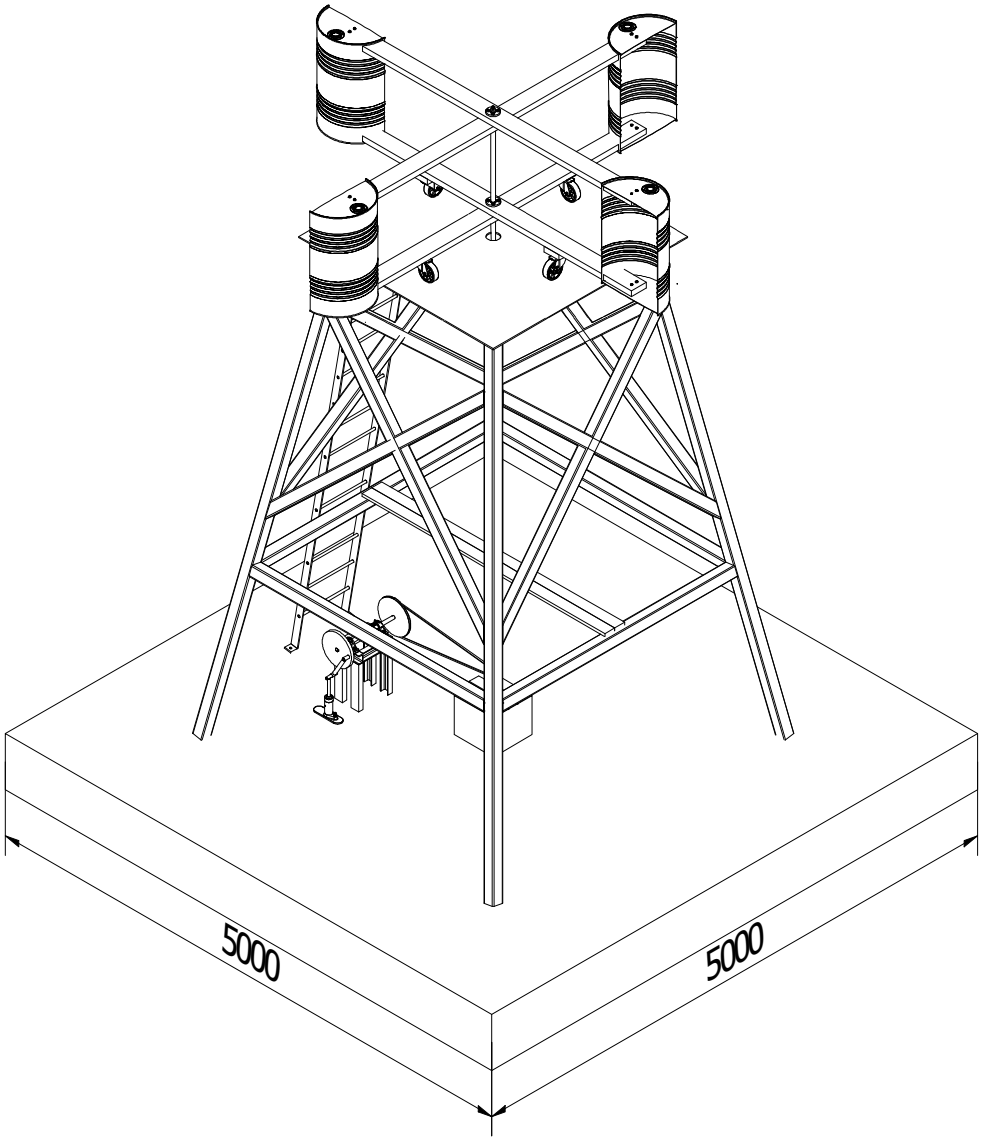
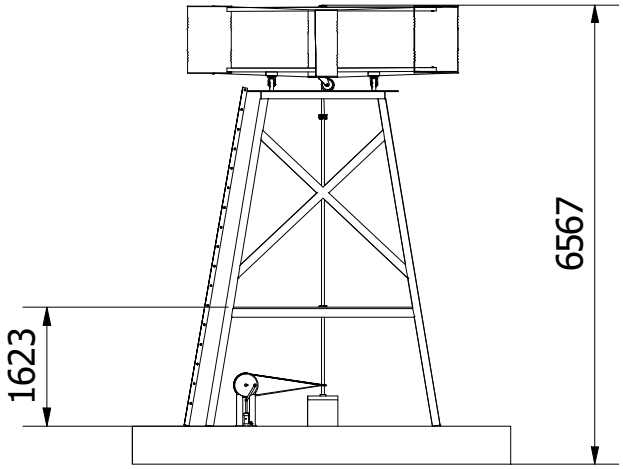
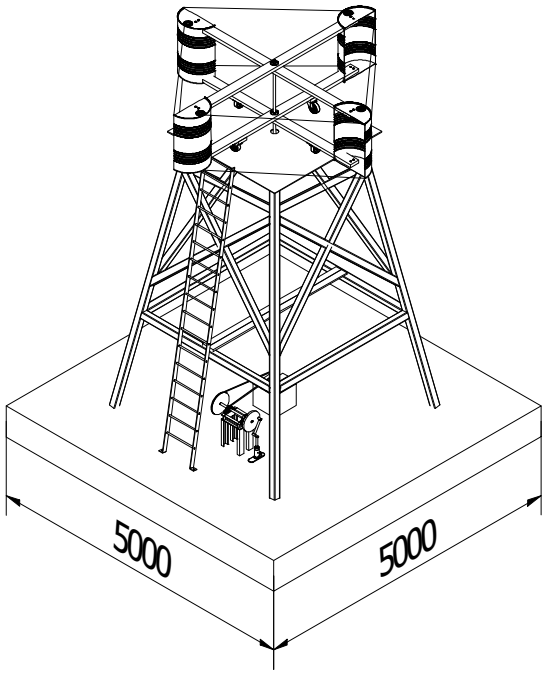
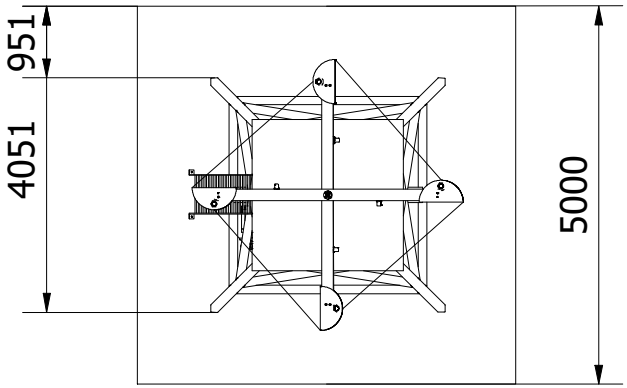


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Wind mill assembly	Wind mill assembly.iam			A1
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/55	1 /41

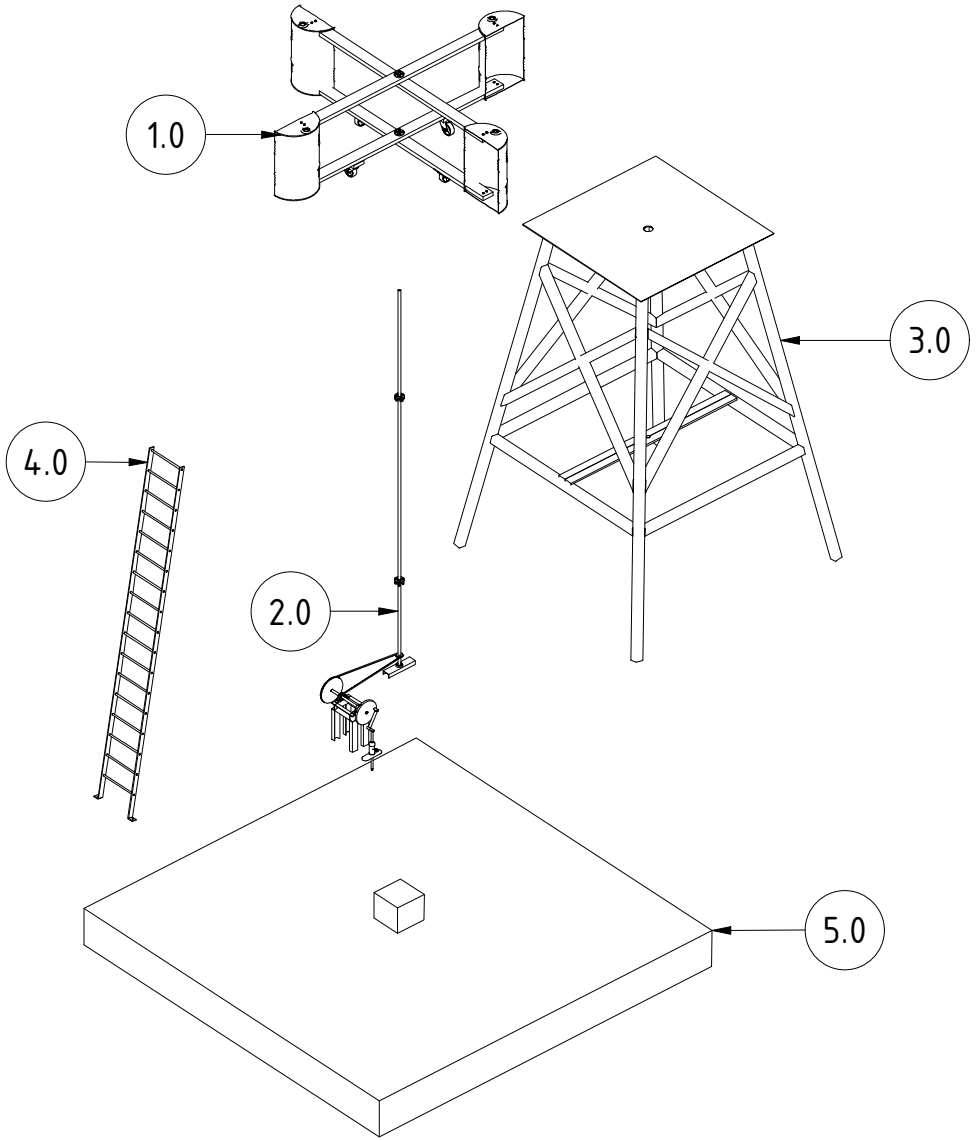






Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Wind mill assembly	Wind mill assembly.iam			A1
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/100	2 /41



PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Exploded 3D view				A2
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0		3 /41

Parts list

POS	QTY	PART NAME	FILE NAME	PART TYPE	SPECIFICATIONS	SHEET
A1	1	3d views				1
A1	1	3d views				2
A2	1	Exploded 3d view				3
B1	1	Parts list				4
B2	1	Parts list				5
C1		Technical notes				6
1.0	1	Sails top assembly	Sails top assembly			7-8
1.1	4	Drum	Drum	Producction	Steel drum 55 gallon	9
1.2	4	Sails support	Sails support	Producction	50.800 x 152.400 Hardwood	10
1.3	2	Wheel support	Wheel support	Producction	50.800 x 152.401 Hardwood	11
1.4	8	Cables		Buy	OD 3 long 1750	
1.5	4	Castors		Buy	OD 440	
1.6	8	Sails bolt		Standard	DIN 933 - M14 x 150	
1.7	8	Sails nut		Standard	DIN 555-5 - M14	
1.8	16	Drum bolt		Standard	DIN 960 - M10 x 1 x 70	
1.9	16	Drum nut		Standard	DIN 439 - M10 x 1	
1.10	4	Sails flange connections		Standard	ASME B16.5 Flange Slip-On Welding - Class 150	
2.0	1	Mechanism assembly	Mechanism assembly			12-13
2.1	1	Axle A	Axle A	Producction	OD 33 ASTM A36	14
2.2	1	Axle B	Axle B	Producction	OD 33 ASTM A36	15
2.3	1	Pulley axle	Pulley axle	Producction	OD 29 DIN C45	16
2.4	1	Small pulley	Small pulley	Producction	OD 79 DIN C46	17
2.5	1	Large pulley	Large pulley	Producction	OD 321 DIN C47	18
2.6	1	Pump stroke	Pump stroke	Producction	OD 300 DIN C48	19
2.7	1	Bearing support	Bearing support	Producction	DIN1026-1 - U 100 - 400	20
2.8	2	Pulley base A	Pulley base A	Producction	DIN1026-1 - U 80 - 250	21
2.9	2	Pulley base B	Pulley base B	Producction	DIN1026-1 - U 80 - 255	22
2.10	4	Pulley base support	Pulley base support	Producction	DIN1026-1 - U 80 - 420	23
2.11	1	V-Belt		Buy	8-DIN 2215 Long 3355.53	

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Parts list				B1
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Parts list		
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0		4 /41

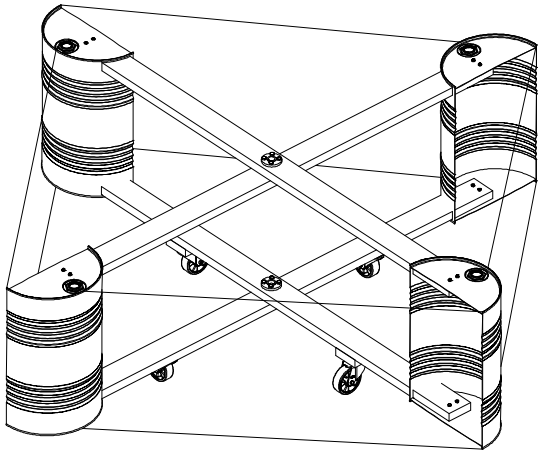
Parts list

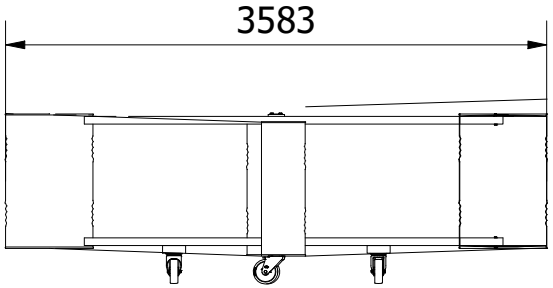
POS	QTY	PART NAME	FILE NAME	PART TYPE	SPECIFICATIONS	SHEET
2.12	2	Bearing		Buy	SKF_P2B 102-FM	
2.13	1	Axle bearing		Buy	BS 292 - SKF ALC 1 3/8	
2.14	3	Flange connections		Standard	ASME B16.5 Flange Slip-On Welding - Class 150	
2.15	1	rod	rod	Producction	OD 26.670 ASME B36.10M Pipe 3/4 - Schedule 40	24
2.16	1	Pump		Buy	Handpump	
2.17	8	Bolts flange connections		Standard	DIN 933 - M14 x 60	
2.18	8	Nuts flange connections		Standard	DIN 555-5 - M14	
2.19	4	Bolts bearing		Standard	DIN 6921 - M14 x 45	
2.20	4	Nuts bearing		Standard	DIN 555-5 - M14	
3.0	1	Structure assembly	Structure assembly			25-26
3.1	1	Floor	Floor	Production	10 x 2000 Hardwood	27
3.2	4	Tower leg	Tower leg	Production	DIN 59 410 - 100x100x4	28
3.3	8	Cross	Cross	Production	DIN 59 410 - 100x100x4	29
3.4	4	Top	Top	Production	DIN 59 410 - 100x100x5	30
3.5	4	Base	Base	Production	DIN 59 410 - 100x100x4	31
3.6	2	Base support	Base support	Production	101.6x 25.4 Hardwood	32
4.0	1	Stairs assembly	Stairs assembly			33-34
4.1	2	Stairs Leg	Stairs Leg	Production	65 x 10 ASTM A36	35
4.2	16	Stairs step	Stairs step	Production	OD 20 ASTM A36	36
4.3	2	Conn plate	Conn plate	Production	65x10 ASTM A36	37
5.0	1	Foundation assembly	Foundation assembly			38-39
5.1	1	Foundation A	Foundation A	Production	5000x500x5000 Concrete	40
5.2	1	Foundation B	Foundation B	Production	400x350x400 Concrete	41

