# Ergon Energy Document Revision List

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

<table>
<thead>
<tr>
<th>Section Title / Drawing Number</th>
<th>Current Published</th>
<th>Issued Document Revision Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section 21 - Pages 14-1 to 14-10 Ver 3 (8.0 MB)</strong></td>
<td>4-Apr-16</td>
<td>3</td>
</tr>
<tr>
<td>5-21-14-1</td>
<td>0A 0A</td>
<td>0B</td>
</tr>
<tr>
<td>5-21-14-2</td>
<td>0A 0A</td>
<td>0B</td>
</tr>
<tr>
<td>5-21-14-3</td>
<td>0A 0A</td>
<td>0B</td>
</tr>
<tr>
<td>5-21-14-4</td>
<td>0A OB</td>
<td>0C</td>
</tr>
<tr>
<td>5-21-14-5</td>
<td>0A OB</td>
<td>0C</td>
</tr>
<tr>
<td>5-21-14-6</td>
<td>0A 0A</td>
<td>0B</td>
</tr>
<tr>
<td>5-21-14-7</td>
<td>0A 0A</td>
<td>0B</td>
</tr>
<tr>
<td>5-21-14-8</td>
<td>0A 0A</td>
<td>0B</td>
</tr>
<tr>
<td>5-21-14-9</td>
<td>0A OB</td>
<td>0C</td>
</tr>
<tr>
<td>5-21-14-10</td>
<td>0A OB</td>
<td>0C</td>
</tr>
</tbody>
</table>

Degree symbols in the title boxes are displayed as %D. 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. No subsidiary to be incorporated on 18m poles.
7. Temporary stays may be required during construction and/or maintenance works.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-3-15-8 for Construction
### 66kV CONCRETE POLE MANUFACTURING DETAILS

**OVERHEAD SUB-TRANSMISSION**

**MANUFACTURER'S NAME/TRADE MARK**

**MONTH AND YEAR OF ISSUE**

**LENGHT OF POLE (m) / LIMIT STATE DESIGN LOAD**

**POLY MANUFACTURE**

**BATCH NO.**

**STANDARD / MARINE GRADE**

**ERGON ENERGY STOCK CODE**

**NAME PLATE INFORMATION**

**STOCK CODE:** 2454120

---

### Refer dwg 5-7-3-2 for Foundations

Refer dwg 5-3-15-8 for Construction

---

### Table: Fittings Description

<table>
<thead>
<tr>
<th>QTY</th>
<th>FITTING</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>Tip ring and pole cap</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>Depth indication mark</td>
</tr>
<tr>
<td>24</td>
<td>C</td>
<td>M12 earth ferrule (30mm thread length)</td>
</tr>
<tr>
<td>2</td>
<td>D</td>
<td>Name plate</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>Joint</td>
</tr>
<tr>
<td>12</td>
<td>F</td>
<td>25 OD S/S tube for M20 bolt</td>
</tr>
<tr>
<td>12</td>
<td>G</td>
<td>32 OD S/S tube for M24 bolt</td>
</tr>
<tr>
<td>2</td>
<td>H</td>
<td>38 OD S/S tube</td>
</tr>
</tbody>
</table>

### Table: Fittings Purpose

<table>
<thead>
<tr>
<th>DISTANCE</th>
<th>ORIENTATION</th>
<th>TUB LENGTH</th>
<th>FITTING PURPOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>A</td>
<td>32 OD S/S tube</td>
<td>25mm thread</td>
</tr>
<tr>
<td>500</td>
<td>B</td>
<td>32 OD S/S tube</td>
<td>25mm thread</td>
</tr>
<tr>
<td>100</td>
<td>C</td>
<td>32 OD S/S tube</td>
<td>25mm thread</td>
</tr>
<tr>
<td>500</td>
<td>D</td>
<td>32 OD S/S tube</td>
<td>25mm thread</td>
</tr>
<tr>
<td>100</td>
<td>E</td>
<td>32 OD S/S tube</td>
<td>25mm thread</td>
</tr>
<tr>
<td>500</td>
<td>F</td>
<td>32 OD S/S tube</td>
<td>25mm thread</td>
</tr>
</tbody>
</table>

### Table: Hard Copy

**HARD COPY UNCONTROLLED**

---

### Diagram: 66kV CONCRETE POLE MANUFACTURING DETAILS

**OVERHEAD SUB-TRANSMISSION**

**69kV CONCRETE POLE MANUFACTURING DETAILS**

**SINGLE C/XT URBAN VERTICAL STRAIN 9500 - 1050° ANGLE**

**27m x 89K Pole**

**DRAWING NUMBER:** 5-21-14-4

---

### 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 801 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 +/- 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. Temporary stays may be required during construction and/or maintenance works.

### Reference

Refer dwg 5-7-3-2 for Foundations

Refer dwg 5-3-15-8 for Construction
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 are to be 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. No subsidiary to be incorporated on 18m poles.
7. Temporary stays may be required during construction and/or maintenance works.

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-3-15-8 for Construction

OVERHEAD SUB-TRANSMISSION
69kV CONCRETE POLE MANUFACTURING DETAILS
SINGLE CCT URBAN VERTICAL STRAIN 95°-105° ANGLE
18m x 80kN POLE

DRAWING NUMBER 5-21-14-6
Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-3-15-8 for Construction
Refer dwg 5-7-3-2 for Foundations

Refer dwg 5-3-15-8 for Construction

NOTES
1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2mm tolerance between them and +/2mm orientation tolerance
3. Longitudinal capacities 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.
Refer dwg 5-3-15-4 for Construction

NOTES
1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require +/- 2mm 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.

Refer dwg 5-7-3-2 for Foundations