Technical data sheet

FM 753 evo
Heavy Duty Wedge Anchor

Heavy-duty wedge anchor for the medium load range, in sizes M6 - M20 for anchoring in non-cracked concrete C20/25 - C50/60.

Features

Material

- Cold formed carbon steel body with special geometry clip

Benefits

- Wide range
- Easy installation
- Versatile
- Cold forged anchor body
- Increased thickness of three expander segments
- Six teeth and anti-slip ridge to prevent slip during tightening

Applications

Applications

- Railings
- Metal and wood carpentry
- Facades

Suitable for

- Non-cracked concrete
- Solid stone

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Dimensions

References	Product reference	Type [d x L]	ID[1)]	Thread length	Fixture thickness [t_{fix}]	Hole diameter [d_o]	Minimum hole depth [h_1]	Embedment depth [h_{ef}]	Hole diameter in fixing element [d_f]	Min. support thickness [h_{min}]	Torque [T_{inst}
75340B0604800	FM 753 evo	M6x48*/**	A	18	3	6	45	30	7	90	8
75340B0606500	FM 753 evo	M6x65	B	30	10	6	55	40		100	8
75340B0608500	FM 753 evo	M6x85	C	40	30	6	55	40		100	8
75340B0610000	FM 753 evo	M6x100	D	50	45	6	55	40		100	8
75340B0805300	FM 753 evo	M8x53*/**	A	20	5	8	50	30	9	90	15
75340B0806800	FM 753 evo	M8x68	B	40	5	8	65	45		100	15
75340B0807300	FM 753 evo	M8x73	C	45	10	8	65	45		100	15
75340B0808300	FM 753 evo	M8x83	D	45	20	8	65	45		100	15
75340B0809300	FM 753 evo	M8x93	E	50	30	8	65	45		100	15
75340B0810300	FM 753 evo	M8x103	F	50	40	8	65	45		100	15
75340B0811300	FM 753 evo	M8x113	G	60	50	8	65	45		100	15
75340B0813300	FM 753 evo	M8x133	H	85	70	8	65	45		100	15
75340B0816300	FM 753 evo	M8x163	I	100	100	8	65	45		100	15
75340B1006300	FM 753 evo	M10x63*/**	A	25	5	10	55	35	12	90	30
75340B1007800	FM 753 evo	M10x78	B	40	5	10	70	50		100	30
75340B1008300	FM 753 evo	M10x83	C	40	10	10	70	50		100	30
75340B1009300	FM 753 evo	M10x93	D	50	20	10	70	50		100	30
75340B1010300	FM 753 evo	M10x103	E	50	30	10	70	50		100	30
75340B1011300	FM 753 evo	M10x113	F	60	40	10	70	50		100	30
75340B1012300	FM 753 evo	M10x123	G	60	50	10	70	50		100	30
75340B1014300	FM 753 evo	M10x143	H	70	70	10	70	50		100	30
75340B1017300	FM 753 evo	M10x173	I	80	100	10	70	50		100	30
75340B1021300	FM 753 evo	M10x213	L	100	140	10	70	50		100	30

* *Anchors with reduced embedment depths*
** *Not covered by CE certification*
1) Ident. mark, product length

