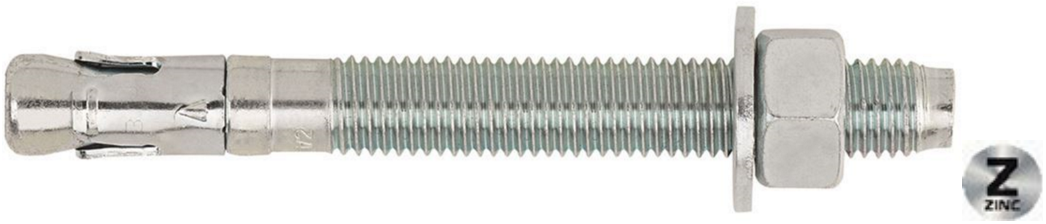


MTL

CHARACTERISTICS

- Works using friction; installation by controlled torque
- Use for medium-heavy duty loads.
- Easy installation.
- For use in non-cracked concrete.
- Use for static or quasi-static loads.
- Available in zinc-plated steel

BASE MATERIAL

CONCRETE

SIZE

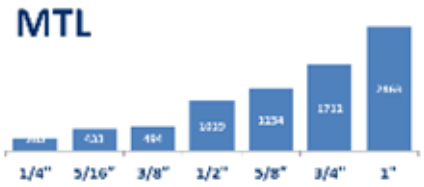
¼" – 1"

DRILLHOLE CONDITIONS

APPLICATIONS

- Indoor structural fixings in non-cracked concrete.
- Safety barriers.
- For fixing billboards, machinery, boilers, signals, advertising hoardings, etc.
- For fixing wood structures to concrete.

RECOMMENDED TENSION RESISTANCES IN NON-CRACKED CONCRETE [kg]



APLICATION EXAMPLES

1. RANGE

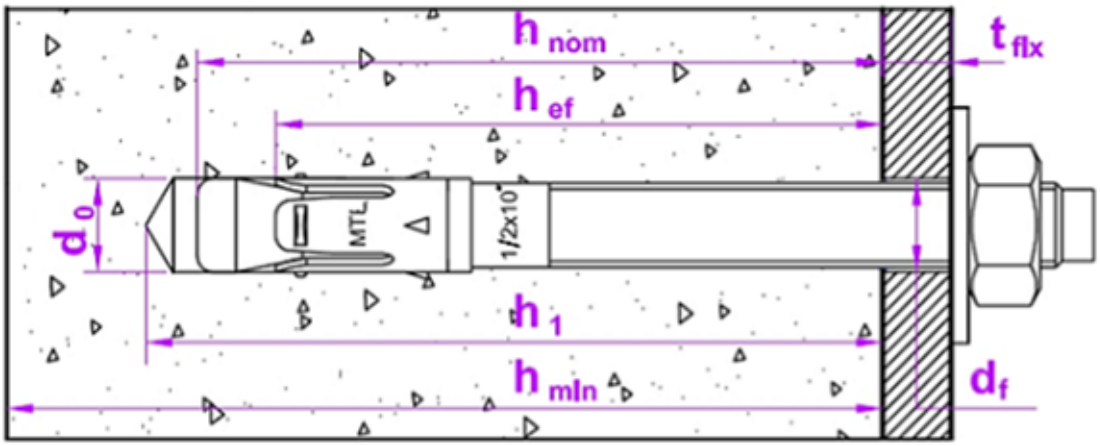
ITEM	CODE	SIZE	PHOTO	COMPONENT	MATERIAL	COVERING
1	MTL	¼" – 1"		Shaft	Carbon Steel	
				Clip	Carbon Steel	
				Nut	ASME B18.2.2 class 2B	
				Washer	ASME B18.21.1	

2. ACCESORIES

ITEM	CODE	PHOTO	DESCRIPTION
1	DOMTA		Useful for anchor installation using a hammer drill

