MBS | MBZ

SELF-TAPPING SCREW FOR MASONRY

- Electrogalvanized carbon steel
- Suitable for dense and semi-hollow materials
- Fastening of doors and windows
- The countersunk head (MBS) allows PVC and aluminium window frames to be installed without damaging the frame
- The cylindrical head (MBZ) is able to penetrate and remain embedded in timber frames
- Strength values in different substrates tested in cooperation with the Institute for Window Technology (IFT) in Rosenheim
- The HI-LOW thread allows for safe fastening even near the edges of the support, thanks to the reduced tension induced on the material
- Through fastening

SERVICE CLASS	SC1 SC2
MATERIAL	Zn ELECTRO PLATED electrogalvanized carbon steel

MBS

MBZ

CODES AND DIMENSIONS

MBS - countersunk screw

CODE	d_1 [mm]	L [mm]	pcs.
MBS7552	7,5 TX 30	52	100
MBS7572		72	100
MBS7592		92	100
MBS75112		112	100
MBS75132		132	100
MBS75152		152	100
MBS75182		182	100
MBS75212		212	100
MBS75242		242	100

MBZ - cylindrical head

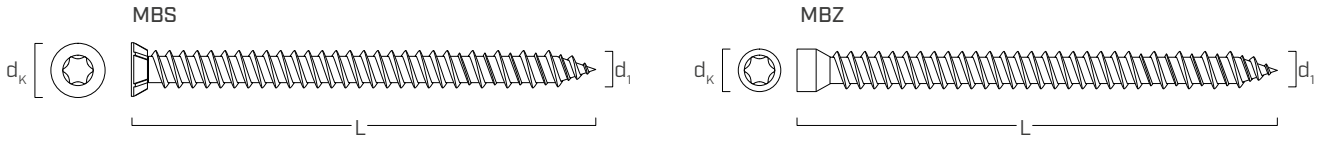
CODE	d_1 [mm]	L [mm]	pcs.
MBZ7552	7,5 TX 30	52	100
MBZ7572		72	100
MBZ7592		92	100
MBZ75112		112	100
MBZ75132		132	100
MBZ75152		152	100
MBZ75182		182	100
MBZ75212		212	100
MBZ75242		242	100

FIELDS OF USE

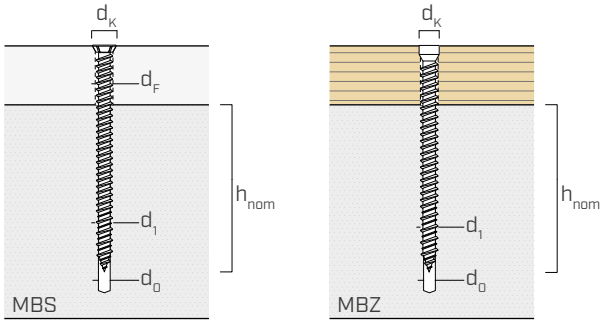
Fastening of timber (MBZ), PVC and aluminium (MBS) window frames on the following supports:

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

GEOMETRY AND PARAMETERS OF INSTALLATION

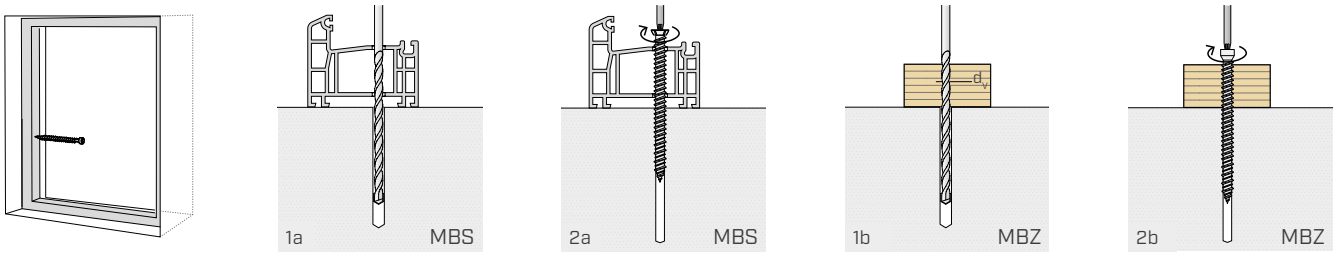


			MBS	MBZ
Nominal diameter	**d_1**	**[mm]**	**7,5**	**7,5**
Head diameter	d_k	[mm]	10,85	8,4
Diameter of pre-drilling hole concrete/brickwork	d_0	[mm]	6,0	6,0
Pre-drilling hole diameter in the timber element	d_V	[mm]	6,2	6,2
Hole diameter in the PVC element	d_F	[mm]	7,5	-



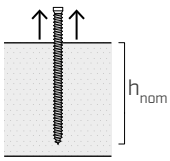
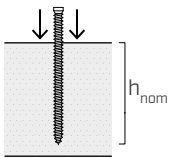
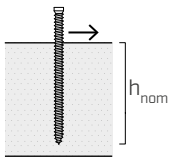
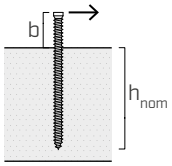
d_1 screw diameter
d_K head diameter
d_0 diameter of pre-drilling hole concrete/brickwork
d_V pre-drilling hole diameter in the timber element
d_F hole diameter in the PVC element
h_{nom} nominal anchoring depth

INSTALLATION



STRUCTURAL VALUES

BRICKS

		pull-out	compression	shear	shear with lever arm[1]
					
Type of support	**$h_{nom,min}$** [mm]	**$N_{Rk,p}$** [kN]	**N_{Rk}** [kN]	**V_{Rk}** [kN]	**$V_{Rk,b}$** [kN]
Solid brick	40	0,31	9,02	2,93	2,14
Hollow brick	60	-[2]	0,13	1,33	0,57

Characteristic values tested at IFT ROSENHEIM®.
[1]The screws were tested considering a lever arm of b = 20 mm.
[2]Value not available.

CONCRETE

Type of support	**$h_{nom,min}$** [mm]	**$N_{Rk,p}$** [kN]
Concrete[3]	30	0,89
Lightweight concrete	80	0,17
Autoclaved aerated concrete	80	0,11

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