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References	Product reference	Type [d x L]	ID[1)]	Thread length	Fixture thickness [t_{fix}]	Hole diameter [d_0]	Minimum hole depth [h_1]	Embedment depth [h_{ef}]	Hole diameter in fixing element [d_f]	Min. support thickness [h_{min}]	Torque [T_{inst}]
75340B1208500	FM 753 evo	M12x85*/**	A	40	5	12	75	50		120	50
75340B1210400	FM 753 evo	M12x104	B	60	5	12	90	65		130	50
75340B1210900	FM 753 evo	M12x109	C	60	10	12	90	65		130	50
75340B1211900	FM 753 evo	M12x119	D	70	20	12	90	65		130	50
75340B1212900	FM 753 evo	M12x129	E	70	30	12	90	65		130	50
75340B1213900	FM 753 evo	M12x139	F	80	40	12	90	65		130	50
75340B1214900	FM 753 evo	M12x149	G	100	50	12	90	65		130	50
75340B1217900	FM 753 evo	M12x179	H	110	80	12	90	65		130	50
75340B1219900	FM 753 evo	M12x199	I	110	100	12	90	65	14	130	50
75340B1221900	FM 753 evo	M12x219	L	125	120	12	90	65		130	50
75340B1223900	FM 753 evo	M12x239	M	125	140	12	90	65		130	50
75340B1225900	FM 753 evo	M12x259	N	125	160	12	90	65		130	50
75340B1226900	FM 753 evo	M12x269	O	135	170	12	90	65		130	50
75340B1229900	FM 753 evo	M12x299	P	155	200	12	90	65		130	50
75340B1231900	FM 753 evo	M12x319	Q	155	220	12	90	65		130	50
75340B1233900	FM 753 evo	M12x339	R	155	240	12	90	65		130	50
75340B1236900	FM 753 evo	M12x369	S	155	270	12	90	65		130	50
75340B1611000	FM 753 evo	M16x110*/**	A	50	15	16	89	59	18	140	100
75340B1613100	FM 753 evo	M16x131	B	65	10	16	110	80		160	100
75340B1615100	FM 753 evo	M16x151	C	80	30	16	110	80		160	100
75340B1617100	FM 753 evo	M16x171	D	80	50	16	110	80		160	100
75340B1620100	FM 753 evo	M16x201	E	100	80	16	110	80		160	100
75340B1622100	FM 753 evo	M16x221	F	100	100	16	110	80		160	100
75340B1624100	FM 753 evo	M16x241	G	110	120	16	110	80		160	100
75340B1626100	FM 753 evo	M16x261	H	110	140	16	110	80		160	100

* *Anchors with reduced embedment depths*
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1) Ident. mark, product length

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References	Product reference	Type [d x L]	ID[1)]	Thread length	Fixture thickness [t_{fix}]	Hole diameter [d_0]	Minimum hole depth [h_1]	Embedment depth [h_{ef}]	Hole diameter in fixing element [d_f]	Min. support thickness [h_{min}]	Torque [T_{inst}
75340B1628100	FM 753 evo	M16x281	I	125	160	16	110	80		160	100
75340B1632100	FM 753 evo	M16x321	L	150	200	16	110	80		160	100
75340B2017300	FM 753 evo	M20x173**	B	100	30	20	130	100		200	200
75340B2022300	FM 753 evo	M20x223**	D	125	80	20	130	100	22	200	200
75340B2026300	FM 753 evo	M20x263**	E	150	120	20	130	100		200	200

* *Anchors with reduced embedment depths*
** *Not covered by CE certification*
1) Ident. mark, product length

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Design capacities - single anchor - no edge distances

References	Type [d x L]	Design capacity - Non-cracked concrete [3] [kN]								Bending moment MRd [Nm]
		Tension - NRd [1]				Shear - VRd [1-2] [kN]				
		C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	
75340B0604800	M6x48*/**	4	4	4	4.1	5.1	5.1	5.1	5.1	7.3
75340B0606500	M6x65	4	4	4	4.1	5.1	5.1	5.1	5.1	7.3
75340B0608500	M6x85	4	4	4	4.1	5.1	5.1	5.1	5.1	7.3
75340B0610000	M6x100	4	4	4	4.1	5.1	5.1	5.1	5.1	7.3
75340B0805300	M8x53*/**	8	8.3	8.5	8.7	7.9	7.9	7.9	7.9	21.5
75340B0806800	M8x68	8	8.3	8.5	8.7	7.9	7.9	7.9	7.9	21.5
75340B0807300	M8x73	8	8.3	8.5	8.7	7.9	7.9	7.9	7.9	21.5
75340B0808300	M8x83	8	8.3	8.5	8.7	7.9	7.9	7.9	7.9	21.5
75340B0809300	M8x93	8	8.3	8.5	8.7	7.9	7.9	7.9	7.9	21.5
75340B0810300	M8x103	8	8.3	8.5	8.7	7.9	7.9	7.9	7.9	21.5
75340B0811300	M8x113	8	8.3	8.5	8.7	7.9	7.9	7.9	7.9	21.5
75340B0813300	M8x133	8	8.3	8.5	8.7	7.9	7.9	7.9	7.9	21.5
75340B0816300	M8x163	8	8.3	8.5	8.7	7.9	7.9	7.9	7.9	21.5
75340B1006300	M10x63*/**	11.6	14.2	16.4	18.3	11.6	11.6	11.6	11.6	37.3
75340B1007800	M10x78	11.6	14.2	16.4	18.3	11.6	11.6	11.6	11.6	37.3
75340B1008300	M10x83	11.6	14.2	16.4	18.3	11.6	11.6	11.6	11.6	37.3
75340B1009300	M10x93	11.6	14.2	16.4	18.3	11.6	11.6	11.6	11.6	37.3
75340B1010300	M10x103	11.6	14.2	16.4	18.3	11.6	11.6	11.6	11.6	37.3
75340B1011300	M10x113	11.6	14.2	16.4	18.3	11.6	11.6	11.6	11.6	37.3
75340B1012300	M10x123	11.6	14.2	16.4	18.3	11.6	11.6	11.6	11.6	37.3
75340B1014300	M10x143	11.6	14.2	16.4	18.3	11.6	11.6	11.6	11.6	37.3
75340B1017300	M10x173	11.6	14.2	16.4	18.3	11.6	11.6	11.6	11.6	37.3
75340B1021300	M10x213	11.6	14.2	16.4	18.3	11.6	11.6	11.6	11.6	37.3
75340B1208500	M12x85*/**	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1210400	M12x104	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1210900	M12x109	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1211900	M12x119	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1212900	M12x129	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1213900	M12x139	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1214900	M12x149	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1217900	M12x179	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1219900	M12x199	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1221900	M12x219	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1223900	M12x239	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1225900	M12x259	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1226900	M12x269	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3

