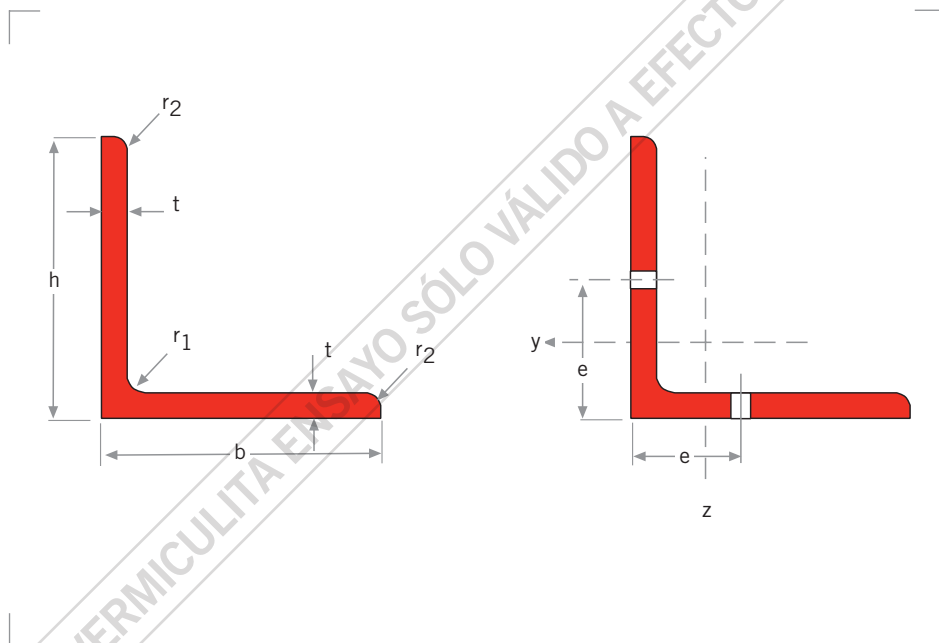


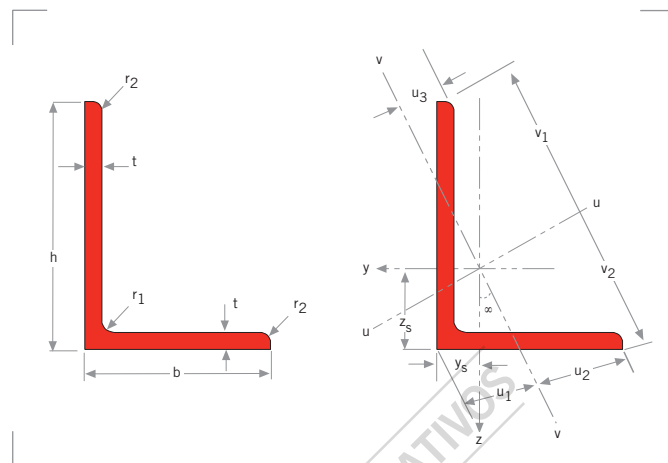
Ficha Técnica

Perfiles Angulares de Lados Desiguales



Perfiles Angulares de Lados Desiguales

- Dimensiones: EN10056-1:1998
- Tolerancias: EN10056-2:1994
- Estado de la superficie según norma EN10163-3:1991, clase C, subclase1