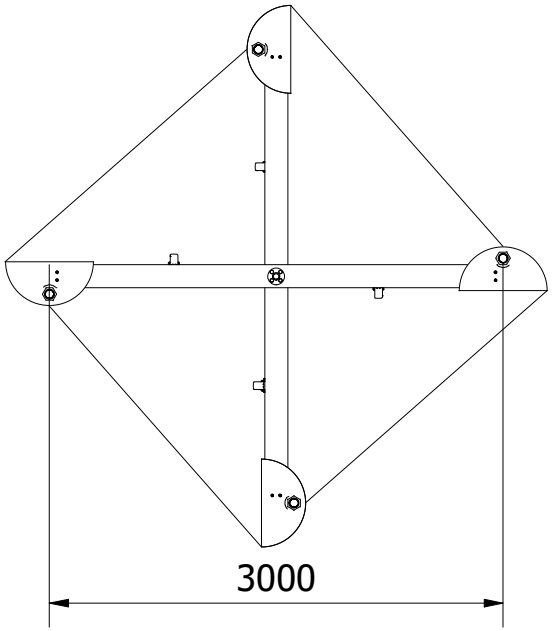
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Parts list				B2
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Parts list		
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0		5 /41

TECHNICL 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. - The foundation will be made with 1/2-inch rods.
Wood treatment	- The wood must be treated with pesticides and kiln-dried to ensure adequate humidity. - Wood sealer should be applied for later use.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Technical notes				C1
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Technical notes		
OHO e.V.		LICENCE CC-BY-SA 4.0	SCALE	SHEET 6 /41

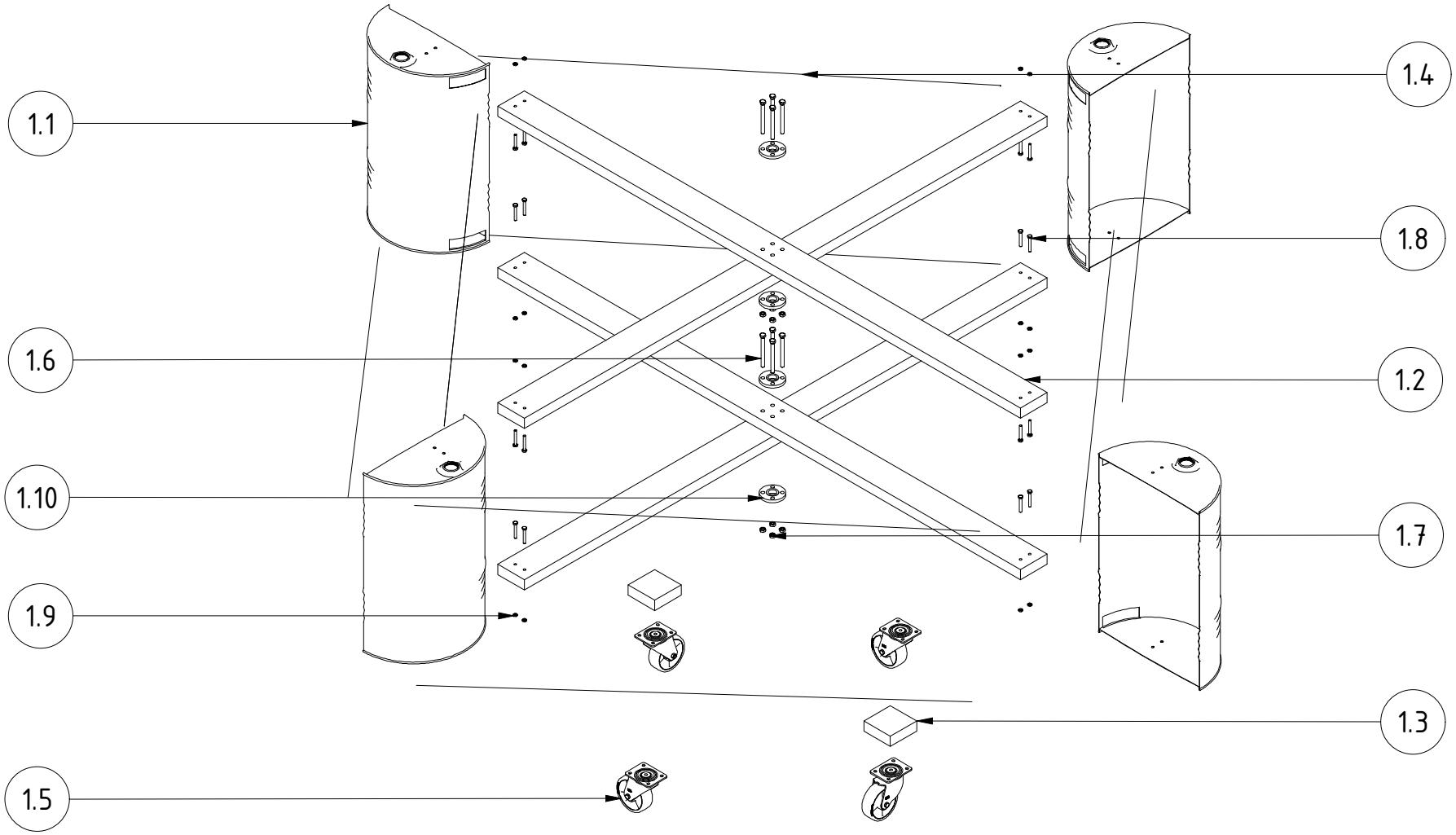




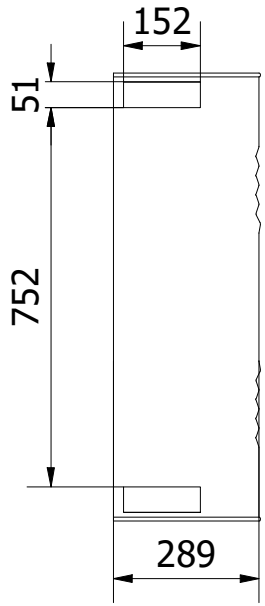


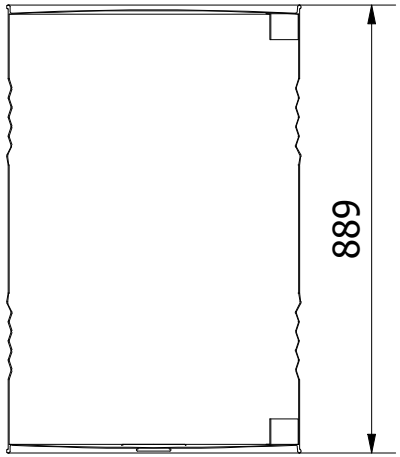
Note: All units in mm.

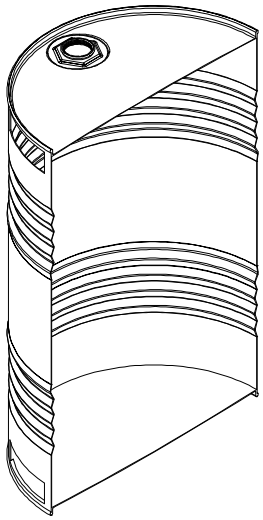
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Sails top assembly	Sails top assembly.iam			1.0
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/50	7 /41

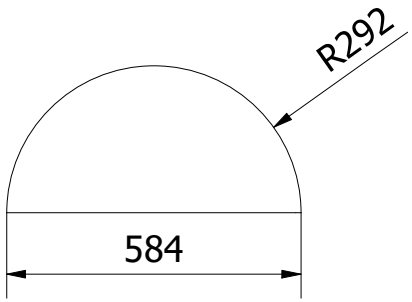


PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Sails top assembly	Sails top assembly.ipn			1.0
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/25	8 /41



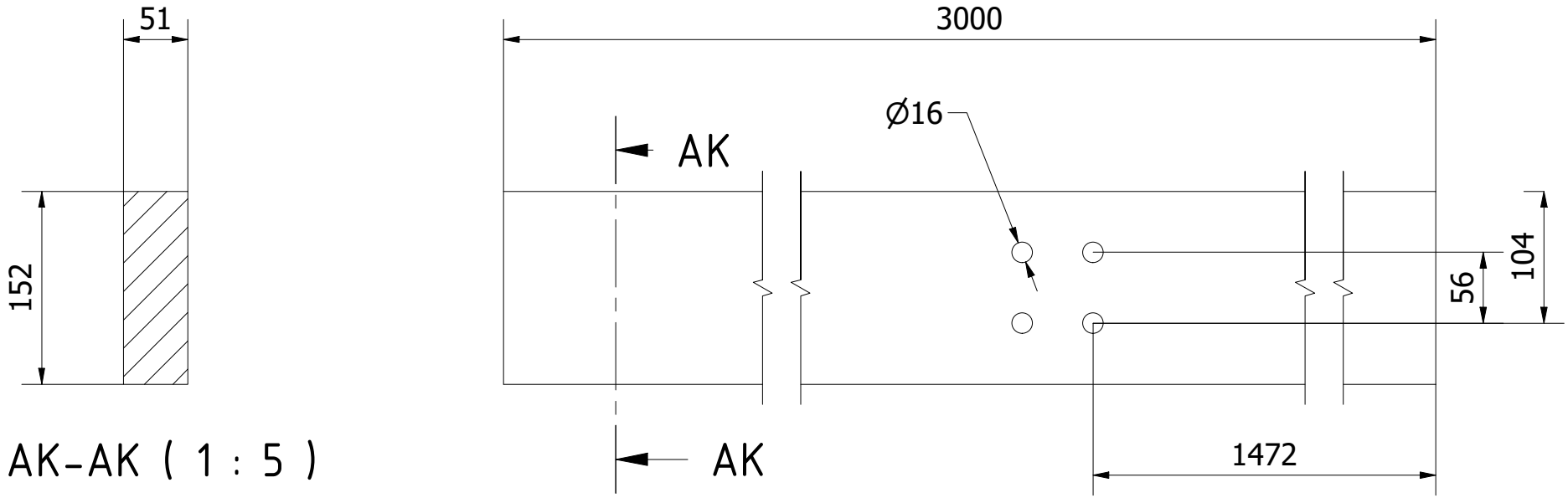






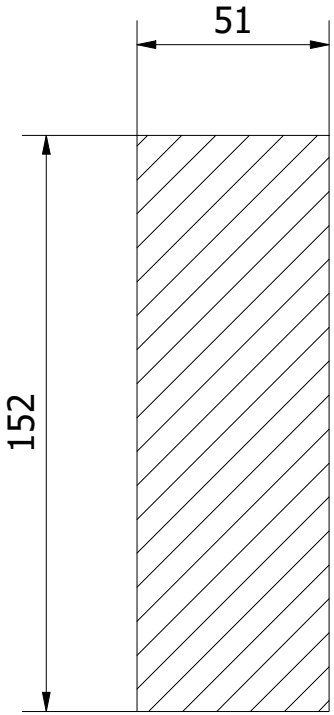
Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Drum	Drum.ipt			1.1
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	Steel drum 55 gallon		4
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/15	9 /41



Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Sails support	Sails support.ipt			1.2
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	Hardwood		2
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/5	10 /41



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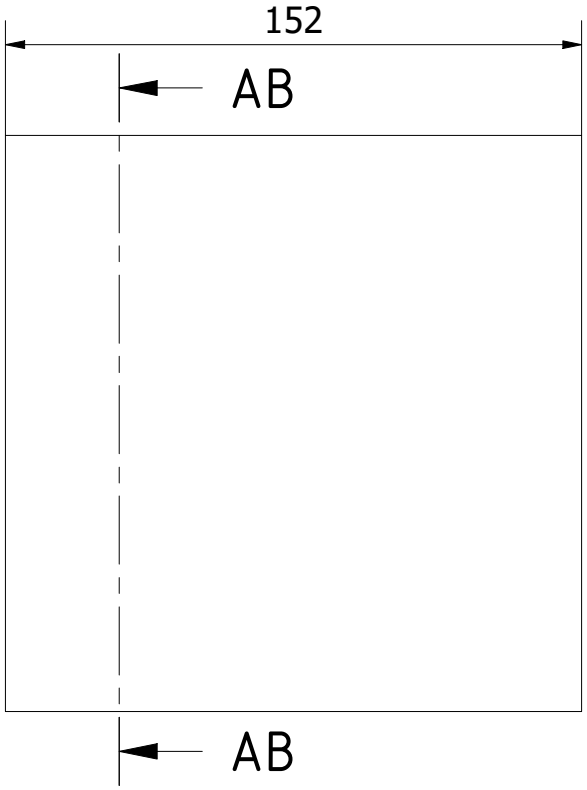
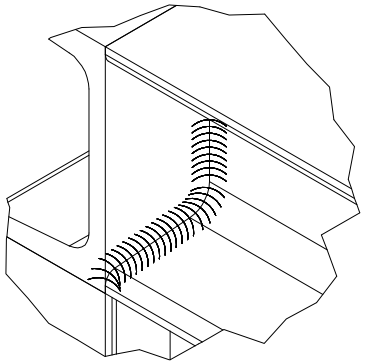


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Wheel support	Wheel support.ipt			1.3
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Part	Hardwood	2
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/2	11 /41



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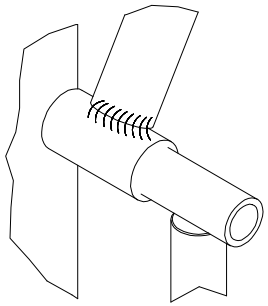

