### Ergon Energy Document Revision List

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

#### Section 21 - Pole Manufacturing Dwgs Pages 12-1 to 12-10  
**Ver 2**

<table>
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<th>Section Title / Drawing Number</th>
<th>Current Published</th>
<th>Issued Document Revision Number</th>
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#### Section Title / Drawing Number  
**Current Published**  
**Issued Document Revision Number:**

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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 +/- 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 Ø101 vent hole is required at the centre of the through tube provided for square rigging.
6. No subsidiary to be incorporated on 19m 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**
1. Orientation is measured clockwise when looking down on pole tip.
2. Bracketed fittings require ±1 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.
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. All skewed fittings require +/1 2 mm tolerance between them and +/2 2 mm orientation tolerance.
3. Longitudinal capacities need not 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. Temporary stays may be required during construction and/or maintenance works.

STOCK CODE: 2444982

NAME PLATE INFORMATION

MANUFACTURER'S NAME/TRADE MARK
MONTH AND YEAR OF MANUFACTURE
LENGTH OF POLE (m) / LIMIT STATE DESIGN LOAD
STRUCTURE TYPE
POLE MANUFACTURING DETAILS
STANDARD / MARINE GRADE
STOCK CODE

HARD COPY
UNCONTROLLED

OVERHEAD SUB-TRANSMISSION
66kV CONCRETE POLE MANUFACTURING DETAILS
SINGLE CCT URBAN VERTICAL STRAIN 75% - 85% ANGLE
24m x 80MN POLE
### 66kV Concrete Pole Manufacturing Details

**OVERHEAD SUB-TRANSMISSION**

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<tr>
<td>2</td>
<td>Depth indication mark</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>M16 ferrule (25mm thread)</td>
<td>45</td>
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<tr>
<td>4</td>
<td>M12 earth ferrule (30mm thread)</td>
<td>24</td>
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<tr>
<td>5</td>
<td>Name plate</td>
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<td>6</td>
<td>Joint</td>
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</tr>
<tr>
<td>7</td>
<td>25 OD S/S tube for M20 bolt</td>
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<td>9</td>
<td>38 OD S/S tube</td>
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**NAME PLATE INFORMATION**

- **MANUFACTURER'S NAME/TRADE MARK**: [Details Redacted]
- **MONTH** AND YEAR OF MANUFACTURE**: [Details Redacted]
- **LENGTH OF POLE (m)**: [Details Redacted]
- **STRUCTURE TYPE**:
  - **POLE MANUFACTURE**: [Details Redacted]
  - **BATCH NO.**: [Details Redacted]
  - **EERGEN ENERGY**: [Details Redacted]
- **STOCK CODE**: 2445005

**STOCK CODE**

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 +/- 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.

**DRAWING NUMBER** 5-21-12-4

**ELETRONICALLY GENERATED**

**ELEN ZA SET S043-G02**

**ABN 50 087 646 062**

**SUPERSEDES**

[Additional information redacted]
### 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 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.
8. No subsidiary to be incorporated on 18m poles.
9. For maintenance purpose.
10. For maintenance purpose.

### Table

<table>
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<tr>
<th>DISTANCE FROM E</th>
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<td>Tip ring and pole cap</td>
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<td>0</td>
<td>J</td>
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<td>506</td>
<td>Depth indication mark</td>
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<tr>
<td>0</td>
<td>K</td>
<td>Name plate</td>
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<td>Name plate</td>
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<td>0</td>
<td>L</td>
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### Diagram

Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-3-15-8 for Construction
**LENGTH (m)** 21  
**LIMIT STATE DESIGN LOAD (kN)** 80  
**NAME PLATE INFORMATION**  
**MANUFACTURER'S NAME/TRADE MARK**  
**MONTH AND YEAR OF MANUFACTURE**  
**LENGTH OF POLE** (m) **LIMIT STATE DESIGN LOAD**  
**POLE MANUFACTURE**  
**STANDARD / MARINE GRADE**  
**ELECTRICAL ENERGY**  
**STOCK CODE**  
**STOCK CODE** 244974  

**REFERENCES**  
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 +/- 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.

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**FITTING PURPOSE**  
1. **T** Tip ring and pole cap  
2. **J** Depth indication mark  
3. **H** M16 ferrule (25mm thread)  
4. **G** M12 earth ferrule (30mm thread)  
5. **F** 25 OD S/S tube for M20 bolt  
6. **E** 32 OD S/S tube for M24 bolt  
7. **D** 38 OD S/S tube  
8. **C** 46 OD S/S tube  

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**FITTING**  
1. **A** Name plate  
2. **B** Additional earthing (fully stayed poles)  
3. **C** Additional earthing (in normal soil)  
4. **D** Depth Indication marker (fully stayed)  
5. **E** Depth Indication marker (normal soil)  
6. **F** M12 earth ferrule (30mm thread)  
7. **G** Earth  
8. **H** M16 earth ferrule (10mm thread)  
9. **I** M12 earth ferrule (30mm thread)  
10. **K** Stainless steel tubes  
11. **L** Additional earthing (fully stayed poles)  
12. **M** Additional earthing (in normal soil)  
13. **N** M16 earth ferrule (10mm thread)  
14. **O** M16 earth ferrule (10mm thread)  
15. **P** M16 earth ferrule (25mm thread)  
16. **Q** M12 earth ferrule (30mm thread)  
17. **R** Stainless steel tubes  
18. **S** Stainless steel tubes  
19. **T** Stainless steel tubes  
20. **U** Stainless steel tubes  
21. **V** Stainless steel tubes  
22. **W** Stainless steel tubes  
23. **X** Stainless steel tubes  
24. **Y** Stainless steel tubes  
25. **Z** Stainless steel tubes  

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**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 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
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 +/−2mm orientation tolerance.
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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 +/- 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.
Refer dwg 5-7-3-2 for Foundations
Refer dwg 5-3-15-4 for Construction

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.
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