

HIT M - Zinc Coated Steel

HIT M - A4



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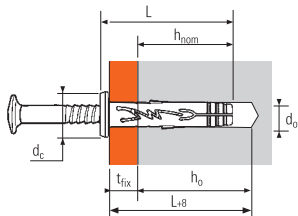
Hammer-set anchor for light duty fixing for concrete and all material types

Performance	Material	Installation

Technical Data



ETA
n° 06/0032



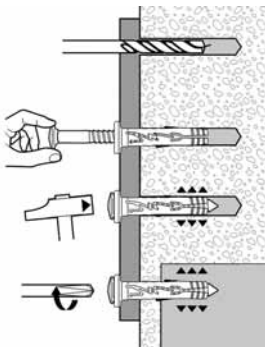
MATERIAL

Body:
Polyamid 6

Expansion nail:

Steel zinc coated steel 5µm
A4, stainless steel

INSTALLATION



HIT M	Anchor depth (mm)	Max thick of part to be fixed (mm)	Min thick of base material (mm)	Drilling depth in base material (mm)	Drilling depth plus fixture (mm)	Drilling diameter (mm)	Cylinder head diameter (mm)	Total anchor length (mm)	Ramset power tool code	Drill bit type-size				
	h_{nom}	$t_{fix}(1)$	h_{min}	h_o	L_{s+g}	d_o	d_c	L						
5-5/27P	20	5	60	30	35	5	9	27	DD527	R3 PLUS-6				
5-15/37P		15			45			37						
6-5/32P		5			40			32						
6-12/39P	12	47	39											
6-25/52P	25	60	52											
6-40/67P	40	75	67											
6-12/39V	25	12	65	35	47	6	11	39		DD527	R3 PLUS-6			
6-25/52V		25			60			52						
6-40/67V		40			75			67						
6/5-M6	30	-	65	40	-	6	11	32				DD527	R3 PLUS-8	
6/5-M7		-			-			32						
8-10/42P	30	10	65	40	50	8	13	42	DD527					R3 PLUS-8
8-30/62P		30			70			62						
8-60/92P		60			100			92						
8-80/112P		80			120			112						
8-100/132P		100			140			132						
8-30/62V		30			70			62						
8-60/92V	30	60	65	40	100	8	11.5	92		DD527	R3 PLUS-8			
8-80/112V		80			120			112						
8-100/132V		100			140			132						

(1) In masonry, the thickness of part to be fixed could be fluctuate to ± 5 mm from t_{fix} for $\varnothing 5$ and $\varnothing 6$ mm, and to ± 10 mm for $\varnothing 8$ mm, to ensure a good contact between collar and the part to be fixed.

Ultimate Loads ($N_{Ru,m}$, $V_{Ru,m}$)

Anchor size	TENSILE in kN			SHEAR in kN					
	$\varnothing 5$	$\varnothing 6$	$\varnothing 8$	5/5 5/15	6/5 6/12 6/25	6/40	8/10 8/30	8/80 8/100	
Concrete (C20/25)									
$N_{Ru,m}$	0.9	1.5	2.1	$V_{Ru,m}$	2.5	3.75	3.0	5.75	4.75
Solid concrete blocks type B120 ($f_c = 13.5$ N/mm²)									
$N_{Ru,m}$	1.4	1.55	1.65	$V_{Ru,m}$	2.5	3.75	3.0	5.75	4.75
Clay bricks ($f_c = 55$ N/mm²)									
$N_{Ru,m}$	1.6	2.6	3.6	$V_{Ru,m}$	2.5	3.75	3.0	5.75	4.75
Hollow concrete blocks type B40 not rendered ($f_c = 6.5$ N/mm²)									
$N_{Ru,m}$	0.85	0.95	1.0	$V_{Ru,m}$	2.5	3.0	3.0	3.75	3.75
Hollow concrete blocks type B40 rendered ($f_c = 6.5$ N/mm²)									
$N_{Ru,m}$	1.25	2.25	3.0	$V_{Ru,m}$	2.5	3.0	3.0	3.75	3.75
Hollow clay bricks type Eco-30 not rendered ($f_c = 4.5$ N/mm²)									
$N_{Ru,m}$	0.75	1.0	1.25	$V_{Ru,m}$	0.75	1.0	1.0	1.25	1.25
Hollow clay bricks type Eco-30 rendered ($f_c = 4.5$ N/mm²)									
$N_{Ru,m}$	1.25	1.75	2.25	$V_{Ru,m}$	1.25	1.5	1.75	2.25	2.25
Engineering clay bricks not rendered ($f_c = 14.5$ N/mm²)									
$N_{Ru,m}$	0.75	1.0	1.25	$V_{Ru,m}$	2.5	3.0	3.0	3.75	3.75
Engineering clay bricks rendered ($f_c = 14.5$ N/mm²)									
$N_{Ru,m}$	1.25	1.75	2.25	$V_{Ru,m}$	2.5	3.75	3.0	4.75	4.75
Aerated concrete (Mvn = 500 kg/m³)									
$N_{Ru,m}$	0.2	0.3	0.42	$V_{Ru,m}$	0.2	0.3	0.3	0.42	0.42
Plasterboard type BA13									
$N_{Ru,m}$	0.2	0.2	0.25	$V_{Ru,m}$	0.2	0.2	0.2	0.25	0.25
Plasterboard type BA10 + polystyren									
$N_{Ru,m}$	0.25	0.25	0.3	$V_{Ru,m}$	0.25	0.25	0.25	0.30	0.30

