



**TY9aBolt®**

Conxtruct  
Stock List & Technical  
2014



# Hobson Engineering Co. Pty. Ltd

A.B.N. 38 000 289 958

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## Sydney

Ph: (02) 8818 0222

Fax: (02) 9620 1850

email: salesnsw@hobson.com.au

## Brisbane

Ph: (07) 3273 0777

Fax: (07) 3711 4551

email: salesqld@hobson.com.au

## Melbourne

Ph: (03) 9797 3333

Fax: (03) 9799 3081

email: salesvic@hobson.com.au

## Perth

Ph: (08) 9241 9888

Fax: (08) 9248 8806

email: saleswa@hobson.com.au

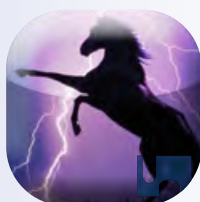
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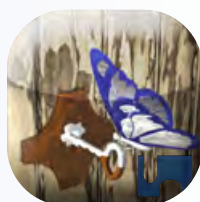
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Mechanical Anchors

Mechanical Anchors

Chemical Anchors

# ***Mechanical Anchors***





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XBolt®  
Anchor



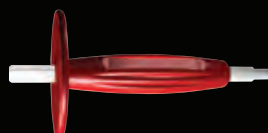
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Dropin Anchor  
Setting Tool



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Nail-in Anchor



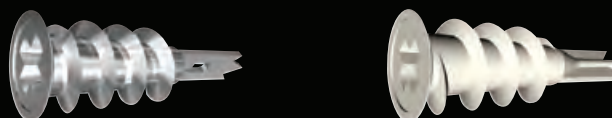
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# Clawbolt® Wedge Anchor (Through Bolt)



## CLAWBOLT® (WEDGE ANCHOR) CLASS 5.8 ZINC YELLOW PASSIVATE / HEC

Technical  
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Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Weight (Kg)
MAW58YCM060055	M6	55	6	100	1.34
MAW58YCM060085	M6	85	6	100	1.75
MAW58YCM060100	M6	100	6	50	2.06
MAW58YCM060120	M6	120	6	50	1.18
MAW58YCM080050	M8	50	8	50	1.00
MAW58YCM080080	M8	80	8	50	1.60
MAW58YCM080100	M8	100	8	50	1.85
MAW58YCM080120	M8	120	8	50	2.75
MAW58YCM100065	M10	65	10	25	1.18
MAW58YCM100075	M10	75	10	25	1.30
MAW58YCM100090	M10	90	10	25	1.48
MAW58YCM100120	M10	120	10	25	1.90
MAW58YCM120080	M12	80	12	20	1.58
MAW58YCM120100	M12	100	12	20	1.95
MAW58YCM120140	M12	140	12	20	2.45
MAW58YCM120180	M12	180	12	20	3.10



## CLAWBOLT® (WEDGE ANCHOR) CLASS 4.6 ZINC YELLOW PASSIVATE / HEC

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Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Weight (Kg)
MAW46YCM160105	M16	105	16	20	3.60
MAW46YCM160125	M16	125	16	20	4.10
MAW46YCM160140	M16	140	16	20	4.50
MAW46YCM160190	M16	190	16	20	5.70
MAW46YCM200125	M20	125	20	10	3.30
MAW46YCM200160	M20	160	20	10	4.05
MAW46YCM200200	M20	200	20	10	4.80



# Clawbolt® Wedge Anchor (Through Bolt)



## CLAWBOLT® (WEDGE ANCHOR) CLASS 5.8 MECHANICAL GAL 304 STAINLESS RING / HEC

Technical  
Page 54

Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MAW58GCM080080	M8	80	8	50	1.60
MAW58GCM080100	M8	100	8	50	1.85
MAW58GCM080120	M8	120	8	50	2.75
MAW58GCM100065	M10	65	10	25	1.18
MAW58GCM100090	M10	90	10	25	1.48
MAW58GCM100120	M10	120	10	25	1.90
MAW58GCM120080	M12	80	12	20	1.58
MAW58GCM120100	M12	100	12	20	1.95
MAW58GCM120140	M12	140	12	20	2.45

## CLAWBOLT® (WEDGE ANCHOR) CLASS 4.6 MECHANICAL GAL 304 STAINLESS RING / HEC

Technical  
Page 54

Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MAW46GCM160105	M16	105	16	20	3.60
MAW46GCM160125	M16	125	16	20	4.10
MAW46GCM160140	M16	140	16	20	4.50
MAW46GCM160190	M16	190	16	20	5.70
MAW46GCM200125	M20	125	20	10	3.30
MAW46GCM200160	M20	160	20	10	4.05
MAW46GCM200200	M20	200	20	10	4.80

## CLAWBOLT® (WEDGE ANCHOR) 316/A4 STAINLESS / HEC

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Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MAW16PCM080080	M8	80	8	50	1.60
MAW16PCM100050	M10	50	10	25	0.98
MAW16PCM100090	M10	90	10	25	1.48
MAW16PCM100120	M10	120	10	25	1.90
MAW16PCM120080	M12	80	12	20	1.58
MAW16PCM120100	M12	100	12	20	1.95
MAW16PCM120140	M12	140	12	20	2.45
MAW16PCM160105	M16	105	16	20	3.60
MAW16PCM160140	M16	140	16	20	4.50
MAW16PCM200125	M20	125	20	10	3.30
MAW16PCM200160	M20	160	20	10	4.05



Mechanical Anchors

# Tygabolt® Sleeve Anchor



## TYGABOLT® (SLEEVE ANCHOR) CARBON STEEL ZINC YELLOW PASSIVATE / HEC

Technical  
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Part	Size (mm)	Length (mm)	Drill Ø Size (mm)	Pack	Pack Weight (Kg)
MTBMSYM0650025	6.5	25	6.5	100	0.71
MTBMSYM0650035	6.5	35	6.5	100	0.85
MTBMSYM0650055	6.5	55	6.5	100	1.25
MTBMSYM080040	8	40	8	100	1.59
MTBMSYM080060	8	60	8	50	1.15
MTBMSYM080080	8	80	8	50	1.35
MTBMSYM100040	10	40	10	50	1.38
MTBMSYM100050	10	50	10	50	1.59
MTBMSYM100060	10	60	10	50	1.91
MTBMSYM100075	10	75	10	50	2.20
MTBMSYM100100	10	100	10	25	1.40
MTBMSYM100120	10	120	10	25	1.68
MTBMSYM120060	12	60	12	25	1.44
MTBMSYM120080	12	80	12	25	1.76
MTBMSYM120100	12	100	12	20	1.70
MTBMSYM120120	12	120	12	20	2.00
MTBMSYM160065	16	65	16	20	2.02
MTBMSYM160105	16	105	16	10	1.50
MTBMSYM160145	16	145	16	10	1.95
MTBMSYM200075	20	75	20	10	2.08
MTBMSYM200100	20	100	20	5	1.35
MTBMSYM200160	20	160	20	5	1.80



## TYGABOLT® (HEX FLUSH HEAD SLEEVE ANCHOR) CLASS 8.8 ZINC YELLOW PASSIVATE / HEC

Part	Size (mm)	Length (mm)	Drill Ø Size (mm)	Pack	Pack Weight (Kg)
MTH88YM080045	8	45	8	100	1.59
MTH88YM080070	8	70	8	50	1.35
MTH88YM080090	8	90	8	50	1.50
MTH88YM100045	10	45	10	50	1.38
MTH88YM100055	10	55	10	50	1.65
MTH88YM100065	10	65	10	50	1.90
MTH88YM100080	10	80	10	50	2.15
MTH88YM100100	10	100	10	25	1.29
MTH88YM120065	12	65	12	25	1.47
MTH88YM120080	12	80	12	25	1.85
MTH88YM120105	12	105	12	25	2.12
MTH88YM160075	16	75	16	20	2.33
MTH88YM160110	16	110	16	10	1.57



## Tygabolt® Sleeve Anchor



### TYGABOLT® (SLEEVE ANCHOR) CARBON STEEL MECHANICAL GAL / HEC

Technical  
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Part	Size (mm)	Length (mm)	Drill Ø Size (mm)	Pack	Pack Weight (Kg)
MTBMSGM080040	8	40	8	100	1.59
MTBMSGM080060	8	60	8	50	1.15
MTBMSGM080080	8	80	8	50	1.35
MTBMSGM100040	10	40	10	50	1.38
MTBMSGM100050	10	50	10	50	1.59
MTBMSGM100060	10	60	10	50	1.91
MTBMSGM100075	10	75	10	50	2.20
MTBMSGM100100	10	100	10	25	1.40
MTBMSGM120060	12	60	12	25	1.29
MTBMSGM120080	12	80	12	25	1.76
MTBMSGM120100	12	100	12	20	1.70
MTBMSGM120120	12	120	12	20	2.00
MTBMSGM160065	16	65	16	20	2.02
MTBMSGM160105	16	105	16	10	1.50
MTBMSGM160145	16	145	16	10	1.95
MTBMSGM200075	20	75	20	10	2.08
MTBMSGM200100	20	100	20	5	1.35
MTBMSGM200160	20	160	20	5	1.80

### TYGABOLT® (SLEEVE ANCHOR) 316/A4 STAINLESS / HEC

Technical  
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Part	Size (mm)	Length (mm)	Drill Ø Size (mm)	Pack	Pack Weight (Kg)
MTB16PM0650035	6.5	35	6.5	100	0.90
MTB16PM0650055	6.5	55	6.5	100	1.30
MTB16PM080040	8	40	8	100	1.59
MTB16PM080060	8	60	8	50	1.15
MTB16PM080080	8	80	8	50	1.35
MTB16PM100050	10	50	10	50	1.59
MTB16PM100075	10	75	10	50	2.20
MTB16PM100100	10	100	10	25	1.40
MTB16PM120060	12	60	12	25	1.29
MTB16PM120080	12	80	12	25	1.76
MTB16PM120100	12	100	12	20	1.70



Mechanical Anchors



# XBolt® Screw Anchor



## XBOLT® - HEX FLANGE HEAD CARBON STEEL ZINC YELLOW PASSIVATE / HEC

Technical  
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Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MXHMSYM060030	M6	30	6	100	1.04
MXHMSYM060050	M6	50	6	100	2.25
MXHMSYM060075	M6	75	6	50	0.85
MXHMSYM060100	M6	100	6	50	1.09
MXHMSYM080050	M8	50	8	50	1.35
MXHMSYM080060	M8	60	8	50	1.55
MXHMSYM080075	M8	75	8	50	1.30
MXHMSYM080100	M8	100	8	50	2.34
MXHMSYM100060	M10	60	10	50	2.53
MXHMSYM100075	M10	75	10	50	2.95
MXHMSYM100100	M10	100	10	50	3.65
MXHMSYM100120	M10	120	10	50	4.50
MXHMSYM100150	M10	150	10	50	5.20
MXHMSYM120075	M12	75	12	50	4.06
MXHMSYM120100	M12	100	12	50	5.03
MXHMSYM120150	M12	150	12	50	7.99
MXHMSYM160100	M16	100	16	15	2.85
MXHMSYM160150	M16	150	16	15	4.27



## XBOLT® - EYE CARBON STEEL ZINC YELLOW PASSIVATE / HEC

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Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MXEMSYM080055	M8	55	8	50	2.42
MXEMSYM100065	M10	65	10	50	4.48
MXEMSYM120075	M12	75	12	50	5.38



## XBOLT® - COUPLER CARBON STEEL ZINC YELLOW PASSIVATE / HEC

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Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MXCMSYCM120100	M12	100	12	25	3.23
MXCMSYCM120150	M12	150	12	25	4.14



# XBolt® Screw Anchor



## XBOLT® - HEX FLANGE HEAD CARBON STEEL MECHANICAL GALV / HEC

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Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MXHMSGM060030	M6	30	6	100	1.04
MXHMSGM060050	M6	50	6	100	2.25
MXHMSGM060075	M6	75	6	50	0.85
MXHMSGM060100	M6	100	6	50	1.09
MXHMSGM080050	M8	50	8	50	1.35
MXHMSGM080060	M8	60	8	50	1.55
MXHMSGM080075	M8	75	8	50	1.84
MXHMSGM080100	M8	100	8	50	2.34
MXHMSGM100060	M10	60	10	50	2.49
MXHMSGM100075	M10	75	10	50	2.99
MXHMSGM100100	M10	100	10	50	3.70
MXHMSGM100120	M10	120	10	50	4.50
MXHMSGM100150	M10	150	10	50	5.20
MXHMSGM120075	M12	75	12	50	4.10
MXHMSGM120100	M12	100	12	50	5.09
MXHMSGM120150	M12	150	12	50	7.99
MXHMSGM160100	M16	100	16	15	2.85
MXHMSGM160150	M16	150	16	15	4.27



Mechanical Anchors

# XBolt

XBolts® are single unit screw type anchors that are used in solid concrete applications. Fixing is achieved by screwing the anchor into the hole. As it is screwed in, it creates its own undercut by tapping the concrete hole. The cutting and locking mechanism without expansion, enables the anchor to be used in close spacing and edge distance applications.

### XBOLT® Product Features:

- ✓ No expansion forces which enables small edge distance and spacing applications.
- ✓ Case hardened which enables the anchor to cut the concrete and lock itself in place.
- ✓ Quick to install and fully removable.

# Drop-in Anchor



## DROP-IN ANCHOR CARBON STEEL ZINC YELLOW PASSIVATE / PLAIN BODY

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Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MDIMSYCM060025	M6	25	8	100	0.65
MDIMSYCM080030	M8	30	10	100	1.20
MDIMSYCM100040	M10	40	12	50	1.13
MDIMSYCM120050	M12	50	15	50	2.75
MDIMSYCM160065	M16	65	20	25	2.75
MDIMSYCM200080	M20	80	25	25	5.63

## DROP-IN ANCHOR WITH LIP CARBON STEEL ZINC YELLOW PASSIVATE / KNURLED BODY

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Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MDLMSYCM060025	M6	25	8	100	0.65
MDLMSYCM080030	M8	30	10	100	1.20
MDLMSYCM100030	M10	30	12	250	4.10
MDLMSYCM100040	M10	40	12	250	5.20
MDLMSYCM120050	M12	50	15	50	2.75

## DROP-IN ANCHOR 316/A4 STAINLESS / PLAIN BODY

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Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MDI16PCM060025	M6	25	8	100	0.65
MDI16PCM080030	M8	30	10	100	1.20
MDI16PCM100040	M10	40	12	50	1.13
MDI16PCM120050	M12	50	15	50	2.75
MDI16PCM160065	M16	65	20	25	2.75



# Drop-in Anchor Setting Tool



## DROP-IN SETTING TOOL CARBON STEEL ZINC PLATED (RoHS Compliant) / HEC

Part	Size	Length (mm)	Pack	Pack Wgt (Kg)
MATMSZM060175	M6	175	1	0.08
MATMSZM080178	M8	178	1	0.08
MATMSZM100177	M10	177	1	0.21
MATMSZM100185	M10	185	1	0.21
MATMSZM120190	M12	190	1	0.21
MATMSZM160200	M16	200	1	0.24
MATMSZM200212	M20	212	1	0.49

## DROP-IN SETTING TOOL WITH HANDLE CARBON STEEL ZINC PLATED (RoHS Compliant) / HEC

Part	Size	Pack	Pack Wgt (Kg)
MATR10	M10	1	0.18



Mechanical Anchors

# Nail-in Anchor Tie Wire Suspension Anchor

## NAIL-IN ANCHOR - MUSHROOM HEAD NYLON-NATURAL / NYLON BODY-STEEL PIN

Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MNMNM050025	5	25	5	100	0.26
MNMNM050040	5	40	5	100	0.42
MNMNM0650025	6.5	25	6.5	100	0.26
MNMNM0650040	6.5	40	6.5	100	0.35
MNMNM0650050	6.5	50	6.5	100	0.47

## NAIL-IN ANCHOR - ROUND HEAD NYLON-NATURAL / NYLON BODY-STEEL PIN

Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MNRNM050025	5	25	5	100	0.26
MNRNM050040	5	40	5	100	0.42
MNRNM0650025	6.5	25	6.5	100	0.26
MNRNM0650040	6.5	40	6.5	100	0.35
MNRNM0650050	6.5	50	6.5	100	0.47

## NAIL-IN ANCHOR - MUSHROOM HEAD ZINC ALLOY / ZINC ALLOY BODY-STEEL PIN

Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MNPZM050022	5	22	5	100	0.23
MNPZM0650025	6.5	25	6.5	100	0.80
MNPZM0650032	6.5	32	6.5	100	0.97
MNPZM0650038	6.5	38	6.5	100	1.06
MNPZM0650050	6.5	50	6.5	100	1.32

## TIE WIRE SUSPENSION ANCHOR CARBON STEEL ZINC YELLOW PASSIVATE / HEC

Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MSTMSYM060060	M6	60	6	100	1.15

# Pantha Plug® PVC Wall Plug



## PANTHA PLUG® - METAL ZINC ALLOY / SUIT-8G SCREW

Part	Size	Pack	Pack Wgt (Kg)
MWPPM#080043	#08	100	0.90

## PANTHA PLUG® - NYLON WHITE / SUIT-8G SCREW

Part	Size	Pack	Pack Wgt (Kg)
MWPPP#080043	#08	100	0.25

## RED (8-9G SCREW) WALL PLUG / TAPERED POINT

Part	Drill Ø Size (mm)	Size (mm)	Length (mm)	Pack	Pack Wgt (Kg)
MWPFR-25	6	6	25	1000	0.44
MWPFR-30	6	6	30	1000	0.73
MWPFR-38	6	6	38	1000	0.67
MWPFR-50	6	6	50	1000	1.20

## GREEN (10-12G SCREW) WALL PLUG / TAPERED POINT

Part	Drill Ø Size (mm)	Size (mm)	Length (mm)	Pack	Pack Wgt (Kg)
MWPFG-25	7	7	25	1000	0.44
MWPFG-30	7	7	30	1000	0.53
MWPFG-38	7	7	38	500	0.34
MWPFG-50	7	7	50	500	0.45

## BLUE (14-16G SCREW) WALL PLUG / TAPERED POINT









Part	Drill Ø Size (mm)	Size (mm)	Length (mm)	Pack	Pack Wgt (Kg)
MWPFB-25	8	8	25	1000	0.47
MWPFB-35	8	8	35	500	0.39
MWPFB-50	8	8	50	500	0.50



Mechanical Anchors

[illegible]



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# Wedge Anchor B (Through Bolt)



## WEDGE ANCHOR B CARBON STEEL ZINC PLATED (RoHS Compliant)

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Weight (Kg)
MABM5ZSM060052	M01006101	M6	52	6	100	1.26
MABM5ZSM060067	M01010101	M6	67	6	100	1.55
MABM5ZSM060072	M01013101	M6	72	6	100	1.63
MABM5ZSM060082	M01015101	M6	82	6	100	1.81
MABM5ZSM060087	M01020101	M6	87	6	100	1.91
MABM5ZSM060097	M01025101	M6	97	6	100	2.07
MABM5ZSM080060	M01110101	M8	60	8	100	2.62
MABM5ZSM080075	M01115101	M8	75	8	100	3.10
MABM5ZSM080080	M01120101	M8	80	8	100	3.26
MABM5ZSM080085	M01125101	M8	85	8	100	3.40
MABM5ZSM080090	M01130101	M8	90	8	100	3.59
MABM5ZSM080095	M01135101	M8	95	8	100	3.72
MABM5ZSM080100	M01140101	M8	100	8	100	3.89
MABM5ZSM080110	M01145101	M8	110	8	100	4.22
MABM5ZSM080120	M01150101	M8	120	8	100	4.54
MABM5ZSM080165	M01158101	M8	165	8	50	2.99
MABM5ZSM100085	M01210101	M10	85	10	50	2.83
MABM5ZSM100090	M01215101	M10	90	10	50	2.94
MABM5ZSM100095	M01220101	M10	95	10	50	3.06
MABM5ZSM100105	M01225101	M10	105	10	50	3.32
MABM5ZSM100120	M01230101	M10	120	10	50	3.72
MABM5ZSM100125	M01235101	M10	125	10	50	3.85
MABM5ZSM100145	M01240101	M10	145	10	50	4.35
MABM5ZSM100175	M01245101	M10	175	10	50	5.10
MABM5ZSM100215	M01250101	M10	215	10	25	3.06

