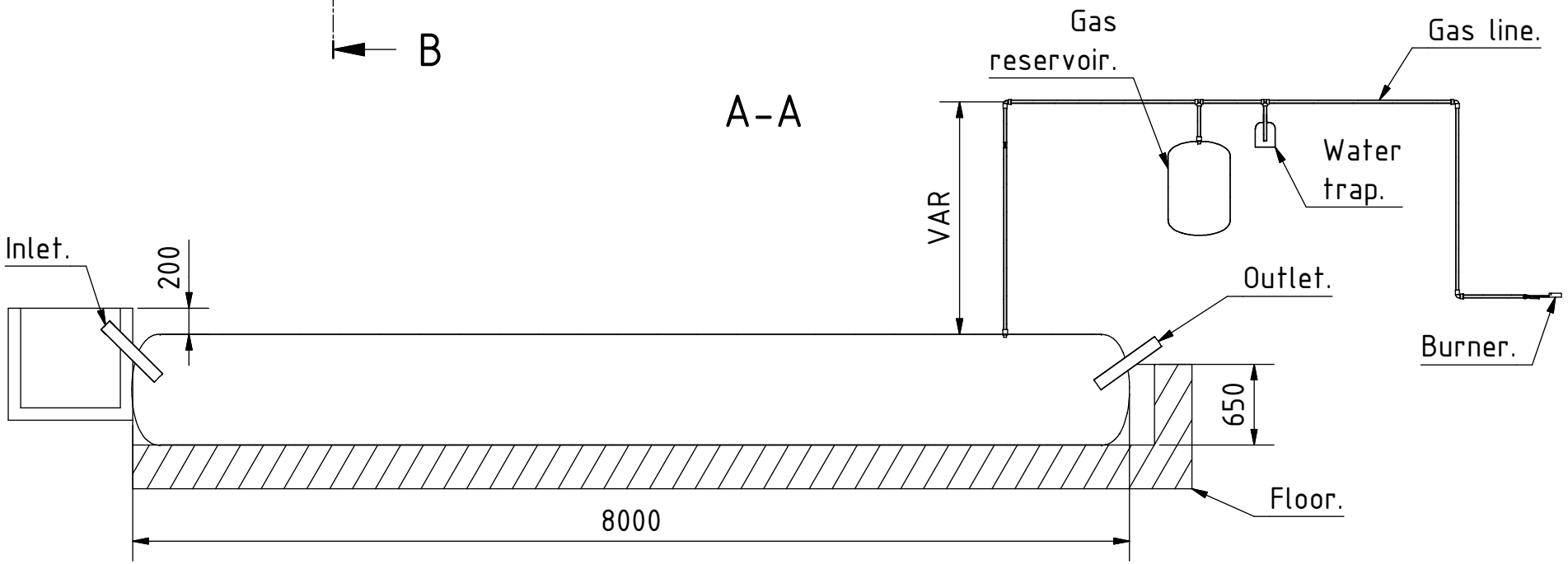
A-A



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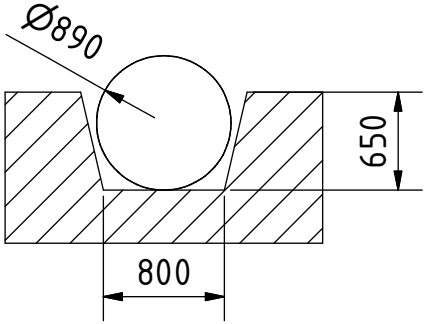
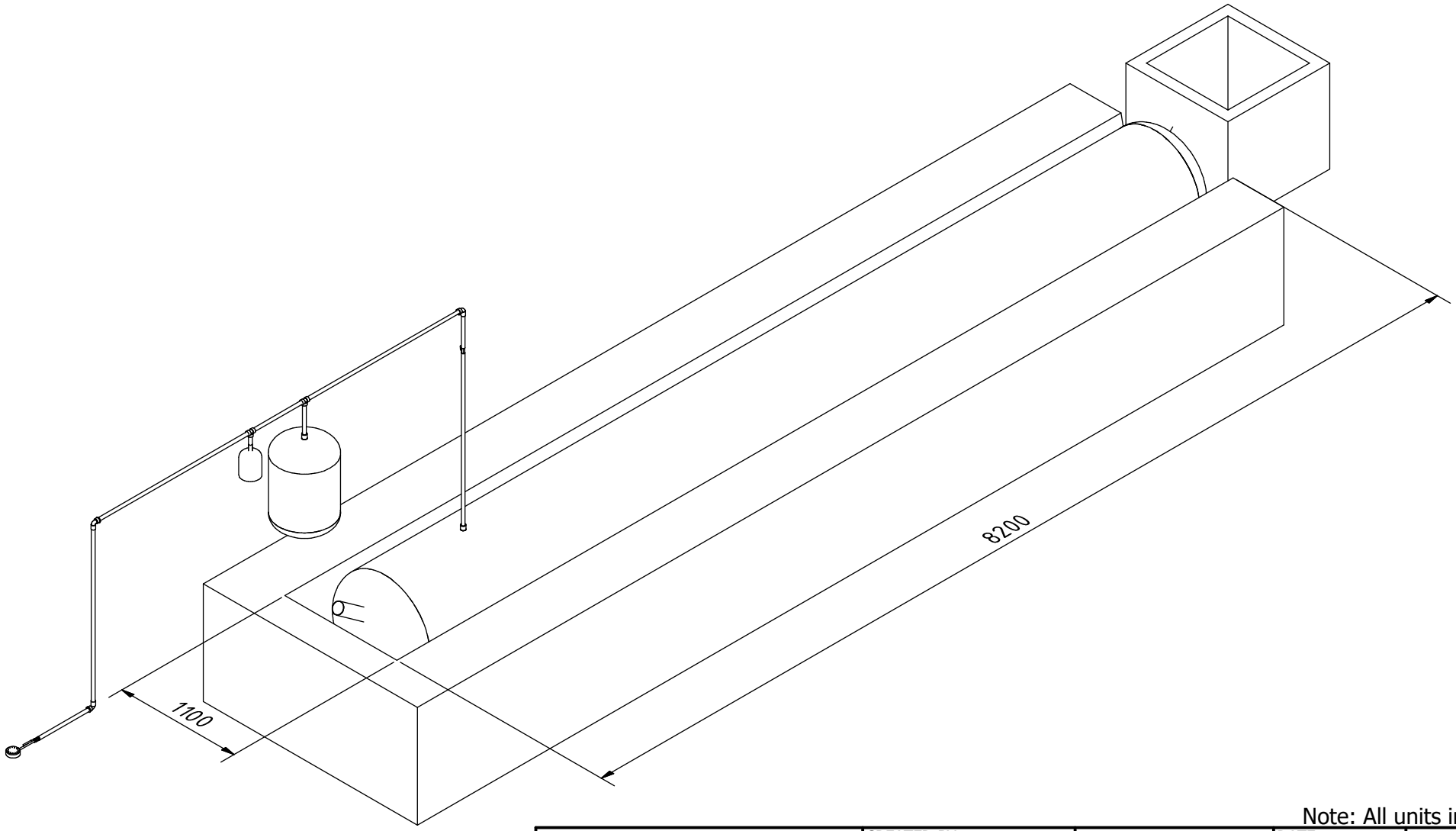


