### Ergon Energy Document Revision List

**Project:** Sub-Transmission Construction Manual  
**Type:** Electronic - Website Version

#### Section 21 - Pole Manufacturing Dwgs Pages 7-1 to 7-10 Ver 2

<table>
<thead>
<tr>
<th>Date of Issue</th>
<th>Section Title / Drawing Number</th>
<th>Current Published</th>
<th>Issued Document Revision Number</th>
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**Section 21 - Pages 7-1 to 7-10 Ver 2 (8.3 MB)**  
4-Apr-16  
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0A  
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5-21-7-1  
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5-21-7-3  
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5-21-7-5  
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**Note:** Degree symbols in the title boxes are displayed as 33/64. This does not effect the accuracy of the drawings. This will be resolved in the next revision.
NOTES

1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/-2 mm tolerance between them and +/-2 mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
7. No subsidiary to be incorporated on 19m poles.
8. Temporary stays may be required during construction and/or maintenance works.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-3-12-4 for Construction

ABN 50 087 646 062
NOTES
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**NOTES**
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5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

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**OVERHEAD SUB-TRANSMISSION**

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<th>SET</th>
<th>FITTING</th>
<th>DESCRIPTION</th>
<th>QTY</th>
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<td>A</td>
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<tr>
<td>J</td>
<td>Depth indication mark</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>M12 ferrule (25mm thread length)</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>M16 ferrule (25mm thread length)</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>M10 ferrule</td>
<td>1</td>
<td></td>
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<tr>
<td>N</td>
<td>M16 earth ferrule (30mm thread length)</td>
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<td></td>
</tr>
<tr>
<td>I</td>
<td>M20 earth ferrule (25mm thread length)</td>
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<td>P</td>
<td>Joint</td>
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<td>C</td>
<td>19 OD S/S tube for M12 bolt</td>
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<td>E</td>
<td>25 OD S/S tube for M16 bolt</td>
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<tr>
<td>F</td>
<td>32 OD S/S tube for M24 bolt</td>
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</tr>
<tr>
<td>T</td>
<td>38 OD S/S tube</td>
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<td>X</td>
<td>3/8&quot; galv. cross wires (access barrier)</td>
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<tr>
<td>1</td>
<td>M16 ferrule long (90mm thread length)</td>
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**NAME PLATE INFORMATION**

**STRUCTURE TYPE**

**MANUFACTURER'S NAME/TRADE MARK**

**DESCRIPTION**

- **SET**
- **FITTING**
- **DESCRIPTION**
- **QTY**

---

**PLANTING DEPTH (m)**

<table>
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<tr>
<th>DISTANCE FROM TP (m)</th>
<th>ORIENTATION</th>
<th>FITTING DESCRIPTION</th>
<th>TUBE LENGTH</th>
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<td>O</td>
<td>OD S/S tube</td>
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<td>120</td>
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<td>250</td>
<td>F</td>
<td>F</td>
<td>OD S/S tube</td>
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**STOCK CODE**

**DESCRIPTION**

1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.
### ORIENTATION

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<th>TP C</th>
<th>TP D</th>
<th>TP E</th>
<th>TP F</th>
<th>TP G</th>
<th>TP H</th>
<th>TP I</th>
<th>TP J</th>
<th>TP K</th>
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</table>

### FITTING DESCRIPTION

- **25 OD S/S Tube**: Bolt for Bridging Post (M30)
- **32 OD S/S Tube**: Additional earthing (in normal soil)
- **38 OD S/S Tube**: M12 earth ferrule (30mm thread)
- **49 OD S/S Tube**: Bottom Phase Eye Bolt (M20)
- **56 OD S/S Tube**: Top Phase Eye Bolt (M20)

### DESCRIPTION

- **270°**: Left through tube provided for square rigging.
- **300°**: Left through tube provided for square rigging.
- **330°**: Left through tube provided for square rigging.
- **360°**: Left through tube provided for square rigging.

### SET FITTING DESCRIPTION QTY

1. **A** Tip ring and pole cap 1
2. **B** Joint 1
3. **C** 19 OD S/S tube for M12 bolt 1
4. **D** 22 OD S/S tube for M16 bolt 1
5. **E** 25 OD S/S tube for M20 bolt 1
6. **F** 32 OD S/S tube for M24 bolt 2
7. **G** 38 OD S/S tube 2
8. **H** 5mm galv. cross wires (access barrier) 2
9. **I** M16 ferrule (25mm thread length) 2
10. **J** M20 earth ferrule (25mm thread length) 2
11. **K** Name plate 2

### NOTES

1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2 mm orientation tolerance between them and +/- 2mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.
NOTES

1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2mm orientation tolerance.
3. Longitudinal capacities to be not less than transverse capacities.
4. Stainless steel tubes to be accurately positioned and free from concrete and deformity.
5. A nominal Ø10 vent hole is required at the centre of the through tube provided for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.
7. No subsidiary to be incorporated on 18m poles.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-3-12-6 for Construction
**NOTES**

1. Orientation is measured clockwise when looking down on pole top.
2. Bracketed fittings require +/- 2 mm tolerance between them and +/- 2mm orientation tolerance.
3. Longitudinal capacities to be less than transverse capacities.
4. Stainless steel tubes are to be accurately positioned and free from concrete and deformity.
5. A nominal 810 vane hole is required at the centre of the through tube to permit for square rigging.
6. Temporary stays may be required during construction and/or maintenance works.

---

**OVIRED SUB-TRANSMISSION**

**96kV CONCRETE POLE MANUFACTURING DETAILS**

**SINGLE CCT VERTICAL STRAIN 15 33/64 - 35 33/64 DEVIATION 24m X 80kN POLE**

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**OVERHEAD SUB-TRANSMISSION**

**96kV CONCRETE POLE MANUFACTURING DETAILS**

**SINGLE CCT VERTICAL STRAIN 15 33/64 - 35 33/64 DEVIATION 24m X 80kN POLE**

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**SINGLE CCT VERTICAL STRAIN 15 33/64 - 35 33/64 DEVIATION 24m X 80kN POLE**

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**SINGLE CCT VERTICAL STRAIN 15 33/64 - 35 33/64 DEVIATION 24m X 80kN POLE**

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**SINGLE CCT VERTICAL STRAIN 15 33/64 - 35 33/64 DEVIATION 24m X 80kN POLE**

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**SINGLE CCT VERTICAL STRAIN 15 33/64 - 35 33/64 DEVIATION 24m X 80kN POLE**

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**SINGLE CCT VERTICAL STRAIN 15 33/64 - 35 33/64 DEVIATION 24m X 80kN POLE**

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**SINGLE CCT VERTICAL STRAIN 15 33/64 - 35 33/64 DEVIATION 24m X 80kN POLE**

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**SINGLE CCT VERTICAL STRAIN 15 33/64 - 35 33/64 DEVIATION 24m X 80kN POLE**

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