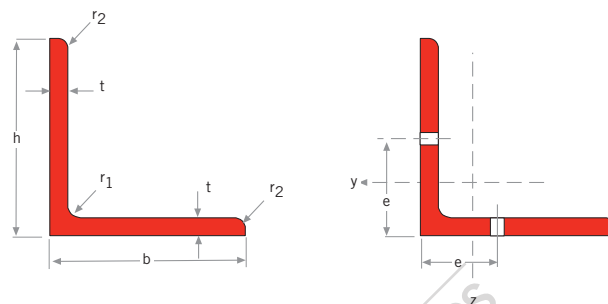
| Denominación | | Dimensiones | | | | | Dimensiones de construcción | | | | | | | | Superficie | |
|---------------------|-----------|-------------|---------|---------|----------------------|----------------------|-----------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------------------|-------------------------------------|
| | G kg/m | h mm | b mm | t mm | r ₁ mm | r ₂ mm | A mm ² | z _s mm | y _s mm | v ₁ mm | v ₂ mm | U ₁ mm | U ₂ mm | U ₃ mm | A _L m ² /m | A _G m ² /t |
| | | | | | | | x 10 ² | x 10 | x 10 | x 10 | x 10 | x 10 | x 10 | x 10 | | |
| L 120 x 80 x 8* | 12,2 | 120 | 80 | 8 | 11 | 5,5 | 15,5 | 3,83 | 1,87 | 8,23 | 5,97 | 3,25 | 4,19 | 2,09 | 0,391 | 32,12 |
| L 120 x 80 x 10* | 15,0 | 120 | 80 | 10 | 11 | 5,5 | 19,1 | 3,92 | 1,95 | 8,19 | 6,01 | 3,35 | 4,17 | 2,15 | 0,391 | 26,01 |
| L 120 x 80 x 12* | 17,8 | 120 | 80 | 12 | 11 | 5,5 | 22,7 | 4,00 | 2,03 | 8,14 | 6,04 | 3,45 | 4,16 | 2,20 | 0,391 | 21,93 |
| L 150 x 75 x 9* | 15,4 | 150 | 75 | 9 | 12 | 6 | 19,6 | 5,26 | 1,57 | 9,82 | 6,59 | 2,85 | 4,41 | 1,61 | 0,440 | 28,59 |
| L 150 x 75 x 10* | 17,0 | 150 | 75 | 10 | 12 | 6 | 21,7 | 5,31 | 1,61 | 9,78 | 6,62 | 2,90 | 4,39 | 1,65 | 0,440 | 25,87 |
| L 150 x 75 x 11* | 18,6 | 150 | 75 | 11 | 12 | 6 | 23,7 | 5,35 | 1,65 | 9,75 | 6,65 | 2,95 | 4,37 | 1,68 | 0,440 | 23,64 |
| L 150 x 75 x 12* | 20,2 | 150 | 75 | 12 | 12 | 6 | 25,7 | 5,40 | 1,69 | 9,72 | 6,68 | 2,99 | 4,36 | 1,72 | 0,440 | 21,78 |
| L 150 x 90 x 10-/+ | 18,2 | 150 | 90 | 10 | 12 | 6 | 23,2 | 5,00 | 2,04 | 10,10 | 7,07 | 3,61 | 4,97 | 2,20 | 0,470 | 25,84 |
| L 150 x 90 x 11+ | 19,9 | 150 | 90 | 11 | 12 | 6 | 25,3 | 5,04 | 2,08 | 10,07 | 7,09 | 3,66 | 4,95 | 2,23 | 0,470 | 23,61 |
| L 150 x 100 x 10-/+ | 19,0 | 150 | 100 | 10 | 12 | 6 | 24,2 | 4,81 | 2,34 | 10,27 | 7,48 | 4,08 | 5,25 | 2,64 | 0,490 | 25,83 |
| L 150 x 100 x 12-/+ | 22,5 | 150 | 100 | 12 | 12 | 6 | 28,7 | 4,90 | 2,42 | 10,23 | 7,52 | 4,18 | 5,23 | 2,70 | 0,490 | 21,72 |
| L 150 x 100 x 14+ | 26,1 | 150 | 100 | 14 | 12 | 6 | 33,2 | 4,98 | 2,50 | 10,19 | 7,55 | 4,28 | 5,22 | 2,75 | 0,490 | 18,79 |
| L 200 x 100 x 10-/+ | 23,0 | 200 | 100 | 10 | 15 | 7,5 | 29,2 | 6,93 | 2,01 | 13,15 | 8,74 | 3,72 | 5,94 | 2,09 | 0,587 | 25,58 |
| L 200 x 100 x 12-/+ | 27,3 | 200 | 100 | 12 | 15 | 7,5 | 34,8 | 7,03 | 2,10 | 13,08 | 8,81 | 3,82 | 5,89 | 2,17 | 0,587 | 21,49 |
| L 200 x 100 x 14+ | 31,6 | 200 | 100 | 14 | 15 | 7,5 | 40,3 | 7,12 | 2,18 | 13,01 | 8,86 | 3,91 | 5,85 | 2,24 | 0,587 | 18,57 |



