

MPR-Support channels

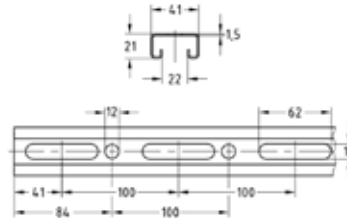
sendzimir galvanised

Application

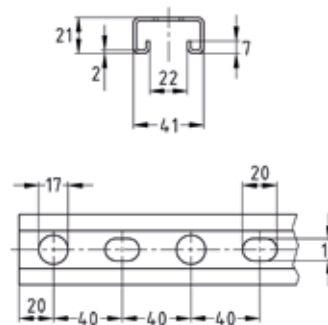
- Ideal for pipe installation as support structure as well as for air ducts in dry interiors
- Variety of mounting options for pre-wall installations and shelves in combination with extensive range of system components

Your advantages

- Fast and efficient attachment of piping and pipe routes
- High bending stiffness due to the cross-section design
- Scale marks sideways and/or on the side with the slot simplify the alignment of the attachment elements during installation and facilitate the measuring and cutting to length of the section on site
- For secure fixing that is adjustable laterally and vertically
- For setting up structures with correctly measured static loads by means of diverse connection components
- Meshing into the channel slot for positive-fit attachment of add-on parts
- Oblong hole for the flexible attachment of add-on parts
- Round hole for approval-compliant attachment with anchors
- Clean-cut appearance by the use of MPR-protection caps



Profile 41/21/1.5



Profile 41/21/2.0

Features



| Profile | Length [mm] | Part no. | Sales unit | Pack unit |
|-----------|-------------|----------|------------|-----------|
| 41/21/1.5 | 3,000 | 175787 | 1 | Pieces |
| | 6,000 | 175788 | | |
| 41/21/2.0 | 2,000 | 150930 | 8 | |
| | 3,040 | 150931 | 1 | |
| | 6,000 | 150932 | | |

! Profile 41/21/1.5 with a length of 6,000 mm (part no. 175788) is manufactured to order. Price, quantity and delivery time available upon request.

For use in areas with requirements on the duration of fire resistance, the boundary conditions set out in the fire test report must be observed.

MPR-Support channels

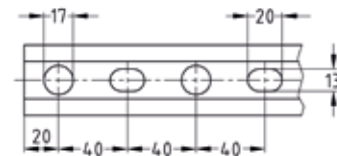
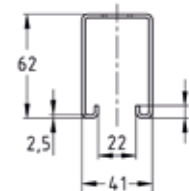
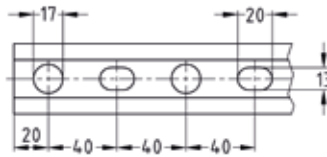
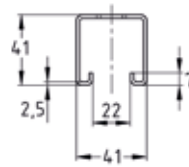
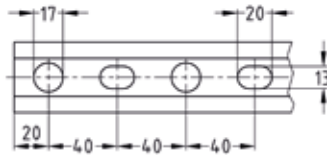
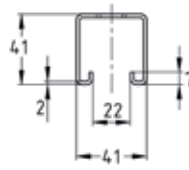
sendzimir galvanised

Application

- Ideal for pipe installation as support structure as well as for air ducts in dry interiors
- Variety of mounting options for pre-wall installations and shelves in combination with extensive range of system components

Your advantages

- Fast and efficient attachment of piping and pipe routes
- High bending stiffness due to the cross-section design
- Scale marks sideways and on the side with the slot simplify the alignment of the attachment elements during installation and facilitate the measuring and cutting to length of the section on site
- For secure fixing that is adjustable laterally and vertically
- For setting up structures with correctly measured static loads by means of diverse connection components
- Meshing into the channel slot for positive-fit attachment of add-on parts
- Clean-cut appearance by the use of MPR-protection caps



