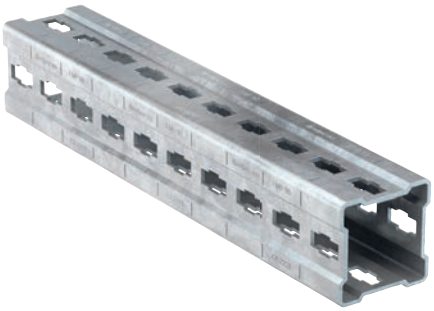
# Massive profile FMP

The efficient fixing solution for heavy-duty installations



Frame construction



## Applications

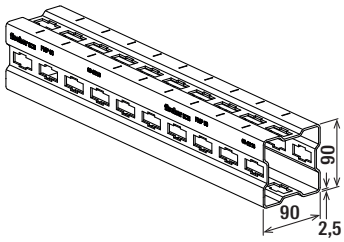
- Secure fastening of heavy duty pipelines.
- Safe construction of solid supporting structures.
- For indoor and outdoor application.

## Advantages

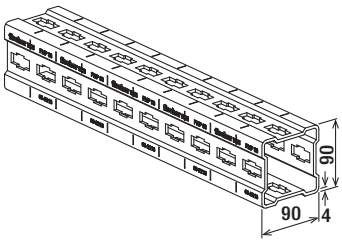
- The clearly arranged product range of profiles and construction elements enables on-site assembly without prefabrication and thus considerably reduces costs and time.
- The fischer massive profiles can be processed exclusively by cutting at right angles, thus reducing waste and material costs.
- The construction with the fischer massive channel system FMS also generates a fixing basis for dynamic loads and makes the system universally applicable.
- The hot-dip galvanised product range guarantees on-site processing without subsequent coating speeding the assembly process sustainably.
- The thick coating of the hot-dip galvanised version is suitable for outdoor installations and in corrosive environments.
- The stamped scaling simplifies the cutting to length of the massive profile FMP and ensures the correct installation of the construction elements.

## Properties

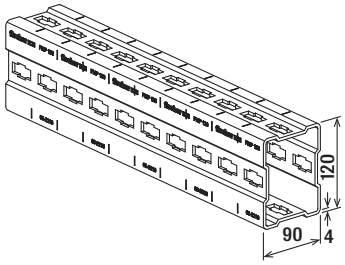
- Material FMP 90 and 120: steel S235JR (material no. 1.0038) acc. to DIN EN 10025-2
- Material FMP 160: steel S355MC (material no. 1.0976) acc. to DIN EN 10149-2
- Zinc plating: hot-dip galvanised



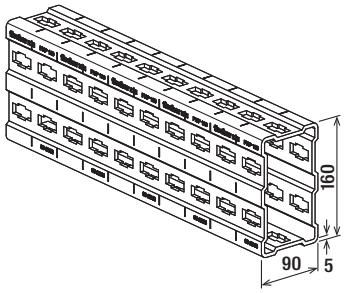

FMP 90/2.5




FMP 90




FMP 120



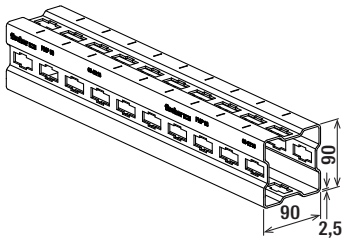

FMP 160

11

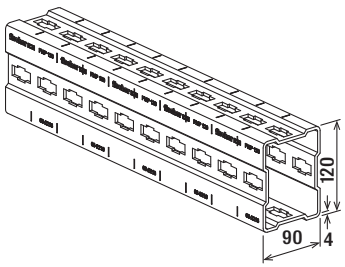
## Technical data

| Item | Item no. | Length L [mm] | Width B [mm] | Height H [mm] | Profile weight [kg/m] | Channel cross section [cm²] | Thickness S [mm] | Sales unit [pcs] |
|---|---|---|---|---|---|---|---|---|
| **FMP 90/2,5 - 3 m** | **560562** | 3,000 | 90 | 90 | 6.33 | 7.18 | 2.5 | 1 |
| **FMP 90/2,5 - 6 m** | **560563** | 6,000 | 90 | 90 | 6.33 | 7.18 | 2.5 | 1 |
| **FMP 90 - 3 m** | **547795** | 3,000 | 90 | 90 | 9.68 | 10.97 | 4.0 | 1 |
| **FMP 90 - 6 m** | **547796** | 6,000 | 90 | 90 | 9.68 | 10.97 | 4.0 | 1 |
| **FMP 120 - 3 m** | **547797** | 3,000 | 90 | 120 | 11.85 | 13.37 | 4.0 | 1 |
| **FMP 120 - 6 m** | **547798** | 6,000 | 90 | 120 | 11.85 | 13.37 | 4.0 | 1 |
| **FMP 160 - 6 m** | **547799** | 6,000 | 90 | 160 | 16.86 | 18.91 | 5.0 | 1 |
| **FMP 160 - 8 m** | **547800**[1)] | 8,000 | 90 | 160 | 16.86 | 18.91 | 5.0 | 1 |

