



d₁
SBM



d₁
ZBM

SBM | ZBM

SELF-TAPPING SCREW FOR MASONRY

- Appropriate for direct fastening on compact and semi-solid materials: natural stone, concrete, solid bricks and hollow bricks
- The countersunk head (SBM) allows PVC window frames to be installed without damaging the frame
- The cylindrical head (ZBM) 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 secure fastening even close to the edges of the support



ENVIRONMENT



MATERIAL



SBM

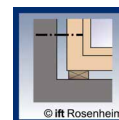
countersunk screw

d ₁ [mm]	d _K [mm]	CODE	L [mm]	pcs
7,5 TX 30	10,85	SBM7552	52	100
		SBM7572	75	100
		SBM7592	92	100
		SBM75112	112	100
		SBM75132	132	100
		SBM75152	152	100
		SBM75182	182	100
		SBM75212	212	100
		SBM75242	242	100

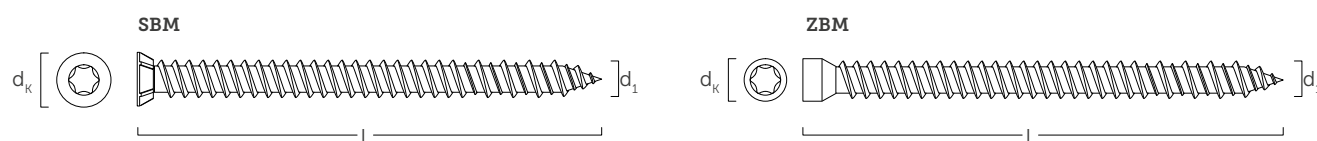
ZBM

cylindrical head screw

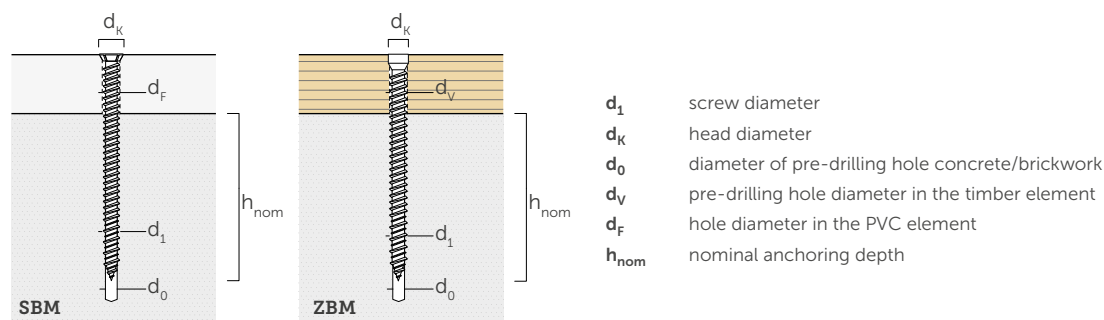
d ₁ [mm]	d _K [mm]	CODE	L [mm]	pcs
7,5 TX 30	8,4	ZBM7552	52	100
		ZBM7572	75	100
		ZBM7592	92	100
		ZBM75112	112	100
		ZBM75132	132	100
		ZBM75152	152	100
		ZBM75182	182	100
		ZBM75212	212	100
		ZBM75242	242	100



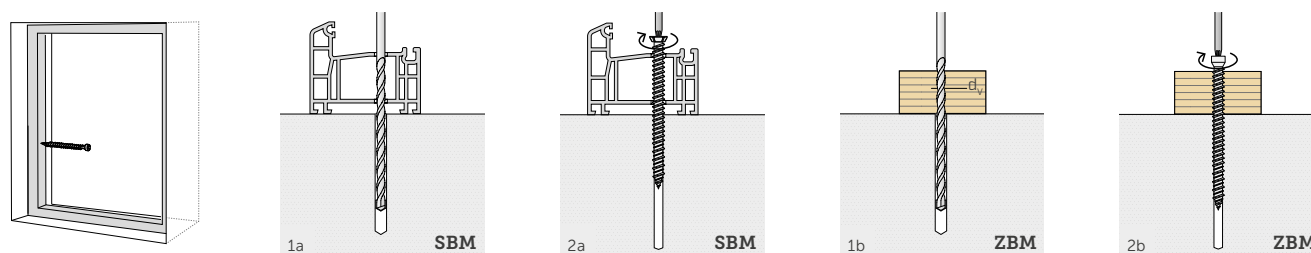
GEOMETRY



			SBM	ZBM
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	-



INSTALLATION



STRUCTURAL VALUES

BRICKS

		pull-out	compression	shear	shear with lever arm ⁽¹⁾
		h_{nom}	h_{nom}	h_{nom}	h_{nom}
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]
C20/25 grade concrete	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.