



El uso de estribos grandes con alas exteriores se recomienda en numerosos casos. Permiten ensamblar las estructuras de forma eficaz, sin necesidad de realizar un mecanizado específico, y mejoran su fiabilidad. La multitud de aplicaciones que posibilitan estos productos así como su justificación en situación de incendio, sobre madera y hormigón, hacen que resulten elementos imprescindibles en el sector de la construcción, incluido para los edificios públicos.



[ETA-06/0270](#), [ES-DoP-e06/0270](#)

CARACTERÍSTICAS



Materia

- Acero galvanizado S250GD + Z275 según NF EN 10346,
- Espesor 4 mm.

Ventajas

- Resistencia al fuego de 30 minutos según el Eurocódigo 5,
- Instalación rápida y sencilla,
- Anchuras a elegir según los intervalos indicados...

APLICACIONES

Soporte

- **Elemento principal** : madera maciza, madera compuesta, madera laminada, hormigón, acero...
- **Elemento secundario** : madera maciza, madera compuesta, madera laminada, armaduras triangulares, materiales perfilados...

Usos

- Vigas, correas,
- Vigas planas y montantes de revestimientos,
- Apoyos de cabrios,
- Refuerzo de uniones existentes...

DATOS TÉCNICOS

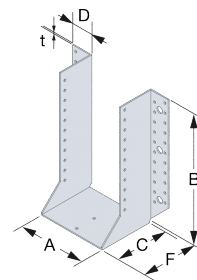
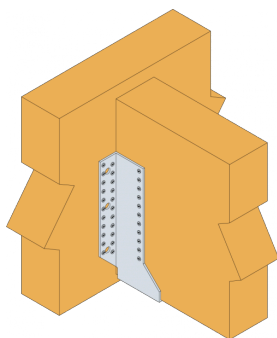
Desarrollos y anchuras

| Modelo | Dimensiones [mm] | | |
|---------------|------------------|-----------|-------------|
| | Desarrollo | Anchura | Profundidad |
| GSE300/4X | 300 | 32 - 110 | 110 |
| GSE340/4X | 340 | 32 - 110 | 110 |
| GSE380/4X | 380 | 32 - 136 | 110 |
| GSE440/4X | 440 | 32 - 136 | 110 |
| GSE500/4X | 500 | 32 - 136 | 110 |
| GSE500/4X-AL | 500 | 137 - 200 | 110 |
| GSE540/4X | 540 | 32 - 136 | 110 |
| GSE540/4X-AL | 540 | 137 - 200 | 110 |
| GSE600/4X | 600 | 32 - 136 | 110 |
| GSE600/4X-AL | 600 | 137 - 200 | 110 |
| GSE660/4X | 660 | 32 - 136 | 110 |
| GSE660/4X-AL | 660 | 137 - 200 | 110 |
| GSE720/4X | 720 | 32 - 136 | 110 |
| GSE720/4X-AL | 720 | 137 - 200 | 110 |
| GSE780/4X | 780 | 32 - 136 | 110 |
| GSE780/4X-AL | 780 | 137 - 200 | 110 |
| GSE840/4X | 840 | 32 - 136 | 110 |
| GSE840/4X-AL | 840 | 137 - 200 | 110 |
| GSE900/4X | 900 | 32 - 136 | 110 |
| GSE900/4X-AL | 900 | 137 - 200 | 110 |
| GSE960/4X | 960 | 32 - 136 | 110 |
| GSE960/4X-AL | 960 | 137 - 200 | 110 |
| GSE1020/4X | 1020 | 32 - 136 | 110 |
| GSE1020/4X-AL | 1020 | 137 - 200 | 110 |

Para anchos intermedios, la resistencia característica a tener en cuenta (incluso para los valores al fuego) es el valor más bajo dado para los anchos inferiores y superiores con desarrollo idéntico.

Para obtener más información sobre los valores de carga en función de la anchura del estribo, contacte con nuestro Departamento Técnico.

Dimensiones

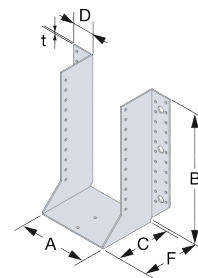
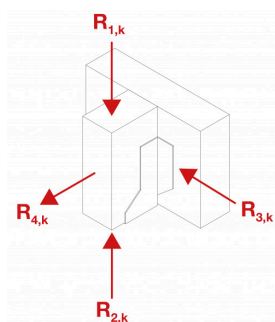
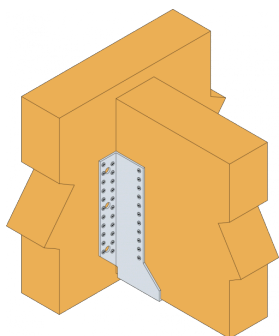


| Modelo | Dimensiones de la viga [mm] | | | Dimensiones [mm] | | | | | | Agujeros soporte | | Agujeros viga |
|-------------|-----------------------------|--------|------|------------------|-----|-----|------|-----|---|------------------|-----|---------------|
| | Anchura | Altura | | A | B | C | D | F | t | Ø5 | Ø13 | Ø5 |
| | | Mín. | Máx. | | | | | | | | | |
| GSE300/32/4 | 32 | 144 | 201 | 32 | 134 | 110 | 45.5 | 118 | 4 | 12 | 2 | 6 |
| GSE340/32/4 | 32 | 164 | 231 | 32 | 154 | 110 | 45.5 | 118 | 4 | 16 | 2 | 8 |

