

Area of Application

ESSVE Concrete bolt with hex head and flange designed for quick and easy fixing in concrete.

Description

Specially hardened screw that is can be screwed directly into a drilled hole without a plug. It has a "hi-lo" thread which facilitates installation. The screw is produced in hardened steel with bright zinc plated surface treatment. It has a hex head.

Installation

An impact screwdriver or impact wrench is recommended for installation. See the installation instructions

at the end of this section. NOTE! The concrete screw does not require a pre-tensioning torque to ensure fixing.

The final tightening torque applied must not be greater than required to hold what is fixed in place. Tightening torques specified in the table must not be exceeded.



Installation

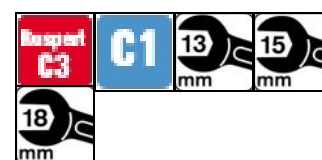
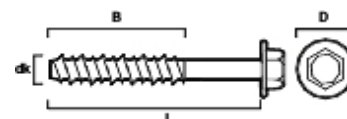
1. Drill a hole. Roughly clean the drill hole from drill cuttings by moving the hammer drill back and forth 2-3 times.
2. Tighten the screw with a socket. An impact wrench is recommended for dimensions 10.5 and 16.5 mm.
3. The installation is finished.

Specification

Material	Steel
Surface treatment	Bright zinc plated
Corrosion categories	C1

Concrete bolt, hex head with flange, bright zinc plated

Technical data and ESSBOX pack



Item no.	Dimension dk x L mm	D mm	Drill Ø mm	Drill depth* min. mm	Thread length mm	Maximum de- tail thickness* mm	Key ESSBOX width mm size	Qty./ pack.	Pack./ large pack.
105342	10,5×55	17,5	8	55/-	55	10/-	13 204	50	6
105344	10,5×75	17,5	8	55/-	60	30/15	13 304	50	4
105346	10,5×90	17,5	8	55/70	60	45/30	13 203	25	8
105348	10,5×110	17,5	8	55/70	60	65/50	13 204	25	6
105350	10,5×130	17,5	8	55/70	60	85/70	13 204	25	6
105352	12,5×65	22,0	10	60/80	65	15/-	15 304	50	4
105354	12,5×85	22,0	10	60/80	70	35/15	15 204	25	6
105356	12,5×100	22,0	10	60/80	70	50/30	15 204	25	6
105358	12,5×120	22,0	10	60/80	70	70/50	15 206	25	4
105360	16,5×80	30,0	14	80/-	80	10/-	18 304	20	4
105362	16,5×115	30,0	14	70/90	80	55/35	18 204	10	6

* at recommended fixing depth in concrete

Technical data and ESSBOX pack

Item no.	Dimension dk x L mm	D mm	Drill Ø mm	Drill depth* min. mm	Thread length mm	Maximum de- tail thickness* mm	Key width mm	ESSBOX size	Qty./ pack.	Pack./ large pack.
105342	10,5×55	17,5	8	55/-	55	10/-	13	204	50	6
105344	10,5×75	17,5	8	55/-	60	30/15	13	304	50	4
105346	10,5×90	17,5	8	55/70	60	45/30	13	203	25	8
105348	10,5×110	17,5	8	55/70	60	65/50	13	204	25	6
105350	10,5×130	17,5	8	55/70	60	85/70	13	204	25	6
105352	12,5×65	22,0	10	60/80	65	15/-	15	304	50	4
105354	12,5×85	22,0	10	60/80	70	35/15	15	204	25	6
105356	12,5×100	22,0	10	60/80	70	50/30	15	204	25	6
105358	12,5×120	22,0	10	60/80	70	70/50	15	206	25	4
105360	16,5×80	30,0	14	80/-	80	10/-	18	304	20	4
105362	16,5×115	30,0	14	70/90	80	55/35	18	204	10	6

* at recommended fixing depth in concrete

Recommended fixing depth*)

Material	Ø 16.5	Ø 12.5	Ø 10.5
Concrete	60/80	50/70 mm	45/60 mm

*) Drill depth = fixing depth + min. 10 mm

Practical load capacity and technical data

Incl. Safety factors according to the Boverket's General Guidelines 1993:1, Type appro-

val of fixings.

If necessary, and as part of our technical support, pull-out testing can be conducted for specific objects.

For installation in uncracked concrete ≥C20/25

Dimensions mm	Installation depth mm	Tensile load Concrete C20/25 kg	Shear load Concrete C20/25 kg	Min. edge spacing Tensile load mm	Min. edge spacing Transverse load mm	Min. spacing mm	Tightening torque** Nm
10.5	45	400	350	80	90	160	40
10.5	60	530	350	100	90	200	40
12.5	50	450	450	100	120	200	50
12.5	70	750	450	120	120	240	50
16.5	80	1300	1300	140	140	280	60

** For an impact wrench with a torque capacity of 300 Nm is required for installation.

Design load value and technical data

For calculation in accordance with Eurocode.
For the calculation with other edge distance

and/or spacing and concrete quality, contact our technical support.

For installation in uncracked concrete ≥C20/25

Dimensions mm	Installation depth mm	Tensile load Concrete C20/25 kN	Shear load Concrete C20/25 kN	Min. edge spacing Tensile load mm	Min. edge spacing Transverse load mm	Min. spacing mm
10.5	45	5.3	4.6	80	90	160
10.5	60	7.0	4.6	100	90	200
12.5	50	5.9	5.7	100	120	200
12.5	70	9.9	5.7	120	120	240
16.5	80	17.2	17.2	140	140	280