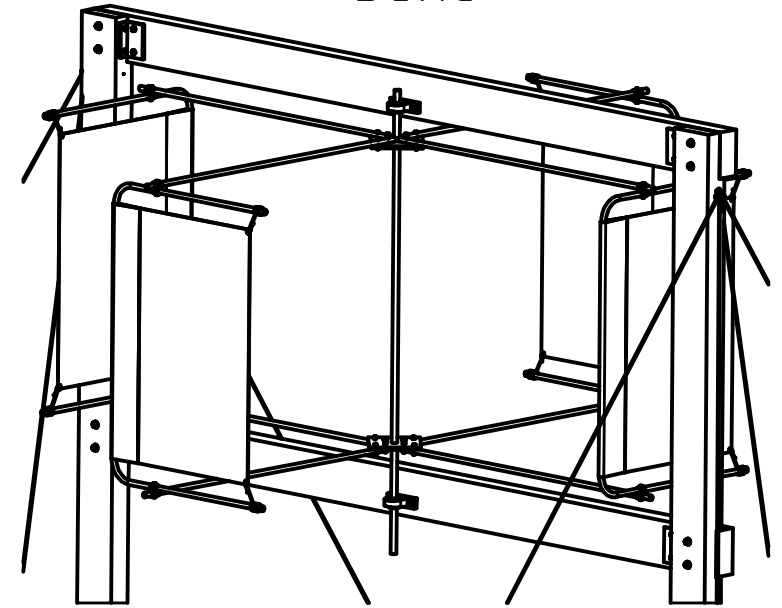

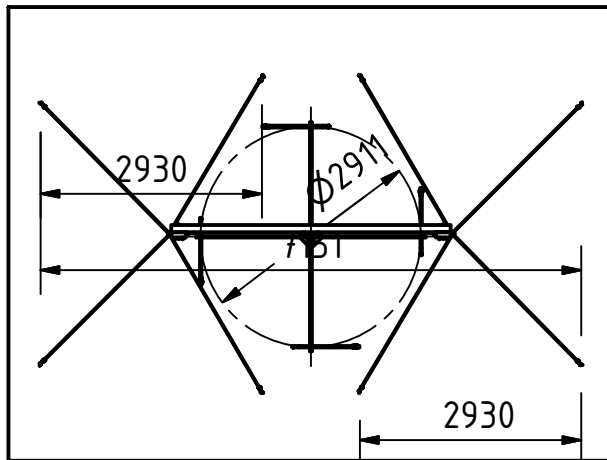
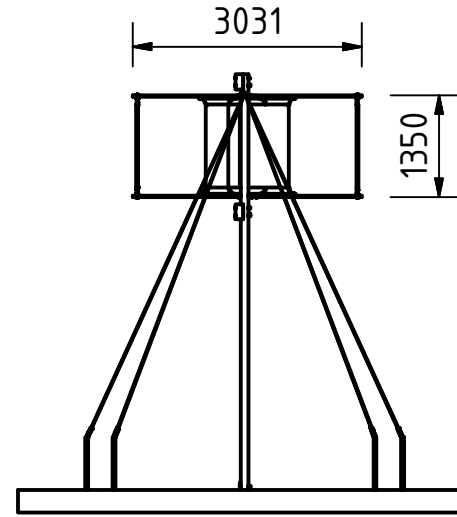
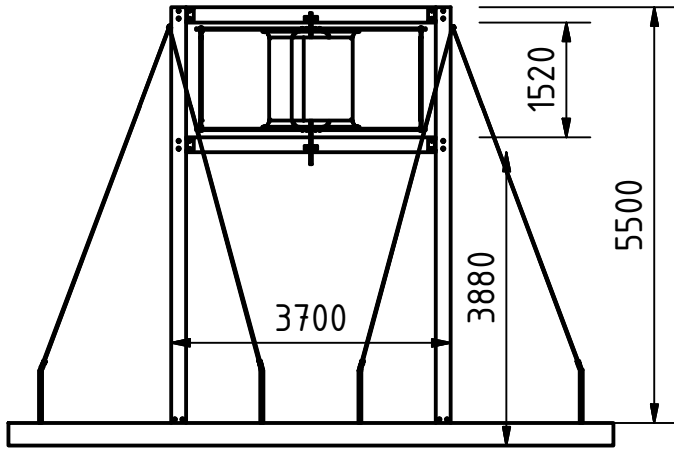


Det.C




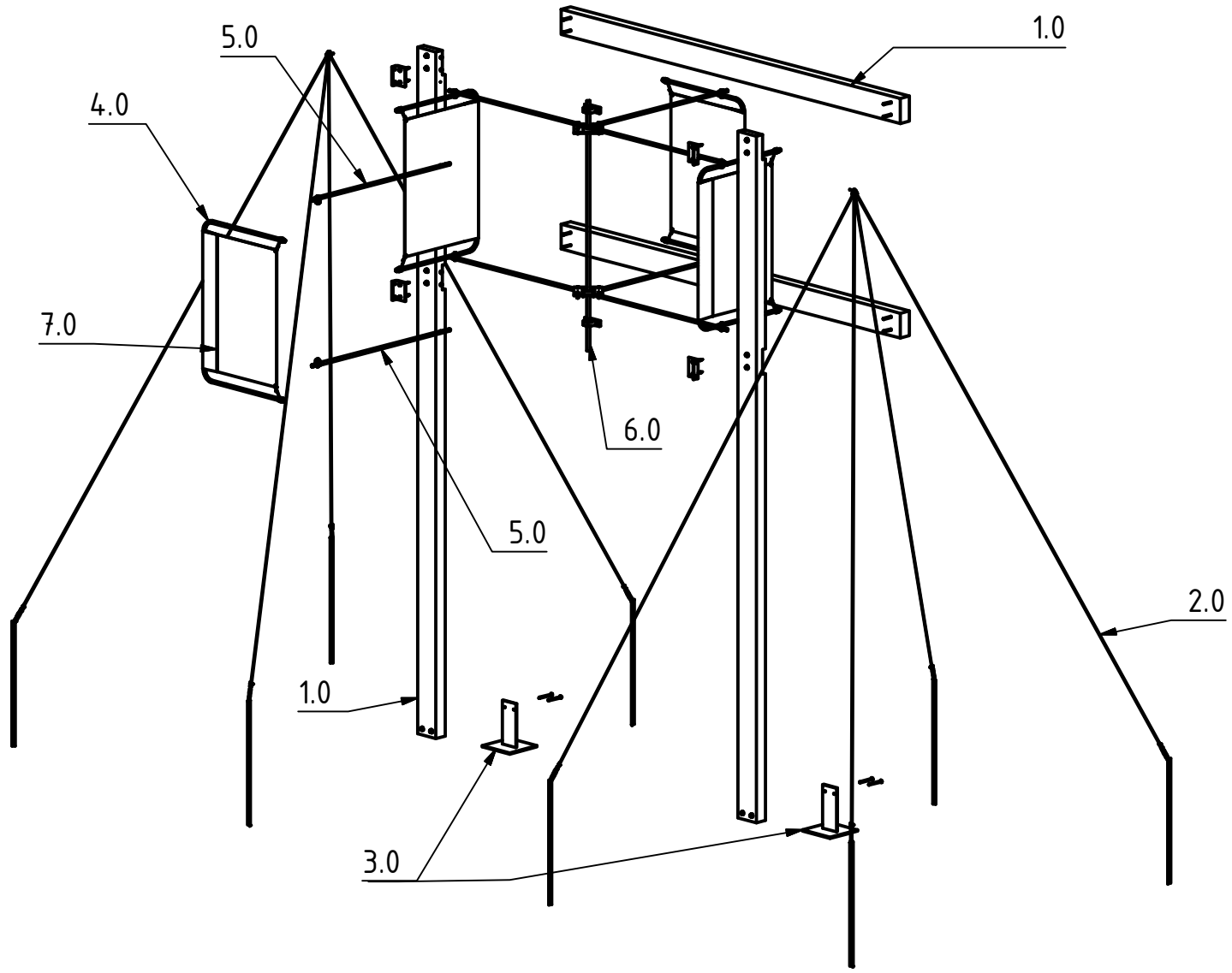
Note: All units in mm.


| | | | | |
|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| 3d views | oho_vsw_vertical-sail-windmill.iam | | | A1 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | 1 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:40 | 1 /27 |



Note: All units in mm.


| | | | | |
|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| 3d views | oho_vsw_vertical-sail-windmill.iam | | | A1 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| Low Energy Systems |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | 1 |
| | OSEG | LICENCE | SCALE | SHEET |
| | | CC-BY-SA 4.0 | 1:100 | 2 /27 |



| | | | | |
|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Exploded 3d view | oho_vsw_vertical-sail-windmill.ipn | | | A2 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| Low Energy Systems |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | 1 |
| | | LICENCE | SCALE | SHEET |
| | OSEG | CC-BY-SA 4.0 | 1:50 | 3 /27 |


Parts list

| POS | QTY | PART NAME | FILE NAME | PART TYPE | SPECIFICATIONS | SHEET |
|-----|-----|---------------------|--------------------------------------|------------|---|-------|
| A1 | 1 | 3d views | oho_vsw_vertical-sail-windmill.iam | | | 1 |
| A1 | 1 | 3d views | oho_vsw_vertical-sail-windmill.iam | | | 2 |
| A2 | | Exploded 3d view | oho_vsw_vertical-sail-windmill.ipn | | | 3 |
| B1 | | Parts list | oho_vsw_vertical-sail-windmill02.xls | | | 4 |
| B2 | | Parts list | oho_vsw_vertical-sail-windmill02.xls | | | 5 |
| C1 | | Technical notes | | | | 6 |
| C3 | | Technical notes | | | | 7 |
| 1.0 | 1 | Tower | oho_vsw_tower.iam | | | 8 |
| 1.0 | | Tower | oho_vsw_tower.ipn | | | 9 |
| 1.1 | 1 | Timber 5.5m | oho_vsw_timbers-550.ipt | Production | Wood | 10 |
| 1.2 | 1 | Timber 3.7m | oho_vsw_timbers-370.ipt | Production | Wood | 11 |
| 1.3 | 4 | Brackets | oho_vsw_brackets.ipt | Production | Steel C45 | 12 |
| 1.4 | | Tower bolt | oho_vsw_bolt-M10x130.ipt | Standard | Tower bolt | |
| 1.5 | 20 | Tower nut | oho_vsw_nut-M10.ipt | Standard | Tower nut, M10 | |
| 1.6 | 20 | Towr Washer | oho_vsw_Washer-M10.ipt | Standard | Towr Washer, M20 | |
| 1.7 | 16 | Tower bolt piercing | oho_vsw_bolt-M10x100.ipt | Standard | Tower bolt piercing, M10 x 100 | |
| 1.8 | 2 | Towe eye bolt | oho_vsw_eye-bolts.ipt | Standard | Towe eye bolt, M8 x 12 x 150 | |
| 2.0 | 6 | Tenioner | oho_vsw_tenioner.iam | | | 13 |
| 2.0 | 8 | Tenioner | oho_vsw_tenioner.ipn | | | 14 |
| 2.1 | 8 | Guy wire | oho_vsw_guy-wire.ipt | Production | wire of D: 6mm - total:42,0 m, Galvanized steel | 15 |
| 2.2 | 16 | Bulldog grips | oho_vsw_rulldog-grips.ipt | Standard | Bulldog grips, Grip 4 mm to 12mm cap., include nut and washers | |
| 2.3 | 8 | Turnbuckles | oho_vsw_turnbuckles.ipt | Standard | Turnbuckles, tensioner for guy of 6 mm | |
| 2.4 | 8 | Angle25 | oho_vsw_angle25.ipt | Production | ASTm A36 | 16 |
| 3.0 | 2 | Foundation | oho_vsw_anchor-plate.ipt | Production | Sheet of 10mm, Steel C45 | 17 |
| 4.0 | 4 | Sail frame | oho_vsw_sail-frame.ipt | Production | 3m lengths of galvanised conduit D:20mm - Std, Steel Galvanized | 18 |
| 5.0 | 8 | Rotor arm | oho_vsw_rotor-arm.iam | | | 19 |
| 5.0 | 8 | Rotor arm | oho_vsw_rotor-arm.ipn | | | 20 |
| 5.1 | 8 | Arms | oho_vsw_arms.ipt | Production | Galvanized Steel | 21 |
| 5.2 | 8 | Keeklamps | oho_vsw_Keeklamps.ipt | Standard | Keeklamps, 1/2" - will fit 20mm conduit, Plastic | |

| | | | | | |
|-----------------------------|--|---|-------------|--------------|----------|
| PROJECT | | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | | FILE NAME | | | POS |
| Parts list | | oho_vsw_vertical-sail-windmill02.xls | | | B1 |
| DEVELOPED BY | | REDESIGNED BY | | DOC. TYPE | MATERIAL |
| | |  OPEN SOURCE ECOLOGY GERMANY | | Parts list | |
| Low Energy Systems | | | | OSEG | |
| | | | | CC-BY-SA 4.0 | SHEET |
| | | | | | 4 / 27 |


