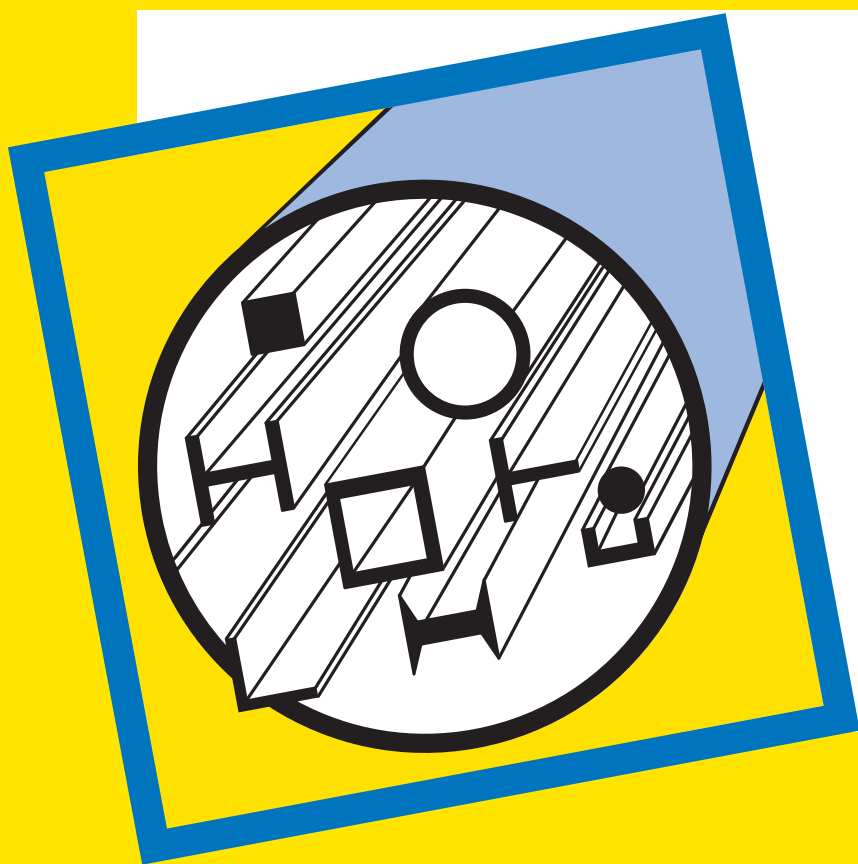


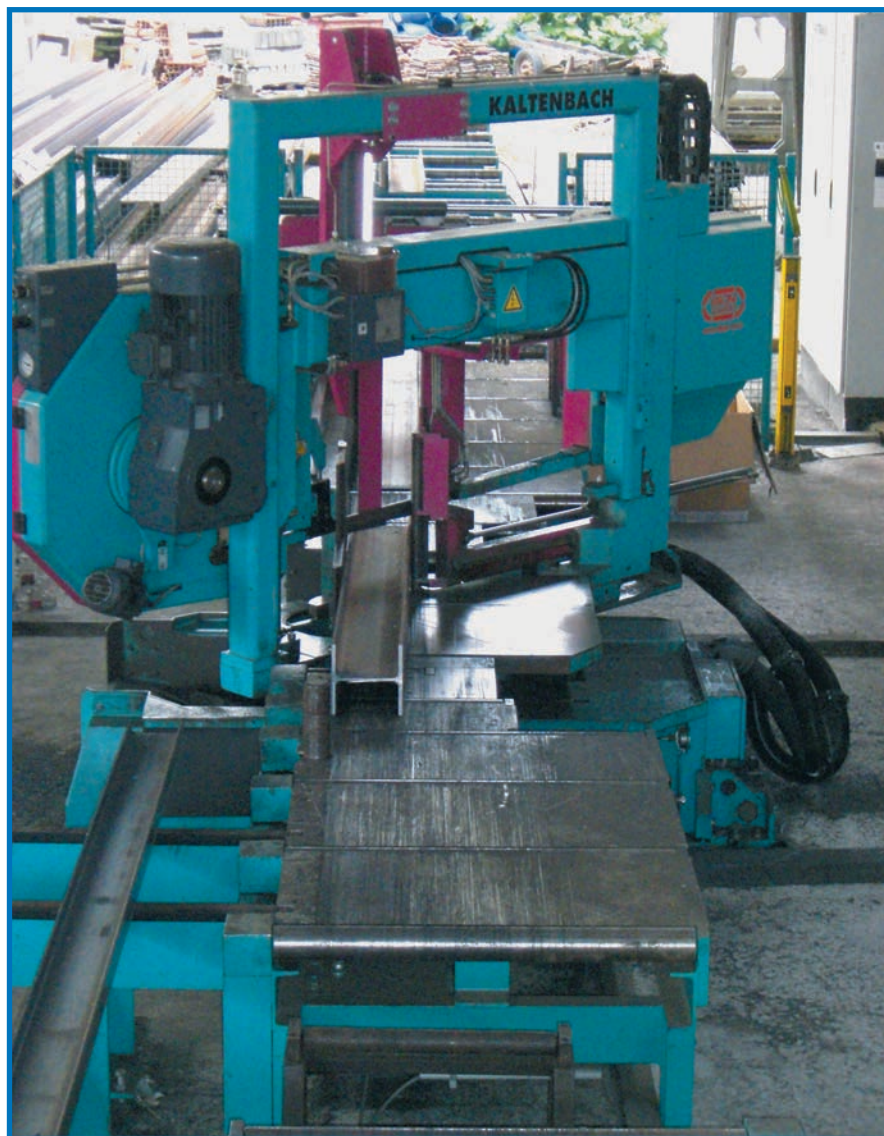
# TIRELLI FERRO E INOX



20142 MILANO - Via Barona, 21 (int)  
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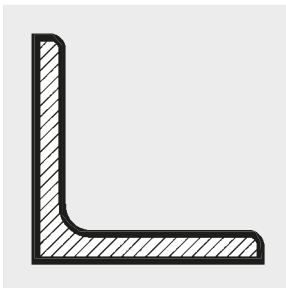
# Prodotti siderurgici

- DIMENSIONI
- PESI
- QUALITÀ
- NORME





# angolari



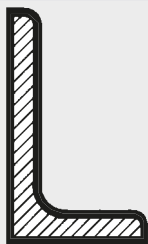
## a spigoli arrotondati

| DIMENSIONI mm. |   | PESO kg./m. |
|----------------|---|-------------|
| 15 x 15 x      | 3 | 0,63        |
|                | 4 | 0,88        |
| 20 x 20 x      | 3 | 1,14        |
|                | 4 | 1,12        |
| 25 x 25 x      | 3 | 1,46        |
|                | 4 | 1,78        |
| 30 x 30 x      | 3 | 1,36        |
|                | 4 | 1,78        |
| 35 x 35 x      | 3 | 2,18        |
|                | 4 | 1,60        |
| 40 x 40 x      | 3 | 2,09        |
|                | 4 | 2,57        |
| 45 x 45 x      | 3 | 1,84        |
|                | 4 | 2,42        |
| 50 x 50 x      | 3 | 2,97        |
|                | 4 | 2,74        |
| 55 x 55 x      | 3 | 3,38        |
|                | 4 | 3,06        |
| 60 x 60 x      | 3 | 3,77        |
|                | 4 | 4,47        |
| 65 x 65 x      | 3 | 5,82        |
|                | 4 | 4,57        |
| 70 x 70 x      | 3 | 5,42        |
|                | 4 | 7,09        |
| 75 x 75 x      | 3 | 6,38        |
|                | 4 | 7,38        |
| 80 x 80 x      | 3 | 8,36        |
|                | 4 | 7,34        |
| 85 x 85 x      | 3 | 9,63        |
|                | 4 | 11,90       |

| DIMENSIONI mm. |    | PESO kg./m. |
|----------------|----|-------------|
| 90 x 90 x      | 9  | 12,20       |
|                | 10 | 12,20       |
| 100 x 100 x    | 8  | 15,10       |
|                | 10 | 17,80       |
| 110 x 110 x    | 10 | 16,60       |
|                | 12 | 18,20       |
| 120 x 120 x    | 10 | 21,60       |
|                | 12 | 26,60       |
| 130 x 130 x    | 12 | 23,60       |
|                | 15 | 31,40       |
| 140 x 140 x    | 15 | 25,20       |
|                | 12 | 27,30       |
| 150 x 150 x    | 10 | 33,80       |
|                | 12 | 59,90       |
| 160 x 160 x    | 20 |             |
|                |    |             |

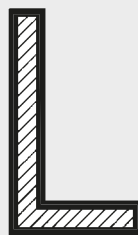


# elle



## a spigoli arrotondati

| DIMENSIONI mm.      | PESO kg./m. |
|---------------------|-------------|
| <b>30 x 20 x 4</b>  | 1,46        |
| 5                   | 1,78        |
| <b>35 x 20 x 4</b>  | 1,61        |
| 5                   | 1,97        |
| <b>40 x 20 x 4</b>  | 1,77        |
| 5                   | 2,17        |
| <b>40 x 25 x 4</b>  | 1,93        |
| 5                   | 2,37        |
| <b>45 x 30 x 5</b>  | 2,76        |
| 6                   | 3,27        |
| <b>50 x 30 x 5</b>  | 2,96        |
| 6                   | 3,51        |
| <b>60 x 30 x 5</b>  | 3,37        |
| 6                   | 3,99        |
| <b>60 x 40 x 5</b>  | 3,76        |
| 6                   | 4,46        |
| <b>75 x 50 x 6</b>  | 5,65        |
| <b>80 x 40 x 6</b>  | 5,41        |
| 8                   | 7,07        |
| <b>80 x 60 x 6</b>  | 6,50        |
| 8                   | 8,34        |
| <b>100 x 50 x 6</b> | 6,85        |
| 8                   | 8,99        |
| <b>100 x 65 x 7</b> | 8,77        |
| <b>100 x 75 x 8</b> | 11,12       |
| <b>120 x 60 x 8</b> | 10,90       |
| <b>120 x 80 x 8</b> | 12,20       |



## a spigoli vivi

| DIMENSIONI mm.       | PESO kg./m. |
|----------------------|-------------|
| <b>20 x 12 x 4</b>   | 0,88        |
| <b>25 x 15 x 4,5</b> | 1,25        |
| <b>30 x 17,5 x 5</b> | 1,67        |



# piatto



| DIMENSIONI mm. |    | PESO kg./m. |
|----------------|----|-------------|
| <b>10 x</b>    | 3  | 0,236       |
|                | 4  | 0,314       |
|                | 5  | 0,393       |
|                | 6  | 0,471       |
| <b>12 x</b>    | 3  | 0,283       |
|                | 4  | 0,377       |
|                | 5  | 0,471       |
| <b>15 x</b>    | 3  | 0,351       |
|                | 4  | 0,468       |
|                | 5  | 0,585       |
|                | 6  | 0,702       |
|                | 8  | 0,936       |
| <b>20 x</b>    | 10 | 1,170       |
|                | 3  | 0,471       |
|                | 4  | 0,628       |
|                | 5  | 0,785       |
|                | 6  | 0,942       |
|                | 8  | 1,260       |
|                | 10 | 1,570       |
| <b>25 x</b>    | 12 | 1,880       |
|                | 15 | 2,360       |
|                | 3  | 0,589       |
|                | 4  | 0,785       |
|                | 5  | 0,981       |
|                | 6  | 1,180       |
|                | 8  | 1,570       |
|                | 10 | 1,962       |
|                | 12 | 2,360       |
|                | 15 | 2,940       |

| DIMENSIONI mm. |    | PESO kg./m. |
|----------------|----|-------------|
| <b>30 x</b>    | 3  | 0,707       |
|                | 4  | 0,942       |
|                | 5  | 1,180       |
|                | 6  | 1,410       |
|                | 8  | 1,880       |
|                | 10 | 2,360       |
|                | 12 | 2,830       |
|                | 15 | 3,530       |
|                | 20 | 4,710       |
| <b>35 x</b>    | 3  | 0,824       |
|                | 4  | 1,100       |
|                | 5  | 1,370       |
|                | 6  | 1,650       |
|                | 8  | 2,200       |
|                | 10 | 2,750       |
|                | 12 | 3,300       |
|                | 15 | 4,120       |
|                | 20 | 5,500       |
| <b>40 x</b>    | 3  | 0,942       |
|                | 4  | 1,260       |
|                | 5  | 1,570       |
|                | 6  | 1,880       |
|                | 8  | 2,510       |
|                | 10 | 3,140       |
|                | 12 | 3,770       |
|                | 15 | 4,710       |
|                | 20 | 6,280       |
|                | 25 | 7,850       |
|                | 30 | 9,420       |
| <b>45 x</b>    | 5  | 1,770       |
|                | 6  | 2,120       |
|                | 8  | 2,830       |
|                | 10 | 3,530       |
|                | 12 | 4,240       |
|                | 15 | 5,300       |
|                | 20 | 7,070       |
|                | 25 | 8,830       |
| <b>50 x</b>    | 3  | 1,177       |
|                | 4  | 1,570       |
|                | 5  | 1,960       |

| DIMENSIONI mm. |    | PESO kg./m. |
|----------------|----|-------------|
| <b>50 x</b>    | 6  | 2,360       |
|                | 8  | 3,14        |
|                | 10 | 3,93        |
|                | 12 | 4,71        |
|                | 15 | 5,89        |
|                | 20 | 7,85        |
|                | 25 | 9,81        |
|                | 30 | 11,80       |
|                | 40 | 15,70       |
| <b>60 x</b>    | 3  | 1,413       |
|                | 4  | 1,880       |
|                | 5  | 2,360       |
|                | 6  | 2,830       |
|                | 8  | 3,770       |
|                | 10 | 4,710       |
|                | 12 | 5,650       |
|                | 15 | 7,070       |
|                | 20 | 9,420       |
|                | 25 | 11,80       |
|                | 30 | 14,10       |
|                | 40 | 18,80       |
| <b>70 x</b>    | 5  | 2,75        |
|                | 6  | 3,30        |
|                | 8  | 4,40        |
|                | 10 | 5,50        |
|                | 12 | 6,59        |
|                | 15 | 8,24        |
|                | 20 | 11,00       |
|                | 25 | 13,70       |
|                | 30 | 16,50       |
|                | 40 | 22,00       |
|                | 50 | 27,50       |
| <b>80 x</b>    | 3  | 1,884       |
|                | 4  | 2,51        |
|                | 5  | 3,14        |
|                | 6  | 3,77        |
|                | 8  | 5,02        |
|                | 10 | 6,28        |
|                | 12 | 7,54        |
|                | 15 | 9,42        |



| DIMENSIONI mm. |    | PESO kg./m. |
|----------------|----|-------------|
| <b>80 x</b>    | 20 | 12,60       |
|                | 25 | 15,70       |
|                | 30 | 18,80       |
|                | 40 | 25,10       |
|                | 50 | 31,40       |
| <b>90 x</b>    | 5  | 3,53        |
|                | 6  | 4,24        |
|                | 8  | 5,65        |
|                | 10 | 7,07        |
|                | 12 | 8,48        |
|                | 15 | 10,60       |
|                | 20 | 14,10       |
|                | 25 | 17,70       |
|                | 30 | 21,20       |
|                | 40 | 28,30       |
|                | 50 | 35,30       |
| <b>100 x</b>   | 3  | 2,355       |
|                | 4  | 3,14        |
|                | 5  | 3,93        |
|                | 6  | 4,71        |
|                | 8  | 6,28        |
|                | 10 | 7,85        |
|                | 12 | 9,42        |
|                | 15 | 11,80       |
|                | 20 | 15,70       |
|                | 25 | 19,60       |
|                | 30 | 23,60       |
|                | 40 | 31,40       |
|                | 50 | 39,25       |
| <b>110 x</b>   | 6  | 5,18        |
|                | 8  | 6,91        |
|                | 10 | 8,64        |
|                | 12 | 10,40       |
|                | 15 | 13,00       |
|                | 20 | 17,30       |
|                | 25 | 21,60       |
|                | 30 | 25,90       |
|                | 40 | 34,50       |
|                | 50 | 43,20       |
| <b>120 x</b>   | 5  | 4,71        |

| DIMENSIONI mm. |    | PESO kg./m. |
|----------------|----|-------------|
| <b>120 x</b>   | 6  | 5,65        |
|                | 8  | 7,54        |
|                | 10 | 9,42        |
|                | 12 | 11,30       |
|                | 15 | 14,10       |
|                | 20 | 18,80       |
|                | 25 | 23,60       |
|                | 30 | 28,30       |
|                | 40 | 37,70       |
| <b>130 x</b>   | 50 | 47,10       |
|                | 6  | 6,12        |
|                | 8  | 8,16        |
|                | 10 | 10,20       |
|                | 12 | 12,20       |
|                | 15 | 15,30       |
|                | 20 | 20,40       |
|                | 25 | 25,50       |
|                | 30 | 30,60       |
| <b>140 x</b>   | 40 | 40,80       |
|                | 50 | 51,00       |
|                | 8  | 8,79        |
|                | 10 | 11,00       |
|                | 12 | 13,20       |
|                | 15 | 16,50       |
|                | 20 | 22,00       |
|                | 25 | 27,50       |
|                | 30 | 33,00       |
| <b>150 x</b>   | 40 | 44,00       |
|                | 50 | 55,00       |
|                | 5  | 5,89        |
|                | 6  | 7,06        |
|                | 8  | 9,42        |
|                | 10 | 11,80       |
|                | 12 | 14,10       |
|                | 15 | 17,70       |
|                | 20 | 23,60       |
|                | 25 | 29,40       |
|                | 30 | 35,30       |
|                | 40 | 47,10       |
|                | 50 | 58,90       |



# larghi piatti

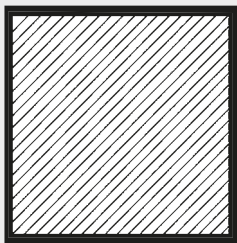


| DIMENSIONI mm. |    | PESO kg./m. |
|----------------|----|-------------|
| 160 x          | 5  | 6,28        |
|                | 6  | 7,54        |
|                | 8  | 10,00       |
|                | 10 | 12,60       |
|                | 12 | 15,10       |
|                | 15 | 18,80       |
|                | 20 | 25,10       |
|                | 25 | 31,40       |
| 180 x          | 30 | 37,70       |
|                | 5  | 7,06        |
|                | 6  | 8,48        |
|                | 8  | 11,30       |
|                | 10 | 14,10       |
|                | 12 | 17,00       |
|                | 15 | 21,20       |
|                | 20 | 28,30       |
| 200 x          | 25 | 35,30       |
|                | 30 | 42,40       |
|                | 5  | 7,85        |
|                | 6  | 9,42        |
|                | 8  | 12,60       |
|                | 10 | 15,70       |
|                | 12 | 18,80       |
|                | 15 | 23,60       |
|                | 20 | 31,40       |
|                | 25 | 39,20       |
|                | 30 | 47,10       |

| DIMENSIONI mm. |    | PESO kg./m. |
|----------------|----|-------------|
| 220 x          | 10 | 17,30       |
|                | 12 | 21,00       |
|                | 15 | 26,50       |
|                | 20 | 35,20       |
|                | 25 | 44,00       |
|                | 30 | 53,00       |
| 250 x          | 10 | 19,60       |
|                | 12 | 23,60       |
|                | 15 | 30,00       |
|                | 20 | 40,00       |
|                | 25 | 50,00       |
|                | 30 | 60,00       |
| 300 x          | 10 | 23,60       |
|                | 12 | 28,30       |
|                | 15 | 36,00       |
|                | 20 | 48,00       |
|                | 25 | 60,00       |
|                | 30 | 72,00       |
| 400 x          | 10 | 31,20       |
|                | 12 | 37,44       |
|                | 15 | 46,80       |
|                | 20 | 62,40       |
|                | 25 | 78,00       |
|                | 30 | 93,60       |
| 500 x          | 10 | 39,00       |
|                | 12 | 46,80       |
|                | 15 | 58,50       |
|                | 20 | 78,00       |
|                | 25 | 97,50       |
|                | 30 | 117,00      |



# quadro

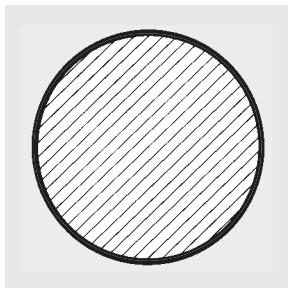


| DIMENSIONI LATO mm. | PESO kg./m. |
|---------------------|-------------|
| 6                   | 0,283       |
| 8                   | 0,502       |
| 10                  | 0,785       |
| 12                  | 1,13        |
| 14                  | 1,54        |
| 15                  | 1,77        |
| 16                  | 2,01        |
| 18                  | 2,54        |
| 20                  | 3,14        |
| 22                  | 3,80        |
| 25                  | 4,91        |

| DIMENSIONI LATO mm. | PESO kg./m. |
|---------------------|-------------|
| 30                  | 7,07        |
| 35                  | 9,62        |
| 40                  | 12,6        |
| 50                  | 19,6        |
| 60                  | 28,3        |
| 70                  | 38,5        |
| 80                  | 50,2        |
| 90                  | 63,6        |
| 100                 | 78,5        |
| 110                 | 95,0        |
| 120                 | 113,0       |



# tondo liscio



| DIAMETRO mm. | PESO kg./m. |
|--------------|-------------|
| 6            | 0,222       |
| 8            | 0,395       |
| 10           | 0,617       |
| 12           | 0,888       |
| 14           | 1,21        |
| 15           | 1,39        |
| 16           | 1,58        |
| 18           | 2,00        |
| 20           | 2,47        |
| 22           | 2,98        |
| 24           | 3,55        |
| 25           | 3,85        |
| 30           | 5,55        |
| 35           | 7,55        |
| 40           | 9,86        |
| 45           | 12,50       |
| 50           | 15,40       |
| 60           | 22,30       |
| 70           | 30,20       |
| 80           | 39,50       |
| 90           | 49,90       |
| 100          | 61,60       |
| 110          | 74,60       |
| 120          | 88,80       |
| 130          | 104         |
| 140          | 121         |
| 150          | 139         |
| 160          | 158         |
| 170          | 178         |

| DIAMETRO mm. | PESO kg./m. |
|--------------|-------------|
| 180          | 200         |
| 190          | 223         |
| 200          | 247         |
| 220          | 289         |

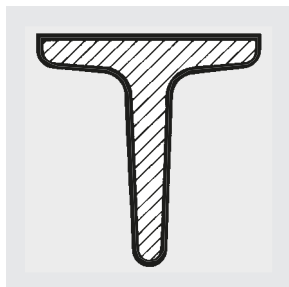


ANES

L5

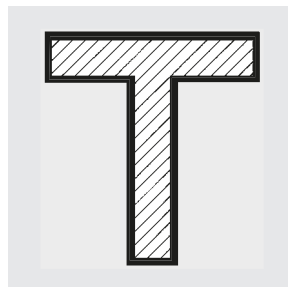


# profilati a “T”



## a spigoli arrotondati

| DIMENSIONI mm.        | PESO kg./m. |
|-----------------------|-------------|
| <b>100 x 100 x 11</b> | 16,40       |
| <b>120 x 120 x 13</b> | 23,20       |

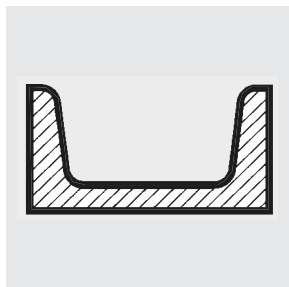


## a spigoli vivi

| DIMENSIONI mm.       | PESO kg./m. |
|----------------------|-------------|
| <b>20 x 20 x 4</b>   | 1,13        |
| <b>25 x 25 x 4,5</b> | 1,61        |
| <b>30 x 30 x 5</b>   | 2,16        |
| <b>35 x 35 x 5,5</b> | 2,78        |
| <b>40 x 40 x 6</b>   | 3,49        |
| <b>45 x 45 x 6,5</b> | 4,26        |
| <b>50 x 50 x 7</b>   | 5,11        |
| <b>60 x 60 x 8</b>   | 7,03        |
| <b>70 x 70 x 9</b>   | 9,26        |
| <b>80 x 80 x 10</b>  | 11,90       |