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
3D views	uoa_tpb_tubular_plastic_biodigester.iam			A1
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Assembly		1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:50	1 /18



Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
3D views	uoa_tpb_tubular_plastic_biodigester.iam			A1
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
		Assembly		1
		LICENCE	SCALE	SHEET
University of Aarhus	OSEG	CC-BY-SA 4.0	1:40	2 /18

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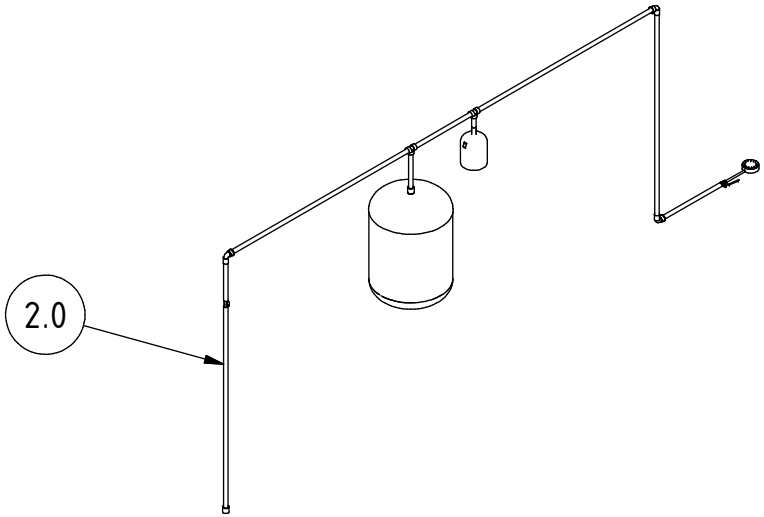

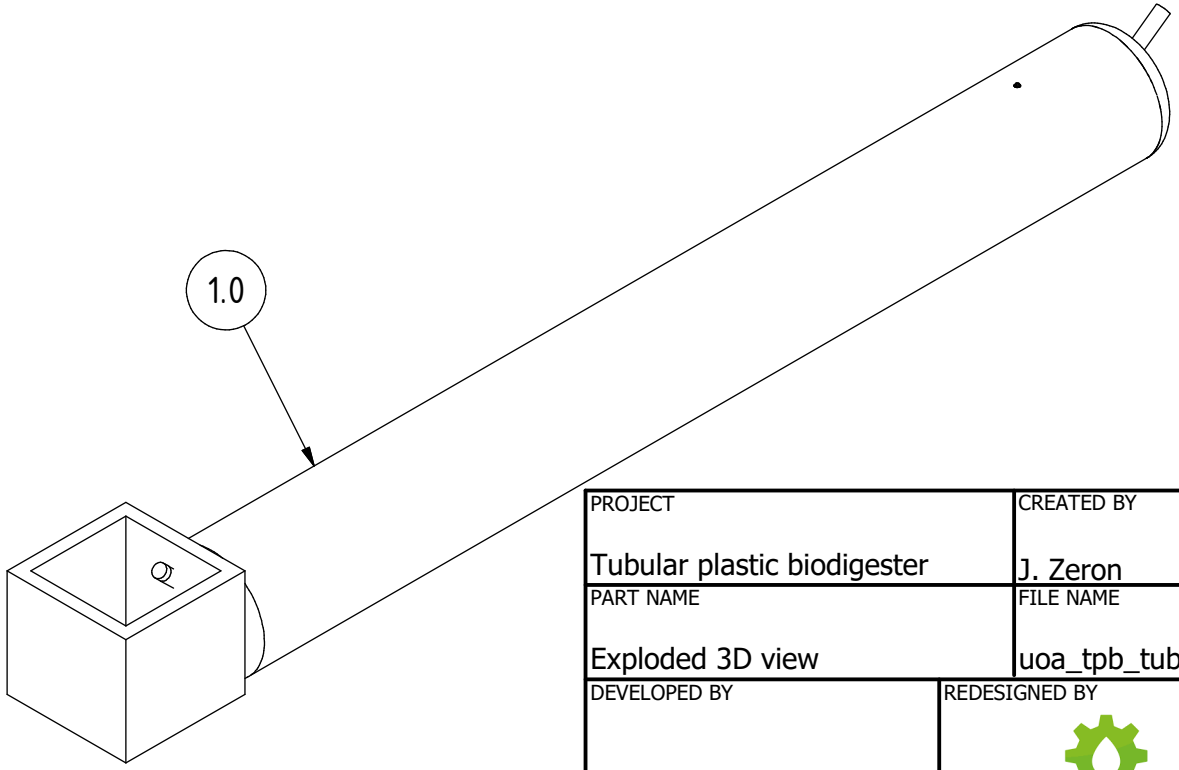

Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Exploded 3D view	uoa_tpb_tubular_plastic_biodigester.ipn			A2
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Assembly		1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:45	3 /18