Parts list

| POS | QTY | PART NAME | FILE NAME | PART TYPE | SPECIFICATIONS | SHEET |
|-----|-----|---------------|--------------------------|------------|--|-------|
| 5.3 | 16 | Rotor bolt | oho_vsw_boltM6x25.ipt | Standard | Rotor bolt | |
| 6.0 | 1 | Axle | oho_vsw_axle.iam | | | 21 |
| 6.0 | 1 | Axle | oho_vsw_axle.ipn | | | 22 |
| 6.1 | 1 | Axle | oho_vsw_axle.ipt | Production | Steel C45 | 23 |
| 6.2 | 2 | Steel plate | oho_vsw_steel-plate.ipt | Production | Steel C45 | 24 |
| 6.3 | 2 | Bearing | oho_vsw_bearingD25.ipt | Standard | Bearing , D: 25,0 - UCP type - bridge type bearings with set screw | |
| 6.4 | 16 | Axle bolt 1 | oho_vsw_boltM6x40.ipt | Standard | Axle bolt 1, M6 x 40 DIN 933 | |
| 6.5 | 16 | Axle nut 1 | oho_vsw_nutM6.ipt | Standard | Axle nut 1, M6 DIN 934 | |
| 6.6 | 16 | Axle Washer 1 | oho_vsw_WasherM6.ipt | Standard | Axle Washer 1, D: 6,0 | |
| 6.7 | 8 | Axle bolt 2 | oho_vsw_bolt-M10x130.ipt | Standard | Axle bolt 2, M10 x 130 DIN 933 | |
| 6.8 | 4 | Axle nut 2 | oho_vsw_nut-M10.ipt | Standard | Axle nut 2, M6 DIN 934 | |
| 6.9 | 4 | Axle washer 2 | oho_vsw_Washer-M10.ipt | Standard | Axle washer 2, D: 10 | |
| 7.0 | 4 | Sail | oho_vsw_sail.iam | | | 25 |
| 7.0 | 4 | Sail | oho_vsw_sail.ipn | | | 26 |
| 7.1 | 4 | Sail | oho_vsw_canvas.ipt | Production | e=2,0mm, canva of linen or synthetic | 27 |
| 7.2 | 8 | Cord | oho_vsw_cord.ipt | Standard | Cord, 550 mm longt, cord 6mm 3 twisted, Polypropylene | |
| 7.3 | 8 | Eyelet | oho_vsw_eyelet.ipt | Standard | Eyelet, snap eyelet for canva D:8mm, Bronze | |

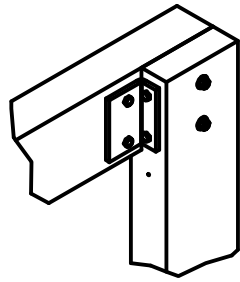
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|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Parts list | oho_vsw_vertical-sail-windmill02.xls | | | B2 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  | Parts list | | |
| Low Energy Systems | OSEG | LICENCE | SCALE | SHEET |
| | | CC-BY-SA 4.0 | | 5 /27 |

TECHNICAL NOTES

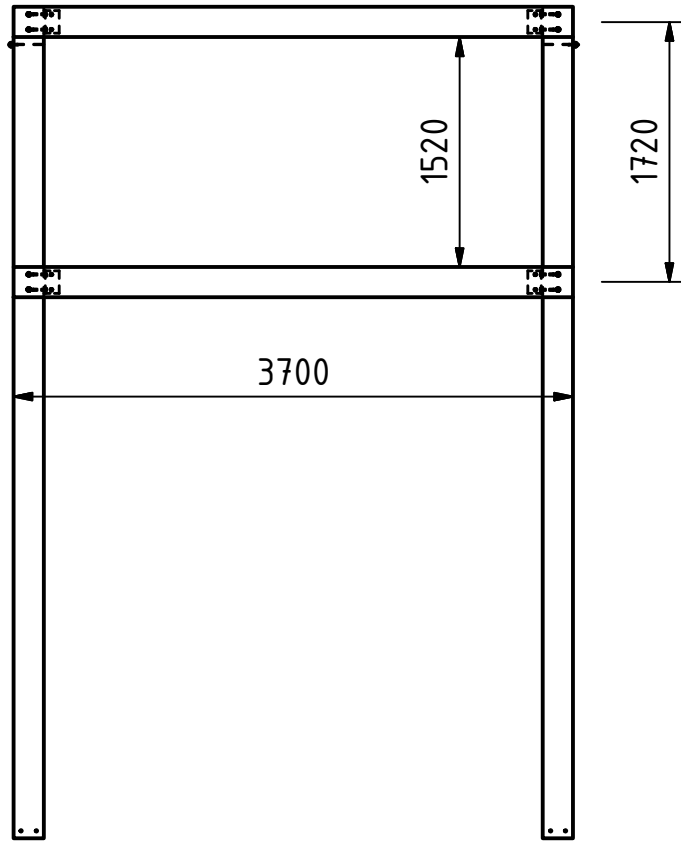
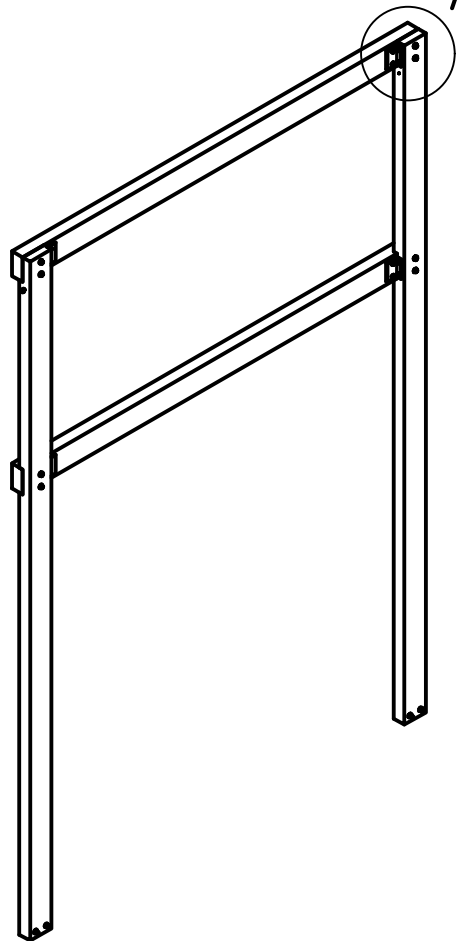
| NOTES | CONTENT |
|---------------------------|---|
| GENERAL NOTES | |
| Metal structure treatment | Iron structures should be painted to prevent rust and improve equipment life. - Remove loose rust with a wire brush, sandpaper or chemical rust remover. - If applicable, sand areas where paint is chipping until surface is smooth. - Remove dust or oil with a degreaser or denatured alcohol. - Prime surface to protect against rust and corrosion |
| Foundations fixing | - The ground must be stable and have a low water table. - The structure must be fixed on firm oncrete soil or on poured footings with steel reinforcement. - The anchorage can be bolted with expansive ramplugs or welded. |
| Wood treatment | - The wood must be treated with pesticides and kiln-dried to ensure adequate humidity. - Wood sealer should be applied for later use. |
| ... | ... |
| ... | ... |

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|-----------------------------|---|-----------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Technical notes | | | | C1 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| Low Energy Systems |  OPEN SOURCE ECOLOGY GERMANY | Technical notes | | |
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| | | CC-BY-SA 4.0 | | 6 /27 |

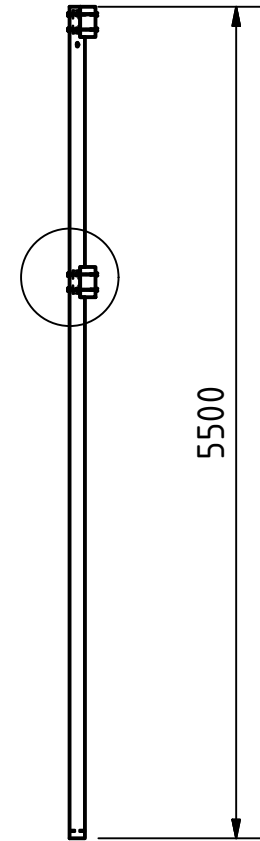
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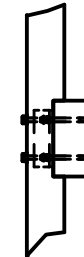
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B

