



fischer 

**Installation grid.
Limitlessly flexible.**

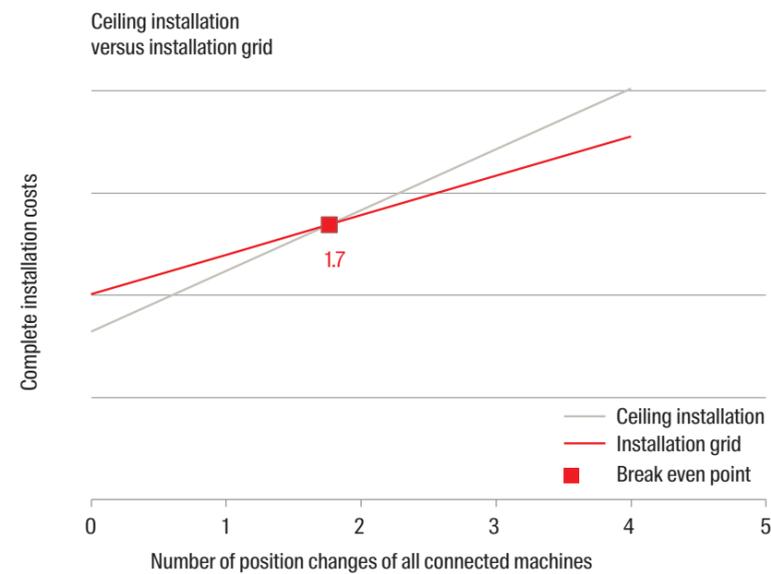
Maximum flexibility at anytime and anywhere!

Modifying the service supply - effectively and economically.

When designing factories, production facilities or similar buildings, their life cycle is included in the considerations during the design phase. In industry the trend is towards ever-shorter production cycles. Flexible and changeable installations are therefore a necessity in the factory of the future. In general, the changeability of a modular factory through optimum interaction between operating processes and factory equipment is the factor for success. Investments in new buildings are made, in particular, if the life expectation is correspondingly high and the building meets the requirements of the expected life cycles.

The fischer installation grid enables easy modification of the services supply to the workstations, as the level of the operating resources supply shifts closer to the fabrication level. This is also supported by concepts such as Plug & Produce, synergistic factory planning and in-service factory planning. Thanks to its changeability and architectural orientation, the installation grid is an effective and flexible solution.

Cost effectiveness calculation of a production hall over its life cycle



Installation criteria for the diagram shown:

- Grid size 2.5 m x 2.5 m
- 3 service pipes per machine
- Installation grid positioned at half-height between the floor and ceiling (i.e. the vertical connection height for ceiling installation is twice as high as for the installation grid)

Flexible support structure at the level of media distribution.



Possible services and other installations for the fabrication level:

- Pipes for ventilation, heating, cooling and water
- Busbars and trays for power cables, data cables, etc.
- Supply pipes for machines or workstations:
 - Compressed air
 - Supply of manufactured gases
 - Removal of the exhaust air
 - Supply with liquids
- Lamps, light strips
- Ceiling heaters
- Sound insulation elements
- Suspended ceilings