## ferri a “U”



### serie normale

| DIMENSIONI mm.     | PESO kg./m. |
|--------------------|-------------|
| <b>30 x 33 x 5</b> | 4,27        |
| <b>40 x 35 x 5</b> | 4,88        |
| <b>50 x 38 x 5</b> | 5,59        |

| DIMENSIONI mm.        | PESO kg./m. |
|-----------------------|-------------|
| <b>65 x 42 x 5,5</b>  | 7,09        |
| <b>80 x 45 x 6</b>    | 8,65        |
| <b>100 x 50 x 6</b>   | 10,60       |
| <b>120 x 55 x 7</b>   | 13,30       |
| <b>140 x 60 x 7</b>   | 16,00       |
| <b>160 x 65 x 7,5</b> | 18,90       |
| <b>180 x 70 x 8</b>   | 22,00       |
| <b>200 x 75 x 8,5</b> | 25,30       |
| <b>220 x 80 x 9</b>   | 29,40       |
| <b>240 x 85 x 9,5</b> | 33,20       |
| <b>260 x 90 x 10</b>  | 37,90       |
| <b>280 x 95 x 10</b>  | 41,90       |
| <b>300 x 100 x 10</b> | 46,10       |

### serie speciale

| DIMENSIONI mm.       | PESO kg./m. |
|----------------------|-------------|
| <b>25 x 12 x 4</b>   | 1,30        |
| <b>30 x 15 x 5</b>   | 1,98        |
| <b>35 x 17 x 5,5</b> | 2,52        |
| <b>40 x 20 x 6</b>   | 3,32        |
| <b>50 x 25 x 6</b>   | 4,15        |
| <b>60 x 30 x 6,5</b> | 5,45        |
|                      |             |
|                      |             |
|                      |             |
|                      |             |
|                      |             |



## tondo c.a.

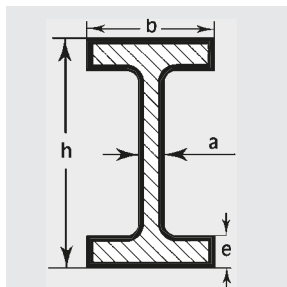
| DIAMETRO mm. | PESO kg./m. |
|--------------|-------------|
| <b>6</b>     | 0,222       |
| <b>8</b>     | 0,395       |
| <b>10</b>    | 0,617       |
| <b>12</b>    | 0,888       |

| DIMENSIONI mm. | PESO kg./m. |
|----------------|-------------|
| <b>14</b>      | 1,208       |
| <b>16</b>      | 1,578       |
| <b>20</b>      | 2,468       |



## rete elettrosaldata

| MAGLIAI mm.        | PIATTO | PESO PANNELLO kg. | PESO AL m. <sup>2</sup> |
|--------------------|--------|-------------------|-------------------------|
| <b>10 x 10 x 5</b> | 2x3    | 18,48             | 3,08                    |
| <b>15 x 15 x 5</b> | 2x3    | 12,63             | 2,11                    |
| <b>20 x 20 x 5</b> | 2x3    | 9,24              | 1,54                    |
| <b>15 x 15 x 6</b> | 2x3    | 18,20             | 3,03                    |
| <b>20 x 20 x 6</b> | 2x3    | 13,32             | 2,22                    |
| <b>15 x 15 x 8</b> | 2x3    | 32,39             | 5,40                    |
| <b>20 x 20 x 8</b> | 2x3    | 23,70             | 3,95                    |

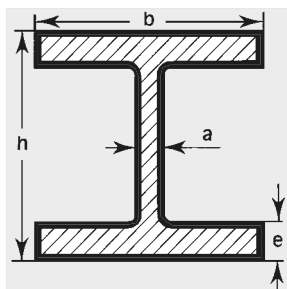


**IPE**

[illegible]



# travi "HE"



**A** = serie alleggerita  
**B** = serie normale  
**M** = serie rinforzata

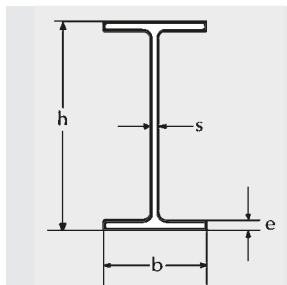
## ad ali larghe parallele

| DIMENSIONI mm. |                  |        |   |   | PESO kg./m. |
|----------------|------------------|--------|---|---|-------------|
|                | h                | b      | a | e |             |
| <b>100 A</b>   | 96 x 100 x 5     | x 8    |   |   | 16,7        |
| <b>B</b>       | 100 x 100 x 6    | x 10   |   |   | 20,4        |
| <b>M</b>       | 120 x 106 x 12   | x 20   |   |   | 41,8        |
| <b>120 A</b>   | 114 x 120 x 5    | x 8    |   |   | 19,9        |
| <b>B</b>       | 120 x 120 x 6,5  | x 11   |   |   | 26,7        |
| <b>M</b>       | 140 x 126 x 12,5 | x 21   |   |   | 52,1        |
| <b>140 A</b>   | 133 x 140 x 5,5  | x 8,5  |   |   | 24,7        |
| <b>B</b>       | 140 x 140 x 7    | x 12   |   |   | 33,7        |
| <b>M</b>       | 160 x 146 x 13   | x 22   |   |   | 63,2        |
| <b>160 A</b>   | 152 x 160 x 6    | x 9    |   |   | 30,4        |
| <b>B</b>       | 160 x 160 x 8    | x 13   |   |   | 42,6        |
| <b>M</b>       | 180 x 166 x 14   | x 23   |   |   | 76,2        |
| <b>180 A</b>   | 171 x 180 x 6    | x 9,5  |   |   | 35,5        |
| <b>B</b>       | 180 x 180 x 8,5  | x 14   |   |   | 51,2        |
| <b>M</b>       | 200 x 186 x 14,5 | x 24   |   |   | 88,9        |
| <b>200 A</b>   | 190 x 200 x 6,5  | x 10   |   |   | 42,3        |
| <b>B</b>       | 200 x 200 x 9    | x 15   |   |   | 61,3        |
| <b>M</b>       | 220 x 206 x 15   | x 25   |   |   | 103,0       |
| <b>220 A</b>   | 210 x 220 x 7    | x 11   |   |   | 50,5        |
| <b>B</b>       | 220 x 220 x 9,5  | x 16   |   |   | 71,5        |
| <b>M</b>       | 240 x 226 x 15,5 | x 26   |   |   | 117,0       |
| <b>240 A</b>   | 230 x 240 x 7,5  | x 12   |   |   | 60,3        |
| <b>B</b>       | 240 x 240 x 10   | x 17   |   |   | 83,2        |
| <b>M</b>       | 270 x 248 x 18   | x 32   |   |   | 157,0       |
| <b>260 A</b>   | 250 x 260 x 7,5  | x 12,5 |   |   | 68,2        |
| <b>B</b>       | 260 x 260 x 10   | x 17,5 |   |   | 93,0        |
| <b>M</b>       | 290 x 268 x 18   | x 32,5 |   |   | 172,0       |

| DIMENSIONI mm. |                  |        |   |   | PESO kg./m. |
|----------------|------------------|--------|---|---|-------------|
|                | h                | b      | a | e |             |
| <b>280 A</b>   | 270 x 280 x 8    | x 13   |   |   | 76,4        |
| <b>B</b>       | 280 x 280 x 10,5 | x 18   |   |   | 103,0       |
| <b>M</b>       | 310 x 288 x 18,5 | x 33   |   |   | 189,0       |
| <b>300 A</b>   | 290 x 300 x 8,5  | x 14   |   |   | 88,3        |
| <b>B</b>       | 300 x 300 x 11   | x 19   |   |   | 117,0       |
| <b>M</b>       | 340 x 310 x 21   | x 39   |   |   | 238,0       |
| <b>320 A</b>   | 310 x 300 x 9    | x 15,5 |   |   | 97,6        |
| <b>B</b>       | 320 x 300 x 11,5 | x 20,5 |   |   | 127         |
| <b>M</b>       | 359 x 309 x 21   | x 40   |   |   | 245         |
| <b>340 A</b>   | 330 x 300 x 9,5  | x 16,5 |   |   | 105         |
| <b>B</b>       | 340 x 300 x 12   | x 21,5 |   |   | 134         |
| <b>M</b>       | 377 x 309 x 21   | x 40   |   |   | 248         |
| <b>360 A</b>   | 350 x 300 x 10   | x 17,5 |   |   | 112         |
| <b>B</b>       | 360 x 300 x 12,5 | x 22,5 |   |   | 142         |
| <b>M</b>       | 395 x 308 x 21   | x 40   |   |   | 250         |
| <b>400 A</b>   | 390 x 300 x 11   | x 19   |   |   | 125         |
| <b>B</b>       | 400 x 300 x 13,5 | x 24   |   |   | 155         |
| <b>M</b>       | 432 x 307 x 21   | x 40   |   |   | 256         |
| <b>450 A</b>   | 440 x 300 x 11,5 | x 21   |   |   | 140         |
| <b>B</b>       | 450 x 300 x 14   | x 26   |   |   | 171         |
| <b>M</b>       | 478 x 307 x 21   | x 40   |   |   | 263         |
| <b>500 A</b>   | 490 x 300 x 12   | x 23   |   |   | 155         |
| <b>B</b>       | 500 x 300 x 14,5 | x 28   |   |   | 187         |
| <b>M</b>       | 524 x 306 x 21   | x 40   |   |   | 270         |
| <b>600 A</b>   | 590 x 300 x 13   | x 25   |   |   | 178         |
| <b>B</b>       | 600 x 300 x 15,5 | x 30   |   |   | 212         |
| <b>M</b>       | 620 x 305 x 21   | x 40   |   |   | 285         |



# travi IPE

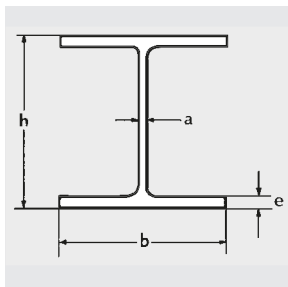


## tabella dei carichi netti uniformemente ripartiti per $\sigma = 1600 \text{ kg/cm}^2$

| h   | DISTANZA TRA GLI APPOGGI in metri |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----|-----------------------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|     | 2.50                              | 3.00   | 3.50   | 4.00  | 4.50  | 5.00  | 5.50  | 6.00  | 7.00  | 8.00  | 9.00  | 10.00 | 11.00 | 12.00 | 13.00 | 14.00 |
| 80  | 1009                              | 835    | 710    | 616   | 542   | 482   | —     | —     | —     | —     | —     | —     | —     | —     | —     | —     |
| 100 | 1731                              | 1435   | 1222   | 1062  | 936   | 835   | 751   | 681   | —     | —     | —     | —     | —     | —     | —     | —     |
| 120 | 2687                              | 2230   | 1902   | 1654  | 1460  | 1305  | 1176  | 1068  | 896   | —     | —     | —     | —     | —     | —     | —     |
| 140 | 3925                              | 3259   | 2782   | 2422  | 2140  | 1914  | 1728  | 1571  | 1323  | 1133  | —     | —     | —     | —     | —     | —     |
| 160 | 5541                              | 4603   | 3931   | 3425  | 3029  | 2711  | 2450  | 2230  | 1882  | 1617  | 1408  | —     | —     | —     | —     | —     |
| 180 | 7428                              | 6173   | 5273   | 4597  | 4068  | 3643  | 3294  | 3002  | 2538  | 2185  | 1907  | 1681  | 1492  | —     | —     | —     |
| 200 | 9876                              | 8210   | 7016   | 6118  | 5417  | 4854  | 4391  | 4004  | 3390  | 2925  | 2557  | 2259  | 2011  | 1800  | 1619  | —     |
| 220 | 12837                             | 10673  | 9124   | 7959  | 7050  | 6320  | 5720  | 5219  | 4424  | 3822  | 3348  | 2963  | 2644  | 2373  | 2140  | 1937  |
| 240 | 16512                             | 13732  | 11741  | 10246 | 9078  | 8141  | 7371  | 6728  | 5709  | 4939  | 4332  | 3840  | 3432  | 3087  | 2791  | 2532  |
| 270 | 21874                             | 18195  | 15563  | 13583 | 12040 | 10802 | 9785  | 8935  | 7592  | 6575  | 5776  | 5130  | 4595  | 4143  | 3754  | 3417  |
| 300 | 28413                             | 23638  | 20222  | 17655 | 15653 | 14048 | 12731 | 11629 | 9889  | 8574  | 7542  | 6707  | 6017  | 5435  | 4935  | 4101  |
| 330 | 36383                             | 30274  | 25904  | 22620 | 20060 | 18007 | 16323 | 14916 | 12694 | 11016 | 9698  | 8635  | 7756  | 7016  | 6382  | 5831  |
| 360 | 46142                             | 38399  | 32860  | 28700 | 25457 | 22857 | 20724 | 18942 | 16130 | 14007 | 12343 | 11000 | 9891  | 8957  | 8158  | 7465  |
| 400 | 59226                             | 49294  | 42191  | 36855 | 32697 | 29364 | 26631 | 24350 | 20747 | 18029 | 15901 | 14185 | 12769 | 11577 | 10559 | 9677  |
| 450 | 76606                             | 63767  | 54585  | 47689 | 42317 | 38012 | 34482 | 31534 | 26885 | 23379 | 20635 | 18424 | 16601 | 15069 | 13760 | 12628 |
| 500 | 98589                             | 82074  | 70265  | 61397 | 54490 | 48954 | 44417 | 40629 | 34656 | 30154 | 26632 | 23797 | 21460 | 19498 | 17824 | 16376 |
| 550 | 124663                            | 103788 | 88863  | 77656 | 68927 | 61934 | 56202 | 51417 | 43875 | 38192 | 33748 | 30172 | 27226 | 24754 | 22646 | 20824 |
| 600 | 156879                            | 130620 | 111847 | 97752 | 86775 | 77982 | 70776 | 64761 | 55283 | 48144 | 42564 | 38076 | 34381 | 31282 | 28641 | 26360 |



# travi HEA

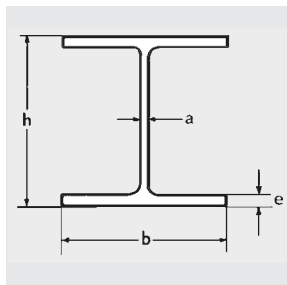


## tabella dei carichi netti uniformemente ripartiti per $\sigma = 1600 \text{ kg/cm}^2$

| h    | DISTANZA TRA GLI APPOGGI in metri |        |        |        |        |        |        |        |        |        |        |       |
|------|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
|      | 3                                 | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     | 12     | 13     | 14    |
| 100  | 3064                              | 2269   | 1785   | 1457   | —      | —      | —      | —      | —      | —      | —      | —     |
| 120  | 4463                              | 3312   | 2614   | 2142   | 1800   | —      | —      | —      | —      | —      | —      | —     |
| 140  | 6539                              | 4861   | 3844   | 3158   | 2661   | 2282   | —      | —      | —      | —      | —      | —     |
| 160  | 9295                              | 6918   | 5480   | 4511   | 3810   | 3276   | 2855   | 2512   | —      | —      | —      | —     |
| 180  | 12437                             | 9265   | 7348   | 6059   | 5127   | 4419   | 3861   | 3408   | 3030   | —      | —      | —     |
| 200  | 16470                             | 12278  | 9746   | 8044   | 6816   | 5885   | 5151   | 4556   | 4061   | 3641   | —      | —     |
| 220  | 21821                             | 16277  | 12931  | 10683  | 9063   | 7835   | 6869   | 6087   | 5437   | 4887   | 4414   | —     |
| 240  | 28618                             | 21358  | 16978  | 14037  | 11920  | 10317  | 9057   | 8036   | 7191   | 6476   | 5862   | 5327  |
| 260  | 35464                             | 26478  | 21060  | 17425  | 14809  | 12830  | 11275  | 10018  | 8977   | 8098   | 7344   | 6688  |
| 280  | 42863                             | 32013  | 25473  | 21087  | 17933  | 15548  | 13676  | 12163  | 10912  | 9856   | 8951   | 8164  |
| 300  | 53493                             | 39965  | 31813  | 26349  | 22421  | 19453  | 17125  | 15244  | 13690  | 12380  | 11258  | 10283 |
| 320  | 62852                             | 46368  | 37400  | 30987  | 26379  | 22898  | 20170  | 17967  | 16147  | 14615  | 13306  | 12164 |
| 340  | 71363                             | 53338  | 42481  | 35209  | 29984  | 26039  | 22947  | 20453  | 18393  | 16659  | 15176  | 13889 |
| 360  | 80301                             | 60034  | 47822  | 39646  | 33775  | 29343  | 25871  | 23071  | 20760  | 18815  | 17152  | 15711 |
| 400  | 98182                             | 73418  | 58509  | 48528  | 41364  | 35959  | 31790  | 28317  | 25567  | 23139  | 21119  | 19369 |
| 450  | 123310                            | 92237  | 73538  | 61025  | 52047  | 45278  | 39983  | 35719  | 32204  | 29252  | 26733  | 24553 |
| 500  | 150997                            | 112977 | 90102  | 74801  | 63827  | 55558  | 49092  | 43888  | 39603  | 36005  | 32937  | 30286 |
| 550  | 176564                            | 132132 | 105407 | 87535  | 74721  | 65070  | 57526  | 51458  | 46463  | 42273  | 38702  | 35618 |
| 600  | 203834                            | 152564 | 121731 | 101116 | 86340  | 75214  | 66520  | 59530  | 53778  | 48956  | 45026  | 41301 |
| 650  | 232816                            | 174280 | 139082 | 115553 | 98692  | 86000  | 76085  | 68116  | 61560  | 56066  | 51388  | 47351 |
| 700  | 265628                            | 198864 | 158724 | 131896 | 112674 | 98200  | 86910  | 77832  | 70366  | 64112  | 58788  | 54195 |
| 800  | 327008                            | 244864 | 195488 | 162496 | 138866 | 121088 | 107210 | 96064  | 86903  | 79232  | 72706  | 67081 |
| 900  | 403724                            | 302352 | 241428 | 200728 | 171584 | 149664 | 132558 | 118824 | 107540 | 98096  | 90065  | 83146 |
| 1000 | 476624                            | 356992 | 285104 | 237088 | 202713 | 176864 | 156698 | 140512 | 127218 | 116090 | 106642 | 98500 |



# travi HEB

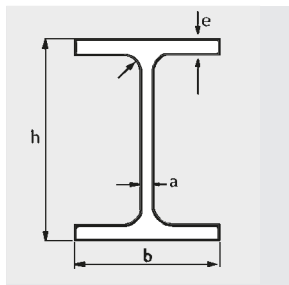


## tabella dei carichi netti uniformemente ripartiti per $\sigma = 1600 \text{ kg/cm}^2$

| h    | DISTANZA TRA GLI APPOGGI in metri |        |        |        |        |        |        |        |        |        |        |        |
|------|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|      | 3                                 | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     | 12     | 13     | 14     |
| 100  | 3778                              | 2798   | 2202   | 1797   | 1502   | —      | —      | —      | —      | —      | —      | —      |
| 120  | 6063                              | 4501   | 3553   | 2911   | 2446   | 2090   | —      | —      | —      | —      | —      | —      |
| 140  | 9114                              | 6777   | 5361   | 4405   | 3713   | 3186   | 2768   | —      | —      | —      | —      | —      |
| 160  | 13141                             | 9781   | 7748   | 6379   | 5388   | 4635   | 4039   | 3554   | —      | —      | —      | —      |
| 180  | 18022                             | 13427  | 10649  | 8780   | 7431   | 6406   | 5597   | 4940   | 4393   | —      | —      | —      |
| 200  | 24135                             | 17994  | 14285  | 11792  | 9993   | 8629   | 7554   | 6683   | 5958   | 5344   | —      | —      |
| 220  | 31187                             | 23265  | 18483  | 15272  | 12957  | 11203  | 9823   | 8705   | 7777   | 6992   | 6317   | —      |
| 240  | 39770                             | 29682  | 23596  | 19511  | 16569  | 14342  | 12591  | 11174  | 10000  | 9006   | 8153   | 7411   |
| 260  | 48786                             | 36427  | 28974  | 23974  | 20377  | 17655  | 15518  | 13789  | 12358  | 11150  | 10113  | 9212   |
| 280  | 58569                             | 43747  | 34812  | 28821  | 24512  | 21255  | 18700  | 16633  | 14924  | 13483  | 12248  | 11174  |
| 300  | 71327                             | 53290  | 42422  | 35137  | 29900  | 25943  | 22839  | 20333  | 18261  | 16515  | 15020  | 13721  |
| 320  | 81963                             | 61250  | 48771  | 40410  | 34401  | 29863  | 26305  | 23433  | 21060  | 19062  | 17351  | 15867  |
| 340  | 91755                             | 68582  | 54624  | 45274  | 38558  | 33487  | 29513  | 26307  | 23659  | 21431  | 19525  | 17872  |
| 360  | 101971                            | 76130  | 60728  | 50346  | 42890  | 37263  | 32854  | 29300  | 26364  | 23895  | 21784  | 19954  |
| 400  | 122412                            | 91568  | 72951  | 60508  | 51576  | 44838  | 39641  | 35313  | 31962  | 28859  | 26341  | 24160  |
| 450  | 150949                            | 112913 | 90022  | 74705  | 63715  | 55430  | 49948  | 43728  | 39427  | 35813  | 32729  | 30062  |
| 500  | 182474                            | 136528 | 108886 | 90395  | 77134  | 67142  | 59328  | 53040  | 47861  | 43514  | 42238  | 38149  |
| 550  | 211451                            | 158240 | 126234 | 104830 | 89484  | 77926  | 68891  | 61624  | 55642  | 50624  | 46347  | 42653  |
| 600  | 242558                            | 181547 | 144856 | 120325 | 102742 | 89501  | 79262  | 70838  | 63993  | 58254  | 53365  | 49145  |
| 650  | 275805                            | 206460 | 164763 | 136890 | 116916 | 101880 | 90135  | 80694  | 72928  | 66420  | 60878  | 56895  |
| 700  | 312450                            | 233916 | 186700 | 155140 | 132530 | 115512 | 102222 | 91542  | 82760  | 75401  | 69137  | 63734  |
| 800  | 382360                            | 286312 | 228578 | 190000 | 162371 | 141584 | 125357 | 112324 | 101612 | 92642  | 85012  | 78434  |
| 900  | 467607                            | 350196 | 279633 | 232494 | 198740 | 173352 | 153541 | 137634 | 124566 | 113628 | 104327 | 96314  |
| 1000 | 549031                            | 411224 | 328414 | 273102 | 233504 | 203728 | 180498 | 161852 | 146538 | 133725 | 122834 | 113077 |



# travi HEM



## tabella dei carichi netti uniformemente ripartiti per $\sigma = 1600 \text{ kg/cm}^2$

| h    | DISTANZA TRA GLI APPOGGI in metri |        |        |        |        |        |        |        |        |        |        |        |
|------|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|      | 3                                 | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     | 12     | 13     | 14     |
| 100  | 7981                              | 5912   | 4654   | 3802   | 3181   | 2705   | —      | —      | —      | —      | —      | —      |
| 120  | 12131                             | 9007   | 7112   | 5771   | 4901   | 4191   | 3627   | —      | —      | —      | —      | —      |
| 140  | 17346                             | 12900  | 10205  | 8388   | 7072   | 6070   | 5276   | 4628   | —      | —      | —      | —      |
| 160  | 23920                             | 17806  | 14108  | 11617  | 9816   | 8446   | 7363   | 6482   | 5747   | —      | —      | —      |
| 180  | 31647                             | 23580  | 18704  | 15423  | 13055  | 11256  | 9837   | 8685   | 7726   | 6911   | —      | —      |
| 200  | 40948                             | 30531  | 24239  | 20011  | 16961  | 14647  | 12825  | 11347  | 10119  | 9078   | 8182   | —      |
| 220  | 51701                             | 38571  | 30646  | 25324  | 21489  | 18583  | 16297  | 14445  | 12909  | 11609  | 10491  | 9516   |
| 240  | 76327                             | 56970  | 45294  | 37457  | 31814  | 27543  | 24186  | 21469  | 19217  | 17315  | 15681  | 14258  |
| 260  | 91641                             | 68430  | 54434  | 45047  | 38292  | 33183  | 29171  | 25927  | 23242  | 20975  | 19031  | 17340  |
| 280  | 108230                            | 80842  | 64333  | 53264  | 45304  | 39287  | 34564  | 30749  | 27593  | 24931  | 22650  | 20667  |
| 300  | 147762                            | 110405 | 87895  | 72810  | 61966  | 53774  | 47350  | 42163  | 37875  | 34263  | 31169  | 28484  |
| 320  | 161394                            | 120617 | 96052  | 79594  | 67769  | 58838  | 51838  | 46188  | 41522  | 37592  | 34229  | 31312  |
| 340  | 172451                            | 128604 | 102437 | 84909  | 72319  | 62814  | 55366  | 49358  | 44398  | 40222  | 36651  | 33555  |
| 360  | 182712                            | 136596 | 108827 | 90231  | 76876  | 66798  | 58904  | 52663  | 47285  | 42885  | 39087  | 35813  |
| 400  | 204880                            | 153212 | 124748 | 101288 | 86342  | 75070  | 66245  | 59134  | 53269  | 48840  | 44129  | 40483  |
| 450  | 233871                            | 174943 | 139481 | 115752 | 98727  | 85893  | 75853  | 67768  | 61105  | 55509  | 50733  | 46602  |
| 500  | 262863                            | 196675 | 156854 | 130216 | 111112 | 96717  | 85461  | 76402  | 68940  | 62678  | 57337  | 52721  |
| 550  | 294467                            | 220322 | 175757 | 145955 | 124588 | 108493 | 95913  | 85793  | 77463  | 70475  | 64519  | 59375  |
| 600  | 325963                            | 243974 | 194666 | 161700 | 138070 | 120277 | 106374 | 95195  | 85997  | 78284  | 71714  | 66042  |
| 650  | 358801                            | 268588 | 214343 | 178082 | 152097 | 132536 | 117256 | 104974 | 94871  | 86404  | 79194  | 72972  |
| 700  | 391630                            | 293196 | 234015 | 194460 | 166121 | 144792 | 128135 | 114750 | 103743 | 94521  | 86671  | 79900  |
| 800  | 462835                            | 346572 | 276687 | 229991 | 196546 | 171384 | 151742 | 135966 | 123000 | 112142 | 102906 | 94944  |
| 900  | 534041                            | 399948 | 319359 | 265522 | 226971 | 197976 | 175349 | 157182 | 142257 | 129764 | 119141 | 109989 |
| 1000 | 610366                            | 457164 | 365103 | 303612 | 259591 | 226488 | 200663 | 179934 | 162910 | 148865 | 136558 | 126131 |