3. INSTALLATION DATA

3.1 INSTALLATION DRAWING



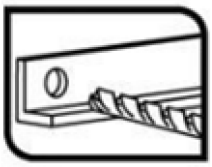
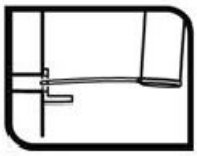
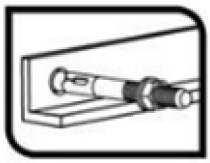
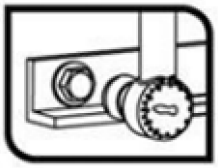
4. INSTALLATION PARAMETERS

Code	Size	Drill bit diam.	Installation torque		h_1: minimum drillhole depth		h_{nom}: embedment depth		h_{ef}: effective depth		t_{fix}: thickness to be fixed		h_c: minimum base material thickness		s_{cr}: critical spacing distance		c_{cr}: critical edge distance		s_{min}: minimum spacing distance		c_{min}: minimum edge distance	
			[ft lb]	[Nm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]
AL014134	¼" x 1-3/4"	¼"	4	5	1 ½	38	1.19	30	1.00	25	0,20	5	4	100	4.50	115	2.25	55	2.00	50	2.00	50
AL014214	¼" x 2-1/4"				2	51	1.69	42	1.50	38	0,20	5										
AL014300	¼" x 3"										0,95	24										
AL014314	¼" x 3-1/4"										1,20	30										
AL516200	5/16" x 2"	5/16"	10	14	1-13/16	46	1.31	33	1.06	27	0,23	6	4	100	5.25	135	2.62	65	2.60	65	2.60	65
AL516234	5/16" x 2-3/4"				2- ½	63	2.00	51	1.75	45	0,29	7										
AL516312	5/16" x 3-1/2"										1,04	36										
AL516500	5/16" x 5"										2,54	64										
AL038214	3/8" x 2-1/4"	3/8"	20	27	2	51	1.53	39	1.25	32	0,71	18	4	100	6.00	155	3.00	75	2.75	70	2.75	70
AL038234	3/8" x 2-3/4"				2	51	1.53	39	1.25	32	1,21	31										
AL038300	3/8" x 3"				23/4	70	2,28	58	2,00	51	0,24	6										
AL038312	3/8" x 3-1/2"										0,74	19										
AL038334	3/8" x 3-3/4"										0,99	25										
AL038500	3/8" x 5"										2,24	57										
AL012234	½" x 2-3/4"	½"	40	54	21/4	57	1.84	47	1.50	38	0,23	6	4	100	7.50	190	3.75	95	3.35	85	3.35	85
AL012300	½" x 3"										0,48	12										
AL012312	½" x 3-1/2"										0,98	25										
AL012334	½" x 3-3/4"				3 ¼	83	2.84	71	2.50	63	0,27	7	5	130								
AL012414	½" x 4-1/4"										0,77	20										
AL012412	½" x 4-1/2"										1,02	26										

AL012500	½" x 5"										1,52	39								
AL012512	½" x 5-1/2"										2,02	52								
AL012700	½" x 7"										3,52	89								
AL012100	½" x 10"										6,52	166								
AL058312	5/8" x 3/12"	5/8"	80	108	2-7/8	73	2.25	57	1.75	44	0,45	11	4	100	9.00	230	4.50	115	4.35	110	4.35	110
AL058412	5/8" x 4-1/2"				4 1/8	105	3.50	89	3.00	76	0,21	5	6	155								
AL058500	5/8" x 5"										0,71	18										
AL058600	5/8" x 6"										1,71	43										
AL058700	5/8" x 7"										2,71	69										
AL058812	5/8" x 8-1/2"										4,21	107										
AL058100	5/8" x 10"										5,71	145										
AL034414	¾" x 4-1/4"	¾"	110	149	3 ½	89	2.75	69	2.25	57	0,54	14	7	178	10.50	268	5.25	133	5.31	135	5.31	135
AL034434	¾" x 4-3/4"				3 ½	89	2.75	69	2.25	57	1,04	26										
AL034512	¾" x 5-1/2"				4 ¾	121	4.00	102	3.50	89	0,54	14										
AL034612	¾" x 6-1/2"										1,54	26										
AL034700	¾" x 7"										2,04	52										
AL034812	¾" x 8-1/2"										3,54	90										
AL034100	¾" x 10"										5,04	128										
AL100060	1" x 6"	1"	185	250	5 ¼	139	4.18	106	3.25	82.5	0.51	23	9	230	13.50	345	6.75	171	5.63	143	5.63	143
AL100090	1" x 9"				6 ½	165	5.43	138	4.50	115	2.23	57										
AL101200	1" x 12"										5.23	133										

Critical distances are those in which anchors in a group of anchors are not influenced by each other for traction loads. For shorter distances, up to the minimum distances, the corresponding reduction coefficients must be applied.