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Parts list

POS	QTY	PART NAME	FILE NAME	PART TYPE	SPECIFICATIONS	SHEET
A1	1	3d views	uoa_tpb_tubular_plastic_biodigester.iam	-	-	1-2
A2	-	Exploded 3d view	uoa_tpb_tubular_plastic_biodigester.ipn	-	-	3
B1	-	Parts list	uoa_tpb_tubular_plastic_biodigester.csv	-	-	4
C1	-	Technical notes	-	-	-	5
1.0	-	Pit	Pit.ipn	-	-	6-7
1.1	1	Pit digester	Pit digester.ipt	Production	Polythene sheet 0.2mm thick	8
1.2	2	Inlet and oulet	-	Standard	ASTM D 1785 schedule 40 4" L:600mm	-
1.3	1	Cover inlet	Cover inlet.ipt	Production	Mesh wire 25mm hex galvanized	9
1.4	1	Adapter male A	-	buy	DIN 8063 male adapter 1/2"	-
1.5	2	Rubber washer A	Rubber washer A.ipt	Production	Made from used car tire	10
1.6	2	Plastic circle A	Plastic circle A.ipt	Production	Made from plastic material	11
1.7	1	Dung mixer pit	Dung mixer pit.ipt	Production	Made from concrete	12
2.0	-	Gas system	Gas system.ipn	-	-	13-14
2.1	1	Adapter female A	-	buy	DIN 8063 female adapter 1/2"	-
2.2	1	Gas pipe A	-	Standard	ASTM D 1785 schedule 40 1/2"	-
2.3	2	Valve	-	buy	Bronze ball valve 3/8"	-
2.4	3	Gas pipe B	-	Standard	ASTM D 1785 schedule 40 1/2"	-
2.5	3	Elbow	-	buy	ASTM D 2467 elbow 90 1/2" schedule 40	-
2.6	3	Gas pipe C	-	Standard	ASTM D 1785 schedule 40 1/2"	-
2.7	2	Tee	-	buy	ASTM D 2467 tee 1/2" schedule 40	-
2.8	1	Adapter female B	-	buy	DIN 8063 female adapter 1/2"	-
2.9	1	Adapter male B	-	buy	DIN 8063 male adapter 1/2"	-
2.10	2	Rubber washer B	Rubber washer B.ipt	Production	Made from used car tire	15
2.11	2	Plastic circle B	Plastic circle B.ipt	Production	Made from plastic material	16
2.12	1	Reservoir	Reservoir.ipt	Production	Polythene sheet 0.2mm thick	17
2.13	1	Gas pipe D	-	Standard	ASTM D 1785 schedule 40 1/2"	-
2.14	1	Plastic bottle	Plastic bottle.ipt	Production	Perforated plastic transparent bottle	18
2.15	1	Burner	-	buy	Gasmate cast iron single ring burner	-

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Parts list	uoa_tpb_tubular_plastic_biodigester.csv			B1
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Parts list		
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0		4 /18

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TECHNICL NOTES	
NOTES	CONTENT
GENERAL NOTES	
General	Biodigester are hermetic container where animal manure is mixed with water so that in an anaerobic fermentation process, without the presence of oxygen, biogas is produced, which is a combustible gas, which is used for cooking, heating and as fuel in generators electric to biogas. It also generated biol, a liquid fertilizer that increases agricultural productivity, and biosol, which is a sludge that is used as a soil improver.
Location	The first step in stalling the biodigester is to identify the most appropriate location. In general this should be close to the source of the livestock pen where the waste is produced. It is a distict advantage if the washings from the pen pass by gravity directly to the inlet of the biodigester. It is relatively easy to transport the gas by pipeline but difficult and tedious to do this with liquid wastes.
Construccction	- Using the inner car tube, fasten tightly both ends of the polythene tube. Make sure there is no allowance for gas to leak. - The pipe lengths of the gas line depends on the distance from digester to the kitchen.
Material	- Polythene sheet (PFA tube): http://m.made-in-china.com/product/0-2mm-PFA-Tubular-Film-PFA-Insulation-Film-PFA-Sheet-865264585.html

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Technical notes				C1

DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Technical notes		
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0		5 /18

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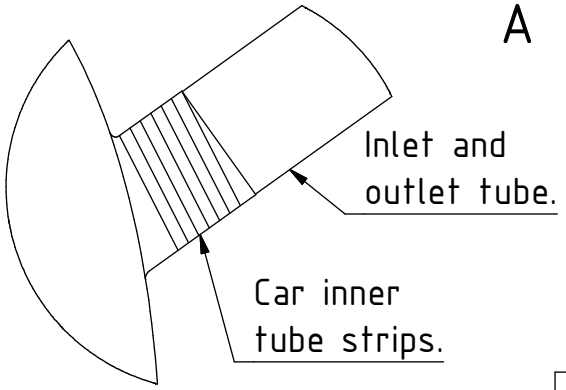
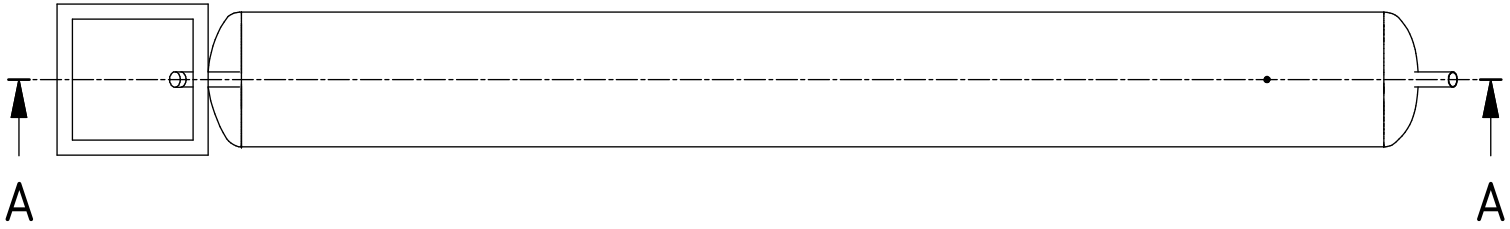
C (1 : 6)





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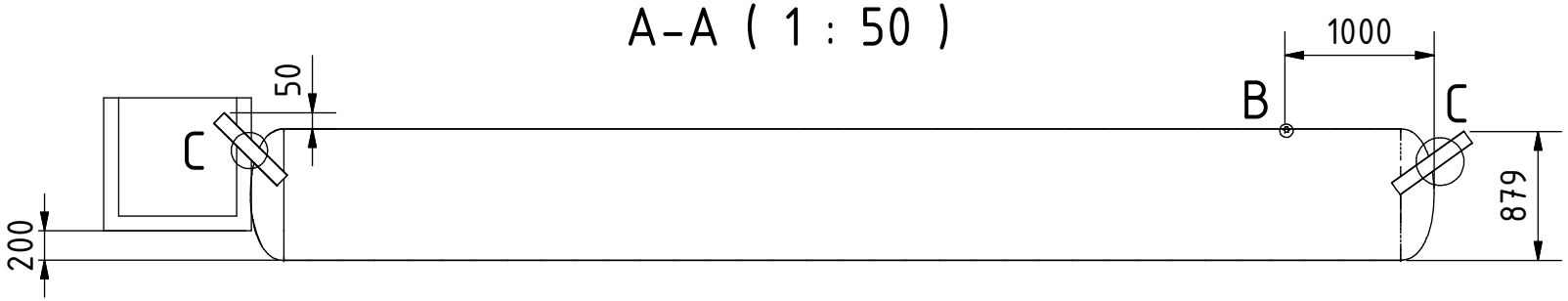