Profile 41/41/2.0



Profile 41/41/2.5



Profile 41/62/2.5

Features



| Profile | Length [mm] | Part no. | Sales unit | Pack unit |
|-----------|-------------|----------|------------|-----------|
| 41/41/2.0 | 2,000 | 150933 | 4 | Pieces |
| | 3,040 | 150934 | 1 | |
| | 6,000 | 150935 | 1 | |
| 41/41/2.5 | 2,000 | 150864 | 4 | |
| | 3,040 | 150937 | 1 | |
| | 6,000 | 150938 | 1 | |
| 41/62/2.5 | 2,000 | 150936 | | |
| | 3,040 | 150978 | | |
| | 6,000 | 150979 | | |

⚠ Profile 41/41 in profile thickness 3.0 mm available upon request.

For use in areas with requirements on the duration of fire resistance, the boundary conditions set out in the fire test report must be observed.

MPR-Support channels

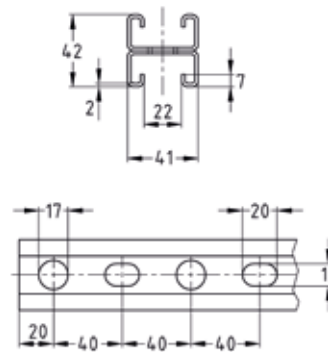
H-Profiles, sendzimir galvanised

Application

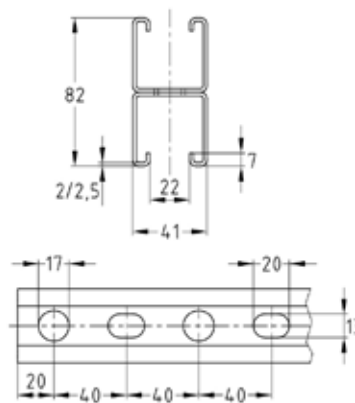
- Ideal for space-saving support of multisection pipeways between ceiling beams
- Ideal for pipe installation as support structure as well as for air ducts in dry interiors
- Variety of mounting options for pre-wall installations and shelves in combination with extensive range of system components

Your advantages

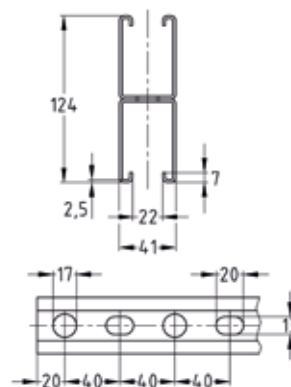
- Fast and efficient attachment of piping and pipe routes
- Ideal combination of high bending stiffness and ease of installation
- Channel slots on both sides allow simple and quick alignment of all suspended and floor-mounted pipe supports
- Scale marks sideways and on the side with the slot simplify the alignment of the attachment elements during installation and facilitate the measuring and cutting to length of the section on site
- Suitable vibration control elements for all support channels available
- Clean-cut appearance by the use of MPR-protection caps
- Meshing into the channel slot for positive-fit attachment of add-on parts



Profile 41/42/2.0



Profile 41/82/2.0, 41/82/2.5



Profile 41/124/2.5

Features

| Profile | Length [mm] | Part no. | Sales unit | Pack unit |
|--------------|-------------|----------|------------|-----------|
| 41/42/2.0 H | 6,640 | 150968 | 1 | Pieces |
| 41/82/2.0 H | | 150969 | | |
| 41/82/2.5 H | 6,000 | 177352 | | |
| 41/124/2.5 H | 6,640 | 151050 | | |



For use in areas with requirements on the duration of fire resistance, the boundary conditions set out in the fire test report must be observed.