5. PRODUCT INSTALLATION

• Drill to the specified diameter and depth values. Use drill in percussive or hammer setting. Previously check if the concrete base is compact and porosity is insignificant. Suitable for wet, dry or flooded drill holes.

• Clear the drill holes completely of dust and fragments from drilling. Use air pump and brush.

• Insert the anchor until the depth mark is level with base material surface. Use hammer if necessary. Alternatively, use the DOMTA placement tool. Installation may be carried out through the material to be fixed or prior to its placement.

• Apply nominal torque using a torque wrench. Once installed, the total length of the anchor may be checked using the letter on the shaft, according to ETE values.

6. RESISTANCES

The characteristic resistance of concrete of 3.250 psi (225 MPa) compression resistance for an isolated anchor (without considering anchor-to-anchor or anchor-to-edge distance effects) is according to the following table:

Code	Size	Tension			Shear		
		[lb]	[kN]	Safety coef.	[lb]	[kN]	Safety coef.
AL014134	1/4" x 1-3/4"	786	3.5	1.8	1169	5.2	1.25
AL014214	1/4" x 2-1/4"	1461	6.5				
AL014300	1/4" x 3"						
AL014314	1/4" x 3-1/4"						
AL516200	5/16" x 2"	1148	5.1	1.8	1596	7.1	1.5
AL516234	5/16" x 2-3/4”	2472	11.0		2360	10.5	1.25
AL516312	5/16" x 3-1/2"						
AL516500	5/16" x 5"						
AL038214	3/8" x 2-1/4"	1348	6.0	1.8	2023	9.0	1.50
AL038234	3/8" x 2-3/4"						
AL038300	3/8" x 3"	2742	12.2		2855	12.7	1.25
AL038312	3/8" x 3-1/2"						
AL038334	3/8" x 3-3/4"						
AL038500	3/8" x 5"						
AL012234	1/2" x 2-3/4"	2652	11.8	1.8	5328	23.7	1.50
AL012300	1/2" x 3"						
AL012334	1/2" x 3-3/4"	5665	25.2		5036	22.4	1.25
AL012414	1/2" x 4-1/4"						
AL012412	1/2" x 4-1/2"						
AL012500	1/2" x 5"						
AL012512	1/2" x 5-1/2"						
AL012700	1/2" x 7"						
AL012100	1/2" x 10"						

Code	Size	Tension			Shear		
		[lb]	[kN]	Safey coef.	[lb]	[kN]	Safety coef.
AL058312	5/8” x 3/12”	3057	13.6	1.8	6722	29.9	1.50
AL058412	5/8" x 4-1/2"	6856	30.5		8026	35.7	1.25
AL058500	5/8" x 5"						
AL058600	5/8" x 6"						
AL058700	5/8" x 7"						
AL058812	5/8" x 8-1/2"						
AL058100	5/8" x 10"						
AL034414	3/4" x 4-1/4"	4878	21.7	1.8	9779	43.5	1.5
AL034434	3/4" x 4-3/4"						
AL034512	3/4" x 5-1/2"	9509	42.3		11150	49.6	1.25
AL034612	3/4" x 6-1/2”						
AL034700	3/4" x 7”						
AL034812	3/4" x 8-1/2"						
AL034100	3/4" x 10"						
AL100060	1” x 6”	8318	37.0	1.8	16973	75.5	1.5
AL100090	1” x 9”	13691	60.9		19108	85.0	1.25
AL101200	1” x 12”						

1 kN ≈ 100kg

A load safety coefficient γ_F = 1,4 is recommended.