

Declaration of Performance

According to Annex III of the Regulation (EU) Nr.305/2011
(Construction Products Regulation).

Walraven Drop-in Anchor WDI1

DoP No. 16/0783-WDI1

1. Unique identification code of the product-type:

Walraven Drop-in Anchor WDI1, Item numbers: 6103006, 6103008, 6103010, 6103012, 6103016
Walraven Drop-in Anchor WDI1L, Item numbers: 6103106, 6103108, 6103110, 6103112, 6103116
Walraven Drop-in Anchor WDI1 SSt, Item number: 6103708, 6103710, 6103712, 6103716

2. Intended use/es:

Metal anchors for use in concrete (light-duty type): for use in redundant systems for fixing and/or supporting to concrete elements, such as lightweight suspended ceilings, as well as installations.

3. Manufacturer:

J. van Walraven Holding B.V., Industrieweg 5, 3641 RK Mijdrecht, The Netherlands

4. System/s of AVCP:

System 2+

5. European Assessment Document: ETAG 001 Part 6 "Anchors for multiple use for non-structural applications" used as EAD, April 2013.

European Technical Assessment: ETA - 16/0783 (26/09/2016).

Technical Assessment Body: Instytut Techniki Budowlanej

Notified body: 1488.

6. Declared performance/s:

Essential Characteristic	Performance	Harmonized Technical Specification
Mechanical resistance and stability (BWR 1)		
Characteristic resistance for all load directions	See Annex C1 ETA-16/0783	ETAG 001 Part 6
Edge and spacing	See Annex C1 ETA-16/0783	ETAG 001 Part 6
Safety in case of fire (BWR 2)		
Resistance to fire	See Annex C2, ETA-16/0783	EOTA TR020
Reaction to Fire	Anchors satisfy requirements for Class A1	EN 13501-1

7. Appropriate Technical Documentation and/or Specific Technical Documentation:

N/A

8. The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

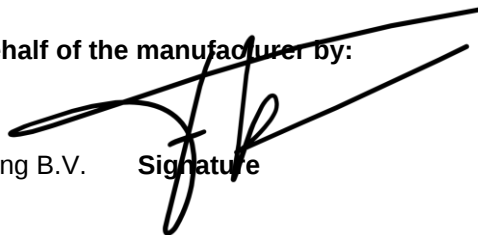
Signed for and on behalf of the manufacturer by:

Frank Nijdam

Co-CEO

J. van Walraven Holding B.V.

Signature



Date 12-03-2025

Place: Mijdrecht

Table C1: Characteristic resistance - WDI1 DROP IN ANCHOR and WDI1L DROP IN ANCHOR LIPPED (design acc. to ETAG 001, Annex C, method C)

WDI1 DROP IN ANCHOR and WDI1L DROP IN ANCHOR LIPPED			Property class	M6	M8	M10	M12	M16	M20
All load directions (fastening screw or threaded rod property class ≥ 4.8)									
Characteristic resistance in cracked and non-cracked concrete C20/25 to C50/60	F_{Rk}	[kN]	≥ 4.8	1,52	3,01	4,57	6,43	13,31	17,38
Partial safety factor (installation safety factor $\gamma_2 = 1,4$ included)	γ_M^1	[-]	-	2,1					
Spacing	s_{Cr}	[mm]		200				260	320
Edge distance	c_{Cr}	[mm]		150				195	240
Shear load with lever arm									
Characteristic resistance	$M_{Rk,S}^0$	[Nm]	4.8	6	15	30	52	133	260
Characteristic resistance	$M_{Rk,S}^0$	[Nm]	5.8	8	19	37	66	167	325
Characteristic resistance	$M_{Rk,S}^0$	[Nm]	6.8	9	23	45	79	200	390
Characteristic resistance	$M_{Rk,S}^0$	[Nm]	8.8	12	30	60	105	267	520
Partial safety factor	γ_{Ms}^1	[-]	-	1,25					

¹ in the absence of other national regulations

² characteristic bending moment $M_{Rk,S}^0$ for the equation (5.5) in ETAG 001, Annex C

