

	1.0	2.0		
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Segner turbine for 4m pit PART NAME	J. ZERON FILE NAME	A. MORILLO	04/11/2021	1.0
Exploded 3d view DEVELOPED BY R	Segner turbine for REDESIGNED BY	4m pit.ipn DOC. TYPE MATERIAL		A2 QUANTITY
	316	Assembly	SCALE	1 SHEET
Ueli Meier, Markus Eisenring, Alex Arter	OPEN SOURCE ECOLOGY GERMANY	CC-BY-SA 4.0	1:28	2 /27

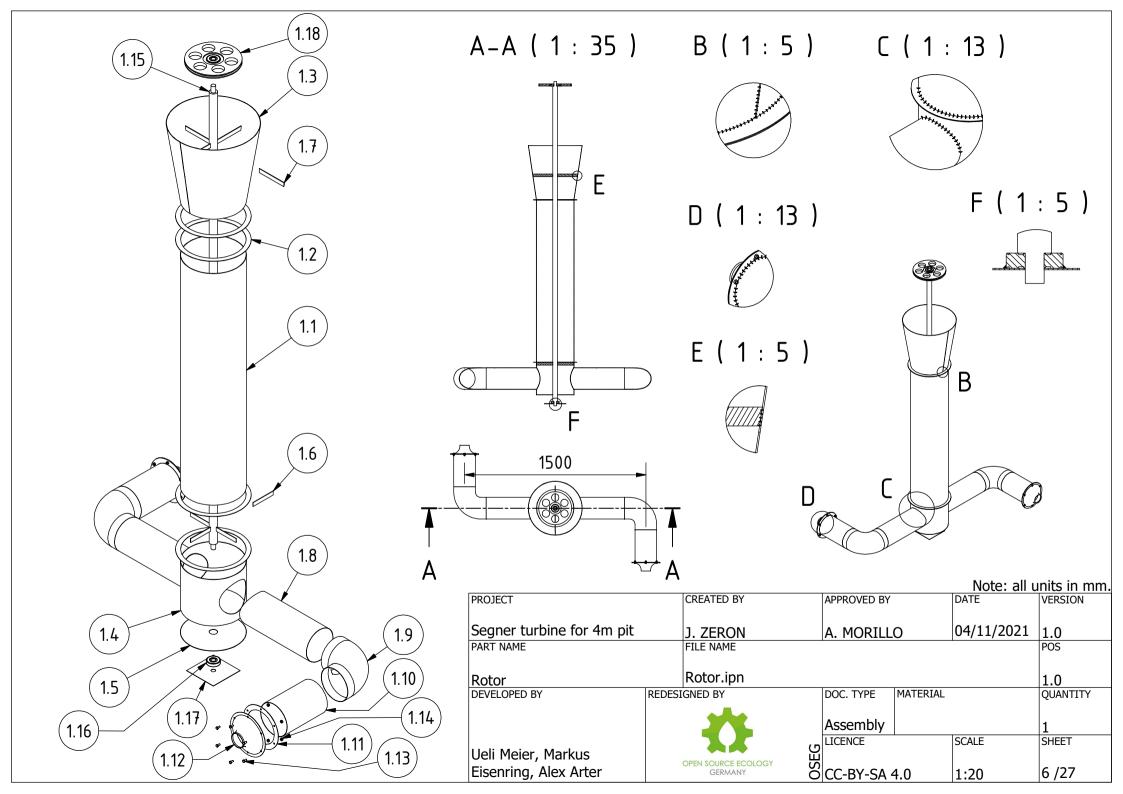
				Parts	lict					
POS	QTY	PART NAME	FILE NAME	r ai ta	PART TYPE	:	SI	PECIFICATIONS		SHEET
A1	1	3D views	Segner turbine for 4m	n nit iam		-	J	-		1
A1 A2	1	Exploded 3d view	Segner turbine for 4n			_		-		2
B1	-	Parts list	Segner turbine for 4m		-			-		3
B1 B2	_	Parts list	Segner turbine for 4m		_	_		-		4
C1	_	Technical notes	-		-			-		5
1.0	1	Rotor	Rotor.ipn			_		6		
1.0	1	Vertical pipe A	•	Vertical pipe A.ipt			Galvanized steel s	ch20 pipe d:14" va	riahle length	-
1.1	4	Connector ring A	Connector ring A		Production Production			anized steel 1.5mm	nuble lenger	7
1.2	1	Funnel	Funnel.ipt	lipe	Production			anized steel 1.5mm		8
1.5	1	Vertical tube B	Vertical tube B.i	int	Production			alvanized steel		9
1.5	1	Lower cap	Lower cap.ipt	•	Production			anized steel 1.5mm		10
1.6	4	Blade A	-	•	Production			steel platen 3x25x1	50mm	- 10
1.7	4	Blade B	Blade B.ipt		Production			ed steel platen 3x25		11
1.7	2	Radial pipe A	Radial pipe A.ip	nt	Production			sch20 pipe d:3 1/2		12
1.0	2	Elbow	-	50	Buy			steel sch20 elbow d		-
1.10	2	Radial pipe A	_		Production			sch20 pipe d:3 1/2	'	_
1.10	2	Connector ring B	Connector ring B	Lint	Production			anized steel 1.5mm	21000	13
1.12	2	Nozzle	Nozzle.ipt	iip c	Production				14	
1.12	12	Screw A	-		Standard			anized steel 1.5mm 8676 M8x16mm		-
1.13	12	Nut A			Standard			DIN 28674 M8		_
1.15	1	Shaft A	Shaft A.ipt		Production			45 hardened d:45m	m	15
1.15	1	Ball bearing	-		Buy		ainless steel bearing			
1.17	1	Base plate	Base plate.ipt	-	Production			anized steel 3mm		16
1.18	1	Groove Pulley A	Groove Pulley		Buy	<u> </u>	Bore single g	250mm	-	
2.0	1	Line shaft	Line shaft.ipn		-				17	
2.1	2	Foot	-		Production	1	Hardw	1	-	
2.2	2	Wooden connector	Wooden connecto	pr.ipt	Production		Har	·	18	
2.3	2	Pillow block		•	Buy			pillow block, shaft 2	4mm	-
2.4	4	Screw B	-		Standard			, 1 8676 M8x40mm		-
2.5	4	Nut B			Standard			DIN 28674 M8		-
2.6	1	Shaft B			Production	1		45 hardened d:24m	m	-
				DDO 1507	1	I			DATE	
				PROJECT			CREATED BY	APPROVED BY	DATE	VERSION
				Segner turbine	for 4m nit		J. ZERON		04/11/2021	10
				PART NAME			J. ZERON FILE NAME	A. MORILLO	07/11/2021	1.0 POS
				Parts list			Segner turbine for 4	m pit.csv		B1
				DEVELOPED BY		REDESI	GNED BY	DOC. TYPE MATERIA	L	QUANTITY
								Parts list		
				Llali Majar Ma			ن کې		SCALE	SHEET
				Ueli Meier, Mai		(OPEN SOURCE ECOLOGY	CC-BY-SA 4.0		2 /27
				Eisenring, Alex	AILEI		GERMANY	DICC-BY-SA 4.0		3 /27