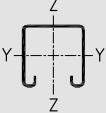
MPR-Support channels

Technical data

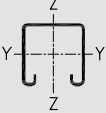
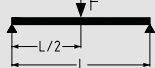
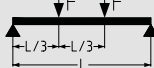
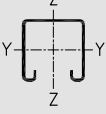
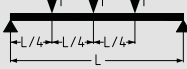
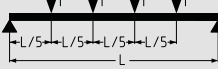
Technical data of profile:



Features

| Profile | Material | Surface | Admissible steel stress $\sigma_{adm.}$ [N/mm ²] | Available threaded plates* | Profile weight [kg/m] | Profile cross-section [cm ²] | Moment of inertia | | Resistance moment | | |
|---|----------|----------------------|--|----------------------------|-----------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------|
| | | | | | | | I_y [cm ⁴] | I_z [cm ⁴] | W_y [cm ³] | W_z [cm ³] | |
|  | | | | | | | | | | | |
| 41/21/1.5 | S250GD+Z | sendzimir galvanised | 162 | M6, M8, M10, M12, M16 | 1.08 | 1.3 | 0.767 | 3.521 | 0.695 | 1.718 | |
| 41/21/2.0 | S250GD | | | | 1.45 | 1.62 | 0.8894 | 4.5246 | 0.839 | 2.207 | |
| 41/41/2.0 | | | 188 | | 2.08 | 2.42 | 4.9736 | 7.5692 | 2.451 | 3.692 | |
| 41/41/2.5 | | | | | 2.53 | 3.08 | 5.8103 | 9.0333 | 2.839 | 4.406 | |
| 41/62/2.5 | | | 3.38 | | 3.98 | 17.209 | 12.9297 | 5.671 | 6.307 | | |
| 41/42/2.0 H | | | 2.9 | | 3.24 | 5.2844 | 9.0492 | 2.516 | 4.414 | | |
| 41/82/2.0 H | | | | | 4.16 | 4.83 | 30.6876 | 15.1385 | 7.485 | 7.385 | |
| 41/82/2.5 H | | | | | S250GD+Z | 5.05 | 5.87 | 36.3506 | 18.0667 | 8.866 | 8.813 |
| 41/124/2.5 H | | | | | S250GD | 6.76 | 7.96 | 111.7528 | 25.8595 | 18.025 | 12.614 |

Load bearing capacities of profiles for bending around the y-axis [N]:

| Profile | L [m] | | | | | | L [m] | | | | | |
|---|---|--------|-------|-------|-------|-------|---|-------|-------|-------|-------|-----|
| | 0.5 | 1.0 | 1.5 | 2.0 | 4.0 | 6.0 | 0.5 | 1.0 | 1.5 | 2.0 | 4.0 | 6.0 |
|  |  | | | | | |  | | | | | |
| 41/21/1.5 | 895 | 379 | 161 | 83 | - | - | 667 | 223 | 95 | 48 | - | - |
| 41/21/2.0 | 1,090 | 440 | 190 | 90 | - | - | 800 | 260 | 110 | 60 | - | - |
| 41/41/2.0 | 3,681 | 1,833 | 1,095 | 601 | 106 | - | 2,755 | 1,376 | 643 | 353 | 62 | - |
| 41/41/2.5 | 4,262 | 2,122 | 1,278 | 701 | 121 | - | 3,190 | 1,593 | 750 | 411 | 71 | - |
| 41/62/2.5 | 8,521 | 4,248 | 2,818 | 2,099 | 459 | 117 | 6,378 | 3,189 | 2,114 | 1,248 | 270 | 68 |
| 41/42/2.0 H | 3,080 | 1,878 | 1,157 | 630 | 95 | - | 1,540 | 1,410 | 679 | 370 | 56 | - |
| 41/82/2.0 H | 6,563 | 5,608 | 3,722 | 2,774 | 865 | 277 | 3,281 | 3,281 | 2,791 | 2,079 | 508 | 162 |
| 41/82/2.5 H | 11,327 | 6,617 | 4,404 | 3,284 | 1,021 | 323 | 5,663 | 4,930 | 3,293 | 2,459 | 599 | 189 |
| 41/124/2.5 H | 13,646 | 13,522 | 8,987 | 6,711 | 3,256 | 1,316 | 6,823 | 6,823 | 6,740 | 5,031 | 1,969 | 772 |
|  |  | | | | | |  | | | | | |
| 41/21/1.5 | 445 | 159 | 68 | 35 | - | - | 370 | 125 | 53 | 27 | - | - |
| 41/21/2.0 | 540 | 180 | 80 | 40 | - | - | 450 | 150 | 60 | 30 | - | - |
| 41/41/2.0 | 1,841 | 916 | 461 | 253 | 44 | - | 1,534 | 764 | 362 | 199 | 35 | - |
| 41/41/2.5 | 2,131 | 1,061 | 538 | 295 | 51 | - | 1,776 | 884 | 423 | 232 | 40 | - |
| 41/62/2.5 | 4,260 | 2,124 | 1,409 | 896 | 193 | 49 | 3,550 | 1,770 | 1,174 | 703 | 152 | 39 |
| 41/42/2.0 H | 1,027 | 939 | 487 | 265 | 40 | - | 770 | 770 | 383 | 208 | 32 | - |
| 41/82/2.0 H | 2,188 | 2,188 | 1,861 | 1,387 | 364 | 116 | 1,641 | 1,641 | 1,551 | 1,156 | 286 | 91 |
| 41/82/2.5 H | 3,775 | 3,286 | 2,195 | 1,639 | 429 | 136 | 2,831 | 2,731 | 1,827 | 1,365 | 337 | 106 |
| 41/124/2.5 H | 4,549 | 4,549 | 4,493 | 3,356 | 1,412 | 554 | 3,411 | 3,411 | 3,411 | 2,796 | 1,109 | 435 |