# lamiere da coils e treno

| SPESSORE<br>mm. | PESO<br>kg./m <sup>2</sup> | DIMENSIONI mm. |             |             |             |             |
|-----------------|----------------------------|----------------|-------------|-------------|-------------|-------------|
|                 |                            | 1000 x 2000    | 1250 x 2500 | 1500 x 3000 | 2000 x 6000 | 2500 x 6000 |
|                 |                            | PESO kg        |             |             |             |             |
| <b>0,6</b>      | 4,71                       | 9,42           | 14,7        | –           | –           | –           |
| <b>0,8</b>      | 6,28                       | 12,6           | 19,7        | 28,3        | –           | –           |
| <b>1</b>        | 7,85                       | 15,7           | 24,5        | 35          | –           | –           |
| <b>1,2</b>      | 9,42                       | 18,8           | 29,5        | 42          | –           | –           |
| <b>1,5</b>      | 11,8                       | 23,6           | 36,7        | 53          | –           | –           |
| <b>2</b>        | 15,7                       | 31,4           | 49          | 71          | –           | –           |
| <b>2,5</b>      | 19,6                       | 39,3           | 61          | 88          | –           | –           |
| <b>3</b>        | 23,6                       | 47,1           | 73          | 106         | 283         | –           |
| <b>4</b>        | 31,4                       | 62,8           | 98          | 141         | 377         | –           |
| <b>5</b>        | 39,2                       | 78,5           | 123         | 176         | 472         | –           |
| <b>6</b>        | 47,1                       | 94,2           | 147         | 212         | 566         | –           |
| <b>8</b>        | 62,8                       | 126            | 196         | 282         | 754         | –           |
| <b>10</b>       | 78,5                       | 157            | 245         | 353         | 942         | –           |
| <b>12</b>       | 94,2                       | 188            | 294         | 424         | 1131        | –           |
| <b>15</b>       | 117,8                      | 236            | 368         | 530         | 1416        | –           |
| <b>20</b>       | 157,0                      | 314            | 490         | 706         | 1884        | 2355        |
| <b>25</b>       | 196,2                      | 392            | 613         | 833         | –           | 2943        |
| <b>30</b>       | 235,5                      | 472            | 736         | 1060        | –           | 3533        |
| <b>35</b>       | 274,8                      | 550            | –           | –           | –           | 4122        |
| <b>40</b>       | 314,0                      | 628            | –           | –           | –           | 4710        |
| <b>45</b>       | 353,2                      | 708            | –           | –           | –           | 5298        |
| <b>50</b>       | 392,5                      | 786            | –           | –           | –           | 5888        |
| <b>55</b>       | 431,8                      | 864            | –           | –           | –           | 6477        |
| <b>60</b>       | 471,0                      | 942            | –           | –           | –           | 7065        |
| <b>65</b>       | 510,2                      | 1020           | –           | –           | –           | –           |
| <b>70</b>       | 549,5                      | 1100           | –           | –           | –           | –           |
| <b>75</b>       | 588,8                      | 1178           | –           | –           | –           | –           |
| <b>80</b>       | 628,0                      | 1256           | –           | –           | –           | –           |
| <b>85</b>       | 667,2                      | 1335           | –           | –           | –           | –           |
| <b>90</b>       | 706,5                      | 1414           | –           | –           | –           | –           |
| <b>95</b>       | 745,8                      | 1492           | –           | –           | –           | –           |
| <b>100</b>      | 785,0                      | 1570           | –           | –           | –           | –           |



# lamiere striate

| SPESSORE (1)<br>mm. | PESO<br>kg./m <sup>2</sup> | DIMENSIONI mm. |             |             |
|---------------------|----------------------------|----------------|-------------|-------------|
|                     |                            | 1000 x 2000    | 1250 x 2500 | 1500 x 3000 |
|                     |                            | PESO kg        |             |             |
| 3                   | 28,6                       | 57,2           | 89,4        | 128,7       |
| 4                   | 36,5                       | 73,0           | 114,0       | 164,3       |
| 5                   | 44,3                       | 88,6           | 138,5       | 199,4       |
| 6                   | 52,1                       | 104,2          | 163,0       | 234,5       |
| 8                   | 67,8                       | 135,6          | 211,9       | 305,1       |
| 10                  | 83,6                       | 167,2          | 261,2       | 376,2       |
| 12                  | 99,1                       | 198,2          | 309,7       | 446,0       |

(1) Lo spessore s'intende esclusa la stiratura.



# lamiere bugnate

| SPESSORE<br>mm. | PESO<br>kg./m <sup>2</sup> | DIMENSIONI mm. |             |             |
|-----------------|----------------------------|----------------|-------------|-------------|
|                 |                            | 1000 x 2000    | 1250 x 2500 | 1500 x 3000 |
|                 |                            | PESO kg        |             |             |
| 3               | 26,05                      | 52,1           | 81,4        | 117,2       |
| 4               | 33,95                      | 67,9           | 106,1       | 152,8       |
| 5               | 41,75                      | 83,5           | 130,5       | 187,8       |
| 6               | 52,10                      | 104,2          | 162,8       | 234,5       |
| 8               | 67,90                      | 135,8          | 212,2       | 305,6       |



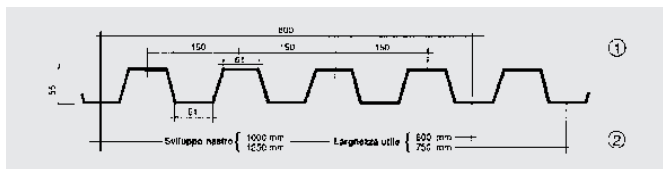
# lamiere zincate

| SPESSORE<br>mm. | PESO<br>kg./m <sup>2</sup> | DIMENSIONI mm. |             |             |
|-----------------|----------------------------|----------------|-------------|-------------|
|                 |                            | 1000 x 2000    | 1250 x 2500 | 1500 x 3000 |
|                 |                            | PESO kg        |             |             |
| 0,60            | 5,00                       | 10,00          | 15,63       | 22,50       |
| 0,80            | 6,50                       | 13,00          | 20,32       | 29,25       |
| 1,00            | 8,00                       | 16,00          | 25,00       | 36,00       |
| 1,20            | 9,00                       | 18,00          | 28,13       | 40,50       |
| 1,50            | 12,00                      | 24,00          | 37,50       | 54,00       |
| 2,00            | 16,00                      | 32,00          | 50,00       | 72,00       |
| 2,50            | 20,00                      | 40,00          | 62,50       | 90,00       |
| 3,00            | 24,00                      | 48,00          | 75,00       | 108,00      |



# lamiere grecate

## per getto



## EGB 210

### Caratteristiche statiche

| SPESSORE                     | 0,6   | 0,7   | 0,8   | 1,0   | 1,2   |
|------------------------------|-------|-------|-------|-------|-------|
| <b>Peso kg/m<sup>2</sup></b> | 7,85  | 9,16  | 10,47 | 13,08 | 15,07 |
| <b>Peso kg/m 1000</b>        | 4,71  | 5,49  | 6,28  | 7,85  | 9,42  |
| <b>J cm<sup>4</sup>/m</b>    | 42,19 | 51,28 | 60,67 | 79,92 | 98,39 |
| <b>W cm<sup>3</sup>/m</b>    | 12,20 | 15,15 | 18,28 | 25,01 | 32,19 |

I valori delle portate in grassetto tengono calcolo di una freccia  $\leq 1/200$  l.

Quando non specificato, la preverniciatura avviene sulla faccia 1.

Carico max uniformemente distribuito in kg/m<sup>2</sup> per resistenza  $\sigma = 1450$  kg/cm<sup>2</sup>.

I carichi più elevati non prevedono limitazioni di freccia.

| ▲▲<br>SPESSORE<br>mm | distanza fra gli appoggi in metri |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                      | 1,00                              | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 |
| 0,6                  | 1415                              | 906  | 629  | 462  | 354  | 280  | 226  | 187  | 157  | 134  | 116  | 101  | 88   | 78   | 70   | 63   | 57   |
|                      |                                   |      |      |      |      |      | 218  | 164  | 126  | 99   | 79   | 65   | 53   | 44   | 37   | 32   | –    |
| 0,7                  | 1757                              | 1125 | 781  | 574  | 439  | 347  | 281  | 232  | 195  | 166  | 143  | 125  | 110  | 97   | 87   | 78   | 70   |
|                      |                                   |      |      |      |      |      | 265  | 199  | 153  | 120  | 96   | 78   | 65   | 54   | 45   | 39   | –    |
| 0,8                  | 2120                              | 1357 | 942  | 692  | 530  | 419  | 339  | 280  | 236  | 201  | 173  | 151  | 133  | 117  | 105  | 94   | 85   |
|                      |                                   |      |      |      |      |      | 313  | 235  | 181  | 143  | 114  | 93   | 76   | 64   | 54   | 46   | –    |
| 1,0                  | 2901                              | 1857 | 1289 | 947  | 725  | 573  | 464  | 384  | 322  | 275  | 237  | 206  | 181  | 161  | 143  | 129  | 116  |
|                      |                                   |      |      |      |      | 566  | 412  | 310  | 239  | 188  | 150  | 122  | 101  | 84   | 71   | 60   | 52   |
| 1,2                  | 3734                              | 2390 | 1660 | 1219 | 934  | 738  | 597  | 494  | 415  | 354  | 305  | 266  | 233  | 207  | 184  | 165  | 149  |
|                      |                                   |      |      |      |      | 697  | 508  | 382  | 294  | 231  | 185  | 150  | 124  | 103  | 87   | 74   | 63   |
| Freccia cm           | 0,21                              | 0,33 | 0,48 | 0,65 | 0,85 | 1,13 | 1,25 | 1,38 | 1,50 | 1,63 | 1,75 | 1,88 | 2,00 | 2,13 | 2,25 | 2,38 | 2,50 |

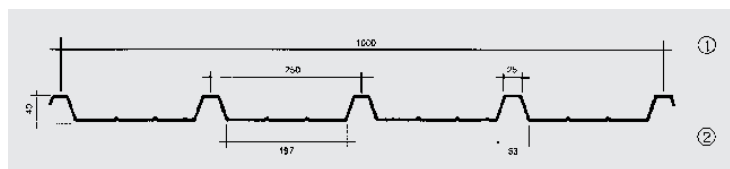
| ▲▲▲▲       | distanza fra gli appoggi in metri |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------------|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0,6        | 1769                              | 1132 | 786  | 578  | 442  | 349  | 283  | 234  | 197  | 167  | 144  | 126  | 111  | 98   | 87   | 78   | 71   |
|            |                                   |      |      |      |      |      |      |      |      | 165  | 132  | 108  | 89   | 74   | 62   | 53   | –    |
| 0,7        | 2197                              | 1406 | 976  | 717  | 549  | 434  | 351  | 290  | 244  | 208  | 179  | 156  | 137  | 122  | 108  | 97   | 88   |
|            |                                   |      |      |      |      |      |      |      |      | 201  | 161  | 131  | 108  | 90   | 76   | 64   | 55   |
| 0,8        | 2651                              | 1696 | 1178 | 866  | 663  | 524  | 424  | 350  | 295  | 251  | 216  | 188  | 166  | 147  | 131  | 117  | 106  |
|            |                                   |      |      |      |      |      |      |      |      | 238  | 190  | 155  | 127  | 106  | 89   | 76   | 65   |
| 1,0        | 3626                              | 2321 | 1612 | 1184 | 907  | 716  | 580  | 480  | 403  | 343  | 296  | 258  | 227  | 201  | 179  | 161  | 145  |
|            |                                   |      |      |      |      |      |      |      | 398  | 313  | 251  | 204  | 168  | 140  | 118  | 100  | 86   |
| 1,2        | 4668                              | 2987 | 2074 | 1524 | 1167 | 922  | 747  | 617  | 519  | 442  | 381  | 332  | 292  | 258  | 230  | 207  | 187  |
|            |                                   |      |      |      |      |      |      |      | 490  | 385  | 308  | 251  | 207  | 172  | 145  | 123  | 106  |
| Freccia cm | 0,16                              | 0,25 | 0,36 | 0,49 | 0,64 | 0,81 | 1,00 | 1,21 | 1,50 | 1,63 | 1,75 | 1,88 | 2,00 | 2,13 | 2,25 | 2,38 | 2,50 |

Per trasformare i kg/m<sup>2</sup> in da N/m<sup>2</sup> dividere per 1,02.



# lamiere grecate

## per coperture



### EGB 1250

#### Caratteristiche statiche

| SPESSORE                      | 0,6   | 0,7   | 0,8   | 1,0   |
|-------------------------------|-------|-------|-------|-------|
| <b>Peso</b> kg/m <sup>2</sup> | 5,89  | 6,87  | 7,85  | 9,81  |
| <b>J</b> cm <sup>4</sup> /m   | 16,05 | 18,72 | 21,40 | 26,75 |
| <b>W</b> cm <sup>3</sup> /m   | 5,30  | 6,18  | 7,07  | 8,83  |

I valori delle portate in grassetto tengono calcolo di una freccia  $\leq 1/200$  l.

Quando non specificato, la perversinatura avviene sulla faccia 1.

Carico max uniformemente distribuito in kg/m<sup>2</sup> per resistenza  $\sigma = 1450$  kg/cm<sup>2</sup>.

*I carichi più elevati non prevedono limitazioni di freccia.*

| ▲▲<br>SPESSORE<br>mm | distanza fra gli appoggi in metri |      |      |      |      |            |            |            |           |           |           |           |           |
|----------------------|-----------------------------------|------|------|------|------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|
|                      | 1,00                              | 1,25 | 1,50 | 1,75 | 2,00 | 2,25       | 2,50       | 2,75       | 3,00      | 3,25      | 3,50      | 3,75      | 4,00      |
| <b>0,6</b>           | 614                               | 393  | 273  | 200  | 153  | 121        | 98         | 81         | 68        | 58        | –         | –         | –         |
|                      |                                   |      |      |      |      | <b>115</b> | <b>84</b>  | <b>63</b>  | <b>48</b> | <b>38</b> | –         | –         | –         |
| <b>0,7</b>           | 716                               | 458  | 318  | 234  | 179  | 141        | 114        | 94         | 79        | 67        | 58        | –         | –         |
|                      |                                   |      |      |      |      | <b>135</b> | <b>98</b>  | <b>73</b>  | <b>57</b> | <b>44</b> | <b>35</b> | –         | –         |
| <b>0,8</b>           | 820                               | 524  | 364  | 267  | 205  | 162        | 131        | 108        | 91        | 77        | 67        | 58        | –         |
|                      |                                   |      |      |      |      | <b>154</b> | <b>112</b> | <b>84</b>  | <b>65</b> | <b>51</b> | <b>41</b> | <b>33</b> | –         |
| <b>1,0</b>           | 1024                              | 655  | 455  | 334  | 256  | 202        | 163        | 135        | 113       | 97        | 83        | 72        | 64        |
|                      |                                   |      |      |      |      | <b>193</b> | <b>140</b> | <b>105</b> | <b>81</b> | <b>64</b> | <b>51</b> | <b>41</b> | <b>34</b> |
| <b>Freccia cm</b>    | 0,23                              | 0,36 | 0,52 | 0,71 | 0,92 | 1,12       | 1,25       | 1,37       | 1,50      | 1,62      | 1,75      | 1,87      | 2,00      |

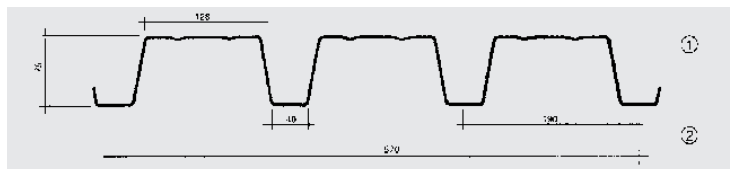
| ▲▲▲▲              | 0,6        | 0,7        | 0,8       | 1,0       |
|-------------------|------------|------------|-----------|-----------|
|                   | 768        | 491        | 341       | 251       |
|                   | 192        | 152        | 123       | 101       |
|                   | 85         | 72         | 62        | –         |
|                   | <b>81</b>  | <b>64</b>  | <b>51</b> | –         |
| <b>0,6</b>        | 896        | 573        | 398       | 292       |
|                   | 224        | 177        | 143       | 118       |
|                   | 99         | 84         | 73        | 63        |
|                   | <b>95</b>  | <b>74</b>  | <b>59</b> | <b>48</b> |
| <b>0,7</b>        | 1025       | 656        | 455       | 334       |
|                   | 256        | 202        | 164       | 135       |
|                   | 113        | 97         | 83        | 72        |
|                   | <b>108</b> | <b>85</b>  | <b>68</b> | <b>55</b> |
| <b>0,8</b>        | 1280       | 819        | 569       | 418       |
|                   | 320        | 253        | 204       | 169       |
|                   | 142        | 121        | 104       | 91        |
|                   | <b>135</b> | <b>106</b> | <b>85</b> | <b>69</b> |
| <b>1,0</b>        | 1280       | 819        | 569       | 418       |
|                   | 320        | 253        | 204       | 169       |
|                   | 142        | 121        | 104       | 91        |
|                   | <b>135</b> | <b>106</b> | <b>85</b> | <b>69</b> |
| <b>Freccia cm</b> | 0,17       | 0,27       | 0,39      | 0,53      |
|                   | 0,70       | 0,88       | 1,09      | 1,31      |
|                   | 1,50       | 1,62       | 1,75      | 1,87      |
|                   | 2,00       |            |           |           |

Per trasformare i kg/m<sup>2</sup> in da N/m<sup>2</sup> dividere per 1,02.



# lamiere grecate

## per solai



### EGB 1200

#### Caratteristiche statiche

| SPESSORE                      | 0,6   | 0,7   | 0,8   | 1,0    | 1,2    | 1,5    |
|-------------------------------|-------|-------|-------|--------|--------|--------|
| <b>Peso</b> kg/m <sup>2</sup> | 8,26  | 9,64  | 11,02 | 13,77  | 16,53  | 20,66  |
| <b>Peso</b> kg/m              | 4,71  | 5,49  | 6,28  | 7,85   | 9,42   | 11,77  |
| <b>J</b> cm <sup>4</sup> /m   | 65,18 | 80,03 | 94,71 | 126,23 | 159,47 | 207,06 |
| <b>W</b> cm <sup>3</sup> /m   | 15,28 | 18,98 | 22,96 | 31,79  | 39,68  | 50,92  |

I valori delle portate in grassetto tengono calcolo di una freccia  $\leq 1/200$  l.

Quando non specificato, la perversinatura avviene sulla faccia 1.

Carico max uniformemente distribuito in kg/m<sup>2</sup> per resistenza  $\sigma = 1450$  kg/cm<sup>2</sup>.

*I carichi più elevati non prevedono limitazioni di freccia.*

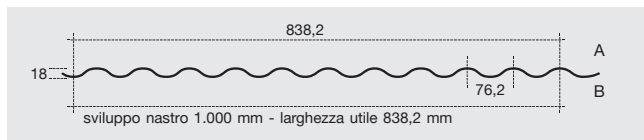
| ▲▲<br>SPESSORE<br>mm | distanza fra gli appoggi in metri |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|----------------------|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|                      | 1,50                              | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 | 3,25 | 3,50 | 3,75 | 4,00 | 4,25 | 4,50 | 4,75 | 5,00 | 5,50 | 6,00 |  |
| 0,6                  | 788                               | 579  | 443  | 350  | 284  | 234  | 197  | 168  | 145  | 126  | 111  | 98   | 88   | 79   | 71   | 59   | 49   |  |
|                      |                                   |      |      |      |      |      | 195  | 153  | 123  | 100  | 82   | 68   | 89   | 49   | 42   | 32   | 24   |  |
| 0,7                  | 979                               | 719  | 550  | 435  | 352  | 291  | 245  | 208  | 180  | 157  | 138  | 122  | 109  | 98   | 88   | 73   | 61   |  |
|                      |                                   |      |      |      |      |      | 239  | 188  | 151  | 122  | 101  | 84   | 71   | 60   | 52   | 39   | 30   |  |
| 0,8                  | 1184                              | 870  | 666  | 526  | 426  | 352  | 296  | 252  | 217  | 189  | 166  | 147  | 132  | 118  | 107  | 88   | 74   |  |
|                      |                                   |      |      |      |      |      | 283  | 222  | 178  | 145  | 119  | 99   | 84   | 71   | 61   | 46   | 35   |  |
| 1,0                  | 1639                              | 1204 | 922  | 728  | 590  | 488  | 410  | 349  | 301  | 262  | 230  | 204  | 182  | 163  | 148  | 122  | 102  |  |
|                      |                                   |      |      |      |      |      | 377  | 297  | 237  | 193  | 159  | 133  | 112  | 95   | 81   | 61   | 47   |  |
| 1,2                  | 2046                              | 1503 | 1151 | 909  | 736  | 609  | 511  | 436  | 376  | 327  | 288  | 255  | 227  | 204  | 184  | 152  | 128  |  |
|                      |                                   |      |      |      |      |      | 476  | 375  | 300  | 244  | 201  | 168  | 141  | 120  | 103  | 77   | 60   |  |
| 1,5                  | 2625                              | 1929 | 1477 | 1167 | 945  | 781  | 656  | 559  | 482  | 420  | 369  | 327  | 292  | 262  | 236  | 195  | 164  |  |
|                      |                                   |      |      |      |      |      | 618  | 486  | 389  | 317  | 261  | 218  | 183  | 156  | 134  | 100  | 77   |  |
| Freccia cm           | 0,39                              | 0,53 | 0,70 | 0,88 | 1,09 | 1,32 | 1,50 | 1,63 | 1,75 | 1,88 | 2,00 | 2,13 | 2,25 | 2,38 | 2,50 | 2,75 | 3,00 |  |

| ▲▲▲▲       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 0,6        | 985  | 723  | 554  | 438  | 354  | 293  | 246  | 210  | 181  | 158  | 138  | 123  | 109  | 98   | 89   | 73   | 62   |
|            |      |      |      |      |      |      |      |      |      |      | 137  | 114  | 96   | 82   | 70   | 53   | 41   |
| 0,7        | 1223 | 899  | 688  | 544  | 440  | 364  | 306  | 261  | 225  | 196  | 172  | 152  | 136  | 122  | 110  | 91   | 76   |
|            |      |      |      |      |      |      |      |      |      |      | 168  | 140  | 118  | 100  | 86   | 65   | 50   |
| 0,8        | 1480 | 1087 | 832  | 658  | 533  | 440  | 370  | 315  | 272  | 237  | 208  | 184  | 164  | 148  | 133  | 110  | 92   |
|            |      |      |      |      |      |      |      |      |      |      | 199  | 166  | 140  | 119  | 102  | 77   | 59   |
| 1,0        | 2049 | 1505 | 1152 | 911  | 738  | 610  | 512  | 436  | 376  | 328  | 288  | 255  | 228  | 204  | 184  | 152  | 128  |
|            |      |      |      |      |      |      |      |      |      | 322  | 265  | 221  | 186  | 158  | 136  | 102  | 79   |
| 1,2        | 2557 | 1879 | 1438 | 1137 | 921  | 761  | 639  | 545  | 470  | 409  | 360  | 319  | 284  | 255  | 230  | 190  | 160  |
|            |      |      |      |      |      |      |      |      |      | 406  | 335  | 279  | 235  | 200  | 171  | 129  | 99   |
| 1,5        | 3282 | 2411 | 1846 | 1458 | 1181 | 976  | 820  | 699  | 603  | 525  | 461  | 409  | 365  | 327  | 295  | 244  | 205  |
|            |      |      |      |      |      |      |      |      |      |      | 435  | 353  | 305  | 260  | 223  | 167  | 129  |
| Freccia cm | 0,29 | 0,40 | 0,52 | 0,66 | 0,82 | 0,99 | 1,18 | 1,38 | 1,60 | 1,88 | 2,00 | 2,13 | 2,25 | 2,38 | 2,50 | 2,75 | 3,00 |

Per trasformare i kg/m<sup>2</sup> in da N/m<sup>2</sup> dividere per 1,02.