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Design Loads (N_{Rd} , V_{Rd}) and Recommended Loads (N_{Rec} , V_{Rec}) for one anchor without edge or spacing influence

$$N_{Rd} = \frac{N_{Ru,m}}{3.5} ; N_{Rec} = \frac{N_{Ru,m}}{5}$$

$$V_{Rd} = \frac{V_{Ru,m}}{3.5} ; V_{Rec} = \frac{V_{Ru,m}}{5}$$

TENSILE in kN

SHEAR in kN

Anchor size Base material	Ø5 Ø6 Ø8			5/5 6/5 6/40 8/10 8/80 5/15 6/12 8/30 8/100 6/25 8/60						
	Concrete (C20/25)	N_{Rd}	0.25	0.42	0.59	V_{Rd}	0.70	1.05	0.84	1.61
	N_{Rec}	0.18	0.3	0.42	V_{Rec}	0.5	0.75	0.6	1.15	0.95
Solid concrete blocks type B120 ($f_c = 13.5 \text{ N/mm}^2$)										
	N_{Rd}	0.39	0.43	0.46	V_{Rd}	0.70	1.05	0.84	1.61	1.33
	N_{Rec}	0.28	0.31	0.33	V_{Rec}	0.5	0.75	0.6	1.15	0.95
Clay bricks ($f_c = 55 \text{ N/mm}^2$)										
	N_{Rd}	0.45	0.73	1.01	V_{Rd}	0.70	1.05	0.84	1.05	1.33
	N_{Rec}	0.32	0.52	0.72	V_{Rec}	0.5	0.75	0.6	0.75	0.95
Hollow concrete blocks type B40 not rendered ($f_c = 6.5 \text{ N/mm}^2$)										
	N_{Rd}	0.24	0.27	0.28	V_{Rd}	0.70	0.84	0.84	0.63	1.05
	N_{Rec}	0.17	0.19	0.2	V_{Rec}	0.5	0.6	0.6	0.45	0.75
Hollow concrete blocks type B40 rendered ($f_c = 6.5 \text{ N/mm}^2$)										
	N_{Rd}	0.35	0.63	0.84	V_{Rd}	0.70	0.84	0.84	1.33	1.05
	N_{Rec}	0.25	0.45	0.6	V_{Rec}	0.5	0.6	0.6	0.95	0.75
Hollow clay bricks type Eco-30 not rendered ($f_c = 4.5 \text{ N/mm}^2$)										
	N_{Rd}	0.21	0.28	0.35	V_{Rd}	0.21	0.28	0.28	0.07	0.35
	N_{Rec}	0.15	0.2	0.25	V_{Rec}	0.15	0.2	0.2	0.05	0.25
Hollow clay bricks type Eco-30 rendered ($f_c = 4.5 \text{ N/mm}^2$)										
	N_{Rd}	0.35	0.49	0.63	V_{Rd}	0.35	0.49	0.49	0.0	0.63
	N_{Rec}	0.25	0.35	0.45	V_{Rec}	0.25	0.35	0.35	0.0	0.45
Engineering clay bricks not rendered ($f_c = 14.5 \text{ N/mm}^2$)										
	N_{Rd}	0.21	0.28	0.35	V_{Rd}	0.70	0.84	0.84	0.32	1.05
	N_{Rec}	0.15	0.2	0.25	V_{Rec}	0.5	0.6	0.6	0.23	0.75
Engineering clay bricks rendered ($f_c = 14.5 \text{ N/mm}^2$)										
	N_{Rd}	0.35	0.49	0.63	V_{Rd}	0.70	1.05	0.84	0.32	1.33
	N_{Rec}	0.25	0.35	0.45	V_{Rec}	0.5	0.75	0.6	0.23	0.95
Aerated concrete ($M_{vn} = 500 \text{ kg/m}^3$)										
	N_{Rd}	0.06	0.08	0.12	V_{Rd}	0.06	0.08	0.08	0.21	0.12
	N_{Rec}	0.04	0.06	0.08	V_{Rec}	0.04	0.06	0.06	0.15	0.08
Plasterboard type BA13										
	N_{Rd}	0.06	0.06	0.07	V_{Rd}	0.06	0.06	0.06	0.13	0.07
	N_{Rec}	0.04	0.04	0.05	V_{Rec}	0.04	0.04	0.04	0.09	0.05
Plasterboard type BA10 + polystyren										
	N_{Rd}	0.07	0.07	0.08	V_{Rd}	0.07	0.07	0.07	0.27	0.08
	N_{Rec}	0.05	0.05	0.06	V_{Rec}	0.05	0.05	0.05	0.19	0.06