Table C2: Characteristic resistance - WDI1 SSt DROP IN ANCHOR (design acc. to ETAG 001, Annex C, method C)

WDI1 SS ^t DROP IN ANCHOR			Property class	M6	M8	M10	M12	M16
All load directions (fastening screw or threaded rod property class A4-70)								
Characteristic resistance in cracked and non-cracked concrete C20/25 to C50/60	F _{Rk}	[kN]	A4-70	1,00	2,01	3,20	4,59	8,27
Partial safety factor (installation safety factor γ ₂ = 1,4 included)	γ _M ¹	[-]	-	2,1				
Spacing	s _{Cr}	[mm]		200				
Edge distance	c _{Cr}	[mm]		150				
Shear load with lever arm								
Characteristic resistance	M ⁰ _{Rk,S} ²	[Nm]	A4-70	11	26	52	92	233
Partial safety factor	γ _{Ms} ¹	[-]	-	1,25				

¹ in the absence of other national regulations

² characteristic bending moment $M_{Rk,S}^0$ for the equation (5.5) in ETAG 001, Annex C

WDI1 DROP IN ANCHOR, WDI1L DROP IN ANCHOR LIPPED and WDI1 SSt DROP IN ANCHOR		Annex C1 of European Technical Assessment ETA-16/0783
Performances Characteristic resistance		

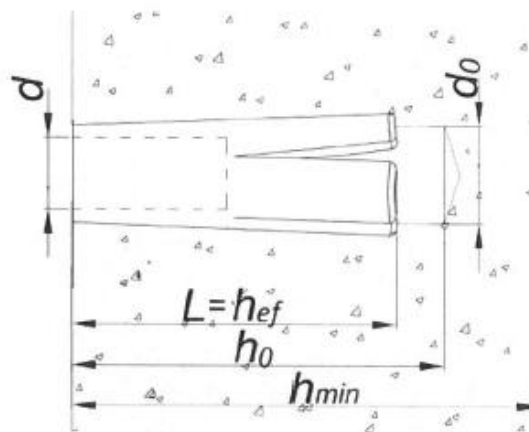


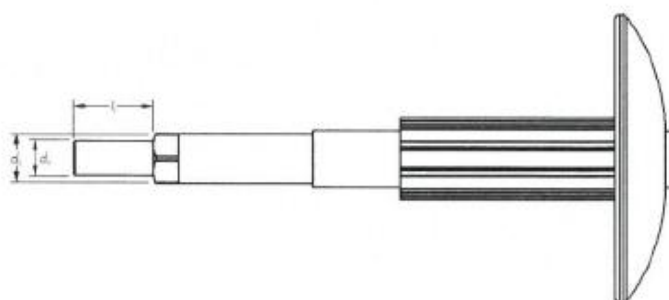
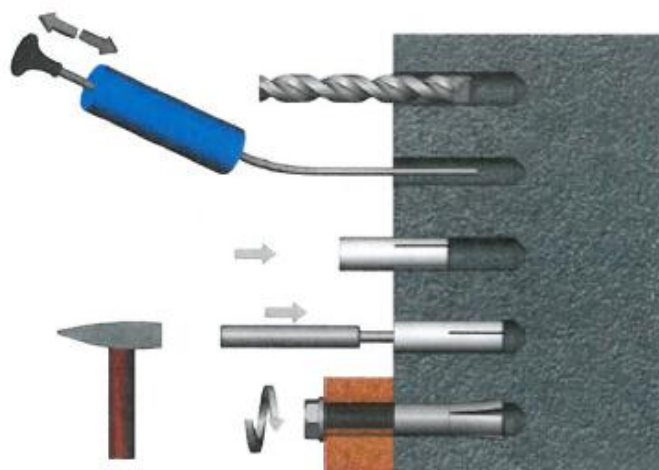
Table B1: Installation parameters

