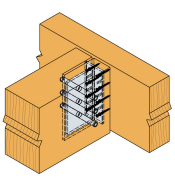
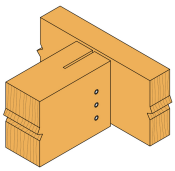
Technical Sheet

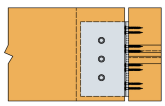
BTALU
Staffa a scomparsa alluminio

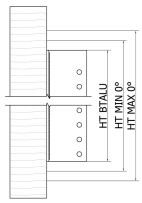
La staffa a scomparsa BTALU è una soluzione per collegare tra loro gli elementi in legno senza avere il connettore a vista. È progettato per essere fissato su un elemento ligneo di supporto, inserito completamente in una scanalatura nella trave secondaria e tenuto in posizione con degli spinotti. I fori vengono praticati sulla trave secondaria e l'ala del BTALU, consentendo un allineamento preciso. Questo metodo fornisce un connesione esteticamente gradevole.
Nota: ordinare chiodi e spinotti separatamente.
I fori sulla trave secondaria possono essere praticati in cantire o in officina secondo le posizioni indicate nel diagramma sottostante.

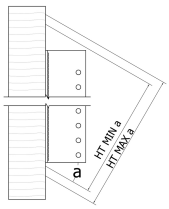




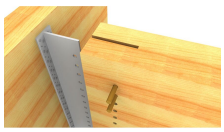












Features

Materiale

- Alluminio

Vantaggi

- Allineamento preciso degli spinotti.
- Esteticamente gradevole.

Applications

Applicazioni

- **Elemento di supporto:** legno massiccio, legno ingegnerizzato.
- **Elemento secondario:** legno massiccio, legno ingegnerizzato.

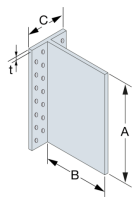
Utilizzo

- Per la connessione di travi secondarie di legno alla struttura portante principale di legno.

Technical Sheet

BTALU
Staffa a scomparsa alluminio

Dati tecnici



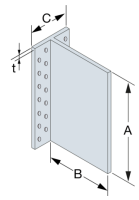
Gamma prodotto

Riferimento	connettore dimensioni										
	altro			legno size[mm]	dimensioni del prodotto[mm]				Header fori[mm]	trave fori[mm]	
	Tun / DB nr.	quantità per scatola	peso[kg]	altezza[mm] Min[mm]	A[mm]	B[mm]	C[mm]	t[mm]	rotondo Ø5	rotondo Ø8	rotondo Ø12
BTALU90	1862485	25.0	0.23	142	86	109	62	6	16	4	-
BTALU120	1821910	25.0	0.3	172	116	109	62	6	20	-	3
BTALU160	1821917	25.0	0.41	212	156	109	62	6	28	-	4
BTALU200	1862489	15.0	0.51	252	196	109	62	6	38	-	5
BTALU240	1821920	15.0	0.61	292	236	109	62	6	44	-	6
BTALU1200	-	-	3	-	1198	109	62	6	-	-	-

I fori sulla trave secondaria devono essere eseguiti secondo lo schema in ETA 07/0245.
La dimensione A può essere inferiore fino a 4 mm rispetto all'intaglio nella trave secondaria; il taglio della misura A deve essere effettuato tra i fori per i chiodi del lato corto.

