

berekening bouwwerkfactor CsCd
NEN-EN 1991-1-4+A1+C2:2011- art. 6.3.1(1)

werk **werk**
werknummer **werknummer**
onderdeel **onderdeel**

bijlage C: $C_s C_d = 1,14$
trillingvorm hor. Y-as = uniform
trillingvorm vert. Z-as = lineair
deze file is gemaakt door ir. R. Jense

Windgebied: **II** > tabel NB.1 en fig. NB.1
Terreincategorie: **Zee of kustgebied aan zee** > Cat: 0 > tabel NB.4.1 en fig. NB.4
Gebouwgegevens: **Onbeklede gelaste stalen schoorstenen zonder uitw. thermische isolatie** > tabel F.2
b = **25** [m] gebouwbreedte (\perp windrichting)
h = **74** [m] gebouwhoogte ($h_{max} = 500$ m)
d = **25** [m] gebouwdiepte (\parallel windrichting)
Plattegrondvorm = **driehoekig** > $d = b * 1/2 * \sqrt{3}$ > $A = b * d / 2$ > $A * Q = m_e$ > art. F.5(4) / formule F.18
Q = **350** [kg/m³] gemiddeld gebouwgewicht > formule F.18 / bijlage F.5 > m_e
c f > **uit figuur 7.23** krachtfactor volgens HS. 7 > voor toepassing in formule F.18

n 1,x > **formule F.2** fundamentele buigingsfrequentie volgens formule F.1, F.2 of eigen keuze

Lt = 300 [m] referentielengteschaal > bijlage B.1(1)
Zt = 200 [m] referentiehoogte > bijlage B.1(1)
T = 600 [sec] middelingstijd v/d ref. windsnelheid > art. B.2(3)
V_{b,0} = 27,0 [m/sec] fund. waarde van de basiswindsnelheid > art. 4.2(2)P / tabel NB.1

<p>Z₀ = 0,005 [m] > tabel 4.1 Z_{min} = 1 [m] > tabel 4.1 Z_{max} = 200 [m] > art. 4.3.2(1) Z_s = 45 [m] > fig. 6.1 L(z_s) = 163,95 [m] > art. B.1(1) α = 0,41 [-] > art. B.1(1) V_m(z_s) = 39,76 [m/sec] > art. 4.3.1(1) I_v(z_s) = 0,110 [-] > art. 4.4(1) ρ = 1,25 [kg/m³] > art. 4.5(1) d/b = 1,000 [m] > art. 7.6(1) c_f = 2,100 [-] > fig. 7.23 c_r = n.v.t. [-] > eigen keuze n_{1,x} = 0,622 [Hz] > art. F.2(2) m_e = 109375 [kg/m¹] > art. F.5(4) δ_s = 0,012 [-] > tabel F.2 δ_a = 0,019 [-] > art. F.5(4) δ_d = 0,000 [-] > art. F.5(1) δ = 0,031 [-] > art. F.5(1)</p>	<p>ν = 0,496 [Hz] (bijl. B) > art. B.2(4) ν * T = 297,411 [-] (bijl. B) > art. B.2(3) ν = 0,505 [Hz] (bijl. C) > art. B.2(4) ν * T = 302,914 [-] (bijl. C) > art. B.2(3) Z_e (=h) = 74 [m] > art. B.2(6) L(z_e) = 200,54 [m] > art. B.2(6) S_L(z_s,n_{1,x}) = 0,071 [-] > art. B.2(2) f_L(z_s,n_{1,x}) = 2,563 [-] > art. B.2(2) γ_h = 4,351 [-] > art. B.2(6) R_h = 0,203 [-] > art. B.2(6) γ_b = 1,470 [-] > art. B.2(6) R_b = 0,461 [-] > art. B.2(6) c_y = c_z = 11,500 [-] > art. C.2(5) Trillingvorm hor. Y-as = uniform G_y = 0,500 [-] > art. C.2(6) Trillingvorm vert. Z-as = lineair G_z = 0,375 [-] > art. C.2(6) Φ_y = 4,495 [-] > art. C.2(5) Φ_z = 13,306 [-] > art. C.2(5) K_s(n_{1,x}) = 0,100 [-] > art. C.2(5)</p>
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<p>Bijlage B (informatief)</p> <p>k_p = 3,553 C_sC_d = 1,134</p> <p>I_v(z_s) = 0,110</p> <p>B² = 0,604 C_s = 0,903</p> <p>R² = 1,055 C_d = 1,255</p>	<p>Bijlage C (normatief)</p> <p>k_p = 3,558 C_sC_d = 1,142</p> <p>I_v(z_s) = 0,110</p> <p>B² = 0,581 C_s = 0,897</p> <p>R² = 1,125 C_d = 1,273</p>
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opmerking: