ARE THE SAME.

FLAT

HEX

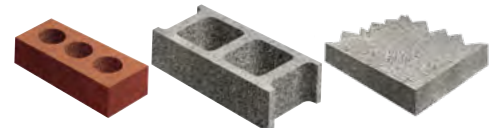


KEY FEATURES & BENEFITS

- ▶ HIGH GRADE HEAT TREATED STEEL to ensure the best torque, pull and shear performance.
- ▶ COBRA-COAT® Blue Fluorocarbon coating to maximize corrosion resistance, more than 1000 hours of salt spray test.
- ▶ HIGH & LOW THREAD for an ease of installation and maximum holding power.
- ▶ COMBINED FLAT HEAD (Robertson & Philips), for a better grip and superior efficiency.
- ▶ HEXAGONAL HEAD (Hexagonal & slot).
- ▶ Compatible with ACQ (Alkaline Copper Quaternary), an environmentally friendly water-based preservative used for pressure treated lumber.



MATERIALS



Concrete & Masonry

CERTIFICATIONS & APPROVALS

Concrete

- ICC-ES Evaluation Report **ESR-4910**.
- Compliance with 2021, 2018, 2015, 2012 and 2009 International Building Code (IBC).
- Compliance with 2021, 2018, 2015, 2012 and 2009 International Residential Building Code (IRC).
- Seismic Design Categories A and B.
- Evaluation Report Supplements:
 - 2020 City of Los Angeles Building Code (LABC).
 - 2020 City of Los Angeles Residential Code (LARC).
 - 2019 California Building Code (CBC).
 - 2019 California Residential Code (CRC).
 - 2020 Florida Building Code - Building.
 - 2020 Florida Building Code - Residential.

Masonry

- ICC-ES Evaluation Report **ESR-4909**.
- Compliance with 2021, 2018, 2015, 2012 and 2009 International Building Code (IBC).
- Compliance with 2021, 2018, 2015, 2012 and 2009 International Residential Building Code (IRC).
- Evaluation Report Supplements:
 - 2020 City of Los Angeles Building Code (LABC).
 - 2020 City of Los Angeles Residential Code (LARC).
 - 2019 California Building Code (CBC).
 - 2019 California Residential Code (CRC).
 - 2020 Florida Building Code - Building.
 - 2020 Florida Building Code - Residential.



CONCRETE 2000 Psi. (13,8 Mpa)													
Size Diameter	Drill Size	Embedment		Critical Edge Distance		Critical Spacing Distance		PULL Safe			SHEAR Safe		
		Inches	mm	Inches	mm	Inches	mm	lb	kg	kN	lb	kg	kN
3/16" 4.8 mm	5/32"	1"	25,4	2-1/4"	57,2	3"	76,2	164	74	0,7	175	79	0,8
		1-1/4"	31,8					250	113	1,1	188	85	0,8
		1-1/2"	38,1					375	170	1,7	198	90	0,9
		1-3/4"	44,5					435	197	1,9	200	91	0,9
		2"	50,8					435	197	1,9	210	95	0,9
		2-1/4"	57,2					435	197	1,9	215	98	1,0
		2-1/2"	63,5					435	197	1,9	220	100	1,0
		2-3/4"	69,9					435	197	1,9	225	102	1,0
		3"	76,2					435	197	1,9	230	104	1,0
		3-1/4"	82,6					435	197	1,9	235	107	1,0
1/4" 6.4 mm	3/16"	1"	25,4	2-1/2"	63,5	4"	101,6	190	86	0,8	193	88	0,9
		1-1/4"	31,8					275	125	1,2	250	113	1,1
		1-1/2"	38,1					375	170	1,7	275	125	1,2
		1-3/4"	44,5					500	227	2,2	288	131	1,3
		2"	50,8					625	283	2,8	300	136	1,3
		2-1/4"	57,2					745	338	3,3	308	140	1,4
		2-1/2"	63,5					745	338	3,3	315	143	1,4
		2-3/4"	69,9					745	338	3,3	323	147	1,4
		3"	76,2					745	338	3,3	330	150	1,5
		3-1/4"	82,6					745	338	3,3	335	152	1,5

For SI: 1 inch = 25,4 and 1 lb = 0,00445 kN. Safe working loads for single installation in static are determined based on a safety factor of 1:4.

