



AC-CA



AC-CI



AC-TO



AC-ES



AC-AR



AC-GA

CHARACTERISTICS

- Metallic anchor, with functioning principle by expansion and installation by controlled torque.
- Male thread.
- Use in non-cracked concrete.
- Easy assembly.
- Use for high loads.
- Anchor must be installed before the fixture.
- Zinc plated and A4 stainless Steel versions.

APPLICATIONS

- Fixing signs, racks, panels, gates, handrails, street furniture and fence posts.

SIZES

M6 – M16

DRILL HOLE CONDITIONS



DRY



WET

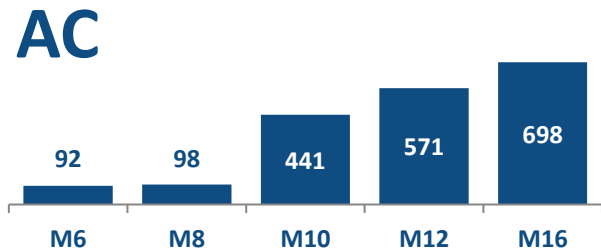


FLOODED

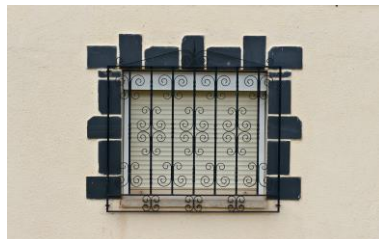
BASE MATERIAL















MAXIMUM LOADS RECOMMENDED IN NON-CRACKED CONCRETE [kg]



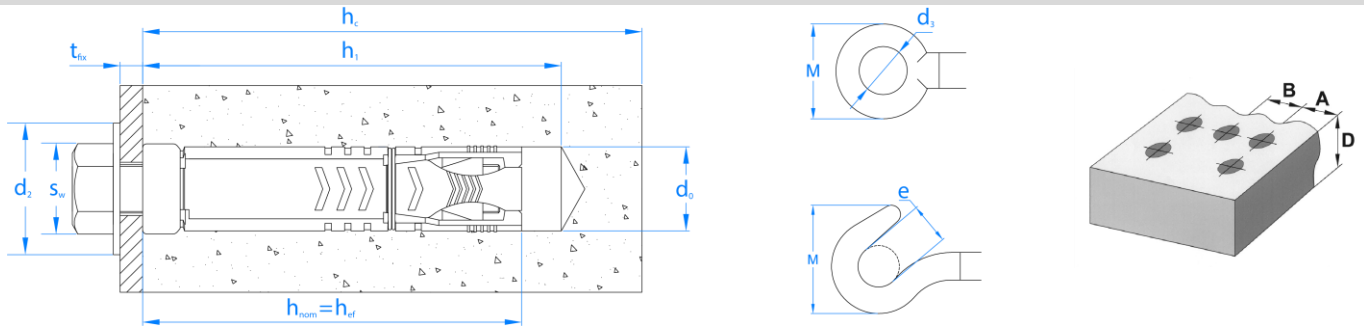
APPLICATION EXAMPLES



1. RANGE						
ITEM	CODE	SIZE	PHOTO	COMPONENT	MATERIAL	COATING
1	AACCA	M6 to M16		Capsule	Carbon steel, zinc plated $\geq 5\mu\text{m}$	
2	AACCI	M6 to M12		Capsule	A4 stainless steel	
3	AACTO	M6 to M16		Capsule Screw Washer	Carbon steel, zinc plated $\geq 5\mu\text{m}$	
4	AACES	M6 to M12		Capsule Stud Washer	Carbon steel, zinc plated $\geq 5\mu\text{m}$	
5	AACAR	M6 to M12		Capsule Eye Washer	Carbon steel, zinc plated $\geq 5\mu\text{m}$	
6	AACGA	M6 to M12		Capsule Hook Washer	Carbon steel, zinc plated $\geq 5\mu\text{m}$	