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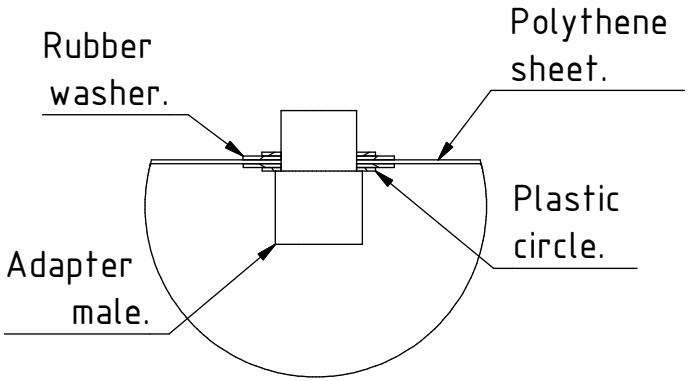
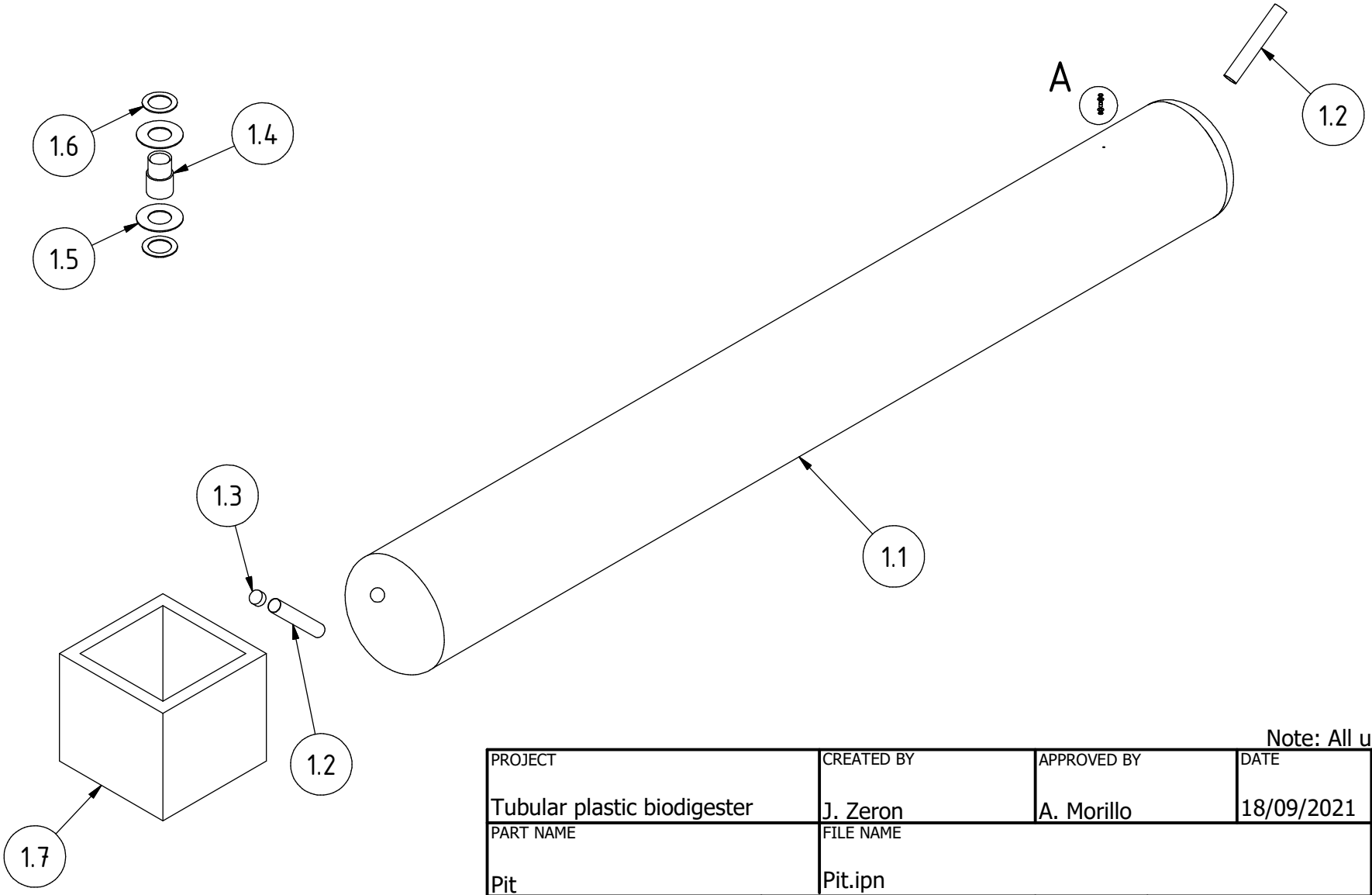


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Pit	Pit.ipn			1.0
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Assembly		1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:50	6 /18

A (1 : 5)



Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Pit	Pit.ipn			1.0
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Assembly		1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:40	7 /18

