









ETA 21/0891 Concrete **Approved Approved** 







Australian **Standards** 



## For multiple use non-structural applications

DLXTM-S DROP-IN ANCHOR is a single piece internally threaded expansion anchor suitable for solid base material and hollow core concrete available in a carbon steel clear zinc plated finish.

The anchor is set by displacement of the pre-assembled expander cone to enable full expansion of the anchor body. The anchor must be set with the correct ICCONS® setting tools (see page 2).

The lip feature ensures the anchor will mount flush with the concrete surface for consistency. The internal thread is suitable for machined bolts or threaded rod. The DLXTM-S Drop-In Anchor is ETA Assessed for redundant non-structural systems.

ZINC INTERNAL	MEM					<b>#</b>
Part No.	Description	mm	mm	mm	qty	qty
DLXTM1025-S	M10 x 25mm Lip Drop-in Anchor Approved	12	28	M10	50	800
DLXTM1225-S	M12 × 25mm Lip Drop-in Anchor Approved	15	29	M12	50	800





Approved for use in cracked and uncracked concrete



## Lip Drop-in Setting Tool

For use with Lip Drop-in Anchors.

Use of Setting Tool is necessary for the correct installation of Drop-in Anchors.



Part No	Description	qty
DLST1025-S	M10 x 25mm Setting Tool - Soft Grip	1
DLST1225-S	M12 x 25mm Setting Tool - Soft Grip	1

#### INSTALLATION



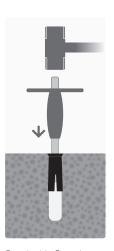
With the correct diameter drill bit, drill a hole to the correct depth.



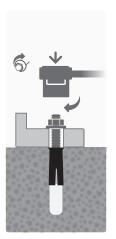
Clean dust and other material from the hole. Blow dust from the hole.



Push in Lip Drop-in by hand or by hammer blows, anchor should be flush to concrete surface.



Set the Lip Drop-in with setting tool. The Lip Drop-in is installed correctly if the setting tool pin is completely inside the anchor.



Place fixture in position and insert machined bolt and tighten until firm (do not exceed recommended torque).



For threaded rod installations wind in rod until firm, do not over tighten.

#### INSTALLATION DATA DLXTM-S DROP-IN ANCHOR

		M10 x 25mm	M12 x 25mm
Nominal Drill diameter	d <sub>o</sub>	12	15
Internal Thread Diameter	М	10	12
Depth of Drill Hole	h <sub>1</sub>	28	29
Distance b/w anchor and prestressing steel	a <sub>p</sub>	50	50
Effective anchor depth	h <sub>ef</sub>	25	25
Maximum thread depth	Ls,max	13	13
Minimum thread depth	Ls,min	8	10
Fixture clearance hole	d <sub>f</sub>	12	14
Maximum installation torque	T <sub>inst</sub>	17	38





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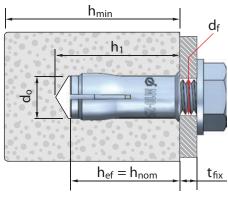
### MATERIAL SPECIFICATIONS

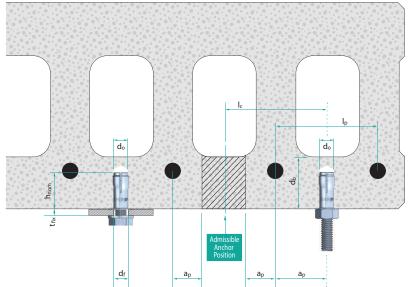
Anchor Component	Steel
Body M10/M12	Carbon Steel, Zinc Plated ≥ 5µm ISO 4042
Expansion Cone	Carbon Steel, Zinc Plated ≥ 5µm ISO 4042
Retaining Disc	Paper or plastic

DLXTM-S-

## DLXTM-S – For use in concrete C20/25 to C50/60

# For use in precast prestressed hollow core slabs With flange thickness ≥ 35mm and concrete C30/37 to C50/60





DLXTM	I-S Drop-	in
$h_{\min}$	=	thickness of member
h <sub>1</sub>	=	depth of drilled hole
h <sub>ef</sub>	=	effective anchorage depth
t <sub>fix</sub>	=	fixture thickness
L <sub>s</sub>	=	length of thread inside the anchor
T <sub>inst</sub>	=	max. installation torque
d <sub>f</sub>	=	fixture clearance hole diameter