1. The design loads loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s). The loading figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).

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References	Type [d x L]	Design capacity - Non-cracked concrete (3) [kN]								
		Tension - NRd (1)				Shear - VRd (1-2) [kN]				Bending moment MRd [Nm]
		C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	
75340B1229900	M12x299	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1231900	M12x319	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1233900	M12x339	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1236900	M12x369	17.2	20.8	23.9	26.7	20.1	20.1	20.1	20.1	65.3
75340B1611000	M16x110*/**	23.5	27	29.8	32.4	37.5	37.5	37.5	37.5	155.3
75340B1613100	M16x131	23.5	27	29.8	32.4	37.5	37.5	37.5	37.5	155.3
75340B1615100	M16x151	23.5	27	29.8	32.4	37.5	37.5	37.5	37.5	155.3
75340B1617100	M16x171	23.5	27	29.8	32.4	37.5	37.5	37.5	37.5	155.3
75340B1620100	M16x201	23.5	27	29.8	32.4	37.5	37.5	37.5	37.5	155.3
75340B1622100	M16x221	23.5	27	29.8	32.4	37.5	37.5	37.5	37.5	155.3
75340B1624100	M16x241	23.5	27	29.8	32.4	37.5	37.5	37.5	37.5	155.3
75340B1626100	M16x261	23.5	27	29.8	32.4	37.5	37.5	37.5	37.5	155.3
75340B1628100	M16x281	23.5	27	29.8	32.4	37.5	37.5	37.5	37.5	155.3
75340B1632100	M16x321	23.5	27	29.8	32.4	37.5	37.5	37.5	37.5	155.3
75340B2017300	M20x173**	27.9	19.9	19.9	19.9	37.4	37.4	37.4	37.4	-
75340B2022300	M20x223**	27.9	19.9	19.9	19.9	37.4	37.4	37.4	37.4	-
75340B2026300	M20x263**	27.9	19.9	19.9	19.9	37.4	37.4	37.4	37.4	-

1. The design loads loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s). The loading figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).

