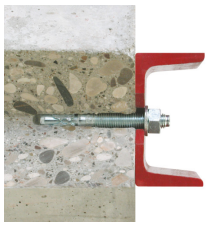
Technical data sheet

FM-753 A4
Stainless Steel Heavy Duty Wedge Anchor

Stainless steel wedge anchor for the medium load range, in sizes M8 - M16 for anchoring in non-cracked concrete C20/25 - C50/60.



Features

Material

- Stainless steel A4

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

Technical data sheet

FM-753 A4

Stainless Steel Heavy Duty Wedge Anchor

Technical Data

Technical data sheet

FM-753 A4

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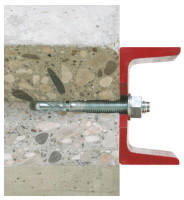
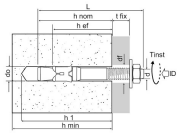




Product Dimensions

References	Product Reference	NOBB nr. [NOBB nr.]	Dimensions [ØxL] [mm]	Thread length	Fixture thickness [$t_{fix,max}$] with standard setting depth [$h_{ef,STD}$] [mm]	Fixture thickness [$t_{fix,max}$] with reduced setting depth [$h_{ef,RED}$] [mm]	Hole diameter [d_0] x depth [h_1] in substrate [mm]	Min. setting depth [h_{ef}] [mm]	Qty per box	Qty per outer box	Weight [kg]
7532000606500	FM-753 A4	-	M6x65**	40	15	20	6x50	35	100	1000	0.015
7532000608500	FM-753 A4	-	M6x85**	60	35	40	6x50	35	100	1000	0.018
7532000805000	FM-753 A4	-	M8x50*/**	23	-	5	8x50	30	100	1000	0.023
7532000806500	FM-753 A4	60743009	M8x65	38	7	15	8x60	40	100	1000	0.027
7532000807500	FM-753 A4	60743010	M8x75	48	15	25	8x60	40	100	400	0.03
7532000809000	FM-753 A4	-	M8x90	63	30	40	8x60	40	100	400	0.035
7532000811500	FM-753 A4	60743011	M8x115	83	55	65	8x60	40	100	400	0.043
7532000813500	FM-753 A4	-	M8x135	88	75	85	8x60	40	50	200	0.049
7532000816500	FM-753 A4	-	M8x165	88	105	115	8x60	40	50	200	0.057
7532001006000	FM-753 A4	60343012	M10x60*/**	28	-	5	10x55	35	50	500	0.044
7532001007500	FM-753 A4	60743013	M10x75	43	5	20	10x70	50	50	500	0.052
7532001009000	FM-753 A4	60743014	M10x90	55	20	35	10x70	50	50	200	0.059
7532001012000	FM-753 A4	60743015	M10x120	85	50	65	10x70	50	50	200	0.074
7532001208000	FM-753 A4	-	M12x80*/**	40	-	7	12x70	45	50	200	0.079
7532001210000	FM-753 A4	60743016	M12x100	58	10	25	12x85	60	50	200	0.093
7532001211000	FM-753 A4	60743017	M12x110	68	20	35	12x85	60	50	200	0.1
7532001213500	FM-753 A4	60743018	M12x135	93	45	60	12x85	60	25	100	0.12
7532001216000	FM-753 A4	-	M12x160	93	70	85	12x85	60	25	100	0.14
7532001218500	FM-753 A4	-	M12x185	93	100	115	12x85	60	25	100	0.15
7532001611000	FM-753 A4	-	M16x110*/**	53	-	15	16x95	65	20	80	0.19
7532001612500	FM-753 A4	-	M16x125	68	10	30	16x115	85	20	80	0.21

*) *Short series with reduced embedment depth*

**) *Not covered by CE certification*

Technical data sheet

FM-753 A4

Stainless Steel Heavy Duty Wedge Anchor

References	Product Reference	NOBB nr. [NOBB nr.]	Dimensions [ØxL] [mm]	Thread length	Fixture thickness [$t_{fix,max}$] with standard setting depth [$h_{ef,STD}$] [mm]	Fixture thickness [$t_{fix,max}$] with reduced setting depth [$h_{ef,RED}$] [mm]	Hole diameter [d_0] x depth [h_1] in substrate [mm]	Min. setting depth [h_{ef}] [mm]	Qty per box	Qty per outer box	Weight [kg]
7532001614500	FM-753 A4	-	M16x145	88	30	50	16x115	85	20	80	0.24
7532001617500	FM-753 A4	-	M16x175	88	60	80	16x115	85	20	80	0.28