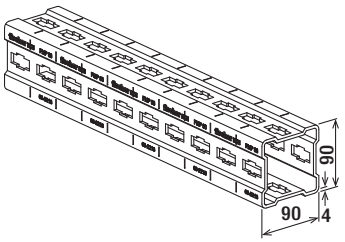
[1)] Delivery time on request.



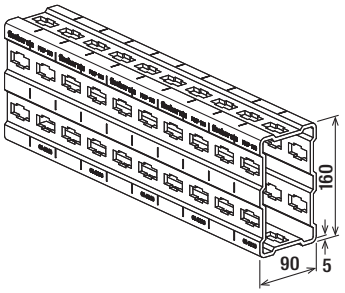

FMP 90/2.5




FMP 120




FMP 90




FMP 160

11

## Loads

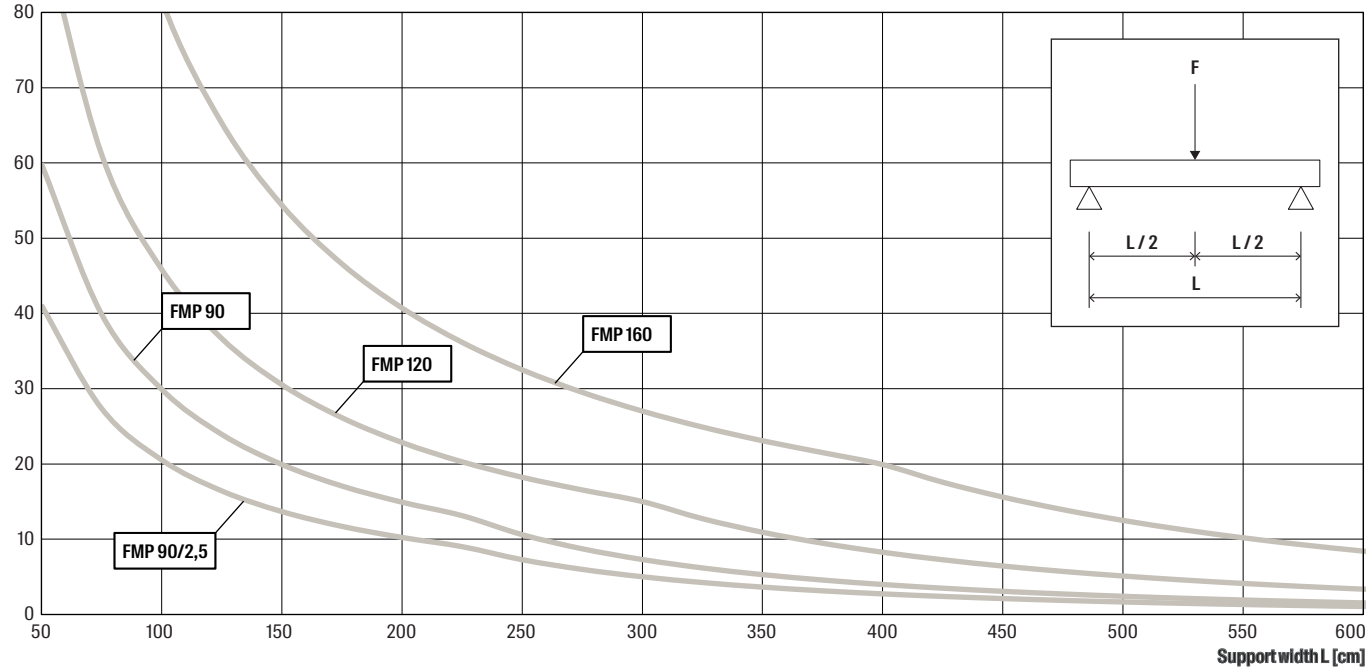
| Item | Item no. | Yield strength $f_{yk}$ [kN/cm²] | Rec. tensile stress $\sigma_{rec}$* [kN/cm²] | Rec. shear stress $\tau_{rec}$* [kN/cm²] | Moment of inertia $I_y$ [cm⁴] | Moment of inertia $I_z$ [cm⁴] | Section modulus $W_y$ [cm³] | Section modulus $W_z$ [cm³] | Radius of gyration $i_y$ [cm] | Radius of gyration $i_z$ [cm] | Torsional moment of inertia $I_t$ [cm⁴] | Torsional moment of resistance $W_t$ [cm³] | Sales unit [pcs] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FMP 90/2,5 - 3 m** | **560562** | 35.5 | 25.36 | 14.64 | 91.28 | 91.28 | 20.28 | 20.28 | 3.57 | 3.57 | 131.71 | 34.45 | 1 |
| **FMP 90/2,5 - 6 m** | **560563** | 35.5 | 25.36 | 14.64 | 91.28 | 91.28 | 20.28 | 20.28 | 3.57 | 3.57 | 131.71 | 34.45 | 1 |
| **FMP 90 - 3 m** | **547795** | 35.5 | 25.36 | 14.64 | 133.07 | 133.07 | 29.57 | 29.57 | 3.48 | 3.48 | 198.86 | 52.55 | 1 |
| **FMP 90 - 6 m** | **547796** | 35.5 | 25.36 | 14.64 | 133.07 | 133.07 | 29.57 | 29.57 | 3.48 | 3.48 | 198.86 | 52.55 | 1 |
| **FMP 120 - 3 m** | **547797** | 35.5 | 25.36 | 14.64 | 271.97 | 177.46 | 45.33 | 39.44 | 4.51 | 3.64 | 328.80 | 73.19 | 1 |
| **FMP 120 - 6 m** | **547798** | 35.5 | 25.36 | 14.64 | 271.97 | 177.46 | 45.33 | 39.44 | 4.51 | 3.64 | 328.80 | 73.19 | 1 |
| **FMP 160 - 6 m** | **547799** | 35.5 | 25.36 | 14.64 | 645.39 | 247.28 | 80.67 | 54.94 | 5.84 | 3.62 | 583.59 | 119.31 | 1 |
| **FMP 160 - 8 m** | **547800**[1)] | 35.5 | 25.36 | 14.64 | 645.39 | 247.28 | 80.67 | 54.94 | 5.84 | 3.62 | 583.59 | 119.31 | 1 |