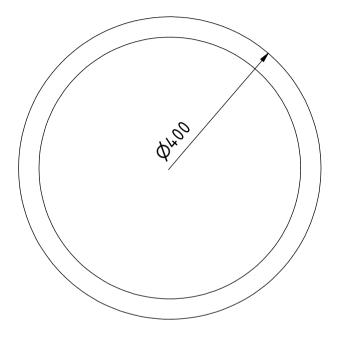
Parts list											
POS	QTY	PART NAME	FILE NAME	PART TYPE	SPECIFICATIONS	SHEET					
2.7	2	Groove Pulley B	-	Buy	Bore single groove ID24mm, ED100mm	-					
2.8	2	Circlip	-	Standard	DIN 472 24mm	-					
2.9	1	Belt	-	Buy	Belt 20mm variable length	-					
3.0	1	Channel	Channel.ipn	-	-	19					
3.1	2	Channel sheet A	-	Production	Galvanized steel sheet 1.5x400x1500mm	-					
3.2	1	Channel sheet B	-	Production	Galvanized steel sheet 1.5x400x500mm	-					
3.3	1	Channel sheet C	-	Production	Galvanized steel sheet 1.5x500x1000mm	-					
3.4	4	Channel sheet D	Channel sheet D.ipt	Production	Galvanized steel sheet 1.5mm	20					
3.5	2	Stiffener	-	Production	Steel A36 angle 3x30x30x1000mm	-					
3.6	2	Gate plate A	-	Production	Steel A36 platen 3x30x374mm	-					
3.7	1	Gate plate B	Gate plate B.ipt	Production	Steel A36 angle 3x30x500mm	21					
3.8	1	Gate bar	-	Production	Steel C45 circular bar d:10mm L:496mm threaded	-					
3.9	1	Gate handle	-	Production	Steel C45 circular bar d:10mm L:200mm	-					
3.10	1	Nut C	-	Standard	DIN 28674 M10	-					
4.0	1	Frame	Frame.ipn	-	-	22					
4.1	2	Bar A	Bar A.ipt	Production	Steel A36 square bar 12x12mm	23					
4.2	2	Bar B	-	Production	Steel A36 square bar 12x12x488mm	-					
4.3	2	Bar C	Bar C.ipt	Production	Steel A36 square bar 12x12mm	24					
4.4	2	Bar D	Bar D.ipt	Production	Steel A36 square bar 12x12mm	25					
4.5	2	Bar E	Bar E.ipt	Production	Steel A36 square bar 12x12mm	26					
4.6	1	Bar F	-	Production	Steel A36 square bar 12x12x82mm	-					
4.7	1	Bar G	Bar G.ipt	Production	Steel A36 square bar 12x12mm	27					

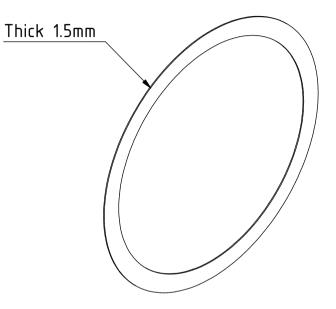
PROJECT		CREATED BY		APPROVED BY		DATE	VERSION
Segner turbine for 4m pit	J. ZERON		A. MORILL	0	04/11/2021	1.0 POS	
PART NAME							
Parts list		Segner turbine for	B2				
DEVELOPED BY	REDESI	GNED BY		DOC. TYPE	MATERIAL		QUANTITY
		21		Parts list		2011 -	0.1777
Ueli Meier, Markus			SEG	LICENCE		SCALE	SHEET
Eisenring, Alex Arter		GERMANY	ő	CC-BY-SA	4.0		4 /27

	TECHNICL NOTES
NOTES	CONTENT
GENERAL NOTES	
	Iron structures should be painted to prevent rust and improve equipment life.
	- Remove loose rust with a wire brush, sandpaper or chemical rust remover.
Metal structure treatment	- 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
	- The wood must be treated with pesticides and kiln-dried to ensure adequate humidity.
Wood treatment	- Wood sealer should be applied for later use.
Capacity	Output under full flow conditions = 5 kW and under reduced flow conditions = 2.2 kW, resulting in a weighted-average of over 4 kW
Capacity	available power. Acceptable investment costs = Rs. 32'000.—(as shown).