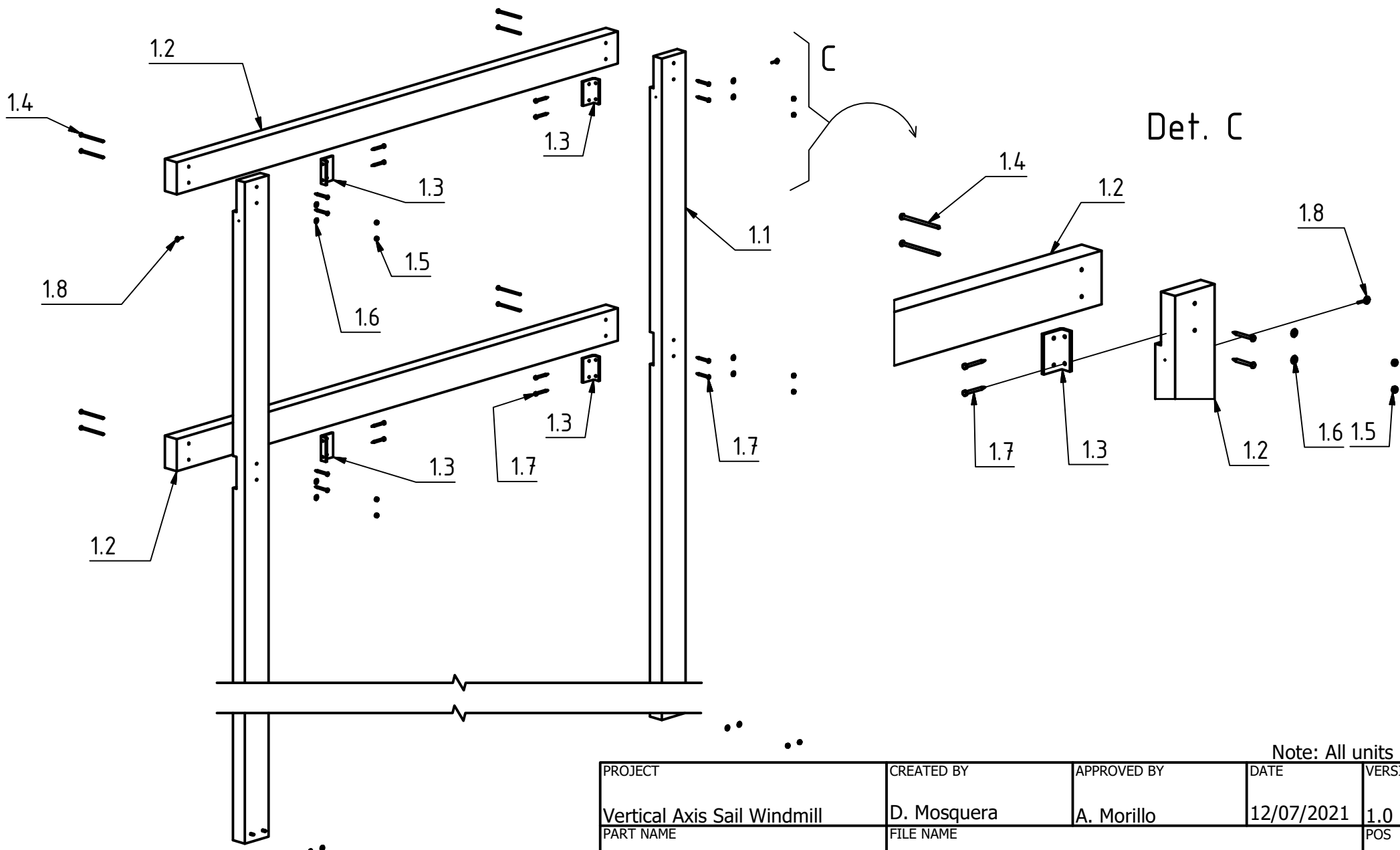


DetB




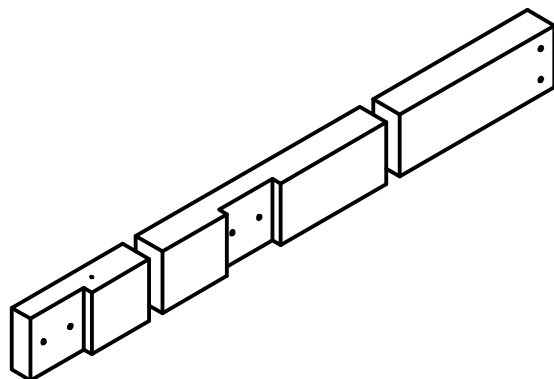
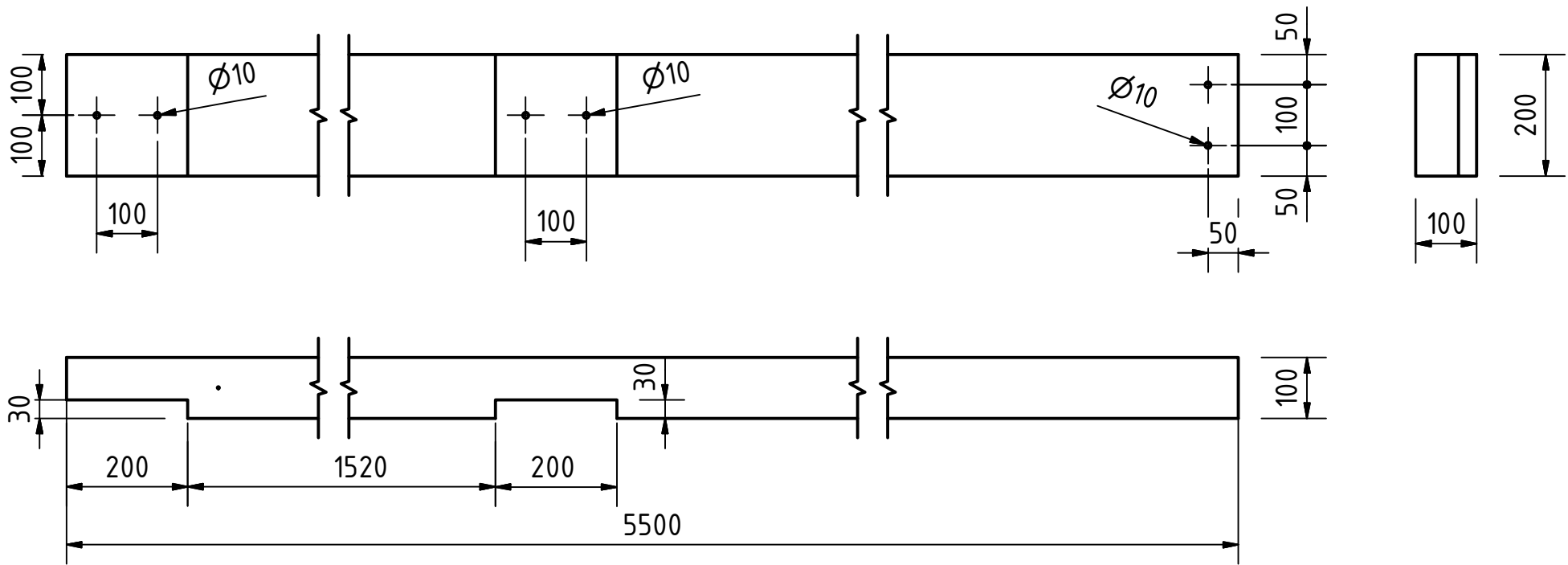
Note: All units in mm.


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|-----------------------------|------------------------------------|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Tower | oho_vsw_tower.iam | | | 1.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| Low Energy Systems | OPEN SOURCE ECOLOGY GERMANY | Assembly | | 1 |
| | | CC-BY-SA 4.0 | SCALE | SHEET |
| | OSEG | | 1:50 | 7 /27 |

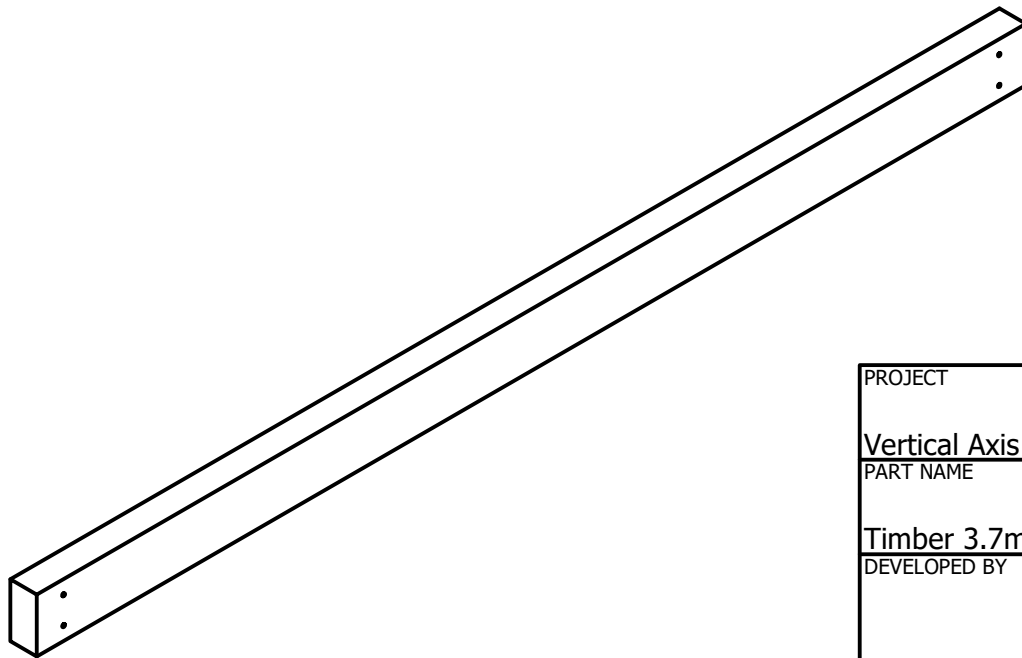
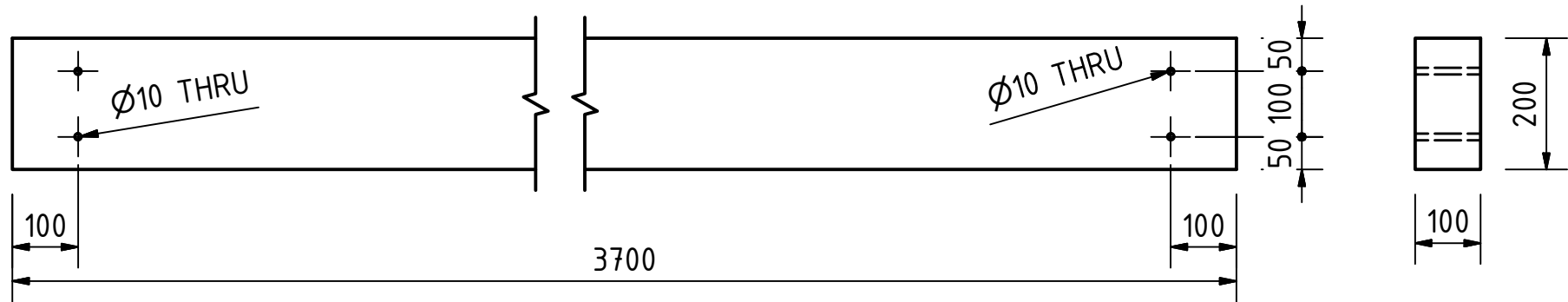



Note: All units in mm.

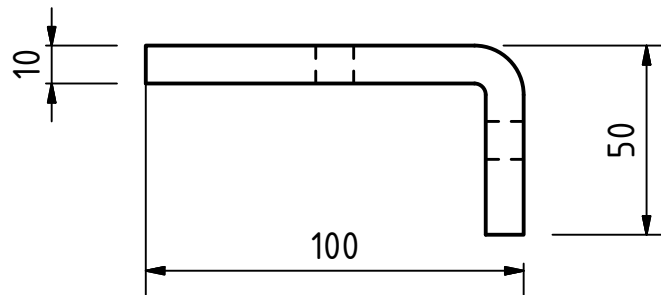
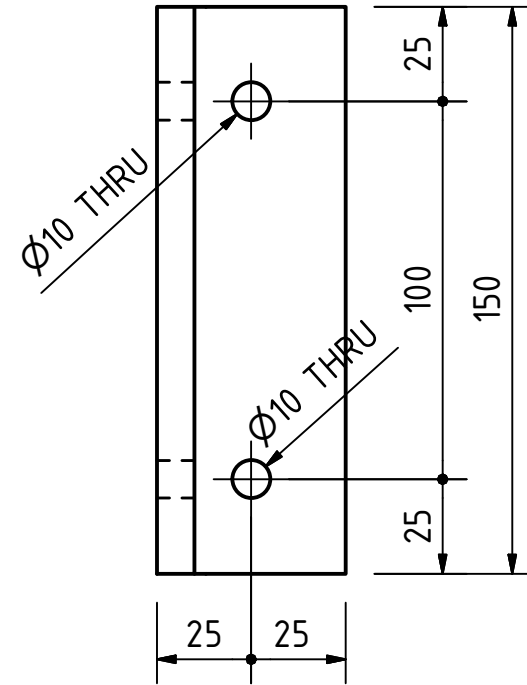
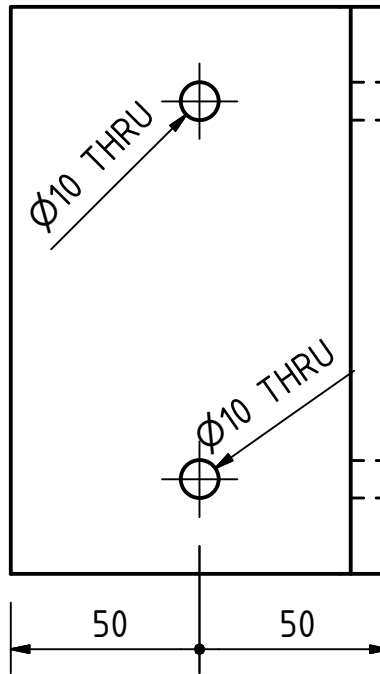
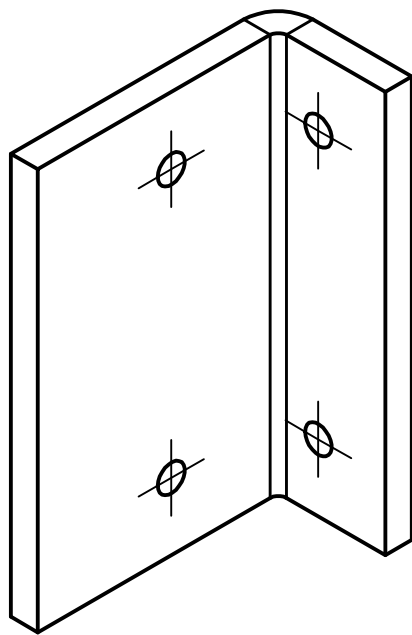
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| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Tower | oho_vsw_tower.ipn | | | 1.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | | 8 /27 |