[1)] Delivery time on request.

The recommended stress is calculated acc. EN 1993; $\sigma_{rec}=f_{yk}/(\gamma_L * \gamma_{M0})$ with $\gamma_L=1.4$ and $\gamma_{M0}=1.0$.

## Simply supported beam with single load at L/2

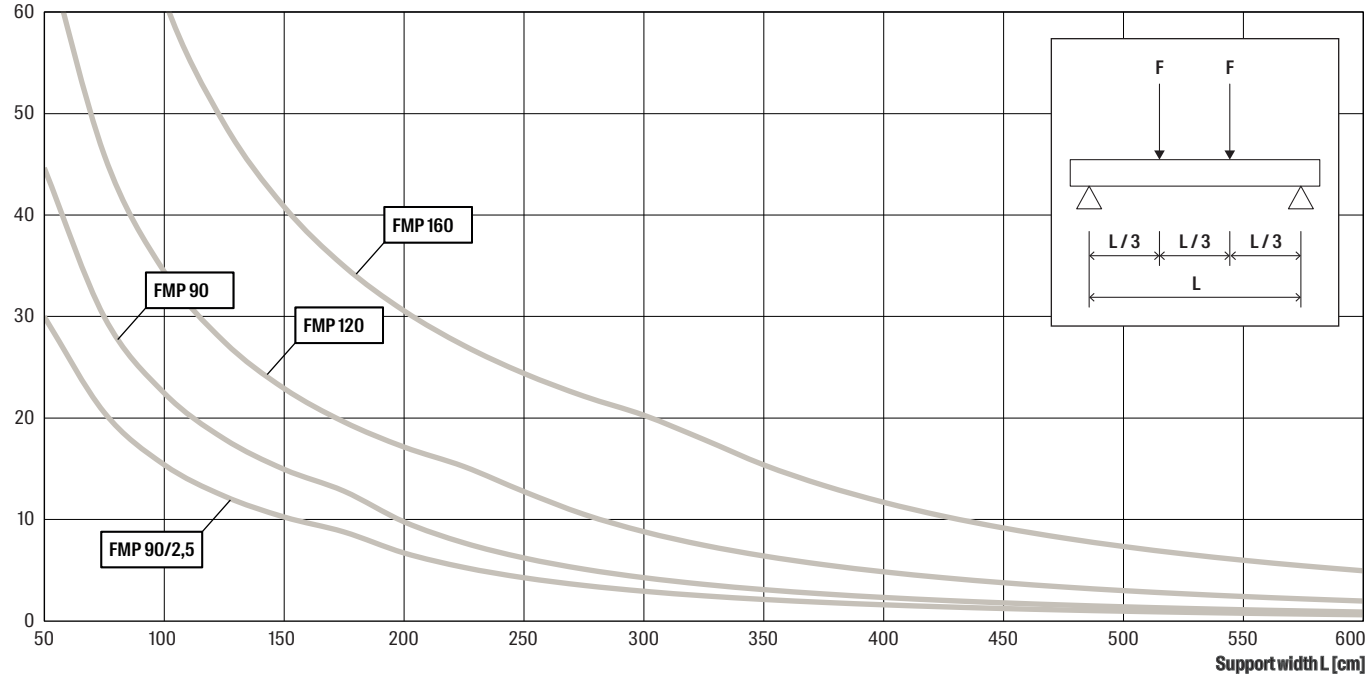
F [kN]**