| DENOMINACIÓN | PROPIEDADES DEL PERFIL | | | | | | | | | | | | | CLASIFICACIÓN ENV 1993-1-1 | | EN 10025:1993 | EN 10113-3:1993 | EN 10225:2001 |
|------------------|---------------------------------|-----------------------------------|--------------------------------------|----------------------|-----------------------------------|--------------------------------------|----------------------|-----------------------------------|----------------------|-----------------------------------|----------------------|------------------------------------|--------|-------------------------------|-------|---------------|-----------------|---------------|
| | eje y-y axis y-y asse y-y | | | | eje z-z axis z-z asse z-z | | | eje u-u axis u-u asse u-u | | eje v-v axis v-v asse v-v | | | | pure compression | | | | |
| | G kg/m | I _y mm ⁴ | W _{el.y} mm ³ | i _y mm | I _z mm ⁴ | W _{el.z} mm ³ | i _z mm | I _u mm ⁴ | i _u mm | I _v mm ⁴ | i _v mm | I _{yz} mm ⁴ | α ° | S 235 | S 355 | | | |
| | | x 10 ⁴ | x 10 ³ | x 10 | x 10 ⁴ | x 10 ³ | x 10 | x 10 ⁴ | x 10 | x 10 ⁴ | x 10 | x 10 ⁴ | | | | | | |
| L 120 x 80 x 8 | 12,2 | 225,7 | 27,63 | 3,82 | 80,76 | 13,17 | 2,28 | 260,0 | 4,10 | 46,39 | 1,73 | -78,50 | 23,65 | 4 | 4 | ✓ | | |
| L 120 x 80 x 10 | 15,0 | 275,5 | 34,10 | 3,80 | 98,11 | 16,21 | 2,26 | 317,0 | 4,07 | 56,60 | 1,72 | -95,34 | 23,53 | 3 | 4 | ✓ | | |
| L 120 x 80 x 12 | 17,8 | 322,8 | 40,37 | 3,77 | 114,3 | 19,14 | 2,24 | 370,7 | 4,04 | 66,46 | 1,71 | -110,8 | 23,37 | 1 | 4 | ✓ | | |
| L 150 x 75 x 9 | 15,4 | 455,2 | 46,74 | 4,82 | 77,91 | 13,14 | 1,99 | 483,2 | 4,97 | 49,95 | 1,60 | -106,4 | 14,72 | 4 | 4 | ✓ | | |
| L 150 x 75 x 10 | 17,0 | 500,6 | 51,65 | 4,81 | 85,37 | 14,50 | 1,99 | 531,1 | 4,95 | 54,87 | 1,59 | -116,6 | 14,66 | 3 | 4 | ✓ | | |
| L 150 x 75 x 11 | 18,6 | 545,0 | 56,49 | 4,80 | 92,57 | 15,83 | 1,98 | 577,9 | 4,94 | 59,70 | 1,59 | -126,3 | 14,59 | 3 | 4 | ✓ | | |
| L 150 x 75 x 12 | 20,2 | 588,4 | 61,27 | 4,78 | 99,55 | 17,14 | 1,97 | 623,5 | 4,92 | 64,45 | 1,58 | -135,6 | 14,51 | 3 | 4 | ✓ | | |
| L 150 x 90 x 10 | 18,2 | 533,1 | 53,29 | 4,80 | 146,1 | 20,98 | 2,51 | 591,3 | 5,05 | 87,93 | 1,95 | -160,9 | 19,87 | 4 | 4 | ✓ | | |
| L 150 x 90 x 11 | 19,9 | 580,7 | 58,30 | 4,79 | 158,7 | 22,91 | 2,50 | 643,7 | 5,04 | 95,71 | 1,94 | -174,7 | 19,81 | 3 | 4 | ✓ | | |
| L 150 x 100 x 10 | 19,0 | 552,6 | 54,23 | 4,78 | 198,5 | 25,92 | 2,87 | 637,3 | 5,14 | 113,8 | 2,17 | -192,8 | 23,72 | 4 | 4 | ✓ | | |
| L 150 x 100 x 12 | 22,5 | 650,5 | 64,38 | 4,76 | 232,6 | 30,69 | 2,85 | 749,3 | 5,11 | 133,9 | 2,16 | -225,8 | 23,61 | 3 | 4 | ✓ | | |
| L 150 x 100 x 14 | 26,1 | 744,4 | 74,27 | 4,74 | 264,9 | 35,32 | 2,82 | 855,9 | 5,08 | 153,4 | 2,15 | -256,8 | 23,48 | 2 | 4 | ✓ | | |
| L 200 x 100 x 10 | 23,0 | 1219 | 93,24 | 6,46 | 210,3 | 26,33 | 2,68 | 1294 | 6,65 | 134,5 | 2,14 | -286,8 | 14,82 | 4 | 4 | ✓ | | |
| L 200 x 100 x 12 | 27,3 | 1440 | 111,0 | 6,43 | 247,2 | 31,28 | 2,67 | 1529 | 6,63 | 158,5 | 2,13 | -337,3 | 14,74 | 4 | 4 | ✓ | | |
| L 200 x 100 x 14 | 31,6 | 1654 | 128,4 | 6,41 | 282,2 | 36,08 | 2,65 | 1755 | 6,60 | 181,7 | 2,12 | -384,8 | 14,65 | 3 | 4 | ✓ | | |