2. INSTALLATION DATA

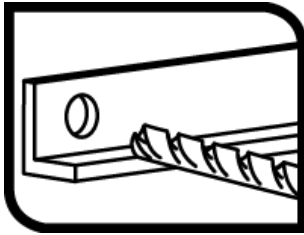
2.1 DRAWING



		M6	M8	M10	M12	M16
d ₀ : drill diameter	[mm]	10	14	16	20	25
d ₂ : washer diameter	[mm]	18	20	23,5	30	40
h _{nom} : embedment depth	[mm]	40	50	60	80	100
h _{ef} : effective depth	[mm]	40	50	60	80	100
h ₁ : drill depth ≤	[mm]	45	60	70	90	110
h _c : base material thickness ≤	[mm]	100	100	120	160	200
s _{sp} : critical spacing (splitting)	[mm]	240	300	360	480	600
c _{sp} : critical edge distance (splitting)	[mm]	120	150	180	240	300
s _{cr} : critical spacing (concrete cone)	[mm]	120	150	180	240	300
c _{cr} : critical Edge distance (concrete cone)	[mm]	60	75	90	120	150
s _{min} : minimum spacing	[mm]	60	75	90	120	150
c _{min} : minimum edge distance	[mm]	60	75	90	120	150
t _{ins} : installation torque	[Nm]	10	25	50	85	120
t _{fix} : maximum fixture thickness	[mm]	8,5	8,5	8,0	17,5	17,0
d ₃ : interior eye diameter	[mm]	10	12	14	17	--
e: hook minimum gap	[mm]	10	11	14	18	--
S _w : nut key	[mm]	10	13	17	19	24

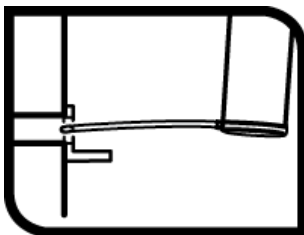
3. INSTALLATION PROCEDURE

3.1. CONCRETE INSTALLATION



1. DRILLING

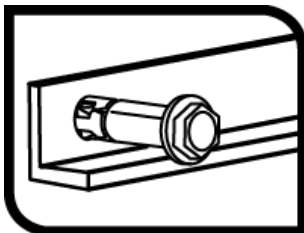
Check the concrete base in compact and porosity is insignificant.
Suitable for wet, dry or flooded drill holes
Use drill in hammer mode
Drill to the specified diameter and depth values.



2. BLOW AND CLEAN

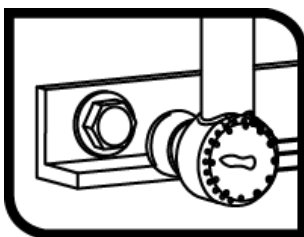
Clear the drill holes completely of dust and fragments.

Use air pump and brush..



3. INSTALL

Insert the anchor in the hole until the red ring mark is flat with concrete surface.
Use hammer in case of need; DOMTA tool could be used alternatively.
The installation could be done through the fixture baseplate.



4. APPLY TORQUE

Apply nominal installation torque using a torque wrench.

4. RESISTANCES

Characteristic resistance in non-cracked concrete C20 / 25 for an isolated anchor (no effects edge distance or distances between anchors) is indicated in the following table

4.1 CHARACTERISTIC RESISTANCE [kN]

Family	Code	Size	Tension	Shear
			N _{Rk}	V _{Rk}
AC-CA	AACCA06	M6 x 40 Ø10	2,28	<u>6,03</u>
	AACCA08	M8 x 50 Ø14	2,41	<u>10,98</u>
	AACCA10	M10 x 60 Ø16	10,90	<u>17,40</u>
	AACCA12	M12 x 80 Ø20	14,13	<u>25,29</u>
	AACCA16	M16 x 100 Ø25	17,26	<u>47,10</u>
AC-CI	AACCI06	M6 x 40 Ø10	2,28	<u>7,04</u>
	AACCI08	M8 x 50 Ø14	2,41	<u>12,81</u>
	AACCI10	M10 x 60 Ø16	10,90	<u>20,30</u>
	AACCI12	M12 x 80 Ø20	14,13	<u>29,51</u>
AC-TO	AACTO06	M6 x 40 Ø10	2,28	<u>6,03</u>
	AACTO08	M8 x 50 Ø14	2,41	<u>10,98</u>
	AACYO10	M10 x 60 Ø16	10,90	<u>17,40</u>
	AACTO12	M12 x 80 Ø20	14,13	<u>25,29</u>
	AACTO16	M16 x 125 Ø25	17,26	<u>47,10</u>
AC-ES	AACES06	M6 x 40 Ø10	2,28	<u>4,22</u>
	AACES08	M8 x 50 Ø14	2,41	<u>7,69</u>
	AACES10	M10 x 60 Ø16	10,90	<u>12,18</u>
	AACES12	M12 x 80 Ø20	14,13	<u>17,70</u>
AC-AR	AACAR06	M6 x 40 Ø10	2,28	-
	AACAR08	M8 x 50 Ø14	2,41	-
	AACAR10	M10 x 60 Ø16	10,90	-
	AACAR12	M12 x 80 Ø20	14,13	-
AC-GA	AACGA06	M6 x 40 Ø10	<u>1,64</u>	-
	AACGA08	M8 x 50 Ø14	2,41	-
	AACGA10	M10 x 60 Ø16	<u>5,00</u>	-
	AACGA12	M12 x 80 Ø20	<u>8,16</u>	-

1 KN ≈ 100 kg

Values underlined and in italics show steel failure, **bold** values concrete failure and other indicate pull out failure.