Anchor size	Effective anchorage depth	Drill hole depth	Drill hole diameter	Installation torque (max)	Thickness of concrete member (min)	Screwing depth (min)	Screwing depth (max)	Diameter of clearance hole in the fixture
	[mm]	[mm]	[mm]	[Nm]	[mm]	[mm]	[mm]	[mm]
	h_{ef}	h_1	d_0	$\max T_{inst}$	h_{min}	$l_{s, min}$	$l_{s, max}$	d_f
M6	25	30	8	4,5	80	6	11	7
M8	30	32	10	11	80	8	13	9
M10	40	42	12	22	80	10	15	12
M12	50	53	15	38	100	12	20	14
M16	65	70	20	98	130	16	25	18
M20	80	85	25	130	160	20	35	22

**WDI1 DROP IN ANCHOR, WDI1L DROP IN ANCHOR LIPPED
and WDI1 SSt DROP IN ANCHOR**

Intended use
Installation parameters

Annex B2
of European
Technical Assessment
ETA-16/0783



Installation tools		M6	M8	M10	M12	M16	M20
Diameter d_4	[mm]	5,0	6,6	8,3	10,2	13,5	16,8
Diameter d_5	[mm]	7,5	9,5	11,5	14,5	19,5	24,5
Length l_2	[mm]	14,8	18,0	23,0	28,0	33,0	47,0

**WDI1 DROP IN ANCHOR, WDI1L DROP IN ANCHOR LIPPED
and WDI1 SSt DROP IN ANCHOR**

Intended use
Installation instruction

Annex B3
of European
Technical Assessment
ETA-16/0783

Table C3: Characteristic resistance under fire exposure in concrete C20/25 to C50/60 – WDI1 DROP IN ANCHOR and WDI1L DROP IN ANCHOR LIPPED (design acc. to ETAG 001, Annex C, method C)

Fire resistance class	WDI1 DROP IN ANCHOR and WDI1L DROP IN ANCHOR LIPPED	M8	M10	M12	M16	M20	
All load directions (fastening screw or threaded rod property class 4.8)							
R30	Characteristic resistance $F_{Rk,fi}$ ¹	[kN]	0,4	0,9	1,6	3,1	4,3
R60		[kN]	0,3	0,8	1,3	2,4	3,7
R90		[kN]	0,3	0,6	1,1	2,0	3,2
R120		[kN]	0,2	0,5	0,8	1,6	2,5
Spacing	$S_{cr,fi}$	[mm]	4 x h_{ef}				
Edge distance	$C_{cr,fi}$	[mm]	2 x h_{ef}				
The design method covers anchors with a fire attack from one side only. In case of fire attack from more than one side, the edge distance shall be ≥ 300 mm.							

¹ in the absence of other national regulations a partial safety factor $\gamma_{m,fi} = 1,0$ is recommended

Table C4: Characteristic resistance under fire exposure in concrete C20/25 to C50/60 – WDI1 SSd DROP IN ANCHOR (design acc. to ETAG 001, Annex C, method C)

Fire resistance class	WDI1 SSi DROP IN ANCHOR	M8	M10	M12	M16	
All load directions (fastening screw or threaded rod property class A4-70)						
R30	Characteristic resistance $F_{Rk,fi}$ ¹	[kN]	0,5	0,8	1,1	2,1
R60		[kN]	0,5	0,8	1,1	2,1
R90		[kN]	0,5	0,8	1,1	2,1
R120		[kN]	0,4	0,6	0,9	1,6
Spacing	$S_{Cr,fi}$	[mm]	4 x h_{ef}			
Edge distance	$C_{Cr,fi}$	[mm]	2 x h_{ef}			
The design method covers anchors with a fire attack from one side only. In case of fire attack from more than one side, the edge distance shall be ≥ 300 mm.						

¹ in the absence of other national regulations a partial safety factor $\gamma_{m,fi} = 1,0$ is recommended

WDI1 DROP IN ANCHOR, WDI1L DROP IN ANCHOR LIPPED and WDI1 SSd DROP IN ANCHOR	Annex C2 of European Technical Assessment ETA-16/0783
Performances Characteristic resistance under fire exposure	