MBS | MBZ

SELF-TAPPING SCREW FOR MASONRY

TIMBER AND PVC DOORS/WINDOWS

The countersunk head (MBS) allows PVC window frames to be installed without damaging the frame. The cylindrical head (MBZ) is able to penetrate and remain embedded in timber frames.

IFT CERTIFICATION

Strength values in different substrates tested in cooperation with the Institute for Window Technology (IFT) in Rosenheim.

HI-LOW THREADING

The HI-LOW thread allows for safe fastening even near the edges of the support, thanks to the reduced tension induced on the material, ideal for frames.

DIAMETER [in]	0.24 — **0.30** — 0.63
LENGTH [in]	2 1/16 — **2 1/16 — 9 19/36** — 15 3/4
EXPOSURE CONDITION	EC1, DRY
ATMOSPHERIC CORROSIVITY	C1, C2
WOOD CORROSIVITY	T1, T2
MATERIAL	Zn ELECTRO PLATED — electrogalvanized carbon steel

MBS

MBZ

CODES AND DIMENSIONS

MBS - countersunk screw

d_1 [mm] [in]	CODE	L [mm]	L [in]	pcs
7,5 **0.30** TX 30	**MBS7552**	52	2 1/16	100
	MBS7572	72	2 13/16	100
	MBS7592	92	3 5/8	100
	MBS75112	112	4 7/16	100
	MBS75132	132	**5 3/16**	100
	MBS75152	152	**6**	100
	MBS75182	182	7 3/16	100
	MBS75212	212	8 3/8	100
	MBS75242	242	9 1/2	100

MBZ - cylindrical head

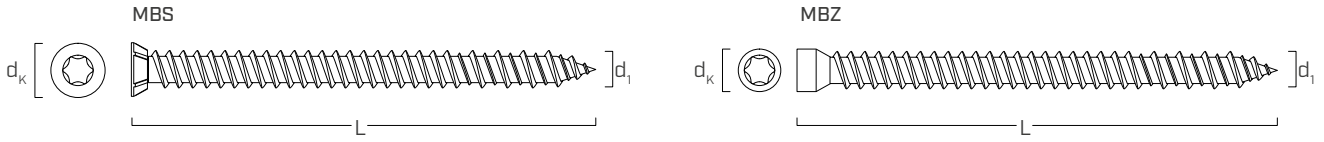
d_1 [mm] [in]	CODE	L [mm]	L [in]	pcs
7,5 **0.30** TX 30	**MBZ7552**	52	2 1/16	100
	MBZ7572	72	2 13/16	100
	MBZ7592	92	3 5/8	100
	MBZ75112	112	4 7/16	100
	MBZ75132	132	**5 3/16**	100
	MBZ75152	152	**6**	100
	MBZ75182	182	7 3/16	100
	MBZ75212	212	8 3/8	100
	MBZ75242	242	9 1/2	100

FIELDS OF USE

Fastening of timber (MBZ), PVC and aluminium (MBS) window frames on the following supports:

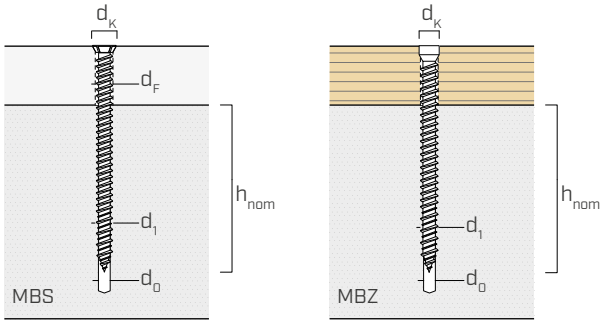
- solid and perforated brick
- solid and perforated concrete
- lightweight concrete
- autoclaved aerated concrete

GEOMETRY AND PARAMETERS OF INSTALLATION



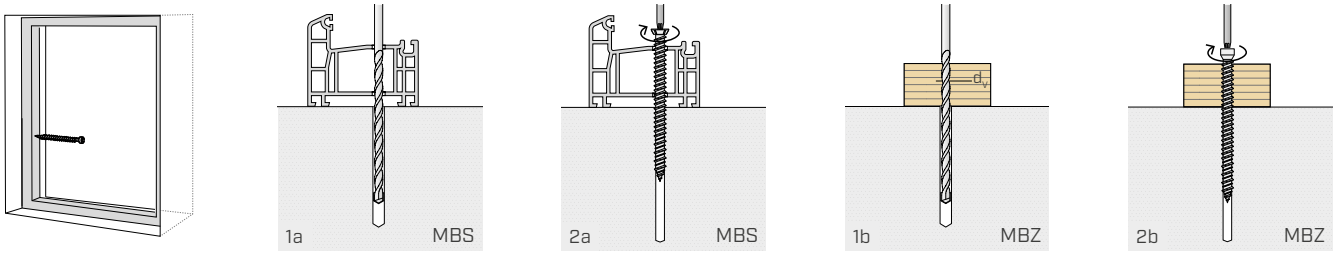
			MBS	MBZ
Nominal diameter	d_1	[in](1)	**0.30**	**0.30**
Outer thread diameter	d_1	[mm]	7,5	7,5
		[in]	**0.295**	**0.295**
Head diameter	d_K	[in]	0.427	0.331
Pre-drilling hole diameter(2)	d_0	[in]	0.236	0.236
Pre-drilling hole diameter in the timber element	d_V	[in]	0.244	0.244
Hole diameter in the PVC element	d_F	[in]	19/64	-

(1)The nominal diameter of the screw is converted into imperial units and rounded up to the nearest decimal point.



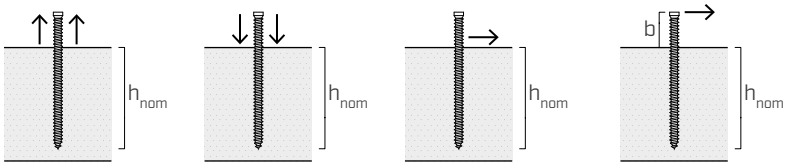
d_1	screw diameter
d_K	head diameter
d_0	diameter of pre-drilling hole concrete/brickwork
d_V	pre-drilling hole diameter in the timber element
d_F	hole diameter in the PVC element
h_{nom}	nominal anchoring depth

INSTALLATION



STRUCTURAL VALUES

BRICKS



Type of support	$h_{nom,min}$	$N_{Rk,p}$	N_{Rk}	V_{Rk}	$V_{Rk,b}$
	[in]	[lbf]	[lbf]	[lbf]	[lbf]
		pull-out	**compression**	**shear**	**shear with lever arm(1)**
Solid brick	1.57	70	2028	659	481
Hollow brick	2.36	-(2)	29	299	128

Characteristic values tested at IFT ROSENHEIM®.
(1)The screws were tested considering a lever arm of b = 0.79 in.
(2)Value not available.

CONCRETE

Type of support	$h_{nom,min}$	$N_{Rk,p}$
	[in]	[lbf]
Concrete(3)	1.18	200
Lightweight concrete	3.15	32
Autoclaved aerated concrete	3.15	25

The recommended withdrawal values are obtained considering a safety coefficient of 3.
(3)C20/25 grade concrete.