| Modelo | Dimensiones de la viga [mm] | | | Dimensiones [mm] | | | | | | Agujeros soporte | | Agujeros viga |
|---------------|-----------------------------|--------|------|------------------|-----|-----|------|-----|---|------------------|-----|---------------|
| | Anchura | Altura | | A | B | C | D | F | t | Ø5 | Ø13 | Ø5 |
| | | Mín. | Máx. | | | | | | | | | |
| GSE300/38/4 | 38 | 141 | 197 | 38 | 131 | 110 | 45.5 | 118 | 4 | 12 | 2 | 6 |
| GSE340/38/4 | 38 | 161 | 227 | 38 | 151 | 110 | 45.5 | 118 | 4 | 16 | 2 | 8 |
| GSE440/38/4 | 38 | 211 | 302 | 38 | 201 | 110 | 45.5 | 118 | 4 | 22 | 4 | 12 |
| GSE300/50/4 | 50 | 135 | 188 | 50 | 125 | 110 | 45.5 | 118 | 4 | 12 | 2 | 6 |
| GSE340/50/4 | 50 | 155 | 218 | 50 | 145 | 110 | 45.5 | 118 | 4 | 16 | 2 | 8 |
| GSE500/50/4 | 50 | 235 | 338 | 50 | 225 | 110 | 45.5 | 118 | 4 | 28 | 4 | 14 |
| GSE300/64/4 | 64 | 128 | 177 | 64 | 118 | 110 | 45.5 | 118 | 4 | 12 | 2 | 6 |
| GSE340/64/4 | 64 | 148 | 207 | 64 | 138 | 110 | 45.5 | 118 | 4 | 16 | 2 | 8 |
| GSE380/64/4 | 64 | 168 | 237 | 64 | 158 | 110 | 45.5 | 118 | 4 | 16 | 4 | 8 |
| GSE380/70/4 | 70 | 165 | 233 | 70 | 155 | 110 | 45.5 | 118 | 4 | 16 | 4 | 8 |
| GSE440/70/4 | 70 | 195 | 278 | 70 | 185 | 110 | 45.5 | 118 | 4 | 22 | 4 | 12 |
| GSE500/70/4 | 70 | 225 | 323 | 70 | 215 | 110 | 45.5 | 118 | 4 | 28 | 4 | 14 |
| GSE380/76/4 | 76 | 162 | 228 | 76 | 152 | 110 | 45.5 | 118 | 4 | 16 | 4 | 8 |
| GSE440/76/4 | 76 | 192 | 273 | 76 | 182 | 110 | 45.5 | 118 | 4 | 22 | 4 | 12 |
| GSE500/76/4 | 76 | 222 | 318 | 76 | 212 | 110 | 45.5 | 118 | 4 | 28 | 4 | 14 |
| GSE380/80/4 | 80 | 160 | 225 | 80 | 150 | 110 | 45.5 | 118 | 4 | 16 | 4 | 8 |
| GSE440/80/4 | 80 | 190 | 270 | 80 | 180 | 110 | 45.5 | 118 | 4 | 22 | 4 | 12 |
| GSE500/80/4 | 80 | 220 | 315 | 80 | 210 | 110 | 45.5 | 118 | 4 | 28 | 4 | 14 |
| GSE540/80/4 | 80 | 240 | 345 | 80 | 230 | 110 | 45.5 | 118 | 4 | 32 | 4 | 16 |
| GSE600/80/4 | 80 | 270 | 390 | 80 | 260 | 110 | 45.5 | 118 | 4 | 38 | 4 | 20 |
| GSE660/80/4 | 80 | 300 | 435 | 80 | 290 | 110 | 45.5 | 118 | 4 | 44 | 6 | 22 |
| GSE720/80/4 | 80 | 330 | 480 | 80 | 320 | 110 | 45.5 | 118 | 4 | 50 | 6 | 26 |
| GSE780/80/4 | 80 | 360 | 525 | 80 | 350 | 110 | 45.5 | 118 | 4 | 56 | 6 | 28 |
| GSE840/80/4 | 80 | 390 | 570 | 80 | 380 | 110 | 45.5 | 118 | 4 | 62 | 6 | 32 |
| GSE900/80/4 | 80 | 420 | 615 | 80 | 410 | 110 | 45.5 | 118 | 4 | 68 | 6 | 36 |
| GSE960/80/4 | 80 | 450 | 660 | 80 | 440 | 110 | 45.5 | 118 | 4 | 74 | 6 | 38 |
| GSE1020/80/4 | 80 | 480 | 705 | 80 | 470 | 110 | 45.5 | 118 | 4 | 80 | 6 | 40 |
| GSE380/90/4 | 90 | 155 | 218 | 90 | 145 | 110 | 45.5 | 118 | 4 | 16 | 4 | 8 |
| GSE440/90/4 | 90 | 185 | 263 | 90 | 175 | 110 | 45.5 | 118 | 4 | 22 | 4 | 12 |
| GSE500/90/4 | 90 | 215 | 308 | 90 | 205 | 110 | 45.5 | 118 | 4 | 28 | 4 | 14 |
| GSE540/90/4 | 90 | 235 | 338 | 90 | 225 | 110 | 45.5 | 118 | 4 | 32 | 4 | 16 |
| GSE600/90/4 | 90 | 265 | 383 | 90 | 255 | 110 | 45.5 | 118 | 4 | 38 | 4 | 20 |
| GSE660/90/4 | 90 | 295 | 428 | 90 | 285 | 110 | 45.5 | 118 | 4 | 44 | 6 | 22 |
| GSE720/90/4 | 90 | 325 | 473 | 90 | 315 | 110 | 45.5 | 118 | 4 | 50 | 6 | 26 |
| GSE780/90/4 | 90 | 355 | 518 | 90 | 345 | 110 | 45.5 | 118 | 4 | 56 | 6 | 28 |
| GSE840/90/4 | 90 | 385 | 563 | 90 | 375 | 110 | 45.5 | 118 | 4 | 62 | 6 | 32 |
| GSE900/90/4 | 90 | 415 | 608 | 90 | 405 | 110 | 45.5 | 118 | 4 | 68 | 6 | 36 |
| GSE960/90/4 | 90 | 445 | 653 | 90 | 435 | 110 | 45.5 | 118 | 4 | 74 | 6 | 38 |
| GSE1020/90/4 | 90 | 475 | 698 | 90 | 465 | 110 | 45.5 | 118 | 4 | 80 | 6 | 40 |
| GSE380/100/4 | 100 | 150 | 210 | 100 | 140 | 110 | 45.5 | 118 | 4 | 16 | 2 | 8 |
| GSE440/100/4 | 100 | 180 | 255 | 100 | 170 | 110 | 45.5 | 118 | 4 | 22 | 4 | 12 |
| GSE500/100/4 | 100 | 210 | 300 | 100 | 200 | 110 | 45.5 | 118 | 4 | 28 | 4 | 14 |
| GSE540/100/4 | 100 | 230 | 330 | 100 | 220 | 110 | 45.5 | 118 | 4 | 32 | 4 | 16 |
| GSE600/100/4 | 100 | 260 | 375 | 100 | 250 | 110 | 45.5 | 118 | 4 | 38 | 4 | 20 |
| GSE660/100/4 | 100 | 290 | 420 | 100 | 280 | 110 | 45.5 | 118 | 4 | 44 | 6 | 22 |
| GSE720/100/4 | 100 | 320 | 465 | 100 | 310 | 110 | 45.5 | 118 | 4 | 50 | 6 | 26 |
| GSE780/100/4 | 100 | 350 | 510 | 100 | 340 | 110 | 45.5 | 118 | 4 | 56 | 6 | 28 |
| GSE840/100/4 | 100 | 380 | 555 | 100 | 370 | 110 | 45.5 | 118 | 4 | 62 | 6 | 32 |
| GSE900/100/4 | 100 | 410 | 600 | 100 | 400 | 110 | 45.5 | 118 | 4 | 68 | 6 | 36 |
| GSE960/100/4 | 100 | 440 | 645 | 100 | 430 | 110 | 45.5 | 118 | 4 | 74 | 6 | 38 |
| GSE1020/100/4 | 100 | 470 | 690 | 100 | 460 | 110 | 45.5 | 118 | 4 | 80 | 6 | 40 |
| GSE540/120/4 | 120 | 220 | 315 | 120 | 210 | 110 | 45.5 | 118 | 4 | 32 | 4 | 16 |
| GSE600/120/4 | 120 | 250 | 360 | 120 | 240 | 110 | 45.5 | 118 | 4 | 38 | 4 | 20 |
| GSE660/120/4 | 120 | 280 | 405 | 120 | 270 | 110 | 45.5 | 118 | 4 | 44 | 6 | 22 |
| GSE720/120/4 | 120 | 310 | 450 | 120 | 300 | 110 | 45.5 | 118 | 4 | 50 | 6 | 26 |
| GSE780/120/4 | 120 | 340 | 495 | 120 | 330 | 110 | 45.5 | 118 | 4 | 56 | 6 | 28 |

| Modelo | Dimensiones de la viga [mm] | | | Dimensiones [mm] | | | | | | Agujeros soporte | | Agujeros viga |
|---------------|-----------------------------|--------|------|------------------|-----|-----|------|-----|---|------------------|-----|---------------|
| | Anchura | Altura | | A | B | C | D | F | t | Ø5 | Ø13 | Ø5 |
| | | Mín. | Máx. | | | | | | | | | |
| GSE840/120/4 | 120 | 370 | 540 | 120 | 360 | 110 | 45.5 | 118 | 4 | 62 | 6 | 32 |
| GSE900/120/4 | 120 | 400 | 585 | 120 | 390 | 110 | 45.5 | 118 | 4 | 68 | 6 | 36 |
| GSE960/120/4 | 120 | 430 | 630 | 120 | 420 | 110 | 45.5 | 118 | 4 | 74 | 6 | 38 |
| GSE1020/120/4 | 120 | 460 | 675 | 120 | 450 | 110 | 45.5 | 118 | 4 | 80 | 6 | 40 |
| GSE500/140/4 | 140 | 190 | 270 | 140 | 180 | 110 | 45.5 | 118 | 4 | 28 | 2 | 14 |
| GSE540/140/4 | 140 | 210 | 300 | 140 | 200 | 110 | 45.5 | 118 | 4 | 32 | 4 | 16 |
| GSE600/140/4 | 140 | 240 | 345 | 140 | 230 | 110 | 45.5 | 118 | 4 | 38 | 4 | 20 |
| GSE660/140/4 | 140 | 270 | 390 | 140 | 260 | 110 | 45.5 | 118 | 4 | 44 | 4 | 22 |
| GSE720/140/4 | 140 | 300 | 435 | 140 | 290 | 110 | 45.5 | 118 | 4 | 50 | 6 | 26 |
| GSE780/140/4 | 140 | 330 | 480 | 140 | 320 | 110 | 45.5 | 118 | 4 | 56 | 6 | 28 |
| GSE840/140/4 | 140 | 360 | 525 | 140 | 350 | 110 | 45.5 | 118 | 4 | 62 | 6 | 32 |
| GSE900/140/4 | 140 | 390 | 570 | 140 | 380 | 110 | 45.5 | 118 | 4 | 68 | 6 | 36 |
| GSE960/140/4 | 140 | 420 | 615 | 140 | 410 | 110 | 45.5 | 118 | 4 | 74 | 6 | 38 |
| GSE1020/140/4 | 140 | 450 | 660 | 140 | 440 | 110 | 45.5 | 118 | 4 | 80 | 6 | 40 |
| GSE500/160/4 | 160 | 180 | 255 | 160 | 170 | 110 | 45.5 | 118 | 4 | 28 | 2 | 14 |
| GSE540/160/4 | 160 | 200 | 285 | 160 | 190 | 110 | 45.5 | 118 | 4 | 32 | 4 | 16 |
| GSE600/160/4 | 160 | 230 | 330 | 160 | 220 | 110 | 45.5 | 118 | 4 | 38 | 4 | 20 |
| GSE660/160/4 | 160 | 260 | 375 | 160 | 250 | 110 | 45.5 | 118 | 4 | 44 | 4 | 22 |
| GSE720/160/4 | 160 | 290 | 420 | 160 | 280 | 110 | 45.5 | 118 | 4 | 50 | 6 | 26 |
| GSE780/160/4 | 160 | 320 | 465 | 160 | 310 | 110 | 45.5 | 118 | 4 | 56 | 6 | 28 |
| GSE840/160/4 | 160 | 350 | 510 | 160 | 340 | 110 | 45.5 | 118 | 4 | 62 | 6 | 32 |
| GSE900/160/4 | 160 | 380 | 555 | 160 | 370 | 110 | 45.5 | 118 | 4 | 68 | 6 | 36 |
| GSE960/160/4 | 160 | 410 | 600 | 160 | 400 | 110 | 45.5 | 118 | 4 | 74 | 6 | 38 |
| GSE1020/160/4 | 160 | 440 | 645 | 160 | 430 | 110 | 45.5 | 118 | 4 | 80 | 6 | 40 |
| GSE500/180/4 | 180 | 170 | 240 | 180 | 160 | 110 | 45.5 | 118 | 4 | 28 | 2 | 14 |
| GSE540/180/4 | 180 | 190 | 270 | 180 | 180 | 110 | 45.5 | 118 | 4 | 32 | 4 | 16 |
| GSE600/180/4 | 180 | 220 | 315 | 180 | 210 | 110 | 45.5 | 118 | 4 | 38 | 4 | 20 |
| GSE660/180/4 | 180 | 250 | 360 | 180 | 240 | 110 | 45.5 | 118 | 4 | 44 | 4 | 22 |
| GSE720/180/4 | 180 | 280 | 405 | 180 | 270 | 110 | 45.5 | 118 | 4 | 50 | 6 | 26 |
| GSE780/180/4 | 180 | 310 | 450 | 180 | 300 | 110 | 45.5 | 118 | 4 | 56 | 6 | 28 |
| GSE840/180/4 | 180 | 340 | 495 | 180 | 330 | 110 | 45.5 | 118 | 4 | 62 | 6 | 32 |
| GSE900/180/4 | 180 | 370 | 540 | 180 | 360 | 110 | 45.5 | 118 | 4 | 68 | 6 | 36 |
| GSE960/180/4 | 180 | 400 | 585 | 180 | 390 | 110 | 45.5 | 118 | 4 | 74 | 6 | 38 |
| GSE1020/180/4 | 180 | 430 | 630 | 180 | 420 | 110 | 45.5 | 118 | 4 | 80 | 6 | 40 |
| GSE500/200/4 | 200 | 160 | 225 | 200 | 150 | 110 | 45.5 | 118 | 4 | 28 | 2 | 14 |
| GSE540/200/4 | 200 | 180 | 255 | 200 | 170 | 110 | 45.5 | 118 | 4 | 32 | 4 | 16 |
| GSE600/200/4 | 200 | 210 | 300 | 200 | 200 | 110 | 45.5 | 118 | 4 | 38 | 4 | 20 |
| GSE660/200/4 | 200 | 240 | 345 | 200 | 230 | 110 | 45.5 | 118 | 4 | 44 | 4 | 22 |
| GSE720/200/4 | 200 | 270 | 390 | 200 | 260 | 110 | 45.5 | 118 | 4 | 50 | 6 | 26 |
| GSE780/200/4 | 200 | 300 | 435 | 200 | 290 | 110 | 45.5 | 118 | 4 | 56 | 6 | 28 |
| GSE840/200/4 | 200 | 330 | 480 | 200 | 320 | 110 | 45.5 | 118 | 4 | 62 | 6 | 32 |
| GSE900/200/4 | 200 | 360 | 525 | 200 | 350 | 110 | 45.5 | 118 | 4 | 68 | 6 | 36 |
| GSE960/200/4 | 200 | 390 | 570 | 200 | 380 | 110 | 45.5 | 118 | 4 | 74 | 6 | 38 |
| GSE1020/200/4 | 200 | 420 | 615 | 200 | 410 | 110 | 45.5 | 118 | 4 | 80 | 6 | 40 |