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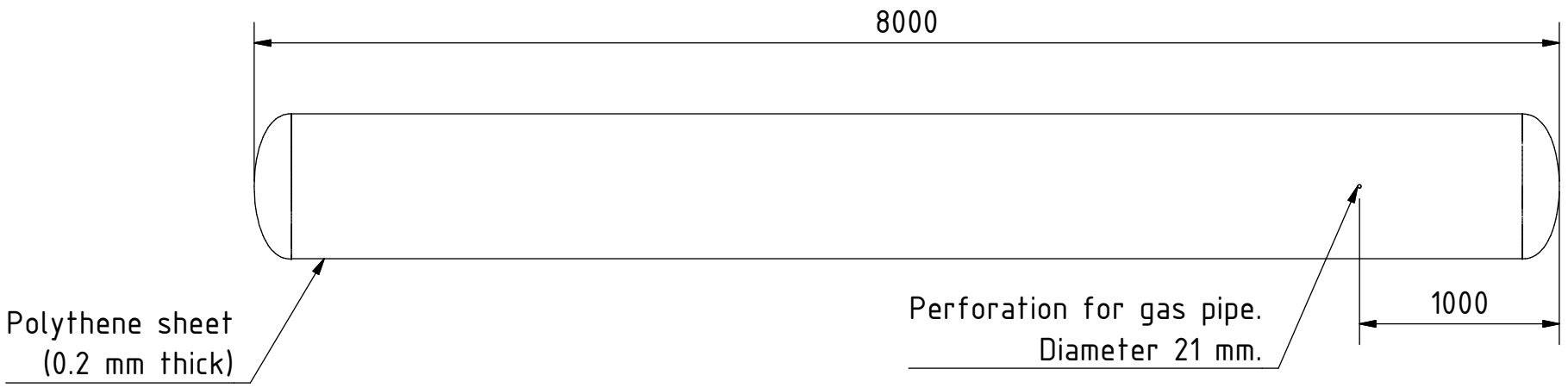
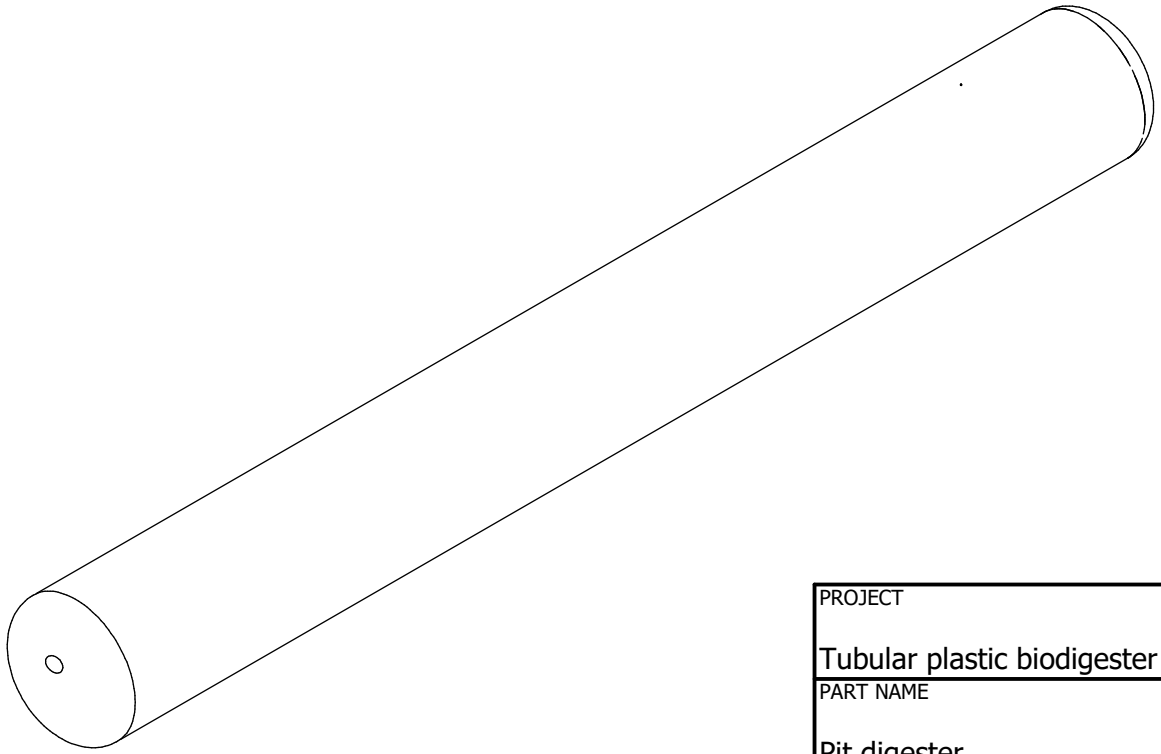
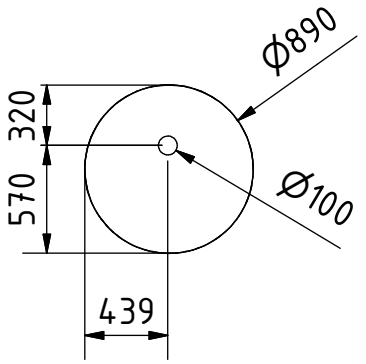
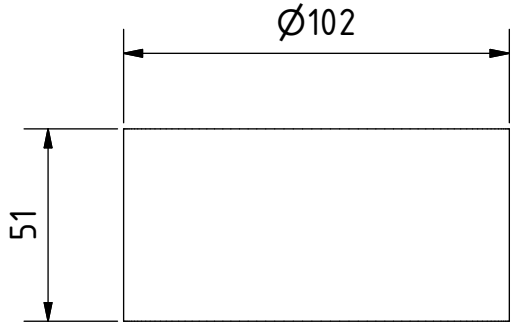


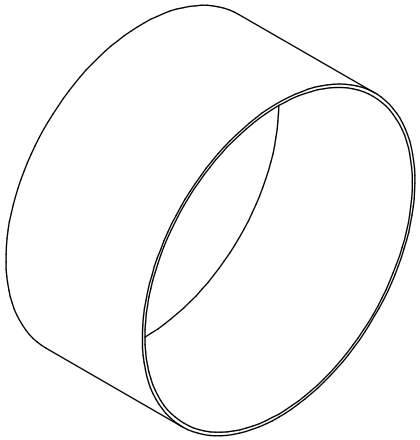


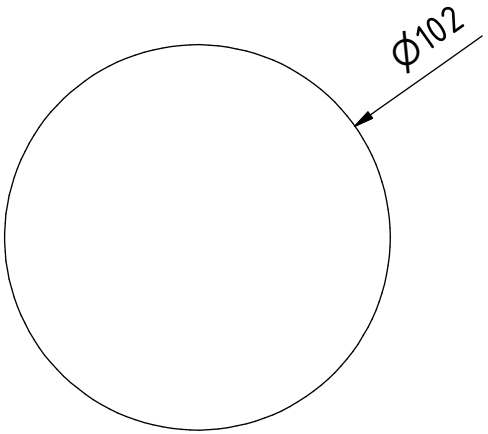


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Pit digester	Pit digester.ipt			1.1
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Part	Polythene sheet	1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:40	8 /18

