

Sleeve anchor Dnbolt



Advantages



Dnbolt DT with hex-head screw



Dnbolt DV with countersunk screw



Dnbolt DE with bolt and hexagon nut



Dnbolt DA with eyebolt



Dnbolt DG with hook

- Allrounder for many day-to-day fastenings for medium loads up to 1.000 kg
- Dnbolt DT and DV with ETA assessment for non-cracked concrete
- Anti-rotation cone with ribs for secure expansion
- Due to the special sleeve construction, the fixture can be pressed flush to the concrete surface
- Chamfered sleeve guarantees perfect sliding on the cone and thus a secure fixing

Suitable building materials

Very suitable



- Concrete

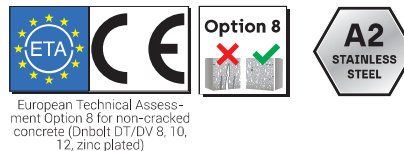


Suitable to a limited extent

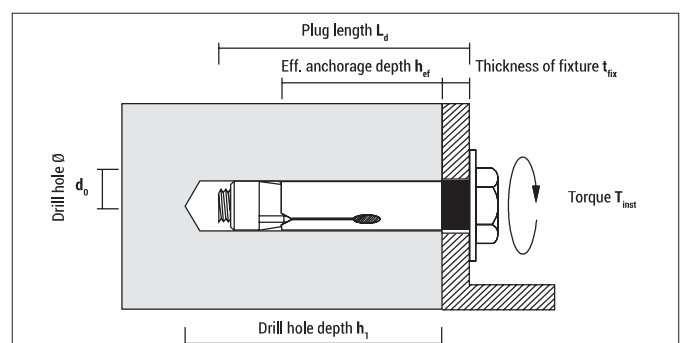
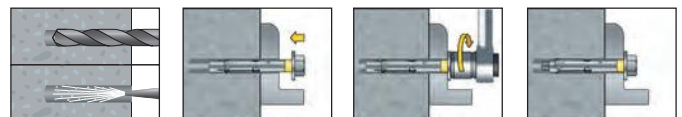


- Dense natural stone
- Solid brick

Approvals and certificates



Mounting



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Dnbolt DT, zinc plated with hex-head screw

Type	Art-No	d ₀ [mm]	h ₁ ≥ [mm]	h _{ef} ≥ [mm]	L _d [mm]	t _{fix} ≤ [mm]	Thread	Recess		€ / 100 pcs	 [pcs]	 [pcs]
8 - 45/5	9845DT	8	45	30	45	5	M6	SW 10	●		250	1.000
8 - 60/20	9860DT	8	45	30	60	20	M6	SW 10	●		200	800
10 - 60/10	91060DT	10	55	37	60	10	M8	SW 13	●		100	400
10 - 80/30	91080DT	10	55	37	80	30	M8	SW 13	●		100	400
12 - 70/10	91270DT	12	65	43	70	10	M10	SW 17	●		50	200
12 - 100/40	912100DT	12	65	43	100	40	M10	SW 17	●		50	200
14 - 70/10	91470DT	14	65	43	70	10	M10	SW 17	–		50	200
14 - 100/40	914100DT	14	65	43	100	40	M10	SW 17	–		50	200
16 - 80/10	91680DT	16	75	55	80	10	M12	SW 19	–		40	160
16 - 110/40	916110DT	16	75	55	110	40	M12	SW 19	–		25	100
20 - 110/30	921110DT	20	85	65	110	30	M16	SW 24	–		10	40
25 - 130/30	926130DT	25	105	80	130	30	M20	SW 30	–		8	32



Dnbolt DT, stainless steel A2 with hex-head screw



Type	Art-No	d ₀ [mm]	h ₁ ≥ [mm]	h _{ef} ≥ [mm]	L _d [mm]	t _{fix} ≤ [mm]	Thread	Recess	€ / 100 pcs	 [pcs]	 [pcs]
8 - 45/5	9X845DT	8	45	30	45	5	M6	SW 10		250	1.000
8 - 60/20	9X860DT	8	45	30	60	20	M6	SW 10		200	800
10 - 60/10	9X1060DT	10	55	37	60	10	M8	SW 13		100	400
10 - 80/30	9X1080DT	10	55	37	80	30	M8	SW 13		100	400
12 - 70/10	9X1270DT	12	65	43	70	10	M10	SW 17		50	200
12 - 100/40	9X12100DT	12	65	43	100	40	M10	SW 17		50	200
14 - 70/10	9X1470DT	14	65	43	70	10	M10	SW 17		50	200
14 - 100/40	9X14100DT	14	65	43	100	40	M10	SW 17		50	200
16 - 80/10	9X1680DT	16	75	55	80	10	M12	SW 19		40	160



Dnbolt DV, zinc plated with countersunk screw; Head-Ø 16 mm

Type	Art-No	d ₀ [mm]	h ₁ ≥ [mm]	h _{ef} ≥ [mm]	L _d [mm]	t _{fix} ≤ [mm]	Thread	Recess		€ / 100 pcs	 [pcs]	 [pcs]
10 - 60/10	91060DV	10	55	37	60	10	M8	TX 40	●		100	400
10 - 80/30	91080DV	10	55	37	80	30	M8	TX 40	●		100	400