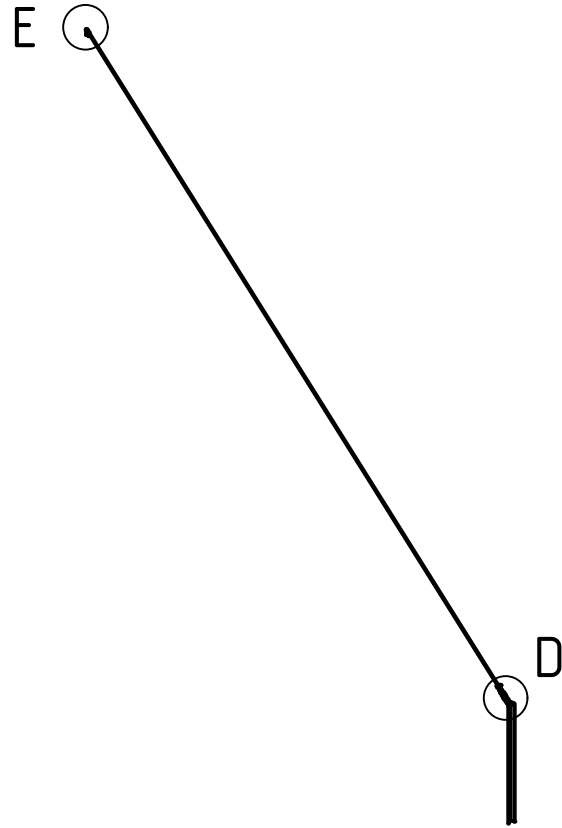
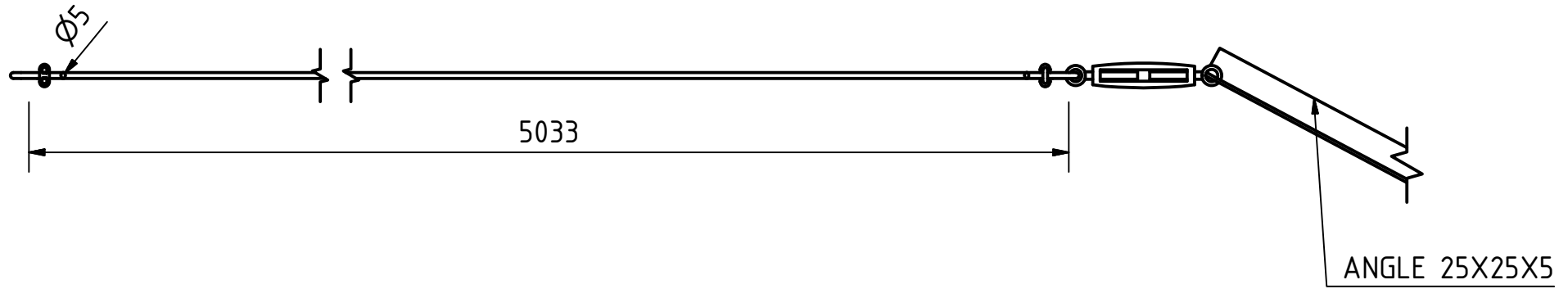
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| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Timber 5.5m | oho_vsw_timbers-550.ipt | | | 1.1 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Part | Wood | 1 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:10 | 9 /27 |



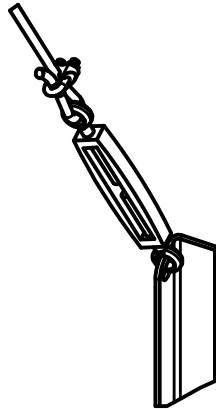
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| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Timber 3.7m | oho_vsw_timbers-370.ipt | | | 1.2 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Part | Wood | 1 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:10 | 10 /27 |



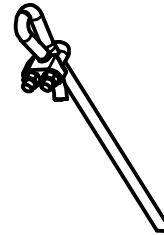
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| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Brackets | oho_vsw_brackets.ipt | | | 1.3 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Part | Steel C45 | 4 |
| Low Energy Systems | | CC-BY-SA 4.0 | SCALE | SHEET |
| | OSEG | | 1:2 | 11 /27 |



Det.D

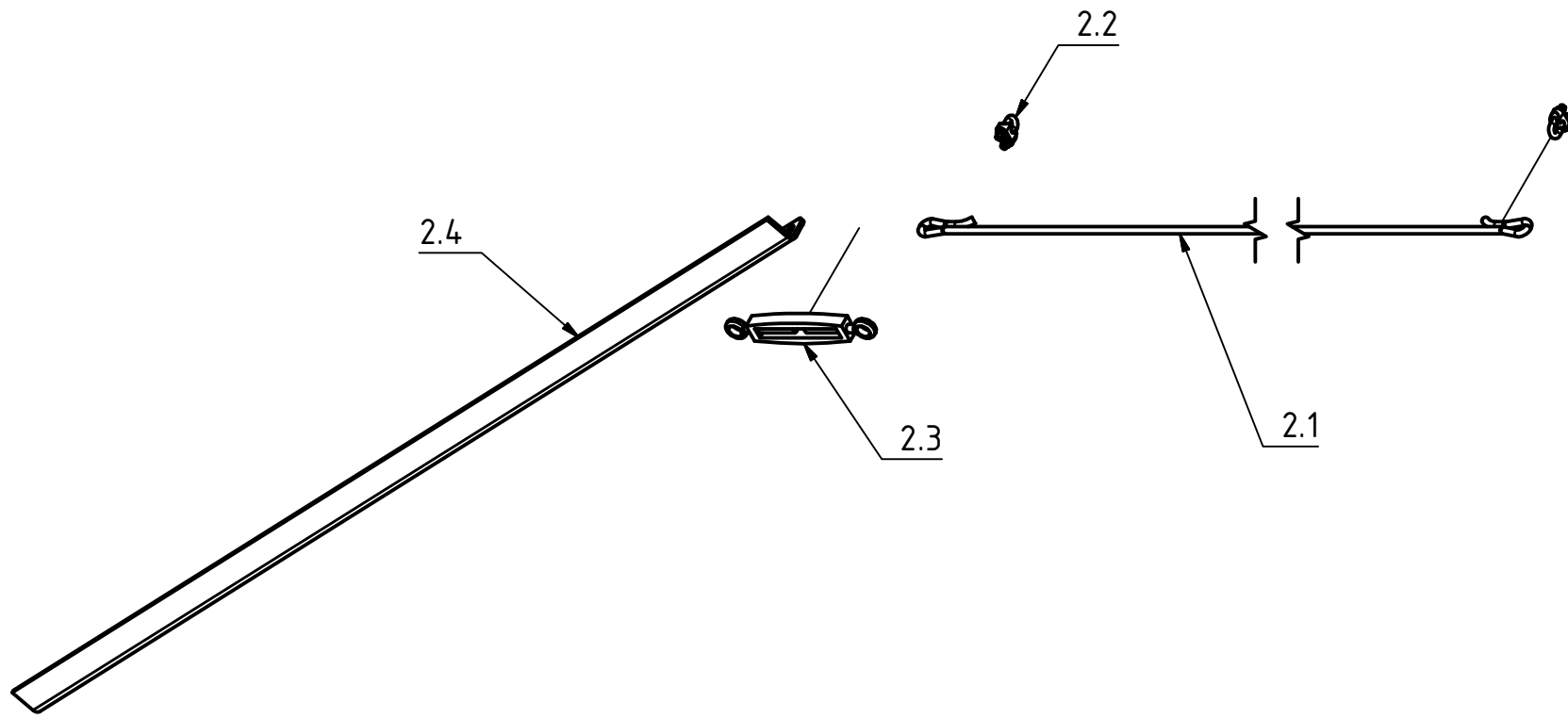



Det.E

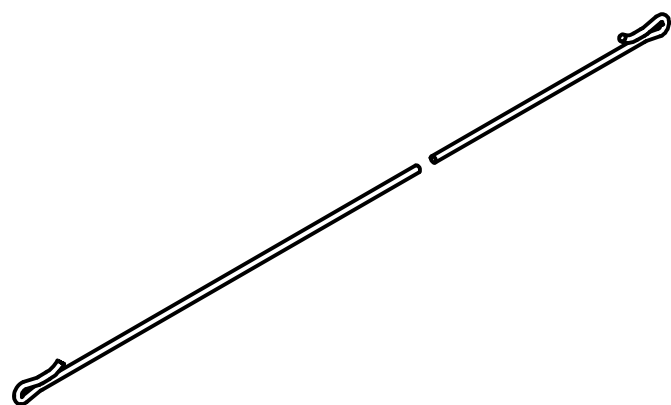
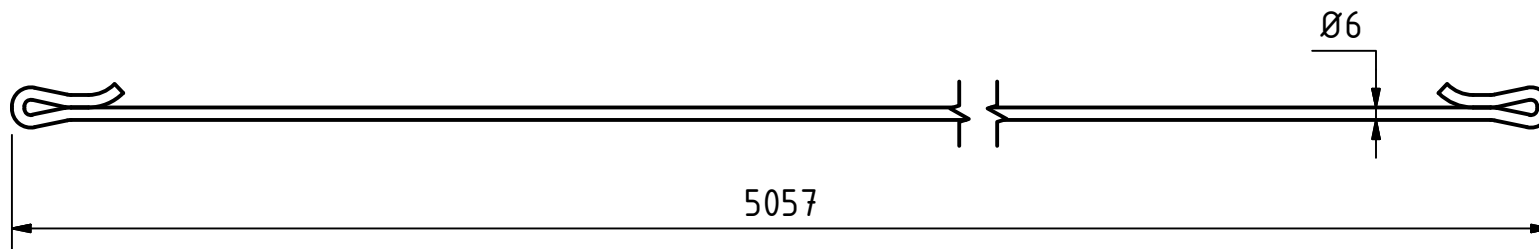



Note: All units in mm.