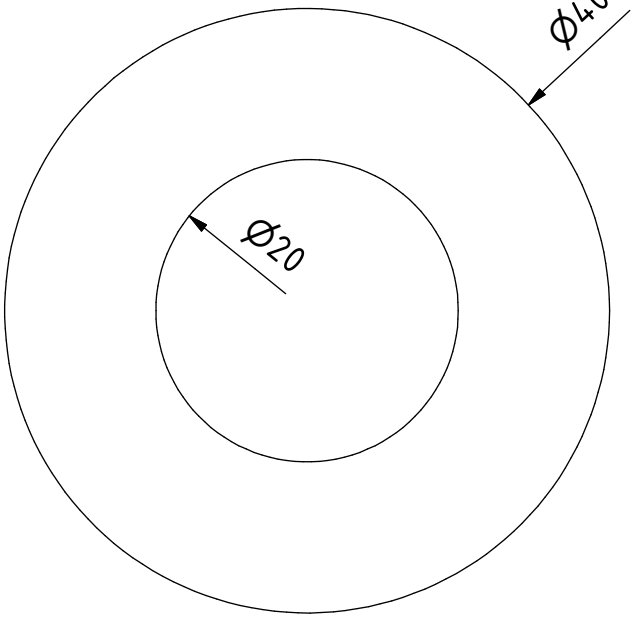


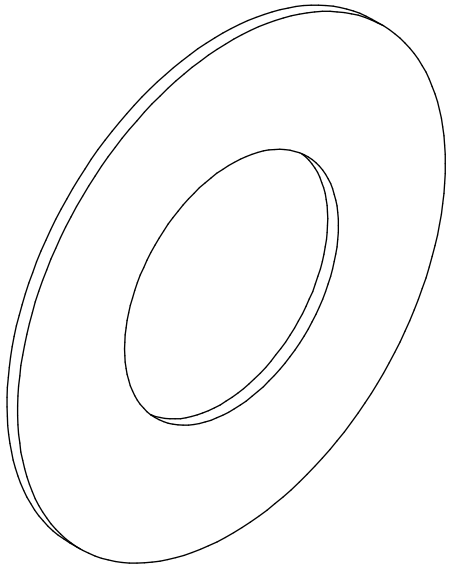




Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Cover inlet	Cover inlet.ipt			1.3
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Part	Mesh wire	1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:2	9 /18





Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Rubber washer A	Rubber washer A.ipt			1.5
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Part	Rubber	2
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:0.50	10 /18

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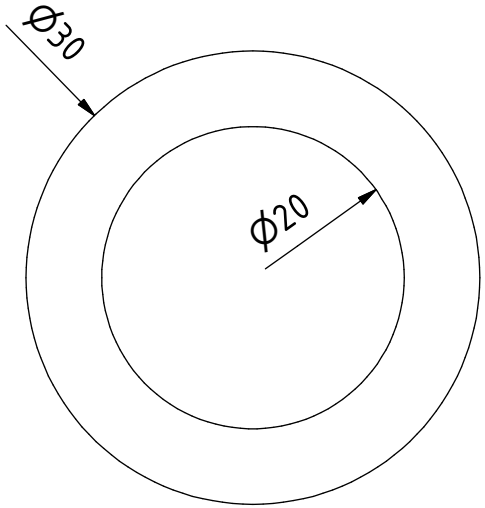
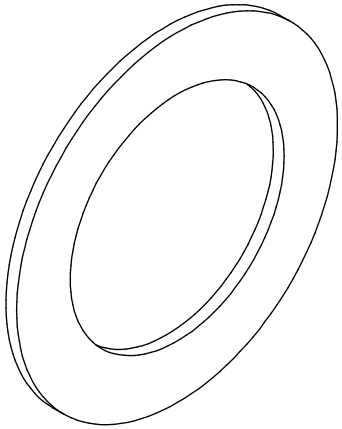
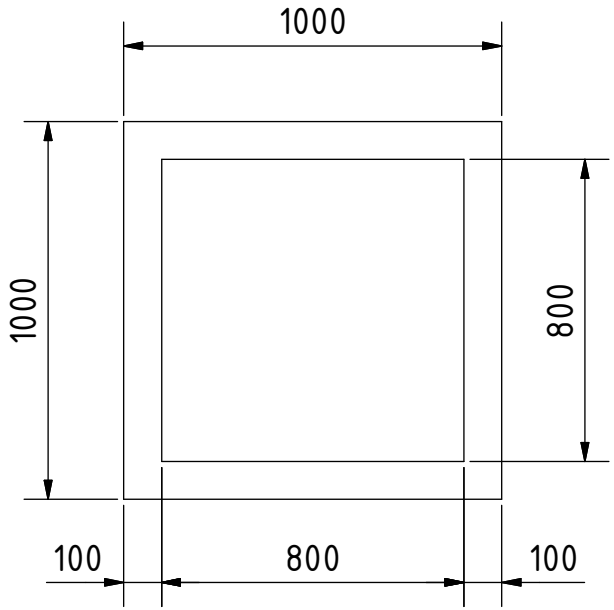
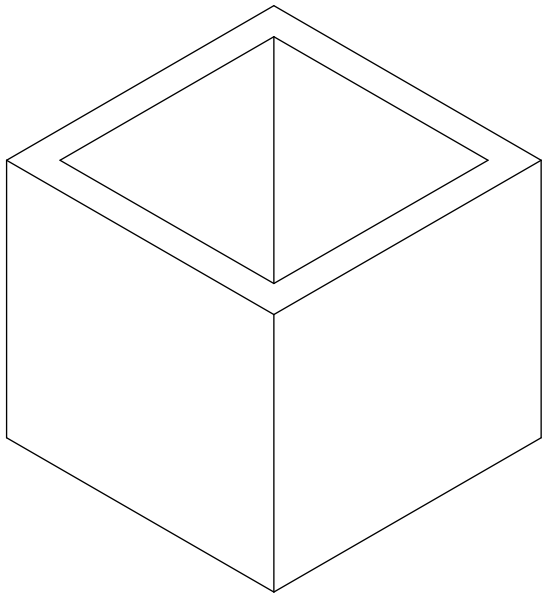


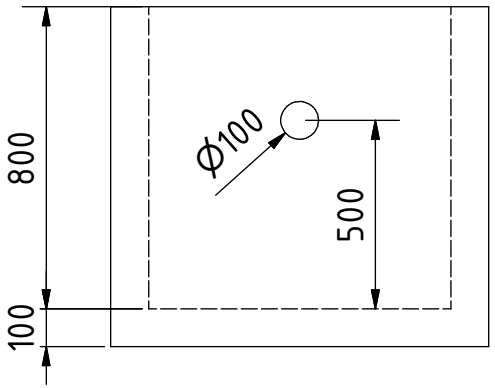


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Plastic circle A	Plastic circle A.ipt			1.6
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Part	Plastic	2
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:0.50	11 /18