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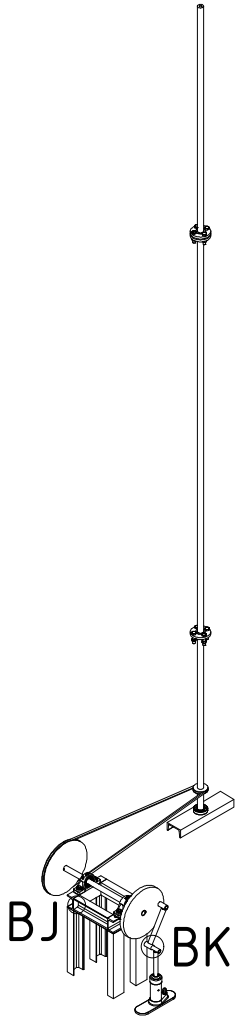
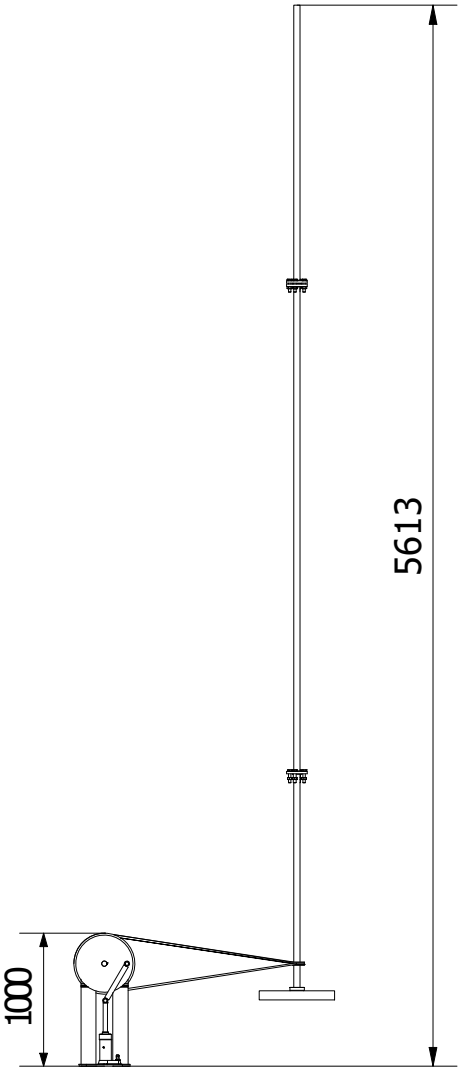
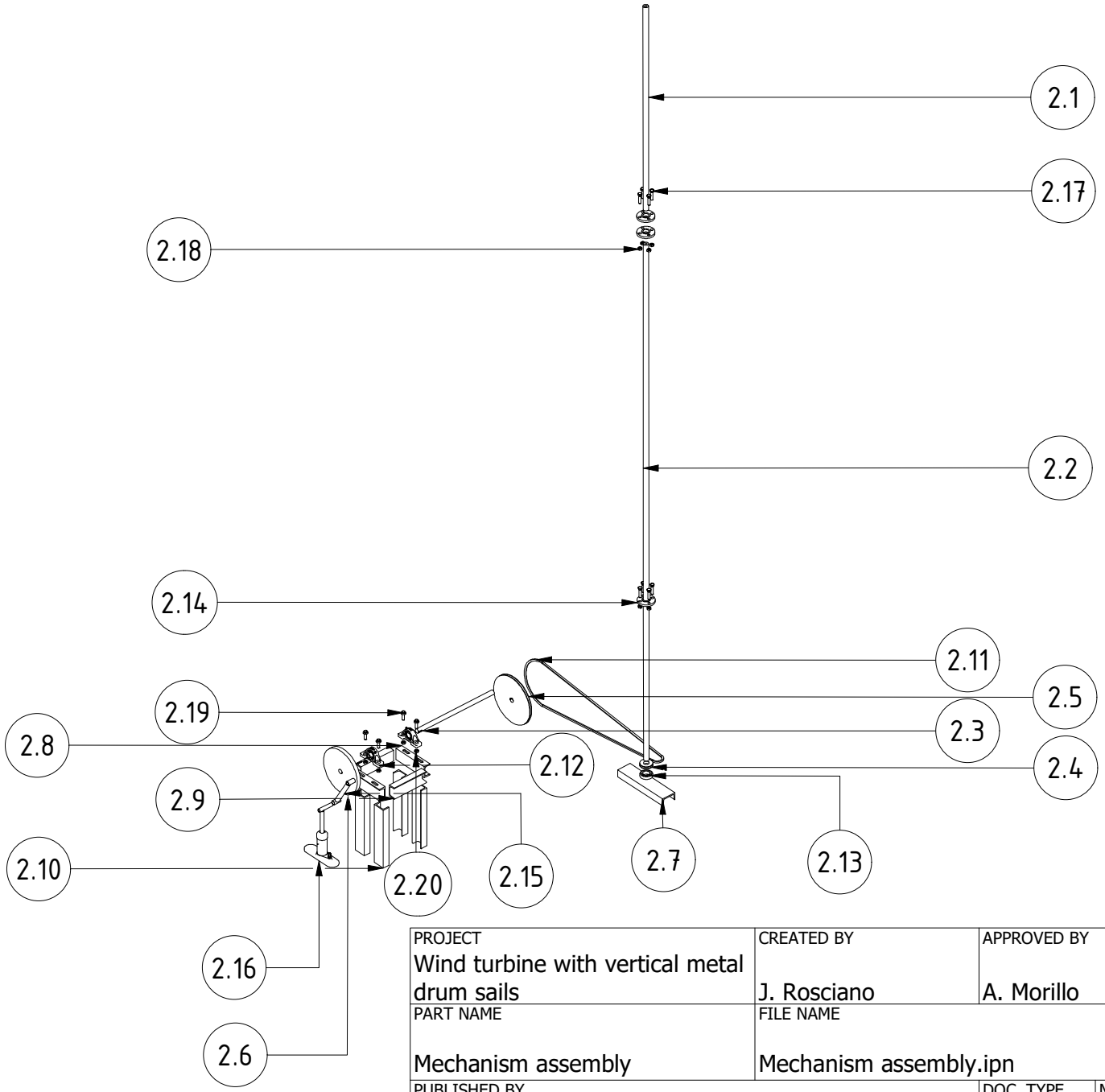


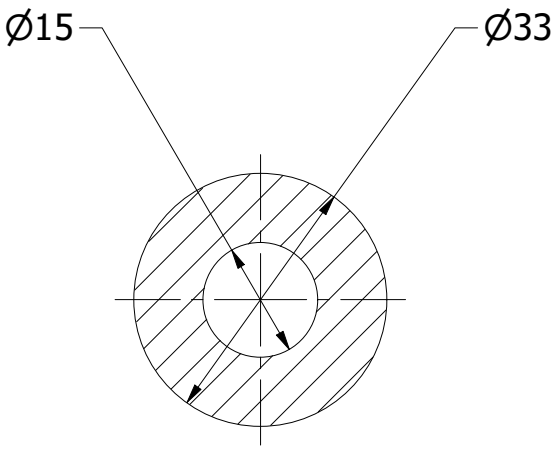


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Mechanism assembly	Mechanism assembly.iam			2.0
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/45	12 /41



PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Mechanism assembly	Mechanism assembly.ipn			2.0
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/36	13 /41



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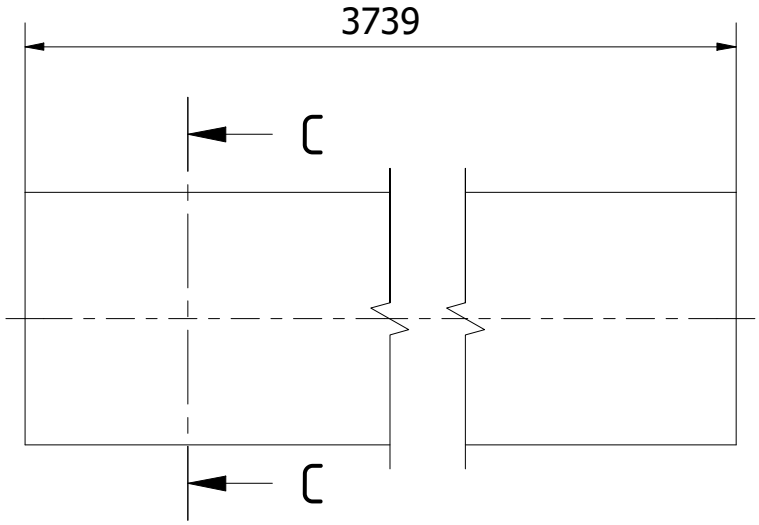
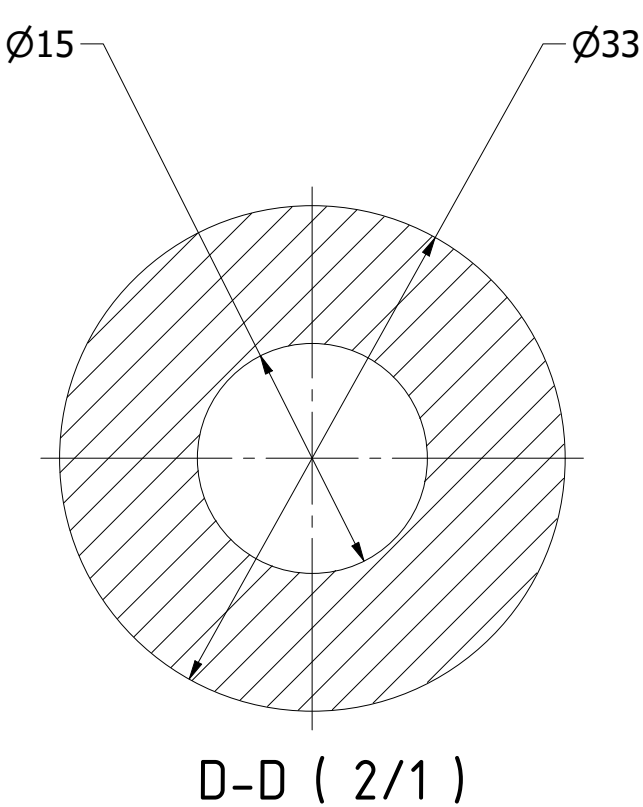
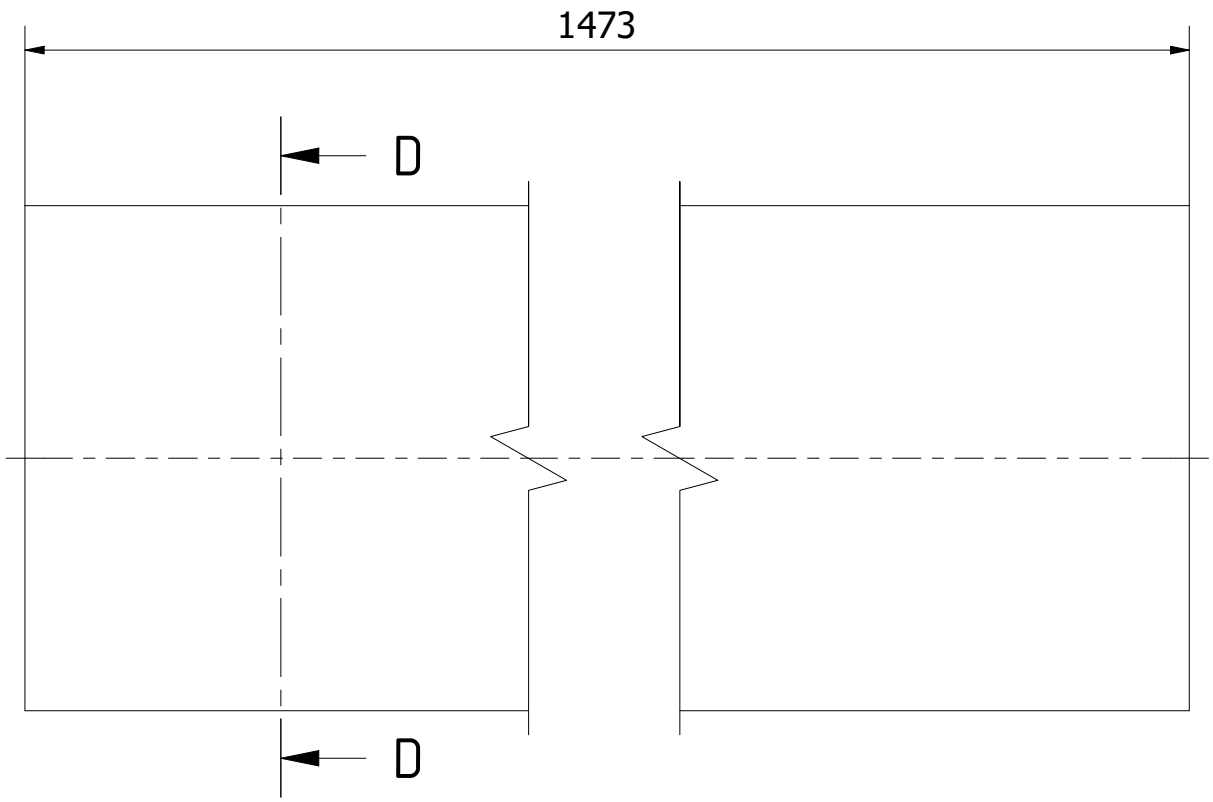


Note: All units in mm.

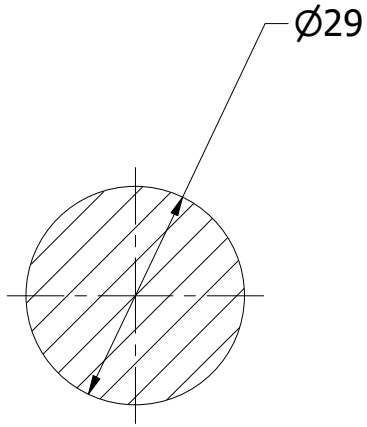
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Axle A	Axle A.ipt			2.1
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	DIN C45		1
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/1	14 /41





Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Axle B	Axle B.ipt			2.2
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	DIN C45		1
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		2/1	15 /41



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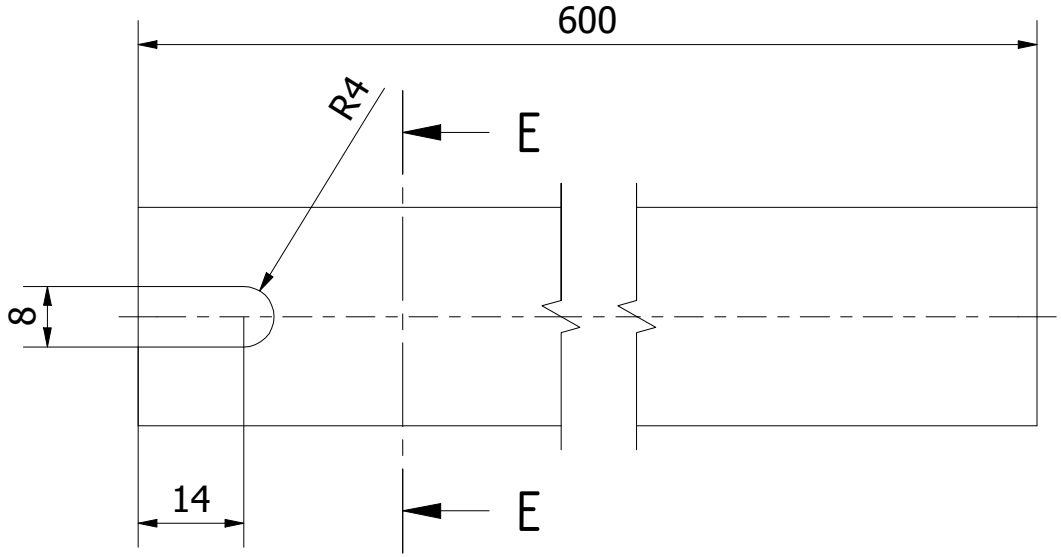
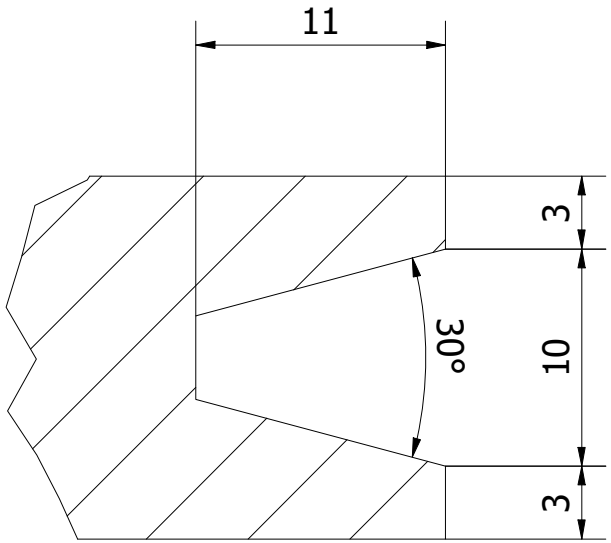


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Pulley axle	Pulley axle.ipt			2.3
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	DIN C45		1
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/1	16 /41



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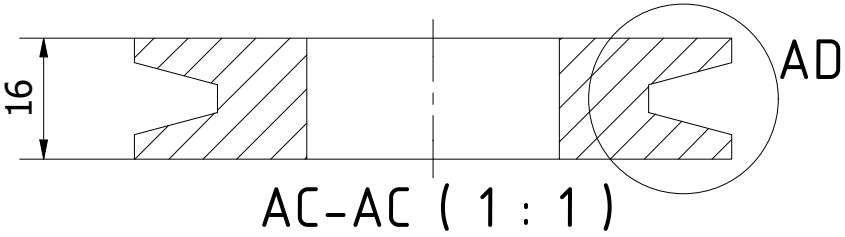

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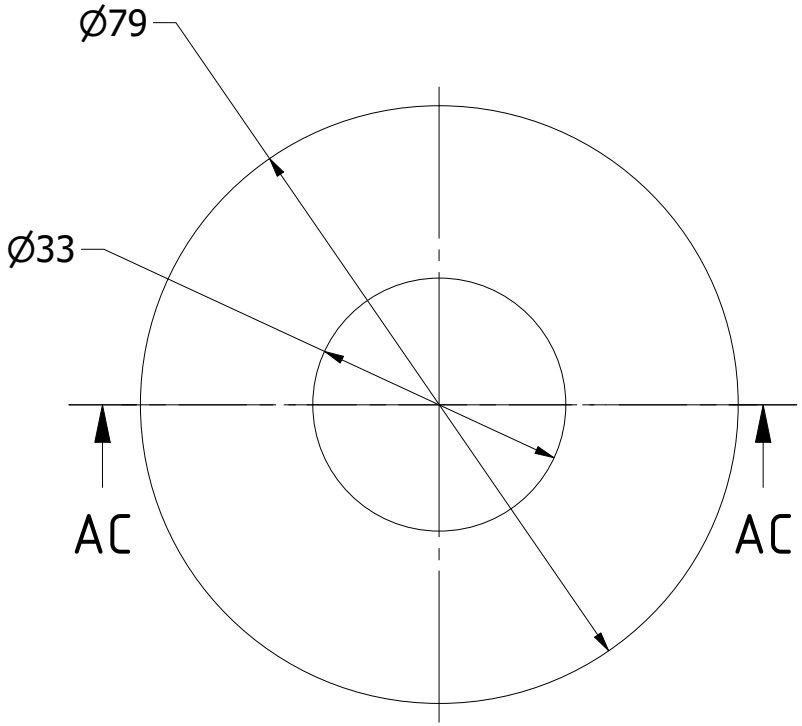
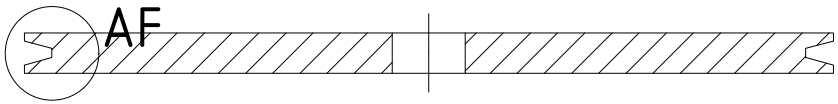
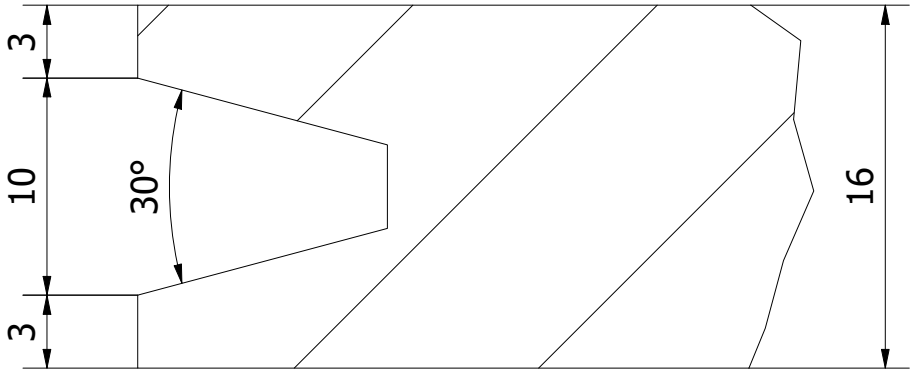


Note: All units in mm.