CONCRETE 3000 Psi. (20,7 Mpa)													
Size Diameter	Drill Size	Embedment		Critical Edge Distance		Critical Spacing Distance		PULL Safe			SHEAR Safe		
		Inches	mm	Inches	mm	Inches	mm	lb	kg	kN	lb	kg	kN
3/16" 4.8 mm	5/32"	1"	25,4	2-1/4"	57,2	3"	76,2	175	79	0,8	190	86	0,8
		1-1/4"	31,8					325	147	1,4	225	102	1,0
		1-1/2"	38,1					435	197	1,9	240	109	1,1
		1-3/4"	44,5					435	197	1,9	250	113	1,1
		2"	50,8					435	197	1,9	260	118	1,2
		2-1/4"	57,2					435	197	1,9	265	120	1,2
		2-1/2"	63,5					435	197	1,9	270	122	1,2
		2-3/4"	69,9					435	197	1,9	275	125	1,2
		3"	76,2					435	197	1,9	280	127	1,2
		3-1/4"	82,6					435	197	1,9	285	129	1,3
1/4" 6.4 mm	3/16"	1"	25,4	2-1/2"	63,5	4"	101,6	200	91	0,9	225	102	1,0
		1-1/4"	31,8					290	132	1,3	275	125	1,2
		1-1/2"	38,1					475	215	2,1	325	147	1,4
		1-3/4"	44,5					625	283	2,8	350	159	1,6
		2"	50,8					700	318	3,1	370	168	1,6
		2-1/4"	57,2					745	338	3,3	375	170	1,7
		2-1/2"	63,5					745	338	3,3	390	177	1,7
		2-3/4"	69,9					745	338	3,3	395	179	1,8
		3"	76,2					745	338	3,3	400	181	1,8
		3-1/4"	82,6					745	338	3,3	415	188	1,8

For SI: 1 inch = 25,4 and 1 lb = 0,00445 kN. Safe working loads for single installation in static are determined based on a safety factor of 1:4.



CONCRETE 4000 Psi. (27,6 Mpa)

Size Diameter	Drill Size	Embedment		Critical Edge Distance		Critical Spacing Distance		PULL Safe			SHEAR Safe		
		Inches	mm	Inches	mm	Inches	mm	lb	kg	kN	lb	kg	kN
3/16" 4.8 mm	5/32"	1"	25,4	2-1/4"	57,2	3"	76,2	200	91	0,9	215	97	1,0
		1-1/4"	31,8					375	170	1,7	250	113	1,1
		1-1/2"	38,1					435	197	1,9	275	125	1,2
		1-3/4"	44,5					435	197	1,9	290	131	1,3
		2"	50,8					435	197	1,9	295	134	1,3
		2-1/4"	57,2					435	197	1,9	300	136	1,3
		2-1/2"	63,5					435	197	1,9	310	141	1,4
		2-3/4"	69,9					435	197	1,9	315	143	1,4
		3"	76,2					435	197	1,9	320	145	1,4
		3-1/4"	82,6					435	197	1,9	325	147	1,4
1/4" 6.4 mm	3/16"	1"	25,4	2-1/2"	63,5	4"	101,6	265	120	1,2	270	122	1,2
		1-1/4"	31,8					375	170	1,7	380	172	1,7
		1-1/2"	38,1					565	256	2,5	375	170	1,7
		1-3/4"	44,5					725	329	3,2	400	181	1,8
		2"	50,8					745	338	3,3	425	193	1,9
		2-1/4"	57,2					745	338	3,3	435	197	1,9
		2-1/2"	63,5					745	338	3,3	450	204	2,0
		2-3/4"	69,9					745	338	3,3	458	208	2,0
		3"	76,2					745	338	3,3	465	211	2,1
		3-1/4"	82,6					745	338	3,3	475	215	2,1

For SI: 1 inch = 25,4 and 1 lb = 0,00445 kN. Safe working loads for single installation in static are determined based on a safety factor of 1:4.

