EAVES GUTTER AND DOWN PIPE DESIGN TO AS/NZS 3500.3: 2015

Industrial Building for Mrs Bloggs

Down pipes 1 - 6

Horizontal catchment area \( Ah = 150 \) sq.m
Roof slope \( S = 12 \) degrees
Intensity \( I = 251 \) mm/hr

Is Gutter slope steeper than 1:500 ? No

Selected Number of Down pipes \( n = 6 \)

from AS 3500 Table 3.4.5.2, Catchment Area Multiplier \( f = 1.11 \)

Roof Area allowing for slope \( Ac = Ah \times f \)
\[ = 166.5 \] sq.m

Catchment Area per DP \( A = Ac/n \)
\[ = 27.8 \] sq.m

Flow/DP \( q = I \times A/3600 \) litres/sec
\[ = 1.93 \] litres/sec

from AS/NZS 3500 fig 3.5.2(C), Gutter Area
\[ = 8292 \] sq.mm

Gutter Area rounded to nearest 100sq.mm
\[ = 8300 \] sq.mm

From AS/NZS 3500 Table 3.5.2, Down Pipe size
\( = 100 \times 50 \) mm

(Interpolating between the standard sizes of the table. Info Only)

Cross sectional area (Info Only)
\[ = 4900 \] sq.mm

Down Pipe size selected
\[ = 100 \times 50 \] mm

cross sectional area
\[ = 5000 \] sq.mm

Summary
This catchment requires :- number of DP's
\[ = 6 \]

Downpipe size
\[ = 100 \times 50 \] mm

minimum eaves gutter cross sectional Area
\[ = 8292 \] sq.mm

(note assuming the catchment area of each DP is roughly similar)

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