
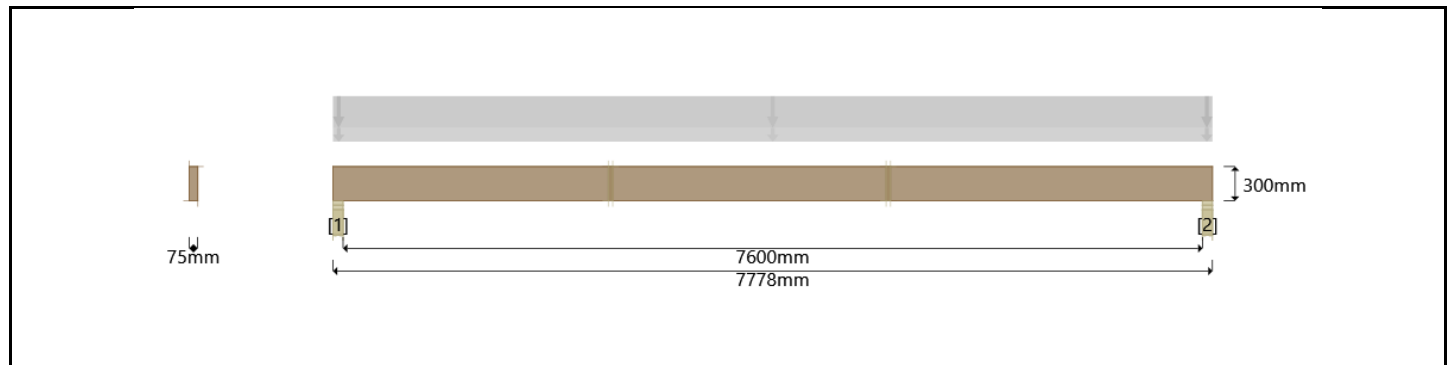


Level/Label	Level 1 - J1 - Joist	Design code	DIN EN 1995-1-1:2010-12+A1+A2	
Project	Project	Certificate	DoP - 03-0008-03 (11/2018)	
Address				
Customer				
Designer				



Hanger(s) [left]	Member	Design result	Hanger(s) [right]
	75x300mm STEICO LVL R @ 300mm spacing	Design passed	

Loading (general) 1.20kN/m² Dead Load, 0.25kN/m² Initial Dead Load, 0.80kN/m² Partition Load, 2.00kN/m² Floor Imposed Load, 1.00kN Concentrated Load
 Decking 18mm - OSB3 - Nailed
 Ceiling 12.5mm - Ceiling (GYPSUM BOARD)

General						Service Class : 1
	Max. / Control	Max.	Control	Ratio/DOL	Location	Load case
Wnet,fin	94.41%	23.97mm	25.39mm	L/318	3929mm	Gk+Qk SLS-Wn,f ALL
Winst	90.78%	23.05mm	25.39mm	L/330	3929mm	Gk+Qk SLS-Winst ALL
Wfin	84.12%	32.04mm	38.09mm	L/238	3929mm	Gk+Qk SLS-Wd2 ALL
[M] Moment	37.02%	12.40kN·m	33.51kN·m	Medium Term	3929mm	Gk+Qk ULS- ALL
[V] Shear	13.33%	6.23kN	46.71kN	Medium Term	89mm	Gk+Qk ULS- ALL
[R] Bearing (1)	12.23%	6.65kN	54.37kN	Medium Term	0mm	Gk+Qk ULS- ALL
[R] Bearing (2)	12.23%	6.65kN	54.37kN	Medium Term	7778mm	Gk+Qk ULS- ALL
f1	66.65%	6.8Hz	4.5Hz		1mm	
[M] Conc.	26.06%	8.73kN·m	33.51kN·m	Medium Term	3929mm	Gk+Qk ULS-Qconc ConcM
[V] Conc.	9.67%	4.52kN	46.71kN	Medium Term	89mm	Gk+Qk ULS-Qconc ConcV
[R] Conc.	8.55%	4.65kN	54.37kN	Medium Term	0mm	Gk+Qk ULS-Qconc ConcR

All load cases by code have been verified. Only decisive load cases are displayed.

Reactions											
Bearing #	Width [mm]		Max. factored reactions		Support reactions (transferred) (kN)					Details	
					Dead Perm.	Floor Medium	Snow	Wind	WindUp	WS SB	Reinf. Blocking
			[kN]	DOL							
1	89	+	6.65	Medium	2.33	2.33				No	
		−	0.00							No	No
2	89	+	6.65	Medium	2.33	2.33				No	
		−	0.00							No	No

WS=Web stiffener - SB=Squash block

Loads											
#	Type	Location		Dead	Floor	Snow	Wind	WindUp	Trib.width	Appl.	Dir. (Wind)
1	Level loads	From	0mm	1.20	2.00				300mm	T	
	[kN/m ²]	to	7778mm						NC		

Verified under a concentrated load of 1.00kN
 Initial dead load : 0.25kN/m²
 Lightweight partitions loads : 0.80kN/m²

NC=Not continuous (x1.00)/C=Continuous span (x1.25) - H=Horizontal length/P=Pitched length - T=Top/B=Bottom/L=Left/R=Right/C=Centre -
 V=Vertical/N=Normal to the roof plane

Member properties	
Material	LVL
Grade/Type	75x300mm STEICO LVL R
Certificate/Norm	DoP - 03-0008-03 (11/2018)

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product(s) listed.

Stiffness properties			
	Value	Unit	Kdef
Flexural Rigidity	2362.5 9	N·mm ²	0.6
Shear Rigidity	13500.00	N	0.6

Deflection limits			
	Wnet,fin	Winst	Wfin
Ratio	L/300	L/300	L/200
Max.			

Member properties									
		Value	M	Ksys	Perm.	Long	Kmod Medium	Short	Instant.
Moment	M(+)	49.50kN·m	1.3	1.1	0.6	0.7	0.8	0.9	1.1
Moment Up	M(-)	49.50kN·m	1.3	1.1	0.6	0.7	0.8	0.9	1.1
Shear	V	69.00kN	1.3	1.1	0.6	0.7	0.8	0.9	1.1
Bearing @ 1	R(1)	66.94kN	1.3	1.1	0.6	0.7	0.8	0.9	1.1
Bearing @ 2	R(2)	66.94kN	1.3	1.1	0.6	0.7	0.8	0.9	1.1

Notes									
<ul style="list-style-type: none"> • All Dimensions, Supports and Holes are measured or numbered from the left end. • Design spans are based on 1/2 minimum bearing length. Values for each span are: 7618mm • All Support Reactions are indicated unfactored, unless stated otherwise. • Indicated support reactions are based on maximum value. • Top edge is considered continuously braced (decking/sheathing), no further bracing required. • No negative [M]oment present, no further bracing along the bottom edge required • Design Bearing Resistances have been calculated with Kc90 = 1.00, and multiplied by 1.20 in service class 1. • Bracing has been taken into account at the following locations: 2455mm 4911mm 									