**)* *Short series with reduced embedment depth*

***)* *Not covered by CE certification*

Technical data sheet

FM-753 A4

Stainless Steel Heavy Duty Wedge Anchor

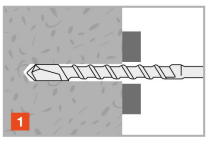
Design capacities - single anchor - no edge distances

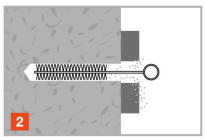
References	Product Reference	Dimensions [ØxL] [mm]	Design capacities - single anchor - no edge distances								
			Design capacity - Non-cracked concrete (3)								
			Tension - NRd (1)				Shear - VRd (1-2)				Bending moment MRd [Nm]
			C20/25 [kN]	C30/37 [kN]	C40/50 [kN]	C50/60 [kN]	C20/25 [kN]	C30/37 [kN]	C40/50 [kN]	C50/60 [kN]	
7532000606500	FM-753 A4	M6x65**	2.2	-	-	-	4.2	-	-	-	-
7532000608500	FM-753 A4	M6x85**	2.2	-	-	-	4.2	-	-	-	-
7532000805000	FM-753 A4	M8x50*/**	5	5.85	6.6	7.1	8.3	-	-	-	-
7532000806500	FM-753 A4	M8x65	5	5.85	6.6	7.1	8.3	-	-	-	18.04
7532000807500	FM-753 A4	M8x75	5	5.85	6.6	7.1	8.3	-	-	-	18.04
7532000809000	FM-753 A4	M8x90	5	5.85	6.6	7.1	8.3	-	-	-	18.04
7532000811500	FM-753 A4	M8x115	5	5.85	6.6	7.1	8.3	-	-	-	18.04
7532000813500	FM-753 A4	M8x135	5	5.85	6.6	7.1	8.3	-	-	-	18.04
7532000816500	FM-753 A4	M8x165	5	5.85	6.6	7.1	8.3	-	-	-	18.04
7532001006000	FM-753 A4	M10x60*/**	8	9.76	11.28	12.4	11.6	-	-	-	36.84
7532001007500	FM-753 A4	M10x75	8	9.76	11.28	12.4	11.6	-	-	-	36.84
7532001009000	FM-753 A4	M10x90	8	9.76	11.28	12.4	11.6	-	-	-	36.84
7532001012000	FM-753 A4	M10x120	8	9.76	11.28	12.4	11.6	-	-	-	36.84
7532001208000	FM-753 A4	M12x80*/**	15.2	18.544	21.432	23.56	20.6	20.6	20.6	20.6	63.9
7532001210000	FM-753 A4	M12x100	15.2	18.544	21.432	23.56	20.6	20.6	20.6	20.6	63.9
7532001211000	FM-753 A4	M12x110	15.2	18.544	21.432	23.56	20.6	20.6	20.6	20.6	63.9
7532001213500	FM-753 A4	M12x135	15.2	18.544	21.432	23.56	20.6	20.6	20.6	20.6	63.9
7532001216000	FM-753 A4	M12x160	15.2	18.544	21.432	23.56	20.6	20.6	20.6	20.6	63.9
7532001218500	FM-753 A4	M12x185	15.2	18.544	21.432	23.56	20.6	20.6	20.6	20.6	63.9
7532001611000	FM-753 A4	M16x110*/**	23.3	28.426	32.853	36.115	38.4	38.4	38.4	38.4	162.4
7532001612500	FM-753 A4	M16x125	23.3	28.426	32.853	36.115	38.4	38.4	38.4	38.4	162.4
7532001614500	FM-753 A4	M16x145	23.3	28.426	32.853	36.115	38.4	38.4	38.4	38.4	162.4
7532001617500	FM-753 A4	M16x175	23.3	28.426	32.853	36.115	38.4	38.4	38.4	38.4	162.4

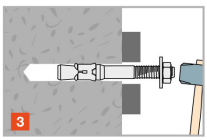
1. The design loads loads have been calculated using the partial safety factors for resistances stated in ETA-approval(s). The loading figures are valid for unreinforced concrete and reinforced concrete with a rebar spacing s ≥ 15 cm (any diameter) or with a rebar spacing s ≥ 10 cm, if the rebar diameter 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).
*) Short series with reduced embedment depth
**) Not covered by CE certification

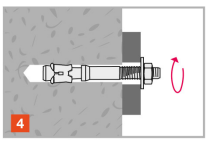
FM-753 A4
Stainless Steel Heavy Duty Wedge Anchor