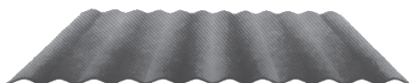
# lamiera ondulata



lunghezza 2000 - 2500 - 3000 mm

## Caratteristiche statiche

| SPESSORE mm | PESO kg/m <sup>2</sup> |
|-------------|------------------------|
| <b>0,60</b> | 5,59                   |

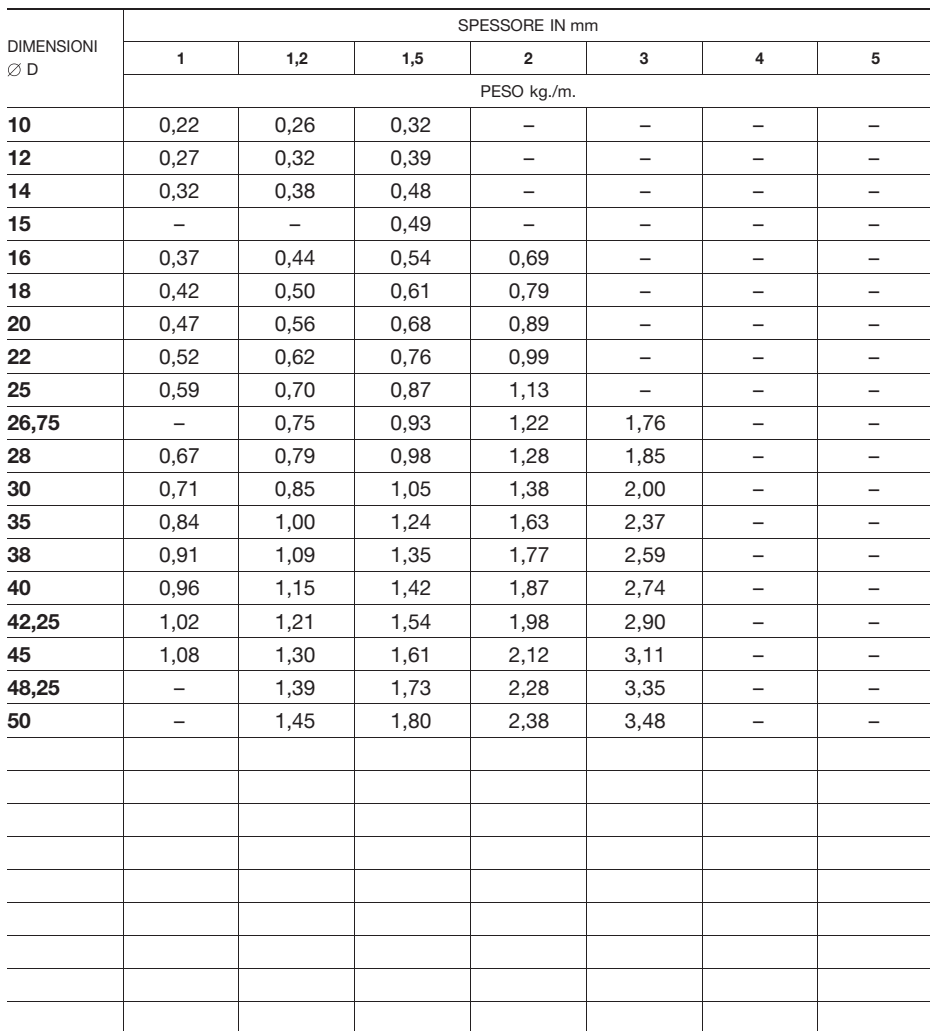


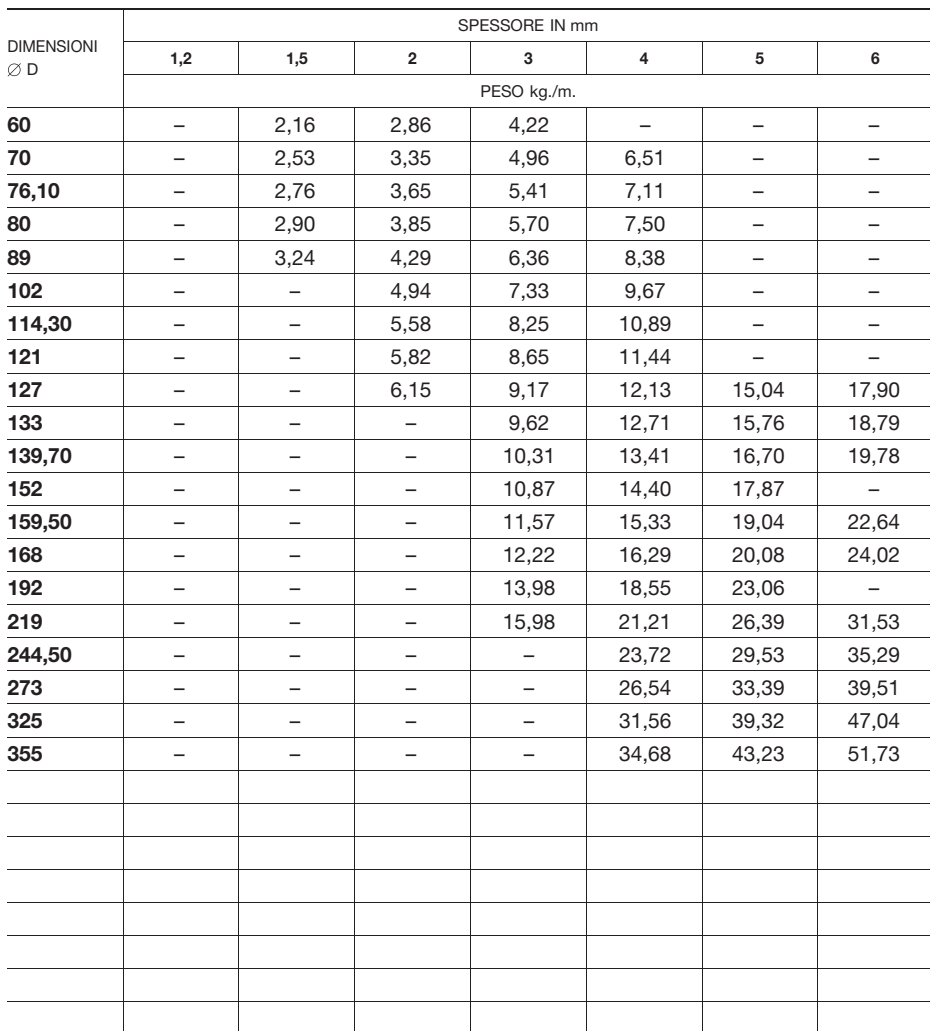
# lamiera mandorlata

## *in alluminio*

| SPESSORE<br>mm | PESO<br>kg/m <sup>2</sup> | DIMENSIONI mm |             |             |
|----------------|---------------------------|---------------|-------------|-------------|
|                |                           | 1000 x 2000   | 1250 x 2500 | 1500 x 3000 |
|                |                           | PESO kg       |             |             |
| <b>3</b>       | 9                         | 18            | 28          | 41          |

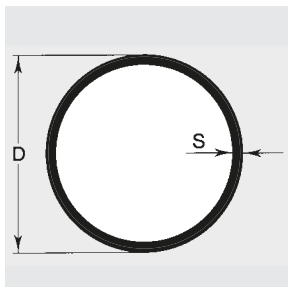








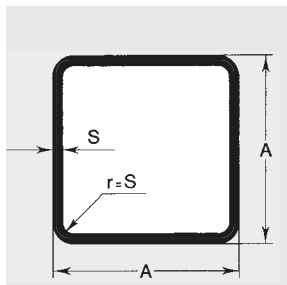
# tubi carpenteria



| DIAMETRO "D" in pollici | DIAMETRO "D" in mm | SPESSORE in mm | PESO kg./m. |
|-------------------------|--------------------|----------------|-------------|
| $\frac{3}{8}$ "         | 16,75              | 1,80           | 0,66        |
| $\frac{1}{2}$ "         | 21,25              | 2,00           | 0,95        |
| $\frac{3}{4}$ "         | 26,75              | 2,35           | 1,41        |
| <b>1"</b>               | 33,48              | 2,65           | 2,01        |
| <b>1"</b> $\frac{1}{4}$ | 42,25              | 2,65           | 2,58        |
| <b>1"</b> $\frac{1}{2}$ | 48,25              | 2,90           | 3,25        |
| <b>2"</b>               | 60                 | 2,90           | 4,11        |
| <b>2"</b> $\frac{1}{2}$ | 76                 | 3,25           | 5,80        |
| <b>3"</b>               | 89                 | 3,25           | 6,86        |
| <b>3"</b> $\frac{1}{2}$ | 102                | 3,65           | 8,74        |
| <b>4"</b>               | 114,30             | 3,65           | 9,89        |
| <b>4"</b> $\frac{1}{2}$ | 127                | 4,00           | 12,20       |
| <b>5"</b>               | 139,70             | 4,00           | 13,50       |
| <b>5"</b> $\frac{1}{2}$ | 152                | 4,50           | 16,36       |
| <b>6"</b>               | 168                | 4,50           | 18,20       |



# tubi quadri

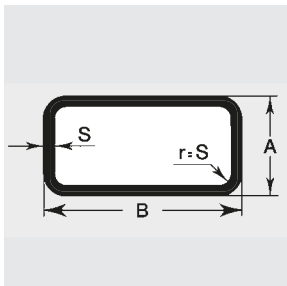


| DIMENSIONI | SPESSORE IN mm |      |       |       |       |       |
|------------|----------------|------|-------|-------|-------|-------|
|            | 1,5            | 2    | 3     | 4     | 5     | 6     |
| A x A      | PESO kg/ml     |      |       |       |       |       |
| 10 x 10    | 0,45           | –    | –     | –     | –     | –     |
| 12 x 12    | 0,50           | –    | –     | –     | –     | –     |
| 15 x 15    | 0,64           | 0,82 | –     | –     | –     | –     |
| 20 x 20    | 0,87           | 1,13 | 1,60  | –     | –     | –     |
| 25 x 25    | 1,11           | 1,44 | 2,07  | –     | –     | –     |
| 30 x 30    | 1,34           | 1,76 | 2,54  |       |       |       |
| 35 x 35    | 1,58           | 2,07 | 3,01  | –     | –     | –     |
| 40 x 40    | 1,81           | 2,39 | 3,48  | –     | –     | –     |
| 45 x 45    | 2,05           | 2,70 | 3,96  | –     | –     | –     |
| 50 x 50    | 2,28           | 3,01 | 4,43  | 5,77  | –     | –     |
| 60 x 60    | 2,75           | 3,64 | 5,37  | 7,03  | 8,75  | –     |
| 70 x 70    | 3,23           | 4,27 | 6,31  | 8,29  | 10,36 | 12,28 |
| 80 x 80    | –              | 4,90 | 7,25  | 9,55  | 11,96 | 14,21 |
| 90 x 90    | –              | 5,52 | 8,21  | 10,90 | 13,44 | 15,99 |
| 100 x 100  | –              | 6,15 | 9,14  | 12,06 | 15,05 | 17,91 |
| 120 x 120  | –              | –    | 11,00 | 14,57 | 18,18 | 21,67 |
| 150 x 150  | –              | –    | 14,00 | 18,35 | 23,28 | 27,79 |
| 175 x 175  | –              | –    | 16,00 | 21,22 | 26,41 | 31,55 |
| 200 x 200  | –              | –    | –     | 24,29 | 29,94 | 35,58 |
| 220 x 220  | –              | –    | –     | 26,54 | 33,12 | 39,35 |
| 250 x 250  | –              | –    | –     | 30,57 | 37,79 | 45,00 |
| 300 x 300  | –              | –    | –     | –     | 45,64 | 54,42 |
| 325 x 325  | –              | –    | –     | –     | 49,57 | 59,13 |
|            |                |      |       |       |       |       |
|            |                |      |       |       |       |       |
|            |                |      |       |       |       |       |
|            |                |      |       |       |       |       |
|            |                |      |       |       |       |       |

29



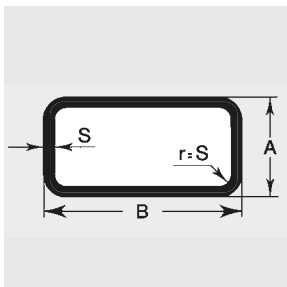
# tubi rettangolari



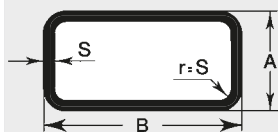
| DIMENSIONI | SPESSORE IN mm |      |      |   |   |   |
|------------|----------------|------|------|---|---|---|
|            | 1,5            | 2    | 3    | 4 | 5 | 6 |
| B x A      | PESO kg/ml     |      |      |   |   |   |
| 15 x 10    | 0,52           | –    | –    | – | – | – |
| 20 x 10    | 0,64           | 0,82 | –    | – | – | – |
| 20 x 15    | 0,75           | 0,97 | –    | – | – | – |
| 25 x 10    | 0,75           | 0,97 | –    | – | – | – |
| 25 x 15    | 0,87           | 1,13 | –    | – | – | – |
| 30 x 10    | 0,87           | 1,13 | –    | – | – | – |
| 30 x 15    | 0,99           | 1,29 | 1,83 | – | – | – |
| 30 x 20    | 1,11           | 1,44 | 2,07 | – | – | – |
| 30 x 25    | 1,22           | 1,60 | 2,31 | – | – | – |
| 35 x 15    | 1,11           | 1,44 | 2,07 | – | – | – |
| 35 x 20    | 1,22           | 1,60 | 2,31 | – | – | – |
| 40 x 10    | 1,11           | 1,44 | –    | – | – | – |
| 40 x 15    | 1,22           | 1,60 | 2,31 | – | – | – |
| 40 x 20    | 1,34           | 1,76 | 2,54 | – | – | – |
| 40 x 25    | 1,46           | 1,91 | 2,78 | – | – | – |
| 40 x 30    | 1,58           | 2,07 | 3,01 | – | – | – |
| 45 x 15    | 1,34           | 1,76 | 2,54 | – | – | – |
| 45 x 20    | 1,46           | 1,91 | 2,78 | – | – | – |
| 50 x 10    | 1,34           | 1,76 | 2,54 | – | – | – |
| 50 x 15    | 1,46           | 1,91 | 2,78 | – | – | – |
| 50 x 20    | 1,58           | 2,07 | 3,01 | – | – | – |
| 50 x 25    | 1,69           | 2,23 | 3,25 | – | – | – |
| 50 x 30    | 1,81           | 2,39 | 3,48 | – | – | – |
| 50 x 40    | 2,05           | 2,70 | 3,95 | – | – | – |
| 60 x 10    | 1,58           | 2,07 | 3,01 | – | – | – |
| 60 x 15    | 1,69           | 2,23 | 3,25 | – | – | – |
| 60 x 20    | 1,81           | 2,39 | 3,48 | – | – | – |
| 60 x 30    | 2,05           | 2,70 | 3,95 | – | – | – |



# tubi rettangolari



| DIMENSIONI | SPESSORE IN mm |      |       |       |       |       |
|------------|----------------|------|-------|-------|-------|-------|
|            | 1,5            | 2    | 3     | 4     | 5     | 6     |
| B x A      | PESO kg/ml     |      |       |       |       |       |
| 60 x 40    | 2,28           | 3,01 | 4,43  | –     | –     | –     |
| 60 x 50    | 2,52           | 3,33 | 4,90  | –     | –     | –     |
| 70 x 20    | 2,05           | 2,70 | 3,95  | –     | –     | –     |
| 70 x 30    | 2,28           | 3,01 | 4,43  | –     | –     | –     |
| 70 x 40    | 2,52           | 3,33 | 4,90  | –     | –     | –     |
| 70 x 50    | 2,76           | 3,64 | 5,37  | –     | –     | –     |
| 80 x 20    | 2,28           | 3,01 | 4,43  | –     | –     | –     |
| 80 x 30    | 2,52           | 3,33 | 4,90  | –     | –     | –     |
| 80 x 40    | 2,76           | 3,64 | 5,37  | 7,10  | –     | –     |
| 80 x 50    | 3,01           | 3,99 | 5,92  | 7,80  | –     | –     |
| 80 x 60    | 3,23           | 4,27 | 6,31  | 8,29  | –     | –     |
| 90 x 30    | 2,76           | 3,64 | 5,37  | –     | –     | –     |
| 100 x 20   | 2,76           | 3,64 | 5,37  | –     | –     | –     |
| 100 x 30   | 3,00           | 3,95 | 5,84  | 7,66  | –     | –     |
| 100 x 40   | 3,22           | 4,27 | 6,31  | 8,29  | –     | –     |
| 100 x 50   | –              | 4,58 | 6,78  | 8,92  | 11,10 | 13,17 |
| 100 x 60   | –              | 4,90 | 7,25  | 9,55  | 11,96 | 14,12 |
| 100 x 80   | –              | 6,87 | 8,21  | 10,90 | 13,44 | 15,99 |
| 120 x 30   | –              | 4,59 | 6,81  | –     | –     | –     |
| 120 x 40   | –              | 4,90 | 7,25  | 9,55  | 11,96 | 14,21 |
| 120 x 50   | –              | 5,21 | 7,72  | –     | –     | –     |
| 120 x 60   | –              | 5,53 | 8,19  | 10,80 | 13,44 | 15,99 |
| 120 x 80   | –              | 6,15 | 9,14  | 12,06 | 15,02 | 17,91 |
| 140 x 60   | –              | 6,15 | 9,14  | 12,06 | 15,02 | 17,91 |
| 150 x 30   | –              | 5,50 | 8,20  | 10,80 | –     | –     |
| 150 x 40   | –              | 5,84 | 8,67  | 11,43 | 14,31 | 17,02 |
| 150 x 50   | –              | 6,16 | 9,14  | 12,06 | 15,05 | 17,91 |
| 150 x 80   | –              | –    | 10,55 | 13,94 | –     | –     |

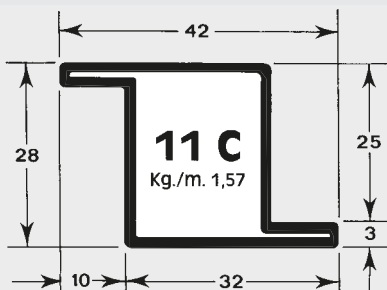
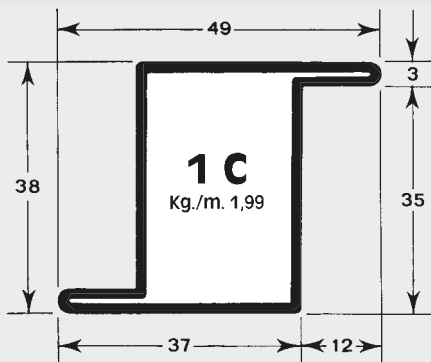
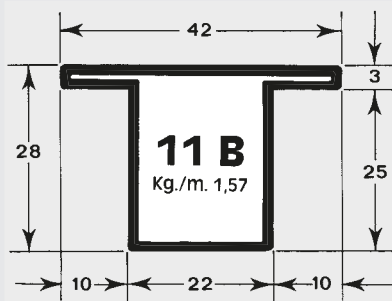
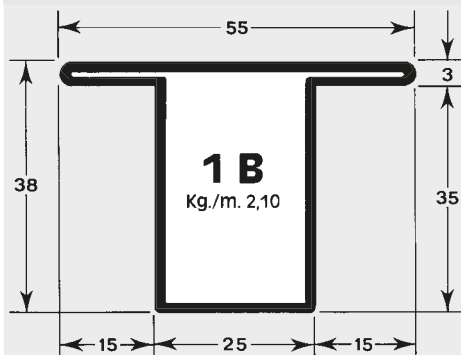
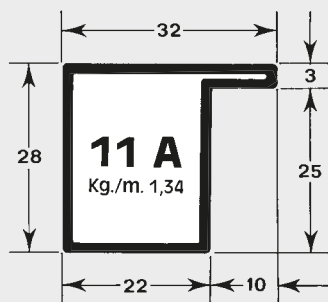
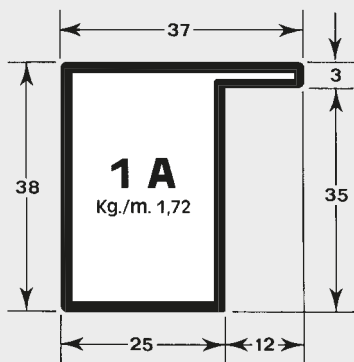
[illegible]



# tubolari per serramenti

lucidi e zincati

spessore 1,5 mm

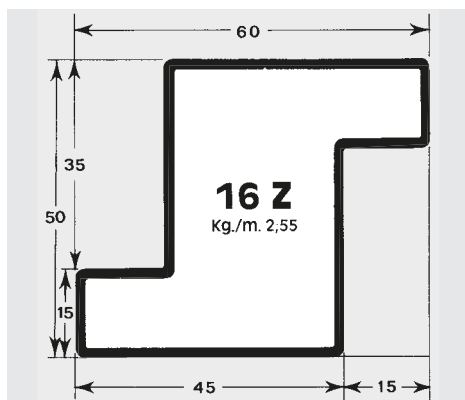
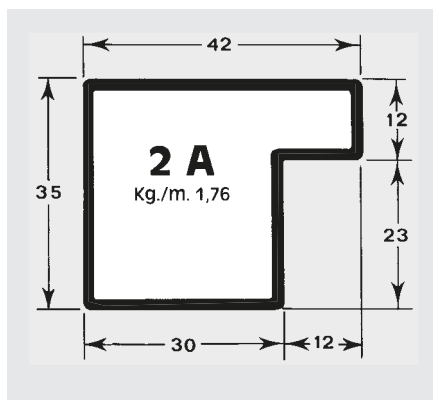
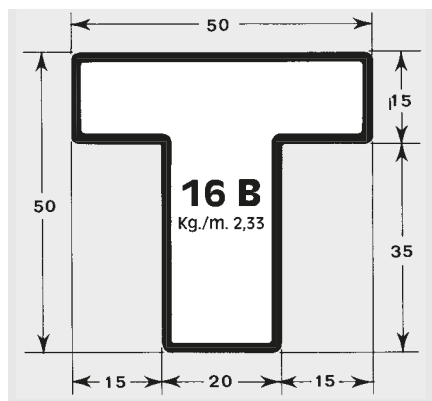
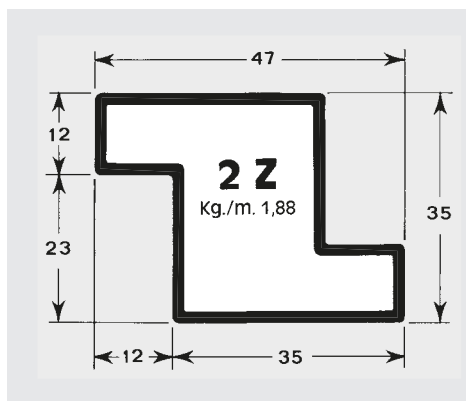
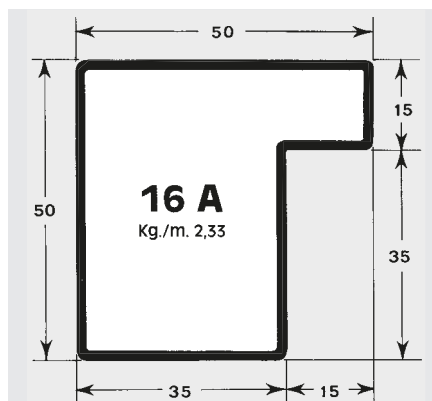
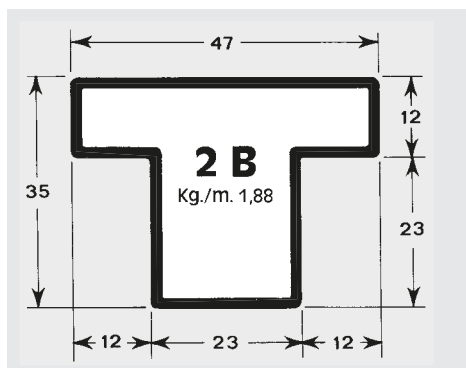