** The permissible stress is calculated acc. EN 1993; $\sigma_{rec}=f_{yk}/(\gamma_L * \gamma_{M0})$ with $\gamma_L=1,4$ and $\gamma_{M0}=1,0$. Lower value of permissible stress (shear, bending or combined) or max. defelection (L/200) is decisive

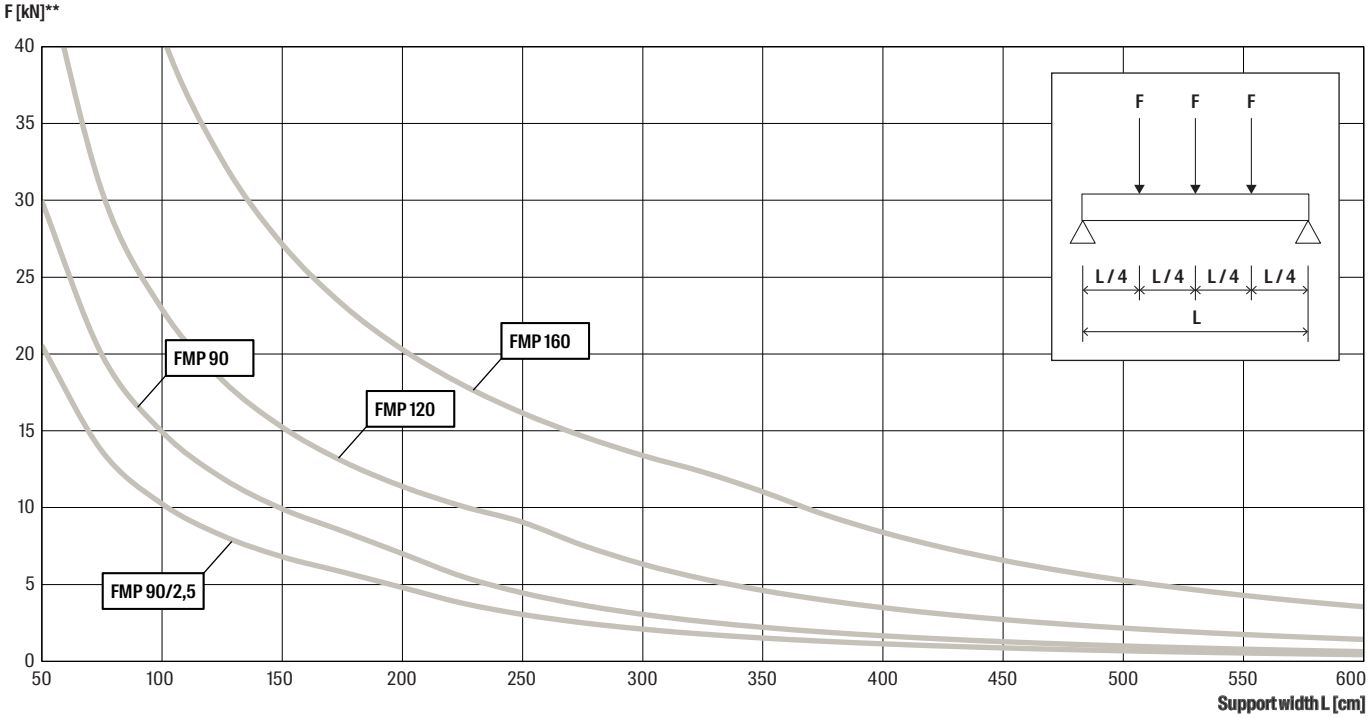
## Simply supported beam with two single loads at L/3