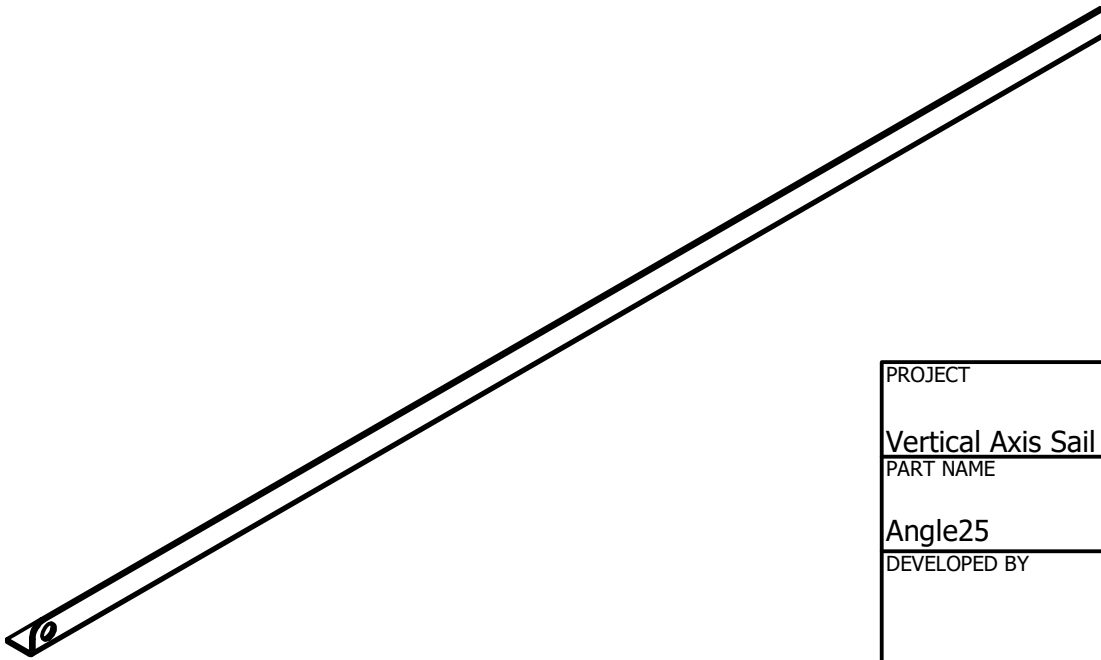
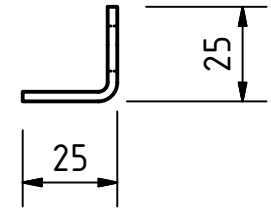
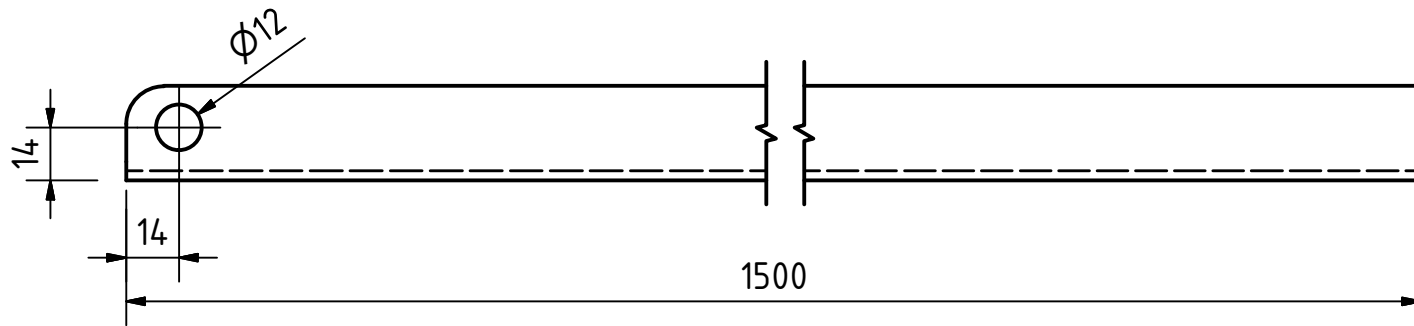
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| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Tenioner | oho_vsw_tenioner.iam | | | 2.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| | OPEN SOURCE ECOLOGY GERMANY | Assembly | | 6 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:5 | 12 /27 |




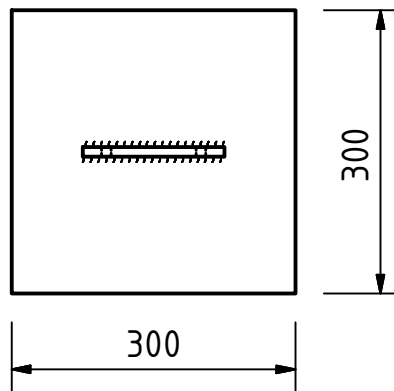
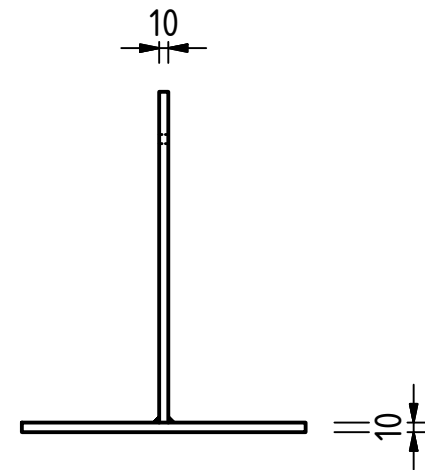
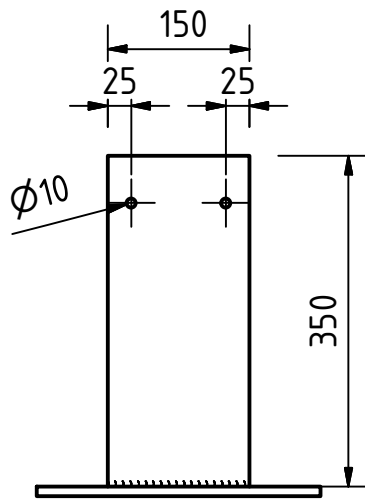
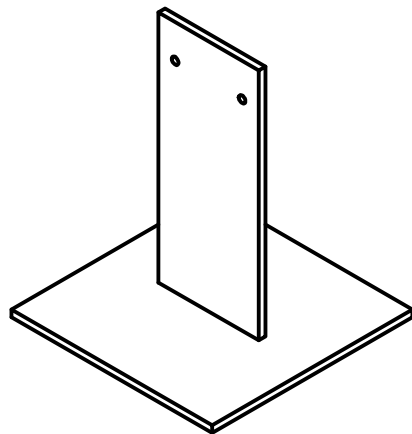
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| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
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| PART NAME | FILE NAME | | | POS |
| Tenioner | oho_vsw_tenioner.ipn | | | 2.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | 8 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | | 13 /27 |




| | | | | |
|-----------------------------|---|--------------|------------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Guy wire | oho_vsw_guy-wire.ipt | | | 2.1 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| Low Energy Systems |  OPEN SOURCE ECOLOGY GERMANY OSEG | Part | Galvanized steel | 8 |
| | | LICENCE | SCALE | SHEET |
| | | CC-BY-SA 4.0 | 1:2 | 14 /27 |

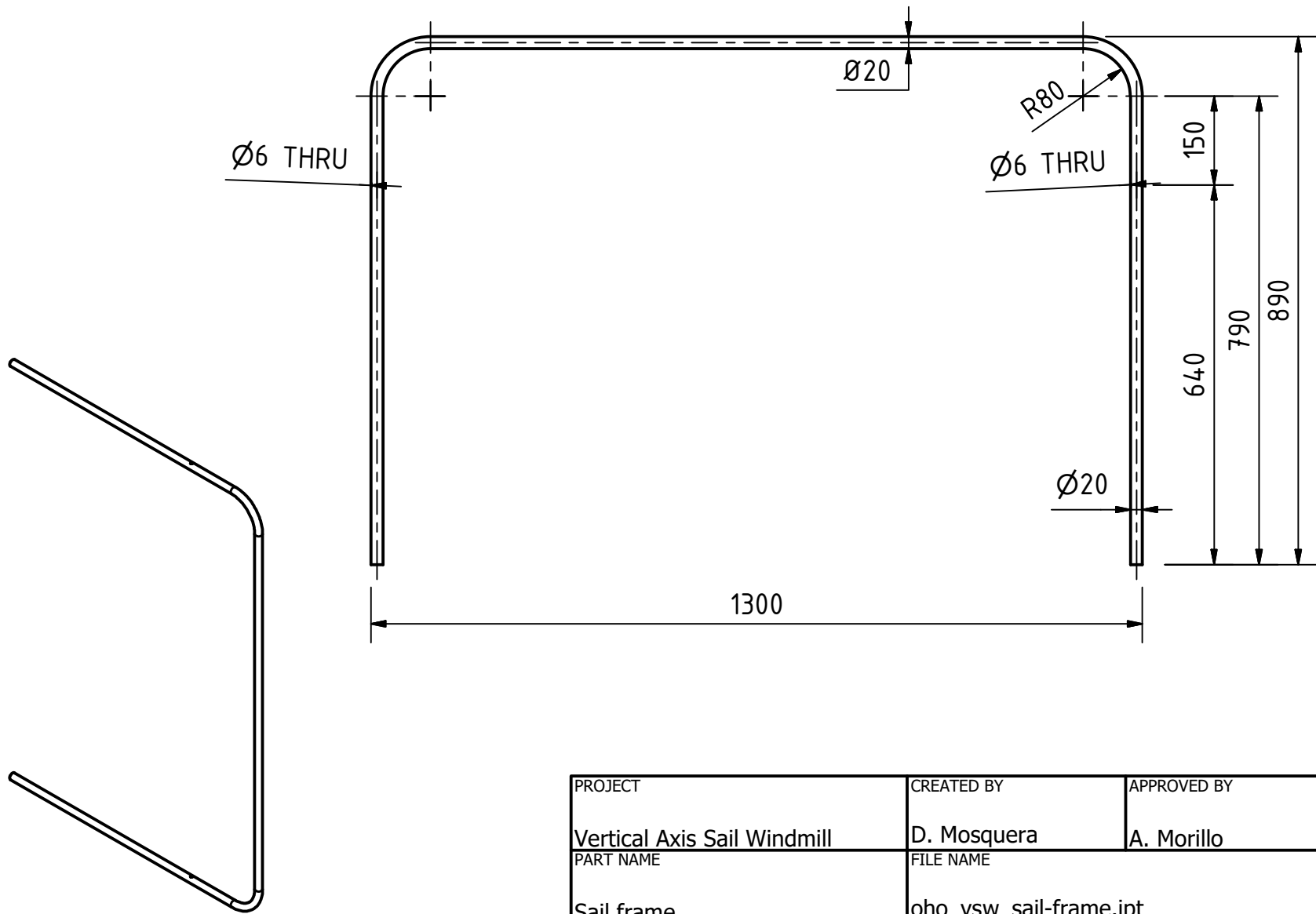


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| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Angle25 | oho_vsw_angle25.ipt | | | 2.4 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| Low Energy Systems |  OPEN SOURCE ECOLOGY GERMANY | Part | ASTm A36 | 8 |
| | | LICENCE | SCALE | SHEET |
| | OSEG | CC-BY-SA 4.0 | 1:2 | 15 /27 |




