



The two-part tension anchors have a large number of possible combinations. A total of 46 variants of combinations. As you can see we look at the individual needs of each problem and find a suitable optimal solution. In the lower part are adapted for different sizes of loads and the required distances between the holes for the screws. For example, at the tie rod HDBU379 suitable offset in relation to the prefabricated wall elements with a mounting plane, the distance of the screw hole to about 60 mm inward ..



[UK-DoP-e07/0285](#), [ETA-07/0285](#)



FEATURES



Material

Steel quality:
S 250 GD + Z 275 according to DIN EN
Corrosion protection:
275 g / m galvanized on both sides 20mm

Benefits

- Setting up the base on site, does not interfere with traffic protruding metal parts and reduce the risk of injury.

APPLICATIONS

Applicatons

Concrete, steel, wood, wood products.

Scope

- Two-part tension anchors have a large number of possible combinations. A total of 46 variants of combinations.
- As you can see, we look at the individual needs of each problem and find a suitable optimal solution.

Products with the HDU, HDB must be connected to the basics specified number of e-Jot screws JT2-3 / 5,5x25.
HD2P60G The product consists of a top part and a bottom part HDUF400G HDBU220G,

HD2PL40G The product consists of a top part and a bottom part HDUF250G HDBU379G.

* The weight of the upper / lower part

The lower part HDBU ... along with washers US40 / 50 / 10G used at the bottom HDBU220G and HDBU379G with U-disk US50 / 50 / 8G ..

These pads and e-jot screws must be ordered separately.

** Time to customer

n = nef according to ES5, Table 8.1;

Rlat.k = characteristic resistance CNA nail to cut

Rax.k = characteristic resistance CNA nail for recovery

* When using CNA4,0x50

** Full nailed 20 nails CNA

*** Partial nailed 14 nails CNA

Low values of the upper and lower parts

Anchor bolt evidence of the power factor screws F1.dx.

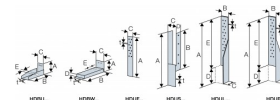
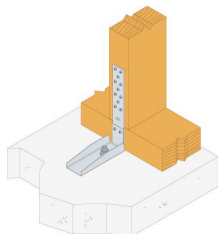
y = the upper and lower parts are packaged separately (and order)

S = the upper part are manufactured on request in the appropriate length

HD2P60G, HD2PL40G = are supplied in sets, or top and bottom

TECHNICAL DATA

Product Dimensions



References	Tun / DB nr.	NOB nr.	Product Dimensions [mm]						Holes in flange A		Holes in flange B	
			A	B	C	D	E	t	Ø5 [mm]	Ø6 [mm]	Ø [mm]	number
HDF250G	TUN160	NOB432	250	-	40	-	-	2	11	-	-	-
HDF400G	TUN161	NOB433	400	-	60	-	-	2	40	-	-	-
HDUS336G	TUN168	NOB438	336	236	60	44	-	2	12	-	-	-
HDUS348-80G	-	-	348	248	80	79	-	2	32	-	-	-
HDUL380G	TUN164	NOB434	380	53	55	65	315	2	20	-	-	-
HDUR380G	TUN166	NOB436	380	53	55	65	315	2	20	-	-	-
HDUL465G	TUN165	NOB435	465	53	55	150	315	2	20	-	-	-
HDUR465G	TUN167	NOB437	465	53	55	150	315	2	20	-	-	-
HDF40XG	TUN162	-	≥250 **	-	40	-	-	2	>11	-	-	-
HDF60XG	TUN163	-	≥250 **	-	60	-	-	2	>20	-	-	-
HDBU163G	TUN04	NOB426	65	163	40	-	50	4	-	2	13	1
HDBU220G	TUN05	NOB427	65	220	54	-	55	4	-	5	18	1
HDBU379G	TUN06	NOB428	65	379	40	-	114	4	-	2	18	1
HDBU379-84-16G	-	-	65	379	74	-	55	4	-	6	17.5	1
HDBW60G	TUN09	NOB431	82	65	50	15	27	4	-	2	13.5	1
HDBW160G	TUN07	NOB429	65	160	50	15	27	4	-	2	13.5	1
HDBW200G	TUN08	NOB430	65	222	60	20	37	4	-	5	17.5	1
HD2P60G	1433697	42163299	400/65*	220	60/54*	-	55	2/4	40	-	17.5	1
HD2PL40G	1433701	42291105	250/65*	379	40/40*	-	114	2/4	11	-	17.5	1
HD2P-U379S80	-	-	348/84	379	80/74	-	55	2/4	32	-	17.5	1

The products starting with HDU .. are the upper parts, starting with HDB .. are the lower parts and are to be connected with the stated number of E-Jot screws JT2-3/5,5x25.

The article HD2P60G is composed of the upper part HDF400G and the lower part HDBU220G,

The article HD2PL40G is composed of the upper part HDF250G and the lower part HDBU379G.

The article HD2P-U379S80 is composed of the upper part HDUS348-90G and the lower part HDBU379-84-16G

* Dimensions for upper part / Lower part

The lower parts HDBU ... are to be used together with washers US40/50/10G, the lower parts HDBU220G and HDBU379G are used with washer US50/50/8G and the lower part HDUS348-80G is used with US71-91-15G-C

The washers and the E-JOT screws are to be ordered separately.