Technical Sheet

BTALU
Staffa a scomparsa alluminio



Prestazioni

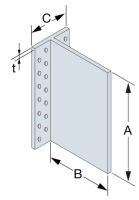
Riferimento	Hanger capacità									
	prodotto Capacities[kN]									
	numero of Fasteners				prodotto characteristic capacities - legno C24[kN]					
	Header		trave		R1,k = R2,k					
	quantità	tipo	quantità	tipo	Dowels lunghezza[mm]					
					60	80	100	120	140	160
BTALU90	16.0	CNA4.0x50	4.0	STD8	10.8	11.8	12.9	13.7	13.7	13.7
BTALU120	20.0	CNA4.0x50	3.0	STD12	17.3	18.2	19.4	20.7	22.3	23.9
BTALU160	28.0	CNA4.0x50	4.0	STD12	28	29.5	31.2	33.3	35.7	38.2
BTALU200	38.0	CNA4.0x50	5.0	STD12	39.8	41.9	44.3	47.2	50.4	53.9
BTALU240	44.0	CNA4.0x50	6.0	STD12	52.2	54.9	57.9	61.7	65.9	70.3
BTALU1200/120	20.0	CNA4.0x50	3.0	STD12	17.3	18.2	19.4	20.7	22.3	23.9
BTALU1200/160	28.0	CNA4.0x50	4.0	STD12	28	29.5	31.2	33.3	35.7	38.2
BTALU1200/200	36.0	CNA4.0x50	5.0	STD12	39.8	41.9	44.3	47.2	50.4	53.9
BTALU1200/240	44.0	CNA4.0x50	6.0	STD12	52.2	54.9	57.9	61.7	65.9	70.3
BTALU1200/280	52.0	CNA4.0x50	7.0	STD12	64.6	68	71.7	76.4	81.7	87.2
BTALU1200/320	60.0	CNA4.0x50	8.0	STD12	77	81	85.5	91.2	97.5	104.1
BTALU1200/360	68.0	CNA4.0x50	9.0	STD12	89.1	93.8	99	105.8	113.3	121.1
BTALU1200/400	76.0	CNA4.0x50	10.0	STD12	100.8	106.1	112.3	120.2	129	137.9
BTALU1200/440	84.0	CNA4.0x50	11.0	STD12	112.1	118	125.2	134.4	144.4	154.7
BTALU1200/480	92.0	CNA4.0x50	12.0	STD12	122.8	129.3	137.7	148.2	159.7	171.3
BTALU1200/520	100.0	CNA4.0x50	12.0	STD12	122.8	129.3	138.4	150.5	163.1	175.8
BTALU1200/560	108.0	CNA4.0x50	12.0	STD12	122.8	129.3	138.4	150.7	164.9	179.1
BTALU1200/600	116.0	CNA4.0x50	12.0	STD12	122.8	129.3	138.4	150.7	164.9	180.4

La trave secondaria deve avere come minimo una larghezza pari alla lunghezza dello spinotto in acciaio.
Per connessioni con meno di 7 spinotti e travi con una pendenza β le capacità devono essere moltiplicate per il fattore.

β	0°	15°	30°	45°
fattore	1.0	0.95	0.90	0.85

Technical Sheet

BTALU
Staffa a scomparsa alluminio



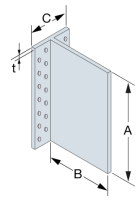
Capacità caratteristiche - Trave/Trave - R3.k e R4.k

Riferimento	Hanger capacità prodotto Capacities[kN]										
	numero of Fasteners				prodotto characteristic capacities - legno C24[kN]						
	Header		trave		$R_{4.k}$[kN]	$R_{3,k}$ Dowels lunghezza[mm]					
	quantità	tipo	quantità	tipo		60	80	100	120	140	160
BTALU90	16.0	CNA4.0x50	4.0	STD8	7.8	1.5	1.9	2.3	2.7	3.1	3.6
BTALU120	20.0	CNA4.0x50	3.0	STD12	9.8	2.2	2.9	3.5	4.2	4.8	5.6
BTALU160	28.0	CNA4.0x50	4.0	STD12	13.7	2.9	3.6	4.4	5.3	6.2	7
BTALU200	38.0	CNA4.0x50	5.0	STD12	17.6	3.5	4.4	5.4	6.4	7.4	8.4
BTALU240	44.0	CNA4.0x50	6.0	STD12	21.6	4.2	5.3	6.4	7.4	8.6	9.8
BTALU1200/120	20.0	CNA4.0x50	3.0	STD12	9.8	2.2	2.9	3.5	4.2	4.8	5.6
BTALU1200/160	28.0	CNA4.0x50	4.0	STD12	13.7	2.9	3.6	4.4	5.3	6.2	7
BTALU1200/200	36.0	CNA4.0x50	5.0	STD12	17.6	3.5	4.4	5.4	6.4	7.4	8.4
BTALU1200/240	44.0	CNA4.0x50	6.0	STD12	21.5	4.2	5.3	6.4	7.4	8.6	9.8
BTALU1200/280	52.0	CNA4.0x50	7.0	STD12	25.5	4.8	6.1	7.3	8.5	9.9	11.3
BTALU1200/320	60.0	CNA4.0x50	8.0	STD12	29.4	5.5	6.8	8.3	9.7	11.1	12.9
BTALU1200/360	68.0	CNA4.0x50	9.0	STD12	33.3	6.1	7.6	9.2	10.9	12.4	14.4
BTALU1200/400	76.0	CNA4.0x50	10.0	STD12	37.2	6.7	8.3	10.1	12.1	13.8	15.8
BTALU1200/440	84.0	CNA4.0x50	11.0	STD12	41.2	7.3	9.1	11	13.2	15.2	17.2
BTALU1200/480	92.0	CNA4.0x50	12.0	STD12	45.1	7.9	9.8	11.9	14.3	16.6	18.7
BTALU1200/520	100.0	CNA4.0x50	12.0	STD12	49	8.6	10.6	12.8	15.4	17.8	20.1
BTALU1200/560	108.0	CNA4.0x50	12.0	STD12	52.9	9.2	11.3	13.8	16.5	19.1	21.5
BTALU1200/600	116.0	CNA4.0x50	12.0	STD12	56.8	9.8	12.1	14.7	17.6	20.4	23