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Recommended capacities - single anchor - no edge distances

References	Recommended capacity - Non-cracked concrete									
	Type [d x L]	Tension - Nrec (1-2) [kN]				Shear - Vrec (1-3) [kN]				Bending moment Mrec (1-6) [Nm]
		C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	
75340B0604800	M6x48*/**	2.2	2.9	2.9	2.9	2.9	3.6	3.6	3.6	3.6
75340B0606500	M6x65	2.2	2.9	2.9	2.9	2.9	3.6	3.6	3.6	3.6
75340B0608500	M6x85	2.2	2.9	2.9	2.9	2.9	3.6	3.6	3.6	3.6
75340B0610000	M6x100	2.2	2.9	2.9	2.9	2.9	3.6	3.6	3.6	3.6
75340B0805300	M8x53*/**	2.4	5.7	5.9	6.1	6.2	5.6	5.6	5.6	5.6
75340B0806800	M8x68	2.4	5.7	5.9	6.1	6.2	5.6	5.6	5.6	5.6
75340B0807300	M8x73	2.4	5.7	5.9	6.1	6.2	5.6	5.6	5.6	5.6
75340B0808300	M8x83	2.4	5.7	5.9	6.1	6.2	5.6	5.6	5.6	5.6
75340B0809300	M8x93	2.4	5.7	5.9	6.1	6.2	5.6	5.6	5.6	5.6
75340B0810300	M8x103	2.4	5.7	5.9	6.1	6.2	5.6	5.6	5.6	5.6
75340B0811300	M8x113	2.4	5.7	5.9	6.1	6.2	5.6	5.6	5.6	5.6
75340B0813300	M8x133	2.4	5.7	5.9	6.1	6.2	5.6	5.6	5.6	5.6
75340B0816300	M8x163	2.4	5.7	5.9	6.1	6.2	5.6	5.6	5.6	5.6
75340B1006300	M10x63*/**	4.7	8.3	10.1	11.7	13.1	8.3	8.3	8.3	8.3
75340B1007800	M10x78	4.7	8.3	10.1	11.7	13.1	8.3	8.3	8.3	8.3
75340B1008300	M10x83	4.7	8.3	10.1	11.7	13.1	8.3	8.3	8.3	8.3
75340B1009300	M10x93	4.7	8.3	10.1	11.7	13.1	8.3	8.3	8.3	8.3
75340B1010300	M10x103	4.7	8.3	10.1	11.7	13.1	8.3	8.3	8.3	8.3
75340B1011300	M10x113	4.7	8.3	10.1	11.7	13.1	8.3	8.3	8.3	8.3
75340B1012300	M10x123	4.7	8.3	10.1	11.7	13.1	8.3	8.3	8.3	8.3
75340B1014300	M10x143	4.7	8.3	10.1	11.7	13.1	8.3	8.3	8.3	8.3
75340B1017300	M10x173	4.7	8.3	10.1	11.7	13.1	8.3	8.3	8.3	8.3
75340B1021300	M10x213	4.7	8.3	10.1	11.7	13.1	8.3	8.3	8.3	8.3
75340B1208500	M12x85*/**	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1210400	M12x104	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1210900	M12x109	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1211900	M12x119	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1212900	M12x129	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1213900	M12x139	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1214900	M12x149	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1217900	M12x179	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1219900	M12x199	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1221900	M12x219	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1223900	M12x239	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1225900	M12x259	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4

1. The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s) and with a partial safety factor for actions of γF=1.4. The loading figures
are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10 mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per
ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).

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References	Recommended capacity - Non-cracked concrete									
	Type [d x L]	Tension - Nrec (1-2) [kN]				Shear - Vrec (1-3) [kN]				Bending moment Mrec (1-6) [Nm]
		C20/25	C30/37	C40/50	C50/60	C20/25	C30/37	C40/50	C50/60	
75340B1226900	M12x269	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1229900	M12x299	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1231900	M12x319	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1233900	M12x339	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1236900	M12x369	7.2	12.3	14.9	17.1	19.1	14.4	14.4	14.4	14.4
75340B1611000	M16x110*/**	9.2	16.8	19.3	21.3	23.1	26.8	26.8	26.8	26.8
75340B1613100	M16x131	9.2	16.8	19.3	21.3	23.1	26.8	26.8	26.8	26.8
75340B1615100	M16x151	9.2	16.8	19.3	21.3	23.1	26.8	26.8	26.8	26.8
75340B1617100	M16x171	9.2	16.8	19.3	21.3	23.1	26.8	26.8	26.8	26.8
75340B1620100	M16x201	9.2	16.8	19.3	21.3	23.1	26.8	26.8	26.8	26.8
75340B1622100	M16x221	9.2	16.8	19.3	21.3	23.1	26.8	26.8	26.8	26.8
75340B1624100	M16x241	9.2	16.8	19.3	21.3	23.1	26.8	26.8	26.8	26.8
75340B1626100	M16x261	9.2	16.8	19.3	21.3	23.1	26.8	26.8	26.8	26.8
75340B1628100	M16x281	9.2	16.8	19.3	21.3	23.1	26.8	26.8	26.8	26.8
75340B1632100	M16x321	9.2	16.8	19.3	21.3	23.1	26.8	26.8	26.8	26.8
75340B2017300	M20x173**	-	19.9	14.2	14.2	14.2	26.7	26.7	26.7	26.7
75340B2022300	M20x223**	-	19.9	14.2	14.2	14.2	26.7	26.7	26.7	26.7
75340B2026300	M20x263**	-	19.9	14.2	14.2	14.2	26.7	26.7	26.7	26.7