Applications



Cable trays and ventilation ducts



Pipes and lamps

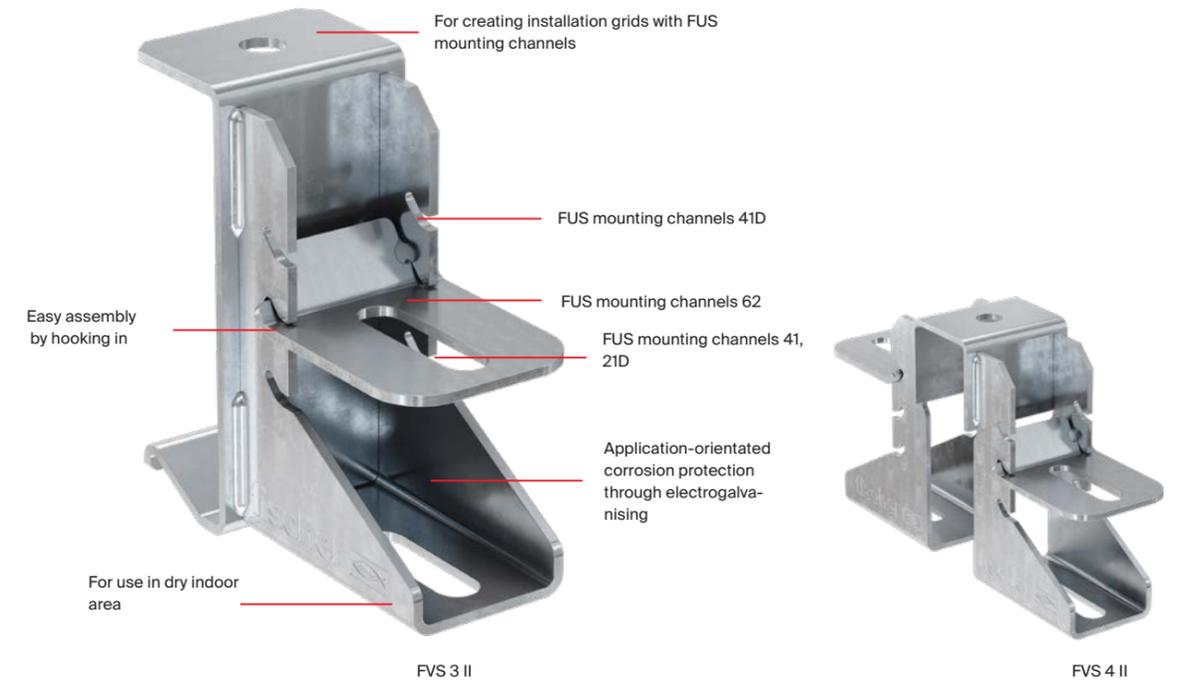


Busbars and control cabinets



Suspended ceilings,
e.g. with sound insulation elements

FVS 3 II and FVS 4 II. Enable the easy and time- saving creation of an installation grid.



Cross connectors FVS 3 II and FVS 4 II

The new cross connectors are suitable for FUS mounting channels FUS 41 D, FUS 62, FUS 41 and FUS 21 D

The advantages at a glance

- The design of the cross connector enables easy and time-saving creation of an installation grid.
- The retention of the transverse mounting channel, open at the top, in the cross connector allows assembly by one fitter.
- The FVS 3 II and FVS 4 II allow use to create stable traverses.

Applications

- Connectors for building an installation grid in combination with FUS installation channels
- Simple hanging from the ceiling with the help of threaded rods
- Longitudinal channels: FUS 62D
- Transverse channels: FUS 41, FUS 21D, FUS 62, FUS 41D

Fixing options for services connections wherever they are needed

Reduced change process costs

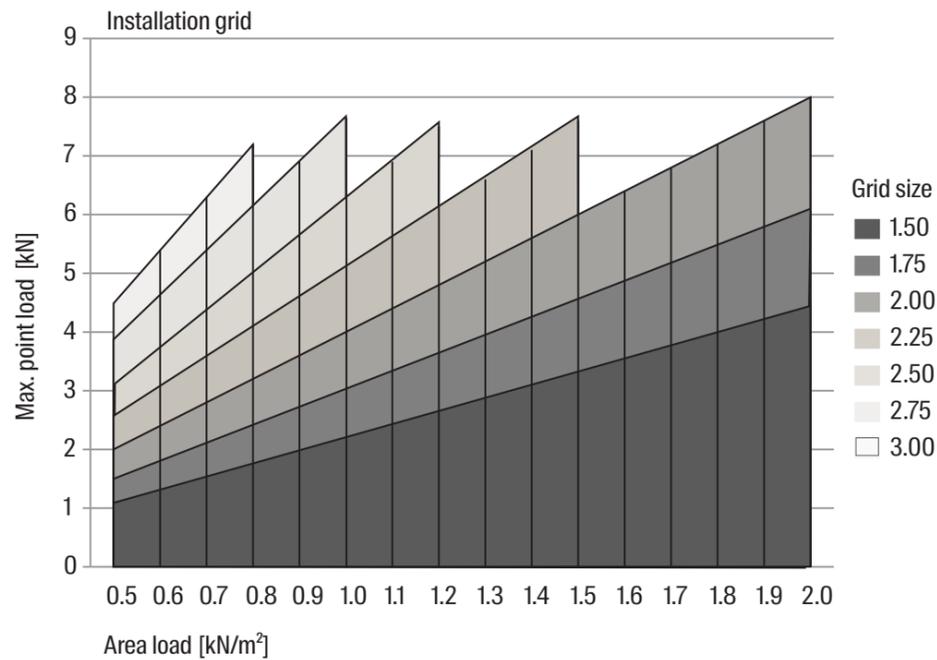
The need to modify during the life cycle is an indicator for the cost effectiveness of the installation grid (see diagram below). The installation grid shows its systematic superiority with fewer than two position changes (modification) of the connected machines / workstations.