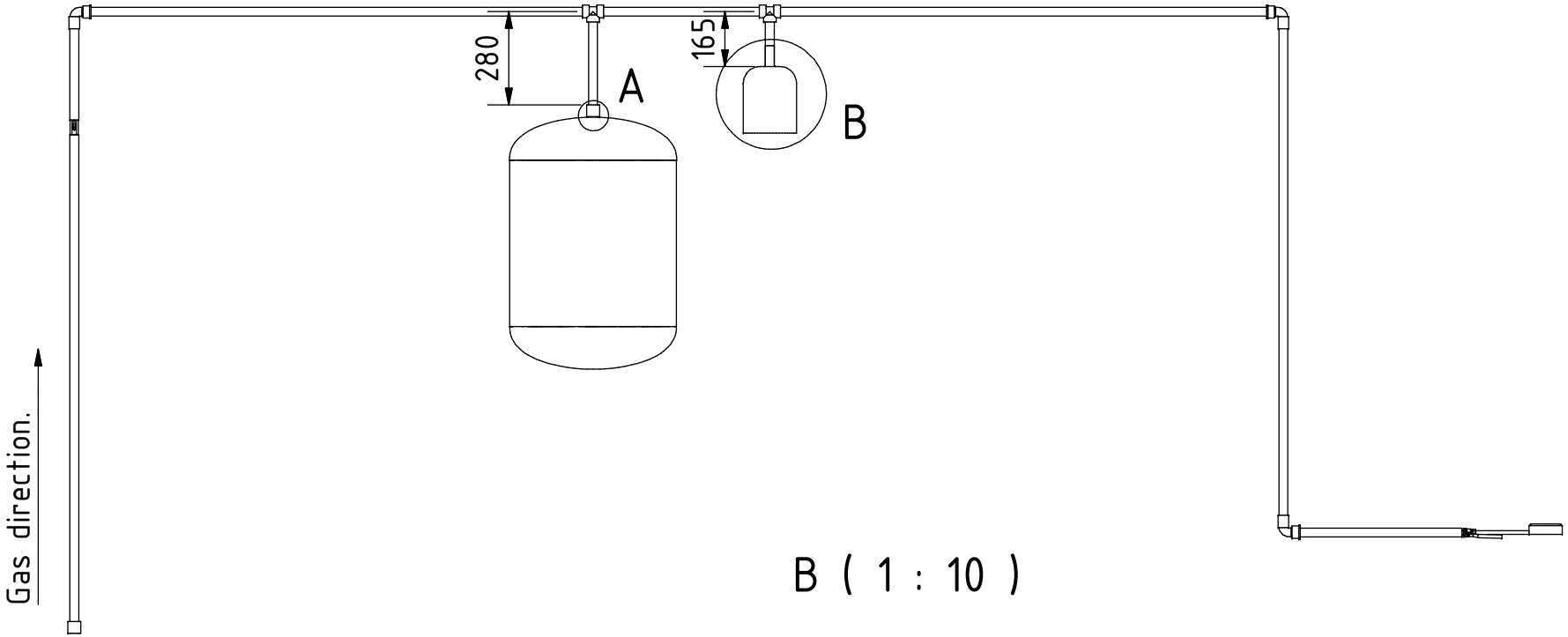






Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Dung mixer pit	Dung mixer pit.ipt			1.7
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Part	Concrete	1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:20	12 /18



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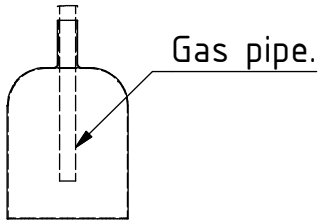

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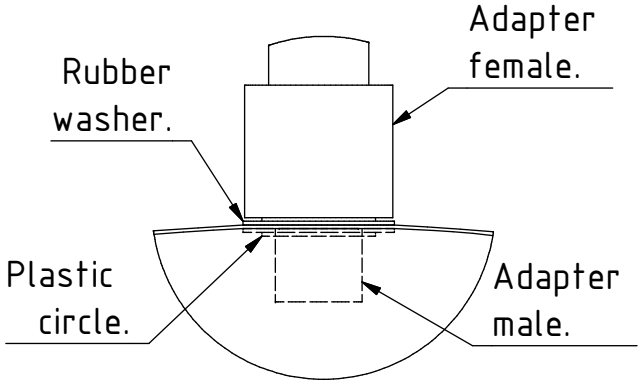
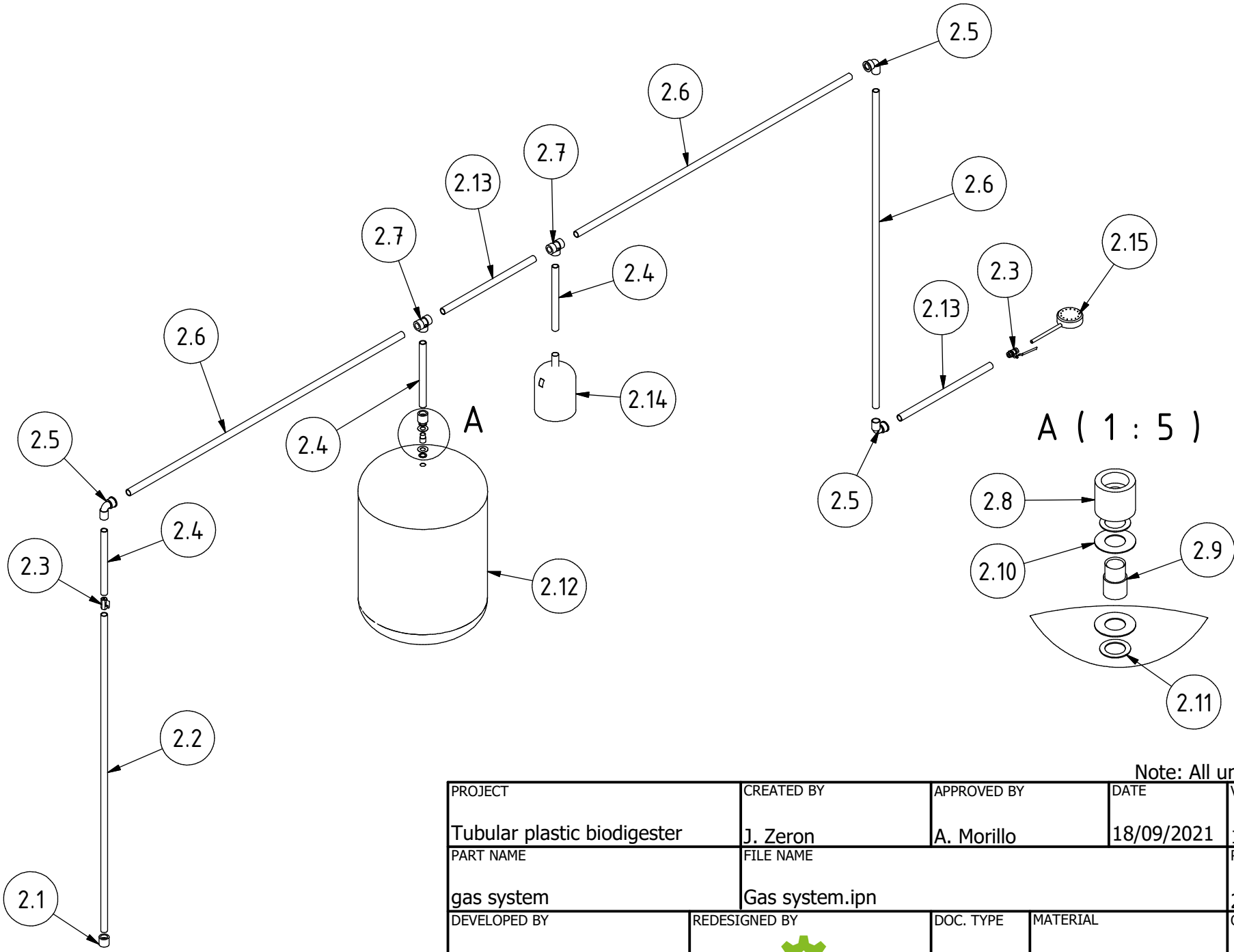