**Spacing data in concrete
RAMSET HIT M**

Minimum distance between anchors and from edges (mm)

	$C_{cr,N}$ min	$C_{cr,V}$ min	S_{cr} min	
			without edge influence	near one edge
5/5; 5/15	25	40	25	60
6/5; 6/12; 6/25; 6/40	25	45	25	70
8/10; 8/30; 8/60; 8/80; 8/100	25	60	25	90

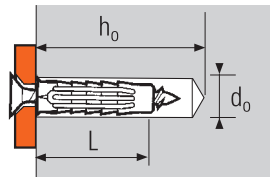
PRO 6



Universal anchor suitable for all material type

Performance	Material	Installation

Technical Data



TYPE	Ø Screw	Ø Drill bit	Drilling depth	Anchor length
		do	h0	L
PRO6 5x25	3 - 4	5	35	25
PRO6 6x30	4 - 5	6	40	30
PRO6 8x40	4.5 - 6	8	50	40
PRO6 10x50	6 - 8	10	65	50

MATERIAL

Body:
Polyamid 6

Recommended Load and Ultimate Loads with Wood Screw

TYPE	Ø Woodscrew	Concrete C20/25		Hollow concrete block		Clay brick		Hollow clay brick	
		d	N _{rec} * N _{u,m} *	N _{rec} * N _{u,m} *	N _{rec} * N _{u,m} *	N _{rec} * N _{u,m} *			
PRO 5	4	0.28	1.40	0.23	1.15	0.20	1.00	0.17	0.85
PRO 6	5	0.45	2.25	0.30	1.50	0.26	1.30	0.19	0.95
PRO 8	6	0.70	3.50	0.43	2.15	0.35	1.75	0.23	1.15
PRO 10	8	1.20	6.00	0.46	2.30	0.60	3.00	0.25	1.25

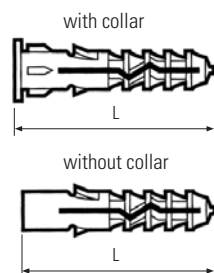
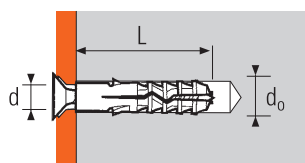
* Indicative values - the loads must be lower than 50% in function of the type of screw used

RAMPLUG

Universal Nylon Lightweight Anchor



Performance	Material	Installation



Technical Data

TYPE	Ø Woodscrew	Ø Drill bit	Anchor length
	d	do	L
DNP05	2.5 - 4	5	25
DNP06	3.5 - 5	6	30
DNP08	4.5 - 6	8	40
DNP10	6 - 8	10	50
DNP12	8 - 10	12	60
DNP14	10 - 12	14	70
DNP10 PV	-	10	50

PV: version with threaded head M8x125

MATERIAL

Body:
Polyamid 6

Recommended Load and Ultimate Loads

TYPE	Ø Woodscrew	Concrete C20/25		Clay brick		Hollow clay brick		Aerated con.	Concrete C20/25		Aerated con.
		N _{rec} * N _{u,m} *	N _{rec} * N _{u,m} *	N _{rec} * N _{u,m} *	N _{rec} * N _{u,m} *	N _{u,m} *	N _{u,m} *	V _{rec} * V _{u,m} *	V _{u,m} *	V _{u,m} *	
DNP05	4	0.3	1.5	0.3	1.5	0.20	1.0	0.22	0.3	3.1	0.16
DNP06	5	0.5	2.5	0.5	2.5	0.25	1.3	0.44	0.8	4.9	0.23
DNP08	6	0.8	4.0	0.8	4.0	0.35	1.8	0.65	1.0	5.8	0.42
DNP10	8	1.2	6.0	1.1	5.5	0.45	2.3	0.91	1.2	7.3	0.71
DNP12	10	1.8	9.0	1.5	7.5	0.55	2.8	1.33	2.8	22.3	0.96
DNP14	12	2.8	14.0	1.8	9.0	0.7	3.5	1.50	3.0	24.0	1.10

* Indicative values