

GUYMASTER Release Notes

For version 7.2.1 as of April 20, 2020

1. CAN/CSA-S37-18 Tower dynamic effect and fatigue (Annex N):

Click Here to have Annex N Calcs.

| Element and Connection | Pole Section Name | Elevation | Maximum Stress | Critical Stress (Fsr) | Ratio | Error |
|------------------------|-------------------|-----------|----------------|-----------------------|-------|-------|
| Tube to Flange | SEC 4 | 47 | 0 | 48 | 0 | * |
| | | 35.4 | 1.57 | 48 | 0.03 | |
| | SEC 3 | 35.4 | 1.66 | 48 | 0.03 | |
| | | 23.4 | 5.59 | 48 | 0.12 | |
| | SEC 2 | 23.4 | 3.09 | 48 | 0.06 | |
| | | 11.4 | 7.6 | 48 | 0.16 | |
| Flange Bolt | SEC 1 | 11.4 | 8.92 | 48 | 0.19 | |
| | | 0 | 14.15 | 48 | 0.29 | |
| | SEC 4 | 35.4 | 3.94 | 69 | 0.06 | |
| | SEC 3 | 35.4 | 3.94 | 69 | 0.06 | |
| | SEC 2 | 23.4 | 6.76 | 69 | 0.1 | |
| | | 23.4 | 6.76 | 69 | 0.1 | |
| | 11.4 | 9.19 | 69 | 0.13 | | |
| | SEC 1 | 11.4 | 9.19 | 69 | 0.13 | |
| | | 0 | 13.55 | 69 | 0.2 | |

Table N.3

Dbc = 0 Dop = 750 Dt = 914 hst = 140
 Nb = 0 Nst = 2 R = 0 Rn = 447.5
 tst = 13 tT = 9.5 tTP = 10 rb = 0
Kf = 4.29 Ki = 10.46 (N3-4)

Table N.2

Section = (6.2) **Fatigue Detail Category = D**

The following Annex N requirements are not satisfied:

51 mm <= tTP <= 102 mm and 38 mm <= tTP <= 102 mm
 1.25 mm <= Cbc <= 2.5 mm and 1.04 mm <= Cbc <= 1.25 mm
 305 mm <= hst <= 1067 mm
 6 <= Nst <= 12

When a parameter exceeds the limiting value in Annex N, the software sets the value of that parameter to the limiting value in Annex N

The user may provide the parameters to be used in Annex N calculations in the Project Properties table:

Project Properties

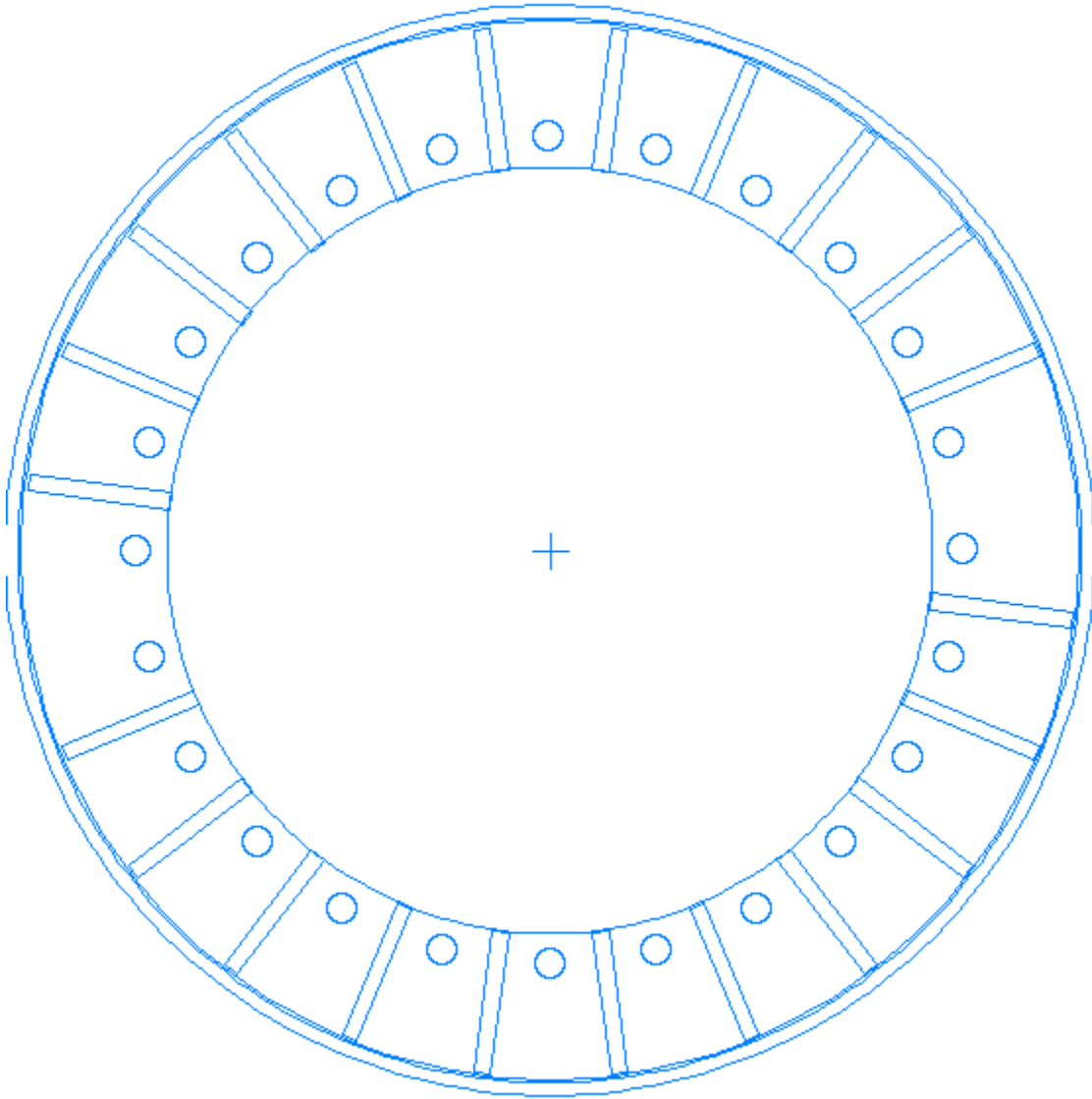
Main | Project ID | Tower Orientation | **Annex N**