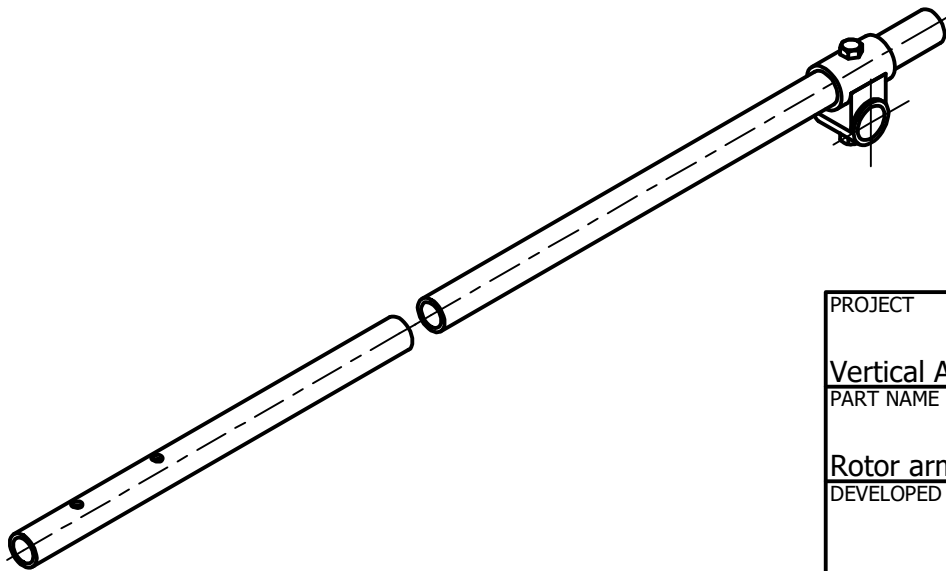
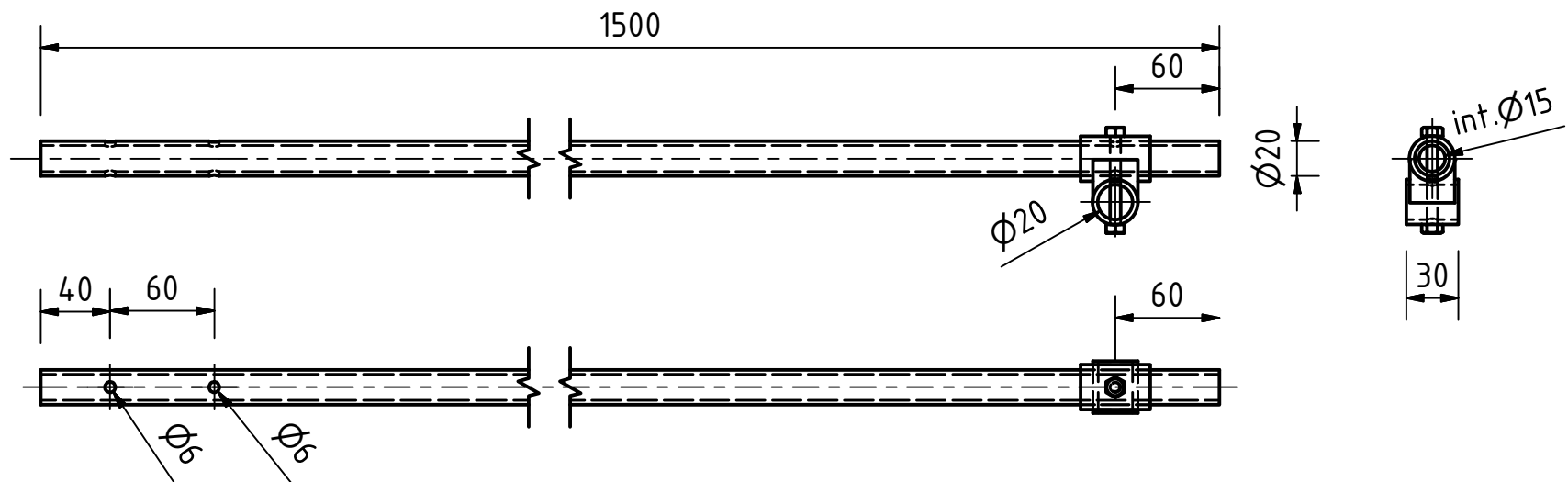
Note: All units in mm.

| | | | | |
|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Foundation | oho_vsw_anchor-plate.ipt | | | 3.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Part | Steel C45 | 2 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:8 | 16 /27 |




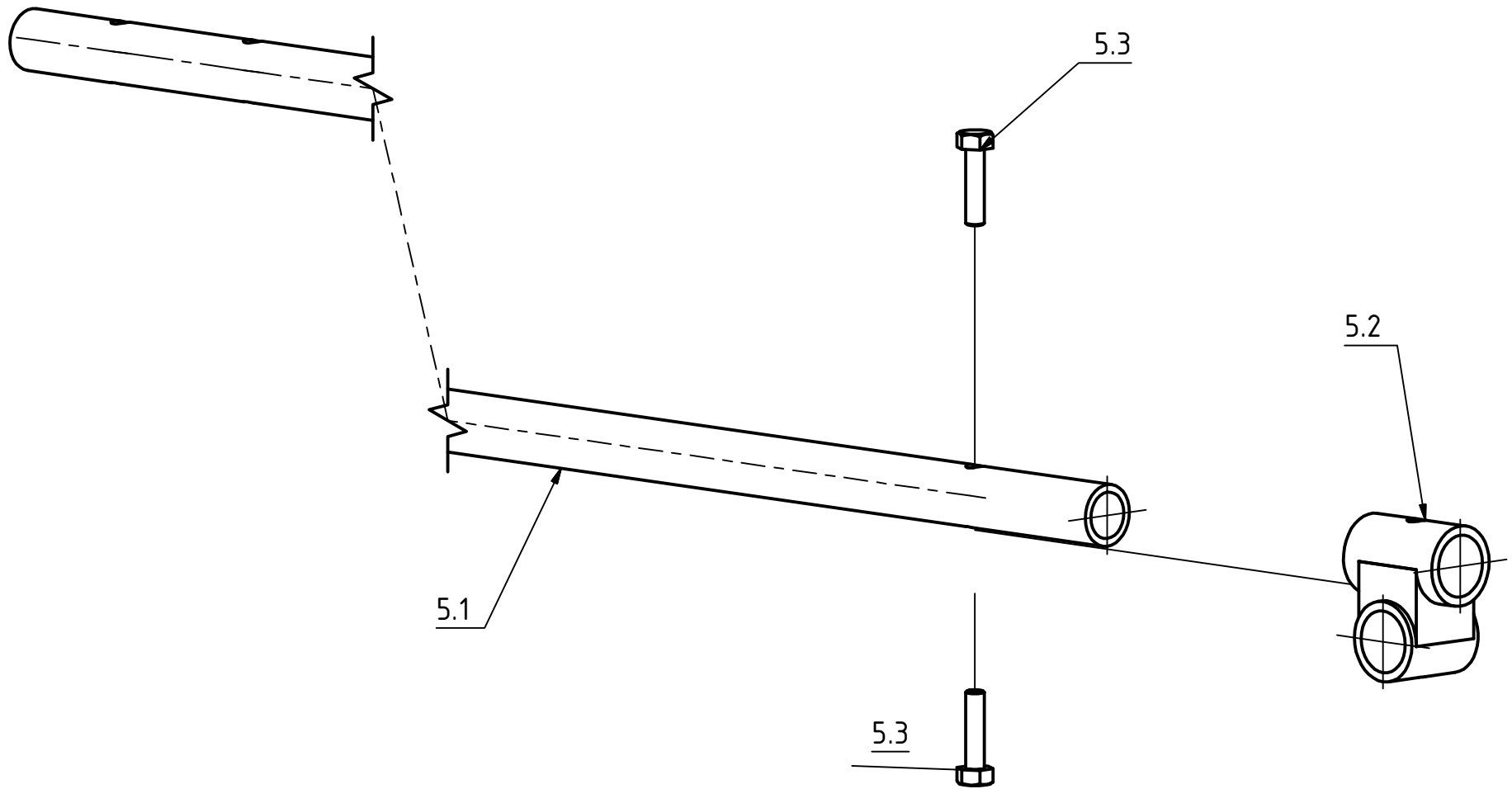
Note: All units in mm.


| | | | | |
|-----------------------------|---|--------------|------------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Sail frame | oho_vsw_sail-frame.ipt | | | 4.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Part | Steel Galvanized | 4 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:10 | 17 /27 |

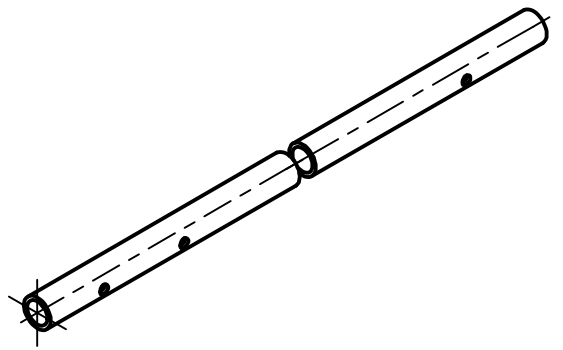
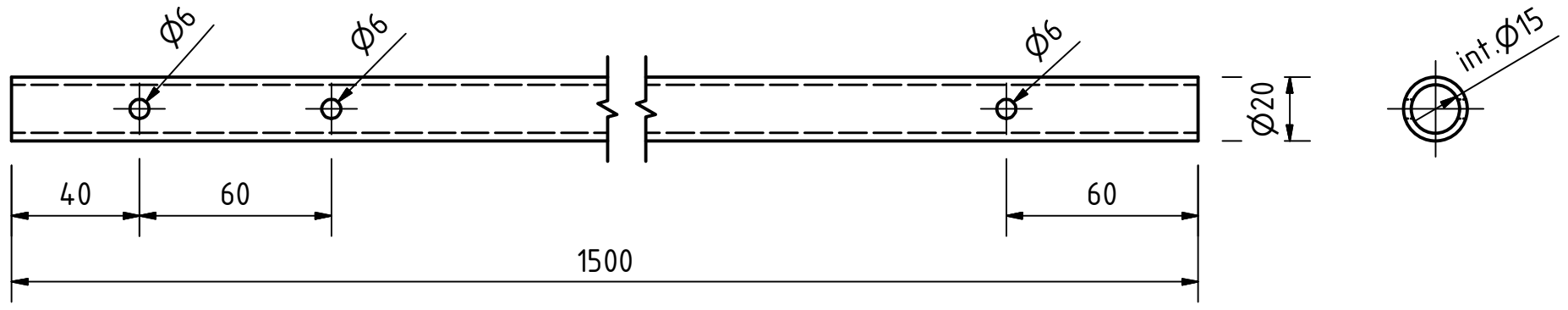



Note: All units in mm.

