DWS Option 7 Drop In Anchor

MASONMATE EXTRA® ETA APPROVED FIXINGS

TECHNICAL **DATA SHEET**

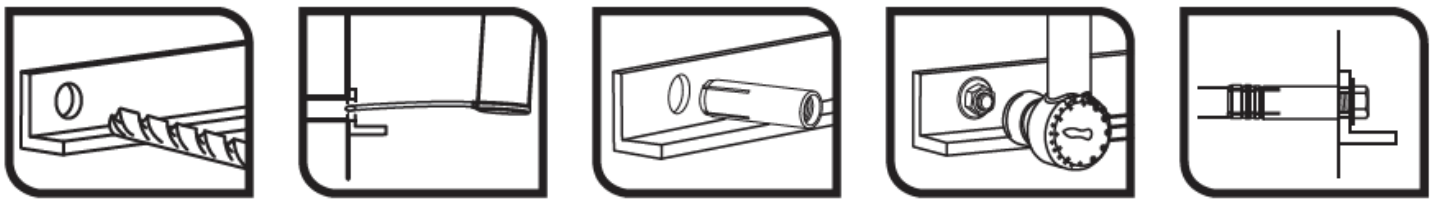
ETA-24/0934

ETA-24/0935

Zinc Plated

Characteristics	Suitable Materials
• Functioning by deformation • European approval for structural applications in non-cracked concrete • European approval for non-structural applications in cracked and non-cracked concrete • Installation prior to the material to be fixed • Bolt can be disassembled so that the surface of the base material is smooth • Bolt non included • VdS available from M8 to M20 • FM available for sizes M10 to M16	• Reinforced Concrete • Concrete • Stone 

Installation



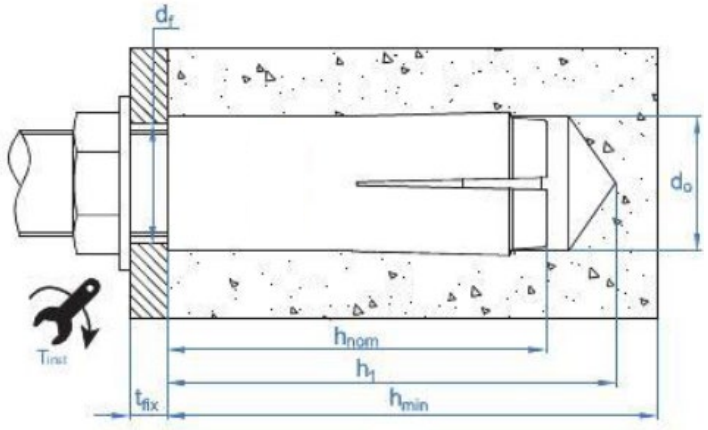
UK: Harrison & Clough Ltd.,
Galleon Blvd, Crossways Bus. Park,
Dartford, Kent, DA2 6QE

EU: QFF Distribution Ltd.,
24 Magna Drive, Magna Bus. Park,
Citywest Road, Dublin, D24 FNYO

Email: masonmate@harclo.com
Web: www.materange.com

MASONMATE EXTRA® ETA APPROVED FIXINGS

Installation Data



UK: Harrison & Clough Ltd.,
Galleon Blvd, Crossways Bus. Park,
Dartford, Kent, DA2 6QE

EU: QFF Distribution Ltd.,
24 Magna Drive, Magna Bus. Park,
Citywest Road, Dublin, D24 FNYO

Email: masonmate@harclo.com
Web: www.materange.com

Installation Parameters (Concrete)

