*Two additional columns have been added to show percent of RTS, H / W or Horz & Vert Sag for Initial and Final tension. This option is selected in the **Option** Settings*

ALUMINUM COMPANY OF AMERICA SAG AND TENSION DATA
Sample Problem
Percent of RTS Columns added in

Conductor DRAKE 795.0 Kcmil 26/ 7 Stranding ACSR

Area= .7264 Sq. In Dia= 1.108 In Wt= 1.094 Lb/F RTS= 31500 Lb
Data from Chart No. 1-537
English Units

Span= 1000.0 Feet NESC Heavy Load Zone
Creep IS a Factor

| Design Points | | | | | Final | | | Initial | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Temp F | Ice In | Wind Psf | K Lb/F | Weight Lb/F | Sag Ft | Tension Lb | RTS % | Sag Ft | Tension Lb | RTS % |
| 0. | .50 | 4.00 | .30 | 2.509 | 23.93 | 13148. | 41.7 | 23.87 | 13179. | 41.8 |
| 32. | .50 | .00 | .00 | 2.094 | 24.13 | 10883. | 34.5 | 23.21 | 11310. | 35.9 |
| -20. | .00 | .00 | .00 | 1.094 | 16.05 | 8532. | 27.1 | 14.57 | 9394. | 29.8 |
| 0. | .00 | .00 | .00 | 1.094 | 17.39 | 7875. | 25.0* | 15.55 | 8807. | 28.0 |
| 30. | .00 | .00 | .00 | 1.094 | 19.44 | 7048. | 22.4 | 17.12 | 8002. | 25.4 |
| 60. | .00 | .00 | .00 | 1.094 | 21.49 | 6381. | 20.3 | 18.78 | 7297. | 23.2 |
| 120. | .00 | .00 | .00 | 1.094 | 25.43 | 5395. | 17.1 | 22.24 | 6166. | 19.6 |
| 212. | .00 | .00 | .00 | 1.094 | 29.37 | 4677. | 14.8 | 27.48 | 4997. | 15.9 |

* Design Condition

Sample Problem
Horizontal Tension / Weight Columns added in

Conductor DRAKE 795.0 Kcmil 26/ 7 Stranding ACSR

Area= .7264 Sq. In Dia= 1.108 In Wt= 1.094 Lb/F RTS= 31500 Lb
Data from Chart No. 1-537
English Units

Span= 1000.0 Feet NESC Heavy Load Zone
Creep IS a Factor

| Design Points | | | | | Final | | | Initial | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Temp F | Ice In | Wind Psf | K Lb/F | Weight Lb/F | Sag Ft | Tension Lb | H/W Lb/F | Sag Ft | Tension Lb | H/W Lb/F |
| 0. | .50 | 4.00 | .30 | 2.509 | 23.93 | 13148. | 5228. | 23.87 | 13179. | 5241. |
| 32. | .50 | .00 | .00 | 2.094 | 24.13 | 10883. | 5185. | 23.21 | 11310. | 5389. |
| -20. | .00 | .00 | .00 | 1.094 | 16.05 | 8532. | 7791. | 14.57 | 9394. | 8580. |
| 0. | .00 | .00 | .00 | 1.094 | 17.39 | 7875. | 7190.* | 15.55 | 8807. | 8042. |
| 30. | .00 | .00 | .00 | 1.094 | 19.44 | 7048. | 6433. | 17.12 | 8002. | 7306. |
| 60. | .00 | .00 | .00 | 1.094 | 21.49 | 6381. | 5822. | 18.78 | 7297. | 6660. |
| 120. | .00 | .00 | .00 | 1.094 | 25.43 | 5395. | 4919. | 22.24 | 6166. | 5625. |
| 212. | .00 | .00 | .00 | 1.094 | 29.37 | 4677. | 4261. | 27.48 | 4997. | 4553. |

* Design Condition

Sample Problem
Horizontal and Vertical Sag Columns added in

Conductor DRAKE 795.0 Kcmil 26/ 7 Stranding ACSR

Area= .7264 Sq. In Dia= 1.108 In Wt= 1.094 Lb/F RTS= 31500 Lb
Data from Chart No. 1-537
English Units

Span= 1000.0 Feet NESC Heavy Load Zone
Creep IS a Factor

| Design Points | | | | | Final | | | Initial | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Temp F | Ice In | Wind Psf | K Lb/F | Weight Lb/F | H-Sag Ft | V-Sag Ft | Tension Lb | H-Sag Ft | V-Sag Ft | Tension Lb |
| 0. | .50 | 4.00 | .30 | 2.509 | 7.61 | 22.68 | 13148. | 7.59 | 22.63 | 13179. |
| 32. | .50 | .00 | .00 | 2.094 | .00 | 24.13 | 10883. | .00 | 23.21 | 11310. |
| -20. | .00 | .00 | .00 | 1.094 | .00 | 16.05 | 8532. | .00 | 14.57 | 9394. |
| 0. | .00 | .00 | .00 | 1.094 | .00 | 17.39 | 7875.* | .00 | 15.55 | 8807. |
| 30. | .00 | .00 | .00 | 1.094 | .00 | 19.44 | 7048. | .00 | 17.12 | 8002. |
| 60. | .00 | .00 | .00 | 1.094 | .00 | 21.49 | 6381. | .00 | 18.78 | 7297. |
| 120. | .00 | .00 | .00 | 1.094 | .00 | 25.43 | 5395. | .00 | 22.24 | 6166. |
| 212. | .00 | .00 | .00 | 1.094 | .00 | 29.37 | 4677. | .00 | 27.48 | 4997. |

* Design Condition