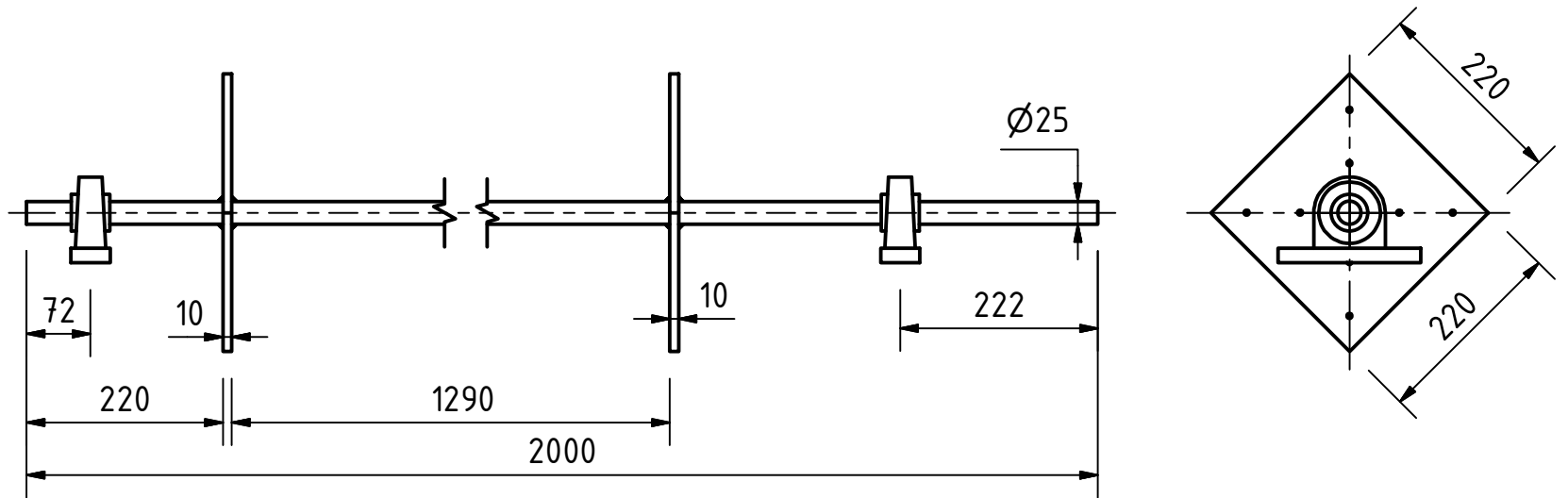
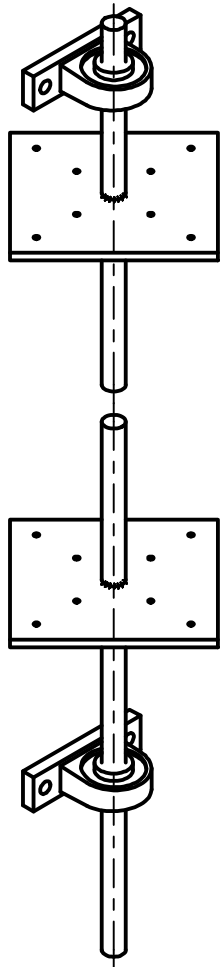
| | | | | |
|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Rotor arm | oho_vsw_rotor-arm.iam | | | 5.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | 8 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:4 | 18 /27 |




| | | | | |
|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Rotor arm | oho_vsw_rotor-arm.ipn | | | 5.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | 8 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:4 | 19 /27 |

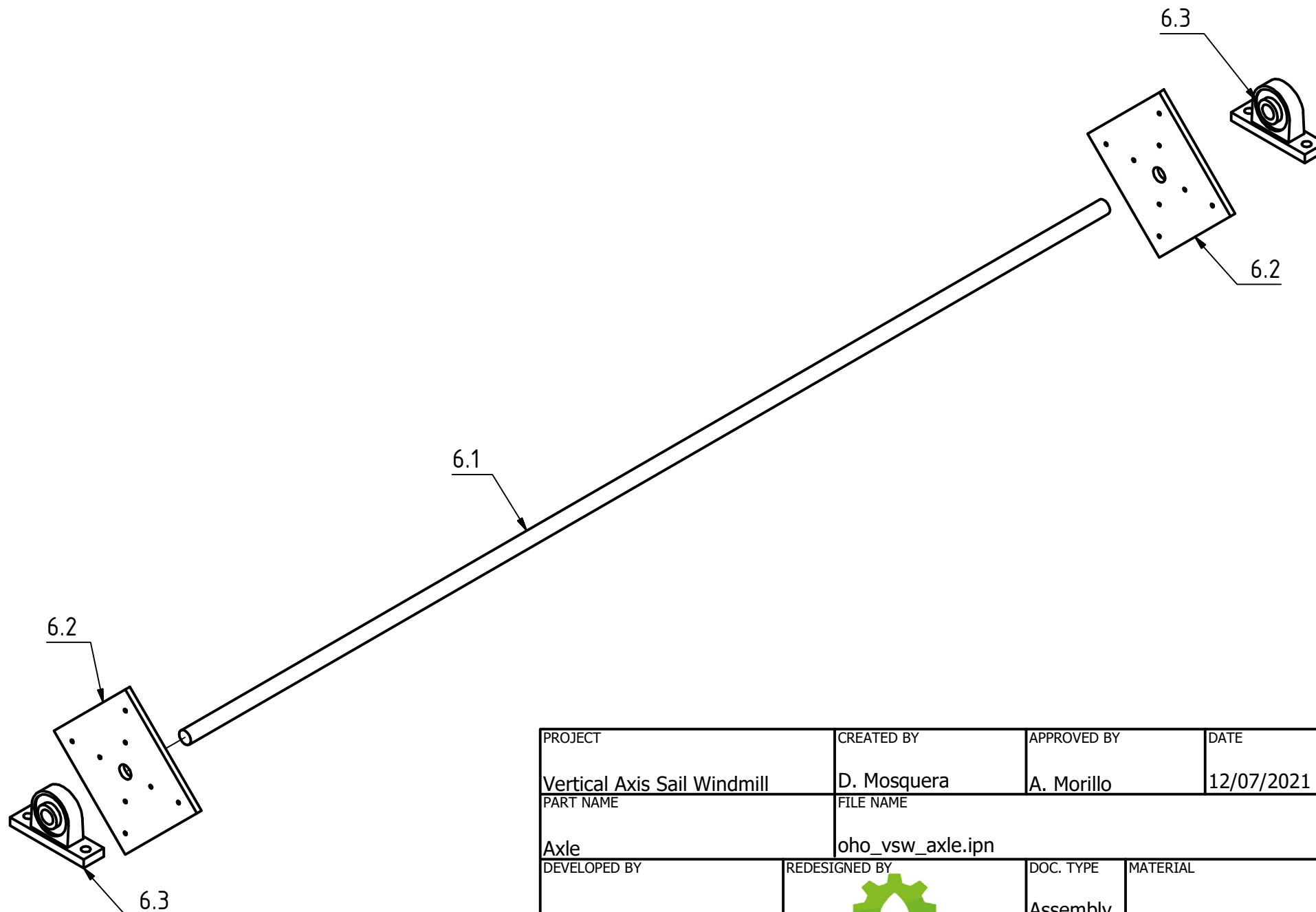



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|-----------------------------|---|--------------|------------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | POS | | |
| Arms | oho_vsw_arms.ipt | 5.1 | | |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| Low Energy Systems |  OPEN SOURCE ECOLOGY GERMANY | Part | Galvanized Steel | 8 |
| | | LICENCE | SCALE | SHEET |
| | OSEG | CC-BY-SA 4.0 | 1:2 | 20 /27 |

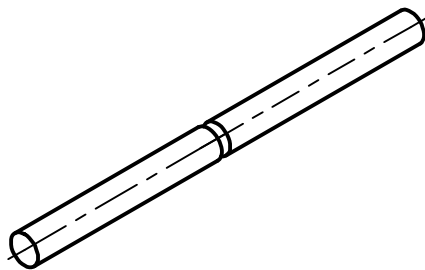
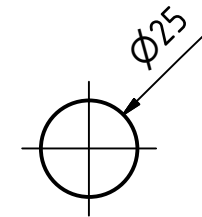
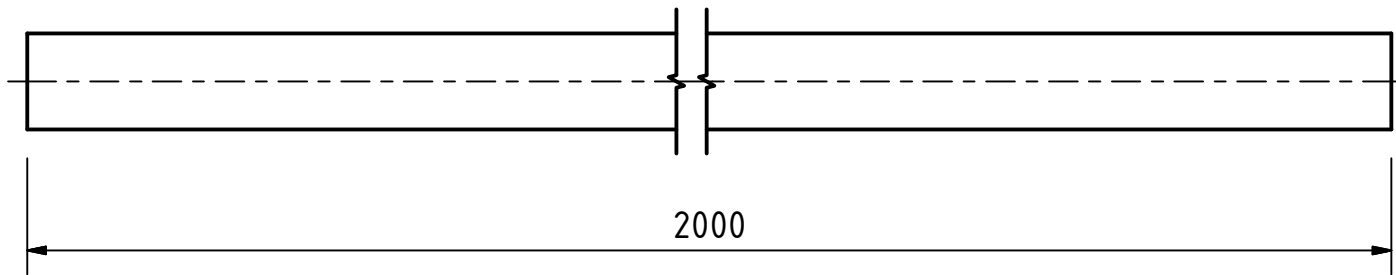


Note: All units in mm.


| | | | | |
|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Axle | oho_vsw_axle.iam | | | 6.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| Low Energy Systems |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | 1 |
| | OSEG | LICENCE | SCALE | SHEET |
| | | CC-BY-SA 4.0 | 1:8 | 21 /27 |

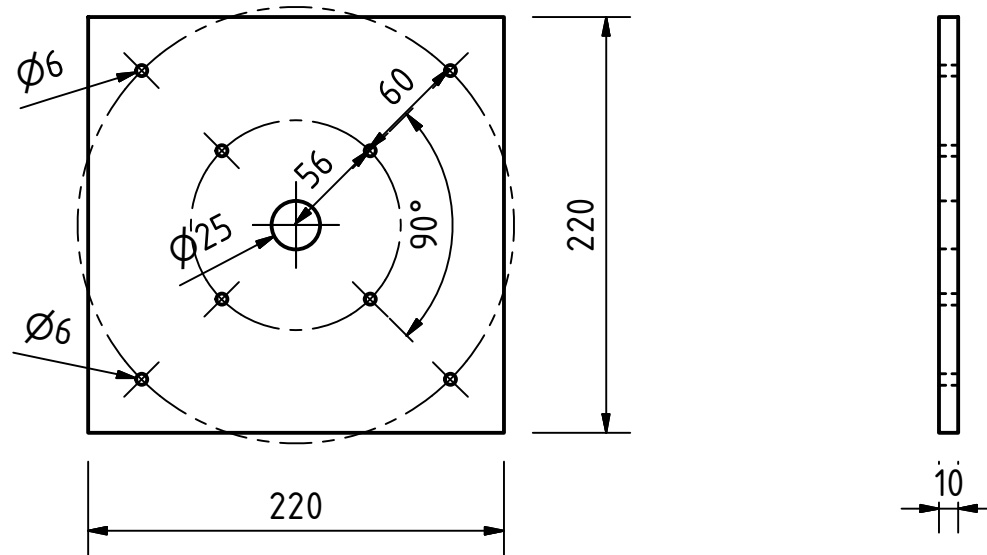
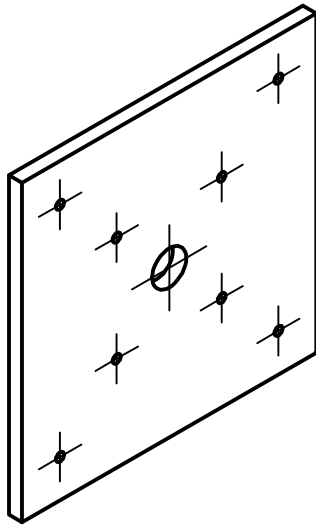


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|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Axle | oho_vsw_axle.ipn | | | 6.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| Low Energy Systems |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | 1 |
| | | LICENCE | SCALE | SHEET |
| | OSEG | CC-BY-SA 4.0 | 1:8 | 22 /27 |