Valores Característicos - Madera sobre madera - Clavado total

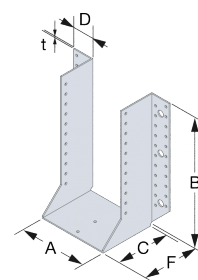
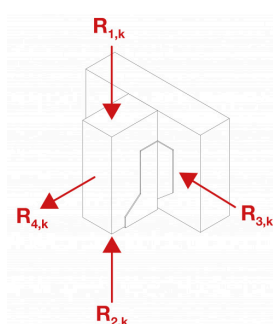
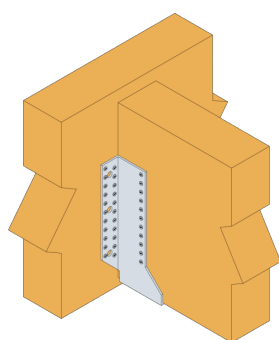


| Modelo | Valores Característicos - Madera sobre madera - Clavado total | | | | | | | | | |
|--------------|---|-----------------|---|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| | Fijaciones | | Valores Característicos - Madera C24 [kN] | | | | | | | |
| | Soporte | Viga secundaria | R _{1,k} | | R _{2,k} | | R _{3,k} | | R _{4,k} | |
| | Cdad | Cdad | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 |
| GSE300/32/4 | 12 | 6 | 8.5 | - | 2.7 | - | 2 | - | 3.7 | - |
| GSE340/32/4 | 16 | 8 | 11.5 | - | 4.4 | - | 2.5 | - | 4.9 | - |
| GSE300/38/4 | 12 | 6 | 8.3 | - | 2.7 | - | 2.2 | - | 3.7 | - |
| GSE340/38/4 | 16 | 8 | 11.2 | - | 4.4 | - | 2.8 | - | 4.9 | - |
| GSE440/38/4 | 22 | 12 | 18.4 | - | 7.6 | - | 4 | - | 7.4 | - |
| GSE300/50/4 | 12 | 6 | 7.7 | - | 2.7 | - | 2.6 | - | 3.7 | - |
| GSE340/50/4 | 16 | 8 | 10.5 | - | 4.4 | - | 3.4 | - | 4.9 | - |
| GSE500/50/4 | 28 | 14 | 23.7 | - | 11.5 | - | 5.2 | - | 8.6 | - |
| GSE300/64/4 | 12 | 6 | - | 10.9 | - | 4.3 | - | 4.3 | - | 5.9 |
| GSE340/64/4 | 16 | 8 | - | 15 | - | 6.9 | - | 5.5 | - | 7.8 |
| GSE380/64/4 | 16 | 8 | - | 18.1 | - | 6.9 | - | 5.5 | - | 7.8 |
| GSE380/70/4 | 16 | 8 | - | 17.6 | - | 6.9 | - | 5.8 | - | 7.8 |
| GSE440/70/4 | 22 | 12 | - | 25 | - | 11.9 | - | 8.2 | - | 11.8 |
| GSE500/70/4 | 28 | 14 | - | 31.9 | - | 18.1 | - | 9 | - | 13.7 |
| GSE380/76/4 | 16 | 8 | - | 17.2 | - | 6.9 | - | 6 | - | 7.8 |
| GSE440/76/4 | 22 | 12 | - | 24.5 | - | 11.9 | - | 8.6 | - | 11.8 |
| GSE500/76/4 | 28 | 14 | - | 31.9 | - | 18.1 | - | 9.4 | - | 13.7 |
| GSE380/80/4 | 16 | 8 | - | 16.9 | - | 6.9 | - | 6.1 | - | 7.8 |
| GSE440/80/4 | 22 | 12 | - | 24.1 | - | 11.9 | - | 8.8 | - | 11.8 |
| GSE500/80/4 | 28 | 14 | - | 31.9 | - | 18.1 | - | 9.7 | - | 13.7 |
| GSE540/80/4 | 32 | 16 | - | 35.9 | - | 22.7 | - | 10.6 | - | 15.7 |
| GSE600/80/4 | 38 | 20 | - | 43.9 | - | 30.5 | - | 12.4 | - | 19.6 |
| GSE660/80/4 | 44 | 22 | - | 47.9 | - | 39 | - | 12.8 | - | 21.6 |
| GSE720/80/4 | 50 | 26 | - | 55.8 | - | 46.1 | - | 14.1 | - | 25.5 |
| GSE780/80/4 | 56 | 28 | - | 59.8 | - | 49.6 | - | 14.2 | - | 27.4 |
| GSE840/80/4 | 62 | 32 | - | 67.8 | - | 56.7 | - | 15.2 | - | 31.4 |
| GSE900/80/4 | 68 | 36 | - | 75.8 | - | 63.8 | - | 16.1 | - | 33.3 |
| GSE960/80/4 | 74 | 38 | - | 79.8 | - | 67.4 | - | 15.9 | - | 37.2 |
| GSE1020/80/4 | 80 | 40 | - | 83.8 | - | 70.9 | - | 15.8 | - | 39.2 |
| GSE380/90/4 | 16 | 8 | - | 16.2 | - | 6.9 | - | 6.4 | - | 7.8 |
| GSE440/90/4 | 22 | 12 | - | 23.2 | - | 11.9 | - | 9.2 | - | 11.8 |
| GSE500/90/4 | 28 | 14 | - | 31.5 | - | 18.1 | - | 10.2 | - | 13.7 |
| GSE540/90/4 | 32 | 16 | - | 35.9 | - | 22.7 | - | 11.3 | - | 15.7 |
| GSE600/90/4 | 38 | 20 | - | 43.9 | - | 30.5 | - | 13.3 | - | 19.6 |
| GSE660/90/4 | 44 | 22 | - | 47.9 | - | 39 | - | 13.8 | - | 21.6 |
| GSE720/90/4 | 50 | 26 | - | 55.8 | - | 46.1 | - | 15.3 | - | 25.5 |
| GSE780/90/4 | 56 | 28 | - | 59.8 | - | 49.6 | - | 15.5 | - | 27.4 |
| GSE840/90/4 | 62 | 32 | - | 67.8 | - | 56.7 | - | 16.6 | - | 31.4 |
| GSE900/90/4 | 68 | 36 | - | 75.8 | - | 63.8 | - | 17.6 | - | 33.3 |