# tubolari per serramenti

lucidi e zincati

spessore 1,5 mm

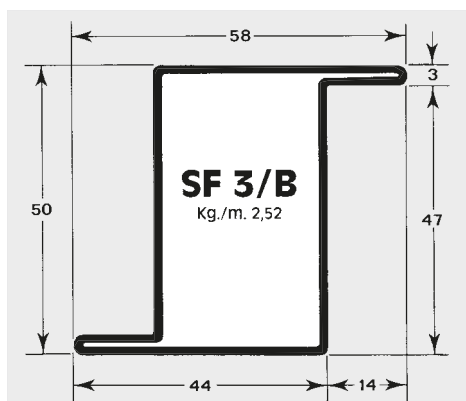
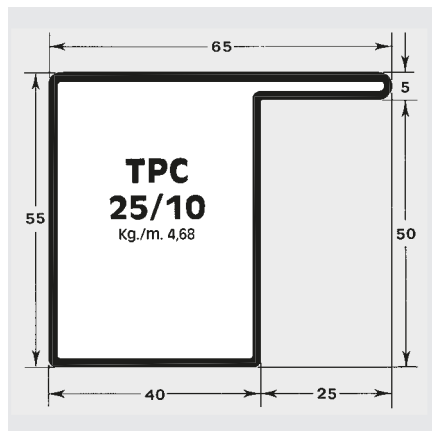
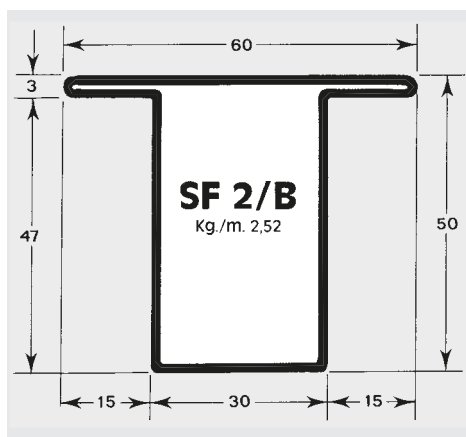
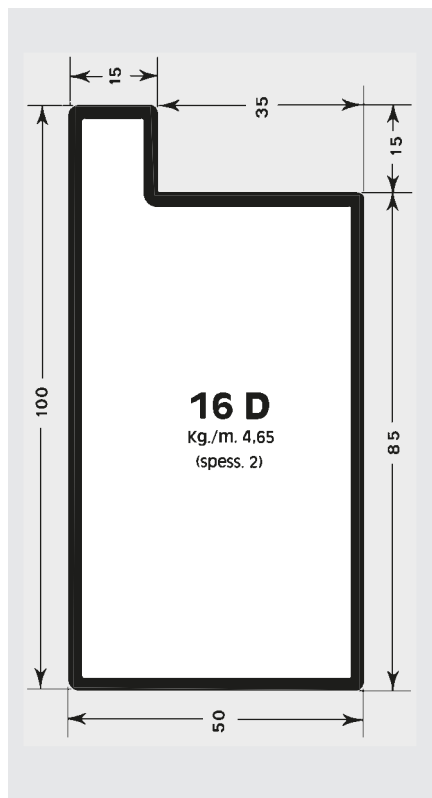
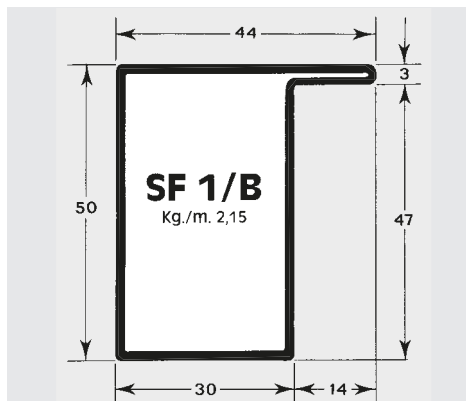




# tubolari per serramenti

tipo leggero - lucidi e zincati

spessore 1,5 mm

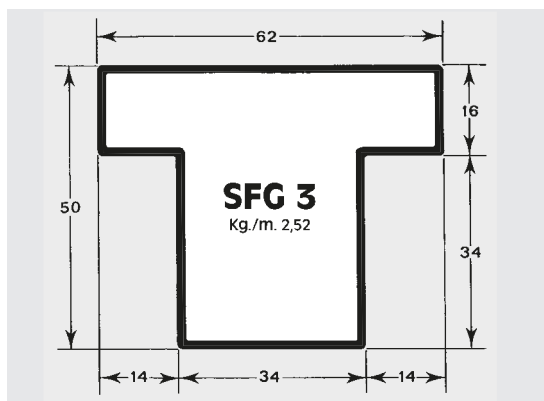
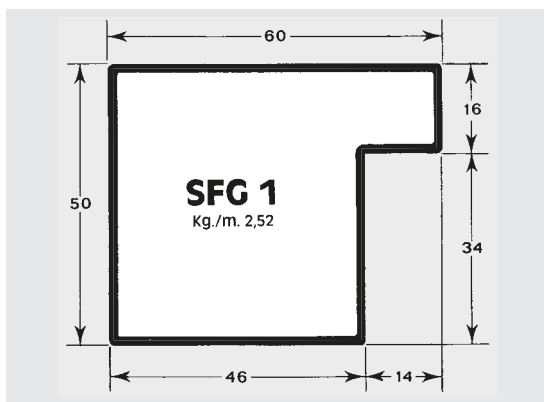




# tubolari per portoni

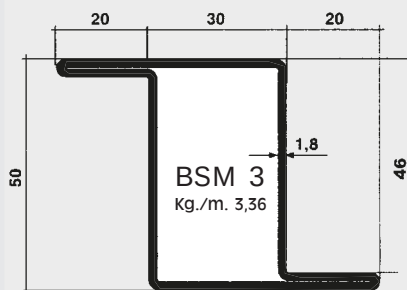
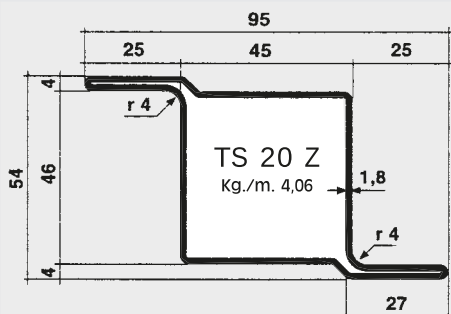
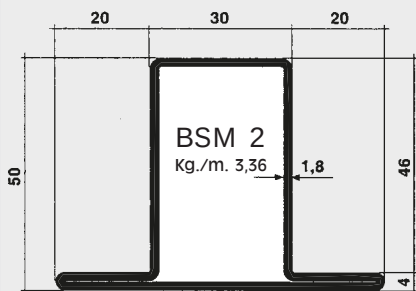
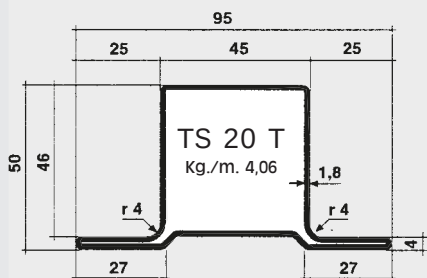
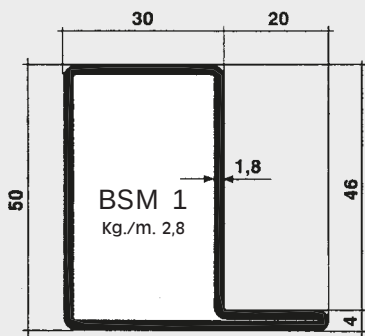
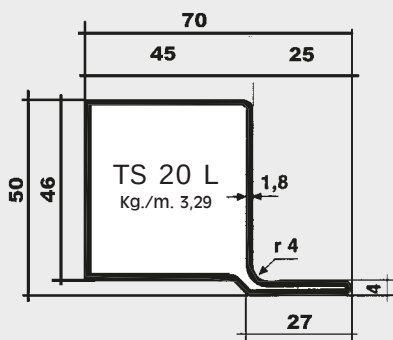
**tipo leggero**

spessore 1,5 mm





# tubolari per portoni

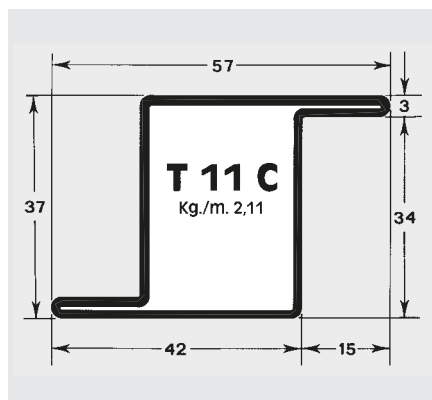
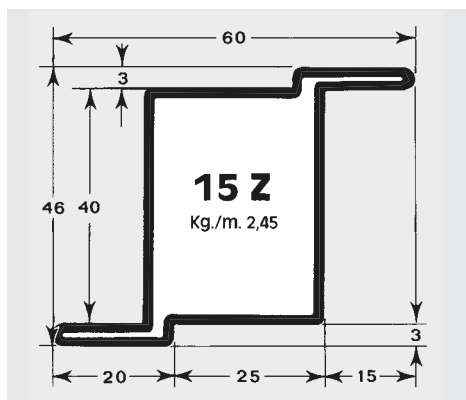
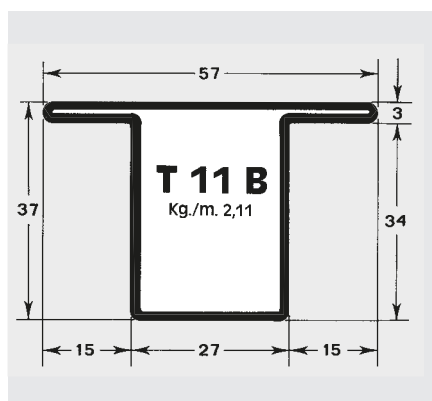
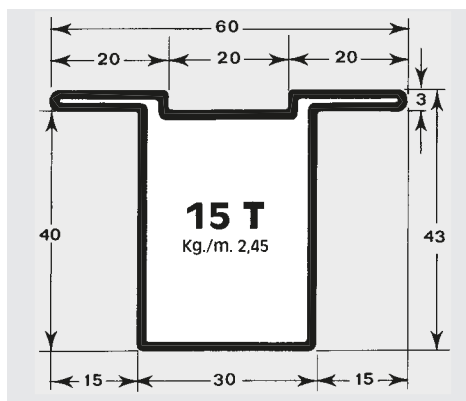
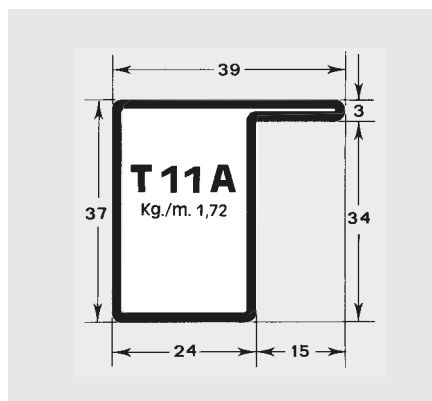
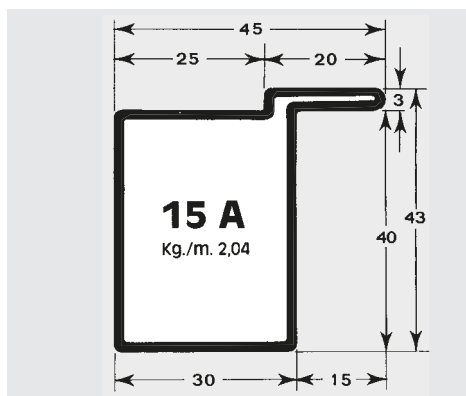




# tubolari per portoni

lucidi e zincati

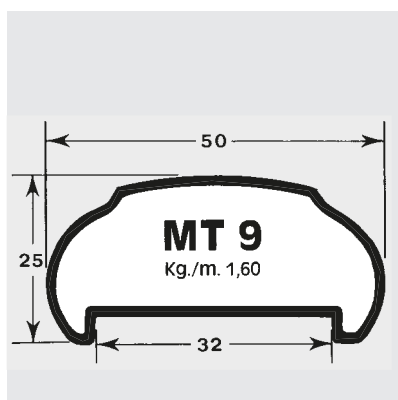
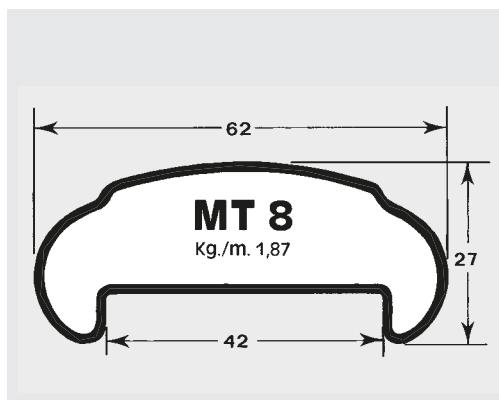
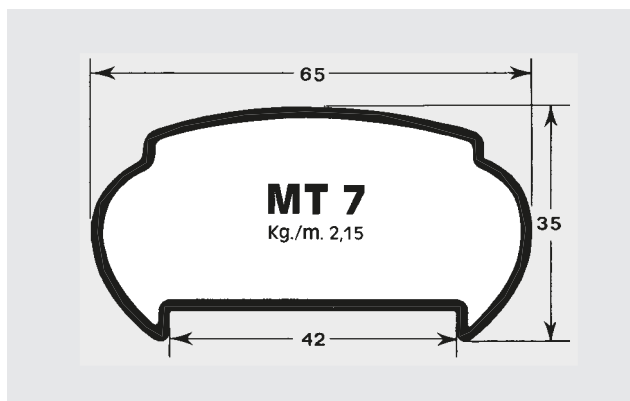
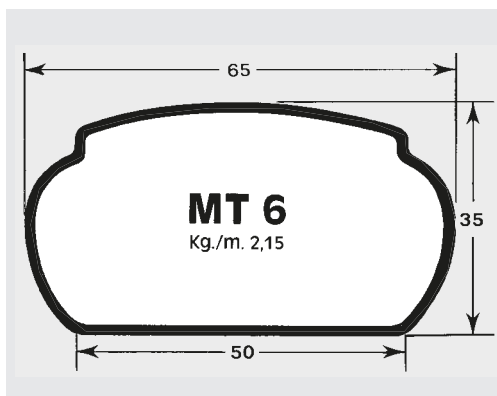
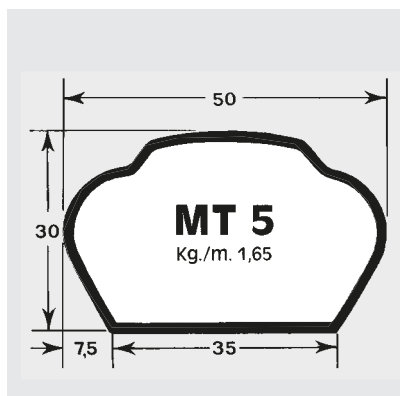
spessore 1,5 mm





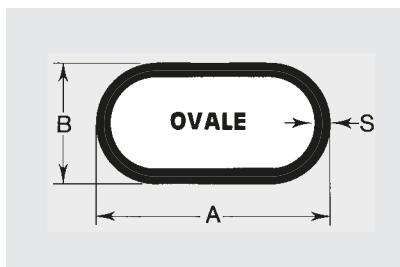
# tubolari per mancorrenti

spessore 1,5 mm

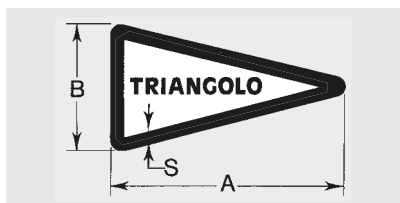




# tubolari a sezioni varie



| A  | B  | PESO kg/m |      |      |
|----|----|-----------|------|------|
|    |    | S 1,5     | S 2  | S 3  |
| 30 | 15 | 0,86      | 1,13 | –    |
| 40 | 20 | 1,12      | 1,47 | –    |
| 50 | 10 | 1,12      | –    | –    |
| 50 | 25 | 1,50      | 1,95 | 2,86 |
| 60 | 30 | 1,87      | 2,47 | 3,63 |



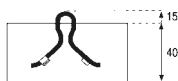
| A  | B  | PESO kg/m |      |     |
|----|----|-----------|------|-----|
|    |    | S 1,5     | S 2  | S 3 |
| 30 | 15 | 0,86      | 1,13 | –   |
| 40 | 22 | 1,24      | 1,63 | –   |



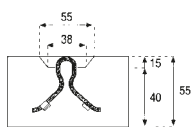
# profilati a sezione aperta

## guida universale

### ONDA



Guida sporgente dal pavimento



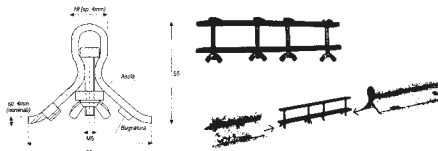
Guida incassata nel pavimento

Misura guida mm. 3000

Spessore mm. 4

Peso kg. 12,12

### JOINT



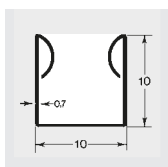
Lunghezza mm. 180

## fermavetro a scatto

### TR 10

Kg/m 0,203

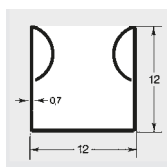
Spessore  
0,7 mm



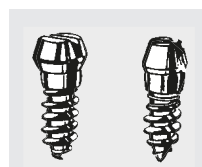
### TR 12

Kg/m 0,240

Spessore  
0,7 mm



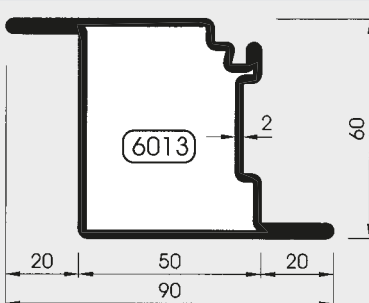
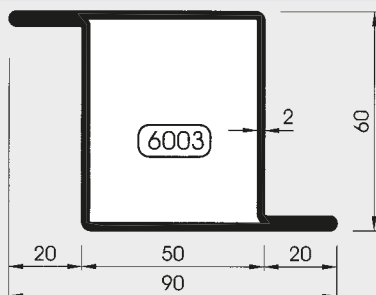
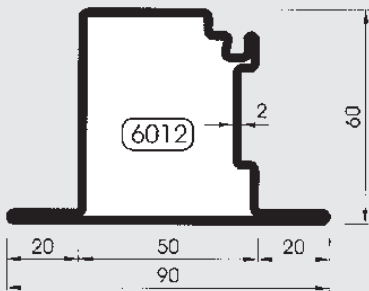
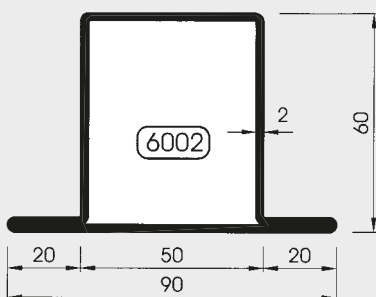
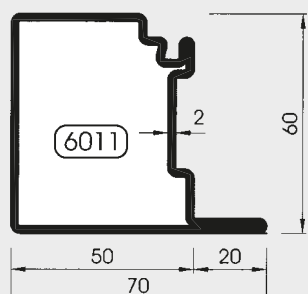
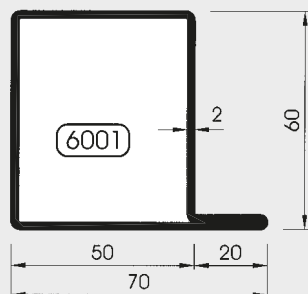
## viti zincate autofilettanti





# tubolari per serramenti

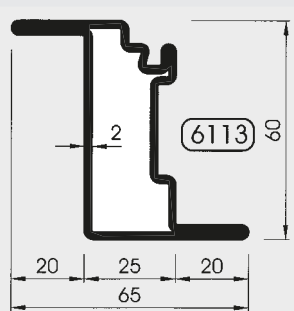
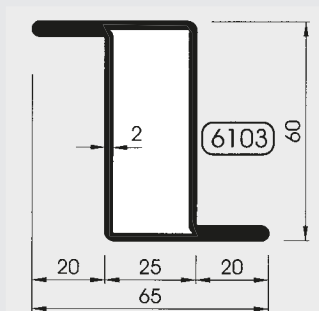
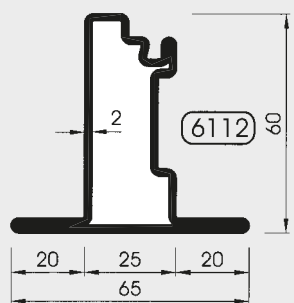
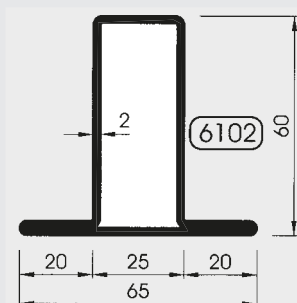
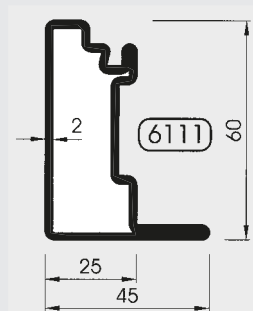
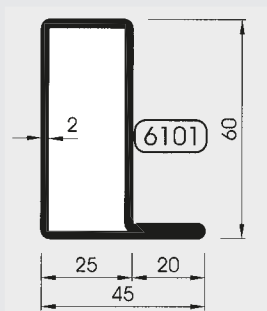
con/senza porta guarnizione in acciaio zincato





# tubolari per serramenti

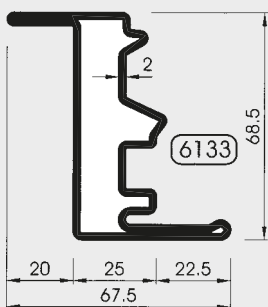
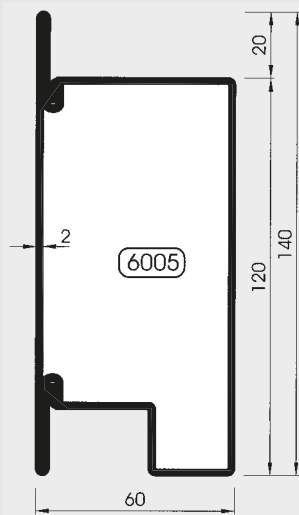
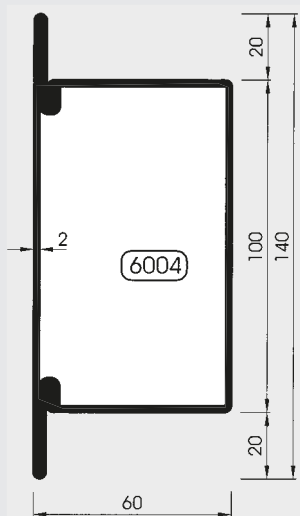
con/senza porta guarnizione in acciaio zincato





# tubolari per serramenti

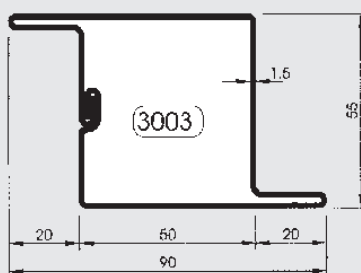
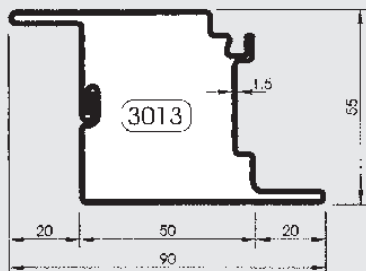
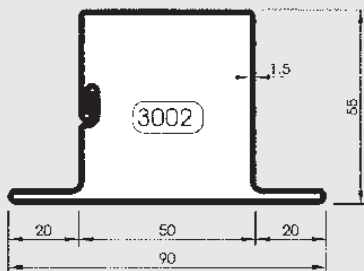
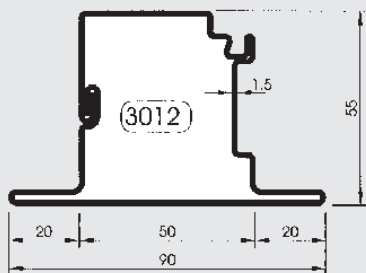
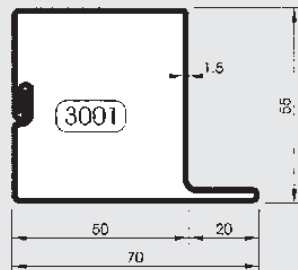
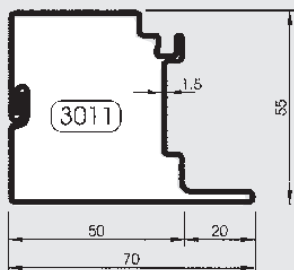
con/senza porta guarnizione in acciaio zincato