CONCRETE 5000 Psi. (34,5 Mpa)

Size Diameter	Drill Size	Embedment		Critical Edge Distance		Critical Spacing Distance		PULL Safe			SHEAR Safe		
		Inches	mm	Inches	mm	Inches	mm	lb	kg	kN	lb	kg	kN
3/16" 4.8 mm	5/32"	1"	25,4	2-1/4"	57,2	3"	76,2	250	113	1,1	275	125	1,2
		1-1/4"	31,8					413	187	1,8	295	134	1,3
		1-1/2"	38,1					431	195	1,9	310	141	1,4
		1-3/4"	44,5					431	195	1,9	320	145	1,4
		2"	50,8					431	195	1,9	330	150	1,5
		2-1/4"	57,2					431	195	1,9	340	154	1,5
		2-1/2"	63,5					431	195	1,9	348	158	1,5
		2-3/4"	69,9					431	195	1,9	355	161	1,6
		3"	76,2					431	195	1,9	362	164	1,6
		3-1/4"	82,6					431	195	1,9	445	202	2,0
1/4" 6.4 mm	3/16"	1"	25,4	2-1/2"	63,5	4"	101,6	300	136	1,3	300	136	1,3
		1-1/4"	31,8					450	204	2,0	400	181	1,8
		1-1/2"	38,1					625	283	2,8	425	193	1,9
		1-3/4"	44,5					744	337	3,3	450	204	2,0
		2"	50,8					744	337	3,3	475	215	2,1
		2-1/4"	57,2					744	337	3,3	490	222	2,2
		2-1/2"	63,5					744	337	3,3	500	227	2,2
		2-3/4"	69,9					744	337	3,3	513	233	2,3
		3"	76,2					744	337	3,3	520	236	2,3
		3-1/4"	82,6					744	337	3,3	530	240	2,4

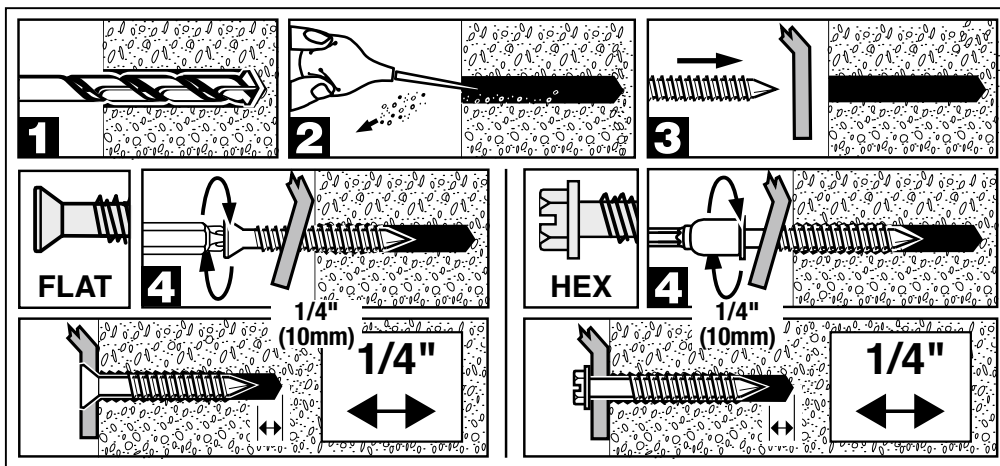
For SI: 1 inch = 25,4 and 1 lb = 0,00445 kN. Safe working loads for single installation in static are determined based on a safety factor of 1:4.



MASONRY

Size Diameter	Drill Size	Embedment		Critical Edge Distance		Critical Spacing Distance		GROUTED AND UNGROUTED CMU					
								PULL Safe			SHEAR Safe		
		Inches	mm	Inches	mm	Inches	mm	lb	Kg	kN	lb	Kg	kN
3/16" (4.8mm)	5/32"	1"	25,4	3"	76,2	3"	76,2	90	41	0,4	165	75	0,7
1/4" (6.4mm)	3/16"	1"	25,4	3"	101,6	4"	101,6	135	61	0,6	220	100	1,0

For SI: 1 inch = 25,4 and 1 lb = 0,00445 kN. Safe working loads for single installation in static are determined based on a safety factor of 1:4.



INSTALLATION INSTRUCTIONS

1. Drill the appropriate size hole into the base material (see chart above for drill bit diameter).
2. Remove dust and debris from the hole with a dust blower.
3. Insert the screw through the object you need to affix and into the drilled hole.
4. Screw clockwise until there is a firm resistance.

TOOLS REQUIRED



AVAILABLE ACCESSORIES



NOTES:

- Safe working loads for single installation in static are determined based on a safety factor of 1:4.
- To meet recommended load capacity, use the recommended style and drill size.
- Charges may vary according to the quality of concrete.

CAUTION:

- Always wear safety glasses.
- Follow the drill manufacturer's safety instructions.
- Use only solid carbide-tipped drill bits meeting ANSI B212.15 diameter standard.