La trave secondaria deve avere come minimo una larghezza pari alla lunghezza dello spinotto in acciaio.
I carichi R_4 si riferiscono a spinotti di tutte le lunghezze.

Technical Sheet

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Staffa a scomparsa alluminio



Capacità caratteristiche - Trave/Pilastro

Riferimento	Hanger capacità										connettore dimensioni
	prodotto characteristic capacities - legno beam to legno post - partial nailing										Header dimensioni[mm]
	numero of Fasteners				prodotto characteristic capacities - legno C24[kN]						Post larghezza
	Header		trave		R1,k = R2,k						Min[mm]
	quantità	tipo	quantità	tipo	Dowels lunghezza[mm]						
					60	80	100	120	140	160	
BTALU90	8.0	CNA4.0x50	4.0	STD8	9	9.9	10.9	11.6	11.6	11.6	96
BTALU120	12.0	CNA4.0x50	3.0	STD12	14.7	15.5	16.6	17.9	19.4	20.7	96
BTALU160	16.0	CNA4.0x50	4.0	STD12	23.2	24.4	26	27.9	30	32	96
BTALU200	20.0	CNA4.0x50	5.0	STD12	32.4	34.1	36.2	38.7	41.2	43.4	96
BTALU240	24.0	CNA4.0x50	6.0	STD12	42.1	44.3	46.8	49.7	52.3	53.2	96
BTALU1200/120	12.0	CNA4.0x50	3.0	STD12	14.7	15.5	16.6	17.9	19.4	20.7	96
BTALU1200/160	16.0	CNA4.0x50	4.0	STD12	23.2	24.4	26	27.9	30	32	96
BTALU1200/200	20.0	CNA4.0x50	5.0	STD12	32.4	34.1	36.2	38.7	41.2	43.4	96
BTALU1200/240	24.0	CNA4.0x50	6.0	STD12	42.1	44.3	46.8	49.7	52.3	53.2	96
BTALU1200/280	28.0	CNA4.0x50	7.0	STD12	52	54.7	57.5	60.5	62	62	96
BTALU1200/320	32.0	CNA4.0x50	8.0	STD12	61.8	65.1	68.1	70.7	70.9	70.9	96
BTALU1200/360	36.0	CNA4.0x50	9.0	STD12	71.7	75.5	78.5	79.8	79.8	79.8	96
BTALU1200/400	40.0	CNA4.0x50	10.0	STD12	81.4	85.7	88.4	88.6	88.6	88.6	96
BTALU1200/440	44.0	CNA4.0x50	11.0	STD12	91	95.8	97.5	97.5	97.5	97.5	96
BTALU1200/480	48.0	CNA4.0x50	12.0	STD12	100.3	105.6	106.4	106.4	106.4	106.4	96
BTALU1200/520	52.0	CNA4.0x50	12.0	STD12	105.5	111.1	114.6	115.2	115.2	115.2	96
BTALU1200/560	56.0	CNA4.0x50	12.0	STD12	109.9	115.7	120.3	124	124.1	124.1	96
BTALU1200/600	60.0	CNA4.0x50	12.0	STD12	113.8	119.8	125	130.5	133	133	96

La trave secondaria deve avere come minimo una larghezza pari alla lunghezza dello spinotto in acciaio.
Per connessioni con meno di 7 spinotti e travi con una pendenza β le capacità devono essere moltiplicate per il fattore.

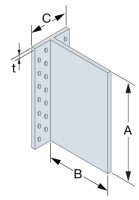
β	0°	15°	30°	45°
fattore	1.0	0.95	0.90	0.85

I carichi R_4 si riferiscono a spinotti di tutte le lunghezze.
I carichi di questa tabella sono validi anche per la chiodatura parziale.