# Wedge Anchor B (Through Bolt)



## WEDGE ANCHOR B CARBON STEEL ZINC PLATED (RoHS Compliant)

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Weight (Kg)
MABM5ZSM120105	M01312101	M12	105	12	25	2.55
MABM5ZSM120110	M01315101	M12	110	12	25	2.60
MABM5ZSM120115	M01320101	M12	115	12	25	2.70
MABM5ZSM120125	M01325101	M12	125	12	25	2.88
MABM5ZSM120145	M01330101	M12	145	12	25	3.26
MABM5ZSM120160	M01335101	M12	160	12	25	3.49
MABM5ZSM120180	M01340101	M12	180	12	25	3.90
MABM5ZSM120200	M01345101	M12	200	12	25	4.22
MABM5ZSM120220	M01350101	M12	220	12	25	5.04
MABM5ZSM120240	M01355101	M12	240	12	20	4.38
MABM5ZSM120255	M01365101	M12	255	12	20	4.68
MABM5ZSM120285	M01370101	M12	285	12	20	5.21
MABM5ZSM120325	M01375101	M12	325	12	20	5.90
MABM5ZSM120355	M01380101	M12	355	12	20	6.53
MABM5ZSM160115	M01510101	M16	115	16	20	3.98
MABM5ZSM160130	M01512101	M16	130	16	20	4.50
MABM5ZSM160150	M01515101	M16	150	16	20	4.87
MABM5ZSM160180	M01520101	M16	180	16	20	5.66
MABM5ZSM160200	M01525101	M16	200	16	10	3.12
MABM5ZSM160220	M01530101	M16	220	16	10	3.64
MABM5ZSM160250	M01535101	M16	250	16	10	4.10
MABM5ZSM160285	M01540101	M16	285	16	10	4.68
MABM5ZSM160320	M01545101	M16	320	16	10	5.23
MABM5ZSM200150	M01605101	M20	150	20	10	3.78
MABM5ZSM200165	M01607101	M20	165	20	10	4.12
MABM5ZSM200180	M01610101	M20	180	20	10	4.44
MABM5ZSM200205	M01612101	M20	205	20	10	4.94
MABM5ZSM200240	M01615101	M20	240	20	10	6.10
MABM5ZSM200265	M01622101	M20	265	20	10	6.65
MABM5ZSM200120	M01604101	M20	120	20	10	3.17
MABM5ZSM200150	M01605101	M20	150	20	10	3.78
MABM5ZSM200165	M01607101	M20	165	20	10	4.12
MABM5ZSM200180	M01610101	M20	180	20	10	4.44
MABM5ZSM200205	M01612101	M20	205	20	10	4.94
MABM5ZSM200240	M01615101	M20	240	20	10	6.10
MABM5ZSM200265	M01622101	M20	265	20	10	6.65



Mechanical Anchors

# Wedge Anchor B (Through Bolt)



## WEDGE ANCHOR B CARBON STEEL HOT DIP GALVANISE 40µm EN ISO 1461 / STAINLESS EXPANSION CLIP

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MABM5GSM060040	M01005201	M6	40	6	100	1.06
MABM5GSM060067	M01010201	M6	67	6	100	1.57
MABM5GSM060082	M01015201	M6	82	6	100	1.90
MABM5GSM060097	M01025201	M6	97	6	100	2.09
MABM5GSM080050	M01105201	M8	50	8	100	2.36
MABM5GSM080060	M01110201	M8	60	8	100	2.76
MABM5GSM080075	M01115201	M8	75	8	100	3.17
MABM5GSM080080	M01120201	M8	80	8	100	3.36
MABM5GSM080085	M01125201	M8	85	8	100	3.50
MABM5GSM080095	M01135201	M8	95	8	100	3.83
MABM5GSM080110	M01145201	M8	110	8	100	4.29
MABM5GSM080120	M01150201	M8	120	8	100	4.59
MABM5GSM100060	M01205201	M10	60	10	50	2.32
MABM5GSM100085	M01210201	M10	85	10	50	2.90
MABM5GSM100090	M01215201	M10	90	10	50	3.01
MABM5GSM100095	M01220201	M10	95	10	50	3.15
MABM5GSM100105	M01225201	M10	105	10	50	3.35
MABM5GSM100120	M01230201	M10	120	10	50	3.77
MABM5GSM100125	M01235201	M10	125	10	50	3.93
MABM5GSM100145	M01240201	M10	145	10	50	4.50
MABM5GSM100175	M01245201	M10	175	10	50	4.93
MABM5GSM100215	M01250201	M10	215	10	25	3.10
MABM5GSM120075	M01305201	M12	75	12	25	1.99
MABM5GSM120095	M01310201	M12	95	12	25	2.38
MABM5GSM120110	M01315201	M12	110	12	25	2.66
MABM5GSM120115	M01320201	M12	115	12	25	2.71
MABM5GSM120125	M01325201	M12	125	12	25	2.92
MABM5GSM120145	M01330201	M12	145	12	25	3.25
MABM5GSM120160	M01335201	M12	160	12	25	3.54
MABM5GSM120180	M01340201	M12	180	12	25	3.85
MABM5GSM120200	M01345201	M12	200	12	25	4.28
MABM5GSM160115	M01510201	M16	115	16	20	3.96
MABM5GSM160130	M01512201	M16	130	16	20	4.41
MABM5GSM160150	M01515201	M16	150	16	20	4.92
MABM5GSM200150	M01605201	M20	150	20	10	3.84
MABM5GSM200180	M01610201	M20	180	20	10	4.44
MABM5GSM200205	M01612201	M20	205	20	10	5.00
MABM5GSM200240	M01615201	M20	240	20	10	6.26



# Wedge Anchor B (Through Bolt)



## WEDGE ANCHOR B A4 316/A4 STAINLESS

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MABM4PSM060052	M01006501	M6	52	6	100	1.27
MABM4PSM060067	M01010501	M6	67	6	100	1.56
MABM4PSM060082	M01015501	M6	82	6	100	1.80
MABM4PSM060097	M01025501	M6	97	6	100	2.08
MABM4PSM080060	M01110501	M8	60	8	100	2.64
MABM4PSM080075	M01115501	M8	75	8	100	3.10
MABM4PSM080080	M01120501	M8	80	8	100	3.28
MABM4PSM080085	M01125501	M8	85	8	100	3.42
MABM4PSM080095	M01135501	M8	95	8	100	3.73
MABM4PSM080110	M01145501	M8	110	8	100	4.20
MABM4PSM080120	M01150501	M8	120	8	100	4.57
MABM4PSM100085	M01210501	M10	85	10	50	2.85
MABM4PSM100090	M01215501	M10	90	10	50	2.97
MABM4PSM100095	M01220501	M10	95	10	50	3.10
MABM4PSM100105	M01225501	M10	105	10	50	3.33
MABM4PSM100120	M01230501	M10	120	10	50	3.75
MABM4PSM100125	M01235501	M10	125	10	50	3.87
MABM4PSM100145	M01240501	M10	145	10	50	4.38
MABM4PSM100175	M01245501	M10	175	10	50	5.15
MABM4PSM100215	M01250501	M10	215	10	25	3.10
MABM4PSM120095	M01310501	M12	95	12	25	2.33
MABM4PSM120105	M01312501	M12	105	12	25	2.53
MABM4PSM120110	M01315501	M12	110	12	25	2.62
MABM4PSM120115	M01320501	M12	115	12	25	2.70
MABM4PSM120125	M01325501	M12	125	12	25	2.88
MABM4PSM120145	M01330501	M12	145	12	25	3.28
MABM4PSM120160	M01335501	M12	160	12	25	3.55
MABM4PSM120180	M01340501	M12	180	12	25	3.90
MABM4PSM120200	M01345501	M12	200	12	25	4.28
MABM4PSM120220	M01350501	M12	220	12	25	5.11
MABM4PSM120240	M01355501	M12	240	12	20	4.39
MABM4PSM160115	M01510501	M16	115	16	20	3.98
MABM4PSM160130	M01512501	M16	130	16	20	4.34
MABM4PSM160150	M01515501	M16	150	16	20	4.87
MABM4PSM160180	M01520501	M16	180	16	20	5.66
MABM4PSM160200	M01525501	M16	200	16	10	3.26
MABM4PSM160220	M01530501	M16	220	16	10	3.59
MABM4PSM160250	M01535501	M16	250	16	10	3.99
MABM4PSM160320	M01545501	M16	320	16	10	5.16
MABM4PSM200150	M01605501	M20	150	20	10	3.86
MABM4PSM200180	M01610501	M20	180	20	10	4.47
MABM4PSM200205	M01612501	M20	205	20	10	5.03
MABM4PSM200240	M01615501	M20	240	20	10	6.26



Mechanical Anchors

# Wedge Anchor BZ Plus (Through Bolt)



**WEDGE ANCHOR BZ PLUS** Technical  
CARBON STEEL ZINC PLATED (RoHS Compliant) / COATED EXPANSION CONE Page 62

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MABM5ZUM080075	M06115101	M8	75	8	100	2.99
MABM5ZUM080080	M06120101	M8	80	8	100	3.14
MABM5ZUM080095	M06135101	M8	95	8	100	3.60
MABM5ZUM080115	M06145101	M8	115	8	100	4.24
MABM5ZUM080165	M06160101	M8	165	8	50	2.94
MABM5ZUM100090	M06210101	M10	90	10	50	2.94
MABM5ZUM100095	M06215101	M10	95	10	50	3.06
MABM5ZUM100100	M06220101	M10	100	10	50	3.18
MABM5ZUM100110	M06225101	M10	110	10	50	3.44
MABM5ZUM100130	M06235101	M10	130	10	50	4.95
MABM5ZUM100155	M06240101	M10	155	10	50	4.55
MABM5ZUM100180	M06250101	M10	180	10	50	5.16
MABM5ZUM100230	M06260101	M10	230	10	25	3.49
MABM5ZUM120110	M06317101	M12	110	12	25	2.55
MABM5ZUM120115	M06322101	M12	115	12	25	2.66
MABM5ZUM120125	M06327101	M12	125	12	25	2.84
MABM5ZUM120145	M06332101	M12	145	12	25	3.23
MABM5ZUM120160	M06337101	M12	160	12	25	3.49
MABM5ZUM120180	M06342101	M12	180	12	25	3.84
MABM5ZUM120200	M06347101	M12	200	12	25	4.21
MABM5ZUM120220	M06352101	M12	220	12	25	4.93
MABM5ZUM120240	M06357101	M12	240	12	20	4.32
MABM5ZUM120255	M06367101	M12	255	12	20	4.59
MABM5ZUM120285	M06372101	M12	285	12	20	4.99
MABM5ZUM160135	M06510101	M16	135	16	20	4.32
MABM5ZUM160145	M06515101	M16	145	16	20	4.60
MABM5ZUM160170	M06520101	M16	170	16	20	5.26
MABM5ZUM160200	M06525101	M16	200	16	10	3.20
MABM5ZUM160220	M06530101	M16	220	16	10	3.50
MABM5ZUM160260	M06535101	M16	260	16	10	4.12
MABM5ZUM160300	M06540101	M16	300	16	10	4.74
MABM5ZUM200165	M06615101	M20	165	20	10	4.41
MABM5ZUM200195	M06625101	M20	195	20	10	5.05
MABM5ZUM200235	M06630101	M20	235	20	5	3.04
MABM5ZUM200265	M06635101	M20	265	20	5	3.43
MABM5ZUM200285	M06640101	M20	285	20	5	3.66
MABM5ZUM240190	M06715101	M24	190	24	10	6.85
MABM5ZUM240220	M06725101	M24	220	24	5	3.93
MABM5ZUM240235	M06735101	M24	235	24	5	4.15

# Wedge Anchor BZ Plus (Through Bolt)



**WEDGE ANCHOR BZ PLUS A4**  
316/A4 STAINLESS / COATED EXPANSION CONE

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Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MABM4PUM080075	M02115501	M8	75	8	100	3.02
MABM4PUM080080	M02120501	M8	80	8	100	3.16
MABM4PUM080095	M02135501	M8	95	8	100	3.68
MABM4PUM080115	M02145501	M8	115	8	100	4.34
MABM4PUM100090	M02210501	M10	90	10	50	2.97
MABM4PUM100095	M02215501	M10	95	10	50	3.12
MABM4PUM100100	M02332501	M10	100	10	50	3.25
MABM4PUM100110	M02225501	M10	110	10	50	3.48
MABM4PUM100130	M02235501	M10	130	10	50	4.02
MABM4PUM100180	M02250501	M10	180	10	50	5.26
MABM4PUM120110	M02317501	M12	110	12	25	2.55
MABM4PUM120115	M02322501	M12	115	12	25	2.66
MABM4PUM120125	M02327501	M12	125	12	25	2.84
MABM4PUM120145	M02332501	M12	145	12	25	3.23
MABM4PUM120180	M02342501	M12	180	12	25	3.84
MABM4PUM120220	M02352501	M12	220	12	25	4.93
MABM4PUM120255	M02367501	M12	255	12	20	4.59
MABM4PUM120285	M02372501	M12	285	12	20	4.99
MABM4PUM160145	M02515501	M16	145	16	20	4.68
MABM4PUM160170	M02520501	M16	170	16	20	5.36
MABM4PUM160220	M02530501	M16	220	16	10	3.59
MABM4PUM200165	M02615501	M20	165	20	10	4.51
MABM4PUM200195	M02625501	M20	195	20	10	5.14
MABM4PUM200235	M02630501	M20	235	20	5	3.09
MABM4PUM200265	M02635501	M20	265	20	5	3.48
MABM4PUM200285	M02640501	M20	285	20	5	3.73



Mechanical Anchors

# Wedge Anchor B-IG



## WEDGE ANCHOR B-IG

CARBON STEEL ZINC PLATED (RoHS Compliant) / INTERNALLY THREADED

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MABM5ZGM060045	M03005101	M6	45	8	100	1.39
MABM5ZGM080050	M03105101	M8	50	10	100	2.40
MABM5ZGM100060	M03205101	M10	60	12	50	1.95
MABM5ZGM120075	M03305101	M12	75	16	25	2.29



## WEDGE ANCHOR B-IG A4

316 STAINLESS / INTERNALLY THREADED

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MABM4PGM060045	M03005501	M6	45	8	100	1.41
MABM4PGM080050	M03105501	M8	50	10	100	2.45
MABM4PGM100060	M03205501	M10	60	12	50	1.98
MABM4PGM120075	M03305501	M12	75	16	25	2.23



## WEDGE ANCHOR BZ-IG

CARBON STEEL ZINC PLATED (RoHS Compliant) / PRE-INSTALLATION TYPE

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MABM5ZIM060050	M03600101	M6	50	8	100	1.42
MABM5ZIM080062	M03610101	M8	62	10	50	1.31
MABM5ZIM100070	M03620101	M10	70	12	25	1.08
MABM5ZIM120086	M03630101	M12	86	16	20	2.03



## WEDGE ANCHOR BZ-IG A4

316 STAINLESS / PRE-INSTALLATION TYPE

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MABM4PIM060050	M03600501	M6	50	8	100	1.42
MABM4PIM080062	M03610501	M8	62	10	50	1.31
MABM4PIM100070	M03620501	M10	70	12	25	1.08
MABM4PIM120086	M03630501	M12	86	16	20	2.03



# Wedge Anchor BZ-IG



## WEDGE ANCHOR BZ-IG CARBON STEEL ZINC PLATED (RoHS Compliant) / THROUGH FASTENING TYPE

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MABM5ZTM060060	M03602101	M6	60	8	100	1.80
MABM5ZTM060070	M03604101	M6	70	8	100	2.20
MABM5ZTM060080	M03606101	M6	80	8	100	2.60
MABM5ZTM080072	M03611101	M8	72	10	50	1.65
MABM5ZTM080082	M03612101	M8	82	10	50	1.95
MABM5ZTM080092	M03613101	M8	92	10	50	2.25
MABM5ZTM100080	M03621101	M10	80	12	25	1.32
MABM5ZTM100090	M03622101	M10	90	12	25	1.48
MABM5ZTM100100	M03623101	M10	100	12	25	1.76
MABM5ZTM120096	M03631101	M12	96	16	20	2.34
MABM5ZTM120106	M03632101	M12	106	16	20	2.66
MABM5ZTM120116	M03633101	M12	116	16	20	2.97



## WEDGE ANCHOR BZ-IG A4 316/A4 STAINLESS / THROUGH FASTENING TYPE

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MABM4PTM060060	M03602501	M6	60	8	100	1.80
MABM4PTM060070	M03604501	M6	70	8	100	2.20
MABM4PTM060080	M03606501	M6	80	8	100	2.60
MABM4PTM080072	M03611501	M8	72	10	50	1.65
MABM4PTM080082	M03612501	M8	82	10	50	1.95
MABM4PTM080092	M03613501	M8	92	10	50	2.25
MABM4PTM100080	M03621501	M10	80	12	25	1.32
MABM4PTM100090	M03622501	M10	90	12	25	1.48
MABM4PTM100100	M03623501	M10	100	12	25	1.76
MABM4PTM120096	M03631501	M12	96	16	20	2.34
MABM4PTM120106	M03632501	M12	106	16	20	2.66
MABM4PTM120116	M03633501	M12	116	16	20	2.97



# Setting Tool BZ-IG



## SETTING TOOL BZ-IG ZINC PLATED (RoHS Compliant) / PRE-INSTALLATION TYPE

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MATPIM06	M43005150	M6			1	0.43
MATPIM08	M43100150	M8			1	0.44
MATPIM10	M43200150	M10			1	0.46
MATPIM12	M43300150	M12			1	0.56



## SETTING TOOL BZ-IG ZINC PLATED (RoHS Compliant) / THROUGH FASTENING TYPE

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MATPTM06	M43005155	M6			1	0.32
MATPTM08	M43100155	M8			1	0.33
MATPTM10	M43200155	M10			1	0.33
MATPTM12	M43300155	M12			1	0.35

# Highload Anchor SZ-SK



## HIGHLOAD ANCHOR SZ-SK CARBON STEEL ZINC PLATED (RoHS Compliant) / COUNTERSUNK HEAD

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Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MAZM5ZKM060070	M14011801	M6	70	10	50	1.69
MAZM5ZKM060085	M14021801	M6	85	10	50	2.30
MAZM5ZKM060100	M14031801	M6	100	10	50	2.58
MAZM5ZKM080080	M14111801	M8	80	12	50	3.01
MAZM5ZKM080095	M14121801	M8	95	12	50	3.65
MAZM5ZKM080120	M14131801	M8	120	12	25	2.33
MAZM5ZKM100095	M14211801	M10	100	15	25	2.95
MAZM5ZKM100110	M14221801	M10	110	15	25	3.29
MAZM5ZKM100120	M14226801	M10	120	15	25	3.55
MAZM5ZKM100135	M14231801	M10	135	15	25	3.96
MAZM5ZKM120115	M14316801	M12	115	18	20	3.99
MAZM5ZKM120135	M14326801	M12	135	18	20	4.62



## HIGHLOAD ANCHOR SZ-SK A4 316/A4 STAINLESS / COUNTERSUNK HEAD

Technical  
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Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MAZM4PKM080080	M14111531	M8	80	12	50	3.01
MAZM4PKM080095	M14121531	M8	95	12	50	3.65
MAZM4PKM080120	M14131531	M8	120	12	25	2.33
MAZM4PKM100100	M14216531	M10	100	15	25	3.07
MAZM4PKM100110	M14221531	M10	110	15	25	3.29
MAZM4PKM100120	M14226531	M10	120	15	25	3.55
MAZM4PKM100135	M14231531	M10	135	15	25	3.96
MAZM4PKM120115	M14316531	M12	115	18	20	3.99
MAZM4PKM120135	M14326531	M12	135	18	20	4.62