1. The recommended loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s) and with a partial safety factor for actions of γF=1.4. The loading figures
are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter is 10 mm or smaller.
2. The figures for shear are based on a single anchor without influence of concrete edges. For anchorages close to edges (c ≤ max [10 hef; 60d]) the concrete edge failure shall be checked per
ETAG 001, Annex C, design method A.
3. Concrete is considered non-cracked when the tensile stress within the concrete is\sigmaL +\sigmaR ≤ 0. In the absence of detailed verification\sigmaR = 3 N/mm² can be assumed (\sigmaL equals the tensile stress within the concrete induced by external loads, anchors loads included).

Technical data sheet

FM 753 evo
Heavy Duty Wedge Anchor

Design capacities - single anchor - no edge distances - reduced embedment depth

References	Type [d x L]	Reduced embedment depth [$h_{ef,r}$]	Characteristic spacing for $h_{ef,r}$ (5) [$S_{cr,red}$] [mm]	Characteristic edge distance for $h_{ef,r}$ [$C_{cr,red}$] [mm]	Min. spacing for $h_{ef,r}$ [$S_{min,red}$] [mm]	Min. edge distance for $h_{ef,r}$ [$C_{min,red}$]	Design loads - Tension & Shear - N_{Rd} [kN]
75340B0604800	M6x48*/**	30	90	45	30	40	5.2
75340B0606500	M6x65	30	90	45	30	40	5.2
75340B0608500	M6x85	30	90	45	30	40	5.2
75340B0610000	M6x100	30	90	45	30	40	5.2
75340B0805300	M8x53*/**	30	90	45	40	40	13.4
75340B0806800	M8x68	30	90	45	40	40	13.4
75340B0807300	M8x73	30	90	45	40	40	13.4
75340B0808300	M8x83	30	90	45	40	40	13.4
75340B0809300	M8x93	30	90	45	40	40	13.4
75340B0810300	M8x103	30	90	45	40	40	13.4
75340B0811300	M8x113	30	90	45	40	40	13.4
75340B0813300	M8x133	30	90	45	40	40	13.4
75340B0816300	M8x163	30	90	45	40	40	13.4
75340B1006300	M10x63*/**	35	105	55	50	50	26.6
75340B1007800	M10x78	35	105	55	50	50	26.6
75340B1008300	M10x83	35	105	55	50	50	26.6
75340B1009300	M10x93	35	105	55	50	50	26.6
75340B1010300	M10x103	35	105	55	50	50	26.6
75340B1011300	M10x113	35	105	55	50	50	26.6
75340B1012300	M10x123	35	105	55	50	50	26.6
75340B1014300	M10x143	35	105	55	50	50	26.6
75340B1017300	M10x173	35	105	55	50	50	26.6
75340B1021300	M10x213	35	105	55	50	50	26.6
75340B1208500	M12x85*/**	50	150	75	70	70	46.6
75340B1210400	M12x104	50	150	75	70	70	46.6
75340B1210900	M12x109	50	150	75	70	70	46.6
75340B1211900	M12x119	50	150	75	70	70	46.6
75340B1212900	M12x129	50	150	75	70	70	46.6
75340B1213900	M12x139	50	150	75	70	70	46.6
75340B1214900	M12x149	50	150	75	70	70	46.6
75340B1217900	M12x179	50	150	75	70	70	46.6
75340B1219900	M12x199	50	150	75	70	70	46.6
75340B1221900	M12x219	50	150	75	70	70	46.6
75340B1223900	M12x239	50	150	75	70	70	46.6
75340B1225900	M12x259	50	150	75	70	70	46.6
75340B1226900	M12x269	50	150	75	70	70	46.6
75340B1229900	M12x299	50	150	75	70	70	46.6
75340B1231900	M12x319	50	150	75	70	70	46.6
75340B1233900	M12x339	50	150	75	70	70	46.6
75340B1236900	M12x369	50	150	75	70	70	46.6
75340B1611000	M16x110*/**	59	180	90	90	90	110.9
75340B1613100	M16x131	59	180	90	90	90	110.9
75340B1615100	M16x151	59	180	90	90	90	110.9