PROJECT		CREATED BY		APPROVED BY		DATE	VERSION
Segner turbine for 4m pit		J. ZERON		A. MORILL	0	04/11/2021	1.0
PART NAME		FILE NAME					POS
Technical notes							C1
DEVELOPED BY	REDESI	GNED BY		DOC. TYPE	MATERIAL		QUANTITY
		-		Technical			
				notes			
			רי	LICENCE		SCALE	SHEET
Ueli Meier, Markus	C	OPEN SOURCE ECOLOGY	SEC				
Eisenring, Alex Arter		GERMANY	ő	CC-BY-SA	4.0		5 /27

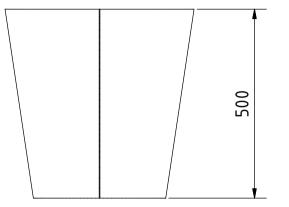


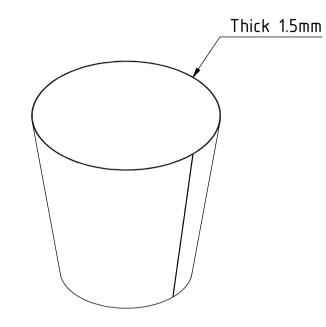


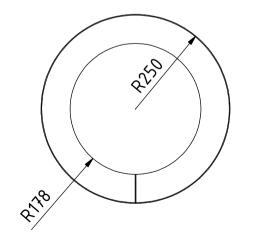


Note: all units in mm. APPROVED BY

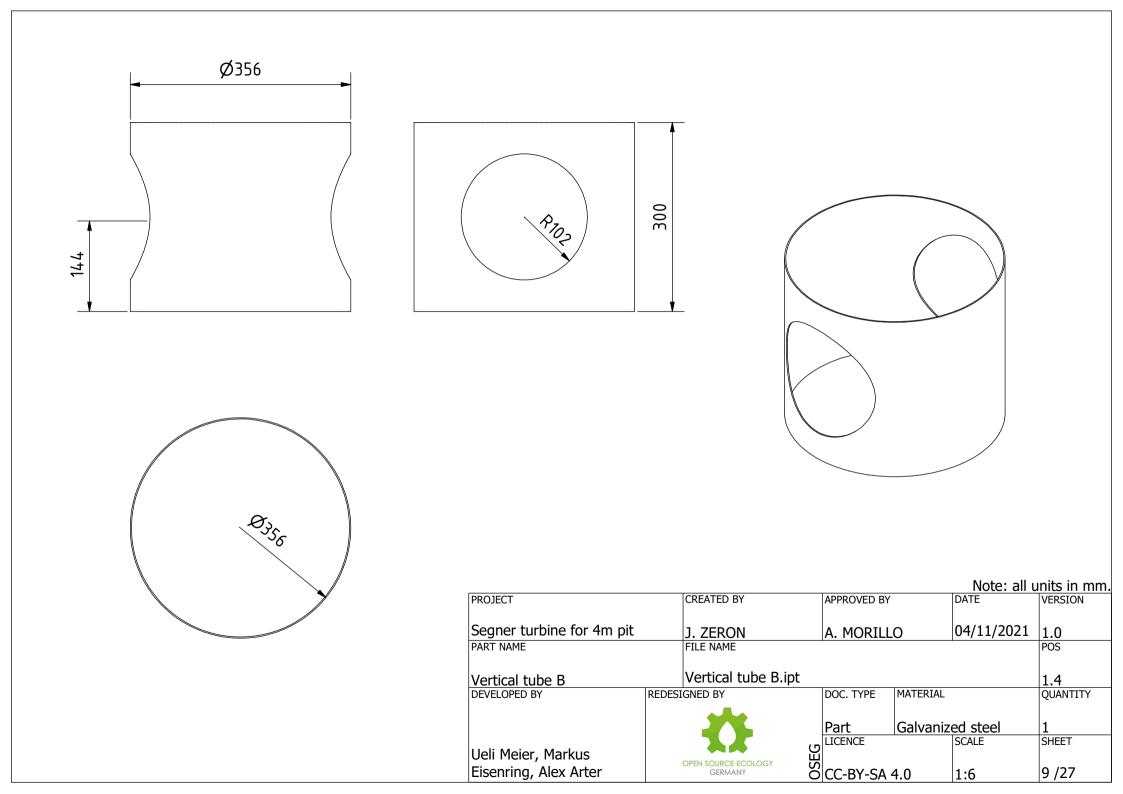
						note: un t	
PROJECT		CREATED BY		APPROVED BY		DATE	VERSION
Segner turbine for 4m pit PART NAME		J. ZERON FILE NAME		A. MORILL	0	04/11/2021	1.0 POS
Connector ring a		Connector ring A.ir	1.2				
DEVELOPED BY	REDESI	GNED BY		DOC. TYPE	MATERIAL		QUANTITY
		24		Part	Galvaniz	ed steel	4
Ueli Meier, Markus			SEG	LICENCE		SCALE	SHEET
Eisenring, Alex Arter		OPEN SOURCE ECOLOGY GERMANY	OS	CC-BY-SA	4.0	1:5	7 /27