** Length on customer request

Capacities

References	Number of Fasteners				Characteristic capacities - Timber C24 [kN]					Number of Fasteners				Characteristic capacities - Timber C24	
	Joist	Flange B			R _{1,k}				Bolt factor	Joist	Flange B			R _{1,k}	Bolt Factor
	Qty	Qty	Type	Self-tapping screws	CNA4.0x6	CNA4.0x6	CNA4.0x6	CNA4.0x6		Qty	Qty	Type	Self-tapping screws		
HDUF250G	11	-	-	-	18.3	18.9	18.9	18.9	-	max. 11	-	-	-	min. (n x Rlat.k; 17.0/ kmod)	-
HDUF400G	40	-	-	-	29.7	29.7	29.7	29.7	-	max. 40	-	-	-	min. (n x Rlat.k; 26.7/ kmod)	-
HDUS336G	12	-	-	-	21.3	21.3	21.3	21.3	-	max. 12	-	-	-	min. (21.3 ; 23.1/ kmod)*	-
HDUS348-80G	32	-	-	-	36.7	40.5	46.7	46.7	-	max. 32	-	-	-	min. (n x 0.691 x Rlat.k ; 42.0/ kmod)****	-
HDUL380G	20	-	-	-	13.1	15.8	21	26.3	-	max. 20	-	-	-	min. (11.7 x Rlat.k; 21.4 x Rax.k)**	-
HDUR380G	20	-	-	-	13.1	15.8	21	26.3	-	max. 20	-	-	-	min. (8.1 x Rlat.k; 21.4 x Rax.k)***	-
HDUL465G	20	-	-	-	13.1	15.8	21	26.3	-	max. 20	-	-	-	min. (11.7 x Rlat.k; 21.4 x Rax.k)**	-
HDUR465G	20	-	-	-	13.1	15.8	21	26.3	-	max. 20	-	-	-	min. (8.1 x Rlat.k; 21.4 x Rax.k)***	-
HDUF40XG	-	-	-	-	-	-	-	-	-	-	-	-	-	min. (n x Rlat.k; 17.0/ kmod)	-
HDUF60XG	-	-	-	-	-	-	-	-	-	-	-	-	-	min. (n x Rlat.k; 26.7/ kmod)	-
HDBU163G	-	1	M12	2	14.2	14.2	14.2	14.2	1.55	-	1	M12	2	12.8/ kmod	1.55
HDBU220G	-	1	M16	3	21.3	21.3	21.3	21.3	1.4	-	1	M16	3	19.2/ kmod	1.4
HDBU379G	-	1	M16	2	14.2	14.2	14.2	14.2	1.46	-	1	M16	2	12.8/ kmod	1.46

References	Number of Fasteners				Characteristic capacities - Timber C24 [kN]					Number of Fasteners				Characteristic capacities - Timber C24	
	Joist	Flange B			R _{1,k}				Bolt factor	Joist	Flange B			R _{1,k}	Bolt Factor
		Qty	Qty	Type	Self-tapping screws	CNA4.0x6	CNA4.0x6	CNA4.0x6			CNA4.0x6	Qty	Qty		
HDBU379-84-16G	-	1	M16	5	33.3	33.3	33.3	33.3	1.17	-	1	M16	5	30.0/ kmod	1.17
HDBW60G	-	1	M12	2	14.2	14.2	14.2	14.2	2	-	1	M12	2	12.8/ kmod	2
HDBW160G	-	1	M12	2	14.2	14.2	14.2	14.2	1.24	-	1	M12	2	12.8/ kmod	1.24
HDBW200G	-	1	M16	3	21.3	21.3	21.3	21.3	1.23	-	1	M16	3	19.2/ kmod	1.23
HD2P60G	40	1	M16	3	21.3	21.3	21.3	21.3	1.4	max. 40	1	M16	3	min. (n x R _{lat,k} ; 19.2/ kmod)	1.4
HD2PL40G	11	1	M16	2	14.2	14.2	14.2	14.2	1.46	max. 11	1	M16	2	min. (n x R _{lat,k} ; 12.8/ kmod)	1.46
HD2P-U379S80	32	1	M16	5	33.3	33.3	33.3	33.3	1.17	max. 32*	1	M16	5	min. (ntot x 0.691 x R _{lat,k} ; 30.0/ kmod)*	1.17

The published characteristic capacity is based on instantaneous load duration and service class 2 according to EC5 (EN 1995) - k_{mod} = 1.1. For other load duration and service class, please refer to the ETA-07/0285 to get more accurate capacities

n = nef according to EC5, Table 8.1;

R_{lat,k} = characteristic capacity of the CNA nail on shearing

R_{ax,k} = characteristic capacity of the CNA nail for pulling out

* fill nail holes symmetrically starting from top and bottom rows

** full nailing, 20 CNA

*** partial nailing, 14 CNA

The small value of upper and lower part is decisive.

The anchor bolt must be detected for a tensile force of F_{1,d} x factor bolts.

Combinations

References	Vertical parts									
	HDUF250G	HDUF400G	HDUS336G	HDUS348-80	HDUL380G	HDUR380G	HDUL465G	HDUR465G	HDUF40XG	HDUF60XG
HDBU163G	y	y	y	-	y	y	y	y	S	-
HDBU220G	-	HD2P60G	-	-	y	y	y	y	-	S
HDBU379G	HD2PL40G	y	y	-	y	y	y	y	S	S
HDBU379-84-16G	-	-	-	HD2P-U379S80	-	-	-	-	-	-
HDBW60G	y	y	y	-	y	y	y	y	S	-
HDBW160G	y	y	y	-	y	y	y	y	S	-
HDBW200G	-	y	y	-	y	y	y	y	-	S

y = The upper and lower parts are packed separately (to order)

S = Upper parts are produced according to the customer's requirements

HD2P60G, HD2PL40G, HD2P-U379S80 = are delivered in sets or as upper and lower parts

INSTALLATION

Fasteners

CNA4,0xℓ are attached nails or screws CSA5,0xℓ.

