

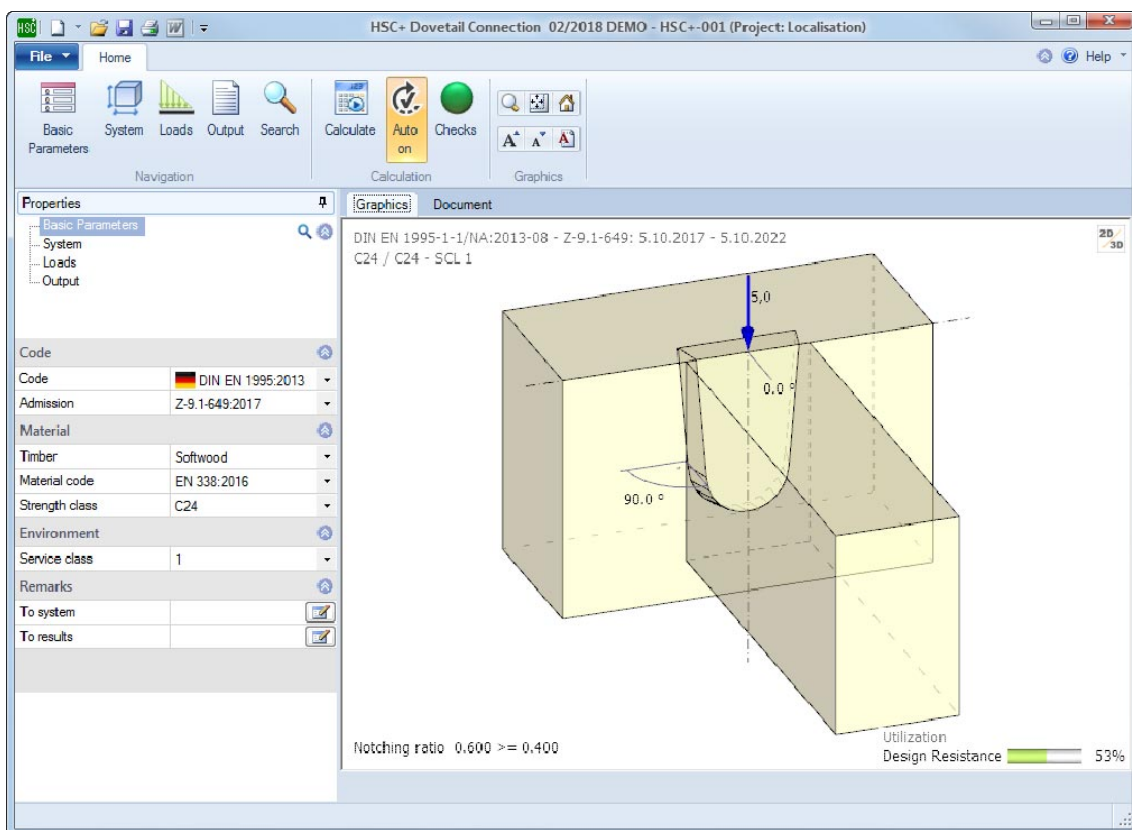
# Dovetail Connection HSC+

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# Dovetail Connection HSC+

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Further information and descriptions are available in the relevant documentations:

<a href="#">Basic Operating Instructions-PLUS</a>	General instructions for the manipulation of the user interface
<a href="#">FCC</a>	Frilo.Control.Center - the easy-to-use administration module for projects and items
<a href="#">FDD</a>	Frilo.Document.Designer - document management based on PDF
<a href="#">FDC – Menu items</a>	General description of the typical menu items of Frilo software applications
<a href="#">FDC – Output and printing</a>	Output and printing