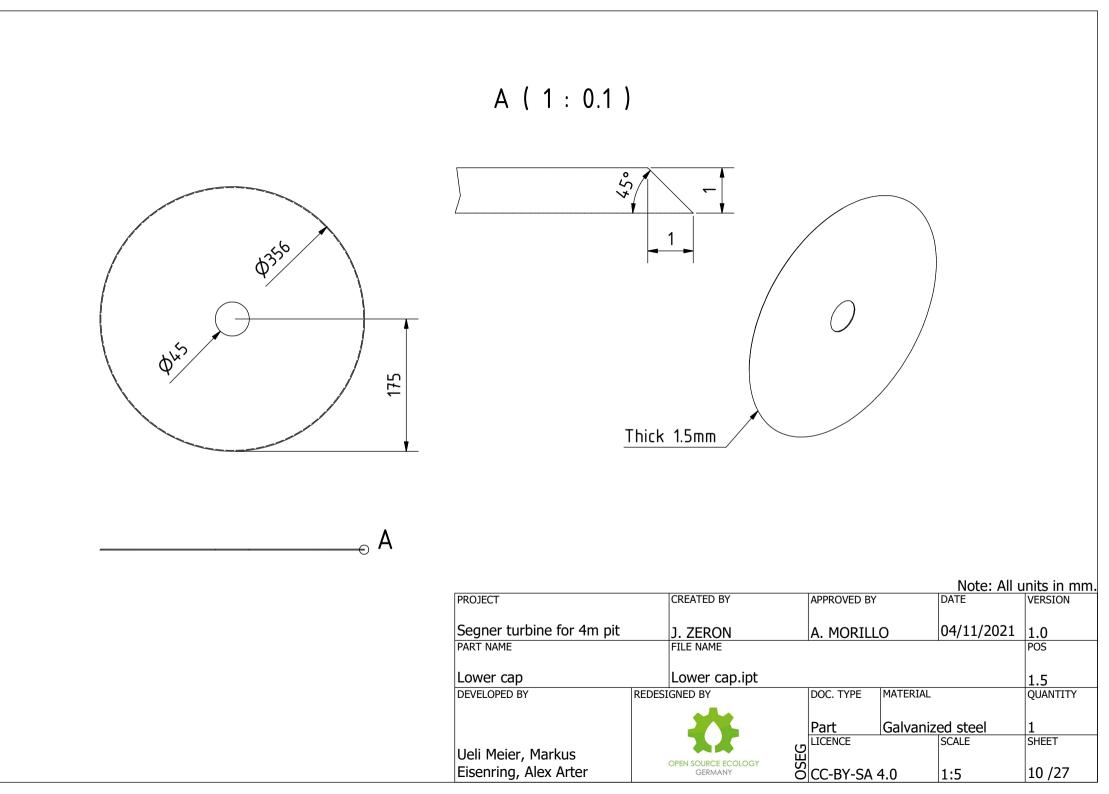




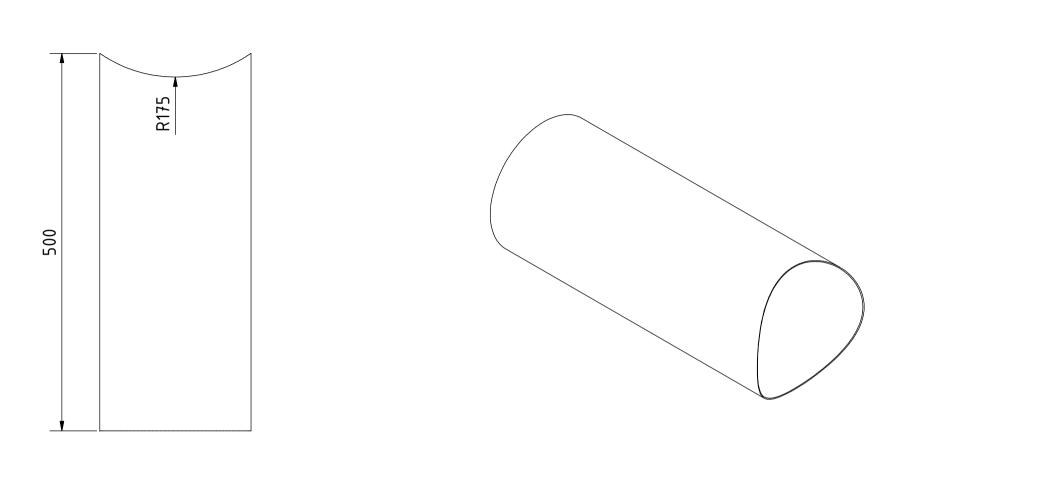


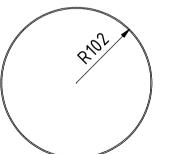
PROJECT		CREATED BY		APPROVED BY		DATE	VERSION
Segner turbine for 4m pit		J. ZERON		A. MORILL	.0	04/11/2021	1.0
PART NAME		FILE NAME					POS
Funnel		Funnel.ipt					1.3
DEVELOPED BY	REDESI	GNED BY		DOC. TYPE	MATERIAL		QUANTITY
		312		Part	Galvaniz	ed steel	1
Ueli Meier, Markus			SEG	LICENCE		SCALE	SHEET
Eisenring, Alex Arter		OPEN SOURCE ECOLOGY GERMANY	OSE	CC-BY-SA	4.0	1:10	8 /27



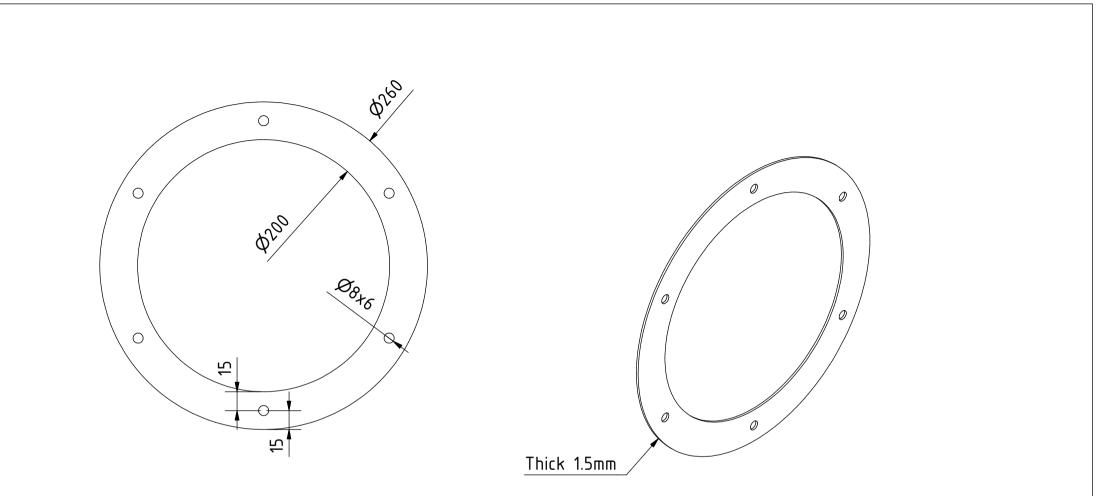


22 	186)		870	
				Note: All u	<u>inits in mm.</u>
	PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
	Segner turbine for 4m pit PART NAME	J. ZERON FILE NAME	A. MORILLO	04/11/2021	1.0 POS
	Blade B DEVELOPED BY	Blade B.ipt			1.7
\checkmark	DEVELOPED BY	REDESIGNED BY	DOC. TYPE MATERIA	_	QUANTITY
			Part Galvan	ized steel	1 SHEET
	Ueli Meier, Markus Eisenring, Alex Arter	OPEN SOURCE ECOLOGY GERMANY	Part Galvan	1:1	11 /27

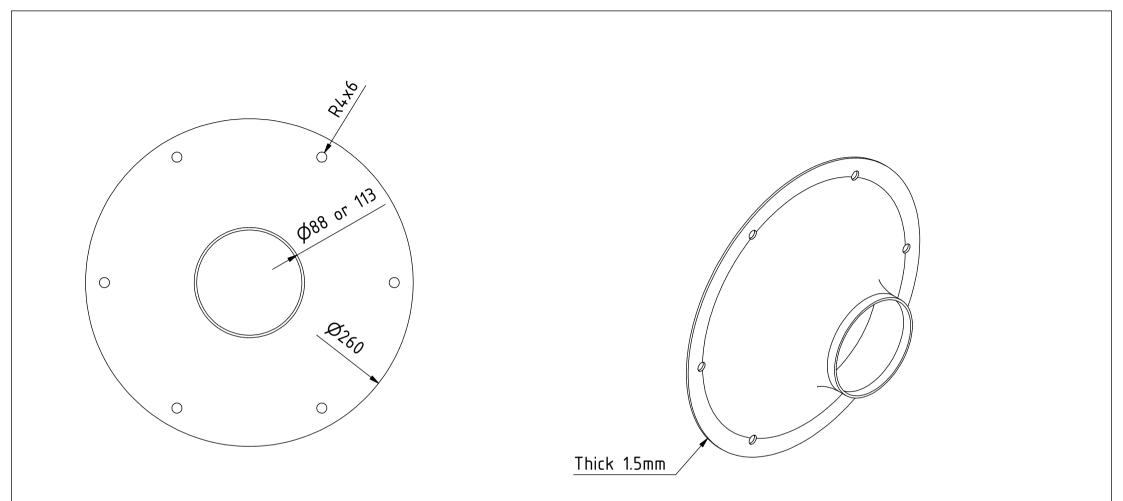


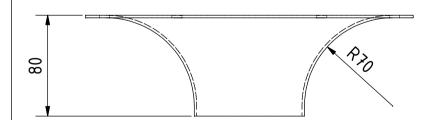


						Note: All u	units in mm.
PROJECT		CREATED BY	AP'	PROVED BY		DATE	VERSION
	ļ				1	1	
Segner turbine for 4m pit	ļ	J. ZERON	A.	. MORILLO	0	04/11/2021	1.0
PART NAME	,	FILE NAME					POS
	ļ					1	
Radial pipe A	ļ	Radial pipe A.ipt				I	1.8
DEVELOPED BY	REDESI	IGNED BY	DC	OC. TYPE	MATERIAL		QUANTITY
				ļ	1	1	
			Pa	art	Galvanize	ed steel	2
				CENCE		SCALE	SHEET
Ueli Meier, Markus			S S S		1	1	
Eisenring, Alex Arter		GERMANY	<u>3</u> 0	C-BY-SA 4	1.0	1:5	12 /27

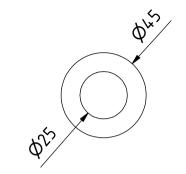


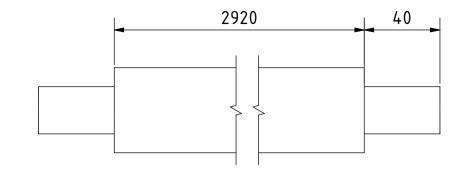
						Note: All u	nits in mm.	
PROJECT		CREATED BY	Τ	APPROVED BY		DATE	VERSION	
Segner turbine for 4m pit	1	J. ZERON		A. MORILLO	0	04/11/2021	1.0	
PART NAME FILE NAME						POS		
	1							
Connector ring B	ļ	Connector ring B.ipt	ĩ				1.11	
DEVELOPED BY	REDESI	GNED BY		DOC. TYPE MATERIAL			QUANTITY	
	1							
	1			Part	Galvaniz	ed steel	2	
	1		רי ו	LICENCE		SCALE	SHEET	
Ueli Meier, Markus		OPEN SOURCE ECOLOGY	ц					
Eisenring, Alex Arter	1	GERMANY	3	CC-BY-SA 4	4.0	1:3	13 /27	