| Modelo | Valores Característicos - Madera sobre madera - Clavado total | | | | | | | | | |
|---------------|---|-----------------|---|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| | Fijaciones | | Valores Característicos - Madera C24 [kN] | | | | | | | |
| | Soporte | Viga secundaria | R _{1,k} | | R _{2,k} | | R _{3,k} | | R _{4,k} | |
| | Cdad | Cdad | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 |
| GSE960/90/4 | 74 | 38 | - | 79.8 | - | 67.4 | - | 17.5 | - | 37.2 |
| GSE1020/90/4 | 80 | 40 | - | 83.8 | - | 70.9 | - | 17.4 | - | 39.2 |
| GSE380/100/4 | 16 | 8 | - | 15.4 | - | 6.9 | - | 6.6 | - | 7.8 |
| GSE440/100/4 | 22 | 12 | - | 22.3 | - | 11.9 | - | 9.6 | - | 11.8 |
| GSE500/100/4 | 28 | 14 | - | 30.5 | - | 18.1 | - | 10.7 | - | 13.7 |
| GSE540/100/4 | 32 | 16 | - | 35.9 | - | 22.7 | - | 11.8 | - | 15.7 |
| GSE600/100/4 | 38 | 20 | - | 43.9 | - | 30.5 | - | 14 | - | 19.6 |
| GSE660/100/4 | 44 | 22 | - | 47.9 | - | 39 | - | 14.6 | - | 21.6 |
| GSE720/100/4 | 50 | 26 | - | 55.8 | - | 46.1 | - | 16.3 | - | 25.5 |
| GSE780/100/4 | 56 | 28 | - | 59.8 | - | 49.6 | - | 16.6 | - | 27.4 |
| GSE840/100/4 | 62 | 32 | - | 67.8 | - | 56.7 | - | 17.9 | - | 31.4 |
| GSE900/100/4 | 68 | 36 | - | 75.8 | - | 63.8 | - | 19 | - | 33.3 |
| GSE960/100/4 | 74 | 38 | - | 79.8 | - | 67.4 | - | 19 | - | 37.2 |
| GSE1020/100/4 | 80 | 40 | - | 83.8 | - | 70.9 | - | 18.9 | - | 39.2 |
| GSE540/120/4 | 32 | 16 | - | 34 | - | 22.7 | - | 12.7 | - | 15.7 |
| GSE600/120/4 | 38 | 20 | - | 43.1 | - | 30.5 | - | 15.2 | - | 19.6 |
| GSE660/120/4 | 44 | 22 | - | 47.9 | - | 39 | - | 16 | - | 21.6 |
| GSE720/120/4 | 50 | 26 | - | 55.8 | - | 46.1 | - | 18 | - | 25.5 |
| GSE780/120/4 | 56 | 28 | - | 59.8 | - | 49.6 | - | 18.5 | - | 27.4 |
| GSE840/120/4 | 62 | 32 | - | 67.8 | - | 56.7 | - | 20.1 | - | 31.4 |
| GSE900/120/4 | 68 | 36 | - | 75.8 | - | 63.8 | - | 21.5 | - | 33.3 |
| GSE960/120/4 | 74 | 38 | - | 79.8 | - | 67.4 | - | 21.6 | - | 37.2 |
| GSE1020/120/4 | 80 | 40 | - | 83.8 | - | 70.9 | - | 21.6 | - | 39.2 |
| GSE500/140/4 | 28 | 14 | - | 24.1 | - | 11.9 | - | 10.5 | - | 11.8 |
| GSE540/140/4 | 32 | 16 | - | 29.5 | - | 15.9 | - | 12 | - | 11.8 |
| GSE600/140/4 | 38 | 20 | - | 38.2 | - | 22.7 | - | 15 | - | 15.7 |
| GSE660/140/4 | 44 | 22 | - | 43.9 | - | 30.5 | - | 16.1 | - | 19.6 |
| GSE720/140/4 | 50 | 26 | - | 51.9 | - | 39 | - | 18.6 | - | 23.5 |
| GSE780/140/4 | 56 | 28 | - | 55.8 | - | 46.1 | - | 19.3 | - | 25.5 |
| GSE840/140/4 | 62 | 32 | - | 63.8 | - | 53.2 | - | 21.4 | - | 29.4 |
| GSE900/140/4 | 68 | 36 | - | 67.8 | - | 56.7 | - | 21.8 | - | 31.4 |
| GSE960/140/4 | 74 | 38 | - | 71.8 | - | 60.3 | - | 22.2 | - | 33.3 |
| GSE1020/140/4 | 80 | 40 | - | 79.8 | - | 67.4 | - | 23.8 | - | 39.2 |
| GSE500/160/4 | 28 | 14 | - | 22.3 | - | 11.9 | - | 10.7 | - | 11.8 |
| GSE540/160/4 | 32 | 16 | - | 27.6 | - | 15.9 | - | 12.3 | - | 11.8 |
| GSE600/160/4 | 38 | 20 | - | 36.1 | - | 22.7 | - | 15.5 | - | 15.7 |
| GSE660/160/4 | 44 | 22 | - | 43.9 | - | 30.5 | - | 16.8 | - | 19.6 |
| GSE720/160/4 | 50 | 26 | - | 51.9 | - | 39 | - | 19.5 | - | 23.5 |
| GSE780/160/4 | 56 | 28 | - | 55.8 | - | 46.1 | - | 20.4 | - | 25.5 |
| GSE840/160/4 | 62 | 32 | - | 63.8 | - | 53.2 | - | 22.7 | - | 29.4 |
| GSE900/160/4 | 68 | 36 | - | 67.8 | - | 56.7 | - | 23.3 | - | 31.4 |
| GSE960/160/4 | 74 | 38 | - | 71.8 | - | 60.3 | - | 23.8 | - | 33.3 |
| GSE1020/160/4 | 80 | 40 | - | 79.8 | - | 67.4 | - | 25.6 | - | 39.2 |
| GSE500/180/4 | 28 | 14 | - | 20.3 | - | 11.9 | - | 10.9 | - | 11.8 |
| GSE540/180/4 | 32 | 16 | - | 25.4 | - | 15.9 | - | 12.6 | - | 11.8 |
| GSE600/180/4 | 38 | 20 | - | 33.8 | - | 22.7 | - | 15.9 | - | 15.7 |
| GSE660/180/4 | 44 | 22 | - | 43.1 | - | 30.5 | - | 17.3 | - | 19.6 |
| GSE720/180/4 | 50 | 26 | - | 51.9 | - | 39 | - | 20.1 | - | 23.5 |
| GSE780/180/4 | 56 | 28 | - | 55.8 | - | 46.1 | - | 21.2 | - | 25.5 |
| GSE840/180/4 | 62 | 32 | - | 63.8 | - | 53.2 | - | 23.7 | - | 29.4 |
| GSE900/180/4 | 68 | 36 | - | 67.8 | - | 56.7 | - | 24.5 | - | 31.4 |
| GSE960/180/4 | 74 | 38 | - | 71.8 | - | 60.3 | - | 25.1 | - | 33.3 |
| GSE1020/180/4 | 80 | 40 | - | 79.8 | - | 67.4 | - | 27.2 | - | 37.2 |
| GSE500/200/4 | 28 | 14 | - | 18.3 | - | 11.9 | - | 11.1 | - | 11.8 |
| GSE540/200/4 | 32 | 16 | - | 23.2 | - | 15.9 | - | 12.8 | - | 11.8 |

| Modelo | Valores Característicos - Madera sobre madera - Clavado total | | | | | | | | | |
|---------------|---|-----------------|---|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| | Fijaciones | | Valores Característicos - Madera C24 [kN] | | | | | | | |
| | Soporte | Viga secundaria | R _{1,k} | | R _{2,k} | | R _{3,k} | | R _{4,k} | |
| | Cdad | Cdad | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 |
| GSE600/200/4 | 38 | 20 | - | 31.3 | - | 22.7 | - | 16.2 | - | 15.7 |
| GSE660/200/4 | 44 | 22 | - | 40.6 | - | 30.5 | - | 17.6 | - | 19.6 |
| GSE720/200/4 | 50 | 26 | - | 50.3 | - | 39 | - | 20.7 | - | 23.5 |
| GSE780/200/4 | 56 | 28 | - | 55.8 | - | 46.1 | - | 21.8 | - | 25.5 |
| GSE840/200/4 | 62 | 32 | - | 63.8 | - | 53.2 | - | 24.5 | - | 29.4 |
| GSE900/200/4 | 68 | 36 | - | 67.8 | - | 56.7 | - | 25.4 | - | 31.4 |
| GSE960/200/4 | 74 | 38 | - | 71.8 | - | 60.3 | - | 26.2 | - | 33.3 |
| GSE1020/200/4 | 80 | 40 | - | 79.8 | - | 67.4 | - | 28.5 | - | 37.2 |