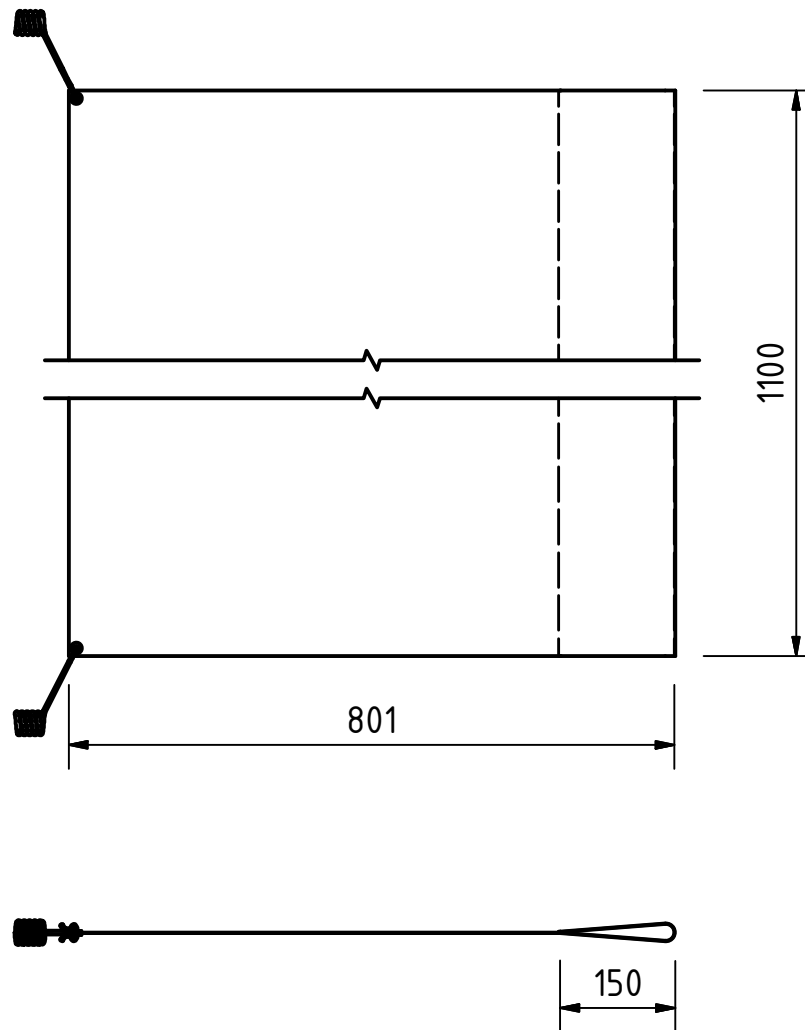
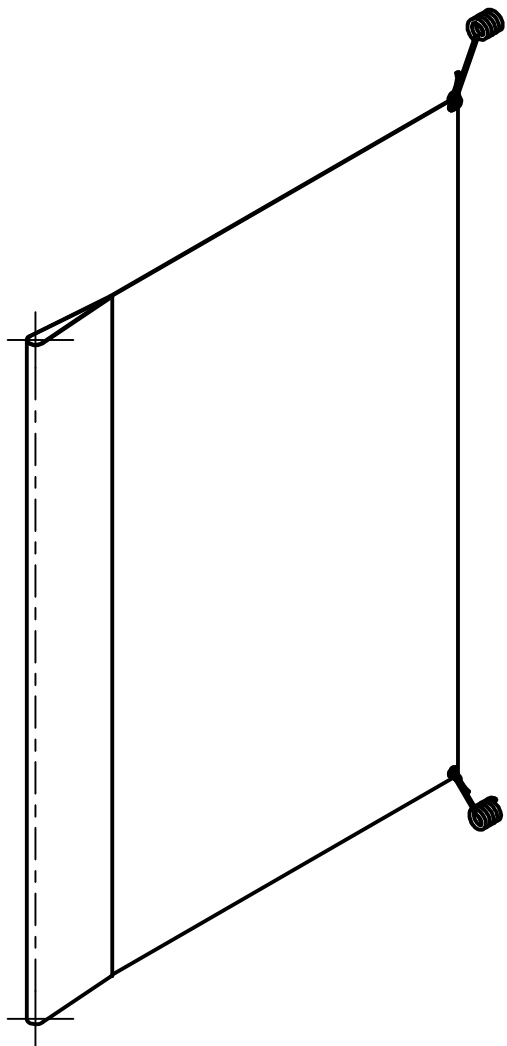
Note: All units in mm.

| | | | | |
|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Axle | oho_vsw_axle.ipt | | | 6.1 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Part | Steel C45 | 1 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:2 | 23 /27 |




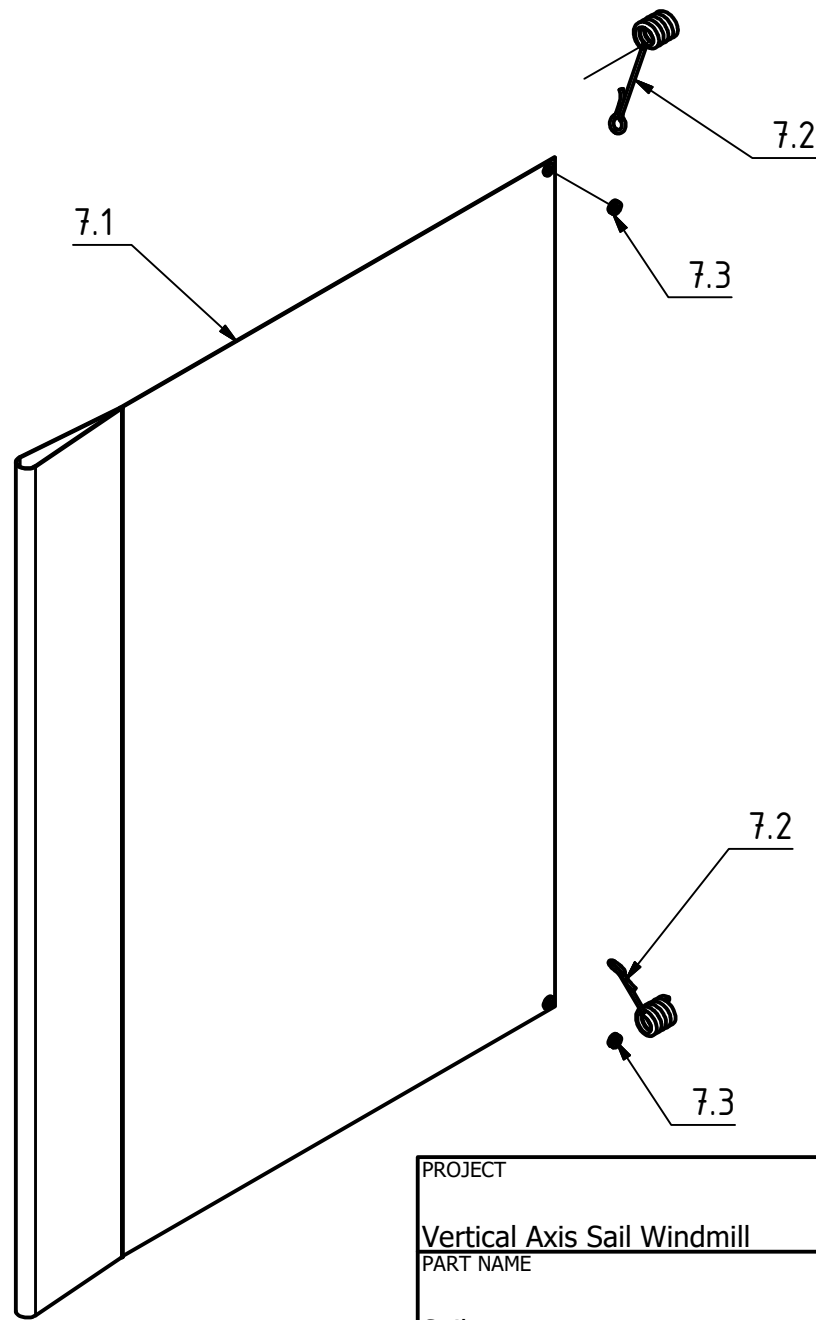
Note: All units in mm.


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|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Steel plate | oho_vsw_steel-plate.ipt | | | 6.2 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Part | Steel C45 | 2 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:4 | 24 /27 |

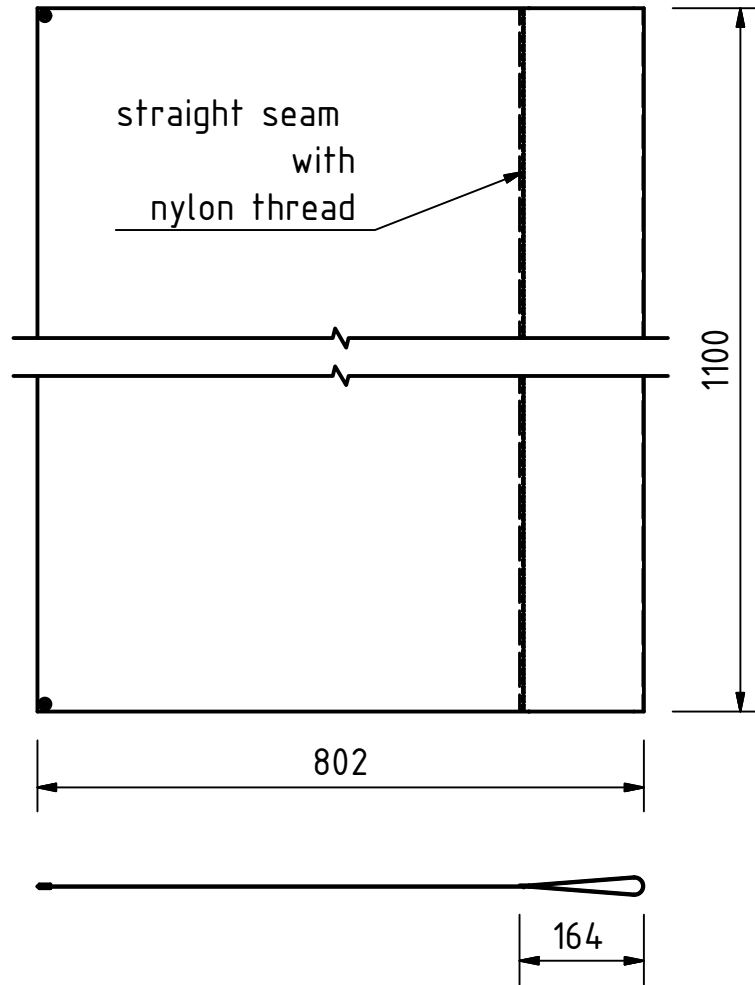
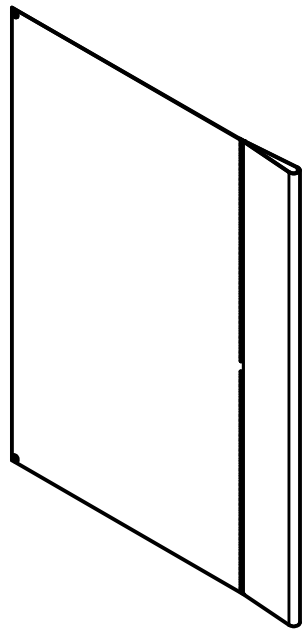


Note: All units in mm.


| | | | | |
|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Sail | oho_vsw_sail.iam | | | 7.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| Low Energy Systems |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | 4 |
| | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:10 | 25 /27 |



| | | | | |
|-----------------------------|---|--------------|------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Sail | oho_vsw_sail.ipn | | | 7.0 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Assembly | | 4 |
| Low Energy Systems | | OSEG | LICENCE | SCALE |
| | | CC-BY-SA 4.0 | 1:20 | 26 /27 |



Note: All units in mm. two corners with the cord loops need extra reinforcing

| | | | | |
|-----------------------------|---|--------------|--------------------------------|----------|
| PROJECT | CREATED BY | APPROVED BY | DATE | VERSION |
| Vertical Axis Sail Windmill | D. Mosquera | A. Morillo | 12/07/2021 | 1.0 |
| PART NAME | FILE NAME | | | POS |
| Sail | oho_vsw_canvas.ipt | | | 7.1 |
| DEVELOPED BY | REDESIGNED BY | DOC. TYPE | MATERIAL | QUANTITY |
| |  OPEN SOURCE ECOLOGY GERMANY | Part | canva of linen or synthetic | 4 |
| Low Energy Systems | | CC-BY-SA 4.0 | SCALE | SHEET |
| | OSEG | | 1:10 | 27 /27 |