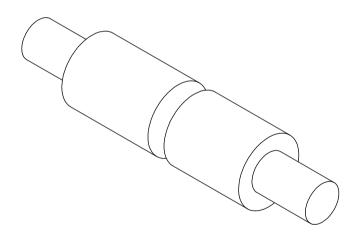




						Note: All ເ	inits in mm.
PROJECT		CREATED BY		APPROVED BY		DATE	VERSION
Segner turbine for 4m pit		J. ZERON		A. MORILL	0	04/11/2021	1.0
PART NAME		FILE NAME					POS
Nozzle		Nozzle.ipt					1.12
DEVELOPED BY	REDESI	GNED BY		DOC. TYPE	MATERIAL		QUANTITY
				Part	Galvaniz	ed steel	2
			(ח	LICENCE	•	SCALE	SHEET
Ueli Meier, Markus	7	OPEN SOURCE ECOLOGY	SEC				
Eisenring, Alex Arter		GERMANY	SO	CC-BY-SA	4.0	1:3	14 /27

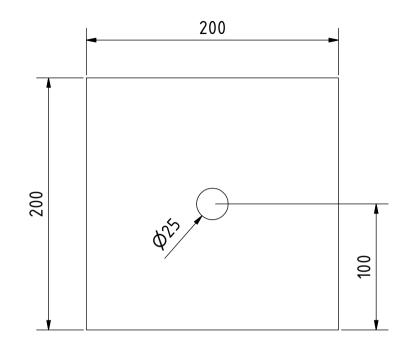


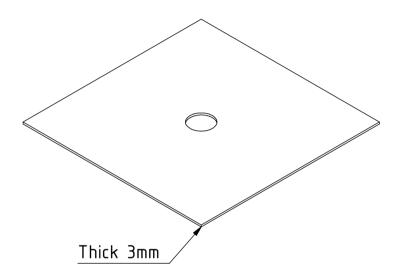




Note: All units in mm.

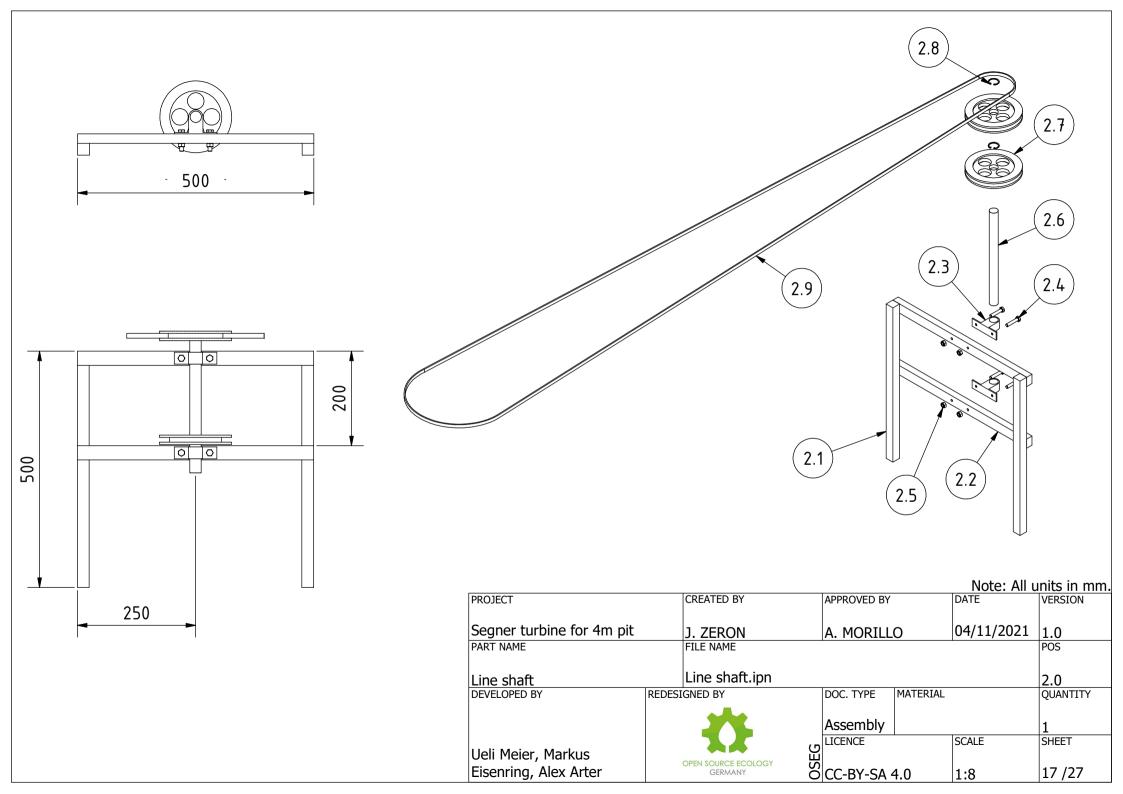
PROJECT		CREATED BY		APPROVED BY		DATE	VERSION
Segner turbine for 4m pit		J. ZERON		A. MORILL	.0	04/11/2021	1.0
PART NAME		FILE NAME					POS
Shaft A		Shaft A.ipt					1.15
DEVELOPED BY	REDESI	GNED BY		DOC. TYPE	MATERIAL		QUANTITY
		34		Part	Steel C4	5	1
Ueli Meier, Markus			U			SCALE	SHEET
Eisenring, Alex Arter		OPEN SOURCE ECOLOGY GERMANY	OSE	CC-BY-SA	4.0	1:2	15 /27