Valores Característicos - Madera sobre madera - Clavado parcial



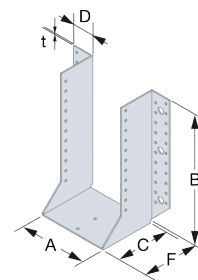
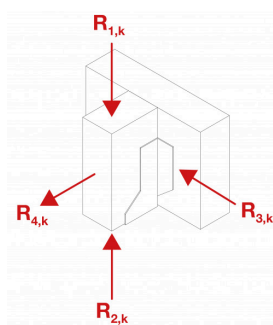
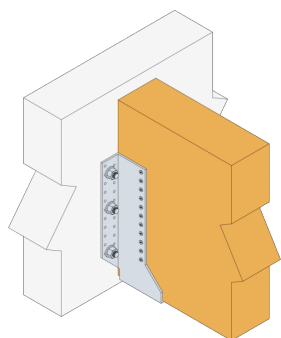
| Modelo | Valores Característicos - Madera sobre madera - Clavado parcial | | | | | | | | | |
|-------------|---|-----------------|---|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| | Fijaciones | | Valores Característicos - Madera C24 [kN] | | | | | | | |
| | Soporte | Viga secundaria | R _{1,k} | | R _{2,k} | | R _{3,k} | | R _{4,k} | |
| | Cdad | Cdad | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 |
| GSE300/32/4 | 6 | 4 | 4.9 | - | 1.3 | - | 1.3 | - | 1.8 | - |
| GSE340/32/4 | 8 | 4 | 6.8 | - | 2.1 | - | 1.3 | - | 2.5 | - |
| GSE300/38/4 | 6 | 4 | 4.8 | - | 1.3 | - | 1.5 | - | 1.8 | - |
| GSE340/38/4 | 8 | 4 | 6.7 | - | 2.1 | - | 1.4 | - | 2.5 | - |
| GSE440/38/4 | 12 | 6 | 10.9 | - | 4.3 | - | 2 | - | 3.7 | - |
| GSE300/50/4 | 6 | 4 | 4.6 | - | 1.3 | - | 1.7 | - | 1.8 | - |
| GSE340/50/4 | 8 | 4 | 6.4 | - | 2.1 | - | 1.7 | - | 2.5 | - |
| GSE500/50/4 | 14 | 8 | 13 | - | 5.6 | - | 2.9 | - | 4.3 | - |
| GSE300/64/4 | 6 | 4 | - | 6.5 | - | 2 | - | 2.8 | - | 2.9 |
| GSE340/64/4 | 8 | 4 | - | 9.1 | - | 3.3 | - | 2.8 | - | 3.9 |
| GSE380/64/4 | 8 | 4 | - | 10.5 | - | 3.3 | - | 2.8 | - | 3.9 |
| GSE380/70/4 | 8 | 4 | - | 10.3 | - | 3.3 | - | 2.9 | - | 3.9 |
| GSE440/70/4 | 12 | 6 | - | 14.7 | - | 6.7 | - | 4.1 | - | 5.9 |
| GSE500/70/4 | 14 | 8 | - | 18.3 | - | 8.8 | - | 5.1 | - | 6.9 |
| GSE380/76/4 | 8 | 4 | - | 10.1 | - | 3.3 | - | 3 | - | 3.9 |
| GSE440/76/4 | 12 | 6 | - | 14.5 | - | 6.7 | - | 4.3 | - | 5.9 |
| GSE500/76/4 | 14 | 8 | - | 18 | - | 8.8 | - | 5.4 | - | 6.9 |
| GSE380/80/4 | 8 | 4 | - | 9.9 | - | 3.3 | - | 3.1 | - | 3.9 |
| GSE440/80/4 | 12 | 6 | - | 14.3 | - | 6.7 | - | 4.4 | - | 5.9 |
| GSE500/80/4 | 14 | 8 | - | 17.8 | - | 8.8 | - | 5.5 | - | 6.9 |
| GSE540/80/4 | 16 | 8 | - | 19.9 | - | 11.1 | - | 5.3 | - | 7.8 |
| GSE600/80/4 | 20 | 10 | - | 23.9 | - | 16.3 | - | 6.2 | - | 9.8 |
| GSE660/80/4 | 22 | 12 | - | 27.9 | - | 19.2 | - | 7 | - | 10.8 |
| GSE720/80/4 | 26 | 14 | - | 31.9 | - | 24.8 | - | 7.6 | - | 12.7 |
| GSE780/80/4 | 28 | 14 | - | 31.9 | - | 24.8 | - | 7.1 | - | 13.7 |

| Modelo | Valores Característicos - Madera sobre madera - Clavado parcial | | | | | | | | | |
|---------------|---|-----------------|---|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| | Fijaciones | | Valores Característicos - Madera C24 [kN] | | | | | | | |
| | Soporte | Viga secundaria | R _{1,k} | | R _{2,k} | | R _{3,k} | | R _{4,k} | |
| | Cdad | Cdad | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 |
| GSE840/80/4 | 32 | 16 | - | 35.9 | - | 28.4 | - | 7.6 | - | 15.7 |
| GSE900/80/4 | 34 | 18 | - | 39.9 | - | 31.9 | - | 8 | - | 16.7 |
| GSE960/80/4 | 38 | 20 | - | 43.9 | - | 35.5 | - | 8.4 | - | 18.6 |
| GSE1020/80/4 | 40 | 20 | - | 43.9 | - | 35.5 | - | 7.9 | - | 19.6 |
| GSE380/90/4 | 8 | 4 | - | 9.6 | - | 3.3 | - | 3.2 | - | 3.9 |
| GSE440/90/4 | 12 | 6 | - | 13.8 | - | 6.7 | - | 4.6 | - | 5.9 |
| GSE500/90/4 | 14 | 8 | - | 17.3 | - | 8.8 | - | 5.8 | - | 6.9 |
| GSE540/90/4 | 16 | 8 | - | 19.9 | - | 11.1 | - | 5.6 | - | 7.8 |
| GSE600/90/4 | 20 | 10 | - | 23.9 | - | 16.3 | - | 6.6 | - | 9.8 |
| GSE660/90/4 | 22 | 12 | - | 27.9 | - | 19.2 | - | 7.5 | - | 10.8 |
| GSE720/90/4 | 26 | 14 | - | 31.9 | - | 24.8 | - | 8.2 | - | 12.7 |
| GSE780/90/4 | 28 | 14 | - | 31.9 | - | 24.8 | - | 7.7 | - | 13.7 |
| GSE840/90/4 | 32 | 16 | - | 35.9 | - | 28.4 | - | 8.3 | - | 15.7 |
| GSE900/90/4 | 34 | 18 | - | 39.9 | - | 31.9 | - | 8.8 | - | 16.7 |
| GSE960/90/4 | 38 | 20 | - | 43.9 | - | 35.5 | - | 9.2 | - | 18.6 |
| GSE1020/90/4 | 40 | 20 | - | 43.9 | - | 35.5 | - | 8.7 | - | 19.6 |
| GSE380/100/4 | 8 | 4 | - | 9.2 | - | 3.3 | - | 3.3 | - | 3.9 |
| GSE440/100/4 | 12 | 6 | - | 13.3 | - | 6.7 | - | 4.8 | - | 5.9 |
| GSE500/100/4 | 14 | 8 | - | 16.8 | - | 8.8 | - | 6.1 | - | 6.9 |
| GSE540/100/4 | 16 | 8 | - | 19.9 | - | 11.1 | - | 5.9 | - | 7.8 |
| GSE600/100/4 | 20 | 10 | - | 23.9 | - | 16.3 | - | 7 | - | 9.8 |
| GSE660/100/4 | 22 | 12 | - | 27.9 | - | 19.2 | - | 8 | - | 10.8 |
| GSE720/100/4 | 26 | 14 | - | 31.9 | - | 24.8 | - | 8.8 | - | 12.7 |
| GSE780/100/4 | 28 | 14 | - | 31.9 | - | 24.8 | - | 8.3 | - | 13.7 |
| GSE840/100/4 | 32 | 16 | - | 35.9 | - | 28.4 | - | 8.9 | - | 15.7 |
| GSE900/100/4 | 34 | 18 | - | 39.9 | - | 31.9 | - | 9.5 | - | 16.7 |
| GSE960/100/4 | 38 | 20 | - | 43.9 | - | 35.5 | - | 10 | - | 18.6 |
| GSE1020/100/4 | 40 | 20 | - | 43.9 | - | 35.5 | - | 9.5 | - | 19.6 |
| GSE540/120/4 | 16 | 8 | - | 19 | - | 11.1 | - | 6.3 | - | 7.8 |
| GSE600/120/4 | 20 | 10 | - | 23.9 | - | 16.3 | - | 7.6 | - | 9.8 |
| GSE660/120/4 | 22 | 12 | - | 27.9 | - | 19.2 | - | 8.7 | - | 10.8 |
| GSE720/120/4 | 26 | 14 | - | 31.9 | - | 24.8 | - | 9.7 | - | 12.7 |
| GSE780/120/4 | 28 | 14 | - | 31.9 | - | 24.8 | - | 9.2 | - | 13.7 |
| GSE840/120/4 | 32 | 16 | - | 35.9 | - | 28.4 | - | 10 | - | 15.7 |
| GSE900/120/4 | 34 | 18 | - | 39.9 | - | 31.9 | - | 10.7 | - | 16.7 |
| GSE960/120/4 | 38 | 20 | - | 43.9 | - | 35.5 | - | 11.4 | - | 18.6 |
| GSE1020/120/4 | 40 | 20 | - | 43.9 | - | 35.5 | - | 10.8 | - | 19.6 |
| GSE500/140/4 | 12 | 6 | - | 14.3 | - | 6.7 | - | 5.2 | - | 5.9 |
| GSE540/140/4 | 14 | 8 | - | 16.8 | - | 8.8 | - | 6.9 | - | 6.9 |
| GSE600/140/4 | 18 | 10 | - | 21.8 | - | 13.6 | - | 8.3 | - | 8.8 |
| GSE660/140/4 | 20 | 10 | - | 23.9 | - | 16.3 | - | 8 | - | 9.8 |
| GSE720/140/4 | 24 | 12 | - | 27.9 | - | 21.3 | - | 9.3 | - | 11.8 |
| GSE780/140/4 | 26 | 14 | - | 31.9 | - | 24.8 | - | 10.4 | - | 12.7 |
| GSE840/140/4 | 30 | 16 | - | 35.9 | - | 28.4 | - | 11.4 | - | 14.7 |
| GSE900/140/4 | 32 | 16 | - | 35.9 | - | 28.4 | - | 10.9 | - | 15.7 |
| GSE960/140/4 | 34 | 18 | - | 39.9 | - | 31.9 | - | 11.8 | - | 16.7 |
| GSE1020/140/4 | 38 | 20 | - | 43.9 | - | 35.5 | - | 12.5 | - | 18.6 |
| GSE500/160/4 | 12 | 6 | - | 13.3 | - | 6.7 | - | 5.4 | - | 5.9 |
| GSE540/160/4 | 14 | 8 | - | 15.8 | - | 8.8 | - | 7.1 | - | 6.9 |
| GSE600/160/4 | 20 | 10 | - | 23.9 | - | 16.3 | - | 8.6 | - | 8.8 |
| GSE660/160/4 | 20 | 10 | - | 23.9 | - | 16.3 | - | 8.4 | - | 9.8 |
| GSE720/160/4 | 24 | 12 | - | 27.9 | - | 21.3 | - | 9.7 | - | 11.8 |
| GSE780/160/4 | 26 | 14 | - | 31.9 | - | 24.8 | - | 11 | - | 12.7 |
| GSE840/160/4 | 30 | 16 | - | 35.9 | - | 28.4 | - | 12.1 | - | 14.7 |
| GSE900/160/4 | 32 | 16 | - | 35.9 | - | 28.4 | - | 11.7 | - | 15.7 |