* Please note additional information on the catalog pages of threaded plates/hammer head fasteners.

The determined loads apply for static loads. Calculation based on Eurocode (EC3).

The safety coefficient $\gamma = 1.54$ takes into account the partial and combination coefficients as well as the safety factor of the material.

For the given values, the permissible steel stress and the maximum permissible deflection $L/200$ are not exceeded, taking the deadweight into consideration.

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Technical data

Permissible buckling loads for profiles [N]:

| Buckling length Lk [mm] | 41/21/1.5 | 41/21/2.0 | 41/41/2.0 | 41/41/2.5 | 41/62/2.5 | 41/42/2.0 H | 41/82/2.0 H | 41/82/2.5 H | 41/124/2.5 H |
|-------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|-------------|--------------|
| 200 | 20,424 | 29,182 | 45,557 | 56,946 | 75,004 | 60,984 | 91,020 | 110,463 | 150,007 |
| 300 | 19,270 | 27,244 | 44,788 | 55,811 | 75,004 | 59,289 | 91,010 | 110,410 | 150,007 |
| 400 | 17,934 | 24,922 | 43,416 | 54,027 | 73,330 | 57,182 | 89,656 | 108,751 | 147,921 |
| 500 | 16,341 | 22,127 | 41,962 | 52,126 | 71,527 | 54,901 | 88,232 | 107,004 | 145,627 |
| 600 | 14,508 | 19,030 | 40,383 | 50,048 | 69,639 | 52,369 | 86,698 | 105,119 | 143,164 |
| 700 | 12,578 | 16,008 | 38,641 | 47,743 | 67,631 | 49,527 | 85,009 | 103,040 | 140,464 |
| 800 | 10,746 | 13,362 | 36,711 | 45,181 | 65,469 | 46,359 | 83,114 | 100,703 | 137,446 |
| 900 | 9,139 | 11,181 | 34,586 | 42,366 | 63,124 | 42,910 | 80,954 | 98,033 | 134,020 |
| 1.000 | 7,792 | 9,427 | 32,296 | 39,350 | 60,579 | 39,301 | 78,468 | 94,955 | 130,091 |
| 1.100 | 6,683 | 8,024 | 29,902 | 36,233 | 57,831 | 35,692 | 75,599 | 91,401 | 125,569 |
| 1.200 | 5,774 | 6,896 | 27,489 | 33,134 | 54,898 | 32,234 | 72,317 | 87,336 | 120,394 |
| 1.300 | 5,029 | 5,981 | 25,140 | 30,161 | 51,823 | 29,033 | 68,635 | 82,781 | 114,570 |
| 1.400 | 4,412 | 5,232 | 22,922 | 27,392 | 48,668 | 26,139 | 64,626 | 77,839 | 108,190 |
| 1.500 | 3,899 | 4,613 | 20,875 | 24,864 | 45,505 | 23,563 | 60,419 | 72,674 | 101,439 |
| 1.600 | 3,468 | 4,095 | 19,015 | 22,589 | 42,406 | 21,289 | 56,168 | 67,479 | 94,553 |