General Installation Parameters – Structural Application

Code	Size	Assessed	Drill Bit Diameter	Fixture Diameter	Max. Installation Torque	Minimum Spacing	Minimum Edge Distance	Minimum Concrete Thickness	Depth of Drill Hole	Embedment Depth	Bolt Length*	Critical Spacing	Critical Edge Distance
		ETA	d_o	d_f	T_{inst}	S_{min}	C_{min}	h_{min}	h_1	h_{nom}	e	$S_{cr,N}$	$C_{cr,N}$
			mm	mm	Nm	mm	mm	mm	mm	mm	mm	mm	mm
Plain													
MAMDWS08	M8 x 30 Ø10	✓	10	9	11	60	105	100	33	30	8-13	90	45
MAMDWS10	M10 x 40 Ø12	✓	12	12	17	80	140	100	43	40	10-17	120	60
MAMDWS12	M12 x 50 Ø15	✓	15	14	38	100	175	100	54	50	12-21	150	75
MAMDWS16	M16 x 65 Ø20	✓	20	18	60	130	230	130	70	65	16-27	195	98
Lipped													
MAMDWSL08	M8 x 30 Ø10	✓	10	9	11	60	105	100	33	30	8-13	90	45
MAMDWSL10	M10 x 40 Ø12	✓	12	12	17	80	140	100	43	40	10-17	120	60
MAMDWSL12	M12 x 50 Ø15	✓	15	14	38	100	175	100	54	50	12-21	150	75

(*) Bolt length to be threaded (not included) = e + washer thickness + thickness of material to be fixed.

Installation Parameters (Concrete)

General Installation Parameters – Non-Structural Application

Code	Size	Assessed	Drill Bit Diameter	Fixture Diameter	Max. Installation Torque	Minimum Spacing	Minimum Edge Distance	Minimum Concrete Thickness	Depth of Drill Hole	Embedment Depth	Bolt Length*	Critical Spacing	Critical Edge Distance
		ETA	d_o	d_f	T_{inst}	S_{min}	C_{min}	h_{min}	h_1	h_{nom}	e	$S_{cr,N}$	$C_{cr,N}$
			mm	mm	Nm	mm	mm	mm	mm	mm	mm	mm	mm
Plain													
MAMDWS08	M8 x 30 Ø10	✓	10	9	11	60	105	100	33	30	8-13	90	45
MAMDWS10	M10 x 40 Ø12	✓	12	12	17	80	140	100	43	40	10-17	120	60
MAMDWS12	M12 x 50 Ø15	✓	15	14	38	100	175	100	54	50	12-21	150	75
MAMDWS16	M16 x 65 Ø20	✓	20	18	60	130	230	130	70	65	16-27	195	98
Lipped													
MAMDWSL08	M8 x 30 Ø10	✓	10	9	11	60	105	100	33	30	8-13	90	45
MAMDWSL10	M10 x 40 Ø12	✓	12	12	17	80	140	100	43	40	10-17	120	60
MAMDWSL12	M12 x 50 Ø15	✓	15	14	38	100	175	100	54	50	12-21	150	75

(*) Bolt length to be threaded (not included) = e + washer thickness + thickness of material to be fixed.

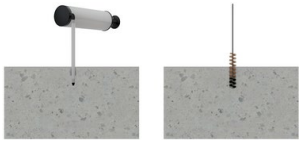
UK: Harrison & Clough Ltd.,
Galleon Blvd, Crossways Bus. Park,
Dartford, Kent, DA2 6QE

EU: QFF Distribution Ltd.,
24 Magna Drive, Magna Bus. Park,
Citywest Road, Dublin, D24 FNYO

Email: masonmate@harclo.com
Web: www.materange.com

MASONMATE EXTRA® ETA APPROVED FIXINGS

Installation Procedure

			
1. Drilling Check the concrete base is well compacted and porosity insignificant. Dry and wet drills allowed. Drill at hammer or percussion position. Respect specified diameter and depth.	**2. Blow and Clean** Clean the drill hole from dust and concrete remains. Use blow pump and brush.	**3. Install** Introduce the anchor in the hole completely. Use hammer if necessary. The anchor must not stand out of the surface of the base material.	**4. Expand Anchor** Insert the expansion tool into the inner cone of the anchor. Hammer until the setting tool is level with the anchor.

