

Wilmaplex Pty Ltd.
57 Lathams Road,
Carrum Downs, Vic 3201
Mr Graham storey

RE/ Wilmaplex Joist Hangers Design Capacity

This is to confirm that Wilmaplex commissioned Monash University and CEMQA Pty. Ltd. to undertake the task of evaluating the design capacity of G300 Z275 Joist Hangers (JH35, 38, 45 and 50 X 60; JH35, 38, 45 and 50 X 90; JH35, 38, 45 and 50 X 120; JH35, 38, 45 and 50 X 140; JH35, 38, 45 and 50 X 180; JH35, 38, 45 and 50 X 140; JH38, 45 and 50 X 220). The evaluation was carried out via testing and computations based on 3.15x35mm Wilmaplex galvanized flat head nails. The design capacities for downward and uplift load directions are given in Table 1. Refer to report Job no.: Wilmaplex/15/003, Report 15/004 dated 20/01/2015 in addition to Report Job No. Wilmaplex/15/JH220-1 for more details.

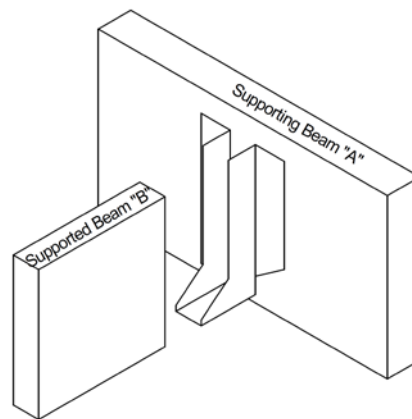


Figure 1 Details of Joist Hanger supporting and supported beams

Notes:

1. A capacity factor $\phi = 0.85$ and a duration factor $k_1 = 1.14$ for wind uplift loading was applied to all the capacities in Table 1.
2. See Figure 1 for Beams A and B details..
3. The values in Table 1 apply to Category 1 joints, design capacities for joint groups 2 and 3 are 0.94 and 0.88 consecutively.
4. Computations were undertaken in accordance with the relevant Standards, AS1720, AS/NZS1170 series and AS4055.

Dr Con Adam (Director)
CEMQA Pty. Ltd.
P.O. Box 2660
Mt. Waverley, VIC 3149

Table 1 Limit states design capacities for Wilmaplex Joist Hangers

Joist hanger Code	Fixing (Nails) to supporting Beam "A"	1.2G+1.5Q _f Dead + Floor Live Load	Fixing to supporting Beam "B"	Wind Uplift (k ₁ =1.14)
		design Capacity (kN) for Joint Group JD4		design Capacity (kN) for Joint Group JD4
JH35X60, JH38X60 JH45X60, JH50X60	6	3.2	3	2.4
JH35X90, JH38X90 JH45X90, JH50X90	8	4.2	4	3.1
JH35X120, JH38X120 JH45X120, JH50X120	11	5.8	6	4.7
JH35X140, JH38X140 JH45X140, JH50X140	14	7.4	8	6.3
JH35X180, JH38X180 JH45X180, JH50X180	18	9.5	10	7.8
JH38X220, JH45X220 JH50X220	24	12.7	12	9.4