| 1.700 | 3,104 | 3,659 | 17,342 | 20,558 | 39,428 | 19,290 | 52,015 | 62,423 | 87,762 |
| 1.800 | 2,793 | 3,289 | 15,846 | 18,752 | 36,612 | 17,533 | 48,063 | 57,630 | 81,249 |
| 1.900 | 2,526 | 2,971 | 14,512 | 17,150 | 33,983 | 15,989 | 44,375 | 53,171 | 75,131 |
| 2.000 | 2,295 | 2,697 | 13,324 | 15,728 | 31,550 | 14,629 | 40,978 | 49,074 | 69,467 |
| 2.100 | 2,094 | 2,459 | 12,265 | 14,464 | 29,314 | 13,426 | 37,877 | 45,340 | 64,274 |
| 2.200 | 1,918 | 2,251 | 11,319 | 13,338 | 27,266 | 12,361 | 35,059 | 41,952 | 59,541 |
| 2.300 | 1,764 | 2,068 | 10,473 | 12,333 | 25,395 | 11,413 | 32,506 | 38,885 | 55,240 |
| 2.400 | 1,627 | 1,907 | 9,715 | 11,433 | 23,688 | 10,568 | 30,194 | 36,111 | 51,340 |
| 2.500 | 1,505 | 1,764 | 9,033 | 10,625 | 22,131 | 9,811 | 28,101 | 33,601 | 47,802 |
| 2.600 | 1,397 | 1,636 | 8,418 | 9,898 | 20,711 | 9,130 | 26,204 | 31,328 | 44,592 |
| 2.700 | 1,300 | 1,521 | 7,862 | 9,240 | 19,413 | 8,517 | 24,483 | 29,265 | 41,676 |
| 2.800 | 1,212 | 1,419 | 7,358 | 8,645 | 18,227 | 7,963 | 22,918 | 27,391 | 39,022 |
| 2.900 | 1,133 | 1,326 | 6,900 | 8,105 | 17,141 | 7,461 | 21,492 | 25,685 | 36,604 |
| 3.000 | 1,062 | 1,242 | 6,483 | 7,613 | 16,144 | 7,004 | 20,192 | 24,128 | 34,395 |
| 3.100 | 997 | 1,166 | 6,102 | 7,164 | 15,229 | 6,587 | 19,002 | 22,705 | 32,374 |
| 3.200 | 938 | 1,096 | 5,753 | 6,753 | 14,387 | 6,206 | 17,912 | 21,401 | 30,522 |
| 3.300 | 884 | 1,033 | 5,433 | 6,376 | 13,611 | 5,857 | 16,911 | 20,204 | 28,820 |
| 3.400 | 834 | 975 | 5,138 | 6,029 | 12,894 | 5,536 | 15,990 | 19,102 | 27,254 |
| 3.500 | 789 | 921 | 4,867 | 5,710 | 12,231 | 5,241 | 15,141 | 18,087 | 25,810 |
| 3.600 | 747 | 872 | 4,616 | 5,415 | 11,617 | 4,969 | 14,357 | 17,150 | 24,475 |
| 3.700 | 708 | 827 | 4,385 | 5,142 | 11,047 | 4,717 | 13,631 | 16,282 | 23,241 |
| 3.800 | 672 | 785 | 4,170 | 4,889 | 10,517 | 4,484 | 12,959 | 15,478 | 22,096 |
| 3.900 | 639 | 747 | 3,970 | 4,655 | 10,024 | 4,268 | 12,334 | 14,732 | 21,032 |
| 4.000 | 609 | 711 | 3,784 | 4,436 | 9,565 | 4,067 | 11,753 | 14,037 | 20,043 |
| 4.100 | 580 | 677 | 3,611 | 4,233 | 9,136 | 3,879 | 11,212 | 13,391 | 19,121 |
| 4.200 | 554 | 646 | 3,450 | 4,043 | 8,734 | 3,705 | 10,707 | 12,787 | 18,261 |
