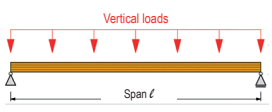
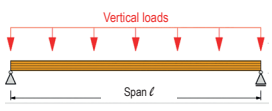
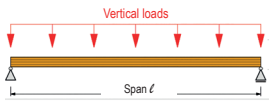


PRE-SIZING TABLE

SECTION B/H FOR VERIFYING FITNESS FOR SERVICE FOR NON-DEFORMATION SENSITIVE ELEMENTS $w < \ell/350$

Light construction	g_k	0.8 kN/m²																				
Residential Cat. A1	q_k	2.0 kN/m²																				
Span ℓ (m)		3.00			3.50			4.00			4.50			5.00			5.50			6.00		
Centre distance (m)		0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70
Width / Height (mm)	80	140	160	160	180	180	180	200	200	220	220	220	240	240	260	260	260			260		
	100	140	140	160	160	160	180	180	200	200	200	200	220	220	240	240	240	260		260		
	120	140	140	140	160	160	160	180	180	180	200	200	220	220	240	240	240	240	260	260	260	
	140				140	160	160	160	180	180	180	200	200	200	220	220	220	240	240	240	240	260
	160										180	180	200	200	200	220	220	220	240	240	240	260

Heavy construction	g_k	1.6 kN/m²																				
Residential Cat. A1	q_k	2.0 kN/m²																				
Span ℓ (m)		3.00			3.50			4.00			4.50			5.00			5.50			6.00		
Centre distance (m)		0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70
Width / Height (mm)	80	160	180	180	200	200	220	220	240	240	240	260	280	260								
	100	160	160	180	180	180	200	200	220	220	220	240	260	260	260							
	120	140	160	160	160	180	180	200	200	220	220	240	260	260	260	260	260					
	140				160	160	180	200	200	200	200	220	220	220	240	260	260	260				
	160							180	180	200	200	200	220	220	220	240	240	260	260	260		

Heavy construction	g_k	1.6 kN/m²																				
Residential Cat. B	q_k	3.0 kN/m²																				
Span ℓ (m)		3.00			3.50			4.00			4.50			5.00			5.50			6.00		
Centre distance (m)		0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70
Width / Height (mm)	80	180	180	200	200	220	220	220	240	260	260											
	100	160	180	180	180	200	200	220	220	240	240	260	260	260								
	120	160	160	180	180	180	200	200	220	220	220	240	260	240	260							
	140		160	160	160	180	180	200	200	220	220	240	240	240	260	260	260					
	160				160	180	180	180	200	200	200	220	220	220	240	260	240	260				

Prerequisites

Loads g_k and q_k evenly distributed over the length and width of the beam. No point loads.
 Single-span straight beams of constant rectangular cross-section.
 Beams protected from the weather (moisture class 1).
 Long-term effects due to creep are taken into account.
 According to SIA standards

Application example

Living area (category A1) $q_k = 2.0 \text{ kN/m}^2$. Light soil $g_k = 1.6 \text{ kN/m}^2$. Span $\ell = 4.00 \text{ m}$,
 Centre distance $a = 0.60 \text{ m}$
 Suggested cross-section for C24 : 120 x 200 mm

This table is an aid to pre-dimensioning but does not replace a static calculation.