Resistances

Characteristic Resistance [kN]

Resistances in concrete class C20/C25 for an isolated anchor without spacing or concrete edge distance effects are indicated in the following table:

Code	Size	Assessed	Structural Applications		Non-Structural Applications
			Tension	Shear	Resistance To Any Direction
		ETA	N_{Rk}	V_{Rk}	F_{Rk}
Plain					
MAMDWS08	M8 x 30 Ø10	✓	**8,08**	**8,08**	3,00
MAMDWS10	M10 x 40 Ø12	✓	**12,45**	*9,10*	5,00
MAMDWS12	M12 x 50 Ø15	✓	**17,39**	**17,39**	7,50
MAMDWS16	M16 x 65 Ø20	✓	**25,78**	*32,50*	12,0
Lipped					
MAMDWSL08	M8 x 30 Ø10	✓	**8,08**	**8,08**	3,00
MAMDWSL10	M10 x 40 Ø12	✓	**12,45**	*9,10*	5,00
MAMDWSL12	M12 x 50 Ø15	✓	**17,39**	**17,39**	7,50

1 kN = 100 kg
Values *underlined and in italics* show Steel failure, **bold** values concrete failure and other indicate pull out failure.

UK: Harrison & Clough Ltd.,
Galleon Blvd, Crossways Bus. Park,
Dartford, Kent, DA2 6QE

EU: QFF Distribution Ltd.,
24 Magna Drive, Magna Bus. Park,
Citywest Road, Dublin, D24 FNYO

Email: masonmate@harclo.com
Web: www.materange.com

MASONMATE EXTRA® ETA APPROVED FIXINGS

Resistances

Design Resistance [kN]

Resistances in concrete class C20/C25 for an isolated anchor without spacing or concrete edge distance effects are indicated in the following table:

Code	Size	Assessed	Structural Applications		Non-Structural Applications
			Tension	Shear	Resistance To Any Direction
		ETA	N_{Rd}	V_{Rd}	F_{Rd}
Plain					
MAMDWS08	M8 x 30 Ø10	✓	**4,49**	**5,39**	1,67
MAMDWS10	M10 x 40 Ø12	✓	**5,93**	*7,28*	2,38
MAMDWS12	M12 x 50 Ø15	✓	**8,28**	**11,60**	3,57
MAMDWS16	M16 x 65 Ø20	✓	**12,28**	*26,00*	5,71
Lipped					
MAMDWSL08	M8 x 30 Ø10	✓	**4,49**	**5,39**	1,67
MAMDWSL10	M10 x 40 Ø12	✓	**5,93**	*7,28*	2,38
MAMDWSL12	M12 x 50 Ø15	✓	**8,28**	**11,60**	3,57

1 kN = 100 kg
Values *underlined and in italics* show Steel failure, **bold** values concrete failure and other indicate pull out failure.

Resistances

Maximum Recommended Loads [kN]

Resistances in concrete class C20/C25 for an isolated anchor without spacing or concrete edge distance effects are indicated in the following table:

Code	Size	Assessed	Structural Applications		Non-Structural Applications
			Tension	Shear	Resistance To Any Direction
		ETA	N_{Rec}	V_{Rec}	F_{Rec}
Plain					
MAMDWS08	M8 x 30 Ø10	✓	**3,21**	**3,85**	1,19
MAMDWS10	M10 x 40 Ø12	✓	**4,23**	*5,20*	1,70
MAMDWS12	M12 x 50 Ø15	✓	**5,92**	**8,28**	2,55
MAMDWS16	M16 x 65 Ø20	✓	**8,77**	*18,57*	4,08
Lipped					
MAMDWSL08	M8 x 30 Ø10	✓	**3,21**	**3,21**	1,19
MAMDWSL10	M10 x 40 Ø12	✓	**4,23**	*5,20*	1,70
MAMDWSL12	M12 x 50 Ø15	✓	**5,92**	**8,28**	2,55

1 kN = 100 kg
Values *underlined and in italics* show Steel failure, **bold** values concrete failure and other indicate pull out failure.

UK: Harrison & Clough Ltd.,
Galleon Blvd, Crossways Bus. Park,
Dartford, Kent, DA2 6QE

EU: QFF Distribution Ltd.,
24 Magna Drive, Magna Bus. Park,
Citywest Road, Dublin, D24 FNYO

Email: masonmate@harclo.com
Web: www.materange.com