Mechanical Anchors

# Highload Anchor SZ-B



## HIGHLOAD ANCHOR SZ-B CARBON STEEL ZINC PLATED (RoHS Compliant) / HEXAGON NUT

Technical  
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Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MAZM5ZBM060067	M16005301	M6	67	10	100	3.25
MAZM5ZBM060077	M16010301	M6	77	10	50	1.94
MAZM5ZBM060097	M16025301	M6	97	10	50	2.47
MAZM5ZBM060117	M16030301	M6	117	10	50	2.94
MAZM5ZBM060167	M16045301	M6	167	10	25	2.05
MAZM5ZBM080080	M16105301	M8	80	12	50	2.93
MAZM5ZBM080090	M16110301	M8	90	12	50	3.31
MAZM5ZBM080110	M16125301	M8	110	12	50	4.10
MAZM5ZBM080130	M16130301	M8	130	12	25	2.47
MAZM5ZBM080180	M16145301	M8	180	12	25	3.22
MAZM5ZBM100096	M16205301	M10	96	15	25	2.85
MAZM5ZBM100111	M16215301	M10	111	15	25	3.31
MAZM5ZBM100121	M16220301	M10	121	15	25	3.59
MAZM5ZBM100141	M16225301	M10	141	15	25	4.20
MAZM5ZBM100191	M16240301	M10	191	15	25	5.60
MAZM5ZBM120112	M16305301	M12	112	18	20	3.84
MAZM5ZBM120122	M16310301	M12	122	18	20	4.18
MAZM5ZBM120132	M16315301	M12	132	18	20	4.53
MAZM5ZBM120152	M16325301	M12	152	18	20	5.21
MAZM5ZBM120182	M16335301	M12	182	18	20	6.26
MAZM5ZBM120212	M16340301	M12	212	18	10	3.55
MAZM5ZBM160137	M16505301	M16	137	24	10	4.11
MAZM5ZBM160152	M16555301	M16	152	24	10	4.70
MAZM5ZBM160157	M16515301	M16	157	24	10	4.71
MAZM5ZBM160182	M16565301	M16	182	24	10	5.57
MAZM5ZBM160187	M16525301	M16	187	24	10	5.58
MAZM5ZBM160202	M16575301	M16	202	24	10	6.20
MAZM5ZBM160237	M16530301	M16	237	24	5	3.49
MAZM5ZBM200181	M16610301	M20	181	28	10	7.76
MAZM5ZBM200201	M16615301	M20	201	28	5	4.35
MAZM5ZBM200231	M16625301	M20	231	28	5	5.02
MAZM5ZBM200271	M16630301	M20	271	28	5	5.88

# Highload Anchor SZ-B



**HIGHLOAD ANCHOR SZ-B A4**  
316/A4 STAINLESS / HEXAGON NUT

Technical  
Page 66

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MAZM4PBM080079	M16105501	M8	79	12	50	2.93
MAZM4PBM080089	M16110501	M8	89	12	50	3.31
MAZM4PBM080109	M16125501	M8	109	12	50	4.10
MAZM4PBM080129	M16130501	M8	129	12	25	2.47
MAZM4PBM080179	M16145501	M8	179	12	25	3.22
MAZM4PBM100095	M16205501	M10	95	15	25	2.85
MAZM4PBM100110	M16215501	M10	110	15	25	3.31
MAZM4PBM100120	M16220501	M10	120	15	25	3.59
MAZM4PBM100140	M16225501	M10	140	15	25	4.20
MAZM4PBM100190	M16240501	M10	190	15	25	5.60
MAZM4PBM120112	M16305501	M12	112	18	20	3.84
MAZM4PBM120122	M16310501	M12	122	18	20	4.18
MAZM4PBM120131	M16315501	M12	131	18	20	4.53
MAZM4PBM120151	M16325501	M12	151	18	20	5.21
MAZM4PBM120182	M16335501	M12	182	18	20	6.26
MAZM4PBM120212	M16340501	M12	212	18	10	3.55
MAZM4PBM160137	M16505501	M16	137	24	10	4.11
MAZM4PBM160157	M16515501	M16	157	24	10	4.71
MAZM4PBM160187	M16525501	M16	187	24	10	5.58
MAZM4PBM160237	M16530501	M16	237	24	5	3.49



Mechanical Anchors



# Highload Anchor SZ-S



## HIGHLOAD ANCHOR SZ-S CARBON STEEL ZINC PLATED (RoHS Compliant) / HEXAGON HEAD SCREW

Technical  
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Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MAZM5ZSM060065	M14005301	M6	65	10	100	3.25
MAZM5ZSM060075	M14010301	M6	75	10	50	1.94
MAZM5ZSM060095	M14025301	M6	95	10	50	2.47
MAZM5ZSM060115	M14030301	M6	115	10	50	2.94
MAZM5ZSM080075	M14105301	M8	75	12	50	2.93
MAZM5ZSM080085	M14110301	M8	85	12	50	3.31
MAZM5ZSM080105	M14125301	M8	105	12	50	4.10
MAZM5ZSM080125	M14130301	M8	125	12	25	2.47
MAZM5ZSM100091	M14205301	M10	91	15	25	2.85
MAZM5ZSM100106	M14215301	M10	106	15	25	3.31
MAZM5ZSM100116	M14220301	M10	116	15	25	3.59
MAZM5ZSM100136	M14225301	M10	136	15	25	4.20
MAZM5ZSM100186	M14240301	M10	186	15	25	5.60
MAZM5ZSM120107	M14305301	M12	107	18	20	3.84
MAZM5ZSM120117	M14310301	M12	117	18	20	4.18
MAZM5ZSM120127	M14315301	M12	127	18	20	4.53
MAZM5ZSM120147	M14325301	M12	147	18	20	5.21
MAZM5ZSM120177	M14335301	M12	177	18	20	6.26
MAZM5ZSM160130	M14505301	M16	130	24	10	4.11
MAZM5ZSM16015000	M14555301	M16	150	24	10	4.70
MAZM5ZSM16015020	M14515301	M16	150	24	10	4.71
MAZM5ZSM16018030	M14565301	M16	180	24	10	5.57
MAZM5ZSM16018050	M14525301	M16	180	24	10	5.58
MAZM5ZSM160200	M14575301	M16	200	24	10	6.20
MAZM5ZSM200172	M14610301	M20	172	28	10	7.76
MAZM5ZSM200192	M14615301	M20	192	28	5	4.35
MAZM5ZSM200222	M14625301	M20	222	28	5	5.02
MAZM5ZSM200262	M14630301	M20	262	28	5	5.88

# Highload Anchor SZ-S



## HIGHLOAD ANCHOR SZ-S A4 316/A4 STAINLESS / HEXAGON HEAD SCREW

Technical  
Page 66


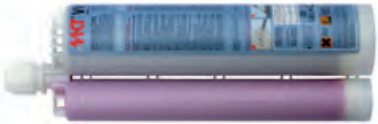









Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MAZM4PSM080075	M14105501	M8	75	12	50	2.93
MAZM4PSM080085	M14110501	M8	85	12	50	3.31
MAZM4PSM080105	M14125501	M8	105	12	50	4.10
MAZM4PSM080125	M14130501	M8	125	12	25	2.47
MAZM4PSM100091	M14205501	M10	91	15	25	2.85
MAZM4PSM100106	M14215501	M10	106	15	25	3.31
MAZM4PSM100116	M14220501	M10	116	15	25	3.59
MAZM4PSM100136	M14225501	M10	136	15	25	4.20
MAZM4PSM100186	M14240501	M10	186	15	25	5.60
MAZM4PSM120108	M14305501	M12	108	18	20	3.84
MAZM4PSM120118	M14310501	M12	118	18	20	4.18
MAZM4PSM120128	M14315501	M12	128	18	20	4.53
MAZM4PSM120148	M14325501	M12	148	18	20	5.21
MAZM4PSM120178	M14335501	M12	178	18	20	6.26
MAZM4PSM160130	M14505501	M16	130	15	10	4.11
MAZM4PSM160150	M14515501	M16	150	15	10	4.71
MAZM4PSM160180	M14525501	M16	180	15	10	5.58



Mechanical Anchors

# *Chemical Anchor Systems*

	Cracked Concrete	Non-cracked Concrete	Hollow brick	Solid brick	Drywall	Solid Brick	DIBt Approval	Fire Resistant	ICC Approval	Approved for fatigue loading	Swiss Shock Approval	Steel, Zinc Plated	Steel, Hot Dip Galvanized	Stainless Steel A4/316	Stainless Steel HCR	Design Software available
Injection System VMZ	•	•				•		•			•	•	•	•	•	•
Injection System VMZ-IG	•	•				•						•		•	•	•
Injection System VMZ <i>dyn</i>	•	•					•			•		•			•	•
Chemical Anchor V		•				•		•				•	•	•	•	•
Injection System VMU		•	•	•		•	•	•				•	•	•	•	•
Injection System VME	•	•				•	•	•	•				•	•	•	•
Injection Adhesive VM-PY			•	•			•					•	•	•	•	
Injection Adhesive VM-K		•	•	•								•	•	•	•	

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# Chemical Anchors

## STUD CHEM ANCHOR CHISEL POINT KIT (EXTERNAL HEX) CLASS 5.8 ZINC YELLOW PASSIVATE / HEC

Technical  
Page 69

Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCA58YCM080110H	M8	110	10	10	0.38
MCA58YCM100130H	M10	130	12	10	0.84
MCA58YCM120160H	M12	160	14	10	1.40
MCA58YCM160190H	M16	190	18	10	2.90
MCA58YCM200260H	M20	260	24	10	6.00
MCA58YCM240300H	M24	300	28	5	5.00

## STUD CHEM ANCHOR CHISEL POINT KIT (EXTERNAL HEX) CLASS 5.8 HOT DIP GALVANISED / HEC

Technical  
Page 69

Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCA58GCM080110H	M8	110	10	10	0.38
MCA58GCM100130H	M10	130	12	10	0.84
MCA58GCM120160H	M12	160	14	10	1.40
MCA58GCM160190H	M16	190	18	10	2.90
MCA58GCM200260H	M20	260	24	10	6.00
MCA58GCM240300H	M24	300	28	5	5.00

## STUD CHEMICAL ANCHOR ANGLE CUT POINT KIT (FLAT TOP) CLASS 5.8 HOT DIP GALVANISED / HEC

Technical  
Page 69

Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCS58GCM100130	M10	130	12	10	0.75
MCS58GCM120160	M12	160	14	10	1.29
MCS58GCM160190	M16	190	18	10	2.77
MCS58GCM200260	M20	260	24	10	5.80
MCS58GCM240300	M24	300	28	5	4.86

# Chemical Anchors



## STUD CHEMICAL ANCHOR ANGLE CUT POINT KIT (FLAT TOP) Technical Page 69

Part	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCS16PCM080110	M8	110	10	10	0.42
MCS16PCM100130	M10	130	12	10	0.75
MCS16PCM120160	M12	160	14	10	1.39
MCS16PCM160190	M16	190	18	5	1.48
MCS16PCM200260	M20	260	24	10	3.00
MCS16PCM240300	M24	300	28	5	5.21



## CHEMICAL CAPSULE V-P Technical Page 69

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCMVPM12	M25101201	M12	95	14	10	0.25
MCMVPM16	M25101601	M16	95	18	10	0.36
MCMVPM20	M25102001	M20	175	24	10	1.20
MCMVPM24	M25102401	M24	210	28	5	0.87





# Injection Systems

## VME

### Applications

Fixing of rack systems, railings, steel structures, noise barriers, stairs and machines.  
Subsequent closure of wall and ceiling openings, reinforcement of existing concrete structures, installation of reinforcement for the connection of the following concrete components (if the installation of reinforcement was missed or not possible because of the working process), connection of steel structures.



#### VME EPOXY CARTRIDGE

Technical  
Page 72

Part	QFind	Cartridge ml	Pack	Pack Wgt (Kg)
MCVME0385	M28255501	385	12	8.50
MCVME0585	M28255601	585	12	12.09
MCVME1400	M28255701	1400	5	12.34



**Cartridge VME 385 ml**  
Side-by-side cartridge + Mixer  
MCVME0385



**Cartridge VME 585 ml**  
Side-by-side cartridge + Mixer  
MCVME0585



**Cartridge VME 1400 ml**  
Side-by-side cartridge + Mixer  
MCVME1400

# Injection Systems

## VME



### Accessories



Stud Anchor  
Flat End  
Refer Page 32



Stud Anchor  
Chisel Point  
Refer Page 32



Allthread  
Class 8.8 Sampsonrod®  
Refer High-Tensile Catalogue



Cleaning Brush  
Refer Page 49



Blow-Out Pump VM-AP  
Refer Page 49



**Dispenser VM-P 385 Profi**  
Refer Page 48



Pneumatic Dispenser  
Refer Page 48

# Injection Systems

## VMU

### Applications

Fastenings in non-cracked concrete:  
Baseplates, fastenings to walls and columns, joint tapes.  
Fastenings in masonry:  
Canopies, door and window frames, facade substructures, battens.



### VMU EPOXY CARTRIDGE

Technical  
Page 75

Part	QFind	Cartridge ml	Pack	Pack Wgt (Kg)
MCVMU0150	M28255261	150	12	4.20
MCVMU0280	M28252501	280	12	6.70
MCVMU0300	M28255140	300	12	6.40
MCVMU0345	M28255371	345	12	8.00
MCVMU0420	M28257001	420	12	10.10



Cartridge VMU 150ml

MCVMU0150



Cartridge VMU 280ml

MCVMU0280



Cartridge VMU 300ml

MCVMU0300



Cartridge VMU 345ml

Side-by-side cartridge + Mixer

MCVMU0345



Cartridge VMU 420ml

MCVMU0420

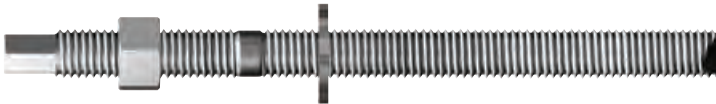
# Injection Systems VMU



## Accessories



Stud Anchor  
Flat End  
Refer Page 32



Stud Anchor  
Chisel Point  
Refer Page 32



Allthread  
Class 8.8 Sampsonrod®  
Refer High-Tensile Catalogue



Cleaning Brush  
Refer Page 49



Perfo Sleeve  
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Blow-Out Pump VM-AP  
Refer Page 49



Pneumatic Dispenser  
Refer Page 48

# Injection Systems

## VM-K

### Applications

VM-K is a polyester-resin based injection mortar designed for bonding threaded rods and reinforcing steel in concrete, masonry or natural stone. It can be used to repair mortar and is suitable for both interior and exterior use.



### VM-K POLYESTER-RESIN CARTRIDGE

Technical  
Page 78

Part	QFind	Cartridge ml	Pack	Pack Wgt (Kg)
MCVMK0300	M28253001	300	12	6.40
MCVMK0345	M28255201	345	12	7.20
MCVMK0420	M28256101	420	12	10.10



Cartridge VMK 300ml

MCVMK0300



Cartridge VMK 345ml

Side-by-side cartridge + Mixer

MCVMK0345



Cartridge VMK 420ml

MCVMK0420

# Injection Systems VM-K



## Accessories



Stud Anchor  
Flat End  
Refer Page 32



Stud Anchor  
Chisel Point  
Refer Page 32



Allthread  
Class 8.8 Sampsonrod®  
Refer High-Tensile Catalogue



Cleaning Brush  
Refer Page 49



Blow-Out Pump VM-AP  
Refer Page 49



**Dispenser VM-P 385 Profi**  
Refer Page 48



Pneumatic Dispenser  
Refer Page 48



# Injection Systems

## VM-PY

### Applications

The Injection Adhesive is a polyester-resin based injection mortar for bonding threaded rods and reinforcing steel in concrete, masonry or natural stone. Suitable for most construction base materials and can be used as a repair mortar.



### VM-PY POLYESTER-RESIN CARTRIDGE

Part	QFind	Cartridge ml	Pack	Pack Wgt (Kg)
MCVMY0410	M28256002	410	12	9.95



Cartridge VM-PY 410ml

MCVMY0410

# Injection Systems

## VM-PY



### Accessories



Stud Anchor  
Flat End  
Refer Page 32



Stud Anchor  
Chisel Point  
Refer Page 32



Allthread  
Class 8.8 Sampsonrod®  
Refer High-Tensile Catalogue



Cleaning Brush  
Refer Page 49



Blow-Out Pump VM-AP  
Refer Page 49



**Dispenser VM-P 385 Profi**  
Refer Page 48

# Injection Systems

## VMZ

### Applications

Fixing of rack systems, railings, steel structures, noise barriers, stairs and machines. Subsequent closure of wall and ceiling openings, reinforcement of existing concrete structures, installation of reinforcement for the connection of the following concrete components (if the installation of reinforcement was missed or not possible because of the working process), connection of steel structures.



### VMZ INJECTION ADHESIVE CARTRIDGE

Part	QFind	Cartridge ml	Pack	Pack Wgt (Kg)
MCVMZ150	M28999301	150	12	4.32
MCVMZ345	M28255310	345	12	8.28
MCVMZ410	M28254701	410	12	9.84



Cartridge VMZ 150ml

MCVMZ150



Cartridge VMZ 345ml

MCVMZ345



Cartridge VMZ 410ml

MCVMZ410

# Injection Systems VMZ



## Accessories



Threaded Stud Anchor VMZ-A  
Flat End  
Refer Page 44



Threaded Stud VMZ-IG  
Refer Page 47



Threaded Stud VMZ-A **dynamic**  
Refer Page 45



Air Gun VM-ABP  
Available on request



Dispenser VM-P Standard  
Refer Page 48



Pneumatic Dispenser  
Refer Page 48

# Chemical Anchors VMZ-A



## THREADED STUD VMZ-A A4 316/A4 STAINLESS / MKT



Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCZM4PAM080065	M32115501	M8	65	10	10	0.30
MCZM4PAM080080	M32120501	M8	80	10	10	0.36
MCZM4PAM080095	M32135501	M8	95	10	10	0.41
MCZM4PAM080110	M32145501	M8	110	10	10	0.47
MCZM4PAM100085	M32205501	M10	85	12	10	0.61
MCZM4PAM100095	M32220501	M10	95	12	10	0.66
MCZM4PAM100105	M32225501	M10	105	12	10	0.72
MCZM4PAM100110	M32255501	M10	110	12	10	0.75
MCZM4PAM100130	M32265501	M10	130	12	10	0.86
MCZM4PAM100135	M32235501	M10	135	12	10	0.87
MCZM4PAM100175	M32245501	M10	175	12	10	1.10
MCZM4PAM120110	M32305501	M12	110	14	10	1.17
MCZM4PAM120115	M32323501	M12	115	14	10	1.20
MCZM4PAM120120	M32323571	M12	120	12	10	0.85
MCZM4PAM120125	M32325501	M12	125	14	10	1.28
MCZM4PAM120130	M32324501	M12	130	14	10	1.33
MCZM4PAM120135	M32324571	M12	135	12	10	0.95
MCZM4PAM120140	M32327501	M12	140	14	10	1.40
MCZM4PAM120145	M32375501	M12	145	14	10	1.46
MCZM4PAM120150	M32330501	M12	150	14	10	1.49
MCZM4PAM12015525	M32377501	M12	155	12	10	1.55
MCZM4PAM12015560	M32333501	M12	155	14	10	1.05
MCZM4PAM120170	M32379501	M12	170	14	10	1.75
MCZM4PAM120175	M32336501	M12	175	12	10	1.20
MCZM4PAM120180	M32385501	M12	180	14	10	1.75
MCZM4PAM120200	M32345501	M12	200	14	10	1.93
MCZM4PAM120220	M32390501	M12	220	14	10	2.12
MCZM4PAM120225	M32355501	M12	225	14	10	2.17
MCZM4PAM120265	M32365501	M12	265	14	10	2.57