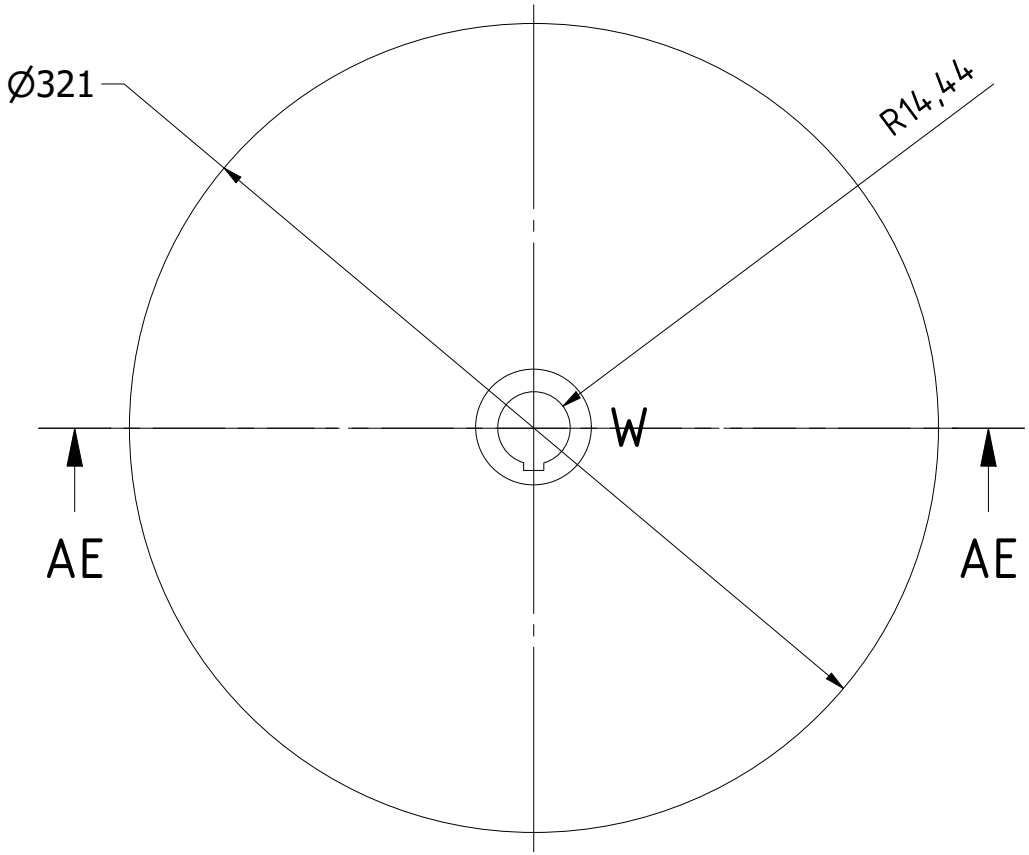
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Small pulley	Small pulley.ipt			2.4
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Part	DIN C45	1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/1	17 /41

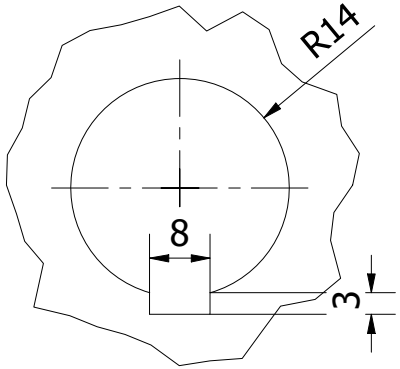


AE-AE (1 : 3)



AF (3/1)

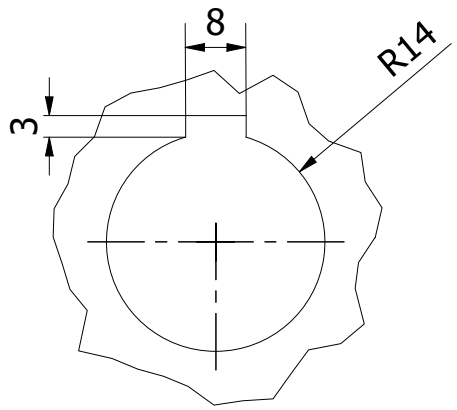




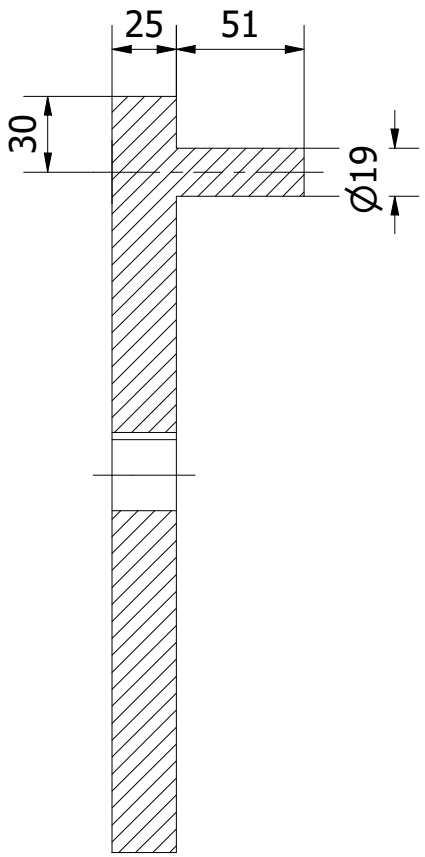
W (1/1)

Note: All units in mm.

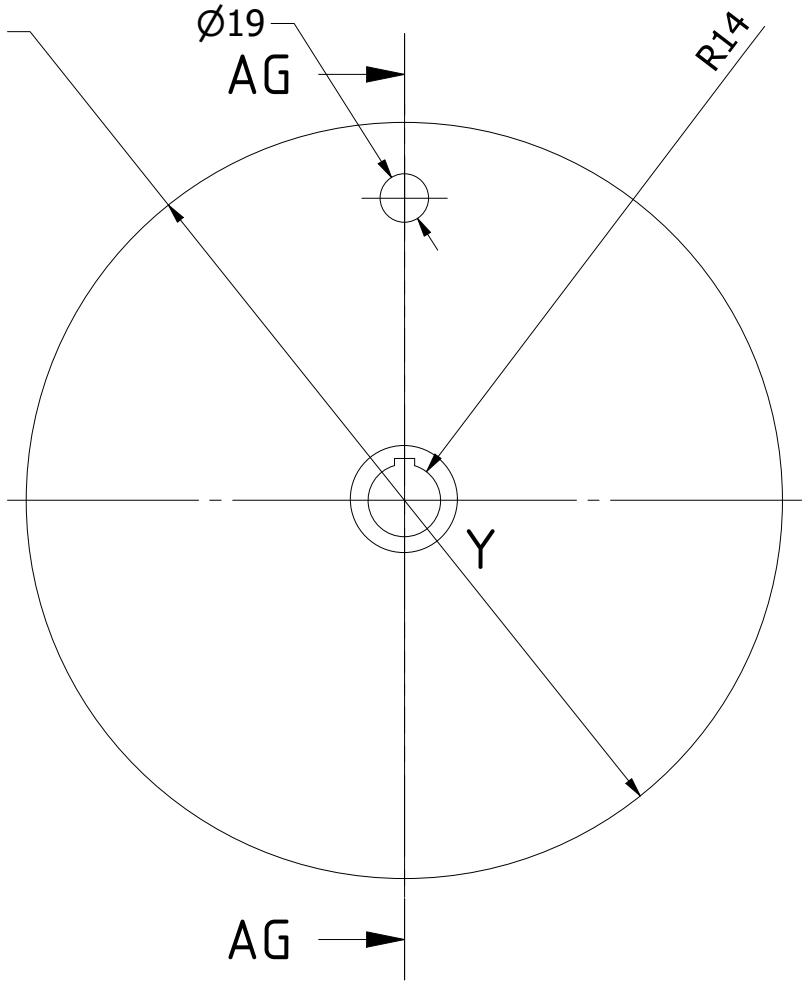
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Large pulley	Large pulley.ipt			2.5
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Part	DIN C45	1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/3	18 /41

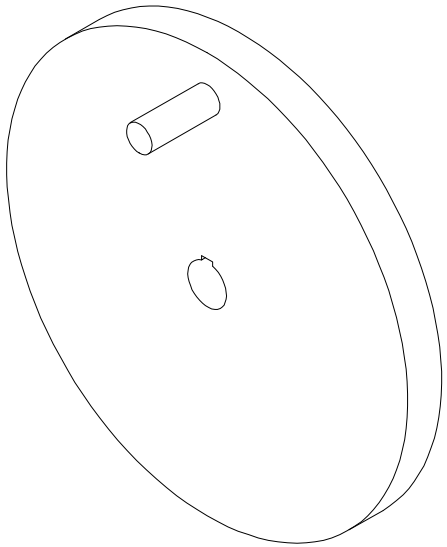


Y (1/1)



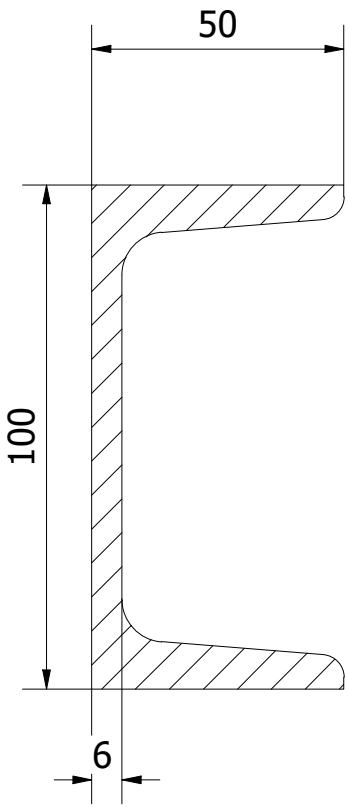
AG-AG (1 : 3)



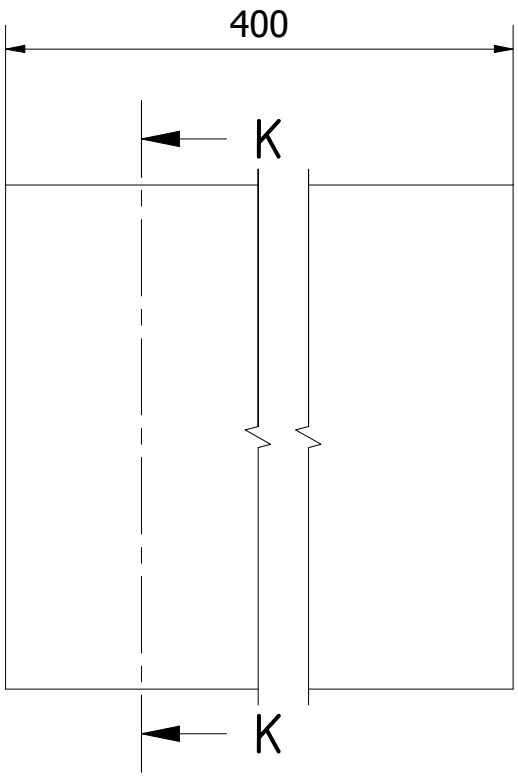


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Pump stroke	Pump stroke.ipt			2.6
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	DIN C45		1
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/3	19 /41

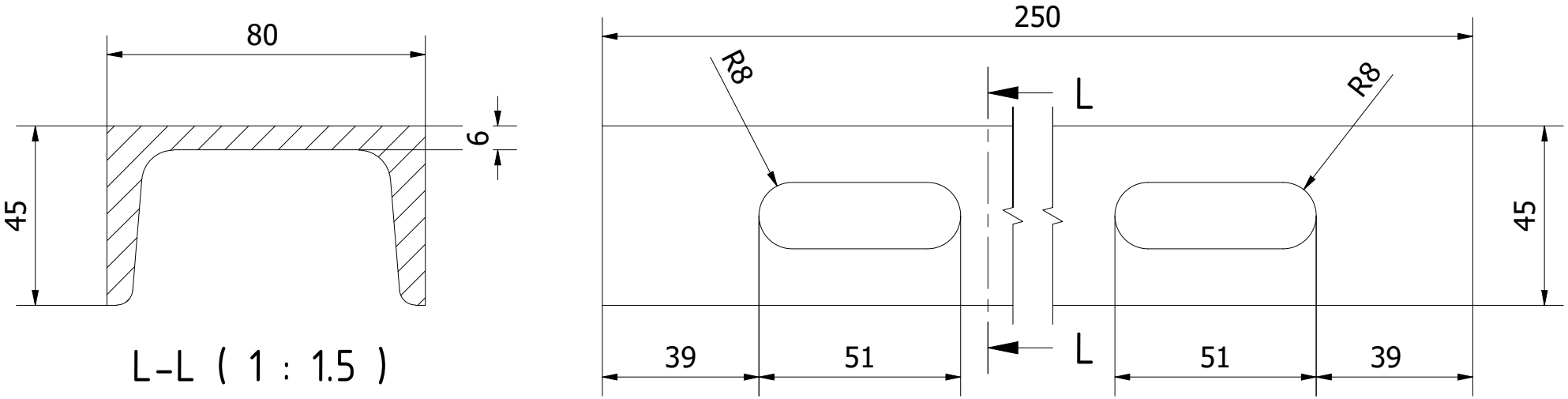


K-K (1 : 1.5)