# tubolari per serramenti

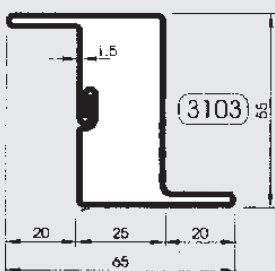
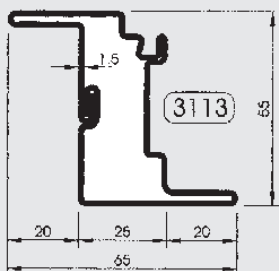
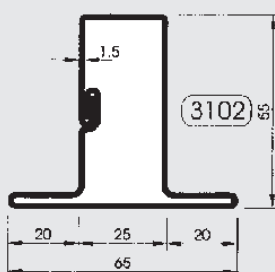
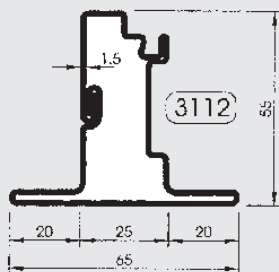
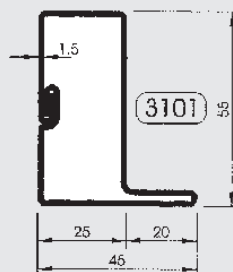
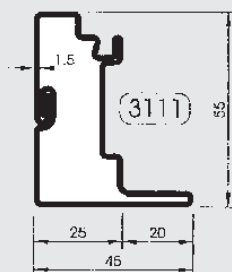
con/senza porta guarnizione in acciaio zincato





# tubolari per serramenti

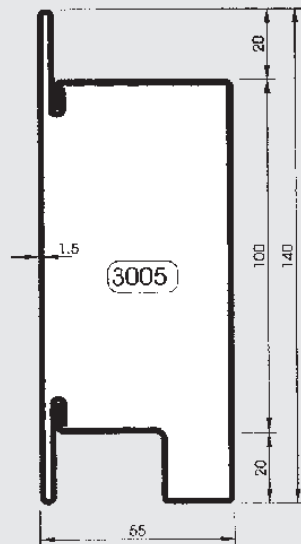
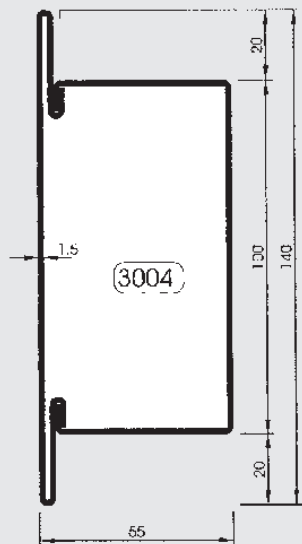
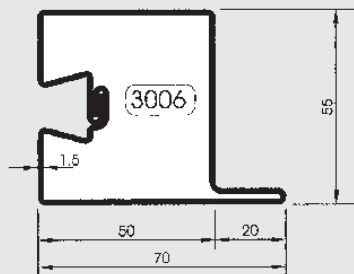
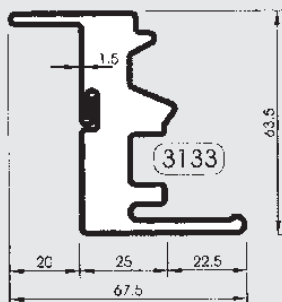
con/senza porta guarnizione in acciaio zincato





# tubolari per serramenti

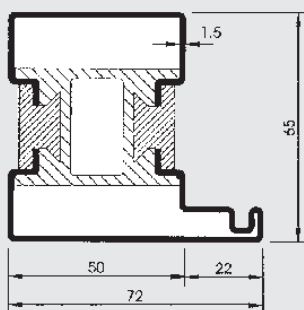
con/senza porta guarnizione in acciaio zincato



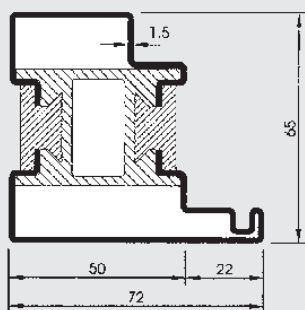


# tubolari per serramenti

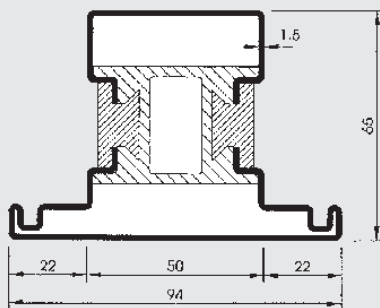
taglio termico



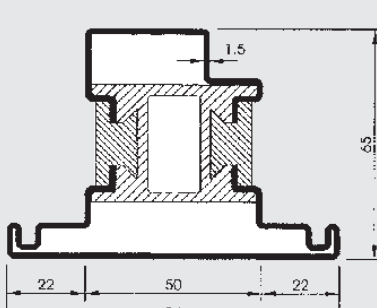
1001



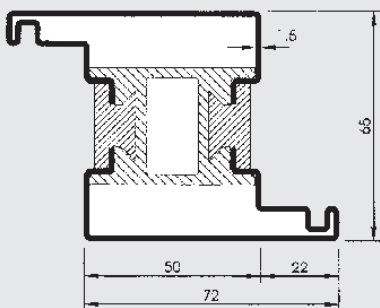
1011



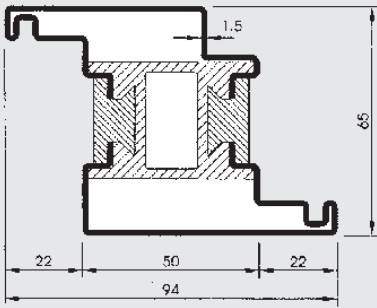
1002



1012



1003

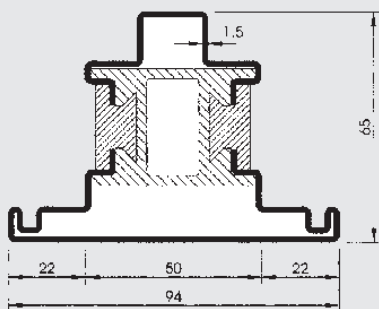


1013

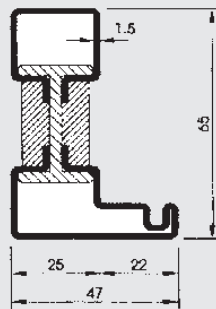


# tubolari per serramenti

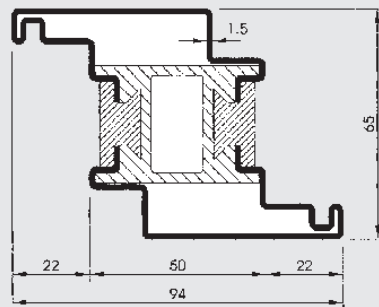
taglio termico



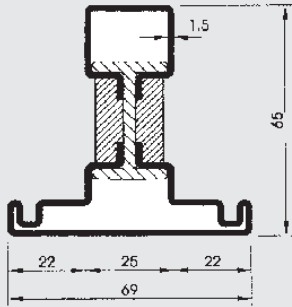
1022



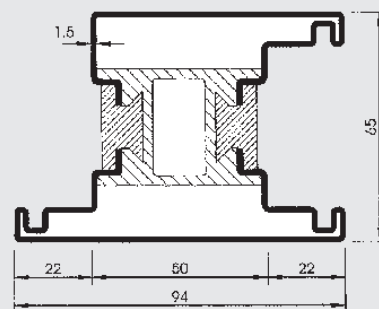
1201



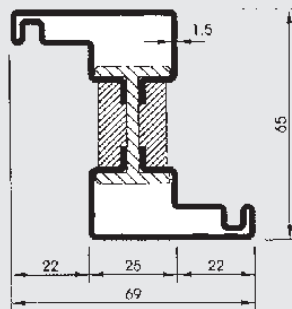
1023



1202



1005

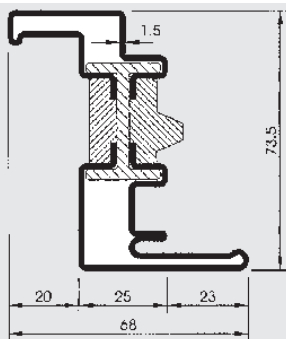


1203

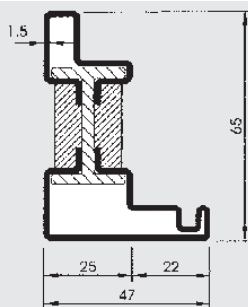


# tubolari per serramenti

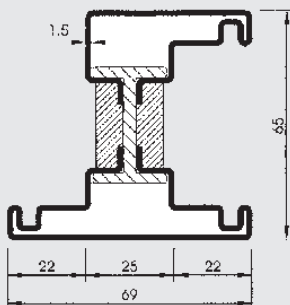
taglio termico



1233



1211

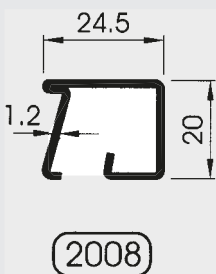
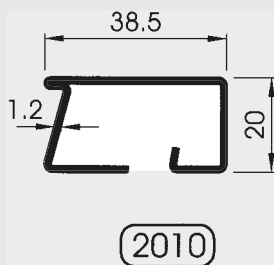
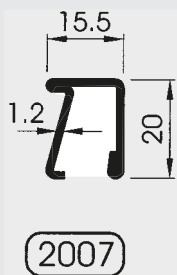
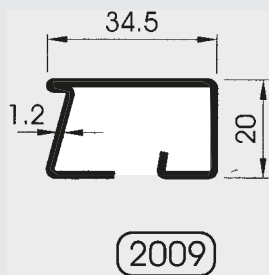
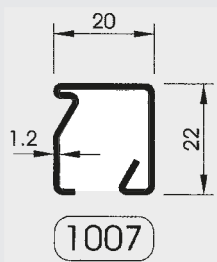


1205



# tubolari per serramenti

## fermavetri

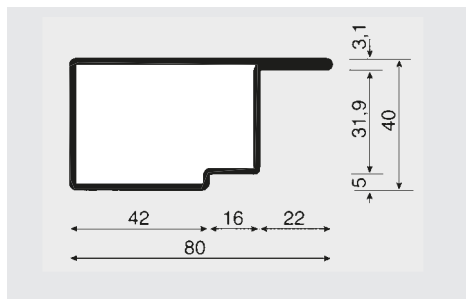






# profili tubolari per persiane

serie con battente complanare



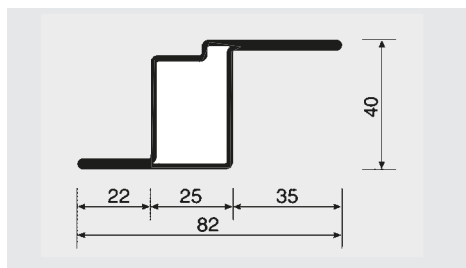
## CL 1

### MONTANTE asolato e non

TUBOLARE mm 58 x 40

BATTENTE mm 22

SPESSORE mm 1,5



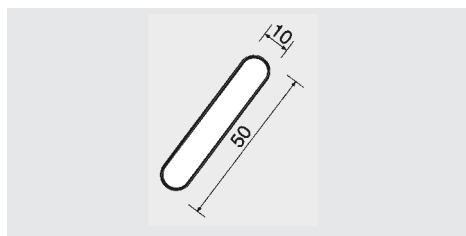
## CL 2

### MONTANTE per telaio

TUBOLARE mm 25 x 40

BATTENTE mm 35

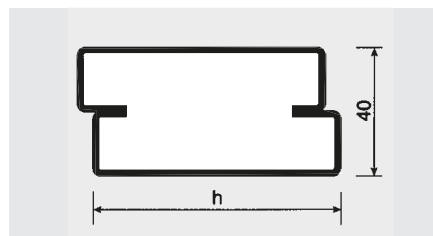
SPESSORE mm 1,5



## OVALE

TUBOLARE mm 50 x 10

SPESSORE mm 1,5



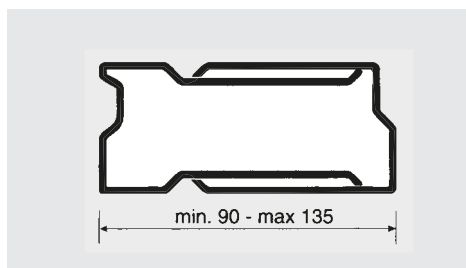
## FASCIA

h mm 90

## CENTRALE

SPESSORE mm 1,5

LUNGHEZZA m 4

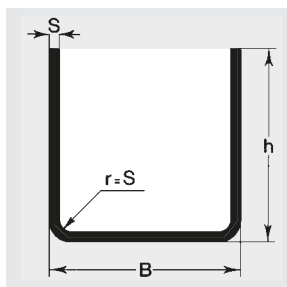


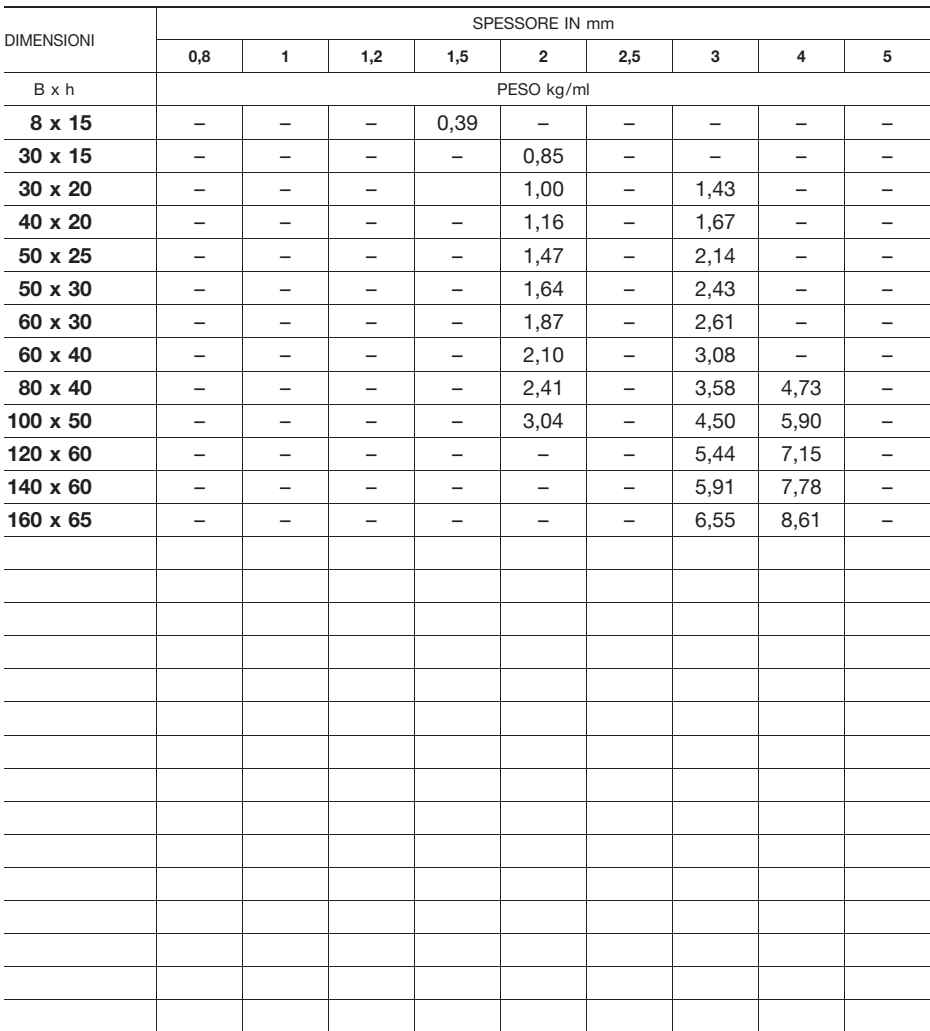
## TERMINALE VARIABILE

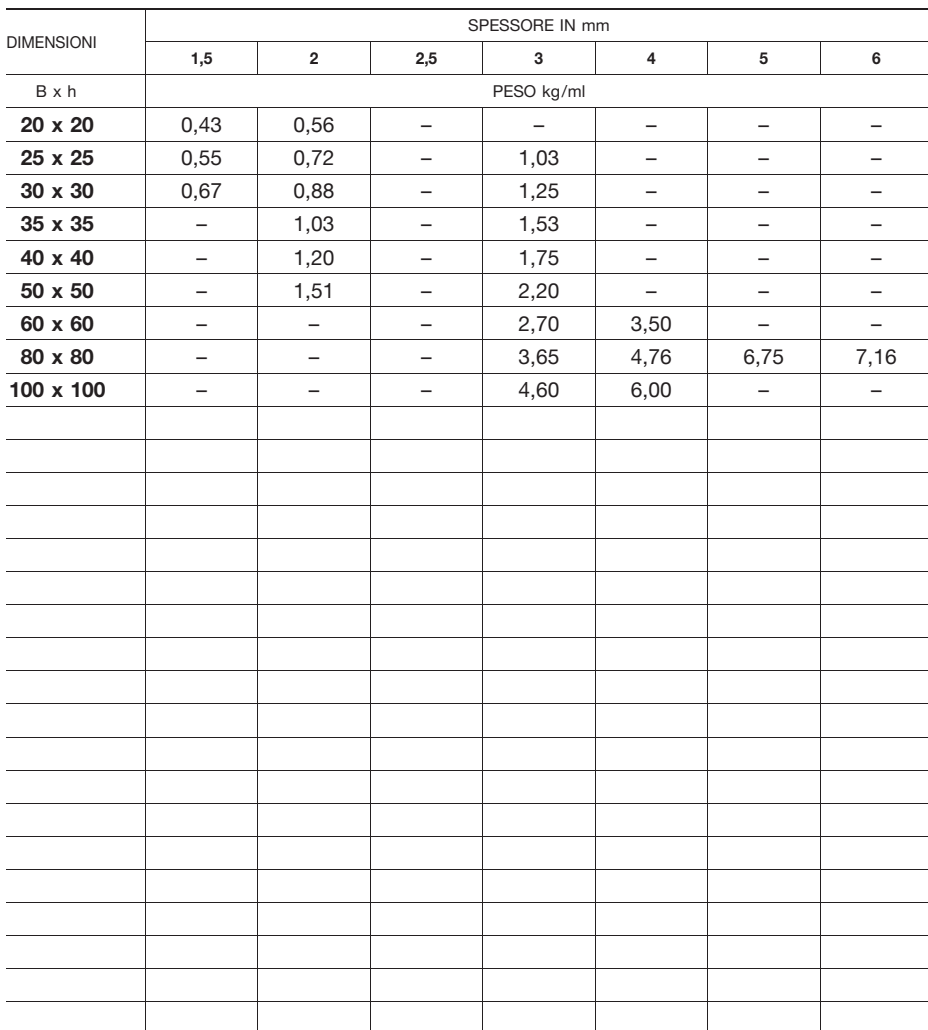
SAGOMATO da mm 90 a 135

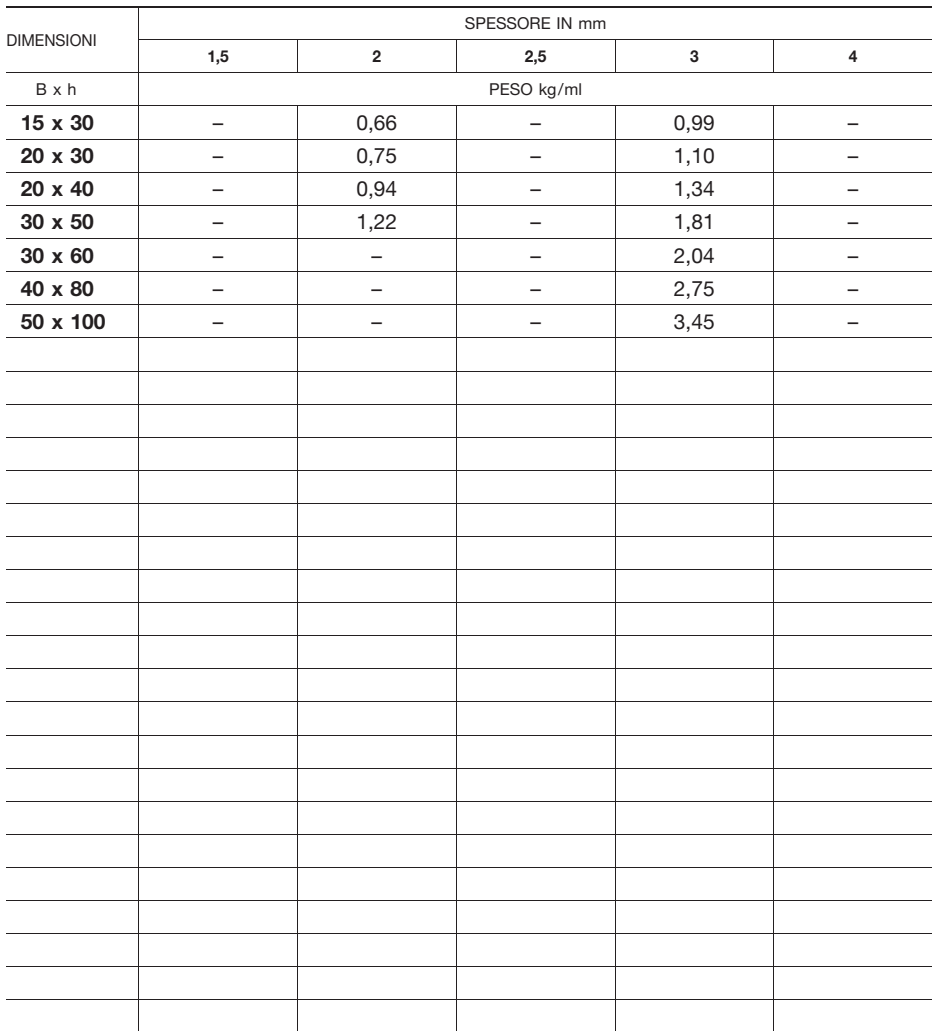
SPESSORE mm 1,5

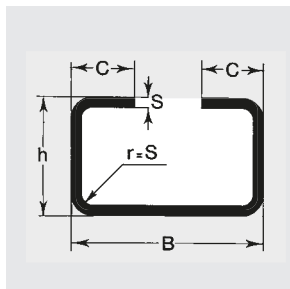
LUNGHEZZA m 4

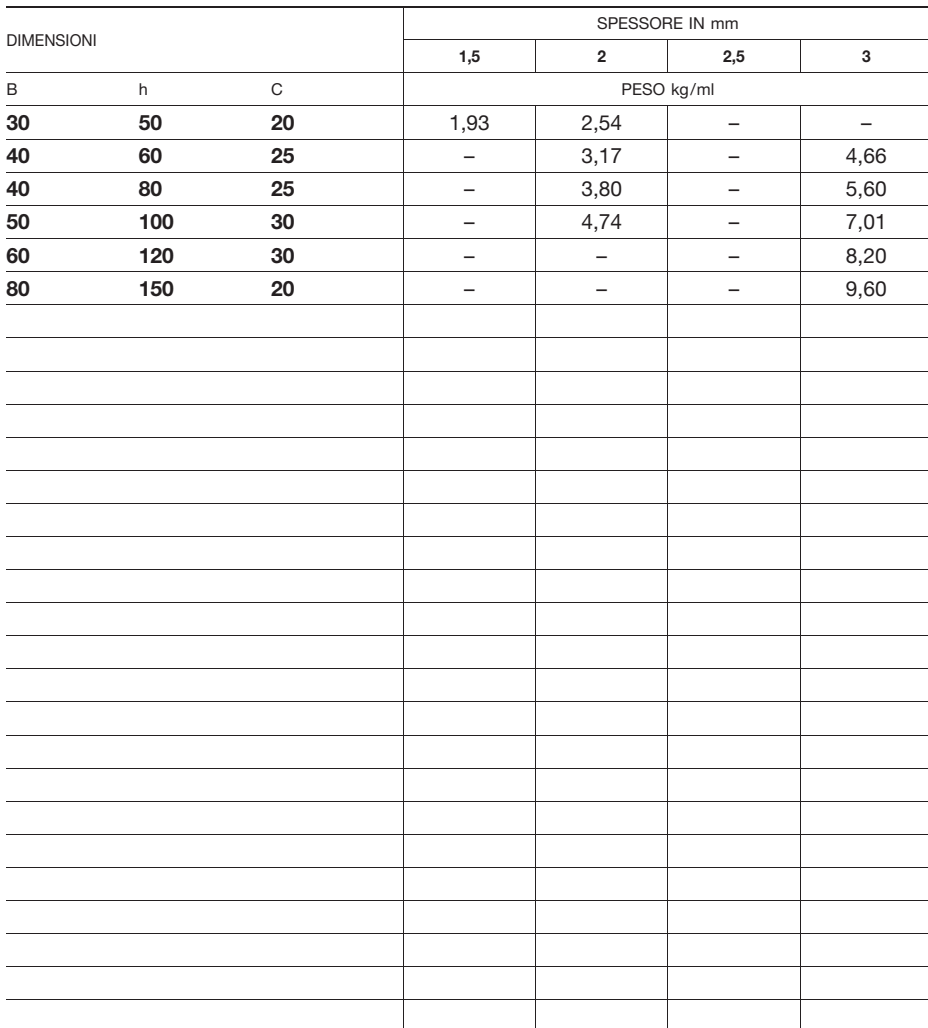
[illegible]