| Modelo | Valores Característicos - Madera sobre madera - Clavado parcial | | | | | | | | | | | |
|---------------|---|------|---|-----------|------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| | Fijaciones | | Valores Característicos - Madera C24 [kN] | | | | | | | | | |
| | Soporte | | Viga secundaria | | R _{1,k} | | R _{2,k} | | R _{3,k} | | R _{4,k} | |
| | Cdad | Cdad | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 |
| GSE960/160/4 | 34 | 18 | - | 39.9 | - | 31.9 | - | 12.6 | - | 16.7 | - | 16.7 |
| GSE1020/160/4 | 38 | 20 | - | 43.9 | - | 35.5 | - | 13.5 | - | 18.6 | - | 18.6 |
| GSE500/180/4 | 12 | 6 | - | 12.2 | - | 6.7 | - | 5.5 | - | 5.9 | - | 5.9 |
| GSE540/180/4 | 14 | 8 | - | 14.7 | - | 8.8 | - | 7.2 | - | 6.9 | - | 6.9 |
| GSE600/180/4 | 20 | 10 | - | 23.9 | - | 16.3 | - | 8.8 | - | 8.8 | - | 8.8 |
| GSE660/180/4 | 20 | 10 | - | 23.9 | - | 16.3 | - | 8.6 | - | 9.8 | - | 9.8 |
| GSE720/180/4 | 24 | 12 | - | 27.9 | - | 21.3 | - | 10.1 | - | 11.8 | - | 11.8 |
| GSE780/180/4 | 26 | 14 | - | 31.9 | - | 24.8 | - | 11.4 | - | 12.7 | - | 12.7 |
| GSE840/180/4 | 30 | 16 | - | 35.9 | - | 28.4 | - | 12.6 | - | 14.7 | - | 14.7 |
| GSE900/180/4 | 32 | 16 | - | 35.9 | - | 28.4 | - | 12.2 | - | 15.7 | - | 15.7 |
| GSE960/180/4 | 34 | 18 | - | 39.9 | - | 31.9 | - | 13.3 | - | 16.7 | - | 16.7 |
| GSE1020/180/4 | 38 | 20 | - | 43.9 | - | 35.5 | - | 14.3 | - | 18.6 | - | 18.6 |
| GSE500/200/4 | 12 | 6 | - | 11.1 | - | 6.7 | - | 5.5 | - | 5.9 | - | 5.9 |
| GSE540/200/4 | 14 | 8 | - | 13.5 | - | 8.8 | - | 7.3 | - | 6.9 | - | 6.9 |
| GSE600/200/4 | 20 | 10 | - | 22.7 | - | 16.3 | - | 9 | - | 8.8 | - | 8.8 |
| GSE660/200/4 | 20 | 10 | - | 22.7 | - | 16.3 | - | 8.8 | - | 9.8 | - | 9.8 |
| GSE720/200/4 | 24 | 12 | - | 27.9 | - | 21.3 | - | 10.3 | - | 11.8 | - | 11.8 |
| GSE780/200/4 | 26 | 14 | - | 31.9 | - | 24.8 | - | 11.8 | - | 12.7 | - | 12.7 |
| GSE840/200/4 | 30 | 16 | - | 35.9 | - | 28.4 | - | 13.1 | - | 14.7 | - | 14.7 |
| GSE900/200/4 | 32 | 16 | - | 35.9 | - | 28.4 | - | 12.7 | - | 15.7 | - | 15.7 |
| GSE960/200/4 | 34 | 18 | - | 39.9 | - | 31.9 | - | 13.9 | - | 16.7 | - | 16.7 |
| GSE1020/200/4 | 38 | 20 | - | 43.9 | - | 35.5 | - | 15 | - | 18.6 | - | 18.6 |

Los valores indicados en la tabla más arriba son válidos para la aplicación viga sobre viga y viga sobre pilar, siempre que se respeten las plantillas de clavado parciales específicas para cada configuración indicadas en nuestro ETE-06/0270 página 17.

Valores Característicos - Madera sobre hormigón



| Modelo | Valores Característicos - Madera sobre hormigón o acero | | | | | | | | | | | |
|-------------|---|------|-----------------|------|---|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| | Fijaciones | | | | Valores Característicos - Madera C24 [kN] | | | | | | | |
| | Soporte | | Viga secundaria | | R _{1,k} | | R _{2,k} | | R _{3,k} | | R _{4,k} | |
| | Cdad | Tipo | Cdad | Tipo | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 |
| GSE300/32/4 | 2 | Ø12* | 6 | CNA | 12.1 | - | 8 | - | 20 | - | 10.4 | - |
| GSE340/32/4 | 2 | Ø12* | 8 | CNA | 15.1 | - | 10.7 | - | 20 | - | 10.4 | - |
| GSE300/38/4 | 2 | Ø12* | 6 | CNA | 12.1 | - | 8 | - | 20 | - | 10.4 | - |
| GSE340/38/4 | 2 | Ø12* | 8 | CNA | 15.1 | - | 10.7 | - | 20 | - | 10.4 | - |
| GSE440/38/4 | 4 | Ø12* | 12 | CNA | 21.1 | - | 16.1 | - | 20 | - | 20.8 | - |
| GSE300/50/4 | 2 | Ø12* | 8 | CNA | 12.1 | - | 8 | - | 20 | - | 10.4 | - |
| GSE340/50/4 | 2 | Ø12* | 8 | CNA | 15.1 | - | 10.7 | - | 20 | - | 10.4 | - |
| GSE500/50/4 | 4 | Ø12* | 14 | CNA | 24.1 | - | 18.8 | - | 20 | - | 20.8 | - |