F [kN]**



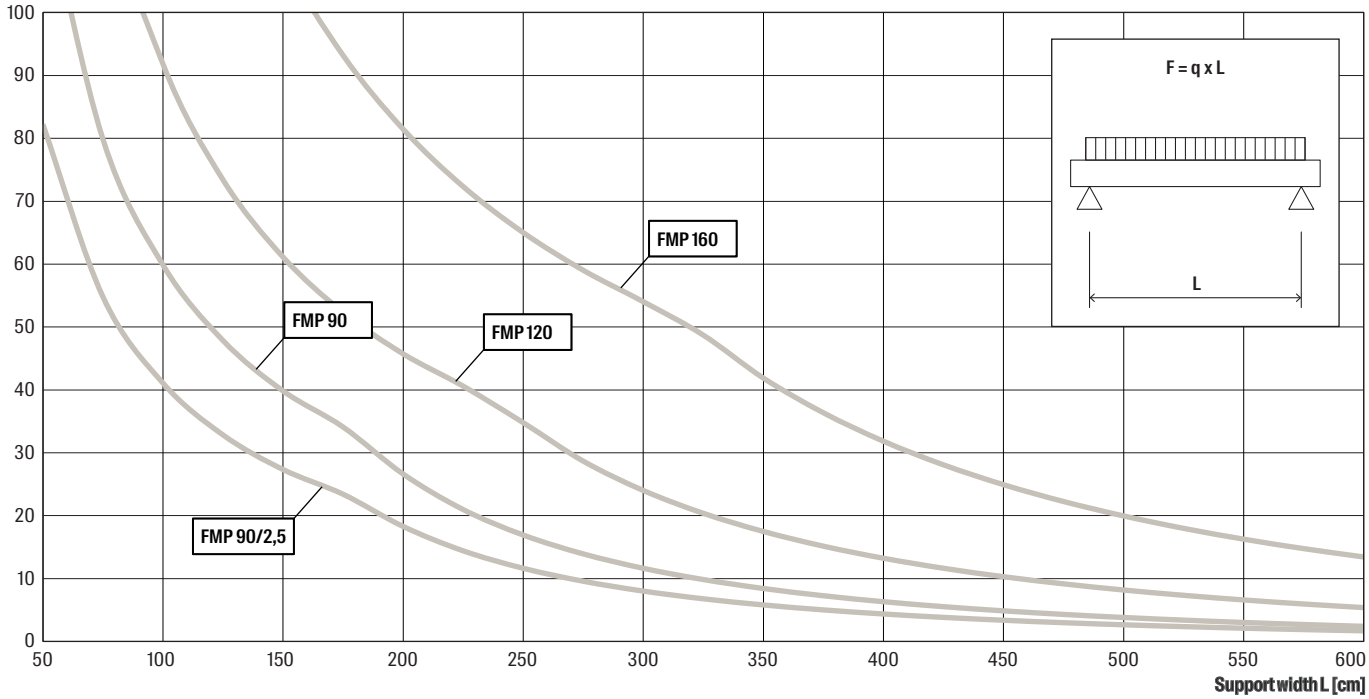

** The permissible stress is calculated acc. EN 1993; $\sigma_{rec}=f_{yk}/(\gamma_L * \gamma_{M0})$ with $\gamma_L=1,4$ and $\gamma_{M0}=1,0$. Lower value of permissible stress (shear, bending or combined) or max. defelection (L/200) is decisive

## Simply supported beam with three single loads at L/4




** The permissible stress is calculated acc. EN 1993; $\sigma_{rec}=f_{yk}/(\gamma_L * \gamma_{M0})$ with $\gamma_L=1,4$ and $\gamma_{M0}=1,0$. Lower value of permissible stress (shear, bending or combined) or max. defelection (L/200) is decisive

## Uniformly distributed load over the span $F_{rec} = q_{rec}$ x L




** The permissible stress is calculated acc. EN 1993; $\sigma_{rec}=f_{yk}/(\gamma_L * \gamma_{M0})$ with $\gamma_L=1,4$ and $\gamma_{M0}=1,0$. Lower value of permissible stress (shear, bending or combined) or max. defelection (L/200) is decisive