Shear value valid with distance from the edge c>10 x $h_{ef,r}$

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Heavy Duty Wedge Anchor

References	Type [d x L]	Reduced embedment depth [$h_{ef,r}$]	Characteristic spacing for $h_{ef,r}$ (5) [$S_{cr,red}$] [mm]	Characteristic edge distance for $h_{ef,r}$ [$C_{cr,red}$] [mm]	Min. spacing for $h_{ef,r}$ [$S_{min,red}$] [mm]	Min. edge distance for $h_{ef,r}$ [$C_{min,red}$]	Design loads - Tension & Shear - N_{Rd} [kN]
75340B1617100	M16x171	59	180	90	90	90	110.9
75340B1620100	M16x201	59	180	90	90	90	110.9
75340B1622100	M16x221	59	180	90	90	90	110.9
75340B1624100	M16x241	59	180	90	90	90	110.9
75340B1626100	M16x261	59	180	90	90	90	110.9
75340B1628100	M16x281	59	180	90	90	90	110.9
75340B1632100	M16x321	59	180	90	90	90	110.9

Shear value valid with distance from the edge c>10 x $h_{ef,r}$

Technical data sheet

FM 753 evo
Heavy Duty Wedge Anchor

Recommended capacities - single anchor - no edge distances - reduced embedment depth

References	Type [d x L]	Reduced embedment depth [$h_{ef,r}$]	Characteristic spacing for $h_{ef,r}$ (5) [$S_{cr,red}$] [mm]	Characteristic edge distance for $h_{ef,r}$ [$C_{cr,red}$] [mm]	Min. spacing for $h_{ef,r}$ [$S_{min,red}$] [mm]	Min. edge distance for $h_{ef,r}$ [$C_{min,red}$]	Recommended loads - Tension & Shear - N_{rec} [kN]
75340B0604800	M6x48*/**	30	90	45	30	40	1.6
75340B0606500	M6x65	30	90	45	30	40	1.6
75340B0608500	M6x85	30	90	45	30	40	1.6
75340B0610000	M6x100	30	90	45	30	40	1.6
75340B0805300	M8x53*/**	30	90	45	40	40	1.7
75340B0806800	M8x68	30	90	45	40	40	1.7
75340B0807300	M8x73	30	90	45	40	40	1.7
75340B0808300	M8x83	30	90	45	40	40	1.7
75340B0809300	M8x93	30	90	45	40	40	1.7
75340B0810300	M8x103	30	90	45	40	40	1.7
75340B0811300	M8x113	30	90	45	40	40	1.7
75340B0813300	M8x133	30	90	45	40	40	1.7
75340B0816300	M8x163	30	90	45	40	40	1.7
75340B1006300	M10x63*/**	35	105	55	50	50	3.4
75340B1007800	M10x78	35	105	55	50	50	3.4
75340B1008300	M10x83	35	105	55	50	50	3.4
75340B1009300	M10x93	35	105	55	50	50	3.4
75340B1010300	M10x103	35	105	55	50	50	3.4
75340B1011300	M10x113	35	105	55	50	50	3.4
75340B1012300	M10x123	35	105	55	50	50	3.4
75340B1014300	M10x143	35	105	55	50	50	3.4
75340B1017300	M10x173	35	105	55	50	50	3.4
75340B1021300	M10x213	35	105	55	50	50	3.4
75340B1208500	M12x85*/**	50	150	75	70	70	5.2
75340B1210400	M12x104	50	150	75	70	70	5.2
75340B1210900	M12x109	50	150	75	70	70	5.2
75340B1211900	M12x119	50	150	75	70	70	5.2
75340B1212900	M12x129	50	150	75	70	70	5.2
75340B1213900	M12x139	50	150	75	70	70	5.2
75340B1214900	M12x149	50	150	75	70	70	5.2
75340B1217900	M12x179	50	150	75	70	70	5.2
75340B1219900	M12x199	50	150	75	70	70	5.2
75340B1221900	M12x219	50	150	75	70	70	5.2
75340B1223900	M12x239	50	150	75	70	70	5.2
75340B1225900	M12x259	50	150	75	70	70	5.2
75340B1226900	M12x269	50	150	75	70	70	5.2
75340B1229900	M12x299	50	150	75	70	70	5.2
75340B1231900	M12x319	50	150	75	70	70	5.2
75340B1233900	M12x339	50	150	75	70	70	5.2
75340B1236900	M12x369	50	150	75	70	70	5.2