| Modelo | Valores Característicos - Madera sobre hormigón o acero | | | | | | | | | | | |
|---------------|---|------|-----------------|------|---|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| | Fijaciones | | | | Valores Característicos - Madera C24 [kN] | | | | | | | |
| | Soporte | | Viga secundaria | | R _{1,k} | | R _{2,k} | | R _{3,k} | | R _{4,k} | |
| | Cdad | Tipo | Cdad | Tipo | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 |
| GSE300/64/4 | 2 | Ø12* | 6 | CNA | - | 16 | - | 10.6 | - | 20 | - | 10.4 |
| GSE340/64/4 | 2 | Ø12* | 8 | CNA | - | 19.9 | - | 14.2 | - | 20 | - | 10.4 |
| GSE380/64/4 | 4 | Ø12* | 8 | CNA | - | 19.9 | - | 14.2 | - | 20 | - | 17.8 |
| GSE380/70/4 | 2 | Ø12* | 8 | CNA | - | 19.9 | - | 14.2 | - | 20 | - | 17.8 |
| GSE440/70/4 | 4 | Ø12* | 12 | CNA | - | 27.9 | - | 21.3 | - | 20 | - | 20.8 |
| GSE500/70/4 | 4 | Ø12* | 12 | CNA | - | 31.9 | - | 24.8 | - | 20 | - | 20.8 |
| GSE380/76/4 | 2 | Ø12* | 8 | CNA | - | 19.9 | - | 14.2 | - | 20 | - | 17.8 |
| GSE440/76/4 | 4 | Ø12* | 12 | CNA | - | 27.9 | - | 21.3 | - | 20 | - | 20.8 |
| GSE500/76/4 | 4 | Ø12* | 14 | CNA | - | 31.9 | - | 24.8 | - | 20 | - | 20.8 |
| GSE380/80/4 | 2 | Ø12* | 8 | CNA | - | 19.9 | - | 14.2 | - | 20 | - | 17.8 |
| GSE440/80/4 | 4 | Ø12* | 12 | CNA | - | 27.9 | - | 21.3 | - | 20 | - | 20.8 |
| GSE500/80/4 | 4 | Ø12* | 12 | CNA | - | 31.9 | - | 24.8 | - | 20 | - | 20.8 |
| GSE540/80/4 | 4 | Ø12* | 16 | CNA | - | 59.1 | - | 28.4 | - | 20 | - | 20.8 |
| GSE600/80/4 | 4 | Ø12* | 20 | CNA | - | 67.9 | - | 35.5 | - | 20 | - | 20.8 |
| GSE660/80/4 | 6 | Ø12* | 22 | CNA | - | 72.4 | - | 39 | - | 24.1 | - | 31.2 |
| GSE720/80/4 | 6 | Ø12* | 26 | CNA | - | 81.2 | - | 46.1 | - | 24.1 | - | 31.2 |
| GSE780/80/4 | 6 | Ø12* | 28 | CNA | - | 85.7 | - | 49.6 | - | 24.1 | - | 31.2 |
| GSE840/80/4 | 6 | Ø12* | 32 | CNA | - | 94.5 | - | 56.7 | - | 24.1 | - | 31.2 |
| GSE900/80/4 | 6 | Ø12* | 38 | CNA | - | 107.8 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE960/80/4 | 6 | Ø12* | 38 | CNA | - | 107.8 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE1020/80/4 | 6 | Ø12* | 40 | CNA | - | 112.3 | - | 70.9 | - | 24.1 | - | 31.2 |
| GSE380/90/4 | 2 | Ø12* | 8 | CNA | - | 19.9 | - | 14.2 | - | 20 | - | 17.8 |
| GSE440/90/4 | 4 | Ø12* | 12 | CNA | - | 27.9 | - | 21.3 | - | 20 | - | 20.8 |
| GSE500/90/4 | 4 | Ø12* | 14 | CNA | - | 31.9 | - | 24.8 | - | 20 | - | 20.8 |
| GSE540/90/4 | 4 | Ø12* | 16 | CNA | - | 62 | - | 28.4 | - | 20 | - | 20.8 |
| GSE600/90/4 | 4 | Ø12* | 20 | CNA | - | 70.9 | - | 35.5 | - | 20 | - | 20.8 |
| GSE660/90/4 | 6 | Ø12* | 22 | CNA | - | 75.3 | - | 39 | - | 24.1 | - | 31.2 |
| GSE720/90/4 | 6 | Ø12* | 26 | CNA | - | 84.2 | - | 46.1 | - | 24.1 | - | 31.2 |
| GSE780/90/4 | 6 | Ø12* | 28 | CNA | - | 88.6 | - | 49.6 | - | 24.1 | - | 31.2 |
| GSE840/90/4 | 6 | Ø12* | 32 | CNA | - | 97.5 | - | 56.7 | - | 24.1 | - | 31.2 |
| GSE900/90/4 | 6 | Ø12* | 38 | CNA | - | 110.8 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE960/90/4 | 6 | Ø12* | 38 | CNA | - | 110.8 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE1020/90/4 | 6 | Ø12* | 40 | CNA | - | 115.2 | - | 70.9 | - | 24.1 | - | 31.2 |
| GSE380/100/4 | 2 | Ø12* | 8 | CNA | - | 19.9 | - | 14.2 | - | 20 | - | 17.8 |
| GSE440/100/4 | 4 | Ø12* | 12 | CNA | - | 27.9 | - | 21.3 | - | 20 | - | 20.8 |
| GSE500/100/4 | 4 | Ø12* | 14 | CNA | - | 31.9 | - | 24.8 | - | 20 | - | 20.8 |
| GSE540/100/4 | 4 | Ø12* | 16 | CNA | - | 65 | - | 28.4 | - | 20 | - | 20.8 |
| GSE600/100/4 | 4 | Ø12* | 20 | CNA | - | 73.8 | - | 35.5 | - | 20 | - | 20.8 |
| GSE660/100/4 | 6 | Ø12* | 22 | CNA | - | 78.3 | - | 39 | - | 24.1 | - | 31.2 |
| GSE720/100/4 | 6 | Ø12* | 26 | CNA | - | 87.1 | - | 46.1 | - | 24.1 | - | 31.2 |
| GSE780/100/4 | 6 | Ø12* | 28 | CNA | - | 91.6 | - | 49.6 | - | 24.1 | - | 31.2 |
| GSE840/100/4 | 6 | Ø12* | 32 | CNA | - | 100.4 | - | 56.7 | - | 24.1 | - | 31.2 |
| GSE900/100/4 | 6 | Ø12* | 38 | CNA | - | 113.7 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE960/100/4 | 6 | Ø12* | 38 | CNA | - | 113.7 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE1020/100/4 | 6 | Ø12* | 40 | CNA | - | 118.2 | - | 70.9 | - | 24.1 | - | 31.2 |
| GSE540/120/4 | 4 | Ø12* | 16 | CNA | - | 70.9 | - | 28.4 | - | 20 | - | 20.8 |
| GSE600/120/4 | 4 | Ø12* | 20 | CNA | - | 79.7 | - | 35.5 | - | 20 | - | 20.8 |
| GSE660/120/4 | 6 | Ø12* | 22 | CNA | - | 84.2 | - | 39 | - | 24.1 | - | 31.2 |
| GSE720/120/4 | 6 | Ø12* | 26 | CNA | - | 93 | - | 46.1 | - | 24.1 | - | 31.2 |
| GSE780/120/4 | 6 | Ø12* | 28 | CNA | - | 97.5 | - | 49.6 | - | 24.1 | - | 31.2 |
| GSE840/120/4 | 6 | Ø12* | 32 | CNA | - | 106.3 | - | 56.7 | - | 24.1 | - | 31.2 |
| GSE900/120/4 | 6 | Ø12* | 38 | CNA | - | 119.6 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE960/120/4 | 6 | Ø12* | 38 | CNA | - | 119.6 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE1020/120/4 | 6 | Ø12* | 40 | CNA | - | 120 | - | 70.9 | - | 24.1 | - | 31.2 |
| GSE500/140/4 | 2 | Ø12* | 14 | CNA | - | 24.1 | - | 21.3 | - | 20 | - | 10.4 |

| Modelo | Valores Característicos - Madera sobre hormigón o acero | | | | | | | | | | | |
|---------------|---|------|-----------------|------|---|-----------|------------------|-----------|------------------|-----------|------------------|-----------|
| | Fijaciones | | | | Valores Característicos - Madera C24 [kN] | | | | | | | |
| | Soporte | | Viga secundaria | | R _{1,k} | | R _{2,k} | | R _{3,k} | | R _{4,k} | |
| | Cdad | Tipo | Cdad | Tipo | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 | CNA4,0x35 | CNA4,0x50 |
| GSE540/140/4 | 4 | Ø12* | 14 | CNA | - | 72.3 | - | 24.8 | - | 20 | - | 20.8 |
| GSE600/140/4 | 4 | Ø12* | 18 | CNA | - | 80 | - | 31.9 | - | 20 | - | 20.8 |
| GSE660/140/4 | 4 | Ø12* | 20 | CNA | - | 80 | - | 35.5 | - | 24.1 | - | 31.2 |
| GSE720/140/4 | 6 | Ø12* | 24 | CNA | - | 94.5 | - | 42.6 | - | 24.1 | - | 31.2 |
| GSE780/140/4 | 6 | Ø12* | 26 | CNA | - | 98.9 | - | 46.1 | - | 24.1 | - | 31.2 |
| GSE840/140/4 | 6 | Ø12* | 30 | CNA | - | 107.8 | - | 53.2 | - | 24.1 | - | 31.2 |
| GSE900/140/4 | 6 | Ø12* | 32 | CNA | - | 112.2 | - | 56.7 | - | 24.1 | - | 31.2 |
| GSE960/140/4 | 6 | Ø12* | 34 | CNA | - | 116.7 | - | 60.3 | - | 24.1 | - | 31.2 |
| GSE1020/140/4 | 6 | Ø12* | 38 | CNA | - | 120 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE500/160/4 | 2 | Ø12* | 14 | CNA | - | 27.9 | - | 21.3 | - | 20 | - | 10.4 |
| GSE540/160/4 | 4 | Ø12* | 14 | CNA | - | 78.2 | - | 24.8 | - | 20 | - | 20.8 |
| GSE600/160/4 | 4 | Ø12* | 18 | CNA | - | 80 | - | 31.9 | - | 20 | - | 20.8 |
| GSE660/160/4 | 4 | Ø12* | 20 | CNA | - | 80 | - | 35.5 | - | 20 | - | 20.8 |
| GSE720/160/4 | 6 | Ø12* | 24 | CNA | - | 100.4 | - | 42.6 | - | 24.1 | - | 31.2 |
| GSE780/160/4 | 6 | Ø12* | 26 | CNA | - | 104.8 | - | 46.1 | - | 24.1 | - | 31.2 |
| GSE840/160/4 | 6 | Ø12* | 30 | CNA | - | 113.7 | - | 53.2 | - | 24.1 | - | 31.2 |
| GSE900/160/4 | 6 | Ø12* | 32 | CNA | - | 118.1 | - | 56.7 | - | 24.1 | - | 31.2 |
| GSE960/160/4 | 6 | Ø12* | 34 | CNA | - | 120 | - | 60.3 | - | 24.1 | - | 31.2 |
| GSE1020/160/4 | 6 | Ø12* | 38 | CNA | - | 120 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE500/180/4 | 2 | Ø12* | 14 | CNA | - | 27.9 | - | 21.3 | - | 20 | - | 10.4 |
| GSE540/180/4 | 4 | Ø12* | 14 | CNA | - | 80 | - | 24.8 | - | 20 | - | 20.8 |
| GSE600/180/4 | 4 | Ø12* | 18 | CNA | - | 80 | - | 31.9 | - | 20 | - | 20.8 |
| GSE660/180/4 | 4 | Ø12* | 20 | CNA | - | 80 | - | 35.5 | - | 20 | - | 20.8 |
| GSE720/180/4 | 6 | Ø12* | 24 | CNA | - | 106.3 | - | 42.6 | - | 24.1 | - | 31.2 |
| GSE780/180/4 | 6 | Ø12* | 26 | CNA | - | 110.7 | - | 46.1 | - | 24.1 | - | 31.2 |
| GSE840/180/4 | 6 | Ø12* | 30 | CNA | - | 119.6 | - | 53.2 | - | 24.1 | - | 31.2 |
| GSE900/180/4 | 6 | Ø12* | 32 | CNA | - | 120 | - | 56.7 | - | 24.1 | - | 31.2 |
| GSE960/180/4 | 6 | Ø12* | 34 | CNA | - | 120 | - | 60.3 | - | 24.1 | - | 31.2 |
| GSE1020/180/4 | 6 | Ø12* | 38 | CNA | - | 120 | - | 67.4 | - | 24.1 | - | 31.2 |
| GSE500/200/4 | 2 | Ø12* | 14 | CNA | - | 27.9 | - | 21.3 | - | 20 | - | 10.4 |
| GSE540/200/4 | 4 | Ø12* | 14 | CNA | - | 80 | - | 24.8 | - | 20 | - | 20.8 |
| GSE600/200/4 | 4 | Ø12* | 18 | CNA | - | 80 | - | 31.9 | - | 20 | - | 20.8 |
| GSE660/200/4 | 4 | Ø12* | 20 | CNA | - | 80 | - | 35.5 | - | 20 | - | 20.8 |
| GSE720/200/4 | 6 | Ø12* | 24 | CNA | - | 112.2 | - | 42.6 | - | 24.1 | - | 31.2 |
| GSE780/200/4 | 6 | Ø12* | 26 | CNA | - | 116.6 | - | 46.1 | - | 24.1 | - | 31.2 |
| GSE840/200/4 | 6 | Ø12* | 30 | CNA | - | 120 | - | 53.2 | - | 24.1 | - | 31.2 |
| GSE900/200/4 | 6 | Ø12* | 32 | CNA | - | 120 | - | 56.7 | - | 24.1 | - | 31.2 |
| GSE960/200/4 | 6 | Ø12* | 34 | CNA | - | 120 | - | 60.3 | - | 24.1 | - | 31.2 |
| GSE1020/200/4 | 6 | Ø12* | 38 | CNA | - | 120 | - | 67.4 | - | 24.1 | - | 31.2 |