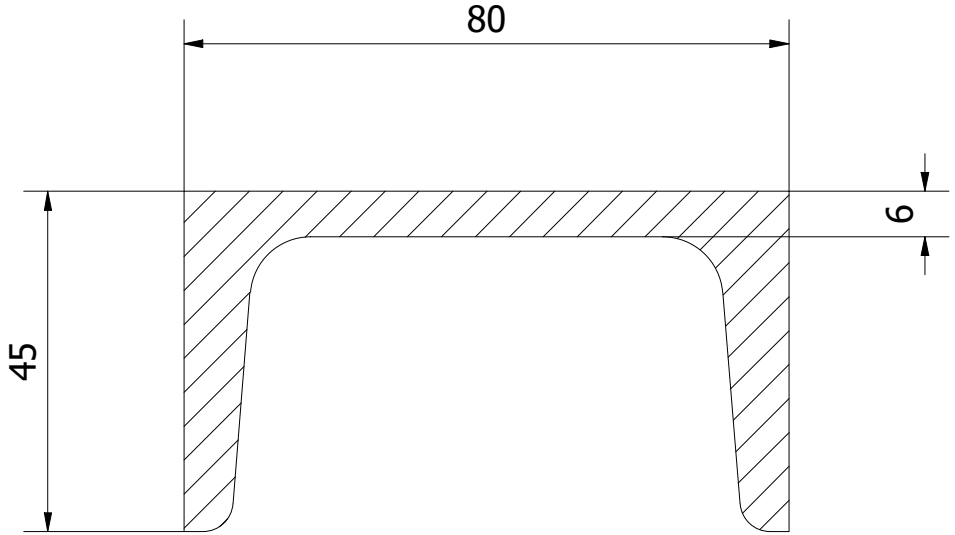
Note: All unist in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Bearing support	Bearing support.ipt			2.7
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Part	ASTM A36	1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/1.5	20 /41

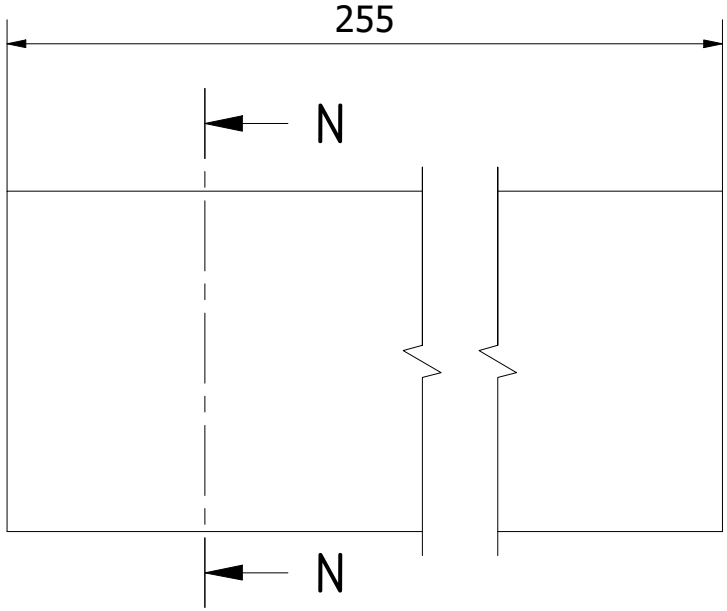


Note: All units in mm

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Pulley Base A	Pulley Base A			2.8
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	ASTM A36		2
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/1.5	21 /41

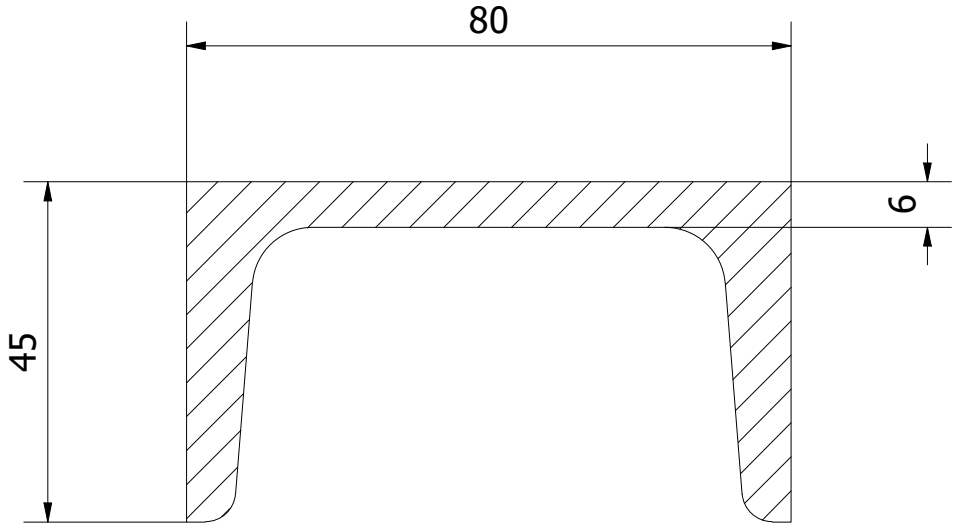


N-N (1 : 1)

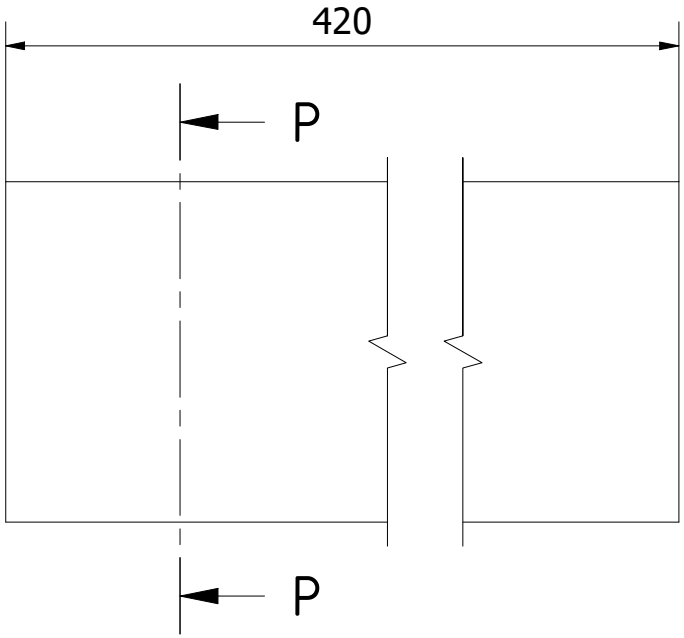


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Pulley base B	Pulley base B.ipt			2.9
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Part	ASTM A36	2
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/1	22 /41

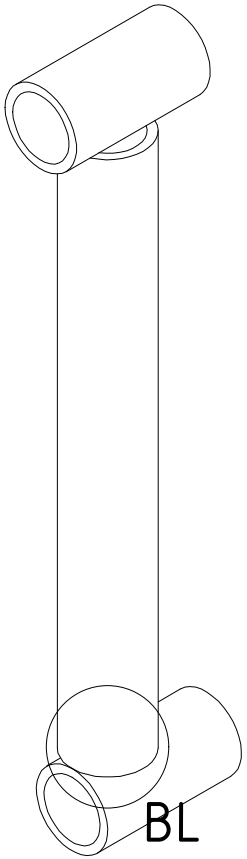


P-P (1 : 1)

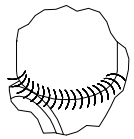


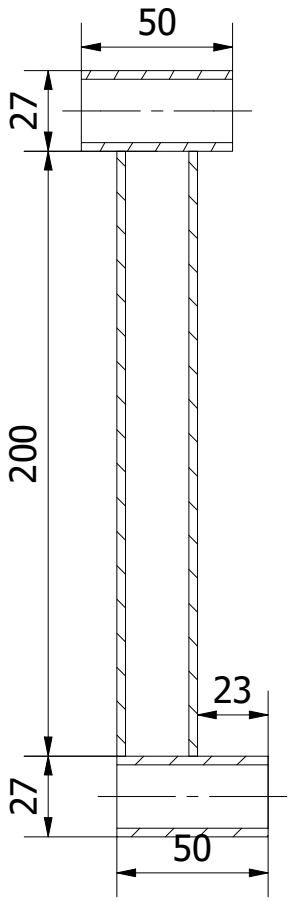
Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Pulley base support	Pulley base support.ipt			2.10
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	ASTM A36		4
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/1	23 /41

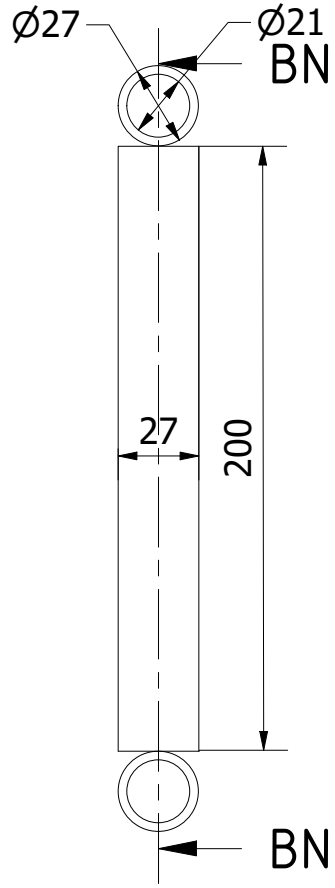


BL (1 : 2)



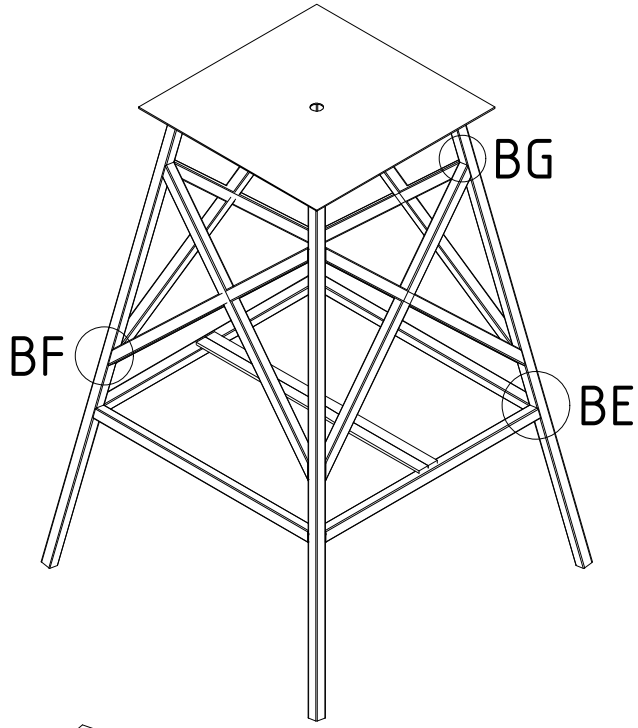


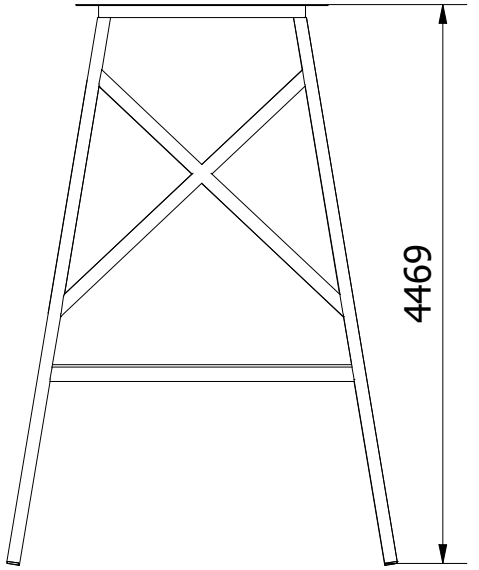
BN-BN (1 : 2.5)

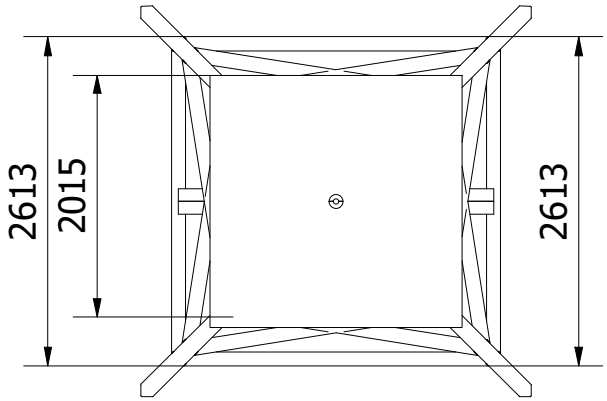


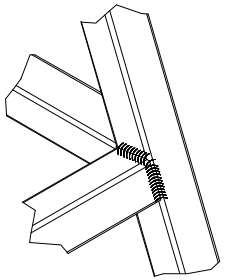
Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Rod	Rod.ipt			2.15
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	ASTM A 36		1
OHO e.V.	LICENCE		SCALE	SHEET
	CC-BY-SA 4.0		1/2.5	24 /41

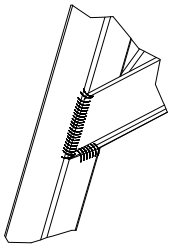




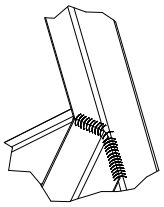




BE (1 : 15)



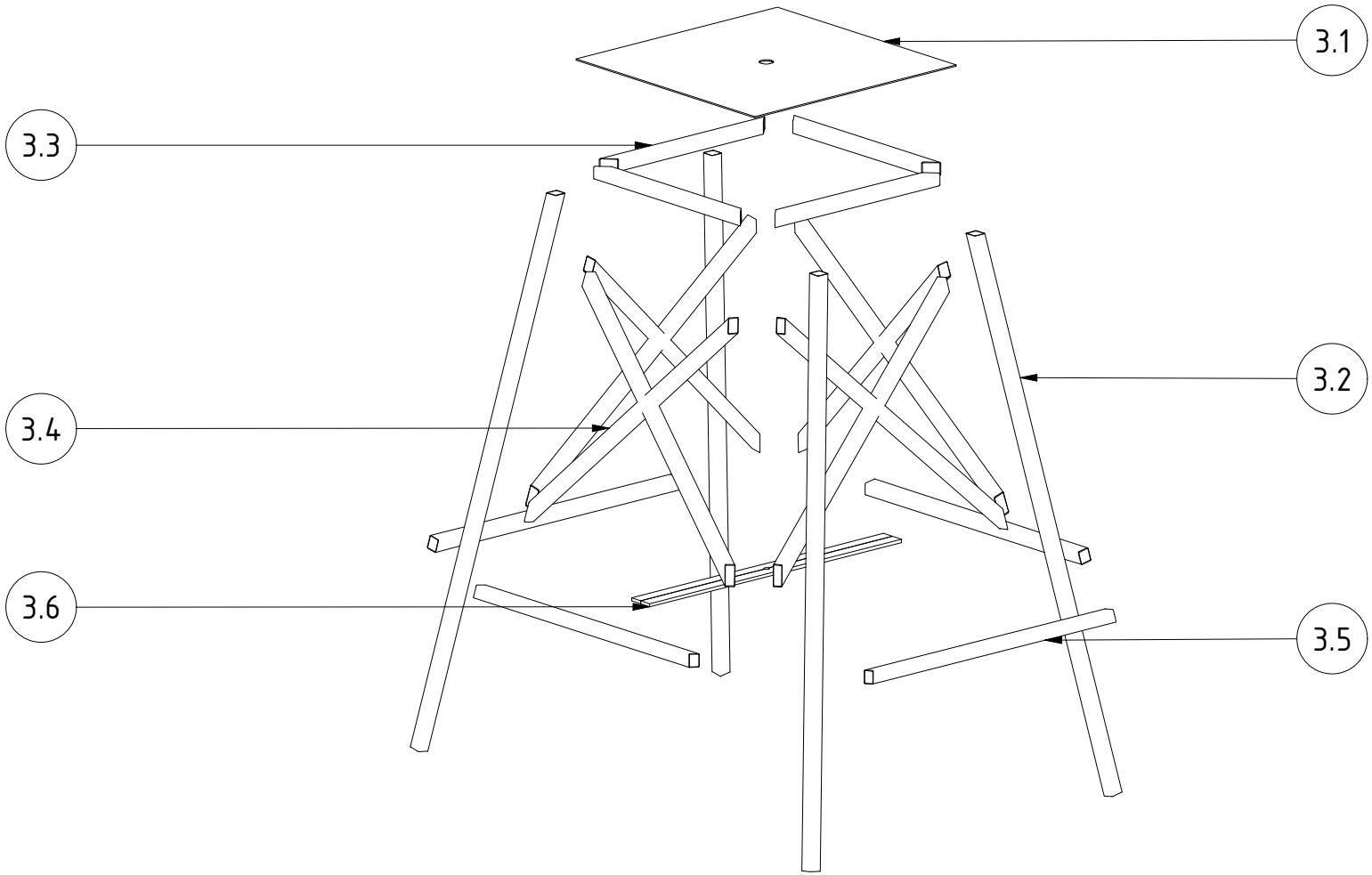
BF (1/15)



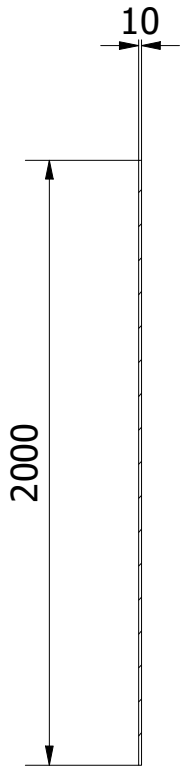
BG (1/15)

Note: All units in mm.