Technical Sheet

BTALU

Staffa a scomparsa alluminio



Capacità caratteristiche - Trave/Pilastro - R3.k e R4.k

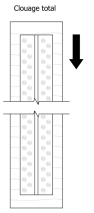
Riferimento	Hanger capacità											connettore dimensioni
	prodotto characteristic capacities - legno beam to legno post - partial nailing											Header dimensioni[mm]
	numero of Fasteners				prodotto characteristic capacities - legno C24[kN]							Post larghezza
	Header		trave		$R_{4,k}$[kN]	$R_{3,k}$						Min[mm]
	quantità	tipo	quantità	tipo		Dowels lunghezza[mm]						
						60	80	100	120	140	160	
BTALU90	8.0	CNA4.0x50	4.0	STD8	3.9	1.5	1.9	2.3	2.7	2.7	2.7	96
BTALU120	12.0	CNA4.0x50	3.0	STD12	5.9	2.2	2.9	3.5	4.2	4.8	5.6	96
BTALU160	16.0	CNA4.0x50	4.0	STD12	7.8	2.9	3.6	4.4	5.3	6.2	7	96
BTALU200	20.0	CNA4.0x50	5.0	STD12	9.8	3.5	4.4	5.4	6.4	7.4	8.4	96
BTALU240	24.0	CNA4.0x50	6.0	STD12	11.8	4.2	5.3	6.4	7.4	8.6	9.8	96
BTALU1200/120	12.0	CNA4.0x50	3.0	STD12	5.9	2.2	2.9	3.5	4.2	4.8	5.6	96
BTALU1200/160	16.0	CNA4.0x50	4.0	STD12	7.8	2.9	3.6	4.4	5.3	6.2	7	96
BTALU1200/200	20.0	CNA4.0x50	5.0	STD12	9.8	3.5	4.4	5.4	6.4	7.4	8.4	96
BTALU1200/240	24.0	CNA4.0x50	6.0	STD12	11.8	4.2	5.3	6.4	7.4	8.6	9.8	96
BTALU1200/280	28.0	CNA4.0x50	7.0	STD12	13.7	4.5	5.6	6.7	7.7	8.9	10.1	96
BTALU1200/320	32.0	CNA4.0x50	8.0	STD12	15.7	5.2	6.4	7.7	8.8	10.2	11.5	96
BTALU1200/360	36.0	CNA4.0x50	9.0	STD12	17.6	5.8	7.2	8.6	9.9	11.5	12.9	96
BTALU1200/400	40.0	CNA4.0x50	10.0	STD12	19.6	6.5	8	9.6	11	12.7	14.4	96
BTALU1200/440	44.0	CNA4.0x50	11.0	STD12	21.6	7.1	8.8	10.5	12.1	14	15.8	96
BTALU1200/480	48.0	CNA4.0x50	12.0	STD12	23.5	7.7	9.5	11.5	13.2	15.3	17.2	96
BTALU1200/520	52.0	CNA4.0x50	12.0	STD12	25.5	8.4	10.3	12.4	14.3	16.6	18.7	96
BTALU1200/560	56.0	CNA4.0x50	12.0	STD12	27.4	9	11.1	13.4	15.4	17.8	20.1	96
BTALU1200/600	60.0	CNA4.0x50	12.0	STD12	29.4	9.7	11.9	14.4	16.5	19.1	21.5	96

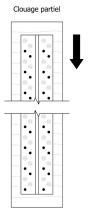
La trave secondaria deve avere come minimo una larghezza pari alla lunghezza dello spinotto in acciaio.
I carichi R_4 si riferiscono a spinotti di tutte le lunghezze.

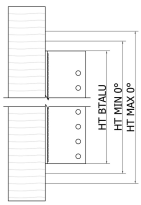
Installazione tipica

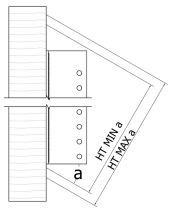
Fissaggi

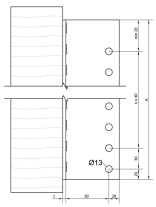
- Chiodi CNA Ø4 o viti CSA Ø5 e spinotto Ø12mm.

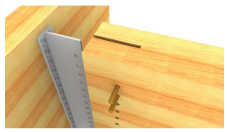


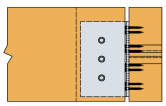


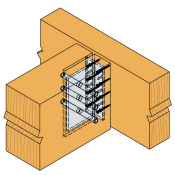


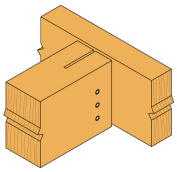


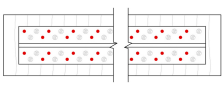












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