D11

Purlin and Rafter Roof

D11 calculates general unsymmetrical purlin roofs with and without ridge joint.

The software designs the rafters on the right and left roof side as beams under bending stress

Standards

- DIN EN 1995
- ÖNORM EN 1995
- BS EN 1995
- UNI EN 1995/NTC
- EN 1995
- DIN 1052

System

- The roof halves may have different pitches.
- The inferior purlins may be located at different height levels.
- The left and right building halves may differ in width.
- Horizontal sway and non-sway supports.
- Rafter base:
  - notch
  - cleat with nails
  - cleat with connectors
- Purlin support:
  - kerf
  - cleat

Loads

In addition to typical roof loads such as distributed, weight, snow and wind loads, additional loads could be defined as uniform linear loads, concentrated or trapezoidal loads and assigned to the action groups. Man loads as well as wind underflow at projections can also be taken into account.

Calculation

All load case combinations are calculated and designed in accordance with currently applicable combination rules.

Optional:

- Proof of wind suction
- Earthquake combinations
- Fire design

Load transfer

The support reactions can be transferred to the Frilo applications
DLT10 – Continuous Beam and
HO7 – Timber Beam.