# Chemical Anchors VMZ-A



## THREADED STUD VMZ-A A4 316/A4 STAINLESS / MKT

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCZM4PAM160145	M32555501	M16	145	18	10	2.20
MCZM4PAM16016030	M32550501	M16	160	18	10	2.45
MCZM4PAM16016045	M32558501	M16	160	18	10	2.78
MCZM4PAM160175	M32559501	M16	175	18	10	3.08
MCZM4PAM160180	M32515501	M16	180	18	10	2.78
MCZM4PAM160200	M32560501	M16	200	18	10	3.70
MCZM4PAM160210	M32520501	M16	210	18	10	3.60
MCZM4PAM160250	M32530501	M16	250	18	10	4.23
MCZM4PAM160315	M32540501	M16	315	18	10	5.25
MCZM4PAM200175	M32608501	M20	175	22	5	2.40
MCZM4PAM200225	M32603501	M20	225	24	5	3.40
MCZM4PAM200230	M32605501	M20	230	24	5	3.52
MCZM4PAM200255	M32610501	M20	255	24	5	3.83
MCZM4PAM200275	M32612501	M20	275	24	5	4.20
MCZM4PAM200305	M32620501	M20	305	24	5	4.46
MCZM4PAM240260	M32705501	M24	260	26	5	4.58
MCZM4PAM24029050	M32710501	M24	290	26	5	5.11
MCZM4PAM24029075	M32711501	M24	290	26	5	5.11
MCZM4PAM240310	M32715501	M24	310	26	5	5.46
MCZM4PAM240315	M32712501	M24	315	26	5	5.73
MCZM4PAM240340	M32720501	M24	340	26	5	6.01



## THREADED STUD VMZ-A DYNAMIC CARBON STEEL ZINC PLATED (RoHS Compliant) / MKT

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCZM5ZDM120160	M36375101	M12	160	14	10	2.22
MCZM5ZDM120181	M36385101	M12	181	14	10	2.46
MCZM5ZDM160195	M36520101	M16	195	18	10	4.20
MCZM5ZDM160215	M36525101	M16	215	18	10	4.54
MCZM5ZDM200280	M36610101	M20	280	24	5	4.64



Chemical Anchors



# Chemical Anchors VMZ-A



## THREADED STUD VMZ-A CARBON STEEL ZINC PLATED (RoHS Compliant) / MKT



Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCZM5ZAM080065	M32115101	M8	65	10	10	0.30
MCZM5ZAM080080	M32120101	M8	80	10	10	0.36
MCZM5ZAM080095	M32135101	M8	95	10	10	0.41
MCZM5ZAM080110	M32145101	M8	110	10	10	0.47
MCZM5ZAM100085	M32205101	M10	85	12	10	0.61
MCZM5ZAM100095	M32220101	M10	95	12	10	0.66
MCZM5ZAM100105	M32225101	M10	105	12	10	0.72
MCZM5ZAM100110	M32255101	M10	110	12	10	0.75
MCZM5ZAM100135	M32235101	M10	135	12	10	0.87
MCZM5ZAM100175	M32245101	M10	175	12	10	1.10
MCZM5ZAM120110	M32305101	M12	110	14	10	1.17
MCZM5ZAM120115	M32323101	M12	115	14	10	1.20
MCZM5ZAM120120	M32323171	M12	120	12	10	0.85
MCZM5ZAM120125	M32325101	M12	125	14	10	1.28
MCZM5ZAM120135	M32324171	M12	135	12	10	0.95
MCZM5ZAM120140	M32327101	M12	140	14	10	1.40
MCZM5ZAM120145	M32375101	M12	145	14	10	1.46
MCZM5ZAM120150	M32330101	M12	150	14	10	1.49
MCZM5ZAM12015525	M32377101	M12	155	14	10	1.55
MCZM5ZAM12015560	M32333101	M12	155	12	10	1.05
MCZM5ZAM120170	M32379101	M12	170	14	10	1.75
MCZM5ZAM120175	M32336101	M12	175	12	10	1.20
MCZM5ZAM120180	M32385101	M12	180	14	10	1.75
MCZM5ZAM120200	M32345101	M12	200	14	10	1.93
MCZM5ZAM120220	M32390101	M12	220	14	10	2.12
MCZM5ZAM120225	M32355101	M12	225	14	10	2.17
MCZM5ZAM120265	M32365101	M12	265	14	10	2.57
MCZM5ZAM160145	M32555101	M16	145	18	10	2.20
MCZM5ZAM160160	M32550101	M16	160	18	10	2.45
MCZM5ZAM160180	M32515101	M16	180	18	10	2.78
MCZM5ZAM160200	M32560101	M16	200	18	10	3.70
MCZM5ZAM160210	M32520101	M16	210	18	10	3.60
MCZM5ZAM160250	M32530101	M16	250	18	10	4.23
MCZM5ZAM160315	M32540101	M16	315	18	10	5.25
MCZM5ZAM200175	M32608101	M20	175	22	5	2.40
MCZM5ZAM200225	M32603101	M20	225	24	5	3.40
MCZM5ZAM200230	M32605101	M20	230	24	5	3.52
MCZM5ZAM200255	M32610101	M20	255	24	5	3.83
MCZM5ZAM200275	M32612101	M20	275	24	5	4.20
MCZM5ZAM200305	M32620101	M20	305	24	5	4.46

# Chemical Anchors VMZ-IG



## THREADED STUD VMZ-A CARBON STEEL ZINC PLATED (RoHS Compliant) / MKT



Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCZM5ZAM240260	M32705101	M24	260	26	5	4.58
MCZM5ZAM24029050	M32710101	M24	290	26	5	5.11
MCZM5ZAM24029075	M32711101	M24	290	26	5	5.11
MCZM5ZAM240310	M32715101	M24	310	26	5	5.46
MCZM5ZAM240315	M32712101	M24	315	26	5	5.73
MCZM5ZAM240340	M32720101	M24	340	26	5	6.01



## THREADED STUD VMZ-IG CARBON STEEL ZINC PLATED (RoHS Compliant) / INTERNALLY THREADED



Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCZM5ZGM 60041	M32802101	M 6	41	10	10	0.15
MCZM5ZGM 60052	M32804101	M 6	52	10	10	0.18
MCZM5ZGM 80063	M32812101	M 8	63	12	10	0.28
MCZM5ZGM 80078	M32814101	M 8	78	12	10	0.47
MCZM5ZGM100074	M32822101	M10	74	14	10	0.57
MCZM5ZGM100084	M32824101	M10	84	14	10	0.63
MCZM5ZGM120094	M32832101	M12	94	18	10	1.26
MCZM5ZGM120109	M32834101	M12	109	18	10	1.45
MCZM5ZGM120130	M32836101	M12	130	18	10	1.69
MCZM5ZGM160120	M32852101	M16	120	22	5	1.12
MCZM5ZGM160180	M32854101	M16	180	24	5	2.22
MCZM5ZGM200182	M32862101	M20	182	26	5	2.44



## THREADED STUD VMZ-IG A4 316/A4 STAINLESS / INTERNALLY THREADED



Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCZM4PGM060041	M32802501	M6	41	10	10	0.15
MCZM4PGM060052	M32804501	M6	52	10	10	0.18
MCZM4PGM080063	M32812501	M8	63	12	10	0.28
MCZM4PGM080078	M32814501	M8	78	12	10	0.47
MCZM4PGM100074	M32822501	M10	74	14	10	0.57
MCZM4PGM100084	M32824501	M10	84	14	10	0.63
MCZM4PGM120094	M32832501	M12	94	18	10	1.26
MCZM4PGM120109	M32834501	M12	109	18	10	1.45
MCZM4PGM120130	M32836501	M12	130	18	10	1.69
MCZM4PGM160120	M32852501	M16	120	22	5	1.12
MCZM4PGM160180	M32854501	M16	180	24	5	2.22
MCZM4PGM200182	M32862501	M20	182	26	5	2.44



Chemical Anchors

# Chemical Dispenser



## DISPENSER VM-P STANDARD RED-BLACK-SILVER

Part	QFind	Suitable for Cartridge ml	Pack	Pack Wgt (Kg)
MCVMPS0345	M28350505	150 280 300 345	1	1.00
MCVMPS0385	M28353005	380 410 420	1	1.15



## DISPENSER VM-P PROFI BLACK

Part	QFind	Suitable for Cartridge ml	Pack	Pack Wgt (Kg)
MCVMPP0345	M28350511	150 280 300 345	1	1.00
MCVMPP0380	M28351001	380 410 420	1	1.10
MCVMPP0385	M28353015	385	1	1.20



## DISPENSER VM-P PROFI BLACK

Part	QFind	Suitable for Cartridge ml	Pack	Pack Wgt (Kg)
MCVMPP0585	M28353201	280 300 330 380 385 410 420 585	1	1.67



## DISPENSER VM-P PNEUMATIC RED-BLACK-SILVER

Part	QFind	Suitable for Cartridge ml	Pack	Pack Wgt (Kg)
MCVMPC0345	M28350601	345	1	2.00
MCVMPC0380	M28352002	380 410 420	1	2.41
MCVMPC0585	M28352101	385 585	1	3.60



## DISPENSER VM-P PNEUMATIC RED-BLACK-SILVER

Part	QFind	Suitable for Cartridge ml	Pack	Pack Wgt (Kg)
MCVMPC1400	M28352201	1400	1	6.40

# Cleaning Accessories



## BLOW-OUT PUMP VM-AP

Part	QFind	Size	Pack	Pack Wgt (Kg)
MCXPB270	M29990002	270	1	0.22
MCXPB360	M33200101	360	1	0.27



## CLEANING BRUSH RB-H WITH HANDLE

Part	QFind	Stud Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCBRH12	M29914501	M8	250	8-12	1	0.04
MCBRH18	M29918501	M10	250	10-16	1	0.04
MCBRH28	M29928501	M12	280	20-28	1	0.05



## CLEANING BRUSH RB PLAIN / M6 THREAD

Part	QFind	Stud Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCBRBM610	M33510101	M8	130	10	1	0.05
MCBRBM612	M33512101	M10	140	12	1	0.05
MCBRBM614	M33514101	M12	180	14	1	0.05
MCBRBM618	M33518101	M16	200	18	1	0.05
MCBRBM622	M33522101	-	220	22	1	0.05
MCBRBM624	M33524101	M20	250	24	1	0.06
MCBRBM626	M33526101	-	260	26	1	0.06
MCBRBM628	M33528101	M24	280	28	1	0.06



## CLEANING BRUSH EXTENSION ZINC PLATED (RoHS Compliant) / M6 THREAD

Part	QFind	Size	Length (mm)	Pack	Pack Wgt (Kg)
MCRBLM6150	M33968101	M6	150	1	0.09



## SDS PLUS ADAPTOR RBL ZINC PLATED (RoHS Compliant) / M6 THREAD

Part	QFind	Size	Pack	Pack Wgt (Kg)
MCRBSM6	M33350101	M6	1	0.06



# Mixer Nozzles



## STATIC MIXER NOZZLE VM-X

Part	QFind	Suitable for Ø Hole	Pack	Pack Wgt
		mm		(Kg)
MCVMN-X	M28305111	10	12	0.12



## STATIC MIXER NOZZLE VM-XL

Part	QFind	Suitable for Ø Hole	Pack	Pack Wgt
		mm		(Kg)
MCVMXL	M28305201	≥ 12	10	0.12



## STATIC MIXER NOZZLE VM-XP

Part	QFind	Suitable for Cartridge	Pack	Pack Wgt
		ml		(Kg)
MCVMXP	M28304920	420	10	0.10



# Chemical Anchor Sleeves



## PERFO SLEEVE VM-SH

Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCXSNM120050	M28151001	M12	50	13	10	0.01
MCXSNM120080	M28151201	M12	80	13	10	0.02
MCXSNM160085	M28152001	M16	85	16	10	0.03
MCXSNM160130	M28153001	M16	130	16	10	0.04
MCXSNM200085	M28154001	M20	85	22	10	0.04



## PERFO SLEEVE VM-SH










Part	QFind	Size	Length (mm)	Drill Ø Size (mm)	Pack	Pack Wgt (Kg)
MCXSMM121000	M28403001	M12	1000	12	1	0.057
MCXSMM161000	M28404001	M16	1000	16	1	0.068
MCXSMM221000	M28405001	M22	1000	22	1	0.108





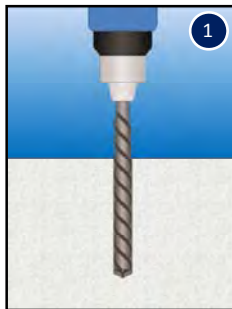
***Technical***



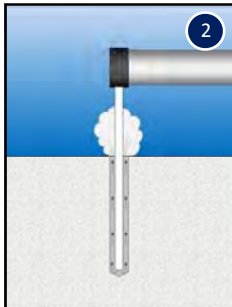
Clawbolt® Anchor Tygabolt® Anchor		54
Xbolt® Anchor		58
Dropin Anchor		60
Wedge Anchor BZ Plus		62
Highload Anchor SZ-SK Highload Anchor SZ-S Highload Anchor SZ-B		66
Chemical Anchors		69
Injection System VME		72
Injection System VMU		75
Injection System VM-K		78

## Product Data Sheets

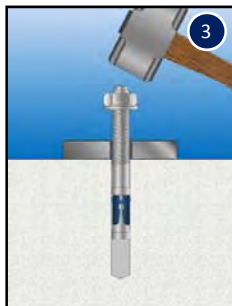
### Installation Guide



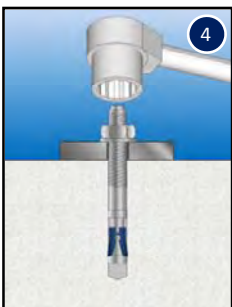
1 Using the right drill bit size, drill the hole to the specified embedment. The hole depth should always be longer than the required embedment (longer by at least equal to the diameter of the anchor)



2 Blow the dust out from the hole by using a blowout pump making sure that the hole is free from loose materials.



3 Position the nut close to the tip as illustrated to protect the thread from accidental damage during installation. Insert the Clawbolt in to the hole by hammering.



4 Apply the necessary tightening torque.



Zinc Yellow  
Version

Galvanized  
Version



ClawBolts® (Through Bolts) are pre-assembled single unit wedge type anchors that are used in solid concrete applications. Fixing is achieved by controlled torquing of the nut which draws the tapered section up into the clip, thereby expanding it outward and forcing the ClawBolt™ against the sidewall of the pre-drilled hole.

### Product Features

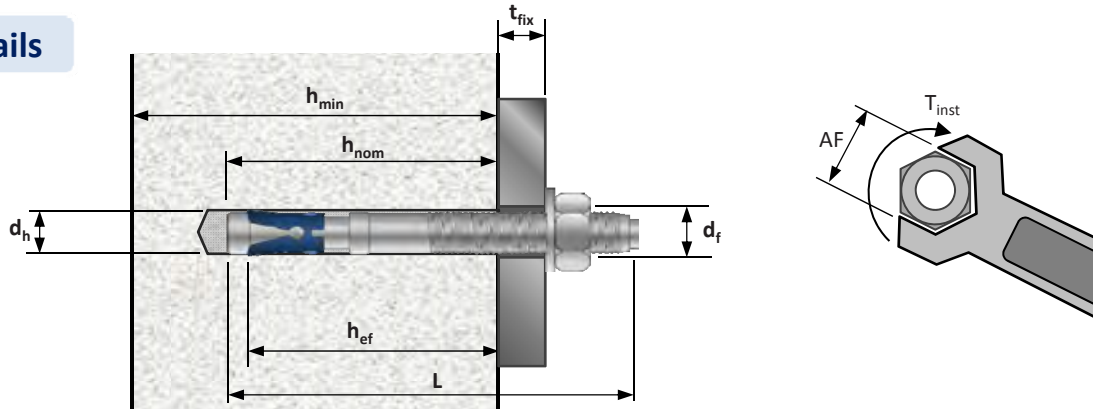
- ClawBolt™ diameter equals drilled hole diameter
- Simple installation process
- Good performance in tension and shear
- Variety of diameters & lengths to suit different applications
- Low costs on supply and installation
- Can be immediately used

### Key Applications

- Used in medium duty anchoring into solid concrete.
- Typically used by contractors in the building, electrical, HVAC and steel trades.
- Through fastening of parts to concrete such as metal angles, ties, brackets, traffic barriers, shelving, balustrade, machinery etc; and through timber beams, railings, posts, stairways etc.

## Product Data Sheets

### Setting Details



Clawbolt™ Size		M6	M8	M10	M12	M16	M20
Thread diameter	d (mm)	6	8	10	12	16	20
Nominal hole diameter	d <sub>h</sub> (mm)	6	8	10	12	16	20
Effective embedment depth	h <sub>ef,min</sub> (mm)	h <sub>nom</sub> - 3	h <sub>nom</sub> - 4	h <sub>nom</sub> - 5	h <sub>nom</sub> - 6	h <sub>nom</sub> - 8	h <sub>nom</sub> - 8
Minimum effective embedment depth	h <sub>ef,min</sub> (mm)	60	60	70	80	90	96
Maximum diameter of hole on steel plate	d <sub>f</sub> (mm)	9	12	14	18	22	26
Tightening torque*   Zinc Yellow (Galvanized)	T <sub>inst</sub> (N-m)	8	15 (15)	30 (30)	50 (50)	100 (90)	200 (120)
Socket wrench size (across flats)	AF (mm)	10	13	17	19	24	30
Minimum thickness of concrete	h <sub>min</sub> (mm)	100	100	100	130	170	200
Minimum spacing	S <sub>min</sub> (mm)	35	40	60	75	90	110
Minimum edge distance	C <sub>min</sub> (mm)	40	50	60	90	110	125

\* Installation torque guide.

### Basic Load Performance

#### Basic Load Bearing Performance in 32 Mpa non-cracked concrete.

Basic Load Bearing Performance		M6	M8	M10	M12	M16	M20
Basic edge distance	c <sub>b</sub> (mm)	50	70	100	100	150	150
Basic embedment	h <sub>b</sub> (mm)	40	60	80	90	110	150
Design Tensile Strength <sup>1</sup>	Zinc Yellow Version	φN (kN)	3.0	4.5	7.2	12.0	15.0
	Galvanized Version	φN (kN)	-	5.4	7.2	12.0	15.0
Design Shear Strength <sup>2</sup>	Zinc Yellow or Galvanized Version	φV (kN)	4.0	7.2	11.2	15.4	24.8
SWL for Tension	Zinc Yellow Version	N <sub>SWL</sub> (kN)	1.6	2.5	4.0	6.6	8.3
	Galvanized Version	N <sub>SWL</sub> (kN)	-	3.0	4.0	6.6	8.3
SWL for Shear	Zinc Yellow	V <sub>SWL</sub> (kN)	2.0	3.6	5.6	8.4	12.4
	Galvanized Version	V <sub>SWL</sub> (kN)	-	3.6	5.6	8.4	12.4

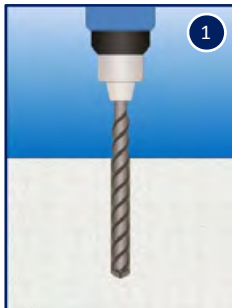
<sup>1</sup> The design tensile strength is comparatively calculated from steel strength, concrete cone strength and pullout strength. h<sub>b</sub> is the embedment depth used while the strength reduction factors of φ= 0.60 for concrete and φ=0.80 for steel are used.

<sup>2</sup> The design shear strength is comparatively calculated from steel strength and concrete edge strength. c<sub>b</sub> is the edge distance used while the strength reduction factors of φ= 0.60 for concrete and φ=0.80 for steel are used.

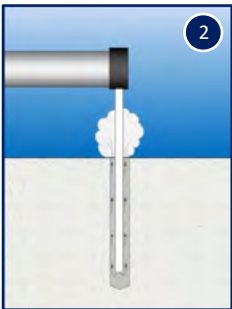
<sup>3</sup> Safety factors, FOS = 2.5 for steel and FOS = 3.0 for concrete are used.

## Product Data Sheets

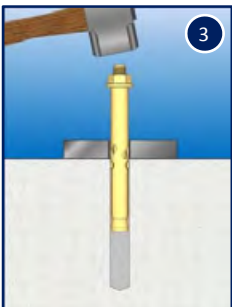
### Installation Guide



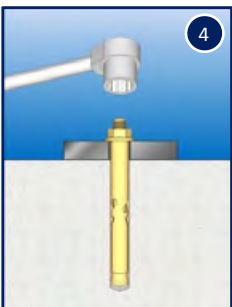
- 1 Using the right drill bit size, drill the hole to the required hole depth.



- 2 Blow the dust out from the hole by using a blowout pump making sure that the hole is free from loose materials.