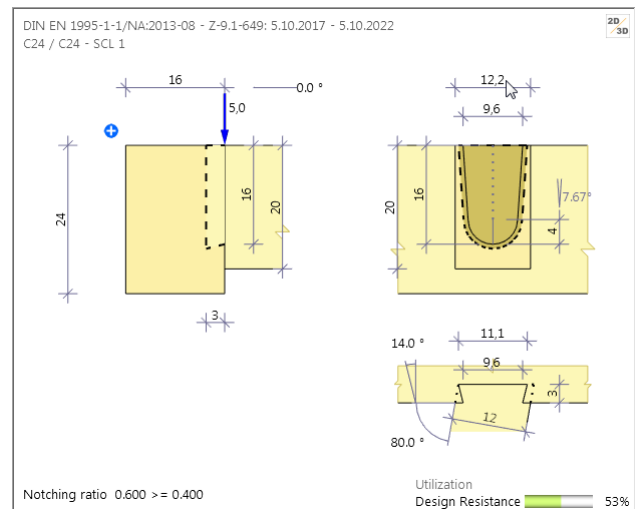
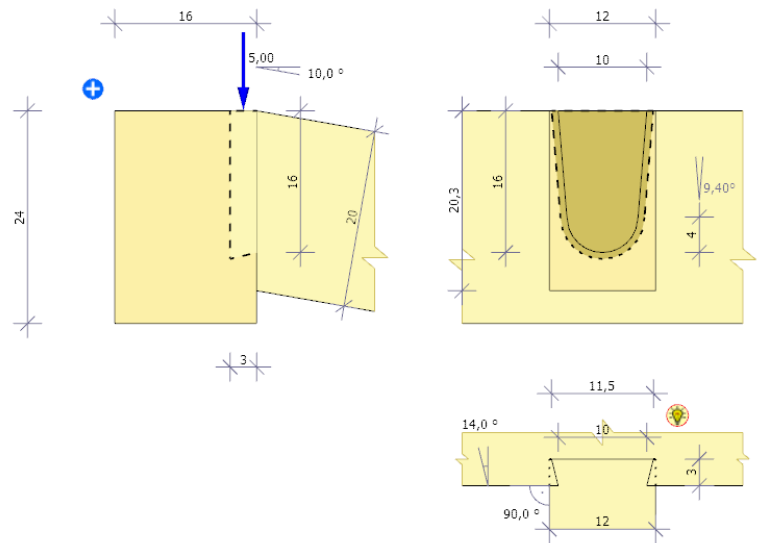
## Application options

The program HSC+ is used to design dovetail joints of timber girders in accordance with general building inspectorate approval with an inclined or angulated secondary girder connection. One or two-sided connections can be selected.

### Standards

- DIN EN 1995-1-1 in Verbindung mit Z-9.1-649 vom VERBAND HIGH-TECH-ABBUND im Zimmereihandwerk e.V.
- DIN EN 1995-1-1 in conjunction with Z-9.1-649 from „VERBAND HIGH-TECH-ABBUND im Zimmereihandwerk e.V.“ (carpentry association).

The program allows the design according to the new approval of 5 October 2017



## Basic Parameters

Here you select the [standard](#), the approval as well as the material and the service class.

Properties	
Basic Parameters	
System	
Loads	
Output	
Code	
Code	DIN EN 1995:20
Admission	Z-9.1-649:2017
Material	
Timber	Softwood
Material code	EN 338:2016
Strength class	C24
Environment	
Service class	1
Remarks	
To system	
To results	

## System

main beam width  $b_H$  and height  $h_H$

Connection one- or twosided connection

secondary beam width  $b_N$  und height  $h_N$ , the slope  $\delta$  or the connection angle  $\varphi$ ,  
 Nach aktueller Zulassung dürfen entweder schräge oder geneigte Anschlüsse ausgeführt werden.  
 According to current approval, either inclined or angulated connections may be made.

Tenon width  $b_Z$ , height  $h_Z$ , length  $l_Z$ , milling angle  $\beta$ , radius  $r_Z$  and tenon cone angle  $\gamma$

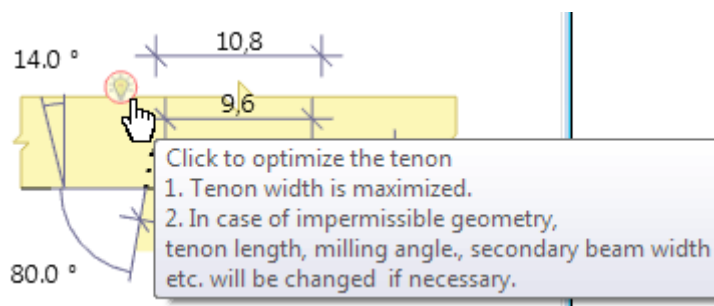
Properties	
Basic Parameters	
System	
Loads	
Output	

## Systemgraphic

Values that contradict the boundary conditions of the approval are marked in red.

### Optimize with a mouse click

The icon of the light bulb in the graphic indicates possible improvements or necessary corrections of the geometry - just move the mouse over the light bulb to show a tooltip. By clicking these corrections are made.