[illegible]

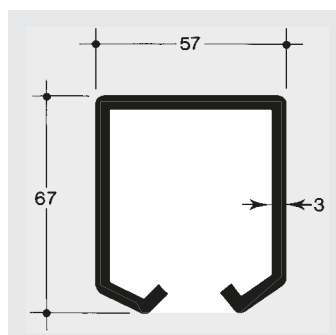




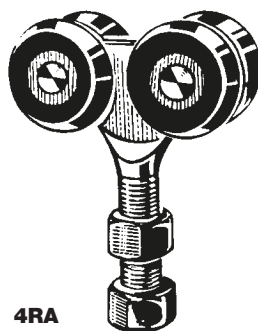
# monorotaie e carrelli

## A

Peso al m./kg. 5,000



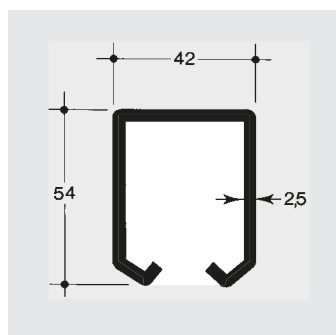
**2RA**  
2 ruote  
portata max kg. 400



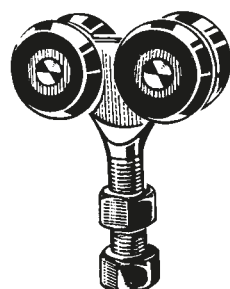
**4RA**  
4 ruote  
portata max kg. 750

## B

Peso al m./kg. 3,180



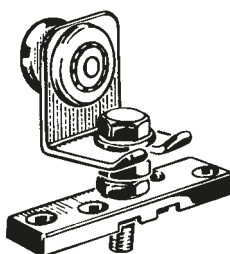
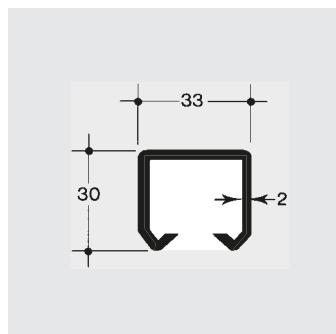
**2RB**  
2 ruote  
portata max kg. 200



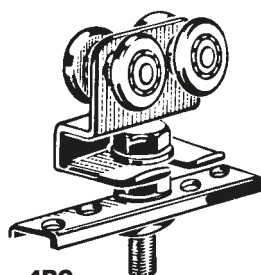
**4RB**  
4 ruote  
portata max kg. 450

## C

Peso al m./kg. 1,774



**2RC**  
2 ruote  
portata max kg. 50

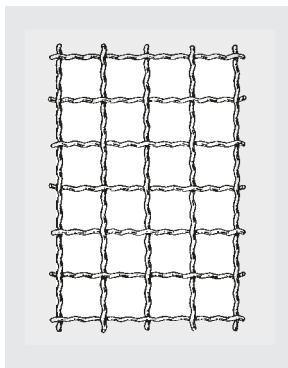


**4RC**  
4 ruote  
portata max kg. 75



# reti ondulate

## a maglia quadra

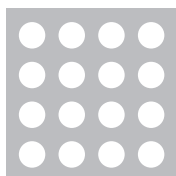
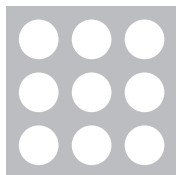


| Maglia<br>mm | Filo<br>mm | Altezza<br>mm | Peso<br>kg/mq |
|--------------|------------|---------------|---------------|
| 10 x 10      | 2,0        | 1.000         | 4,50          |
| 15 x 15      | 2,4        | 1.000         | 4,60          |
| 20 x 20      | 3,0        | 1.000         | 5,60          |
| 25 x 25      | 3,0        | 1.000         | 4,80          |
| 30 x 30      | 3,5        | 1.000         | 4,80          |
| 40 x 40      | 4,0        | 1.000         | 5,30          |
| 50 x 50      | 5,0        | 1.000         | 6,90          |
|              |            |               |               |
|              |            |               |               |



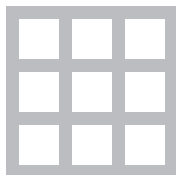
# lamiere forate

## fori tondi



| FORO<br>Ø mm | PASSO<br>mm | SPESSORE<br>mm  |
|--------------|-------------|-----------------|
| 2            | 3,5         | 1 - 1,5 - 2     |
| 3            | 5           | 1 - 1,5 - 2 - 3 |
| 4            | 7           | 1 - 1,5 - 2 - 3 |
| 5            | 8           | 1 - 1,5 - 2 - 3 |
| 6            | 9           | 1 - 1,5 - 2 - 3 |
| 8            | 12          | 1 - 1,5 - 2 - 3 |
| 10           | 15          | 1 - 1,5 - 2 - 3 |
| 12           | 18          | 1 - 2 - 3       |
| 15           | 22          | 1 - 1,5 - 2 - 3 |
| 20           | 28          | 1,5 - 2 - 3     |

## fori quadrati



| FORO<br>Ø mm | PASSO<br>mm | SPESSORE<br>mm |
|--------------|-------------|----------------|
| 5 x 5        | 7           | 1 - 1,5        |
| 8 x 8        | 10          | 1 - 1,5        |
| 8 x 8        | 12          | 1,5 - 2        |
| 10 x 10      | 12          | 1 - 1,5        |
| 10 x 10      | 15          | 1,5 - 2        |





# grigliato elettroforgiato

**portata per carichi  
uniformemente distribuiti**  
(kg/mq)



| Maglia          | Piatto        | Peso<br>kg/mq | DISTANZA NETTA TRA GLI APPOGGI (mm) |              |              |              |              |              |              |             |             |             |             |             |             |
|-----------------|---------------|---------------|-------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                 |               |               | 300                                 | 400          | 500          | 600          | 700          | 800          | 900          | 1000        | 1200        | 1400        | 1600        | 1800        | 2000        |
| <b>15 x 76</b>  | <b>20 x 2</b> | <b>22,6</b>   | <b>6500</b>                         | <b>3500</b>  | <b>2500</b>  | <b>2000</b>  | <b>1500</b>  | <b>1000</b>  |              |             |             |             |             |             |             |
|                 | <b>25 x 2</b> | <b>28,1</b>   | <b>19000</b>                        | <b>10500</b> | <b>6700</b>  | <b>4700</b>  | <b>3300</b>  | <b>2200</b>  | <b>1550</b>  | <b>1150</b> | <b>650</b>  |             |             |             |             |
|                 | 30 x 2        | 33,4          | 27000                               | 15000        | 10000        | 7000         | 5000         | 3800         | 2700         | 2000        | 1200        | 800         | 500         |             |             |
|                 | 40 x 2        | 44,0          | 47000                               | 27000        | 17000        | 12000        | 10000        | 7000         | 5500         | 4500        | 2600        | 1700        | 1100        | 800         | 500         |
| <b>22 x 76</b>  | <b>25 x 2</b> | 19,8          | 12700                               | 7200         | 4600         | 3200         | 2300         | 1500         | 1050         | 800         |             |             |             |             |             |
|                 | 30 x 2        | 23,5          | 18300                               | 10300        | 6600         | 4600         | 3400         | 2600         | 1850         | 1350        | 750         | 500         |             |             |             |
|                 | 25 x 3        | 28,9          | 20000                               | 11000        | 7000         | 4900         | 3400         | 2300         | 1600         | 1200        | 700         |             |             |             |             |
|                 | 30 x 3        | 34,4          | 28000                               | 16000        | 10000        | 7000         | 5100         | 4000         | 2900         | 2000        | 1150        | 750         | 500         |             |             |
|                 | 40 x 3        | 45,3          | 50000                               | 28000        | 18000        | 12500        | 9000         | 7000         | 5500         | 4500        | 2800        | 1800        | 1200        | 900         | 600         |
| <b>25 x 76</b>  | <b>20 x 2</b> | 14,5          | 6000                                | 3300         | 2200         | 1500         | 1000         | 700          |              |             |             |             |             |             |             |
|                 | <b>25 x 2</b> | <b>17,7</b>   | <b>11300</b>                        | <b>6450</b>  | <b>4150</b>  | <b>2800</b>  | <b>1900</b>  | <b>1350</b>  | <b>900</b>   | <b>700</b>  |             |             |             |             |             |
|                 | 30 x 2        | 21,0          | 16300                               | 9400         | 6000         | 4000         | 2800         | 2150         | 1500         | 1200        | 680         | 450         |             |             |             |
|                 | <b>25 x 3</b> | <b>25,8</b>   | <b>17100</b>                        | <b>9500</b>  | <b>6000</b>  | <b>4000</b>  | <b>2800</b>  | <b>1900</b>  | <b>1400</b>  | <b>1000</b> | <b>620</b>  |             |             |             |             |
|                 | <b>30 x 3</b> | <b>30,6</b>   | <b>24400</b>                        | <b>14000</b> | <b>9000</b>  | <b>6100</b>  | <b>4200</b>  | <b>3200</b>  | <b>2200</b>  | <b>1800</b> | <b>1000</b> | <b>680</b>  |             |             |             |
|                 | <b>40 x 3</b> | <b>40,3</b>   | <b>44000</b>                        | <b>25000</b> | <b>16000</b> | <b>11000</b> | <b>8000</b>  | <b>6300</b>  | <b>4700</b>  | <b>3700</b> | <b>2400</b> | <b>1600</b> | <b>1000</b> | <b>700</b>  | <b>580</b>  |
|                 | 40 x 4        | 53,1          | 58000                               | 33000        | 21000        | 14000        | 10000        | 8400         | 6200         | 4900        | 3200        | 2100        | 1300        | 900         | 770         |
|                 | <b>50 x 4</b> | <b>65,9</b>   | <b>90000</b>                        | <b>51000</b> | <b>33000</b> | <b>22000</b> | <b>16000</b> | <b>13000</b> | <b>10000</b> | <b>8000</b> | <b>5400</b> | <b>4000</b> | <b>2800</b> | <b>2100</b> | <b>1400</b> |
|                 | 60 x 4        | 78,8          | 145000                              | 81000        | 52000        | 36000        | 26000        | 20000        | 16000        | 13000       | 9000        | 6000        | 5000        | 3600        | 2600        |
|                 | 70 x 4        | 91,7          | 174000                              | 98000        | 62000        | 43000        | 32000        | 24000        | 20000        | 16000       | 11000       | 8000        | 6200        | 4900        | 3700        |
| <b>30 x 100</b> | <b>25 x 2</b> | 14,7          | 9500                                | 5400         | 3400         | 2400         | 1700         | 1100         | 800          | 600         |             |             |             |             |             |
|                 | <b>25 x 3</b> | <b>22,1</b>   | <b>14500</b>                        | <b>8000</b>  | <b>5200</b>  | <b>3700</b>  | <b>2500</b>  | <b>1650</b>  | <b>1200</b>  | <b>850</b>  |             |             |             |             |             |
|                 | 30 x 3        | 26,2          | 21000                               | 11500        | 7100         | 5100         | 3800         | 2900         | 2100         | 1500        | 850         | 550         |             |             |             |
|                 | 40 x 3        | 34,2          | 37000                               | 21000        | 13000        | 9000         | 6600         | 5100         | 4100         | 3300        | 2000        | 1300        | 850         | 650         | 450         |
| <b>34 x 76</b>  | <b>25 x 2</b> | <b>13,5</b>   | <b>8300</b>                         | <b>4700</b>  | <b>3000</b>  | <b>2100</b>  | <b>1500</b>  | <b>1000</b>  | <b>700</b>   | <b>500</b>  |             |             |             |             |             |
|                 | 30 x 2        | 15,9          | 12000                               | 6800         | 4300         | 3100         | 2300         | 1700         | 1200         | 900         | 500         |             |             |             |             |
|                 | <b>25 x 3</b> | <b>19,4</b>   | <b>12500</b>                        | <b>7000</b>  | <b>4500</b>  | <b>3200</b>  | <b>2200</b>  | <b>1450</b>  | <b>1050</b>  | <b>750</b>  |             |             |             |             |             |
|                 | <b>30 x 3</b> | <b>23,0</b>   | <b>18000</b>                        | <b>10000</b> | <b>6500</b>  | <b>4600</b>  | <b>3400</b>  | <b>2500</b>  | <b>1800</b>  | <b>1300</b> | <b>750</b>  | <b>480</b>  |             |             |             |
|                 | 40 x 3        | 30,1          | 32000                               | 18000        | 11500        | 8200         | 6000         | 4500         | 3600         | 2900        | 1800        | 800         | 550         | 370         |             |

Carico di sicurezza 16 (kg/mm<sup>2</sup>).

Freccia elastica minore di 1:250 della luce netta di appoggio.

Per ulteriori informazioni rivolgersi al nostro ufficio tecnico.



# grigliato elettroforgiato

**portata per carichi  
concentrati su impronta**  
(kg)



| Maglia   | Piatto | Peso<br>kg/mq | DISTANZA NETTA TRA GLI APPOGGI (mm) |      |      |      |      |      |      |      |      |      |      |      |      |  |
|----------|--------|---------------|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|          |        |               | 300                                 | 400  | 500  | 600  | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 |  |
| 15 x 76  | 20 x 2 | 22,6          | 580                                 | 400  | 290  | 220  | 190  | 120  |      |      |      |      |      |      |      |  |
|          | 25 x 2 | 28,1          | 1350                                | 900  | 700  | 550  | 480  | 400  | 300  | 240  | 170  |      |      |      |      |  |
|          | 30 x 2 | 33,4          | 1850                                | 1250 | 950  | 750  | 650  | 550  | 500  | 400  | 300  | 200  | 150  |      |      |  |
|          | 40 x 2 | 44,0          | 2900                                | 1950 | 1500 | 1200 | 1000 | 850  | 750  | 680  | 550  | 420  | 320  | 250  | 200  |  |
| 22 x 76  | 25 x 2 | 19,8          | 1050                                | 730  | 550  | 440  | 370  | 300  | 240  | 200  |      |      |      |      |      |  |
|          | 30 x 2 | 23,5          | 1450                                | 980  | 750  | 600  | 500  | 430  | 380  | 320  | 220  | 160  |      |      |      |  |
|          | 25 x 3 | 28,9          | 1400                                | 950  | 720  | 580  | 490  | 400  | 320  | 250  | 180  |      |      |      |      |  |
|          | 30 x 3 | 34,4          | 1950                                | 1440 | 1000 | 800  | 680  | 580  | 500  | 410  | 290  | 210  | 160  |      |      |  |
|          | 40 x 3 | 45,3          | 3250                                | 2200 | 1670 | 1350 | 1130 | 980  | 840  | 750  | 620  | 470  | 360  | 290  | 230  |  |
| 25 x 76  | 20 x 2 | 14,5          | 390                                 | 270  | 150  | 120  |      |      |      |      |      |      |      |      |      |  |
|          | 25 x 2 | 17,7          | 900                                 | 650  | 480  | 380  | 320  | 260  | 220  | 180  |      |      |      |      |      |  |
|          | 30 x 2 | 21,0          | 1300                                | 880  | 670  | 500  | 440  | 380  | 300  | 250  | 170  | 140  |      |      |      |  |
|          | 25 x 3 | 25,8          | 1250                                | 850  | 640  | 480  | 430  | 350  | 280  | 220  | 150  |      |      |      |      |  |
|          | 30 x 3 | 30,6          | 1750                                | 1400 | 910  | 710  | 580  | 490  | 420  | 360  | 270  | 180  |      |      |      |  |
|          | 40 x 3 | 40,3          | 2900                                | 2000 | 1600 | 1300 | 1050 | 860  | 750  | 650  | 550  | 400  | 320  | 270  | 210  |  |
|          | 40 x 4 | 53,1          | 3850                                | 2650 | 2100 | 1750 | 1400 | 1150 | 1000 | 850  | 650  | 500  | 400  | 350  | 250  |  |
|          | 50 x 4 | 65,9          | 5500                                | 4000 | 3050 | 2250 | 1950 | 1650 | 1450 | 1200 | 1100 | 800  | 650  | 600  | 500  |  |
|          | 60 x 4 | 78,8          | 8800                                | 6000 | 4500 | 3600 | 3050 | 2650 | 2250 | 2000 | 1600 | 1450 | 1200 | 1050 | 950  |  |
|          | 70 x 4 | 91,7          | 10500                               | 7100 | 5400 | 4300 | 3600 | 3100 | 2700 | 2400 | 2000 | 1700 | 1500 | 1300 | 1100 |  |
| 30 x 100 | 25 x 2 | 14,7          | 880                                 | 600  | 450  | 360  | 310  | 250  | 210  | 160  |      |      |      |      |      |  |
|          | 25 x 3 | 22,1          | 1120                                | 760  | 580  | 470  | 390  | 320  | 260  | 210  |      |      |      |      |      |  |
|          | 30 x 3 | 26,2          | 1550                                | 1060 | 800  | 650  | 550  | 470  | 400  | 350  | 210  | 170  |      |      |      |  |
|          | 40 x 3 | 34,2          | 2600                                | 1750 | 1350 | 1100 | 900  | 790  | 680  | 600  | 500  | 390  | 300  | 240  | 200  |  |
| 34 x 76  | 25 x 2 | 13,5          | 820                                 | 570  | 430  | 350  | 290  | 240  | 200  | 150  |      |      |      |      |      |  |
|          | 30 x 2 | 15,9          | 1100                                | 750  | 570  | 450  | 380  | 330  | 290  | 240  | 150  |      |      |      |      |  |
|          | 25 x 3 | 19,4          | 1050                                | 740  | 550  | 440  | 360  | 300  | 230  | 190  |      |      |      |      |      |  |
|          | 30 x 3 | 23,0          | 1500                                | 1000 | 750  | 600  | 500  | 430  | 380  | 320  | 220  | 160  |      |      |      |  |
|          | 40 x 3 | 30,1          | 2400                                | 1600 | 1220 | 980  | 820  | 700  | 610  | 540  | 450  | 370  | 270  | 210  |      |  |

Tipo di carico:

- pedonale kg 150 concentrati su impronta
- autovettura kg 400 concentrati su impronta
- autocarro kg 1500 concentrati su impronta
- autotreno kg 3000 concentrati su impronta

Carico di sicurezza 16 (kg/mm<sup>2</sup>).

Freccia elastica minore di 1:250 della luce netta di appoggio.  
Impronta 250x250 (mm).

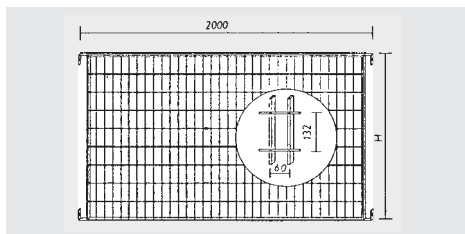
Per ulteriori informazioni rivolgersi al nostro ufficio tecnico.



# grigliato per recinzione

## moduli recinzione zincati

bordati con piatto 25x6



| Altezza<br>mm | Interasse<br>mm | Peso (kg/cad.)           |                          |                         |
|---------------|-----------------|--------------------------|--------------------------|-------------------------|
|               |                 | Maglia 62 x 132 x 25 x 2 | Maglia 65 x 132 x 25 x 2 | Maglia 60 x 66 x 25 x 2 |
| 930           | 2.000           | 21,5                     | 28,2                     | 30,6                    |
| 1.200         | 2.000           | 26,0                     | 34,7                     | 37,8                    |
| 1.330         | 2.000           | 28,3                     | 37,9                     | 41,3                    |
| 1.460         | 2.000           | 30,6                     | 41,2                     | 44,9                    |
| 1.720         | 2.000           | 32,5                     | 44,7                     | 48,9                    |
| 1.980         | 2.000           | 36,6                     | 50,5                     | 55,4                    |

## piantana zincata

in piatto 60x8

ALTEZZA mm 1.200 per pannello da H mm 930

ALTEZZA mm 1.500 per pannello da H mm 1.200

ALTEZZA mm 1.600 per pannello da H mm 1.330

ALTEZZA mm 1.800 per pannello da H mm 1.460

ALTEZZA mm 2.000 per pannello da H mm 1.720

ALTEZZA mm 2.300 per pannello da H mm 1.980

PESO (kg/cad.) 4,8

PESO (kg/cad.) 6,0

PESO (kg/cad.) 6,4

PESO (kg/cad.) 7,2

PESO (kg/cad.) 7,6

PESO (kg/cad.) 12,3

## bulloni con dado

TESTA ESAGONALE INOX

ANTIFURTO INOX

MISURA mm 8 x 30

MISURA mm 8 x 30

## angolari zincati con zanche

MISURA mm 30 x 30 x 3

MISURA mm 45 x 45 x 5

LUNGHEZZA mm 2.000

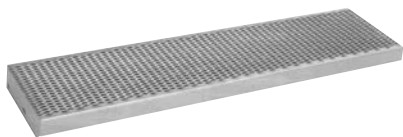
LUNGHEZZA mm 2.000



# gradini

in lamiera stirata per scale di sicurezza

**BETA** 43x10 sp. 3 mm

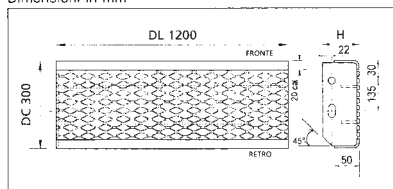


**ECO** 43x10 sp. 2 mm

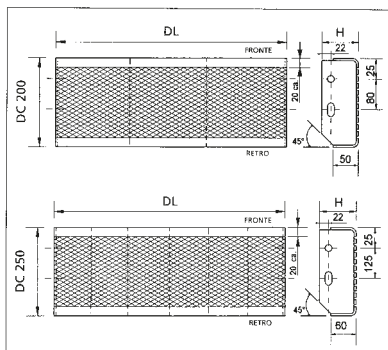


|             | DL<br>mm | H<br>mm | DC<br>mm | Peso<br>kg/cad. |
|-------------|----------|---------|----------|-----------------|
| <b>BETA</b> | 1200     | 73      | 300      | 5,6             |
| <b>ECO</b>  | 1000     | 72      | 250      | 5,6             |
|             | 900      | 72      | 250      | 5,3             |
|             | 800      | 72      | 250      | 4,9             |
|             | 700      | 72      | 200      | 3,4             |
|             | 600      | 72      | 200      | 3,1             |
|             | 500      | 72      | 200      | 2,7             |

Dimensioni in mm



**BETA**



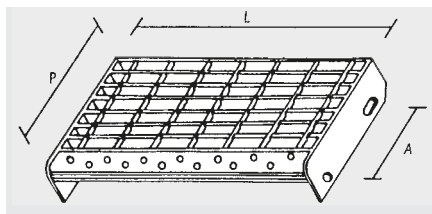
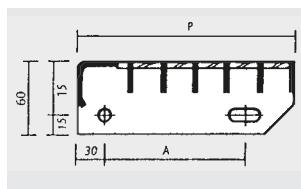
**ECO**



