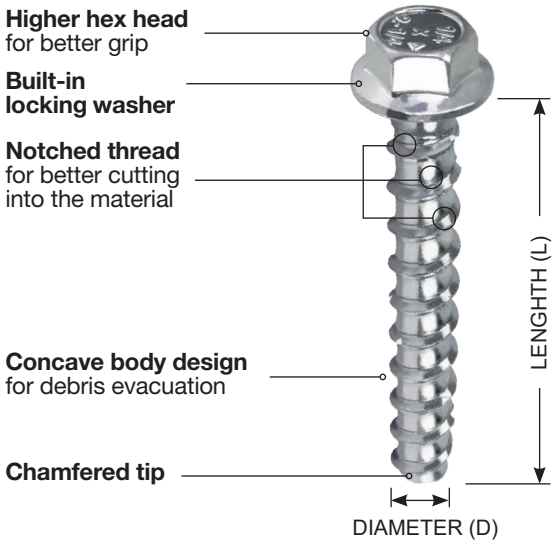
COBRA ANCHORS ▶ FIXATIONS

CobraTork™

SPECIFICATIONS, LISTINGS AND APPROVALS

Anchor Component: Hardened Carbon Steel C-1010
Mechanical Properties:
- Proof load as per ASTM E488
- Hardness tested as per ASTM E18, ASTM E384, ASTM E3, ASTM E1077, SAE J423 and ASTM F788
- Zinc plated as per ASTM B633, Type III

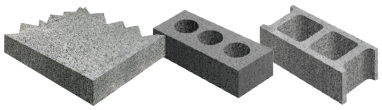
Available Diameters: 1/4" x 1-3/4" to 3/4" x 6"



KEY FEATURES & BENEFITS

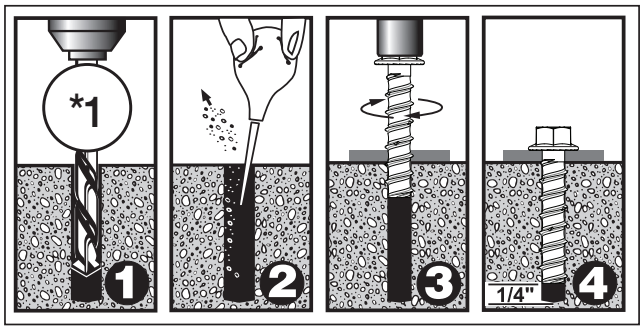
- One-Step installation: Anchor nominal diameter = Drill bit size
- Fast & easy to install
- Fully removable and reusable
- Diameter and length marked on hex head
- One-Piece Anchor (Hex head with built-in locking washer)
- Anchor size stamped on the head

MATERIALS



INSTALLATION INSTRUCTIONS

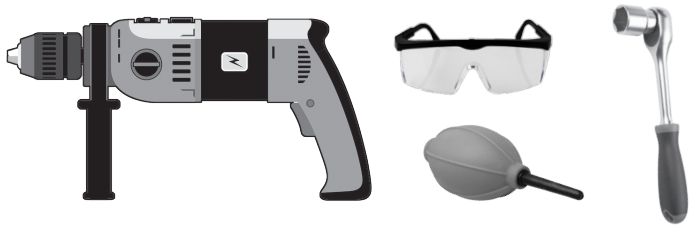
1. Drill a hole into the masonry **1/4" deeper than the embedment recommended depth.**
   (1/4" for diameter 1/4",3/8",5/16" and 1/2" for diameter 1/2",5/8" & 3/4")
2. Clean hole using a dust blower or compressed air.
3. Attach an appropriate sized hex socket to a ratchet or an impact wrench. Insert the CobraTork through the object you need to affix and into the hole. Drive the anchor through the fixture and into the hole until the head of the anchor comes into contact with the fixture.
4. The anchor should be tight after installation. Do not spin the hex socket off the anchor to disengage.



***1 :** Anchor nominal diameter equals drill bit size

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.

TOOLS REQUIRED



NOTES:
- Technical data provided only for the use of a qualified technician and /or design engineer.
- **Data used by persons not qualified can cause serious damage, injury or even death.**
- Allowable loads have a **Safety Factor of 4:1 from ultimate loads** obtained in test.
- Most applications have a combination of tension and shear forces.
- When there is interaction of tensile and shear forces, or prying force, the overall load capacity must be recalculated.
- Loads may vary according to the quality of concrete.
- Spacing and edge distances of Table 3 are recommended to prevent concrete deterioration.