- 3 Insert the TygaBolt™ in to the hole until the underside of the nut is in contact with the surface of the fastened material.



- 4 Apply the necessary tightening torque.



Hobson Tygabolts® are pre-assembled single unit wedge type anchors that are used in solid concrete applications. Fixing is achieved by controlled torqueing of the nut which draws the cone section up into the sleeve, thereby expanding it outward and forcing the Tygabolt™ against the sidewall of the pre-drilled hole.

### Product Features

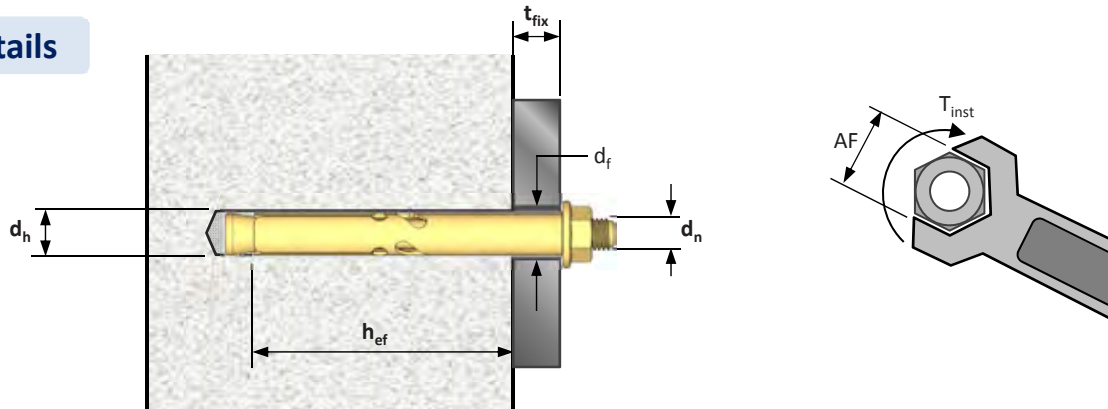
- Tygabolt™ sleeve diameter equals drilled hole diameter
- Simple installation process
- Variety of diameters & lengths to suit different applications
- Low costs on supply and installation
- Can be immediately loaded after installation

### Key Applications

- Used in medium duty anchoring into concrete and solid masonry and brick.
- Commonly used for shelving, racking, brackets, hand rails, door frames, signages, satellite dishes, garage doors, ductwork, piping, electrical cabinets, timber and metal fixing to walls, floors, etc.

## Product Data Sheets

### Setting Details



Tygabolt™ Size		6.5	8	10	12	16	20
Thread diameter	$d_n$ (mm)	5	6	8	10	12	16
Nominal hole diameter	$d_h$ (mm)	6.5	8	10	12	16	20
Minimum effective embedment depth	$h_{ef,min}$ (mm)	25	30	40	50	60	70
Recommended diameter of fixture hole diameter	$d_f$ (mm)	8	10	12	14	18	22
Recommended Tightening torque*	$T_{inst}$ (N-m)	5	8	25	40	50	80
Socket wrench size (across flats)	AF (mm)	8	10	13	15	19	24
Minimum spacing	$S_{min}$ (mm)	40	40	50	60	80	100
Minimum edge distance	$c_{min}$ (mm)	40	40	50	60	80	100

### Basic Load Performance

Basic Load Bearing Performance in 32 Mpa non-cracked concrete.

Tygabolt™ Size		6.5	8	10	12	16	20	Limit State Strengths
Design Pullout Strength <sup>1</sup>	$\phi N$ (kN)	1.8	3.9	6.3	7.6	16.6	22.3	
Design Shear Strength <sup>2</sup>	$\phi V$ (kN)	2.3	3.2	5.9	9.3	13.5	25.1	Safe Working Loads (SWL)
SWL for Tension <sup>3</sup>	$N_{SWL}$ (kN)	1.0	2.2	3.5	4.2	11.1	14.9	
SWL for Shear <sup>3</sup>	$V_{SWL}$ (kN)	1.1	1.6	2.9	4.6	6.7	12.6	

<sup>1</sup> Pullout failure is the governing failure mode of this anchor in concrete. A strength reduction factor of 0.60 is already incorporated in the tabulated values.

<sup>2</sup> The design shear strength is the shear strength at which steel is governing. This is achieved if the edge distance is at least 15 times the anchor bolt diameter. A strength reduction factor of 0.80 is already incorporated in the tabulated values.

<sup>3</sup> Safety factors, FOS = 2.5 for steel and FOS = 3.0 for concrete are already incorporated in the tabulated values.

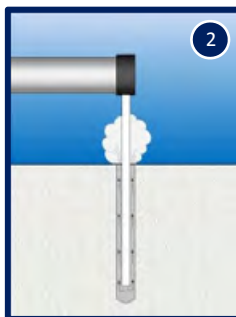


## Product Data Sheets

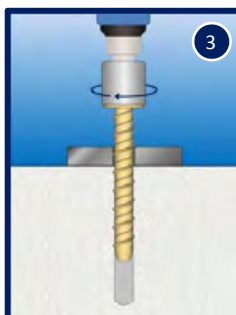
### Installation Guide



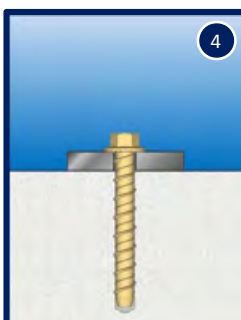
- 1 Using the right drill bit size, drill the hole to the specified embedment.



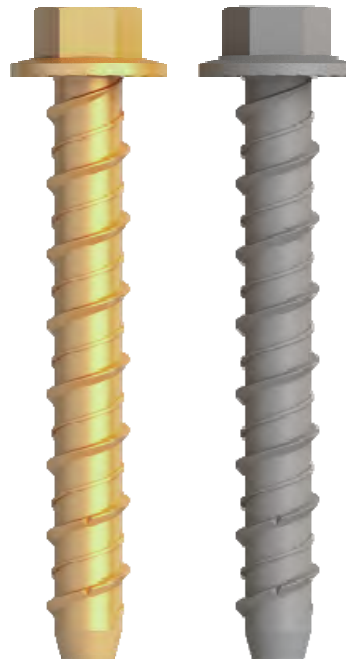
- 2 Blow the dust out from the hole by using a blowout pump making sure that the hole is free from loose dust.



- 3 Screw the Xbolt™ into the hole using the appropriate tools and method, taking care not to exceed the maximum installation torque.



- 4 The Xbolt should not be tightened more than the prescribed maximum tightening torque.



Zinc Yellow  
Version

Galvanized  
Version

XBolts® are single unit screw type anchors that are used in solid concrete applications. Fixing is achieved by screwing the anchor into the hole. As it is screwed in, It creates its own undercut by tapping the concrete hole. The cutting and locking mechanism without expansion, enables the anchor to be used in close spacing and edge distance applications.

### Product Features

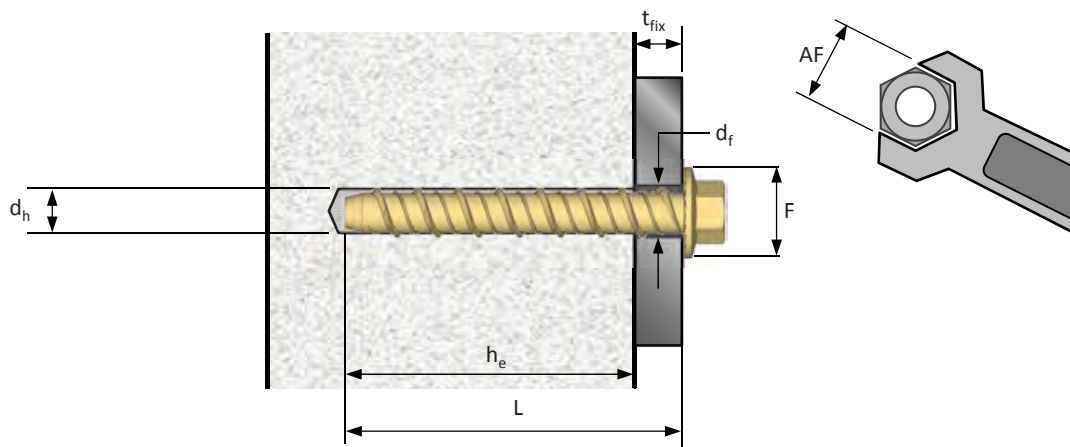
- No expansion forces, enabling smaller edge distances and anchor spacings.
- Case hardened that enables the anchor to cut the concrete and lock itself in place.
- Relatively quick to install.
- Fully removable.

### Key Applications

- Used in medium duty anchoring applications.
- Typically used by contractors in the precast, formwork and steel construction industries.
- Ideal for applications that require anchor removability.

## Product Data Sheets

### Setting Details



Xbolt™ Size	Nominal hole diameter $d_h$ (mm)	Anchor Length $L$ (mm)	Minimum embedment depth $h_{e,min}$ (mm)	Maximum fixture thickness $t_{fix,max}$ (mm)	Hole diameter on fixture $d_f$ (mm)	Wrench size (across flats) $AF$ (mm)	Flange Head Diameter $F$ (mm)	Minimum spacing $S_{min}$ (mm)	Minimum edge distance $C_{min}$ (mm)
6 x 30	6	30	25	5	8	10	13	40	40
6 x 50	6	50	25	25	8	10	13	40	40
6 x 75	6	75	25	50	8	10	13	40	40
6 x 100	6	100	25	75	8	10	13	40	40
8 x 50	8	50	40	10	10	13	17	40	40
8 x 60	8	60	40	20	10	13	17	40	40
8 x 75	8	75	40	35	10	13	17	40	40
8 x 100	8	100	40	60	10	13	17	40	40
10 x 60	10	60	50	10	12	15	23	50	45
10 x 75	10	75	50	25	12	15	23	50	45
10 x 100	10	100	50	50	12	15	23	50	45
10 x 120	10	120	50	70	12	15	23	50	45
10 x 150	10	150	50	100	12	15	23	50	45
12 x 75	12	75	55	20	15	16	26.6	60	55
12 x 100	12	100	55	45	15	16	26.6	60	55
12 x 150	12	150	55	95	15	16	26.6	60	55
16 x 100	16	100	70	30	20	19	30	80	65
16 x 150	16	150	70	80	20	19	30	80	65



## Product Data Sheets



**Standard**  
Zinc Yellow



**Lipped**  
Zinc Yellow



**Standard**  
316 Stainless

### General Information

The Hobson Drop-In Anchor is a versatile medium duty anchor that delivers ample performance at shallow embedments.

### Easy Installation

- Shallow embedment means less time for drilling
- Simpler installation procedures means faster installation time.

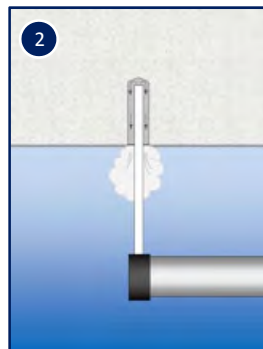
### Key Applications

- Anchoring metal and timber elements to concrete
- Anchoring hangers for pipes, cables, ceiling frames and the likes.

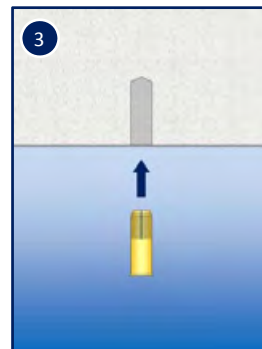
### Installation Procedure



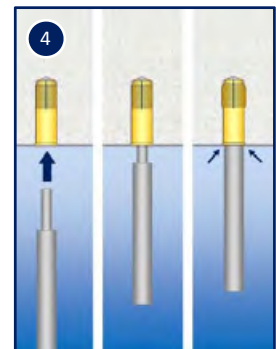
Using the right drill bit size, drill the hole to the specified embedment.



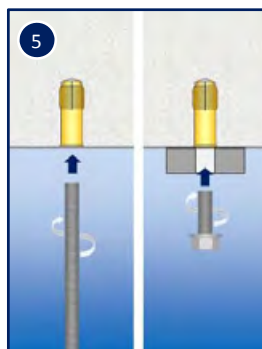
Blow the dust out from the hole by using a blowout pump making sure that the hole is free from loose dust.



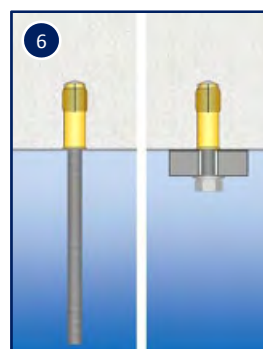
Insert the anchor into the hole until it is flush to the surface of the concrete.



Fully expand the anchor by force impact on the plug using the appropriate setting tool.



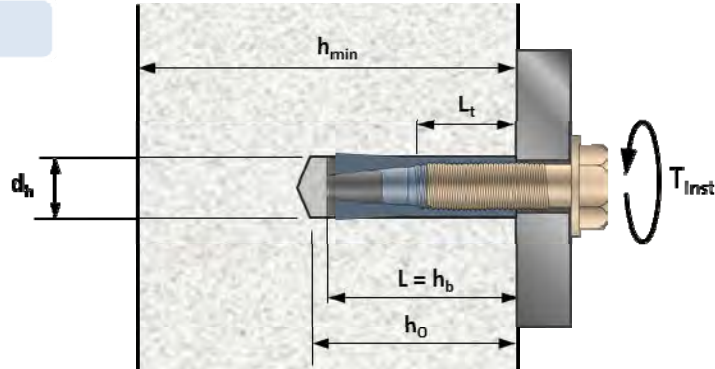
Screw-in the threaded rod or bolt. Ensure that there is enough thread engagement in the anchor.



Apply the necessary tightening as required.

## Product Data Sheets

### Setting Details



		Hobson Drop-In Anchor Size						
		M6 x 25	M8 x 30	M10 x 30	M10 x 40	M12 x 50	M16 x 65	M20 x 80
Thread diameter	d (mm)	6	8	10	10	12	16	20
Nominal hole diameter	d <sub>h</sub> (mm)	8	10	12	12	15	20	25
Anchor Length	L (mm)	25	30	30	40	50	65	80
Hole Depth	h <sub>o</sub> (mm)	30	35	35	45	55	70	85
Effective embedment	h <sub>b</sub> (mm)	25	30	30	40	50	65	80
Minimum thread engagement	L <sub>t min</sub> (mm)	6	8	10	10	12	16	20
Maximum thread engagement	L <sub>t max</sub> (mm)	9	11	11	15	19	25	30
Maximum installation torque*	T <sub>inst</sub> (N-m)	4	8	15	15	35	60	100
Minimum concrete thickness	h <sub>min</sub> (mm)	100	100	100	100	130	160	200
Minimum edge distance	c <sub>min</sub> (mm)	105	105	105	140	175	230	280
Minimum anchor spacing	s <sub>min</sub> (mm)	60	60	60	80	125	130	160

\* if required

### Basic Load Performance

Load bearing performance in 32 Mpa non-cracked concrete without the influence of spacing and edge distance.

#### Limit State Design Performance

		Hobson Drop-In Anchor Size						
		M6 x 25	M8 x 30	M10 x 30	M10 x 40	M12 x 50	M16 x 65	M20 x 80
Design Tensile Strength	φN (kN)	4.74	6.24	6.24	9.66	13.5	20.04	27.42
Design Shear Strength	φV (kN)	4.20	5.60	6.80	6.80	12.60	22.60	35.20

Strength reduction factor φ = 0.80 for steel relevant strengths and φ = 0.60 for concrete relevant strengths are already included.

#### Safe Working Load

		Hobson Drop-In Anchor Size						
		M6 x 25	M8 x 30	M10 x 30	M10 x 40	M12 x 50	M16 x 65	M20 x 80
Safe Working Load in Tension	N <sub>SWL</sub> (kN)	3.2	4.2	4.2	5.4	9.0	13.4	18.3
Safe Working Load in Shear	V <sub>SWL</sub> (kN)	2.1	2.8	3.4	3.4	6.3	11.3	17.6

A safety factor of 2.5 already included.

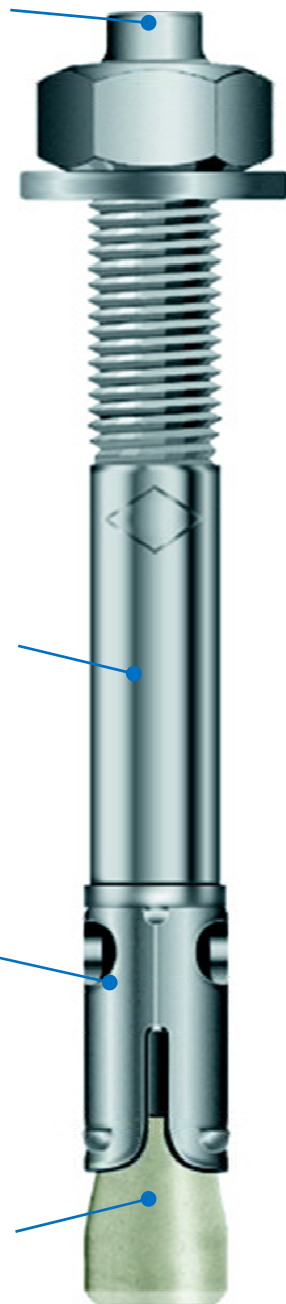
## Product Data Sheets

Well marked dog point head for easy identification of anchor length.

Cold formed stud that consistently enable optimum force transfer mechanism to the concrete.

Stainless steel expansion clip designed to optimally grip onto the concrete even in cracked concrete environments.

Heat resistant and durable coating to prevent cold welding during expansion.



### Product Description

The MKT BZ Plus Heavy Duty Stud Anchor combines high ultimate loads with close anchor spacing and edge distances. The special coating covering the expansion cone is heat resistant and durable enough to prevent cold welding of the expansion mechanism. This MKT patented invention also provides the proper friction between the stainless steel clip and the expansion cone throughout the entire service life of the anchor, which is a requirement for reliable crack-tested anchors.

### Product Features

#### "No worries" on performance

- EOTA approved with ETA-99/0010
- 30-120 minute fire rating
- Reliable follow-up expansion
- Suitable for cracked concrete
- Cold-formed stud construction for optimum force transfer mechanism to concrete.
- Heat resistant and durable coating to prevent cold welding during expansion.

#### "No worries" on installation

- Head marking for easy identification
- Very simple 3 step installation procedure
- Geometrical design enables easy insertion and tightening of anchor.

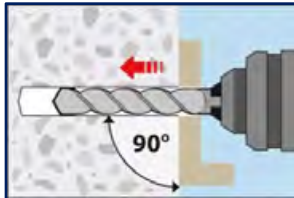
#### "No worries" on handling

- Easy to store packaging

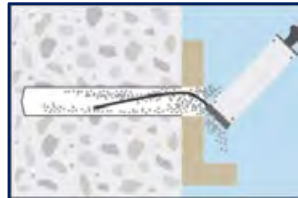
### Key Applications

- Used in medium to heavy duty anchoring to concrete.
- Typically used by contractors in the building, electrical, HVAC and steel trades.
- Through fastening of parts to concrete such as metal angles, ties, brackets, traffic barriers, shelving, balustrade, machinery etc; and through timber beams, railings, posts, stairways etc.

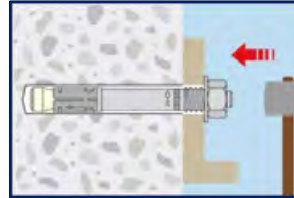
## Installation Guide



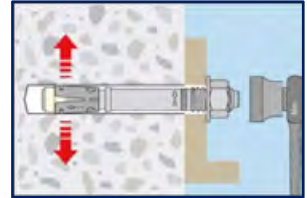
Using the right drill bit size, drill the hole to the specified embedment. The hole depth should always be longer than the required embedment.



Blow the dust out from the hole by using a blowout pump making sure that the hole is free from loose materials.

