

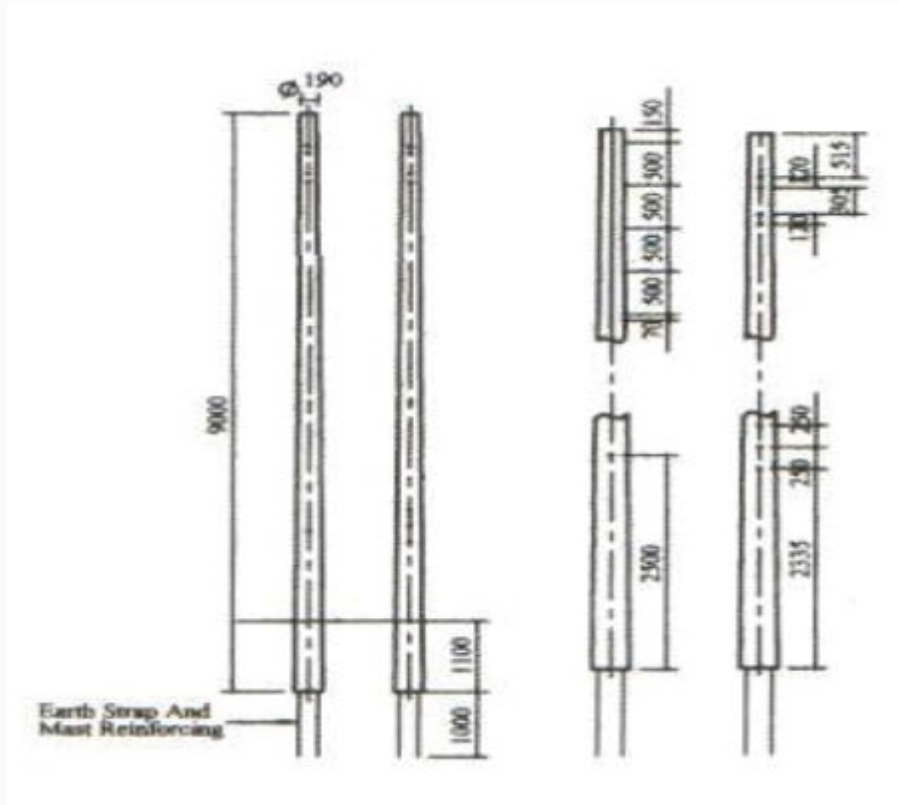


# Malaysia Railway Poles

Our specially constructed railway poles are approved under the stringent standards set by Malaysia Railway and Balfour Beatty Ansaldo Systems JV Sdn Bhd and also act as structured masts for the stringing of catenary conductors



# Structural Details



| Pole Marking  | Length (L) |      | Top Diameter (d <sub>0</sub> ) |                  | Bottom Diameter (D <sub>0</sub> ) |     | Height of Bearing Point (l <sub>1</sub> ) |     | Height of Bearing Point (l <sub>2</sub> ) |      | Design Load (P) |      | Design Bending Moment (P X l <sub>2</sub> ) |        | Nominal Weight |      |
|---------------|------------|------|--------------------------------|------------------|-----------------------------------|-----|---|-----|---|------|-----------------|------|---|--------|----------------|------|
|               | m          | ft   | cm                             | in               | cm                                | in  | m   | Ft  | m   | ft   | kg              | lbs  | kg m  | ft.lbs | kg             | lbs  |
| 9-19-4085     | 9          | 29.5 | 19                             | 7½               | 31                                | 12¼ | 1.1                                       | 3.6 | 7.65                                      | 25   | 534             | 1177 | 4085  | 29550  | 750            | 1654 |
| 9-22-7650     | 9          | 29.5 | 22                             | 8½ <sub>16</sub> | 34                                | 13¼ | 1.1                                       | 3.6 | 7.65                                      | 25   | 1000            | 2205 | 7650  | 55330  | 1120           | 2470 |
| 9.5-22-5102   | 9.5        | 31.1 | 22                             | 8½ <sub>16</sub> | 34.7                              | 13½ | 1.1                                       | 3.6 | 8.15                                      | 26.7 | 626             | 1380 | 5102  | 36900  | 910            | 2007 |
| 11.5-30-15308 | 11.5       | 37.6 | 30                             | 11¾              | 45.3                              | 17¾ | 1.5                                       | 4.9 | 9.75                                      | 32   | 1570            | 3462 | 15308                                       | 110700 | 2060           | 4542 |
| 12.5-30-16329 | 12.5       | 40.9 | 30                             | 11¾              | 46.7                              | 18¼ | 1.5                                       | 4.9 | 10.75                                     | 35.3 | 1519            | 3349 | 16329                                       | 118000 | 2290           | 5049 |
| 13.5-30-18365 | 13.5       | 44.2 | 30                             | 11¾              | 48                                | 18¾ | 1.5                                       | 4.9 | 11.75                                     | 38.5 | 1563            | 3346 | 18365                                       | 132900 | 2540           | 5601 |

## ZENN HRB SDN BHD

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### Office

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Certified to ISO 9001:2015  
Cert. No. QMS 03310