| 4.300 | 529 | 617 | 3,299 | 3,866 | 8,359 | 3,542 | 10,235 | 12,223 | 17,457 |
| 4.400 | 506 | 590 | 3,157 | 3,700 | 8,006 | 3,389 | 9,794 | 11,696 | 16,705 |
| 4.500 | 484 | 565 | 3,025 | 3,544 | 7,676 | 3,246 | 9,380 | 11,201 | 16,000 |
| 4.600 | 464 | 541 | 2,900 | 3,398 | 7,365 | 3,112 | 8,992 | 10,737 | 15,338 |
| 4.700 | 444 | 519 | 2,784 | 3,261 | 7,073 | 2,986 | 8,627 | 10,302 | 14,717 |
| 4.800 | 427 | 498 | 2,674 | 3,132 | 6,797 | 2,867 | 8,284 | 9,892 | 14,132 |
| 4.900 | 410 | 478 | 2,570 | 3,011 | 6,538 | 2,755 | 7,961 | 9,506 | 13,581 |
| 5.000 | 394 | 459 | 2,472 | 2,896 | 6,293 | 2,650 | 7,656 | 9,142 | 13,062 |
| 5.100 | 379 | 442 | 2,380 | 2,788 | 6,061 | 2,551 | 7,368 | 8,798 | 12,571 |
| 5.200 | 365 | 425 | 2,293 | 2,686 | 5,842 | 2,457 | 7,097 | 8,474 | 12,108 |
| 5.300 | 351 | 410 | 2,211 | 2,589 | 5,634 | 2,368 | 6,840 | 8,167 | 11,670 |
| 5.400 | 339 | 395 | 2,132 | 2,497 | 5,437 | 2,284 | 6,596 | 7,876 | 11,255 |
| 5.500 | 327 | 381 | 2,058 | 2,410 | 5,250 | 2,204 | 6,366 | 7,600 | 10,862 |
| 5.600 | 315 | 368 | 1,988 | 2,328 | 5,073 | 2,129 | 6,147 | 7,339 | 10,489 |
| 5.700 | 305 | 355 | 1,921 | 2,250 | 4,905 | 2,057 | 5,939 | 7,091 | 10,135 |
| 5.800 | 294 | 343 | 1,858 | 2,175 | 4,744 | 1,989 | 5,742 | 6,855 | 9,798 |
| 5.900 | 285 | 332 | 1,798 | 2,105 | 4,592 | 1,924 | 5,554 | 6,631 | 9,478 |
| 6.000 | 275 | 321 | 1,740 | 2,037 | 4,446 | 1,862 | 5,375 | 6,418 | 9,173 |



MPR-Support channels

Technical data



Buckling loads as per DIN EN 1993-1-1 sections 6.2 and 6.3.

The values in the table apply for fully bearing cross-sections and central load transmission!

The potentially lower slenderness parameter for buckling and lateral torsional buckling must be examined separately!

Buckling about the z-axis and the y-axis was considered.

The least favourable buckling load is documented in the table.

The safety coefficient $\gamma = 1.54$ takes into account the safety and combination coefficients as well as the safety factor of the material.

Determine the authoritative buckling length L_k depending on the storage conditions and the rod length l , as shown in the figure.

Read off the buckling load F as L_k from the table.