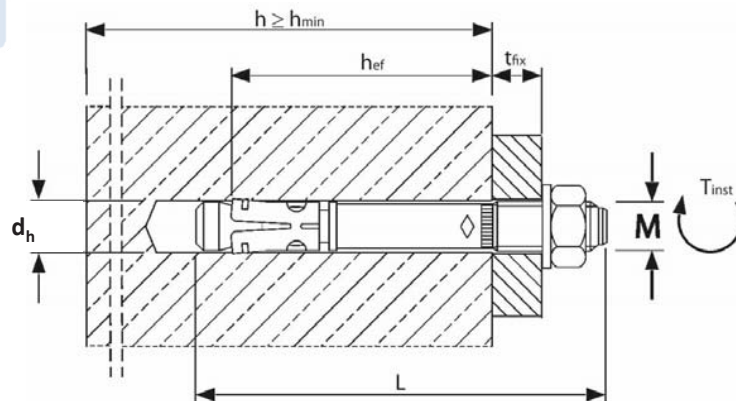


Position the nut close to the tip as illustrated to protect the thread from accidental damage during installation. Insert the anchor into the hole by hammering.



Apply the specified tightening torque.

## Setting Details



Anchor Size			M8	M10	M12	70 M12	M16	M20	M24	M27
Thread diameter	d <sub>n</sub>	(mm)	8	10	12	12	16	20	24	27
Nominal hole diameter	d <sub>h</sub>	(mm)	8	10	12	12	16	20	24	27
Minimum effective embedment depth	h <sub>ef</sub>	(mm)	46	60	65	70	85	100	115	125
Maximum diameter of hole on steel plate	d <sub>f</sub>	(mm)	9	12	14	14	18	22	26	31
Tightening torque	T <sub>inst</sub>	Zinc Plated	20	25	45	45	90	160	200	300
		A4, HCR	20	35	50	50	110	200	200	-
Socket wrench size (across flats)	AF	(mm)	13	17	19	19	24	30	36	41

Dimensional limits in non-cracked concrete (linear interpolation can be done for intermediate values).

Anchor Size			M8	M10	M12	70 M12	M16	M20	M24	M27
Steel, Zinc Plated	Minimum spacing	concrete thickness (mm)	100	120	130	140	170	200	230	250
		$S_{min}$ (mm)	40	45	60	60	65	90	100	125
		edge distance (mm)	≥ 80	≥ 70	≥ 120	≥ 120	≥ 120	≥ 180	≥ 180	≥ 300
	Minimum edge distance	$C_{min}$ (mm)	40	45	60	60	60	95	100	125
		spacing (mm)	≥ 80	≥ 90	≥ 140	≥ 140	≥ 180	≥ 200	≥ 220	≥ 540
Stainless Steel A4, HCR	Thickness of concrete	concrete thickness (mm)	100	120	130	140	160	200	200	-
		$S_{min}$ (mm)	40	50	60	60	65	90	180	-
		edge distance (mm)	≥ 80	≥ 75	≥ 120	≥ 120	≥ 120	≥ 180	≥ 180	-
	Minimum edge distance	$C_{min}$ (mm)	50	60	75	75	80	130	180	-
		spacing (mm)	≥ 100	≥ 120	≥ 150	≥ 150	≥ 150	≥ 240	≥ 180	-

## Product Data Sheets

Minimum configurations in “cracked concrete” (linear interpolation can be done for intermediate values).

Anchor Size			M8	M10	M12	70 M12	M16	M20	M24	M27
Steel, Zinc Plated	Minimum spacing	concrete thickness (mm)	100	120	130	140	170	200	230	250
		$S_{min}$ (mm)	40	45	60	60	60	95	100	125
		edge distance (mm)	$\geq 70$	$\geq 70$	$\geq 100$	$\geq 100$	$\geq 100$	$\geq 150$	$\geq 180$	$\geq 300$
	Minimum edge distance	$C_{min}$ (mm)	40	45	60	60	60	95	100	125
		spacing (mm)	$\geq 80$	$\geq 90$	$\geq 140$	$\geq 140$	$\geq 180$	$\geq 200$	$\geq 220$	$\geq 540$
Stainless Steel A4, HCR	Minimum Spacing	concrete thickness (mm)	100	120	130	140	160	200	200	-
		$S_{min}$ (mm)	40	50	60	60	60	95	180	-
		edge distance (mm)	$\geq 70$	$\geq 75$	$\geq 100$	$\geq 100$	$\geq 100$	$\geq 150$	$\geq 180$	-
	Minimum edge distance	$C_{min}$ (mm)	40	55	60	60	60	95	180	-
		spacing (mm)	$\geq 80$	$\geq 90$	$\geq 140$	$\geq 140$	$\geq 180$	$\geq 200$	$\geq 180$	-

Minimum configurations in “non-cracked concrete” (linear interpolation can be done for intermediate values).

Anchor Size			M8	M10	M12	70 M12	M16	M20	M24	M27
Steel, Zinc Plated	Minimum spacing	concrete thickness (mm)	100	120	130	140	170	200	230	250
		$S_{min}$ (mm)	40	45	60	60	65	90	100	125
		edge distance (mm)	$\geq 80$	$\geq 70$	$\geq 120$	$\geq 120$	$\geq 120$	$\geq 180$	$\geq 180$	$\geq 300$
	Minimum edge distance	$C_{min}$ (mm)	40	45	60	60	60	95	100	125
		spacing (mm)	$\geq 80$	$\geq 90$	$\geq 140$	$\geq 140$	$\geq 180$	$\geq 200$	$\geq 220$	$\geq 540$
Stainless Steel A4, HCR	Minimum spacing	concrete thickness (mm)	100	120	130	140	160	200	200	-
		$S_{min}$ (mm)	40	50	60	60	65	90	180	-
		edge distance (mm)	$\geq 80$	$\geq 75$	$\geq 120$	$\geq 120$	$\geq 120$	$\geq 180$	$\geq 180$	-
	Minimum edge distance	$C_{min}$ (mm)	50	60	75	75	80	130	180	-
		spacing (mm)	$\geq 100$	$\geq 120$	$\geq 150$	$\geq 150$	$\geq 150$	$\geq 240$	$\geq 180$	-

Minimum concrete thickness (linear interpolation can be done for intermediate values).

Anchor Size			M8	M10	M12	70 M12	M16	M20	M24	M27
Minimum Concrete Thickness		$h_{min}$ (mm)	80	100	110	120	140	-	-	-
Cracked Concrete	Minimum spacing	$S_{min}$ (mm)	40	45	60	60	70	-	-	-
		edge distance (mm)	$\geq 70$	$\geq 90$	$\geq 100$	$\geq 100$	$\geq 160$	-	-	-
	Minimum edge distance	$C_{min}$ (mm)	40	50	60	60	80	-	-	-
		spacing (mm)	$\geq 80$	$\geq 115$	$\geq 140$	$\geq 140$	$\geq 180$	-	-	-
Non Cracked Concrete	Thickness of concrete	$S_{min}$ (mm)	40	50	60	60	65	-	-	-
		edge distance (mm)	$\geq 80$	$\geq 140$	$\geq 120$	$\geq 120$	$\geq 180$	-	-	-
	Minimum edge distance	$C_{min}$ (mm)	50	60	75	75	80	-	-	-
		spacing (mm)	$\geq 100$	$\geq 140$	$\geq 150$	$\geq 150$	$\geq 200$	-	-	-



## Product Data Sheets

### Basic Load Performance

Basic Load Bearing Performance in 32 Mpa non-cracked concrete.

Basic Load Bearing Performance			M8	M10	M12	70 M12	M16	M20	M24	M27	
Basic edge distance <sup>0</sup>		$c_b$ (mm)	70	100	100	100	150	150	150	200	
Basic embedment <sup>0</sup>		$h_b$ (mm)	46	60	65	70	85	100	115	125	
Design Tensile Strength <sup>1</sup>	Electroplated	$\phi N$ (kN)	3.8	6.9	9.1	12.2	19.1	38.3	47.2	53.5	Limit State Strengths
	A4 Stainless		8.7	12.2	15.2	19.1	26.7	38.3	47.2	53.5	
Design Shear Strength <sup>2</sup>	Electroplated	$\phi V$ (kN)	8.4	14.0	14.6	14.8	27.4	29.0	30.7	46.1	Limit State Strengths
	A4 Stainless		8.4	14.0	14.6	14.8	27.4	29.0	30.7	46.1	
SWL <sup>3</sup> for Tension	Electroplated	$N_{SWL}$ (kN)	2.1	3.8	5.1	6.8	10.6	21.3	26.2	29.7	Safe Working Loads (SWL)
	A4 Stainless		5.1	6.8	8.5	10.6	14.8	21.3	26.2	29.7	
SWL <sup>3</sup> for Shear	Electroplated	$V_{SWL}$ (kN)	4.7	7.8	8.1	8.2	15.2	16.1	17.0	25.6	Safe Working Loads (SWL)
	A4 Stainless		4.7	7.8	8.1	8.2	15.2	16.1	17.0	25.6	

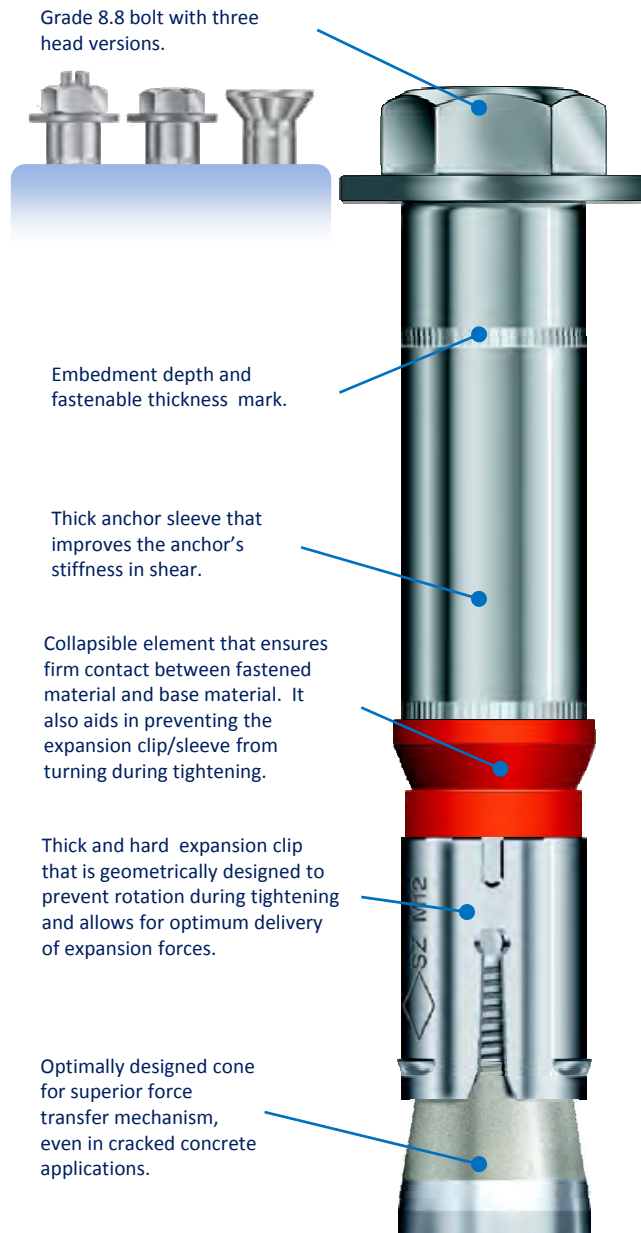
<sup>0</sup>  $c_b$  and  $h_b$  are used in the calculation of the basic shear strength of concrete edge.  $h_b$  is used in the calculation of concrete relevant tensile strengths while assuming that there are no relevant concrete edges.

<sup>1</sup> The design tensile strength is comparatively calculated from steel strength, concrete cone strength and pullout strength.  $h_b$  is the embedment depth used while the strength reduction factors are taken from the Strength Reduction Factor Table on the last page of this data sheet.

<sup>2</sup> The design shear strength is comparatively calculated from steel strength and concrete edge strength.  $c_b$  is the edge distance used while the strength reduction factors are taken from the Strength Reduction Factor Table on the last page of this data sheet.

<sup>3</sup> Safety factors, FOS = 2.5 for steel and FOS = 3.0 for concrete are used.

## Product Data Sheets



### Product Description

The MKT Highload Anchor SZ is a high-performance through fastening anchor system with three part expansion sleeve. This allows for smaller spacings and edge distances with high loads. The plastic compression ring ensures the clamping of the mounted piece to the work surface and stops the anchor from turning while being fastened.

### Product Features

#### "No worries" on performance

- EOTA approved with ETA-02/0030
- ICC-ES evaluation with ESR-3137
- Reliable follow-up expansion
- Suitable for cracked concrete

#### "No worries" on installation

- Very simple 3 step installation procedure
- Partially removable

#### "No worries" on handling

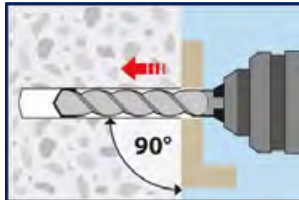
- Easy to store packaging
- Easy to spot identification marks

### Key Applications

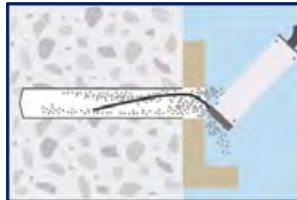
- Used in heavy duty anchoring to solid concrete such as steel beam/column fastening, heavy duty brace foot anchoring and other structural anchorings.



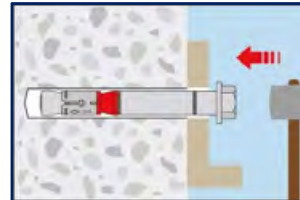
## Installation Guide



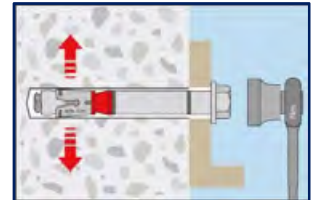
Using the right drill bit size, drill the hole to the specified embedment. The hole depth should always be longer than the required embedment.



Blow the dust out from the hole by using a blowout pump making sure that the hole is free from loose materials.

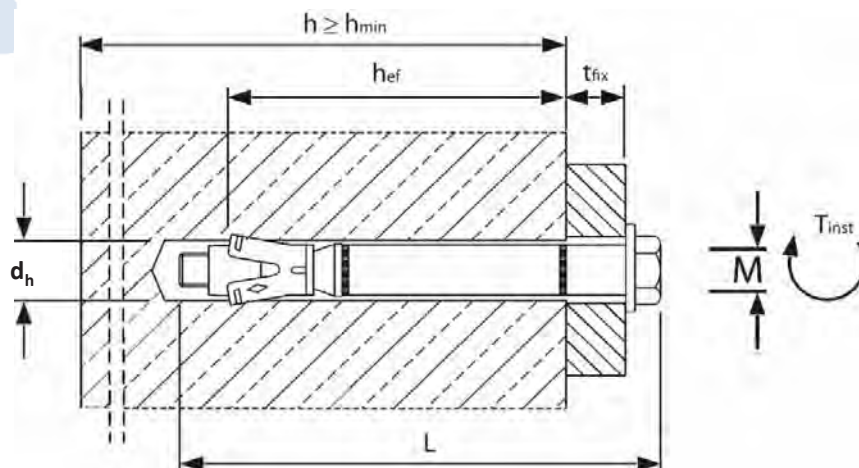


Insert the anchor into the hole by hammering.



Apply the specified tightening torque.

## Setting Details



Anchor Size		10/M6	12/M8	15/M10	18/M12	24/M16	24/M16L	28/M20
Thread diameter	$d_n$ (mm)	M6	M8	M10	M12	M16	M16	M20
Nominal hole diameter	$d_h$ (mm)	10	12	15	18	24	24	28
Effective embedment depth	$h_{ef}$ (mm)	50	60	71	80	100	115	125
Hole Depth	$h_1$ (mm)	65	80	95	105	130	145	160
Fixture thickness for SZ-S and SZ-B	$t_{fix,min}$ (mm)	0	0	0	0	0	0	0
	$t_{fix,max}$ (mm)	200	200	200	250	300	300	300
Fixture thickness for SZ-SK	$t_{fix,min}$ (mm)	8	10	14	18	-	-	-
	$t_{fix,max}$ (mm)	200	200	200	250	-	-	-
Maximum diameter of hole on steel plate	$d_f$ (mm)	12	14	17	20	26	26	31
<b>Tightening torques</b>								
Electroplated, SZ-S or SZ-B	$T_{inst}$ (N-m)	15	30	50	80	160	160	280
Electroplated, SZ-K	$T_{inst}$ (N-m)	10	25	55	70	160	160	280
A4 Stainless, SZ-B	$T_{inst}$ (N-m)	-	35	55	90	170	-	-
A4 Stainless, SZ-S	$T_{inst}$ (N-m)	-	30	50	80	170	-	-
A4 Stainless, SZ-SK	$T_{inst}$ (N-m)	-	17.5	42.5	50	-	-	-
Socket wrench size (across flats for SZ-S/B)	AF (mm)	10	13	17	19	24	24	30
Socket wrench size (across flats for SZ-SK)	AF <sub>hex</sub> (mm)	4	5	6	8	-	-	-

## Product Data Sheets

Minimum configurations in cracked concrete (linear interpolation can be done for intermediate values).

Anchor Size				10/M6	12/M8	15/M10	18/M12	24/M16	24/M16L	28/M20
Minimum concrete thickness		$h_{min}$	(mm)	100	120	140	160	200	230	250
Steel, Zinc Plated	Minimum spacing	$S_{min}$	(mm)	50	60	70	80	100	100	125
		edge distance	(mm)	$\geq 80$	$\geq 100$	$\geq 120$	$\geq 160$	$\geq 180$	$\geq 180$	$\geq 300$
	Minimum edge distance	$C_{min}$	(mm)	50	60	70	80	100	100	180
		spacing	(mm)	100	120	175	200	220	220	540
Stainless Steel A4, HCR	Minimum spacing	$S_{min}$	(mm)	-	70	85	100	180	-	-
		edge distance	(mm)	-	$\geq 100$	$\geq 130$	$\geq 170$	$\geq 180$	-	-
	Minimum edge distance	$C_{min}$	(mm)	-	75	85	100	180	-	-
		spacing	(mm)	-	$\geq 135$	$\geq 185$	$\geq 210$	$\geq 180$	-	-

## Basic Load Performance

Basic Load Bearing Performance in 32 Mpa non-cracked concrete.

Basic Load Bearing Performance				10/M6	12/M8	15/M10	18/M12	24/M16	24/M16L	28/M20
Basic edge distance <sup>0</sup>		$c_b$	(mm)	50	70	100	100	150	200	200
Basic embedment <sup>0</sup>		$h_b$	(mm)	50	60	71	80	100	115	125
Design Tensile Strength <sup>1</sup>	Steel, electroplated	$\phi N$	(kN)	10.7	19.4	30.8	44.9	63.8	78.7	89.2
	Stainless Steel, A4		(kN)	-	12.2	19.1	26.7	63.8	-	-
Design Shear Strength <sup>2</sup>	Steel, electroplated	$\phi V$	(kN)	4.9	8.6	15.3	15.8	30.4	46.7	48.5
	Stainless Steel, A4		(kN)	-	8.6	15.3	15.8	30.4	-	-
SWL for Tension	Steel, electroplated	$N_{SWL}$	(kN)	6.4	8.5	12.7	15.2	21.3	26.2	29.7
	Stainless Steel, A4		(kN)	-	9.9	12.7	15.2	21.3	-	-
SWL for Shear	Steel, electroplated	$V_{SWL}$	(kN)	7.2	12.0	19.2	26.3	50.4	50.4	60.0
	Stainless Steel, A4		(kN)	-	9.6	14.8	24.8	36.8	-	-

<sup>0</sup>  $c_b$  and  $h_b$  are used in the calculation of the basic shear strength of concrete edge.  $h_b$  is used in the calculation of concrete relevant tensile strengths while assuming that there are no relevant concrete edges.

<sup>1</sup> The design tensile strength is comparatively calculated from steel strength, concrete cone strength and pullout strength.  $h_b$  is the embedment depth used while the strength reduction factors of  $\phi = 0.60$  for concrete and  $\phi = 0.80$  for zinc plated steel are used.

<sup>2</sup> The design shear strength is comparatively calculated from steel strength and concrete edge strength.  $c_b$  is the edge distance used while the strength reduction factors of  $\phi = 0.60$  for concrete,  $\phi = 0.80$  for zinc plated steel are used.