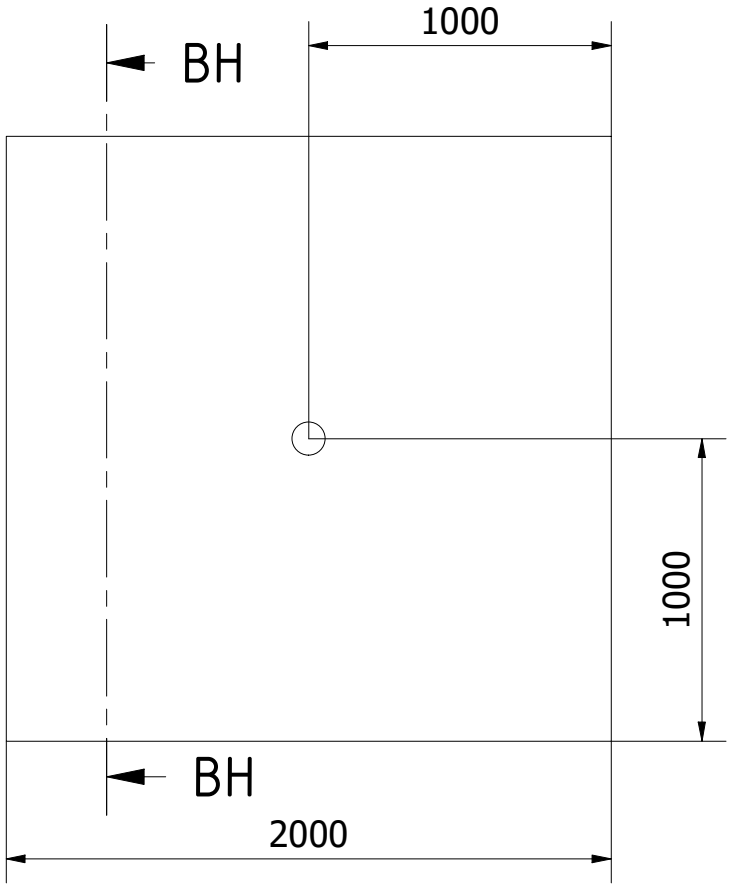
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Structure assembly	Structure assembly.iam			3.0
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/60	25 /41



PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Structure assembly	Structure assembly.ipn			3.0
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/40	26 /41

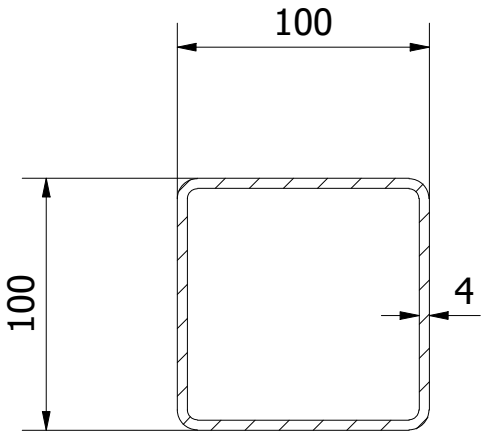


BH-BH (1 :25)

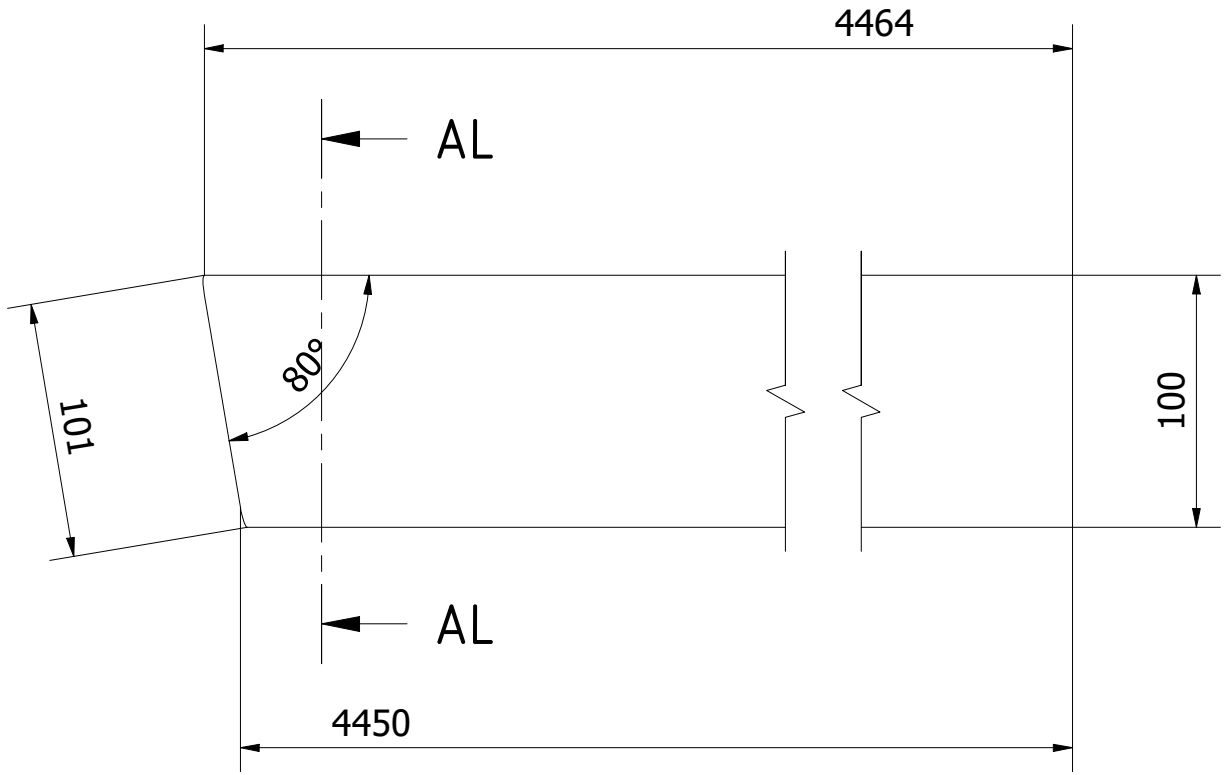


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Floor	Floor.iam			3.1
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	Hardwood		1
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/25	27 /41

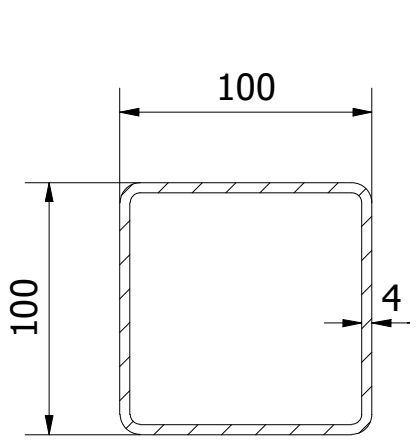


AL-AL (1 : 3)

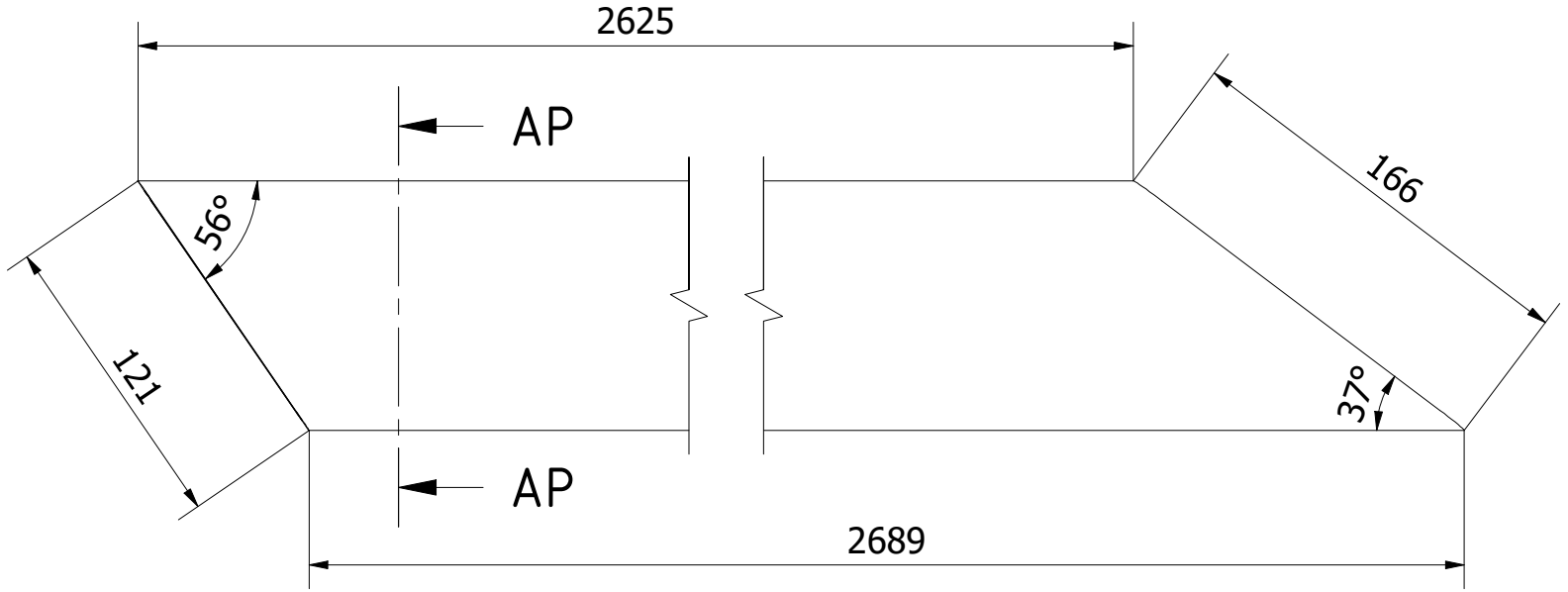


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Tower leg	Tower leg.ipt			3.2
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Part	ASTM A36	4
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/3	28 /41

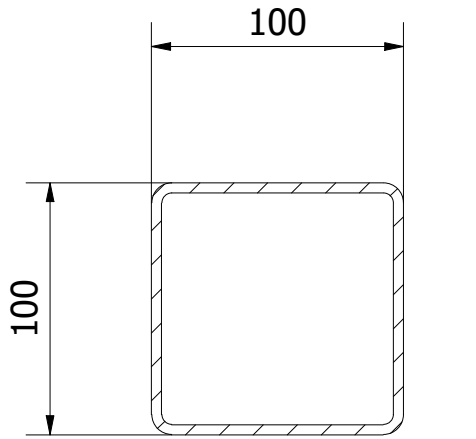


AP-AP (1 : 3)

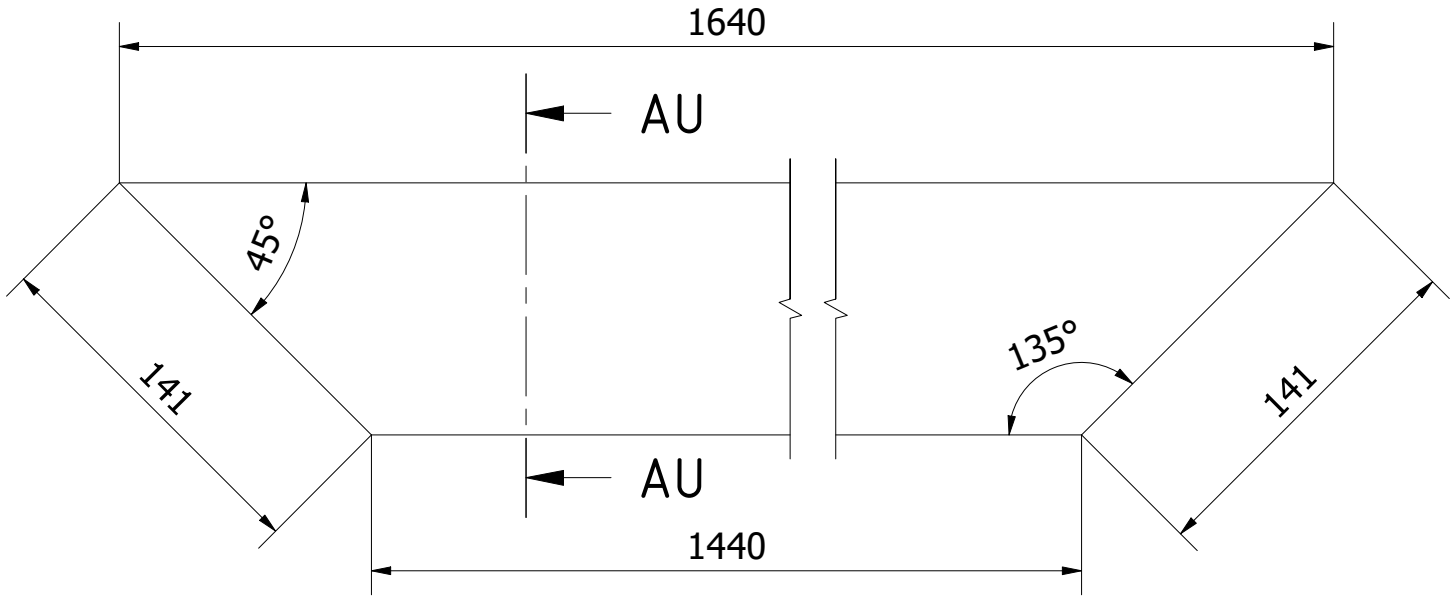


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Cross	Cross.ipt			3.3
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	ASTM A36		8
LICENCE			SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/3	29 /41

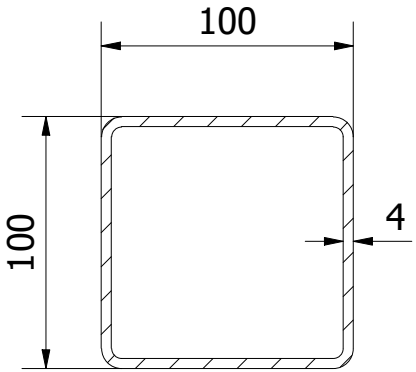


AU-AU (1 : 3)

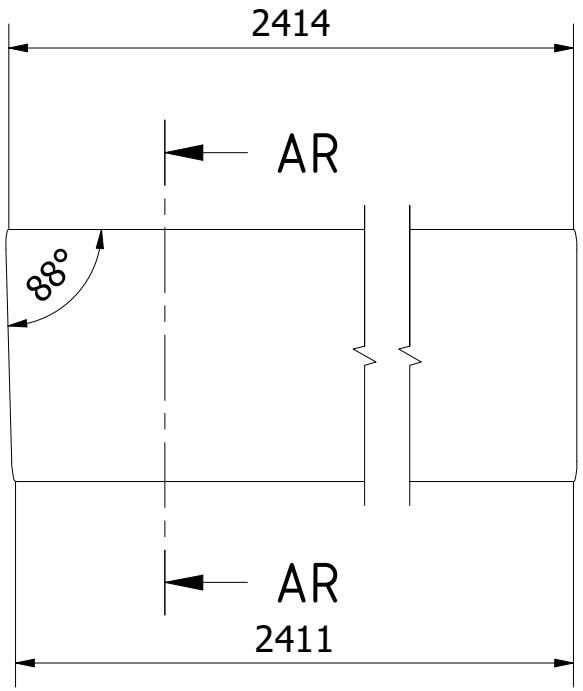


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Top	Top.ipt			3.4
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	ASTM A36		4
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/3	30 /41