The recommended loads N,V and F derive from the mean ultimate loads and are inclusive of the total safety factor γ=4 (shear γ=3).
Shear value valid with distance from the edge c>10 x hef,r

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Heavy Duty Wedge Anchor

References	Type [d x L]	Reduced embedment depth [$h_{ef,r}$]	Characteristic spacing for $h_{ef,r}$ (5) [$S_{cr,red}$] [mm]	Characteristic edge distance for $h_{ef,r}$ [$C_{cr,red}$] [mm]	Min. spacing for $h_{ef,r}$ [$S_{min,red}$] [mm]	Min. edge distance for $h_{ef,r}$ [$C_{min,red}$]	Recommended loads - Tension & Shear - N_{rec} [kN]
75340B1611000	M16x110*/**	59	180	90	90	90	6.5
75340B1613100	M16x131	59	180	90	90	90	6.5
75340B1615100	M16x151	59	180	90	90	90	6.5
75340B1617100	M16x171	59	180	90	90	90	6.5
75340B1620100	M16x201	59	180	90	90	90	6.5
75340B1622100	M16x221	59	180	90	90	90	6.5
75340B1624100	M16x241	59	180	90	90	90	6.5
75340B1626100	M16x261	59	180	90	90	90	6.5
75340B1628100	M16x281	59	180	90	90	90	6.5
75340B1632100	M16x321	59	180	90	90	90	6.5

The recommended loads N,V and F derive from the mean ultimate loads and are inclusive of the total safety factor γ=4 (shear γ=3).
Shear value valid with distance from the edge c>10 x hef,r

Product Dimension - D.I.Y

References	Product reference	Type [d x L]	Fixture thickness [t_{fix}]	Pcs/blister	Blister/Pkg.
75340B08073F2	FM 753 evo	M8x73	10	5	20
75340B08093F2	FM 753 evo	M8x93	30	5	20
75340B10078F2	FM 753 evo	M10x78	5	5	20
75340B10093F2	FM 753 evo	M10x93	20	5	20
75340B10123F2	FM 753 evo	M10x123	50	4	20
75340B12109F2	FM 753 evo	M12x109	10	4	20

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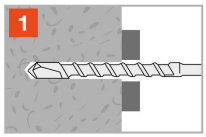
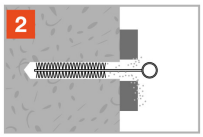
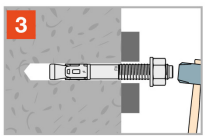
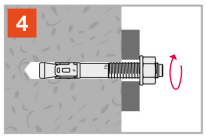
Heavy Duty Wedge Anchor