<sup>3</sup> Safety factors, FOS = 2.5 for steel and FOS = 3.0 for concrete are used.

## Product Data Sheets



Threaded  
Rod



Chemical  
Capsule V-P



### General Information

The Chemical Anchor V consists of a glass capsule filled with resin, hardener and filler-material. The components in the capsule are mixed to a fast curing resin-mortar when the threaded stud is driven into the drill-hole.

### Benefits from features

#### "No worries" on performance

- EOTA approved with ETA-05/0231
- 30-120 minute Fire Rating
- Usable in damp and dry concrete
- Suitable for hammer-drilled and diamond-cored holes

#### "No worries" on installation

- Excellent suitability for high volume fixing
- Every package includes an adapter for the drilling machine
- Anchor-rods with external hexagon for fast and easy installation

#### "No worries" on handling

- Easy to store packaging
- 24 months shelf life

### Key Applications

- Anchoring steel elements to concrete
- Anchoring rebars to concrete

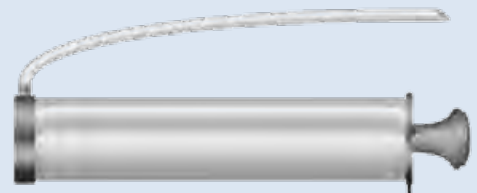
### Accessories



Setting Tool V-M  
(M8-M30)



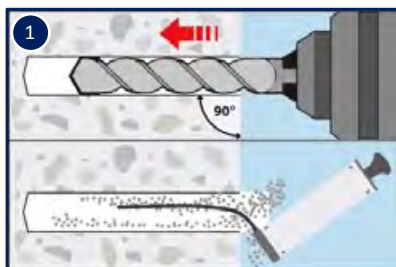
Steel Cleaning  
Brush



Blowout Pump

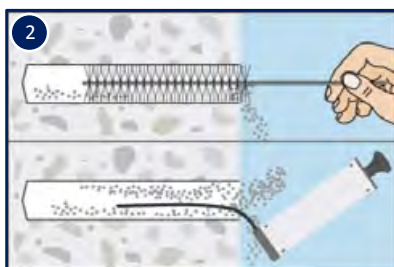
## Product Data Sheets

### Installation Procedure

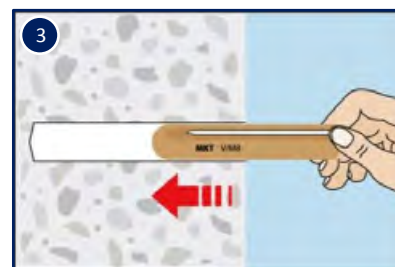


Using the right drill bit size, drill the hole to the specified embedment. Blow the dust out.

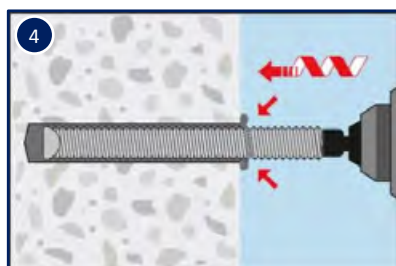
For threaded rod sizes greater than 12mm or embedments deeper than 200mm, it is recommended that compressed air (oil free) be used in blowing the dust out of the hole.



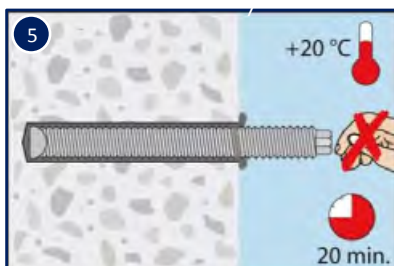
With a rotary motion, brush the hole using the appropriate brush size. Redo the blowout procedure, making sure that the hole is free from loose dust.



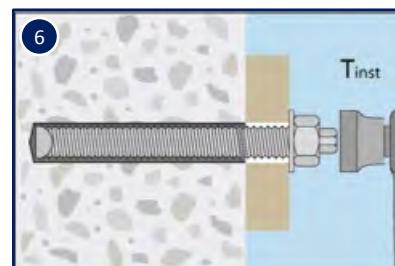
Insert the glass capsule into the hole.



Drive the threaded rod into the hole glass capsule using a rotary hammer drill and the threaded rod adaptor/setting tool.



Allow the chemical anchor to cure undisturbed for the specified duration of time.



The anchor should only be torqued or loaded after the chemical has fully cured.

**Table 1. Working Temperatures**

Handling Condition	Allowed Temperature Range
Storage	+5°C to +25°C
Installation	+5°C to +40°C
Service	0°C to +50°C

For applications where long term service temperatures are expected to be 40°C and above, please contact the Technical Department of Hobson Engineering.

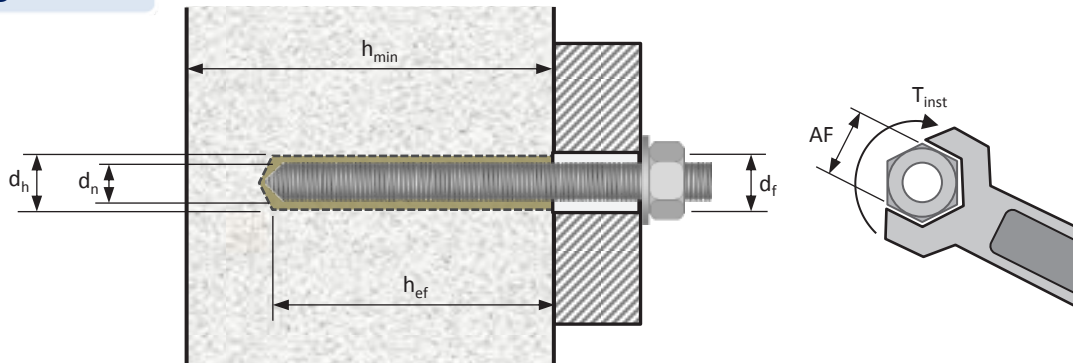
**Table 2. Curing Time**

Concrete Temperature	Minimum Cure Time	
	Dry Concrete	Wet Concrete
-5°C	5 hours	10 hours
0°C	5 hours	10 hours
5°C	1 hour	2 hours
10°C	1 hour	2 hours
20°C	20 mins	40 mins
≥ 30°C	10 mins	20 mins



## Product Data Sheets

### Setting Details



**Table 3. Setting information for metric threaded rods.**

Threaded rod size, $d_n$		M8	M10	M12	M16	M20	M24
Nominal hole diameter	$d_h$ (mm)	10	12	14	18	25	28
Minimum embedment depth	$h_{ef}$ (mm)	80	90	110	125	170	210
Maximum diameter of hole on steel plate	$d_f$ (mm)	9	12	14	18	22	26
Socket wrench size (across flats)	SW (mm)	13	17	19	24	30	36
Tightening torque	$T_{inst}$ (N-m)	10	20	40	80	120	180
Minimum thickness of concrete	$h_{min}$ (mm)	110	120	140	160	220	260
Minimum spacing	$S_{min}$ (mm)	40	45	55	65	85	105
Minimum edge distance	$c_{min}$ (mm)	40	45	55	65	85	105

### Basic Load Performance

**Table 4. Tension Performance of a single anchor in 32 Mpa non-cracked concrete without the influence of spacing and edge distance.**

Basic Load Bearing Performance			M8	M10	M12	M16	M20	M24	Limit State Strengths
Basic edge distance <sup>0</sup>	$c_b$	(mm)	50	70	100	100	150	150	
Basic embedment <sup>0</sup>	$h_b$	(mm)	80	90	110	125	170	210	Limit State Strengths
Design Tensile Strength <sup>1</sup>	Grade 5.8 A4-70 Stainless	$\phi N$ (kN)	12.0	18.0	24.0	30.0	45.0	54.0	
Design Shear Strength <sup>2</sup>	Grade 5.8 A4-70 Stainless	$\phi V$ (kN)	7.2 8.3	12.0 12.8	15.4 15.4	28.6 28.6	31.5 31.5	32.4 32.4	Safe Working Loads (SWL)
SWL <sup>3</sup> for Tension	Grade 5.8 A4-70 Stainless	$N_{SWL}$ (kN)	6.7	10.0	13.3	16.7	25.0	30.0	
SWL <sup>3</sup> for Shear	Grade 5.8 A4-70 Stainless	$V_{SWL}$ (kN)	3.6 4.7	6.0 8.0	8.4 8.6	15.6 15.9	17.5 17.5	18.0 18.0	

<sup>0</sup>  $c_b$  and  $h_b$  are used in the calculation of the basic shear strength of concrete edge.  $h_b$  is used in the calculation of concrete relevant tensile strengths while assuming that there are no relevant concrete edges.

<sup>1</sup> The design tensile strength is comparatively calculated from steel strength, concrete cone strength and pullout strength.  $h_b$  is the embedment depth used while the strength reduction factors of  $\phi = 0.60$  for concrete and  $\phi = 0.80$  for zinc plated steel are used.

<sup>2</sup> The design shear strength is comparatively calculated from steel strength and concrete edge strength.  $c_b$  is the edge distance used while the strength reduction factors of  $\phi = 0.60$  for concrete,  $\phi = 0.80$  for zinc plated steel are used.

<sup>3</sup> Safety factors, FOS = 2.5 for steel and FOS = 3.0 for concrete are used.

## Product Data Sheets



### General Information

The MKT VME is an epoxy based chemical anchor that has been tested and approved internationally for heavy duty anchoring applications.

### Benefits from features

#### “No worries” on performance

- EOTA approved with ETA-09/0350
- Fire rated in accordance with EOTA TR-20, TR-23 and DiBt
- ICC-ES Evaluated – ESR 2845
- Suitable for cracked concrete
- Suitable for damp or water filled holes
- Suitable for hammer-drilled and diamond-cored holes

#### “No worries” on installation

- Being a slow curing epoxy, there is more flexibility in minor adjustments and deep embedments
- The viscosity is designed for easy dispensing

#### “No worries” on handling

- Easy to store packaging
- Hard and robust cartridge
- 24 months shelf life
- No styrene



### Key Applications

- Anchoring steel elements to concrete
- Anchoring rebars to concrete

### Cartridge Sizes and Dispenser



385mL



385mL (Manual Dispenser)



585mL



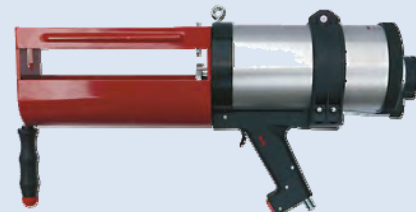
585mL (Manual Dispenser)



585mL (Pneumatic Dispenser)



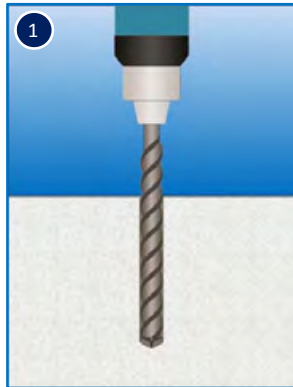
1400mL



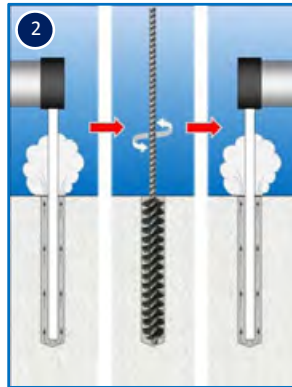
1400mL (Pneumatic Dispenser)

## Product Data Sheets

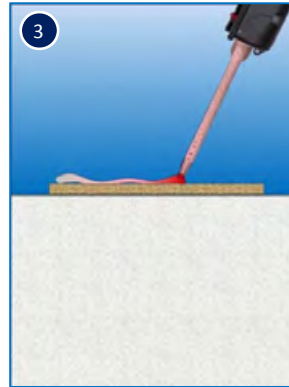
### Installation Procedure



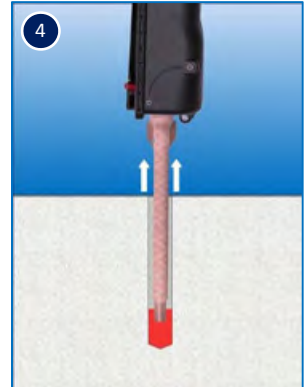
Using the right drill bit size, drill the hole to the specified embedment.



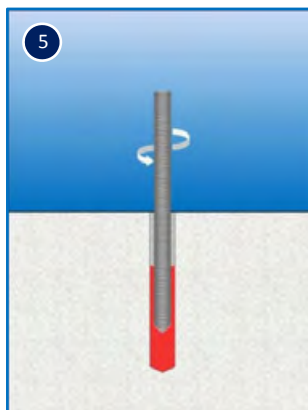
Blow the dust out from the hole by using a blowout pump\* at least twice. With a rotary motion, brush the hole using the appropriate brush size. Redo the blowout procedure, making sure that the hole is free from loose dust.



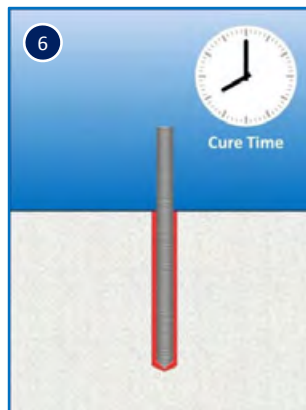
Discard the first three trigger pulls to a bead or until the color becomes a consistent red color.



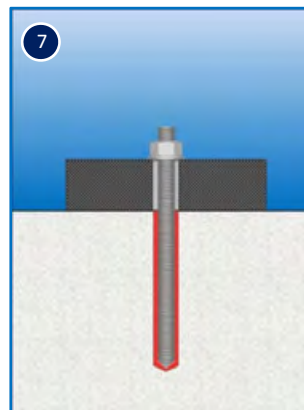
Inject the adhesive from the bottom of the hole while slowly withdrawing the nozzle to avoid air voids. Fill the hole to about 2/3 of its height to ensure that there is enough volume of chemical in the hole.



Insert the rod/rebar into the hole with a turning motion to evenly distribute the adhesive.



Allow the chemical anchor to cure undisturbed for the specified duration of time.



The anchor should only be torqued or loaded after the chemical has fully cured.

\* For threaded rod or rebar diameter size greater than 12mm or embedments deeper than 200mm, it is recommended that compressed air be used in blowing the dust out of the hole. The pressurized air should be free from oil so as not to reduce the bond strength of the anchor.

**Table 1. Working Temperatures**

Handling Condition	Allowed Temperature Range
Storage	+5°C to +25°C
Installation	+5°C to +40°C
Service	0°C to +72°C

For applications where long term service temperatures are expected to be 40°C and above, please contact the Technical Department of Hobson Engineering.

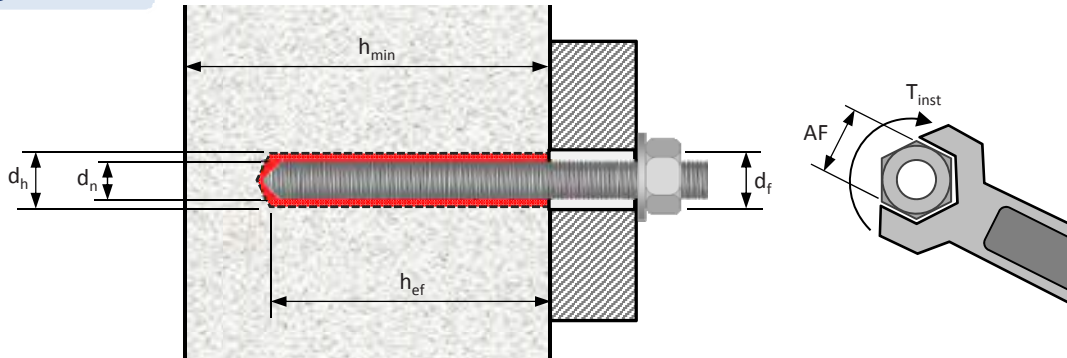
**Table 2. Curing Time**

Concrete Temperature	Maximum Gel Time	Minimum Cure Time
5°C	60 min	72 hours
10°C	45 min	36 hours
20°C	30 min	10 hours
30°C	20 min	6 hours
≥ 40°C	12 min	4 hours



## Product Data Sheets

### Setting Details



**Table 3. Setting information for metric threaded rods.**

Threaded rod size, $d_n$		M8	M10	M12	M16	M20	M24	M27	M30
Nominal hole diameter	$d_h$ (mm)	10	12	14	18	24	28	32	35
Minimum embedment depth	$h_{ef,min}$ (mm)	60	60	70	80	90	96	108	120
Maximum diameter of hole on steel plate	$d_f$ (mm)	9	12	14	18	22	26	30	33
Minimum Steel brush diameter	$d_b$ (mm)	12	14	16	20	26	30	34	37
Maximum tightening torque (if required)	$T_{inst}$ (N-m)	10	20	40	80	120	160	180	200
Socket wrench size (across flats)	AF (mm)	13	17	19	24	30	36	41	46
Minimum thickness of concrete	$h_{min}$ (mm)	$h_{ef} + 30mm \geq 100mm$				$h_{ef} + 2d_o$			
Minimum anchor spacing	$S_{min}$ (mm)	40	50	60	80	100	120	135	150
Minimum edge distance	$c_{min}$ (mm)	40	50	60	80	100	120	135	150

### Basic Load Performance

**Table 4. Basic Load Performance of a single anchor in 32 Mpa non-cracked concrete.**

Basic Load Bearing Performance		M8	M10	M12	M16	M20	M24	M27	M30	Limit State Strengths
Basic edge distance <sup>0</sup>	$c_b$ (mm)	50	70	100	100	150	150	200	200	
Basic embedment <sup>0</sup>	$h_b$ (mm)	80	90	110	125	170	210	240	270	Limit State Strengths
Design Tensile Strength <sup>1</sup>	Grade 5.8	$\phi N$ (kN)	14.4	23.2	33.6	55.4	87.5	119.7	153.9	192.4
	A4-70 Stainless	$\phi N$ (kN)	13.8	21.7	31.3	55.4	87.5	119.7	-	-
Design Shear Strength <sup>2</sup>	Grade 5.8	$\phi V$ (kN)	5.6	6.1	8.3	13.0	19.5	26.8	37.4	56.0
	A4-70 Stainless	$\phi V$ (kN)	5.6	6.1	8.3	13.0	19.5	26.8	-	-
SWL <sup>3</sup> for Tension	Grade 5.8	$N_{SWL}$ (kN)	7.2	11.6	16.8	29.7	47.2	64.8	79.2	94.4
	A4-70 Stainless	$N_{SWL}$ (kN)	10.4	14.8	21.8	29.7	47.2	64.8	-	-
SWL <sup>3</sup> for Shear	Grade 5.8	$V_{SWL}$ (kN)	3.1	3.4	4.6	7.2	10.8	14.9	20.8	31.1
	A4-70 Stainless	$V_{SWL}$ (kN)	3.1	3.4	4.6	7.2	10.8	14.9	-	-

<sup>0</sup>  $c_b$  and  $h_b$  are used in the calculation of the basic shear strength of concrete edge.  $h_b$  is used in the calculation of concrete relevant tensile strengths while assuming that there are no relevant concrete edges.

<sup>1</sup> The design tensile strength is comparatively calculated from steel strength, concrete cone strength and pullout strength.  $h_b$  is the embedment depth used while the strength reduction factors of  $\phi = 0.60$  for concrete and  $\phi = 0.80$  for zinc plated steel are used.

<sup>2</sup> The design shear strength is comparatively calculated from steel strength and concrete edge strength.  $c_b$  is the edge distance used while the strength reduction factors of  $\phi = 0.60$  for concrete,  $\phi = 0.80$  for zinc plated steel are used.

<sup>3</sup> Safety factors, FOS = 2.5 for steel and FOS = 3.0 for concrete are used.

## Product Data Sheets



### General Information

The Injection System VMU is a chemical fastening system for non-cracked concrete. It consists of a styrene-free vinylester resin plus an attached hardening agent contained in a cartridge to be used with a threaded stud, an internally threaded sleeve.