Strouhal Num. Damping Ratio Design Lifetime Years

Loading

q10 (10-year return)

2. We have added the drawing of flange gussets in plan views of monopoles in the DrawTower routine:



- In the ANTENNA specification table the ELEM ID (last column) identifies which mounting pipe of the ANTENNA MOUNT (in this example, **ELEM #2 on ANTENNA MOUNT #1**). The selected mounting pipe is drawn in red on the Antenna Mount graphic and can be graphically selected. (Zoom in/out is now working with the mouse wheel.)

ANTENNAS

| ID | ELEV ft | ANTENNA NAME |LOCATION... | | ...ORIENTATION... | | | ANTENNA_MOUNT | |
|----|------------|-----------------|-----------------|------------|-------------------|-------------|-------------|---------------|------------|
| | | | DISTANCE ft | AZI deg | HORIZ deg | VERT deg | ROLL deg | ID | ELEM ID |
| 1 | 175.000 | CVV65BSX | 8.94 | 317.23 | 0.00 | 0.00 | 0.00 | 1 | 2 |
| 2 | 175.000 | CVV65BSX | 6.70 | 349.77 | 0.00 | 0.00 | 0.00 | 1 | 4 |
| 3 | 175.000 | CVV65BSX | 6.70 | 10.23 | 0.00 | 0.00 | 0.00 | 1 | 3 |
| 4 | 175.000 | CVV | | | | | | 1 | 1 |
| 5 | 175.000 | CVV | | | | | | 2 | 2 |
| 6 | 175.000 | CVV | | | | | | 2 | 4 |
| 7 | 175.000 | CVV | | | | | | 2 | 3 |
| 8 | 175.000 | CVV | | | | | | 2 | 1 |
| 9 | 175.000 | CVV | | | | | | 3 | 2 |
| 10 | 175.000 | CVV | | | | | | 3 | 4 |
| 11 | 175.000 | CVV | | | | | | 3 | 3 |
| 12 | 175.000 | CVV | | | | | | 3 | 1 |
| 13 | 175.000 | RY-9 | | | | | | 1 | 2 |
| 14 | 175.000 | RY-9 | | | | | | 1 | 4 |
| 15 | 175.000 | RY-9 | | | | | | 1 | 3 |
| 16 | 175.000 | RY-9 | | | | | | 1 | 1 |
| 17 | 175.000 | RY-9 | | | | | | 2 | 2 |
| 18 | 175.000 | RY-9 | | | | | | 2 | 4 |
| 19 | 175.000 | RY-9 | | | | | | 2 | 3 |
| 20 | 175.000 | RY-9 | | | | | | 2 | 1 |
| 21 | 175.000 | RY-9 | | | | | | 3 | 2 |
| 22 | 175.000 | RY-9 | | | | | | 3 | 4 |
| 23 | 175.000 | RY-9 | | | | | | 3 | 3 |
| 24 | 175.000 | RY-9 | | | | | | 3 | 1 |

Antenna Mount

Name: