

ASSY® PLUS VG APPLICATION EXAMPLES

Coupling purlins

In hall construction, the rafter-supporting purlins are generally formed as coupling purlins. The coupling is used to achieve more favorable wood cross-sections than with single-field beams.

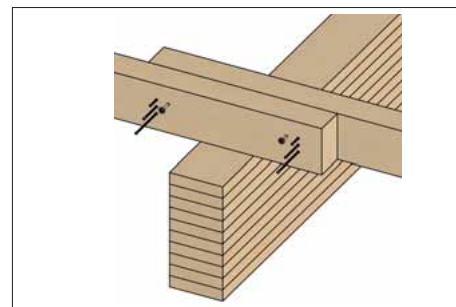
The new connection type saves time and money in jointing and mounting.

An **ASSY® SK** screw and, depending on the load, **ASSY®plus VG** screws are inserted at right angles at each connection point. There is then no need for predrilling. The wood cross-sections can be kept small due to the short edge distances. The complex milling out of the anchors is then eliminated. Only one strong battery-powered screwdriver is required for installation. The purlins can be cut to length by the saw mill and delivered directly to the construction site.

The purlins are pulled together with the **ASSY® SK** disk head screw.

No additional clamping tools are required.

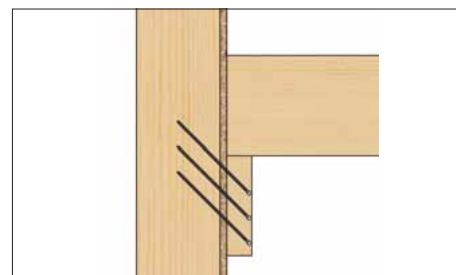
Dimensioning tables were prepared for the static calculation of the connections, which can be requested via the Würth salesperson.



Footing beams/Edge beams

When designing houses with a wooden frame construction, it was common up until now to produce the walls in the entire story.

The ceiling beam position therefore lay on the wall frame of the lower story in each case. As a result, the air-tight level and the outer wall insulation were penetrated by the beam. For this reason, there is an increasing tendency to have the outer walls run through over the stories. Thanks to edge beam fastening with **ASSY®plus VG** full-thread screws, the fastening of the footing beams/edgebeams can now be produced quickly, efficiently and easily. With this design version, the screw-in template **VG-Fix** is also suitable for adjusting the screw-in angle and the screw spacing.



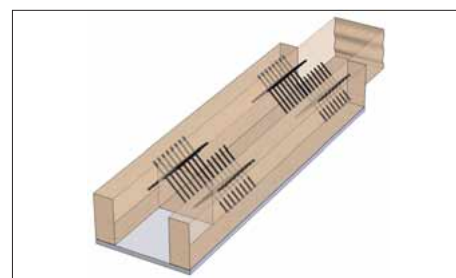
Beam head renovation

There is hardly an old building with wooden beam ceilings that is completely free of damage on its load-bearing ceilings. Wood integrated in the masonry can be infected by fungus or insects. The beams have rotted off or are heavily damaged at the point of support.

Using reinforcing lugs, these points can be quickly and easily renovated and the load-bearing capacity of the beams is restored.

This eliminates the need to completely replace the damaged beams.

A calculating tool for proof of the connection with **ASSY®plus VG** screws is included in the new calculation software.



Wood and concrete composite ceiling (WCC ceiling)

A ceiling renovation employing a wood/concrete composite is the optimum method for increasing the load-bearing capacity where the beam spacings and support widths are particularly great, or where there are very high rated loads. Here, partly screwed-in full thread screws serve as shear connectors and absorb the shear flow between the wooden beams and concrete slab. This eliminates the time-consuming installation of shear connectors made from expanded metal.

The **ASSY®plus VG** has its own general construction permit (Z-9.1-648) for this method. Project-related calculations with static verification can be carried out with the "technical software 6.0".