4.2 DESIGN RESISTANCE [kN]

Family	Code	Sizes	Tension	Shear
			N _{Rk}	V _{Rk}
AC-CA	AACCA06	M6 x 40 Ø10	1,27	<u>4,82</u>
	AACCA08	M8 x 50 Ø14	1,34	<u>8,78</u>
	AACCA10	M10 x 60 Ø16	6,06	<u>13,92</u>
	AACCA12	M12 x 80 Ø20	7,85	<u>20,23</u>
	AACCA16	M16 x 100 Ø25	9,59	<u>37,68</u>
AC-CI	AACCI06	M6 x 40 Ø10	1,27	<u>4,52</u>
	AACCI08	M8 x 50 Ø14	1,34	<u>98,24</u>
	AACCI10	M10 x 60 Ø16	6,06	<u>13,05</u>
	AACCI12	M12 x 80 Ø20	7,85	<u>18,97</u>
AC-TO	AACTO06	M6 x 40 Ø10	1,27	<u>4,82</u>
	AACTO08	M8 x 50 Ø14	1,34	<u>8,78</u>
	AACYO10	M10 x 60 Ø16	6,06	<u>13,92</u>
	AACTO12	M12 x 80 Ø20	7,85	<u>20,23</u>
	AACTO16	M16 x 125 Ø25	9,59	<u>37,68</u>
AC-ES	AACES06	M6 x 40 Ø10	1,27	<u>3,38</u>
	AACES08	M8 x 50 Ø14	1,34	<u>6,15</u>
	AACES10	M10 x 60 Ø16	6,06	<u>9,74</u>
	AACES12	M12 x 80 Ø20	7,85	<u>14,16</u>
AC-AR	AACAR06	M6 x 40 Ø10	1,27	-
	AACAR08	M8 x 50 Ø14	1,34	-
	AACAR10	M10 x 60 Ø16	6,06	-
	AACAR12	M12 x 80 Ø20	7,85	-
AC-GA	AACGA06	M6 x 40 Ø10	<u>1,09</u>	-
	AACGA08	M8 x 50 Ø14	1,34	-
	AACGA10	M10 x 60 Ø16	<u>3,33</u>	-
	AACGA12	M12 x 80 Ø20	<u>5,44</u>	-

1 kN ≈ 100 kg

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4.3 MAXIMUM LOAD RECOMMENDED [kN]

Family	Code	Sizes	Tension	Shear
			N _{Rk}	V _{Rk}
AC-CA	AACCA06	M6 x 40 Ø10	0,91	<u>3,45</u>
	AACCA08	M8 x 50 Ø14	0,96	<u>6,27</u>
	AACCA10	M10 x 60 Ø16	4,33	<u>9,94</u>
	AACCA12	M12 x 80 Ø20	5,61	<u>14,45</u>
	AACCA16	M16 x 100 Ø25	6,85	<u>26,91</u>
AC-CI	AACCI06	M6 x 40 Ø10	0,91	<u>3,23</u>
	AACCI08	M8 x 50 Ø14	0,96	<u>5,88</u>
	AACCI10	M10 x 60 Ø16	4,33	<u>9,32</u>
	AACCI12	M12 x 80 Ø20	5,61	<u>13,55</u>
AC-TO	AACTO06	M6 x 40 Ø10	0,91	<u>3,45</u>
	AACTO08	M8 x 50 Ø14	0,96	<u>6,27</u>
	AACYO10	M10 x 60 Ø16	4,33	<u>9,94</u>
	AACTO12	M12 x 80 Ø20	5,61	<u>14,45</u>
	AACTO16	M16 x 125 Ø25	6,85	<u>26,91</u>
AC-ES	AACES06	M6 x 40 Ø10	0,91	<u>2,41</u>
	AACES08	M8 x 50 Ø14	0,96	<u>4,39</u>
	AACES10	M10 x 60 Ø16	4,33	<u>6,96</u>
	AACES12	M12 x 80 Ø20	5,61	<u>10,12</u>
AC-AR	AACAR06	M6 x 40 Ø10	0,91	-
	AACAR08	M8 x 50 Ø14	0,96	-
	AACAR10	M10 x 60 Ø16	4,33	-
	AACAR12	M12 x 80 Ø20	5,61	-
AC-GA	AACGA06	M6 x 40 Ø10	<u>0,78</u>	-
	AACGA08	M8 x 50 Ø14	0,96	-
	AACGA10	M10 x 60 Ø16	<u>2,38</u>	-
	AACGA12	M12 x 80 Ø20	<u>3,89</u>	-

1 KN ≈ 100 kg

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