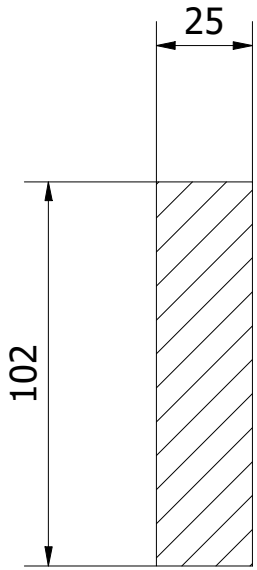


AR-AR (1 : 3)

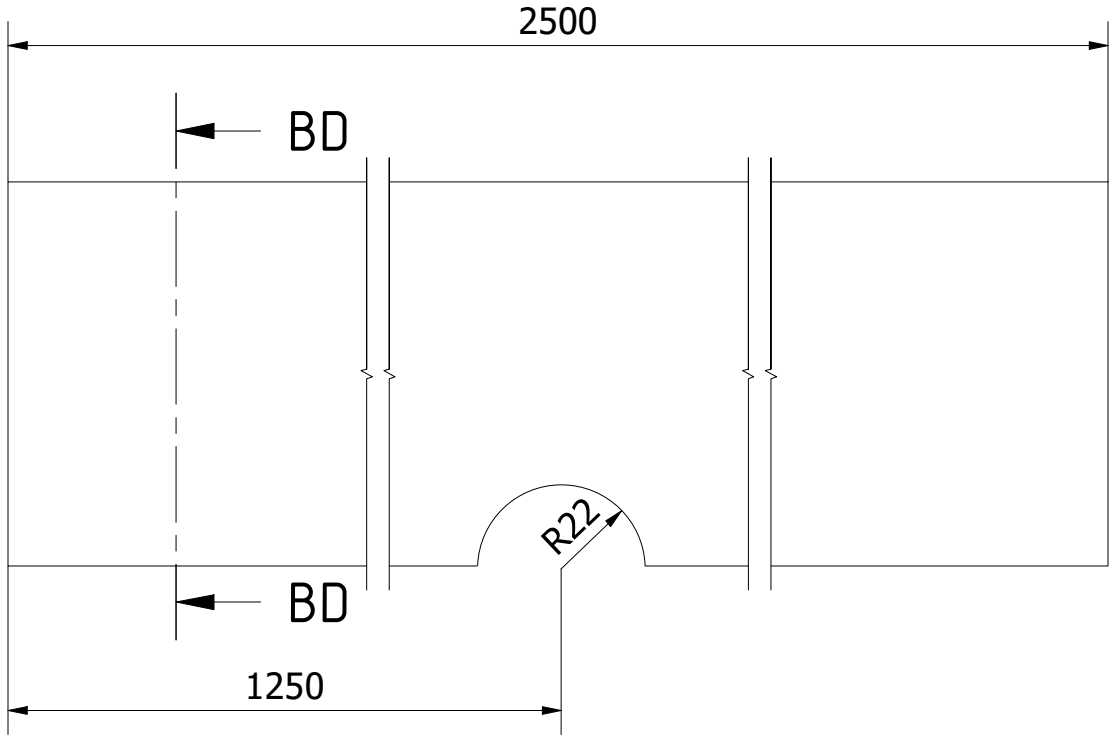


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Base	Base.ipt			3.5
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	ASTM A36		4
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/3	31 /41

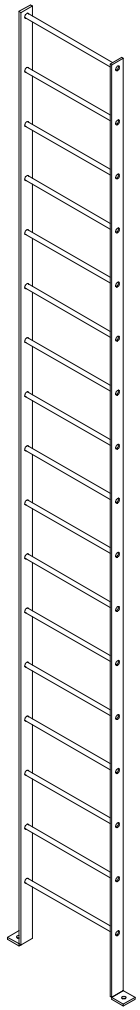


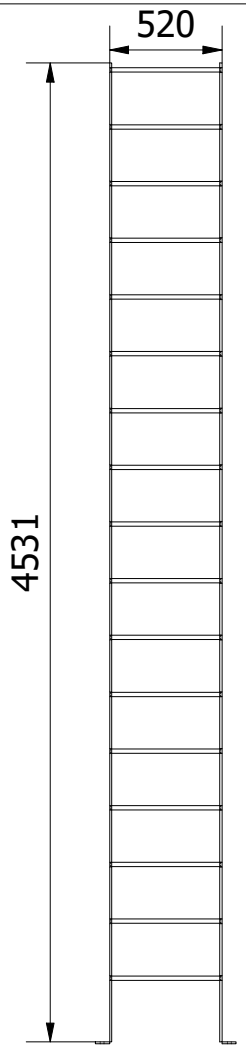
BD-BD (1 : 2)

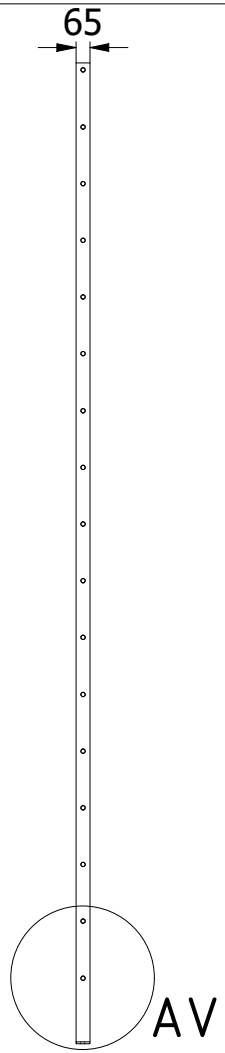


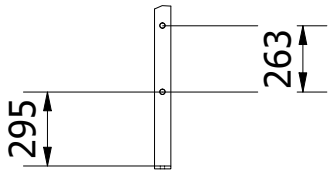
NOTE: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Base support	Base support.ipt			3.6
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Part	Hardwood	2
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/1	32 /41





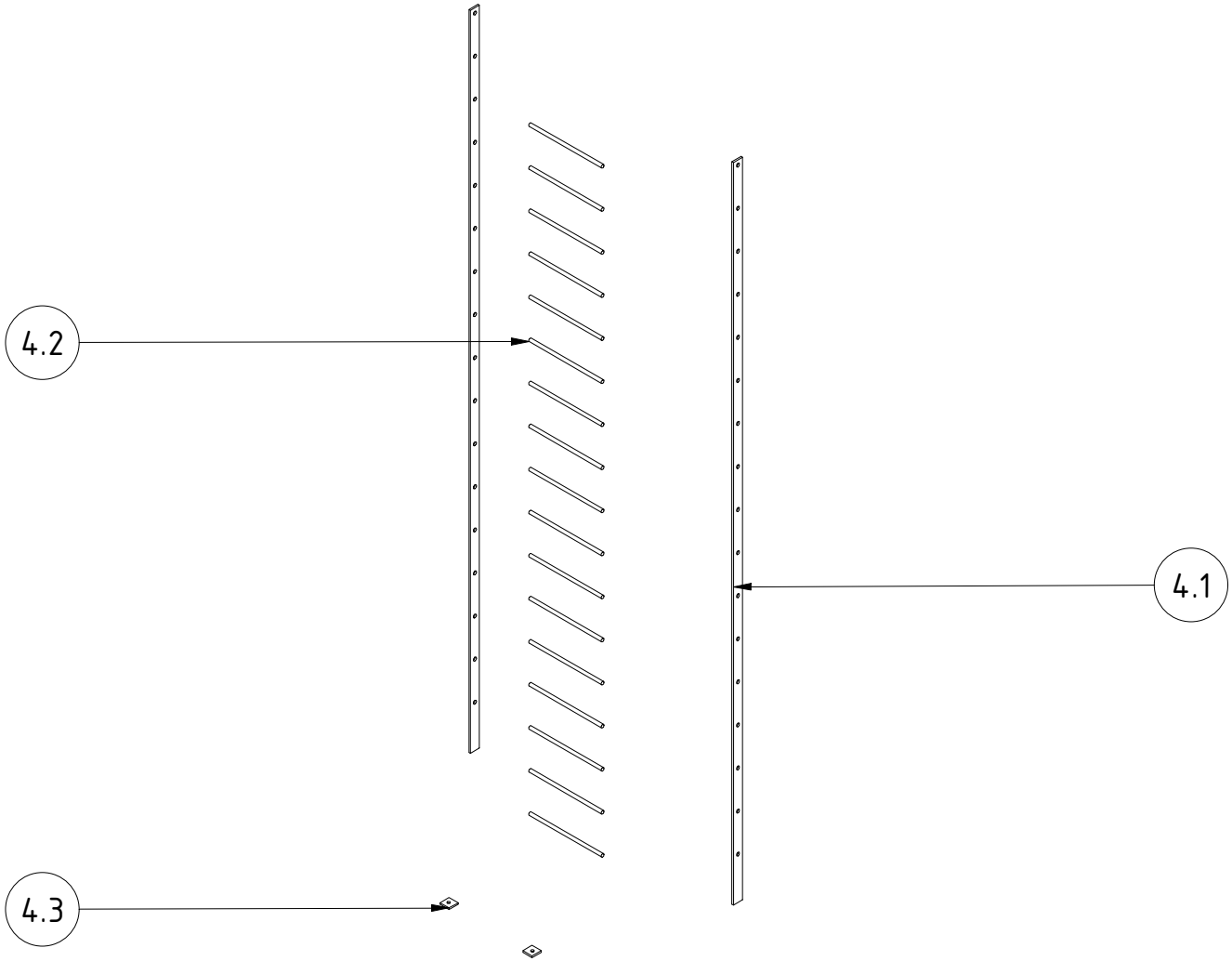




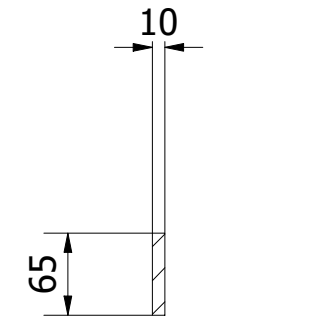
AV (1 : 30)

NOTE: All units in mm.

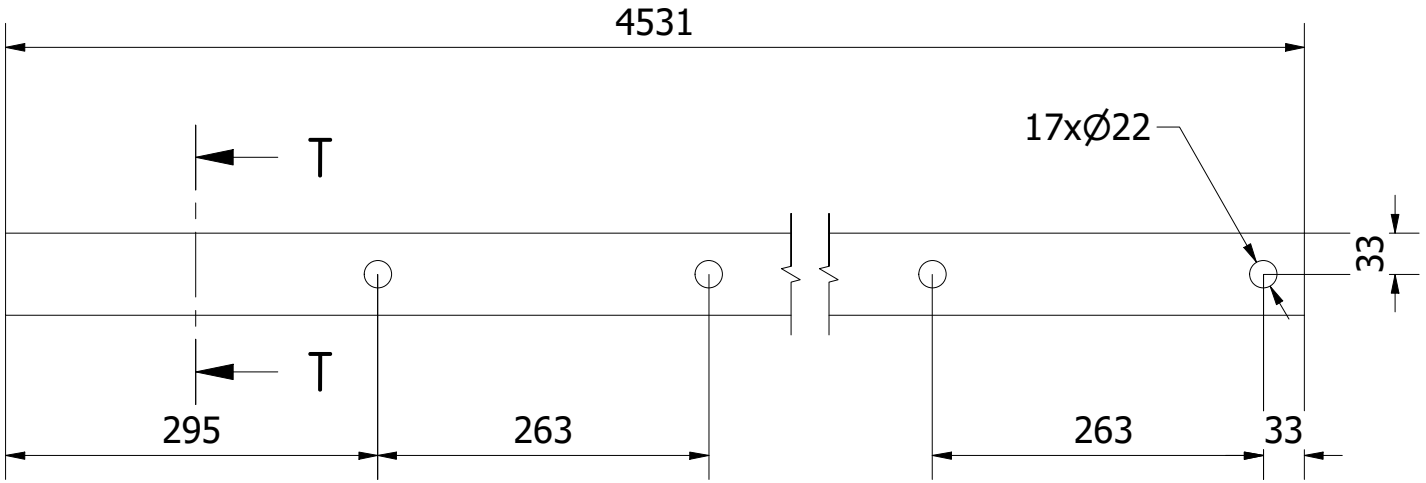
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Stairs assembly	Stairs assembly.iam			4.0
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/35	33 /41



PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Stairs assembly	Stairs assembly.ipn			4.0
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/35	34 /41

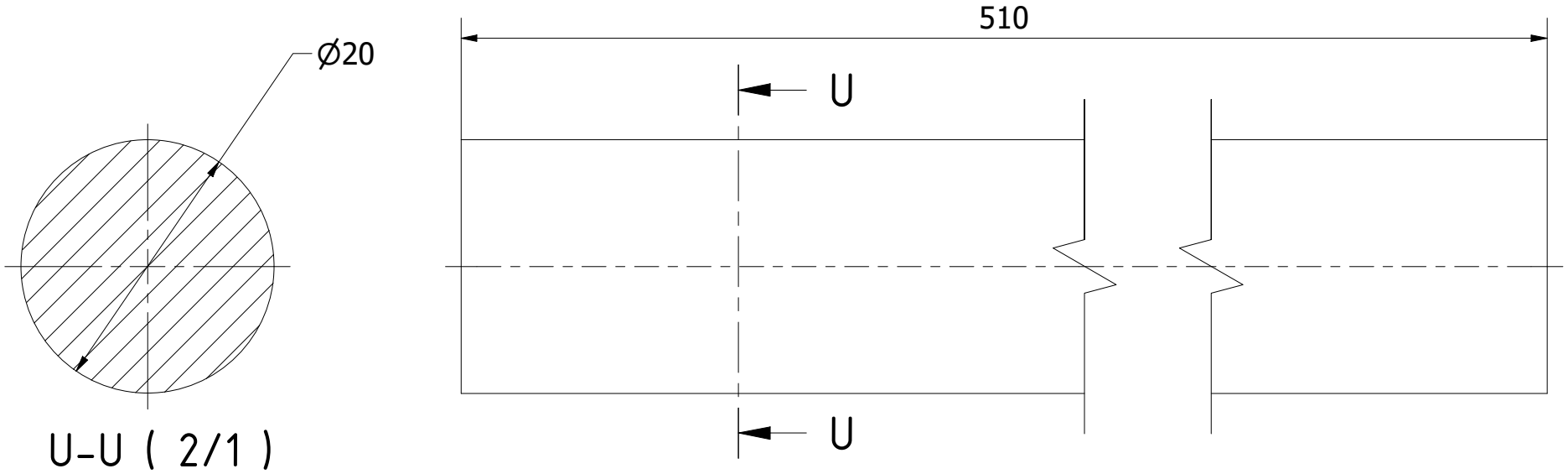


T-T (1 : 6)



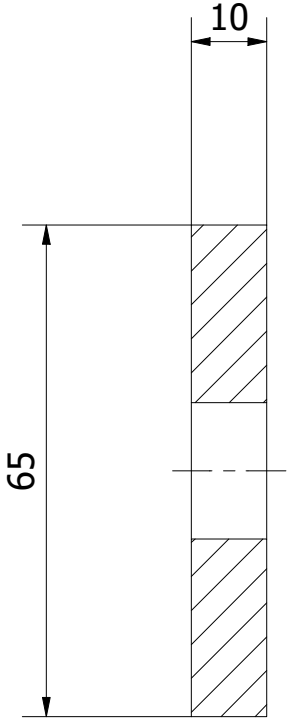
Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Stairs Leg	Stairs Leg.ipt			4.1
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Part	ASTM A36	2
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/6	35 /41