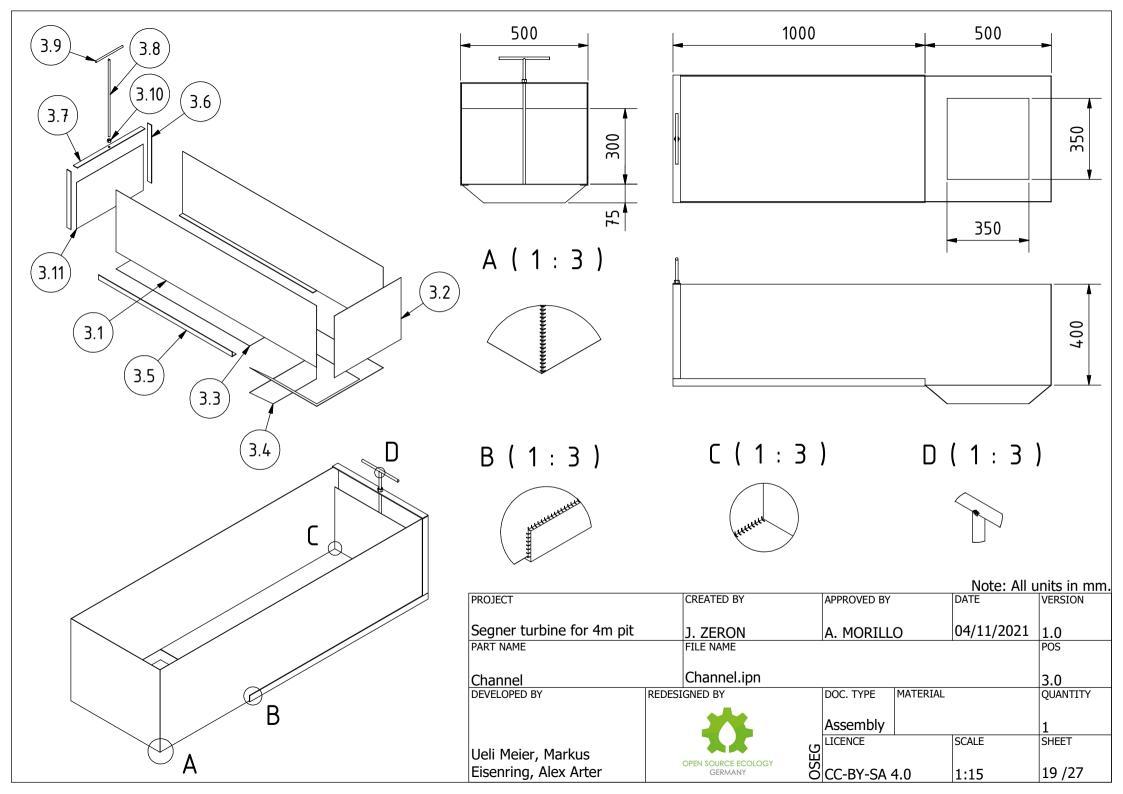


Note: All units in mm.

PROJECT		CREATED BY		APPROVED BY		DATE	VERSION
Segner turbine for 4m pit		J. ZERON		A. MORILL	.0	04/11/2021	1.0
PART NAME		FILE NAME					POS
Base plate		Base plate.ipt					1.17
DEVELOPED BY	REDES	GNED BY		DOC. TYPE	MATERIAL		QUANTITY
		-		Part LICENCE	Galvaniz	ed steel	1 SHEET
Ueli Meier, Markus			SEG			SCALE	SHEET
Eisenring, Alex Arter		GERMANY	Ö	CC-BY-SA	4.0	1:3	16 /27



	500 60	220	>	
PROJECT Segner turbine for 4m pit	CREATED BY	APPROVED BY A. MORILLO	DATE	version
Wooden connector DEVELOPED BY	J. ZERON FILE NAME Wooden connect			1.0 POS 2.2 QUANTITY
Ueli Meier, Markus Eisenring, Alex Arter	OPEN SOURCE ECOLOGY GERMANY	Part Hardwo	SCALE 1:1.2	2 SHEET 18 /27



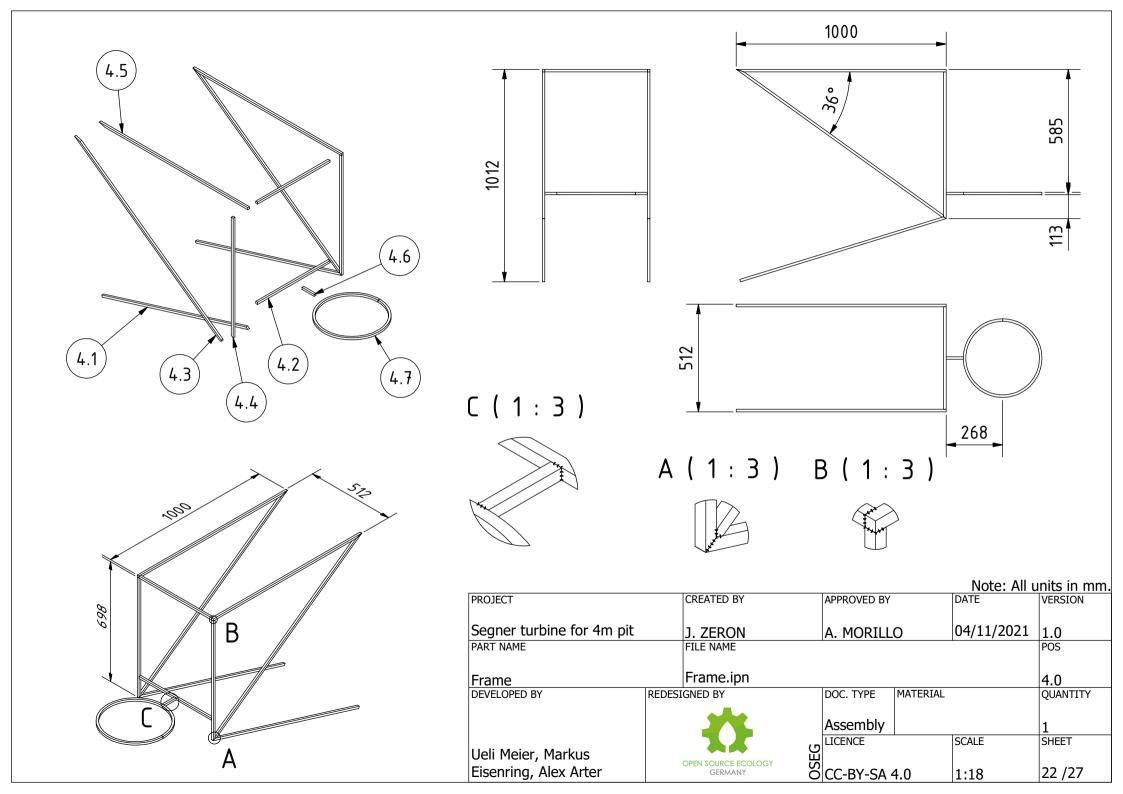
		500	127°		
	Thick 1.5mr	<u>m</u>		Note: All 1	inits in mm
PROJECT		CREATED BY		Note: All ι DATE	
Segner tu	rbine for 4m pit	J. ZERON	A. MORILLO	04/11/2021	1.0
PART NAME		FILE NAME			POS
Channel s DEVELOPED R	heet D	Channel sheet D.ipt ESIGNED BY	DOC. TYPE MATERIAL		3.4 QUANTITY
			Part Galvaniz	zed steel	4 SHEET
Ueli Meier	, Markus				
Eisenring,	Alex Arter	OPEN SOURCE ECOLOGY GERMANY	CC-BY-SA 4.0	1:3	20 /27