Installation









Technical data sheet

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Heavy Duty Wedge Anchor

Spacing, Edge Distance and Member Thickness

References	Type [d x L]	Hole diameter [d_o]	Minimum hole depth [h_1]	Hole diameter in fixing element [d_f]	Wrench [SW]	Torque [T_{inst}]	Embedment depth [h_{ef}]	Min. support thickness [h_{min}]	Characteristic spacing(5) [$S_{cr,N}$] [mm]	Characte edge distan [$c_{cr,N}$] [r
75340B0604800	M6x48*/**	6	45	7	10	8	30	90	120	60
75340B0606500	M6x65	6	55	7	10	8	40	100	120	60
75340B0608500	M6x85	6	55	7	10	8	40	100	120	60
75340B0610000	M6x100	6	55	7	10	8	40	100	120	60
75340B0805300	M8x53*/**	8	50	9	13	15	30	90	135	68
75340B0806800	M8x68	8	65	9	13	15	45	100	135	68
75340B0807300	M8x73	8	65	9	13	15	45	100	135	68
75340B0808300	M8x83	8	65	9	13	15	45	100	135	68
75340B0809300	M8x93	8	65	9	13	15	45	100	135	68
75340B0810300	M8x103	8	65	9	13	15	45	100	135	68
75340B0811300	M8x113	8	65	9	13	15	45	100	135	68
75340B0813300	M8x133	8	65	9	13	15	45	100	135	68
75340B0816300	M8x163	8	65	9	13	15	45	100	135	68
75340B1006300	M10x63*/**	10	55	12	17	30	35	90	150	75
75340B1007800	M10x78	10	70	12	17	30	50	100	150	75
75340B1008300	M10x83	10	70	12	17	30	50	100	150	75
75340B1009300	M10x93	10	70	12	17	30	50	100	150	75
75340B1010300	M10x103	10	70	12	17	30	50	100	150	75
75340B1011300	M10x113	10	70	12	17	30	50	100	150	75
75340B1012300	M10x123	10	70	12	17	30	50	100	150	75
75340B1014300	M10x143	10	70	12	17	30	50	100	150	75
75340B1017300	M10x173	10	70	12	17	30	50	100	150	75
75340B1021300	M10x213	10	70	12	17	30	50	100	150	75
75340B1208500	M12x85*/**	12	75	14	19	50	50	120	195	98
75340B1210400	M12x104	12	90	14	19	50	65	130	195	98
75340B1210900	M12x109	12	90	14	19	50	65	130	195	98
75340B1211900	M12x119	12	90	14	19	50	65	130	195	98
75340B1212900	M12x129	12	90	14	19	50	65	130	195	98
75340B1213900	M12x139	12	90	14	19	50	65	130	195	98
75340B1214900	M12x149	12	90	14	19	50	65	130	195	98
75340B1217900	M12x179	12	90	14	19	50	65	130	195	98
75340B1219900	M12x199	12	90	14	19	50	65	130	195	98
75340B1221900	M12x219	12	90	14	19	50	65	130	195	98
75340B1223900	M12x239	12	90	14	19	50	65	130	195	98
75340B1225900	M12x259	12	90	14	19	50	65	130	195	98
75340B1226900	M12x269	12	90	14	19	50	65	130	195	98
75340B1229900	M12x299	12	90	14	19	50	65	130	195	98
75340B1231900	M12x319	12	90	14	19	50	65	130	195	98
75340B1233900	M12x339	12	90	14	19	50	65	130	195	98
75340B1236900	M12x369	12	90	14	19	50	65	130	195	98
75340B1611000	M16x110*/**	16	89	18	24	100	59	140	240	120
75340B1613100	M16x131	16	110	18	24	100	80	160	240	120
75340B1615100	M16x151	16	110	18	24	100	80	160	240	120
75340B1617100	M16x171	16	110	18	24	100	80	160	240	120
75340B1620100	M16x201	16	110	18	24	100	80	160	240	120

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References	Type [d x L]	Hole diameter [d_0]	Minimum hole depth [h_1]	Hole diameter in fixing element [d_f]	Wrench [SW]	Torque [T_{inst}]	Embedment depth [h_{ef}]	Min. support thickness [h_{min}]	Characteristic spacing(5) [$S_{cr,N}$] [mm]	Characte edge distan [$c_{cr,N}$] [r
75340B1622100	M16x221	16	110	18	24	100	80	160	240	120
75340B1624100	M16x241	16	110	18	24	100	80	160	240	120
75340B1626100	M16x261	16	110	18	24	100	80	160	240	120
75340B1628100	M16x281	16	110	18	24	100	80	160	240	120
75340B1632100	M16x321	16	110	18	24	100	80	160	240	120
75340B2017300	M20x173**	20	130	22	30	200	100	200	300	150
75340B2022300	M20x223**	20	130	22	30	200	100	200	300	150
75340B2026300	M20x263**	20	130	22	30	200	100	200	300	150

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