Installation









Technical data sheet

FM-753 A4

Stainless Steel Heavy Duty Wedge Anchor

Installation data

References	Product Reference	Dimensions [ØxL] [mm]	Ø drilling hole [d0] [mm]	Min. drill depth [h1] [mm]	Ø drilling fixture [df] [mm]	Wrench size [SW] [mm]	Installation torque [Tinst] [Nm]	Embedment depth [hef] [mm]	Min. support thickness [hmin] [mm]
7532000606500	FM-753 A4	M6x65**	6	50	7	10	6	35	100
7532000608500	FM-753 A4	M6x85**	6	50	7	10	6	35	100
7532000805000	FM-753 A4	M8x50*/**	8	50	9	13	15	30	100
7532000806500	FM-753 A4	M8x65	8	60	9	13	15	40	100
7532000807500	FM-753 A4	M8x75	8	60	9	13	15	40	100
7532000809000	FM-753 A4	M8x90	8	60	9	13	15	40	100
7532000811500	FM-753 A4	M8x115	8	60	9	13	15	40	100
7532000813500	FM-753 A4	M8x135	8	60	9	13	15	40	100
7532000816500	FM-753 A4	M8x165	8	60	9	13	15	40	100
7532001006000	FM-753 A4	M10x60*/**	10	55	12	17	25	35	100
7532001007500	FM-753 A4	M10x75	10	70	12	17	25	50	100
7532001009000	FM-753 A4	M10x90	10	70	12	17	25	50	100
7532001012000	FM-753 A4	M10x120	10	70	12	17	25	50	100
7532001208000	FM-753 A4	M12x80*/**	12	70	14	19	50	45	100
7532001210000	FM-753 A4	M12x100	12	85	14	19	50	60	120
7532001211000	FM-753 A4	M12x110	12	85	14	19	50	60	120
7532001213500	FM-753 A4	M12x135	12	85	14	19	50	60	120
7532001216000	FM-753 A4	M12x160	12	85	14	19	50	60	120
7532001218500	FM-753 A4	M12x185	12	85	14	19	50	60	120
7532001611000	FM-753 A4	M16x110*/**	16	95	18	24	100	65	130
7532001612500	FM-753 A4	M16x125	16	115	18	24	100	85	170
7532001614500	FM-753 A4	M16x145	16	115	18	24	100	85	170
7532001617500	FM-753 A4	M16x175	16	115	18	24	100	85	170

* Not included in the approval

FM-753 A4
Stainless Steel Heavy Duty Wedge Anchor

Spacings and Edge distances

References	Product Reference	Dimensions [ØxL] [mm]	Min. edge distance [cmin] [mm]	Min. spacing [smin] [mm]	Characteristic edge distance [ccr,N] [mm]	Characteristic spacing(5) - Scr,N [scr,N] [mm]
7532000606500	FM-753 A4	M6x65**	50	50	53	105
7532000608500	FM-753 A4	M6x85**	50	50	53	105
7532000805000	FM-753 A4	M8x50*/**	60	60	60	120
7532000806500	FM-753 A4	M8x65	60	60	60	120
7532000807500	FM-753 A4	M8x75	60	60	60	120
7532000809000	FM-753 A4	M8x90	60	60	60	120
7532000811500	FM-753 A4	M8x115	60	60	60	120
7532000813500	FM-753 A4	M8x135	60	60	60	120
7532000816500	FM-753 A4	M8x165	60	60	60	120
7532001006000	FM-753 A4	M10x60*/**	75	75	75	150
7532001007500	FM-753 A4	M10x75	75	75	75	150
7532001009000	FM-753 A4	M10x90	75	75	75	150
7532001012000	FM-753 A4	M10x120	75	75	75	150
7532001208000	FM-753 A4	M12x80*/**	90	90	90	180
7532001210000	FM-753 A4	M12x100	90	90	90	180
7532001211000	FM-753 A4	M12x110	90	90	90	180
7532001213500	FM-753 A4	M12x135	90	90	90	180
7532001216000	FM-753 A4	M12x160	90	90	90	180
7532001218500	FM-753 A4	M12x185	90	90	90	180
7532001611000	FM-753 A4	M16x110*/**	130	130	130	260
7532001612500	FM-753 A4	M16x125	130	130	130	260
7532001614500	FM-753 A4	M16x145	130	130	130	260
7532001617500	FM-753 A4	M16x175	130	130	130	260

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