Perfiles Angulares de Lados Desiguales

- Dimensiones: EN10056-1:1998
- Tolerancias: EN10056-2:1994
- Estado de la superficie según norma EN10163-3:1991, clase C, subclase1



| Denominación | Dimensiones | | | | | | Dimensiones de construcción | | | | | | | | |
|---------------------------------|-------------|---------|---------|---------|----------------------|----------------------|-----------------------------|--------------------------|--------------------------|---------------------------------------|-------------------|--------------------------|--------------------------|---------------------------------------|-------------------|
| | G kg/m | h mm | b mm | t mm | r ₁ mm | r ₂ mm | A mm ² | Lado largo | | | | Lado corto | | | |
| Ø _z | | | | | | | | e _{z.min} mm | e _{z.máx} mm | A _{z.net} mm ² | Ø _y | e _{y.min} mm | e _{y.máx} mm | A _{y.net} mm ² | |
| | | | | | | | x 10 ² | | | | x 10 ² | | | | x 10 ² |
| L 120 x 80 x 8* | 12,2 | 120 | 80 | 8 | 11 | 5,5 | 15,49 | M27 | 48 | 72 | 13,09 | M16 | 38 | 51 | 14,05 |
| L 120 x 80 x 10* | 15,0 | 120 | 80 | 10 | 11 | 5,5 | 19,13 | M27 | 50 | 72 | 16,13 | M16 | 40 | 51 | 17,33 |
| L 120 x 80 x 12* | 17,8 | 120 | 80 | 12 | 11 | 5,5 | 22,69 | M27 | 52 | 72 | 19,09 | M16 | 42 | 51 | 20,53 |
| L 150 x 75 x 9* | 15,4 | 150 | 75 | 9 | 12 | 6 | 19,6 | M27 | 47 | 102 | 16,89 | M16 | 37 | 46 | 17,97 |
| L 150 x 75 x 10* | 17,0 | 150 | 75 | 10 | 12 | 6 | 21,7 | M27 | 48 | 102 | 18,65 | M16 | 38 | 46 | 19,85 |
| L 150 x 75 x 11* | 18,6 | 150 | 75 | 11 | 12 | 6 | 23,7 | M27 | 49 | 102 | 20,39 | M16 | 39 | 46 | 21,71 |
| L 150 x 75 x 12* | 20,2 | 150 | 75 | 12 | 12 | 6 | 25,7 | M27 | 50 | 102 | 22,11 | M16 | 40 | 46 | 23,55 |
| L 150 x 90 x 10 ^{-/+} | 18,2 | 150 | 90 | 10 | 12 | 6 | 23,15 | M27 | 50 | 102 | 20,15 | M24 | 47 | 49 | 20,55 |
| L 150 x 90 x 11 ⁺ | 19,9 | 150 | 90 | 11 | 12 | 6 | 25,34 | M27 | 51 | 102 | 22,04 | M24 | 48 | 49 | 22,48 |
| L 150 x 100 x 10 ^{-/+} | 19,0 | 150 | 100 | 10 | 12 | 6 | 24,15 | M27 | 50 | 102 | 21,15 | M27 | 50 | 53 | 21,15 |
| L 150 x 100 x 12 ^{-/+} | 22,5 | 150 | 100 | 12 | 12 | 6 | 28,71 | M27 | 52 | 102 | 25,11 | M27 | 52 | 53 | 25,11 |
| L 150 x 100 x 14 ⁺ | 26,1 | 150 | 100 | 14 | 12 | 6 | 33,19 | M27 | 54 | 102 | 28,99 | M24 | 51 | 59 | 29,55 |
| L 200 x 100 x 10 ^{-/+} | 23,0 | 200 | 100 | 10 | 15 | 7,5 | 29,24 | M27 | 54 | 150 | 26,24 | M27 | 51 | 53 | 26,24 |
| L 200 x 100 x 12 ^{-/+} | 27,3 | 200 | 100 | 12 | 15 | 7,5 | 34,80 | M27 | 54 | 150 | 31,2 | M27 | 53 | 53 | 31,2 |
| L 200 x 100 x 140 ⁺ | 31,6 | 200 | 100 | 14 | 15 | 7,5 | 40,28 | M27 | 55 | 151 | 36,08 | M24 | 52 | 59 | 36,64 |