

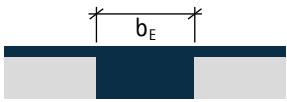
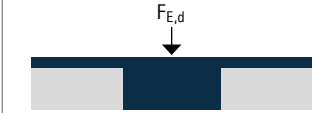
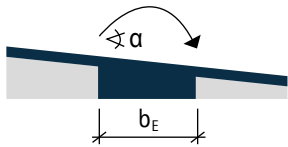

Cigular® Slab Bearing

Structural bearing for static structural members

Design values

The Cigular® slab bearings type S and type S / F90 are available in a bearing thickness of 10 mm.

DIMENSIONING CIGULAR® SLAB BEARING TYPE S AND TYPE S/F90

Elastomer width	All. vertical force	All. rotation	All. horizontal deformation on all sides
			
b_E [mm]	$F_{R,d}$ [kN/m]	α [‰]	zul. $u = \pm 10$ mm
35	55	40	Horizontal force (restoring force from horizontal bearing deformation): s. Diagram 'Ratio of horizontal force to vertical force', page 2 and design example, page 2
47	73	40	
60	94	40	
71	111	40	
83	129	40	
94	146	40	
106	165	37	
118	183	33	
130	202	30	
142	221	28	
154	239	25	
165	256	24	
177	274	22	
188	293	21	
200	311	20	

FORMULA SYMBOLS

b_E	Elastomeric bearing width
$F_{R,d}$	All. vertical force
u	Shear deformation of the bearing
H	Horizontal force
α	All. bearing rotation

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Design example

Given: $F_{E,d} = 58 \text{ kN/m}$ $\alpha = 17 \text{ ‰}$ $u = \pm 5 \text{ mm}$

Chosen:

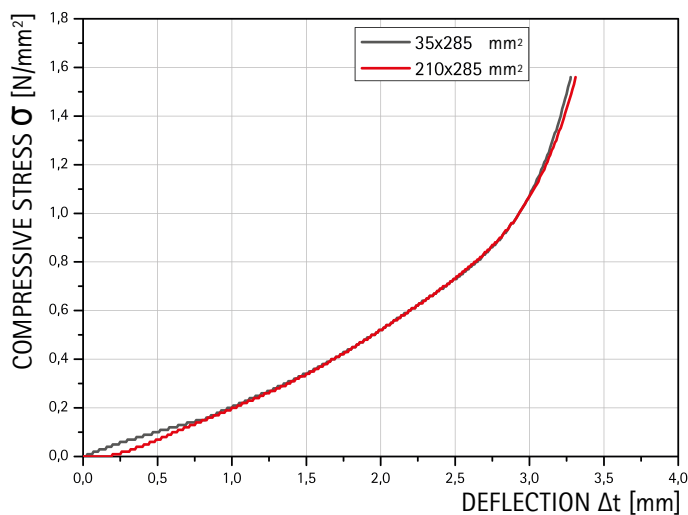
Elastomeric bearing width 47 mm

$F_{E,d} = 58 \text{ kN/m} < 73 \text{ kN/m} = F_{R,d}$

existing $\alpha = 17 \text{ ‰} < 40 \text{ ‰} = \text{all. } \alpha$

existing $u = \pm 5 \text{ mm} < \text{all. } u = \pm 10 \text{ mm}$

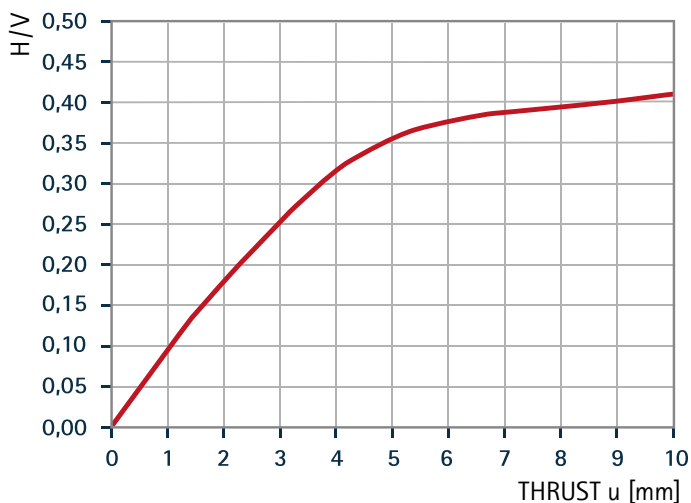
Load deflection curve



DIAGRAM

Pressure surfaces concrete,
Bearing widths: 35 to 200 mm

H / V



DIAGRAM

Ratio of horizontal force H
to vertical force V

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