Dnbolt DV, stainless steel A2 with countersunk screw; Head-Ø 16 mm



Type	Art-No	d ₀ [mm]	h ₁ ≥ [mm]	h _{ef} ≥ [mm]	L _d [mm]	t _{fix} ≤ [mm]	Thread	Recess	€ / 100 pcs	 [pcs]	 [pcs]
10 - 60/10	9X1060DV	10	55	37	60	10	M8	TX 40		100	400
10 - 80/30	9X1080DV	10	55	37	80	30	M8	TX 40		100	400



Dnbolt DE, zinc plated with bolt and hexagon nut

Type	Art-No	d ₀ [mm]	h ₁ ≥ [mm]	h _{ef} ≥ [mm]	L _d [mm]	t _{fix} ≤ [mm]	Thread	Recess	€ / 100 pcs	 [pcs]	 [pcs]
8 - 45/5	9845DE	8	45	30	45	5	M6	SW 10		100	400
10 - 60/10	91060DE	10	55	37	60	10	M8	SW 13		75	300
10 - 80/30	91080DE	10	55	37	80	30	M8	SW 13		50	200
12 - 70/10	91270DE	12	65	43	70	10	M10	SW 17		50	200
12 - 100/40	912100DE	12	65	43	100	40	M10	SW 17		25	100

Sleeve anchor Dnbolt



Dnbolt DA, zinc plated with eyebolt

Type	Art-No	d ₀ [mm]	h ₁ ≥ [mm]	h _{ef} ≥ [mm]	L _d [mm]	t _{fix} ≤ [mm]	Thread	Recess	€/100 pcs	[pcs]	[pcs]
8-45/5	9845DA	8	50	35	45	5	M6	SW 10		100	400
10-60/10	91060DA	10	65	47	60	10	M8	SW 13		50	200



Dnbolt DG, zinc plated with hook

Type	Art-No	d ₀ [mm]	h ₁ ≥ [mm]	h _{ef} ≥ [mm]	L _d [mm]	t _{fix} ≤ [mm]	Thread	Recess	€/100 pcs	[pcs]	[pcs]
8-45/5	9845DG	8	50	35	45	5	M6	SW 10		100	400
10-60/10	91060DG	10	65	47	60	10	M8	SW 13		50	200
16-80/10	91690DG	16	85	61	80	10	M12	SW 19		25	100

Loads, spacing and edge distance for Dnbolt DT/DV 8, 10, 12 according to ETA assessment for non-cracked concrete

Type	Size	Torque T _{inst} [Nm]	Non-cracked concrete ¹⁾²⁾ ≥ C20/25			Permissible bending moment		Spacing		Edge distance		Min. thickness of structural part h _{min} [mm]
			Tension N _{per} [kN]	Steel 6.8 Shear V _{per} [kN]	Steel 8.8* Shear V _{per} [kN]	Steel 6.8 M _{per} [Nm]	Steel 8.8* M _{per} [Nm]	S _{cr} [mm]	S _{min} [mm]	C _{cr} [mm]	C _{min} [mm]	
Dnbolt 8	M6	10	2,9	3,4	4,0	5,3	7,0	90	40	45	40	100
Dnbolt 10	M8	15	3,6	5,4	5,4	12,9	17,1	111	50	56	50	100
Dnbolt 12	M10	30	4,8	6,8	6,8	25,7	34,2	129	60	65	60	110

¹⁾ Permissible loads for single anchor without influence of spacing and edge distance. (C > 10 x h_{ef})

²⁾ Load values include the resistances' partial safety factors as per ETA assessment and a partial safety factor on the action of v_F = 1,4.

If underun the char. spacing or edge distance (C_{cr} or S_{cr}) the loads must be reduced. h_{min}, S_{min} and C_{min} must be observed.

* Dnbolt in steel 8.8 only on request

Recommended loads for Dnbolt DT, DV and DE in non-cracked concrete C20/C25 for not approved sizes

Type	Size	Torque T _{inst} [Nm]	Drill hole Ø [mm]	Zinc plated, Steel quality 6.8		Stainless steel A2	
				Tension load N _{rec} [kN]	Shear load V _{rec} [kN]	Tension load N _{rec} [kN]	Shear load V _{rec} [kN]
Dnbolt 8	M6	10	8	–	–	1,8	2,0
Dnbolt 10	M8	15	10	–	–	2,0	3,2
Dnbolt 12	M10	30	12	–	–	3,4	4,8
Dnbolt 14	M10	30	14	6,2	8,6	3,5	5,6
Dnbolt 16	M12	65	16	7,5	12,0	4,8	8,5
Dnbolt 20	M16	150	20	8,9	26,0	–	–
Dnbolt 25	M20	300	25	10,6	28,8	–	–

F_{rec}: Recommended loads in all directions incl. safety factors

Recommended loads for Dnbolt DA and DG in non-cracked concrete C20/C25 without approval

Type	Size	Drill hole Ø [mm]	DA with eyebolt	DG with hook
			F _{rec} [kN]	F _{rec} [kN]
Dnbolt 8	M6	8	0,6	0,6
Dnbolt 10	M8	10	0,6	0,6
Dnbolt 16	M12	16	0,6	0,6

F_{rec}: Recommended loads in all directions incl. safety factors

Bending of the eyebolt or hook is decisive.