### Benefits from features

#### "No worries" on performance

- EOTA approved with ETA-05/0253
- 30-120 minute Fire Rating
- Approved for solid and perforated bricks

#### "No worries" on installation

- Optimum curing time for immediate loading
- The viscosity is designed for easy dispensing

#### "No worries" on handling

- Easy to store packaging
- Hard and robust cartridge
- 24 months shelf life
- No styrene

### Key Applications

- Anchoring metal/timber elements to concrete, masonry and/or bricks.

### Cartridge Sizes and Dispenser



345mL



VMP-345 Standard  
Dispenser



VMP-345 Profi Dispenser



300mL



280mL

Standard silicone sealant  
dispensers can be used.



420mL



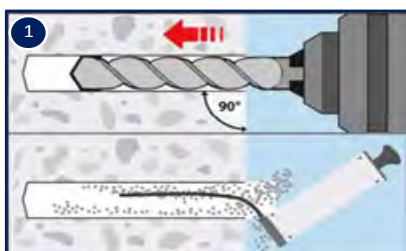
VMP-380 Standard  
Dispenser



VMP-380 Profi Dispenser

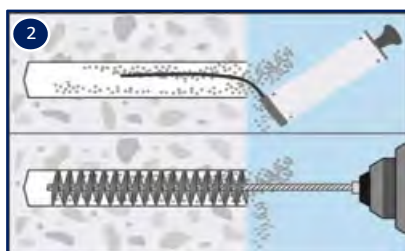
## Product Data Sheets

### Installation Procedure

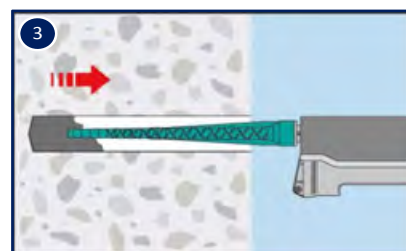


Using the right drill bit size, drill the hole to the specified embedment.

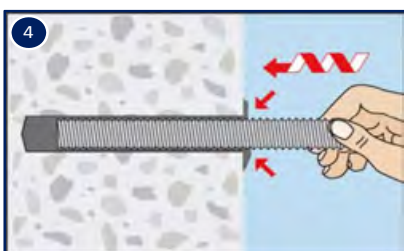
\* For threaded rod or rebar diameter size greater than 12mm or embedments deeper than 200mm, it is recommended that compressed air be used in blowing the dust out of the hole. The pressurized air should be free from oil so as not to reduce the bond strength of the anchor.



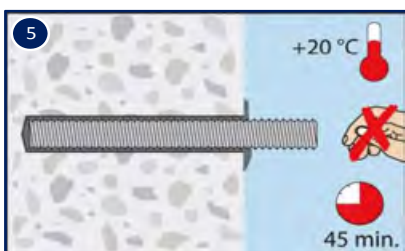
Blow the dust out from the hole by using a blowout pump\* at least twice. With a rotary motion, brush the hole using the appropriate brush size. Redo the blowout procedure, making sure that the hole is free from loose dust.



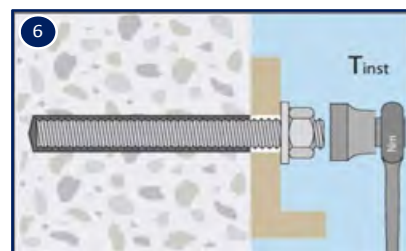
Discard the first three trigger pulls to a bead or until the color becomes a consistent red color. Inject the adhesive from the bottom of the hole while slowly withdrawing the nozzle to avoid air voids. Fill the hole to about 2/3 of its height to ensure that there is enough volume of chemical in the hole.



Insert the rod/rebar into the hole with a turning motion to evenly distribute the adhesive.



Allow the chemical anchor to cure undisturbed for the specified duration of time.



The anchor should only be torqued or loaded after the chemical has fully cured.

**Table 1. Working Temperatures**

Handling Condition	Allowed Temperature Range
Storage	+5°C to +25°C
Installation	+5°C to +30°C
Service	0°C to +50°C

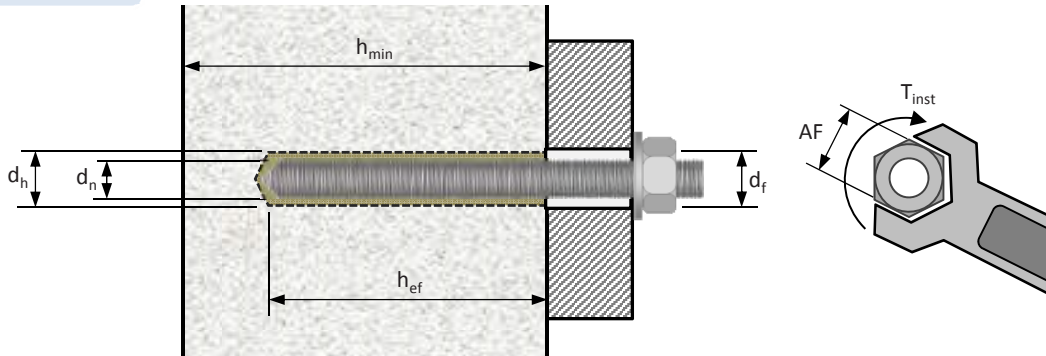
For applications where long term service temperatures are expected to be 40°C and above, please contact the Technical Department of Hobson Engineering.

**Table 2. Curing Time**

Concrete Temperature	Maximum Gel/Working Time	Minimum Cure Time	
		Dry Concrete	Wet Concrete
-5°C	90 mins	5.5 hours	11 hours
-4°C	45 mins	5.5 hours	11 hours
0°C	20 mins	3.0 hours	6.0 hours
5°C	12 mins	2.0 hours	4.0 hours
10°C	6 mins	1.2 hours	2.4 hours
20°C	4 mins	45 mins	1.3 hours
30°C	2 mins	25 mins	50 mins
35°C	1.4 mins	20 mins	40 mins
40°C	1.4 mins	15 mins	30 mins

## Product Data Sheets

### Setting Details



**Table 3. Setting information for metric threaded rods.**

Threaded rod size, $d_n$			M8	M10	M12	M16	M20	M24	M30
Nominal hole diameter	$d_h$	(mm)	10	12	14	18	24	28	32
Minimum embedment depth	$h_{ef}$	(mm)	80	90	110	125	170	210	270
Maximum diameter of hole on steel plate	$d_f$	(mm)	9	12	14	18	22	26	33
Minimum Steel brush diameter	$d_b$	(mm)	11	13	15	19	23	27	34
Tightening torque	$T_{inst}$	(N-m)	10	20	40	60	120	150	300
Socket wrench size (across flats)	AF	(mm)	13	17	19	24	30	36	41
Minimum thickness of concrete	$h_{min}$	(mm)	100	130	160	200	220	280	350
Minimum spacing	$S_{min}$	(mm)	40	45	55	65	85	105	135
Minimum edge distance	$c_{min}$	(mm)	40	45	55	65	85	105	135

### Basic Load Performance

**Table 4. Tension Performance of a single anchor in 32 Mpa non-cracked concrete without the influence of spacing and edge distance.**

Basic Load Bearing Performance			M8	M10	M12	M16	M20	M24	M30
Basic edge distance <sup>0</sup>	$c_b$	(mm)	50	70	100	100	150	150	200
Basic embedment <sup>0</sup>	$h_b$	(mm)	80	90	110	125	170	210	270
Design Tensile Strength <sup>1</sup>	Electroplated	$\phi N$ (kN)	12.2	19.1	26.7	38.1	72.4	87.6	129.5
	Stainless	$\phi N$ (kN)	12.2	19.1	26.7	38.1	72.4	87.6	117.6
Design Shear Strength <sup>2</sup>	Electroplated	$\phi V$ (kN)	7.2	12.0	16.8	31.2	48.8	58.8	93.4
	Stainless	$\phi V$ (kN)	10.4	16.0	24.0	44.0	54.0	58.8	70.0
SWL <sup>3</sup> for Tension	Electroplated	$N_{SWL}$ (kN)	6.8	10.6	14.8	21.2	40.2	48.7	72.0
	Stainless	$N_{SWL}$ (kN)	6.8	10.6	14.8	21.2	40.2	48.7	72.0
SWL <sup>3</sup> for Shear	Electroplated	$V_{SWL}$ (kN)	3.6	6.0	8.4	15.6	18.0	19.6	31.1
	Stainless	$V_{SWL}$ (kN)	4.9	8.0	8.9	16.3	18.0	19.6	31.1

<sup>0</sup>  $c_b$  and  $h_b$  are used in the calculation of the basic shear strength of concrete edge.  $h_b$  is used in the calculation of concrete relevant tensile strengths while assuming that there are no relevant concrete edges.

<sup>1</sup> The design tensile strength is comparatively calculated from steel strength, concrete cone strength and pullout strength.  $h_b$  is the embedment depth used while the strength reduction factors of  $\phi = 0.60$  for concrete and  $\phi = 0.80$  for zinc plated steel are used.

<sup>2</sup> The design shear strength is comparatively calculated from steel strength and concrete edge strength.  $c_b$  is the edge distance used while the strength reduction factors of  $\phi = 0.60$  for concrete,  $\phi = 0.80$  for zinc plated steel are used.

<sup>3</sup> Safety factors, FOS = 2.5 for steel and FOS = 3.0 for concrete are used.



## Product Data Sheets



Cartridge VMK 300ml

MCVMK0300



Cartridge VMK 345ml

Side-by-side cartridge + Mixer

MCVMK0345



Cartridge VMK 420ml

MCVMK0420

**Range of loading: 0,3 kN - 39,4 kN**  
**Concrete quality: C20/25 - C50/60**  
**Masonry: Solid brick, Hollow block**

### Description:

The Injection adhesive VM-K is a polyester-resin based injection mortar designed for bonding threaded rods and reinforcing steel in concrete, masonry or natural stone. By using a special perfo sleeve VM-SH (metal or plastic) a secure fastening is also possible in perforated masonry.

The anchoring components from the Chemical Anchor V (see page 61), Injection System VMU (see pages 68-69) or Injection Adhesive VM (see pages 75 & 92) product ranges can be used.

Both components are contained in the cartridge and mixed when dispensed through the static mixer. The Injection adhesive is injected directly into the drilled hole or perfo sleeve with a dispenser gun. The anchoring element is inserted into the filled hole (perfo sleeve) by hand. After the adhesive has cured, the anchoring element can have the load applied.

### Advantages:

- Styrene free: suitable for interior and exterior use
- suitable for most building materials
- Can be used as a repair mortar
- sealed drill-hole
- Opened cartridges can be re-used with a new static mixer
- Suitable for many anchoring elements e.g. threaded rods, internally threaded sleeves, concrete steel, hooks, screws etc.

### Applications

**A wide variety of fastenings that do not require federal building office approval.**

Description:	Ref. No:	Content:	Content of master box:	Weight of master box:	Weight per piece:
		ml	Pieces	Kg	Kg
Cartridge VM-K 300 <sup>1</sup>	28253001	300	12	6.40	0.53
Cartridge VM-K 345	28255201	345	12	7.20	0.58
Cartridge VM-K 420	28256101	420	12	10.1	0.83
Static mixer VM-X (for all cartridges)	28305111	-	12	0.12	0.01
Static mixer VM-XP (only for 420ml cartridge)	28304920	-	10	0.10	0.01
Mixer extension VM-XE (200mm)	28306011	-	12	-	-
One static mixer VM-X as well as one screw-on cap comes with each cartridge. <sup>1</sup> VM-K 300 is also suitable for use with silicone guns.					

**Dispenser VM-P 385 Profi**  
see page 48

**Accessories for Drill Hole Cleaning**  
see page 49

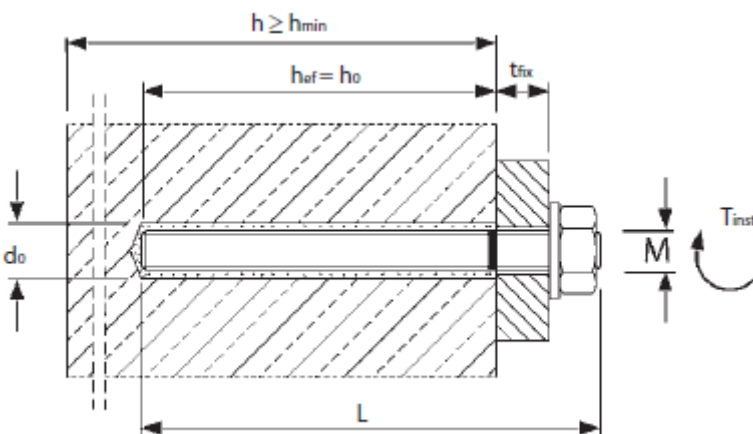


## Product Data Sheets

Recommended loads for single anchor without influence of spacing and edge distance for temperature range -40°C to +80°C1).  
Total safety factor as per ETAG 001 included ( $\gamma_M$  and  $\gamma_F$ ).

Loads and Performance Data:				M8	M10	M12	M16	M20
Injection Adhesive VM-K with Threaded Studs V-A/VMU-A in concrete				Non-Cracked Concrete				
Rec. loads, tension (Steel 5.8)	C20/25	rec. N	kN	4.8	7.1	9.9	11.1	18.7
Rec. loads, shear (Steel 5.8)	≤ C20/25	rec. V	kN	5.1	8.6	12.0	22.3	34.9
Rec. bending moments (Steel 5.8)		rec. M	Nm	10.9	21.1	37.1	94.9	185.1
Rec. loads, tension (A4)	C20/25	rec. N	kN	4.8	7.1	9.9	11.1	18.7
Rec. loads, shear (A4)	≤ C20/25	rec. V	kN	6.0	9.2	13.7	25.2	39.4
Rec. bending moments (A4)		rec. M	Nm	11.9	23.8	42.1	106.2	207.9
<b>Spacing and Edge Distance:</b>								
Effective anchorage depth		hef	mm	80	90	110	125	170
Characteristic spacing		Scr, N	mm	160	180	220	250	340
Characteristic edge distance		Ccr, N	mm	80	90	110	125	170
Min. thickness of concrete slab		hmin	mm	110	120	140	161	218
min. spacing		Smin	mm	40	50	60	80	100
min. edge distance		Cmin	mm	40	50	60	80	100
<b>Installation Parameters:</b>								
Drill hole diameter		do	mm	10	12	14	18	24
Clearance hole in the fixture		df	mm	9	12	14	18	22
Depth of drill hole		ho	mm	80	90	110	125	170
Installation torque		Tinst	Nm	10	20	40	60	120
Width across nut		SW	mm	13	17	19	24	30
Amount of mortar per drill hole			ml	5.2	7.3	10.8	17.1	45.4
Drill holes per cartridge VM-K 300			Quan	50	35	24	15	5
Drill holes per cartridge VM-K 345			Quan	58	41	28	17	6
Drill holes per cartridge VM-K 420			Quan	72	52	35	22	8

<sup>1</sup> Max. long term temperature +50°C / max. short term temperature +80°C



### Curing Time

#### Injection Adhesive VM-K

→ Cartridge temperature when installing min +5 °C

Temperature (°C) of base material	Working Time (minutes)	Curing Time
+5 °C	25	2 hr
+10 °C	15	1.20 hr
+20 °C	6	45 min
+30 °C	4	25 min
+35 °C	2	20 min

### Installation In Concrete:



## Product Data Sheets

Recommended loads for single anchor without influence of spacing and edge distance for temperature range -40°C to +80°C1).  
Total safety factor as per ETAG 001 included ( $\gamma_M$  and  $\gamma_F$ ).

Loads and performance data	Injection System VM-K with threaded stud VM-A / VMU-A Steel, zinc plated / Stainless steel A4 in masonry		M8	M10	M12
Recommended bending moments (Steel, zinc plated 5.8)	rec.M	Nm	11.0	21.0	37.0
Recommended bending moments (Stainless steel A4)	rec.M	Nm	12.0	24.0	42.0
<b>Spacing and edge distance:</b>					
Effective anchorage depth with/without perfo sleeve	$h_{ef}$	mm	85/80	85/90	85/110
Spacing (Anchor group)2) 3)	$a \geq$	mm	100	100	100
Minimum spacing3)	min a	mm	50	50	50
Spacing (single anchor)	$a_z$	mm	250	250	250
Edge distance	$a_r \geq$	mm	250	250	250
Edge distance for special applications4)	$a_r$	mm	250	250	250
Minimum thickness of base material (masonry)	$h_{min}$	mm	110	110	125
<b>Installation parameters:</b>					
Perfo sleeve (if used)			VM-SH 16x8516	16x85	16x85
Diameter of drill hole with perfo sleeve	$d_o$	mm	16	16	16
Dia. of drill hole without perfo sleeve (solid base material)	$d_o$	mm	910	12	14
Clearance hole in the fixture	$d_i$	mm	9	12	14
Depth of drill hole with perfo sleeve	$h_o$	mm	90	90	90
Depth of drill hole without perfo sleeve	$h_o$	mm	85	95	115
Installation torque	$T_{inst}$	Nm	8	8	8
Cleaning brush	$d_b$	mm	RB-H 18	RB-H 18	RB-H 18
Amount of mortar per drill hole with perfo sleeve		ml		18.0	18.0
Amount of mortar per drill hole without perfo sleeve		ml		7.3	10.8
Drill holes per cartridge with perfo sleeve VM-K 345		Quan		16	16
Drill holes per cartridge without perfo sleeve VM-K 345		Quan		41	28

1) max. long term temperature +50°C / max. short term temperature +80°C  
2) The spacing a may fall below the minimum value for anchor pairs and groups of four, when the loads are reduced. The maximum load per brick must not be exceeded.

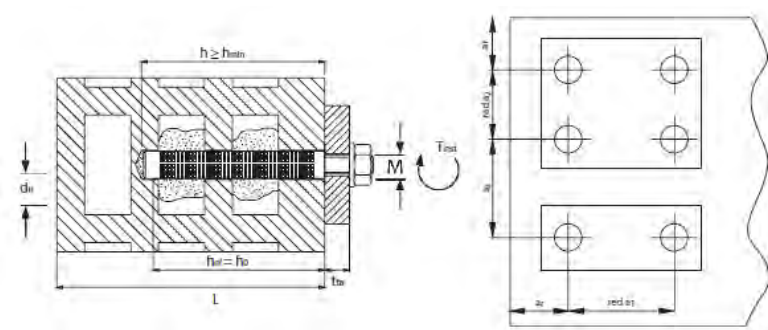
3) Hbl, Hbn=200 mm  
4) Applies to burdened masonry.

Recommended loads in masonry for all load directions	Solid brick1)	Solid sandlime1)	Vertical perforated brick			Sand-lime perforated brick			Hollow block lightw. concrete		Hollow block concrete
	Mz 12	KS 12	HLz 4	HLz 6	HLz 12	KSL 4	KSL 6	KSL 12	Hbl 2	Hbl 4	Hbn 4
kN	1.7	1.7	0.3	0.4	0.8	0.3	0.4	0.8	0.3	0.6	0.6

1) The anchorage in masonry of solid sandlime and solid brick may be made without perfo sleeve.

Maximum load for single brick	$\leq 4 DF^1)$	4 to 10 DF <sup>1)</sup>	$\geq 10 DF^1)$
Unburdened masonry max. F	kN 1.0	1.4	2.0
Burdened masonry max. F	kN 1.4	1.7	2.5

1) Dimension of brick according to DIN-Standard.



Group of two:  
red F = rec. F x  $k_a$   
 $k_a = \frac{a}{(1 + \text{red } a) \times \frac{1}{2}} < 1$

Group of four:  
red F = rec. F x  $k_{a1} \times k_{a2}$   
 $k_{a1,2} = \frac{a}{(1 + \text{red } a_{1,2}) \times \frac{1}{2}} < 1$

rec. F = recommended load of each anchor  
red F = reduced load of each anchor  
a = spacing  
red a = reduced spacing



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- ☒ METAL STITCH HEX HEAD +
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1145851	11189576M	K45458	2012-06-21	Same day	K45094	166 kg
1142909	11186405M	K45584	2012-06-15	Same day	K45099	242 kg
					K45113	238 kg
					K45127	
					K45133	
					K45458	
					K45465	
					K45551	
					K45584	
					100	
					100	
					50	
					105	
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