This means that, despite the higher building project costs for the fischer installation grid, the change process costs are reduced significantly and thus the total life cycle costs are also lower.

Other advantages of the installation grid are

- Energy efficiency due to shorter routes and hydraulic optimisation with ring supplies for all services due to the proximity to the workstation.
- High flexibility and adaptability with use of the space at fabrication level for workstations and machine locations.
- Shortest planning and modification period due to standardised layout of the installations.
- Reduction in modification costs due to minimised installation and assembly work.
- Visually attractive design due to individual arrangement and clear manageability of the installed services and other installations.
- Clear time and cost calculation, including for retrofitting the installation grid, thanks to the modular design.

Choice of grid size based on the uniformly distributed loads



Installation criteria for the diagram shown:

- The point load of the installation grid is limited to max.
- 8 kN per fixing point (with cross connector FVS).
- This example applies to grids with channel type FUS 62 D/2.5 (longitudinal channel) and FUS 62/2.5 (transverse channel).

Product range

fischer installation grid



Item	Art.-No.		SU [Pcs]
FVS 3 II	00543060	FUS 41, 62, 21D, 41D+62D Profile	8
FVS 4 II	00543063	FUS 41, 62, 21D, 41D+62D Profile	5
FUS 41/2,0 - 6 m	00097659	6,000 mm	1
FUS 41/2,5 - 6 m	00077537	6,000 mm	1
FUS 62/2,5 - 6 m	00504457	6,000 mm	1
FUS 21D/2,0 - 6 m	00535531	6,000 mm	1
FUS 41D/2,5 - 6 m	00504459	6,000 mm	1
FUS 62D/2,5 - 6 m	00504460	6,000 mm	1
FUF OC 41	00504517	200 mm	20
FUF OC 62	00504518	400 mm	10
HK 41 10,5	00547493	—	50
HK 41 12,5	00547494	—	50
G 10/3	00557092	3,000 mm	5
G 12/3	00064056	3,000 mm	5
MU M 10	00079735	M 10	100
MU M 12	00024650	M 12	100
SKS 12x25	00535538	M12x25	100
SKS 12x65	00535539	M12x65	52
SKS 12x85	00505553	M12x85	100
U 12 x 40	00024649	—	100
VM M 10	00079691	M 10	100
VM M 12	00020971	M 12	100
SPS M 10	00537211	M 10	25
SPS M 12	00064090	M 12	25
BLR 100 M 10	00537210	M 10	25
BLR 100 M 12	00064091	M 12	25
TKR 21-42	00504363	FUS 21, 41	20
TKR 82	00504366	FUS 62, 41D	20
TKR 124	00504367	FUS 62D	10
FUH 13	00543065	—	6
FEC 21 B	00077357	Polyethylene, black	100
FEC 41 B	00077355	Polyethylene, black	100
FEC 62 B	00505551	Polyethylene, black	100
FCN Clix P 10	00559759	M 10	50
FCN Clix P 12	00559760	M 12	50
FCN 10	00077409	M 10	100
FCN 12	00077411	M 12	100

Dealer:

www.fischer-international.com



fischer stands for

Fixing Systems
Automotive
fischertechnik
Consulting
Electronic Solutions

fischerwerke GmbH & Co. KG
Klaus-Fischer-Straße 1 · 72178 Waldachtal
Germany
T +49 7443 12-0
www.fischer-international.com · info@fischer.de