DLXTM-S [	Orop-in	
d <sub>o</sub>	=	nominal diameter of drill bit
h <sub>ef</sub> = h <sub>no</sub>	m =	effective anchorage depth
L <sub>s</sub>	=	length of thread inside the anchor
T <sub>inst</sub>	=	max. installation torque
a <sub>p</sub>	=	distance between anchor and prestressing steel ≥ 50mm
d <sub>b</sub>	=	bottom flange thickness
I <sub>c</sub>	=	core distance ≥ 100mm
I <sub>p</sub>	=	prestressing steel spacing ≥ 100mm
C <sub>min</sub>	=	edge distance
d <sub>f</sub>	=	fixture clearance hole diameter

## **DLXTM-S DROP-IN ANCHOR**





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#### Minimum thickness of concrete member, spacing and edge distance

DLXTM-S Drop-in anchor			Size M10-25	Size M12-25
Minimum thickness of member	h <sub>min</sub>	[mm]	80	80
Minimum spacing	S <sub>min</sub>	[mm]	75	75
Minimum edge distance	C <sub>min</sub>	[mm]	60	60

#### Minimum thickness, spacing and edge distance of precast prestressed hollow core slabs

DLXTM-S Drop-in anchor			Size M10-25	Size M12-25
Minimum thickness of member	h <sub>min</sub>	[mm}	35	35
Minimum spacing	S <sub>min</sub>	[mm]	200	200
Minimum edge distance	C <sub>min</sub>	[mm]	150	150

#### Design Data in accordance with AS 5216:2021 (Redunant non-structural system only)

DLXTM-S Drop-in anchor - Any load direction				Size M10-25	Size M12-25
Characteristic resistance in concrete C20/25 - C50/60	Fo <sub>Rk</sub>	[kN]	≥Rod 4.6	4.0	4.0
Installation safety factor	$\gamma_{inst}$	[-}		1.2	1.2
Characteristic spacing	S <sub>cr</sub>	[mm]		120	120
Characteristic edge distance	C <sub>cr</sub>	[mm]		60	60
Design resistance in concrete C20/25 - C50/60	Fo <sub>Rd</sub>	[kN]	≥Rod 4.6	2.2(1)	2.2(1)

<sup>1)</sup> Load in any direction

## Design Data for use in precast prestressed hollow core slabs with bottom flange thickness ≥ 35mm

DLXTM-S Drop-in anchor - Any load direction				Size M10-25	Size M12-25
Characteristic resistance in concrete C30/37 - C50/60	F <sub>Rk</sub>	[kN]		6.0	6.5
Installation safety factor	$\gamma_{inst}$	[-}		1.4	1.4
Spacing	S <sub>cr</sub> = S <sub>min</sub>	[mm}		200	200
Edge distance	C <sub>cr</sub> = C <sub>min</sub>	[mm}		150	150
Design resistance in concrete C30/37 - C50/60	F <sub>Rd</sub>	[kN}	≥Rod 4.6	2.9(1)	3.1(1)

<sup>1)</sup> Load in any direction

# Characteristic values of resistance under fire exposure in any direction for use in concrete C20/25 to C50/60 $\,$

(NOT for use in prestressed hollow slabs)

DLXTM-S Drop-in a	anchor - Fire resistance class				Size M10-25	Size M12-25
R30	Characteristic resistance	F <sub>Rk,fi</sub>	[kN]	≥ Steel 4.6	0.54	0.54
R60	Characteristic resistance	F <sub>Rk,fi</sub>	[kN]	≥ Steel 4.6	0.54	0.54
R90	Characteristic resistance	F <sub>Rk,fi</sub>	[kN]	≥ Steel 4.6	0.54	0.54
R120	Characteristic resistance	F <sub>Rk,fi</sub>	[kN]	≥ Steel 4.6	0.43	0.43
DLXTM-S Drop-in a Spacing and edge	anchor - distance under fire exposure				Size M10-25	Size M12-25
R30-R120	Spacing distance	S <sub>cr,fi</sub>	mm		100	100
R30-R120	Edge distance	C <sub>cr,fi</sub>	mm		50	50

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