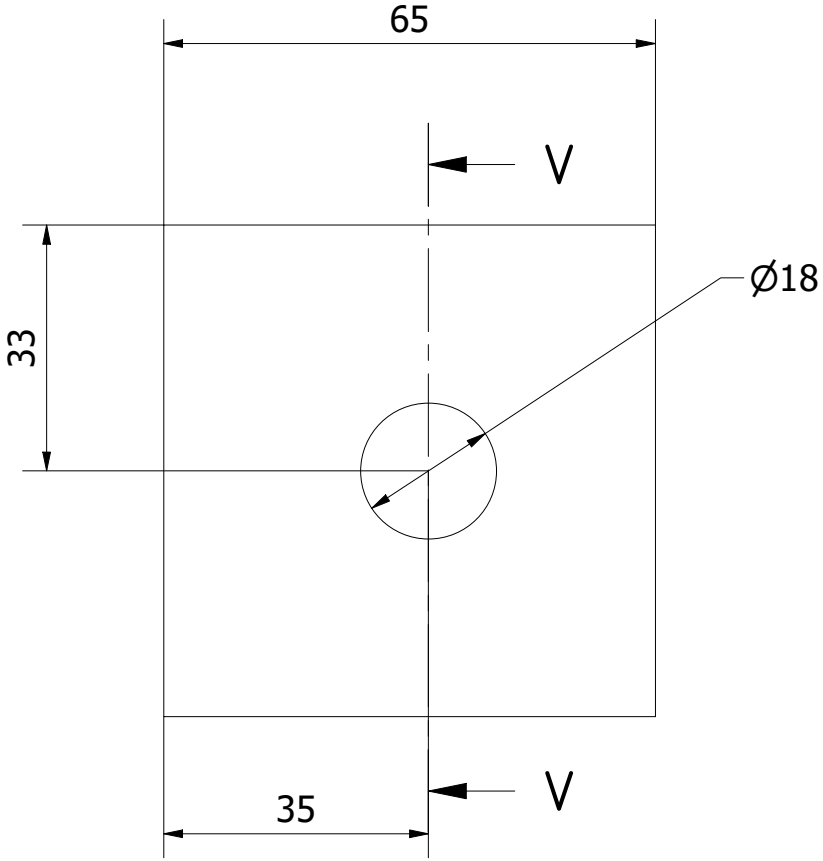


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Stairs step	Stairs step.ipt			4.2
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	ASTM A36		16
LICENCE			SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		2/1	36 /41

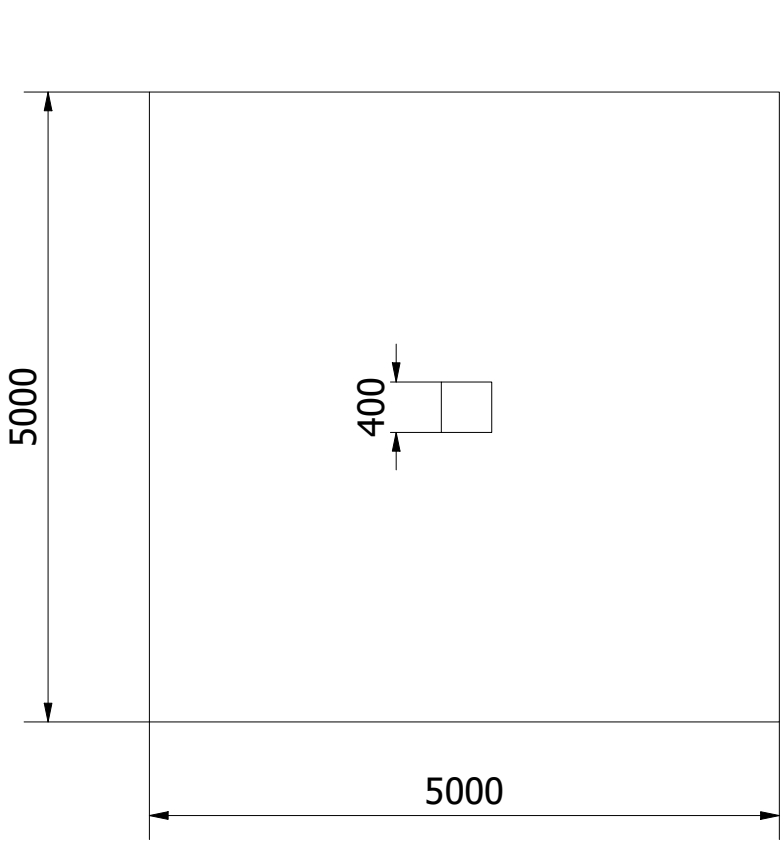


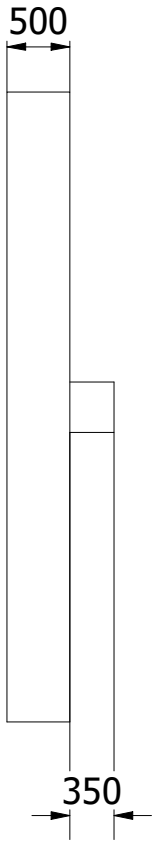
V-V (1 : 1)



Note: All units in mm.

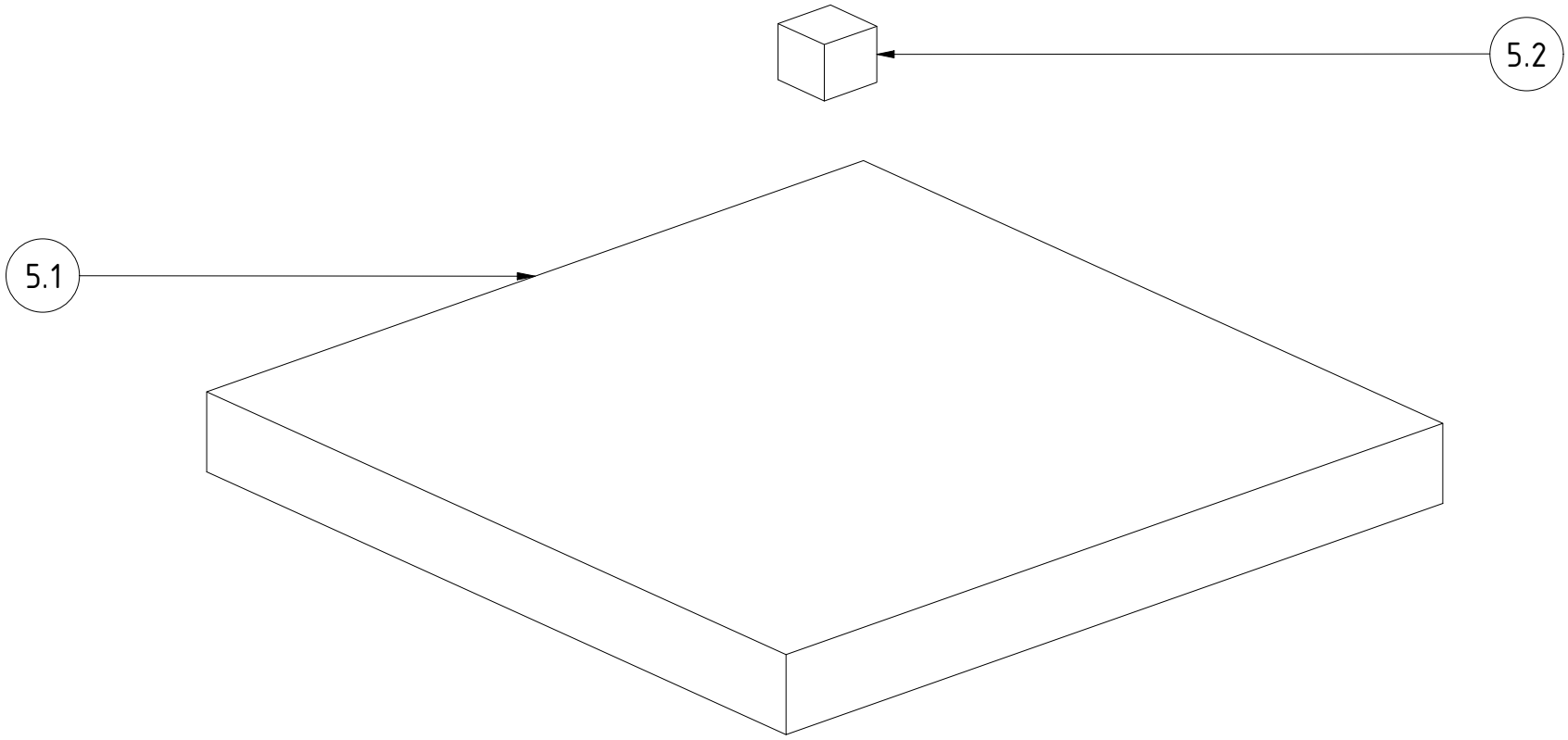
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Conn plate	Conn plate.ipt			4.3
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Part	ASTM A36	2
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/1	37 /41



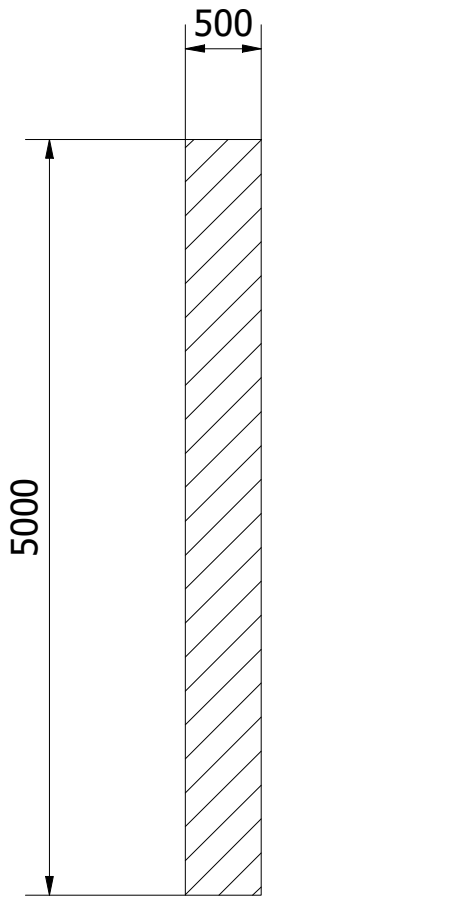


Note: All units in mm.

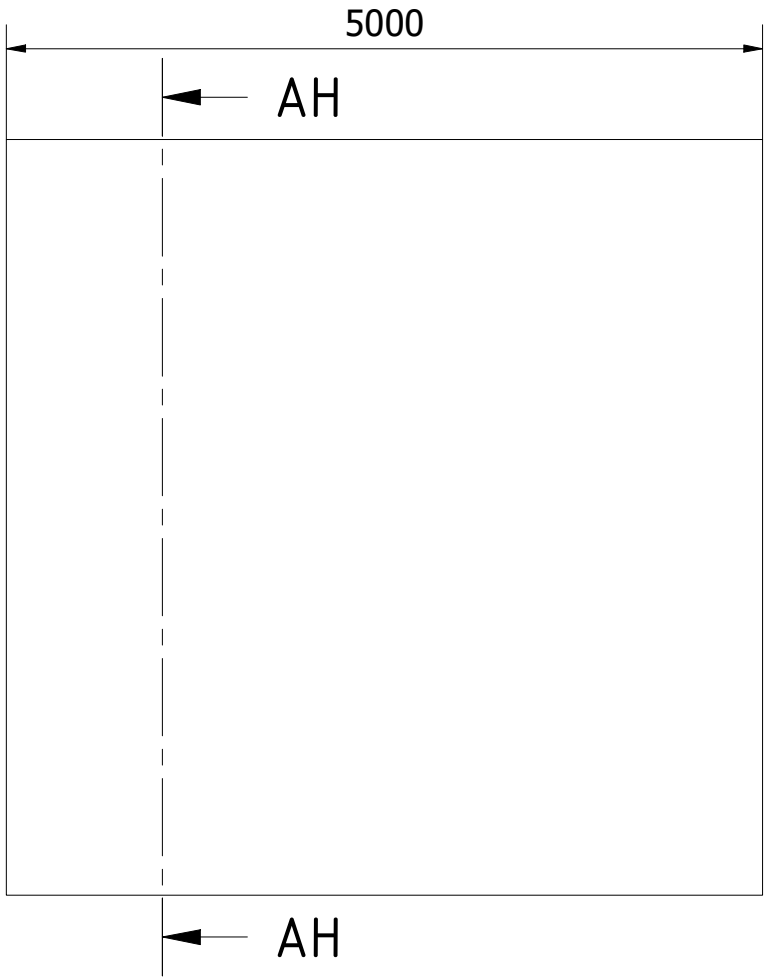
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Foundation assembly.iam	Foundation assembly			5.0
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/60	38 /41



PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Fundation assembly	Fundation assembly.ipn			5.0
PUBLISHED BY		DOC. TYPE	MATERIAL	QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development		Assembly		1
		LICENCE	SCALE	SHEET
OHO e.V.		CC-BY-SA 4.0	1/40	39 /41

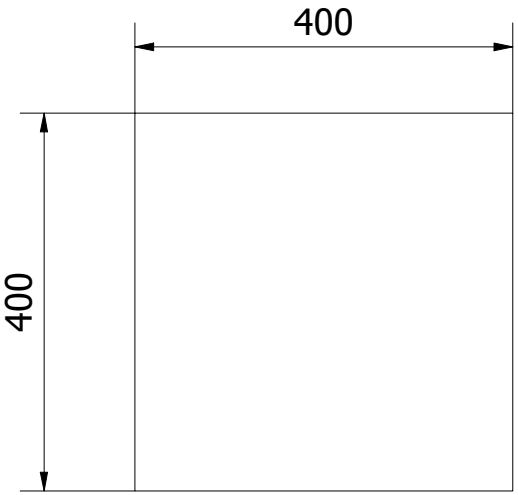


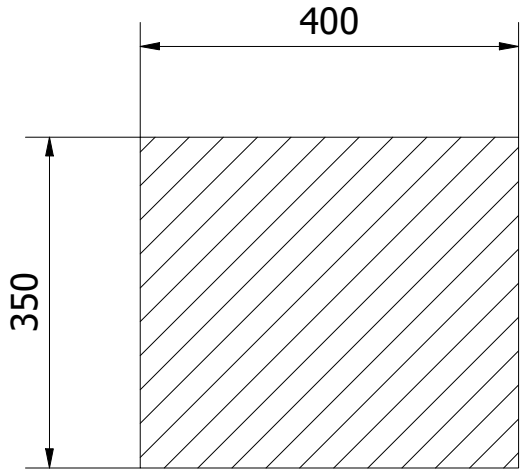
AH-AH (1 : 50)



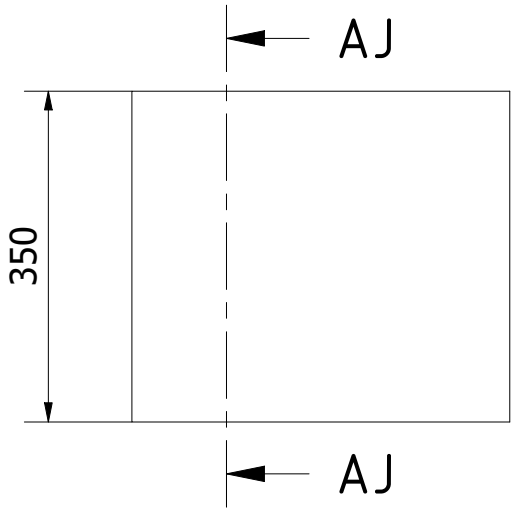
Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Fundation A	Fundation A.ipt			5.1
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	Concrete		1
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/50	40 /41





AJ-AJ (1 : 8)



Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Wind turbine with vertical metal drum sails	J. Rosciano	A. Morillo	27/10/2021	1.1
PART NAME	FILE NAME			POS
Foundation B	Foundation B.ipt			5.2
PUBLISHED BY	DOC. TYPE	MATERIAL		QUANTITY
OPEN HARDWARE OBSERVATORY Free Blueprints for Sustainable Development	Part	Concrete		1
	LICENCE		SCALE	SHEET
OHO e.V.	CC-BY-SA 4.0		1/8	41 /41