# gradini zincati

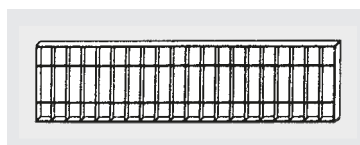
**completi di flangia forata e rompivisuale**

asola 12 x 25  
foro 12  
flange piatto  
60 x 3 con  
foro ovale



| LUNGHEZZA<br>L mm | PEDANA<br>P mm | FORATURA<br>A mm | GRIGLIATO<br>(maglia) | PESO ZINC.<br>(kg/cad.) |
|-------------------|----------------|------------------|-----------------------|-------------------------|
| 600               | 205            | 115              | 25 x 76 25 x 2        | 3,4                     |
| 700               | 255            | 180              | 25 x 76 25 x 2        | 4,5                     |
| 800               | 255            | 180              | 25 x 76 25 x 2        | 5,2                     |
| 1000              | 305            | 180              | 25 x 76 25 x 2        | 7,4                     |
| 1200              | 330            | 180              | 15 x 76 25 x 2        | 13,1                    |

## pannelli zincati bordati

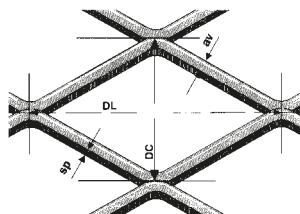


| PORTATA<br>(tipo) | DIMENSIONI<br>(mm) | PESO<br>(kg/cad.) | GRIGLIATO<br>(maglia) |
|-------------------|--------------------|-------------------|-----------------------|
| Autovettura       | 150 x 1000         | 3,8               | 25 x 76 25 x 2        |
| Autovettura       | 200 x 1000         | 4,7               | 25 x 76 25 x 2        |
| Autovettura       | 250 x 1000         | 5,7               | 25 x 76 25 x 2        |
| Autovettura       | 300 x 1000         | 6,7               | 25 x 76 25 x 2        |
| Autovettura       | 400 x 1000         | 8,6               | 25 x 76 25 x 2        |
| Autovettura       | 500 x 1000         | 10,5              | 25 x 76 25 x 2        |
| Autovettura       | 600 x 1000         | 12,5              | 25 x 76 25 x 2        |
| Pedonale          | 700 x 1000         | 14,4              | 25 x 76 25 x 2        |
| Pedonale          | 800 x 1000         | 16,3              | 25 x 76 25 x 2        |
| Pedonale          | 900 x 1000         | 18,2              | 25 x 76 25 x 2        |
| Pedonale          | 1000 x 1000        | 20,2              | 25 x 76 25 x 2        |



# reti

## in lamiera stirata a maglia ROMBOIDALE SPIANATA



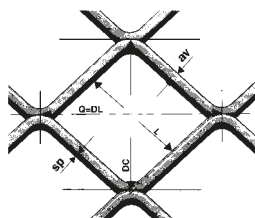
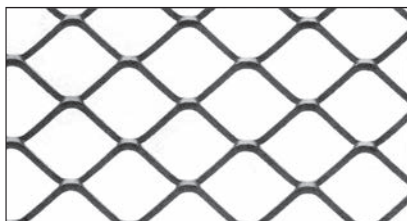
### Legenda (mm)

**DL** Diagonale lunga  
**DC** Diagonale corta  
**av** Avanzamento  
**sp** Spessore

### Tipo S17

| DL x DC<br>mm | DL x DC<br>reale<br>mm | av<br>avanzamento<br>mm | sp<br>spessore<br>mm | kg/m <sup>2</sup> | Larghezza massima<br>mm |      |      | Lunghezza<br>nel senso<br>DC mm |
|---------------|------------------------|-------------------------|----------------------|-------------------|-------------------------|------|------|---------------------------------|
| 43 x 10       | 43 x 14,6              | 2,50                    | 1,50                 | 3,90              | 1000                    |      |      | 2000                            |
| 43 x 10       | 43 x 14,6              | 2,50                    | 1,50                 | 3,90              | 1000                    | 1250 | 1500 | 6000                            |
| 43 x 10       | 43 x 14,6              | 2,50                    | 1,50                 | 3,90              |                         | 2000 | 2500 | 3700                            |

## in lamiera stirata a maglia QUADRA



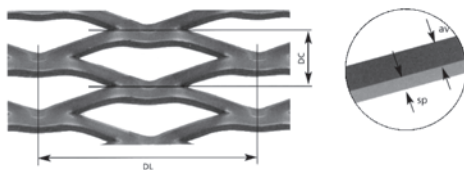
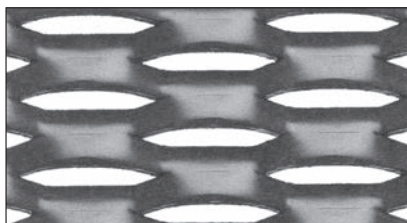
### Legenda (mm)

**Q** Quadra = DL  
**DL** Diagonale lunga  
**DC** Diagonale corta  
**av** Avanzamento  
**sp** Spessore

### Tipo Q20

| DL x DC<br>mm | L<br>luce<br>mm | av<br>avanzamento<br>mm | sp<br>spessore<br>mm | kg/m <sup>2</sup> | Larghezza massima<br>mm |      |      |
|---------------|-----------------|-------------------------|----------------------|-------------------|-------------------------|------|------|
| 20 x 15       | 10 x 10         | 1,00                    | 1,00                 | 1,050             | 1000                    | 1250 | 1500 |
| 20 x 15       | 10 x 10         | 1,50                    | 1,00                 | 1,600             | 1000                    | 1250 | 1500 |
| 20 x 15       | 10 x 10         | 1,50                    | 1,50                 | 2,400             | 1000                    | 1250 | 1500 |

## STIRATI e SPIANATI



### Legenda (mm)

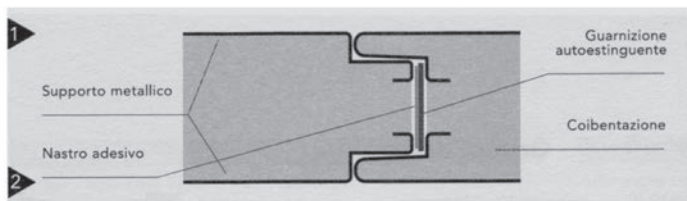
**DL** Diagonale lunga  
**DC** Diagonale corta  
**av** Avanzamento  
**sp** Spessore

### Tipo FILS 21

| DL x DC<br>mm | DL x DC<br>reale<br>mm | av<br>avanzamento<br>mm | sp<br>spessore<br>mm | kg/m <sup>2</sup> | Larghezza massima<br>mm |      |  | Lunghezza<br>nel senso<br>DC mm |
|---------------|------------------------|-------------------------|----------------------|-------------------|-------------------------|------|--|---------------------------------|
| 45 x 15       | 45 x 13,4              | 5,0                     | 3                    | 17,5              | 1000                    |      |  | 2000                            |
| 45 x 15       | 45 x 13,4              | 5,0                     | 3                    | 17,5              |                         | 1250 |  | 2500                            |
| 45 x 15       | 45 x 13,4              | 5,0                     | 3                    | 17,5              |                         | 1500 |  | 3000                            |

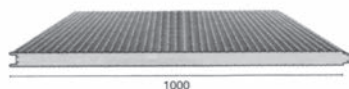


# pannelli per pareti

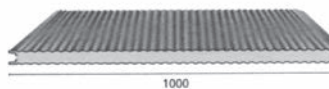


Pannelli metallici coibentati per pareti interne ed esterne, studiati per rispondere alle più svariate esigenze dell'edilizia civile ed industriale.

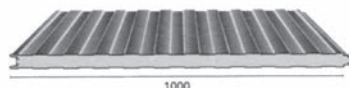
PGB PR2



PGB PSS



PGB PDD



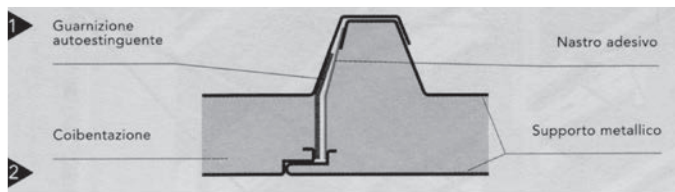
|                              |                                        |
|------------------------------|----------------------------------------|
| Spessori (mm)                | 25 - 30 - 35 - 40 - 50 - 60 - 80 - 100 |
| Prodotto fuori standard (mm) | 120 - 150 - 180 - 200                  |
| Freccia                      | $F \leq 1/200L$                        |

| Spessore pannello<br>mm | Spessore supporto<br>mm | Peso<br>kg/mq | K<br>kcal/mqh<br>°C | Carico massimo uniformemente distribuito in kg/m² acciaio<br>Distanza tra gli appoggi in m |     |     |     |     |                       |     |     |     |     |     |     |
|-------------------------|-------------------------|---------------|---------------------|--------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----------------------|-----|-----|-----|-----|-----|-----|
|                         |                         |               |                     | ▲▲ Campata semplice                                                                        |     |     |     |     | ▲▲▲▲ Campata multipla |     |     |     |     |     |     |
|                         |                         |               |                     | 2                                                                                          | 2,5 | 3   | 3,5 | 4   | 2                     | 2,5 | 3   | 3,5 | 4   | 4,5 | 5   |
| 25                      | 0,5                     | 9,31          | 0,675               | 100                                                                                        | 55  |     |     |     | 155                   | 85  |     |     |     |     |     |
|                         | 0,6                     | 10,98         |                     | 107                                                                                        | 59  |     |     |     | 166                   | 91  | 62  |     |     |     |     |
| 30                      | 0,5                     | 9,50          | 0,575               | 150                                                                                        | 80  | 50  |     |     | 198                   | 125 | 75  |     |     |     |     |
|                         | 0,6                     | 11,17         |                     | 161                                                                                        | 86  | 54  |     |     | 215                   | 134 | 80  |     |     |     |     |
| 35                      | 0,5                     | 9,69          | 0,501               | 170                                                                                        | 100 | 65  |     |     | 230                   | 155 | 96  | 60  |     |     |     |
|                         | 0,6                     | 11,36         |                     | 182                                                                                        | 107 | 70  | 50  |     | 255                   | 166 | 103 | 64  |     |     |     |
| 40                      | 0,5                     | 9,88          | 0,444               | 200                                                                                        | 143 | 95  | 58  | 40  | 300                   | 190 | 130 | 92  | 65  | 45  |     |
|                         | 0,6                     | 11,55         |                     | 215                                                                                        | 153 | 102 | 62  | 43  | 312                   | 205 | 139 | 98  | 70  | 48  |     |
| 50                      | 0,5                     | 10,26         | 0,362               | 225                                                                                        | 175 | 130 | 88  | 65  | 385                   | 255 | 179 | 134 | 95  | 65  | 50  |
|                         | 0,6                     | 11,93         |                     | 240                                                                                        | 187 | 139 | 94  | 70  | 400                   | 280 | 192 | 144 | 102 | 70  | 54  |
| 60                      | 0,5                     | 10,64         | 0,305               | 270                                                                                        | 220 | 170 | 120 | 90  | 460                   | 320 | 230 | 180 | 130 | 80  | 60  |
|                         | 0,6                     | 12,31         |                     | 290                                                                                        | 240 | 182 | 128 | 96  | 480                   | 338 | 248 | 193 | 139 | 86  | 64  |
| 80                      | 0,5                     | 11,40         | 0,232               | 350                                                                                        | 250 | 190 | 150 | 120 | 565                   | 435 | 325 | 242 | 185 | 140 | 115 |
|                         | 0,6                     | 13,07         |                     | 370                                                                                        | 270 | 210 | 161 | 128 | 580                   | 452 | 343 | 265 | 198 | 150 | 123 |
| 100                     | 0,5                     | 12,16         | 0,183               | 450                                                                                        | 300 | 230 | 168 | 145 | 640                   | 490 | 390 | 300 | 240 | 190 | 155 |
|                         | 0,6                     | 13,83         |                     | 470                                                                                        | 320 | 250 | 188 | 165 | 658                   | 512 | 405 | 312 | 258 | 200 | 160 |
| 120                     | 0,5                     | 12,92         | 0,152               | 500                                                                                        | 380 | 290 | 220 | 193 | 710                   | 570 | 460 | 360 | 290 | 240 | 193 |
|                         | 0,6                     | 14,59         |                     | 520                                                                                        | 400 | 310 | 240 | 205 | 721                   | 583 | 480 | 380 | 300 | 253 | 200 |

Possibilità di averli anche in "lana di roccia" e "Rei" tutti certificati.

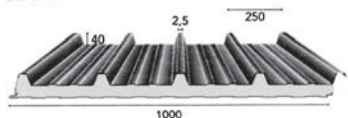


# pannelli per coperture - 5 greche



Pannelli metallici coibentati per coperture discontinue con pendenze 7%, utilizzabili anche in parete con raccordi curvi parete/copertura in lamiera grecata tipo EGB 1250.

PGB TD5



EGB 1250



Spessori (mm) 20 - 30 - 40 - 50 - 60 - 80 - 100 - 120

Freccia  $F \leq 1/200L$

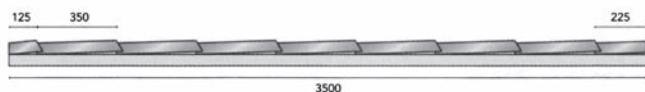
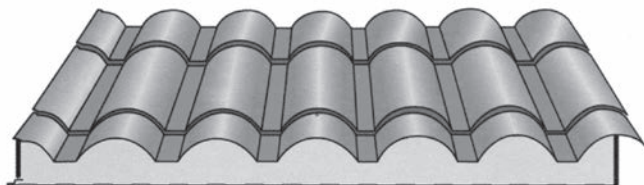
| Spessore pannello<br>mm | Spessore supporto<br>mm | Peso<br>kg/mq | K<br>kcal/mqh<br>°C | Carico massimo uniformemente distribuito in kg/m² acciaio<br>Distanza tra gli appoggi in m |     |     |     |     |     |     |   |                       |     |     |     |     |     |     |  |
|-------------------------|-------------------------|---------------|---------------------|--------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|---|-----------------------|-----|-----|-----|-----|-----|-----|--|
|                         |                         |               |                     | ▲▲ Campata semplice                                                                        |     |     |     |     |     |     |   | ▲▲▲▲ Campata multipla |     |     |     |     |     |     |  |
|                         |                         |               |                     | 2                                                                                          | 2,5 | 3   | 3,5 | 4   | 4,5 | 5   | 2 | 2,5                   | 3   | 3,5 | 4   | 4,5 | 5   |     |  |
| 20                      | 0,5                     | 9,85          | 0,615               | 100                                                                                        | 105 | 45  |     |     |     |     |   | 246                   | 152 | 87  | 32  |     |     |     |  |
|                         | 0,6                     | 11,85         |                     | 203                                                                                        | 117 | 53  |     |     |     |     |   | 265                   | 168 | 99  | 40  |     |     |     |  |
| 30                      | 0,5                     | 10,23         | 0,515               | 250                                                                                        | 170 | 110 | 75  |     |     |     |   | 329                   | 235 | 170 | 115 | 80  | 55  |     |  |
|                         | 0,6                     | 12,04         |                     | 268                                                                                        | 182 | 118 | 80  |     |     |     |   | 348                   | 251 | 182 | 123 | 86  | 59  |     |  |
| 40                      | 0,5                     | 10,61         | 0,407               | 295                                                                                        | 220 | 160 | 110 | 74  | 50  |     |   | 418                   | 295 | 215 | 165 | 115 | 86  | 62  |  |
|                         | 0,6                     | 12,42         |                     | 313                                                                                        | 235 | 171 | 118 | 79  | 54  |     |   | 438                   | 372 | 230 | 177 | 123 | 92  | 66  |  |
| 50                      | 0,5                     | 10,99         | 0,337               | 345                                                                                        | 265 | 200 | 140 | 95  | 70  |     |   | 481                   | 372 | 270 | 200 | 150 | 105 | 82  |  |
|                         | 0,6                     | 12,80         |                     | 361                                                                                        | 284 | 214 | 150 | 102 | 75  | 50  |   | 500                   | 388 | 298 | 214 | 161 | 112 | 88  |  |
| 60                      | 0,5                     | 11,37         | 0,287               | 408                                                                                        | 290 | 235 | 185 | 130 | 96  | 73  |   | 579                   | 448 | 323 | 248 | 198 | 155 | 108 |  |
|                         | 0,6                     | 13,18         |                     | 421                                                                                        | 310 | 251 | 198 | 139 | 103 | 78  |   | 598                   | 467 | 341 | 265 | 212 | 166 | 116 |  |
| 80                      | 0,5                     | 12,13         | 0,222               | 510                                                                                        | 374 | 280 | 225 | 178 | 130 | 110 |   | 703                   | 531 | 443 | 338 | 250 | 210 | 150 |  |
|                         | 0,6                     | 13,94         |                     | 530                                                                                        | 390 | 298 | 241 | 190 | 139 | 118 |   | 719                   | 552 | 462 | 359 | 268 | 225 | 161 |  |
| 100                     | 0,5                     | 12,89         | 0,180               | 620                                                                                        | 448 | 330 | 272 | 220 | 170 | 140 |   | 806                   | 631 | 506 | 400 | 342 | 285 | 205 |  |
|                         | 0,6                     | 14,70         |                     | 630                                                                                        | 467 | 350 | 292 | 240 | 190 | 160 |   | 830                   | 653 | 522 | 428 | 370 | 306 | 227 |  |
| 120                     | 0,5                     | 13,65         | 0,150               | 651                                                                                        | 519 | 361 | 303 | 251 | 201 | 171 |   | 834                   | 659 | 534 | 428 | 370 | 313 | 233 |  |
|                         | 0,6                     | 15,46         |                     | 661                                                                                        | 498 | 381 | 323 | 271 | 221 | 191 |   | 858                   | 681 | 550 | 456 | 398 | 334 | 255 |  |
|                         |                         |               |                     |                                                                                            |     |     |     |     |     |     |   |                       |     |     |     |     |     |     |  |
|                         |                         |               |                     |                                                                                            |     |     |     |     |     |     |   |                       |     |     |     |     |     |     |  |

Possibilità di averli anche in "lana di roccia" e "Rei" tutti certificati.



# pannelli

## tipo coppo



**Larghezza standard (mm)** 2800 - 3500 - 4550 - 4900 - 5250 - 5600 - 6650 - 7700 - 8400

**Freccia**  $F \leq 1/200L$

Il pannello Brollo Coppo offre alle coperture per edilizia residenziale una soluzione elegante ed estremamente funzionale. Le sue caratteristiche di design e colore ne fanno una valida alternativa alle coperture tradizionali in coppo laterizio, soddisfacendo allo stesso tempo le sempre crescenti esigenze di risparmio energetico.

Realizzato in acciaio zincato e preverniciato Marcegaglia, è disponibile anche nelle versioni con lamiera esterna in rame o alluminio.

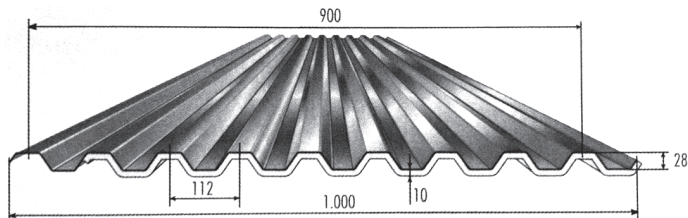
Le elevate caratteristiche di isolamento termico e acustico di Brollo Coppo sono garantite dal materiale poliuretanico di prima qualità (densità 40 kg/m³) che aderisce perfettamente ai supporti metallici.

| Spessore pannello<br>mm | Materiale e spessore supporto<br>mm | Peso<br>kg/m² | K<br>kcal/mqh<br>°C | Carico massimo uniformemente distribuito in kg/m² acciaio |     |      |     |      |      |      |     |
|-------------------------|-------------------------------------|---------------|---------------------|-----------------------------------------------------------|-----|------|-----|------|------|------|-----|
|                         |                                     |               |                     | Distanza tra gli appoggi in m                             |     |      |     |      |      |      |     |
|                         |                                     |               |                     | Campata multipla                                          |     |      |     |      |      |      |     |
|                         |                                     |               |                     | 1,05                                                      | 1,4 | 1,75 | 2,1 | 2,45 | 2,08 | 3,15 | 3,5 |
| 50                      | Acciaio/Acciaio 0,5/0,4             | 11,58         | 0,25                | 610                                                       | 420 | 310  | 240 | 190  | 150  | 120  | 100 |
| 50                      | Alluminio/Acciaio 0,6/0,4           | 8,25          | 0,25                | 435                                                       | 290 | 210  | 160 | 128  | 95   | 80   | 64  |
| 50                      | Rame/Acciaio 0,5/0,4                | 11,65         | 0,25                | 585                                                       | 375 | 280  | 210 | 165  | 148  | 115  | 93  |



# pannello TEK 28

## acciaio



### Caratteristiche tecniche (riferite solo alla lastra metallica)

| SPESSORE LAMIERA               | mm                    | 0,5     | 0,6     | 0,7     | 0,8     | 1,0     |
|--------------------------------|-----------------------|---------|---------|---------|---------|---------|
| Peso unitario                  | kg/m <sup>2</sup>     | 4,88    | 5,85    | 6,83    | 7,81    | 9,76    |
| Momento di inerzia             | cm <sup>4</sup> /m    | 7,68    | 9,22    | 10,76   | 12,30   | 15,38   |
| Modulo di resistenza flessione | cm <sup>3</sup> /m    | 3,58    | 4,84    | 6,27    | 7,88    | 11,19   |
| Rigidezza a flessione          | kN cm <sup>2</sup> /m | 158,208 | 189,932 | 221,656 | 253,380 | 316,828 |
| Momento flettente ammissibile  | kN cm/m               | 49,15   | 66,45   | 86,09   | 108,19  | 153,64  |

### Carico uniforme ammissibile (kg/m<sup>2</sup>) SU 4 APPOGGI\*

| INTERASSE<br>APPOGGI m | SPESSORE LAMIERA mm |       |          |       |          |       |          |       |          |       |
|------------------------|---------------------|-------|----------|-------|----------|-------|----------|-------|----------|-------|
|                        | 0,5                 |       | 0,6      |       | 0,7      |       | 0,8      |       | 1,0      |       |
|                        | $\sigma$            | $f$   | $\sigma$ | $f$   | $\sigma$ | $f$   | $\sigma$ | $f$   | $\sigma$ | $f$   |
| 1.00                   | 501                 | 1.032 | 678      | 1.239 | 878      | 1.446 | 1.103    | 1.653 | 1.567    | 2.067 |
| 1.25                   | 321                 | 528   | 434      | 634   | 562      | 740   | 706      | 846   | 1.003    | 1.058 |
| 1.50                   | 223                 | 306   | 301      | 367   | 390      | 428   | 490      | 490   | 696      | 612   |
| 1.75                   | 164                 | 193   | 221      | 231   | 287      | 270   | 309      | 308   | 512      | 386   |
| 2.00                   | 126                 | 129   | 169      | 155   | 219      | 181   | 276      | 207   | 392      | 258   |
| 2.25                   | 99                  | 91    | 134      | 109   | 173      | 127   | 218      | 145   | 309      | 181   |
| 2.50                   | 80                  | 66    | 108      | 79    | 140      | 93    | 177      | 106   | 251      | 132   |
| 2.75                   | 66                  | 50    | 90       | 60    | 116      | 70    | 146      | 79    | 207      | 99    |
| 3.00                   | 56                  | 38    | 75       | 46    | 98       | 54    | 123      | 61    | 174      | 76    |

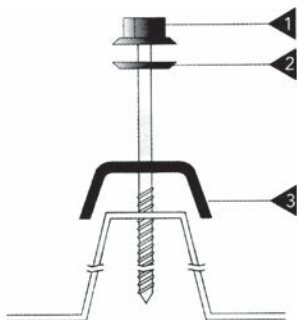
\* Il calcolo è condotto nella doppia ipotesi di  $\sigma$  amm. = 1400 kg/cm<sup>2</sup> = 13,73 kN/cm<sup>2</sup> e di  $f$  amm. =  $i/200$ .

(  $i$  = interasse appoggi -  $\sigma$  = amm. carico unitario di sicurezza -  $f$  = amm. deformazione massima ammissibile )

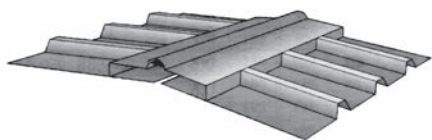


# pannelli

## *gruppi di fissaggio*



- 1 ► Vite zincotropicalizzata con testa in PVC
- 2 ► Rondella in PVC
- 3 ► Cappellotto preverniciato con guarnizione incorporata



Colmo piano a  
cerniera fustellato





# TIRELLI FERRO & FERRAMENTA E INOX UTENSILERIA







note

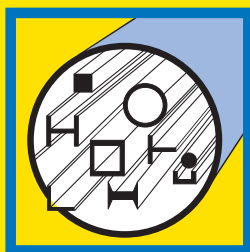
Handwriting practice lines consisting of multiple sets of three horizontal dotted lines.



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