MADE IN

SAFE LOAD CAPACITIES FOR INSTALLATION INTO NORMAL-WEIGHT CONCRETE				TABLE 1 — MINIMUM CONCRETE COMPRESSIVE STRENGTH (F'C) SAFE WORKING LOADS 4:1 *					
				2,000 psi (13.8 Mpa)		4,000 psi (27.6 Mpa)		6,000 psi (41.4 Mpa)	
Anchor size ** D x L	Drill Size	Embedment depth		TENSION lb	SHEAR lb	TENSION lb	SHEAR lb	TENSION lb	SHEAR lb
		in	mm						
1/4" X 1-3/4"	1/4"	1-1/2	38.1	562	429	734	566	824	693
1/4" X 2-1/4"	1/4"	2	50.8	890	627	1259	942	1541	1177
1/4" X 3"	1/4"	2-1/2	63.5	1277	702	1389	992	1701	1215
5/16" X 2-1/4"	5/16"	2	50.8	907	1003	1282	1159	1570	1420
5/16" X 3"	5/16"	2-3/4	69.9	1023	1047	1447	1415	1773	1733
3/8" X 1-3/4"	3/8"	1-1/2	38.1	488	873	689	988	844	1109
3/8" X 2-1/2"	3/8"	2	50.8	808	934	1054	1233	1399	1294
3/8" X 3"	3/8"	2-1/2	63.5	1073	1397	1518	1166	1859	1428
3/8" X 4"	3/8"	3-1/2	88.9	1949	1815	2756	1676	3376	1802
1/2" X 2-1/2"	1/2"	2	50.8	739	1446	1126	1145	1281	1610
1/2" X 3"	1/2"	2-1/2	63.5	1185	1498	1676	1327	2053	1625
1/2" X 4"	1/2"	3-1/2	88.9	1855	2055	2623	2242	3213	2745

* Loads may vary according to the quality of the concrete.

TABLE 2 — ANCHOR SPECIFICATIONS											
Anchor size **	Anchor diameter		Total length		Threaded length		Head type	Head & washer length		Washer diameter	
Units >	in	mm	in	mm	in	mm		in	mm	in	mm
1/4" X 1-3/4"	1/4	6.4	1-3/4	44.5	1-1/2	38.1	Hexagonal	0.3	6.35	0.56	14.2
1/4" X 2-1/4"	1/4	6.4	2-1/4	57.2	2	50.8	Hexagonal	0.25	6.4	0.56	14.2
1/4" X 3"	1/4	6.4	3	76.2	2-3/4	69.9	Hexagonal	0.3	6.35	0.56	14.2
5/16" X 2-1/4"	5/16	7.9	2-1/4	57.2	2	50.8	Hexagonal	0.3	7.6	0.71	18.0
5/16" X 3"	5/16	7.9	3	76.2	2-3/4	69.9	Hexagonal	0.3	7.6	0.71	18.0
3/8" X 1-3/4"	3/8	9.5	1-3/4	44.5	1-1/2	38.1	Hexagonal	0.4	10.16	0.81	20.6
3/8" X 2-1/2"	3/8	9.5	2-1/2	63.5	2-1/4	57.2	Hexagonal	0.4	10.16	0.81	20.6
3/8" X 3"	3/8	9.5	3	76.2	2-3/4	69.9	Hexagonal	0.4	10.2	0.81	20.6
3/8" X 4"	3/8	9.5	4	101.6	3-3/4	95.3	Hexagonal	0.4	10.2	0.81	20.6
1/2" X 2-1/2"	1/2	12.7	2-1/2	63.5	2-1/4	57.2	Hexagonal	0.5	12.7	1.08	27.4
1/2" X 3"	1/2	12.7	3	76.2	2-3/4	69.9	Hexagonal	0.5	12.7	1.08	27.4
1/2" X 4"	1/2	12.7	4	101.6	3-3/4	95.3	Hexagonal	0.5	12.7	1.08	27.4

** For a complete list of the different packaging formats available please visit our website **cobraanchors.com**

TABLE 3 — INSTALLATION SPECIFICATIONS												
Anchor size **	Drill Size	Embedment depth		Minimum hole depth		Edge distance		Spacing distance		Wrench socket size	Torque	
Units >	in	in	mm	in	mm	in	mm	in	mm	in	Ft-lb	N-m
1/4" X 1-3/4"	1/4	1-1/2	38.1	1-3/4	44.5	3	76.2	3	76.2	7/16	25	34
1/4" X 2-1/4"	1/4	2	50.8	2-1/4	57.2	3	76.2	3	76.2	7/16	25	34
1/4" X 3"	1/4	2-1/2	63.5	3	76.2	3	76.2	3	76.2	7/16	25	34
5/16" X 2-1/4"	5/16	2	50.8	2-1/4	57.2	3-3/4	95.3	3-3/4	95.3	1/2	30	41
5/16" X 3"	5/16	2-3/4	69.9	3	76.2	3-3/4	95.3	3-3/4	95.3	1/2	30	41
3/8" X 1-3/4"	3/8	1-1/2	38.1	1-3/4	44.5	4-1/2	114.3	4-1/2	114.3	9/16	40	54
3/8" X 2-1/2"	3/8	2	50.8	2-1/2	63.5	4-1/2	114.3	4-1/2	114.3	9/16	40	54
3/8" X 3"	3/8	2-1/2	63.5	3	76.2	4-1/2	114.3	4-1/2	114.3	9/16	40	54
3/8" X 4"	3/8	3-1/2	88.9	4	101.6	4-1/2	114.3	4-1/2	114.3	9/16	40	54
1/2" X 2-1/2"	1/2	2	50.8	2-1/2	63.5	6	152.4	6	152.4	3/4	50	68
1/2" X 3"	1/2	2-1/2	63.5	3	76.2	6	152.4	6	152.4	3/4	50	68
1/2" X 4"	1/2	3-1/2	88.9	4	101.6	6	152.4	6	152.4	3/4	50	68