*Consulte la gama de anclajes Simpson Strong-Tie para encontrar el producto adecuado. Las soluciones de anclajes típicas son BOAXII, SET-XP, WA, AT-HP y dependen del tipo de hormigón, la distancia entre eje y las distancias hacia los bordes. Los valores indicados en esta tabla se indican para una instalación de losa en total masa. Para cualquier otro requisito de instalación (cerca de los bordes,...), el diseñador y calculista debe comprobar los anclajes por separado (nuestro software Anchor Designer está disponible en nuestro sitio web de forma gratis).

Valores Característicos en condiciones de incendio - Madera sobre madera

| Modelo | Valores Característicos en condiciones de incendio - Madera sobre madera | | | |
|-----------|--|----------------|---|---|
| | Fijaciones | | Valores Característicos - Madera C24 [kN] | |
| | Soporte | Viga soportada | R _{1,k,fi} | |
| | Cantidad | Cantidad | Anchura entre 100 y 139 mm CNA4.0x75 | Anchura entre 140 y 200 mm CNA4.0x75 |
| GSE380/4X | 16 | 8 | 1 | - |
| GSE440/4X | 22 | 12 | 2.5 | - |

| Modelo | Valores Característicos en condiciones de incendio - Madera sobre madera | | | |
|------------|--|----------------|---|---|
| | Fijaciones | | Valores Característicos - Madera C24 [kN] | |
| | Soporte | Viga soportada | R _{1,k,fi} | |
| | Cantidad | Cantidad | Anchura entre 100 y 139 mm CNA4.0x75 | Anchura entre 140 y 200 mm CNA4.0x75 |
| GSE500/4X | 28 | 14 | 3.6 | 2.5 |
| GSE540/4X | 32 | 16 | 4.7 | 3.6 |
| GSE600/4X | 38 | 20 | 7.3 | 6 |
| GSE660/4X | 44 | 22 | 8.7 | 7.3 |
| GSE720/4X | 50 | 26 | 11.4 | 10 |
| GSE780/4X | 56 | 28 | 12.8 | 11.4 |
| GSE840/4X | 62 | 32 | 15.4 | 14.1 |
| GSE900/4X | 68 | 36 | 18 | 15.4 |
| GSE960/4X | 74 | 38 | 19.3 | 16.8 |
| GSE1020/4X | 80 | 40 | 20.6 | 19.3 |

Los valores en situación de incendio son valores de resistencia característicos a 30 minutos R30. Las únicas fijaciones permitidas en la viga son las puntas CNA Ø4,0x75 mm o los tornillos CSA Ø5.0x80-DE.

Valores Característicos en condiciones de incendio - Madera sobre hormigón

| Modelo | Valores Característicos en condiciones de incendio - Madera sobre hormigón | | | | | |
|------------|--|------|------|------|---|---|
| | Fijaciones | | | | Valores Característicos - Madera C24 [kN] | |
| | Soporte | | Viga | | R _{1,k,fi} | |
| | Cdad | Tipo | Cdad | Tipo | Anchura entre 100 y 139 mm CNA4.0x75 | Anchura entre 140 y 200 mm CNA4.0x75 |
| GSE380/4X | 2 | Ø12* | 8 | CNA | 10 | - |
| GSE440/4X | 4 | Ø12* | 12 | CNA | 20 | - |
| GSE500/4X | 4 | Ø12* | 14 | CNA | 20 | 10 |
| GSE540/4X | 4 | Ø12* | 16 | CNA | 20 | 20 |
| GSE600/4X | 4 | Ø12* | 20 | CNA | 20 | 20 |
| GSE660/4X | 6 | Ø12* | 22 | CNA | 20.6 | 20 |
| GSE720/4X | 6 | Ø12* | 26 | CNA | 20.6 | 20.6 |
| GSE780/4X | 6 | Ø12* | 28 | CNA | 20.6 | 20.6 |
| GSE840/4X | 6 | Ø12* | 32 | CNA | 20.6 | 20.6 |
| GSE900/4X | 6 | Ø12* | 36 | CNA | 20.6 | 20.6 |
| GSE960/4X | 6 | Ø12* | 38 | CNA | 20.6 | 20.6 |
| GSE1020/4X | 6 | Ø12* | 40 | CNA | 20.6 | 20.6 |

Los valores en situación de incendio son valores de resistencia característicos a 30 minutos R30.

* Para justificar la resistencia al fuego del grupo de anclajes, se deben utilizar en el soporte los anclajes mecánicos BOAX II. Las únicas fijaciones permitidas en la viga son las puntas CNA Ø4,0x75 mm o los tornillos CSA Ø5.0x80-DE.

INSTALACIÓN

Fijaciones

Para poder garantizar los valores de carga, las puntas y los tornillos utilizados deben cumplir los requisitos del documento ETE-04/0013. La fijación sobre materiales de soporte rígidos requiere utilizar fijaciones con marcado CE, respetando siempre las recomendaciones del fabricante.

Sobre el elemento secundario :

- Puntas anilladas CNA Ø4.0 x 50 mm,
- Puntas anilladas CNA Ø4.0 x 35 mm para espesores inferiores a 64 mm,
- Tornillos CSA Ø5.0 x 40 mm,
- Tornillos CSA Ø5.0 x 35 mm para espesores inferiores a 60 mm,
- **Caso particular de resistencia al fuego 1/2 hora:** puntas anilladas CNA Ø4.0 x 75 mm o tornillos CSA 5,0 x 80-DE.

Sobre el elemento principal :

Elemento de soporte de madera :

- Puntas anilladas CNA Ø4,0 x 50 mm,
- Puntas anilladas CNA Ø4.0 x 35 mm para espesores inferiores a 64 mm,
- Tornillos CSA Ø5,0 x 40 mm,
- Tornillos CSA Ø5,0 x 35 mm para espesores inferiores a 60 mm,
- **Caso particular de resistencia al fuego 1/2 hora:** puntas anilladas CNA Ø4.0 x 75 mm o tornillos CSA 5,0 x 80-DE.

Elemento de soporte de acero :

- Pernos de Ø12 o Ø10 mm (el diámetro del perno no debe ser inferior en más de 2 mm al del agujero).

Elemento de soporte de hormigón :

- Anclaje mecánico : pasador WA M12-104/5,
- Anclaje químico : resina AT-HP + varilla roscada LMAS M12-150/35,
- **Caso particular de resistencia al fuego 1/2 hora:** anclaje mecánico BOAX-II M12-103/5.

Elemento de soporte de mampostería hueca :

- Anclaje químico : resina AT-HP o POLY-GP + varilla roscada LMAS M12-150/35 + tamiz SH M16-130.

Instalación

Sobre madera :

1. Trace la situación de la viga principal sobre el elemento principal,
2. Oriente el estribo y prefije las alas a cada lado,
3. Ajuste el estribo según los trazados previos. El estribo debe estar ligeramente más abierto por arriba que por abajo para facilitar la colocación de la viga principal,
4. Finalice la fijación en cada lado,
5. Oriente la viga principal en el estribo,
6. Fije la viga principal al estribo,
7. Existen dos tipos de clavado sobre madera, total o parcial.

Sobre hormigón :

1. Método 1 : Trace la situación de los agujeros con la ayuda de la tabla de posiciones de los agujeros disponible en la ficha técnica,

2. Método 2 : Trace la situación de la viga sobre el soporte, oriente el estribo e identifique los centros de los agujeros,
3. Perfore el soporte con una broca adaptada,
4. Oriente el estribo y fíjelo sobre el soporte con pasadores de anclaje,
5. Oriente la viga principal en el estribo,
6. Fije la viga principal al estribo.



NOTAS TÉCNICAS