Beam geometry		
Width main beam	$b_H$ [cm]	16.0
Height main beam	$h_H$ [cm]	24.0
Connection	One-sided	
Width secondary beam	$b_N$ [cm]	12.0
Height of secondary beam	$h_N$ [cm]	20.0
Slope secondary beam	$\delta$ [°]	0.0
Connecting angle secondary beam	$\varphi$ [°]	80.0
Tenon		
Tenon width	$b_Z$ [cm]	9.6
Tenon height	$h_Z$ [cm]	16.0
Tenon length	$l_Z$ [cm]	3.0
Milling angle	$\beta$ [°]	14.0
Tenon radius	$r_Z$ [cm]	4.0
Tenon cone angle	$\gamma$ [°]	7.7

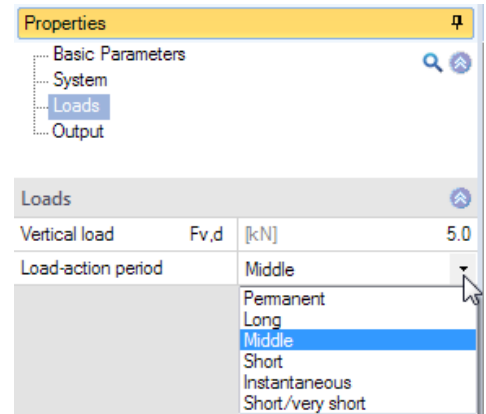
## Loads

Vertical load

Design value of the connection force  $F_{v,d}$

Load action period

permanent, long, middle, short, instantaneous, short/very short

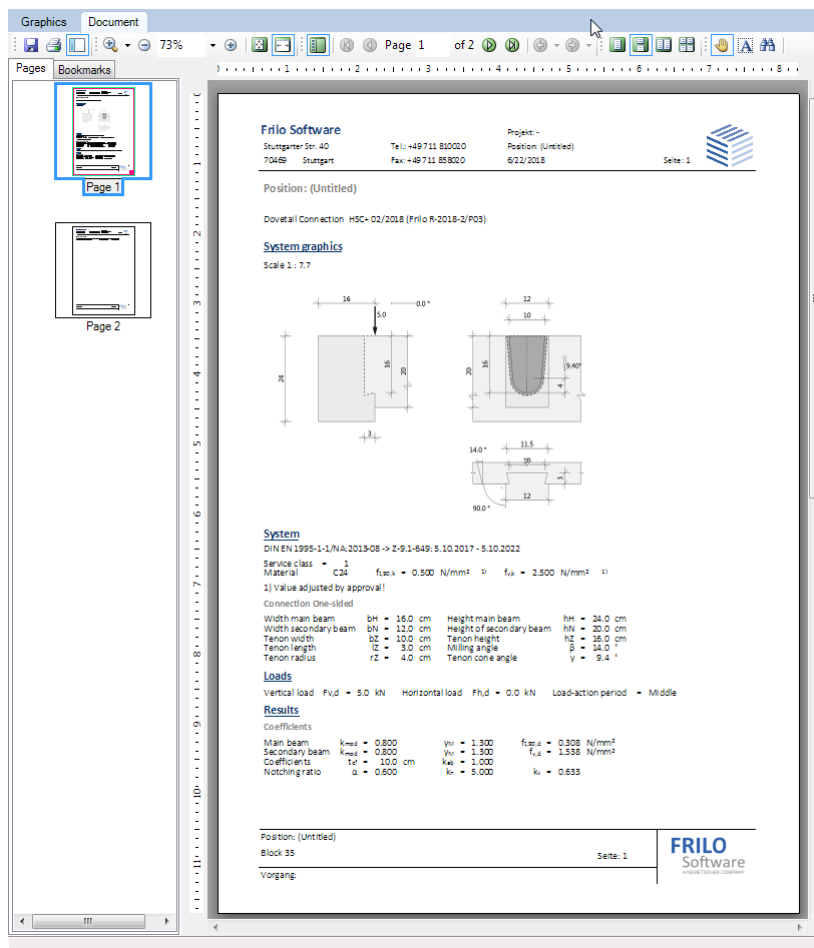


## Output

The output contains all input values, results and intermediate values of the calculation after approval.

With advices

Essential information on the boundary conditions of the approval is issued. Full approval is available from VERBAND HIGH-TECH-ABBUND im Zimmereihandwerk e.V.



## Literatur

Z-9.1-649 vom 5. Oktober 2017 - VERBAND HIGH-TECH-ABBUND im Zimmereihandwerk e.V.