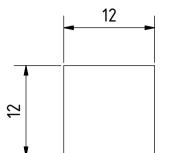
3		500		•	
	250	Ø ₁₀			
	PROJECT	CREATED BY	APPROVED BY	Note: All u	Inits in
	PROJECT		APPROVED BI	DATE	VERSIO
	Segner turbine for 4m pit	J. ZERON	A. MORILLO	04/11/2021	1.0 POS
	PART NAME	FILE NAME			POS
	Gate plate B	Gate plate B.ipt			3.7
	DEVELOPED BY RED	ESIGNED BY	DOC. TYPE MATERIAL		3.7 QUANTI
		44	Part Galvaniz	zed steel	1 SHEET
	Ueli Meier, Markus Eisenring, Alex Arter		CC-BY-SA 4.0		21 /2
	.				, –

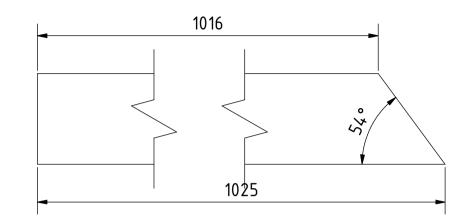
te: All units in mm.

3.7 QUANTITY

21 /27



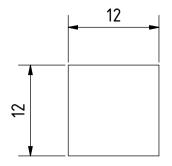


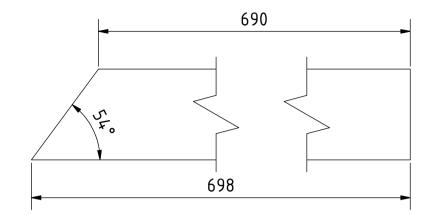


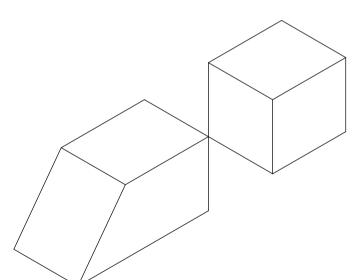
Note:	All	units	in	mm.
NOLC:	7.00	units		

PROJECT		CREATED BY		APPROVED BY		DATE	VERSION
Segner turbine for 4m pit		J. ZERON		A. MORILL	0	04/11/2021	1.0
PART NAME		FILE NAME					POS
Bar A		Bar A.ipt					4.1
DEVELOPED BY	REDESI	GNED BY		DOC. TYPE	MATERIAL		QUANTITY
		312		Part	Steel A3	6	2
Ueli Meier, Markus	,		SEG	LICENCE		SCALE	SHEET
Eisenring, Alex Arter		OPEN SOURCE ECOLOGY GERMANY	os	CC-BY-SA	4.0	1:0.5	23 /27

37	1207	1170	107°	Q
PROJECT Segner turbine for 4m pit PART NAME	CREATED BY J. ZERON FILE NAME Bar C.ipt		DATE 04/11/2021	Inits in mm. VERSION 1.0 POS
Bar C DEVELOPED BY Ueli Meier, Markus Eisenring, Alex Arter	IGNED BY	DOC. TYPE MATERIAL Part Steel A3 LICENCE CC-BY-SA 4.0	6 SCALE	4.3 QUANTITY 2 SHEET 24 /27







PROJECT		CREATED BY		APPROVED BY		DATE	VERSION
Segner turbine for 4m pit		J. ZERON		A. MORILL	0	04/11/2021	1.0
PART NAME		FILE NAME					POS
							100
Bar D		Bar D.ipt					4.4
DEVELOPED BY	REDESI	GNED BY		DOC. TYPE	MATERIAL		QUANTITY
				_ .		-	
				Part	Steel A3	6	2
				LICENCE		SCALE	SHEET
Ueli Meier, Markus			ÿ				
	(OPEN SOURCE ECOLOGY	SE				
Eisenring, Alex Arter		GERMANY	õ	CC-BY-SA	4 0	1:0.5	25 /27
57				CC D1 5/(1.0	1.0.5	/ -:

Note: All units in mm.