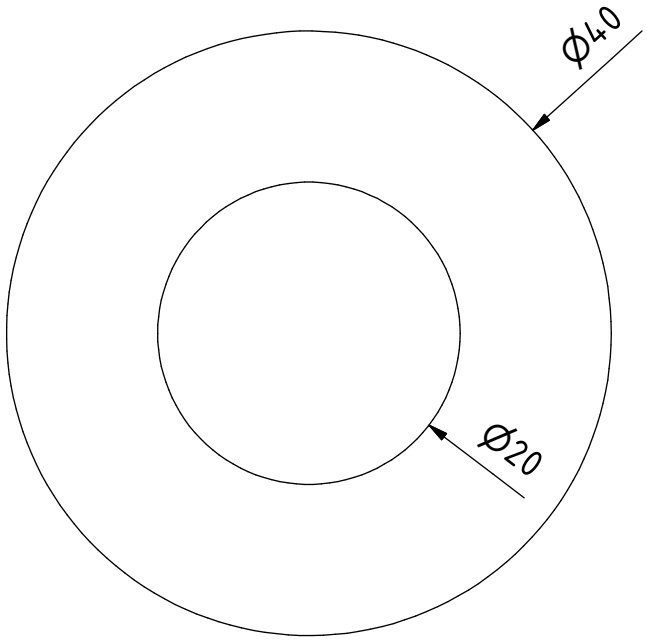
Note: All units in mm.

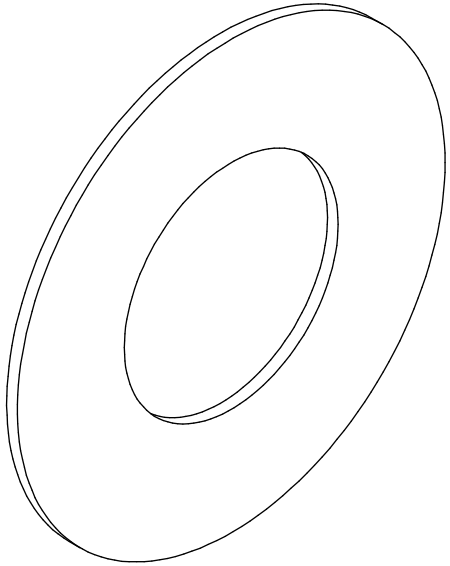
PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
gas system	Gas system.ipn			2.0
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Assembly		1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:20	13 /18



Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
gas system	Gas system.ipn			2.0
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Assembly		1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:20	14 /18





Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Rubber washer B	Rubber washer B.ipt			2.10
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Part	Rubber	2
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:0.50	15 /18

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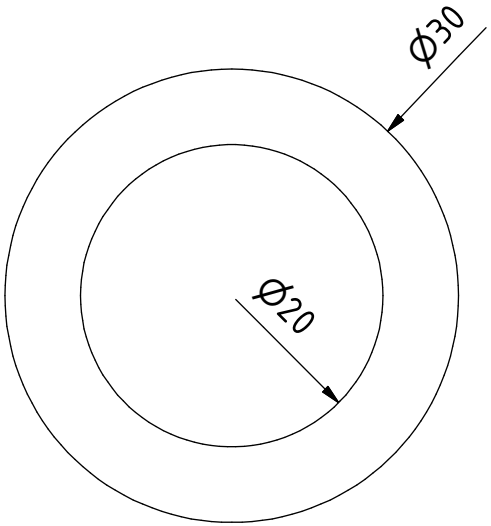
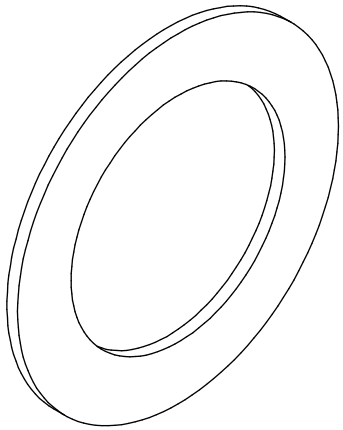
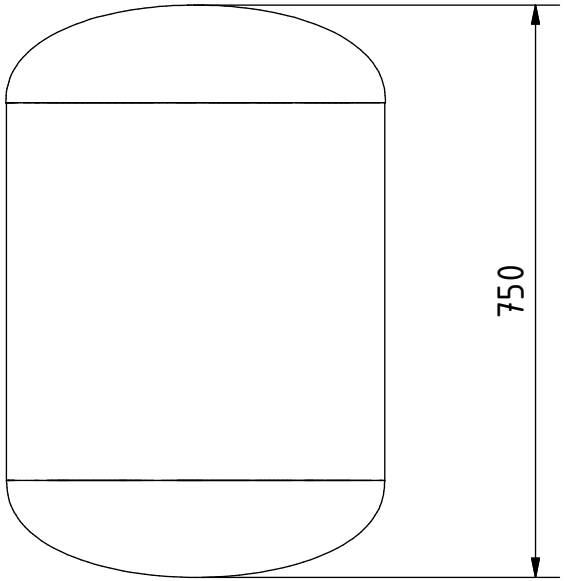


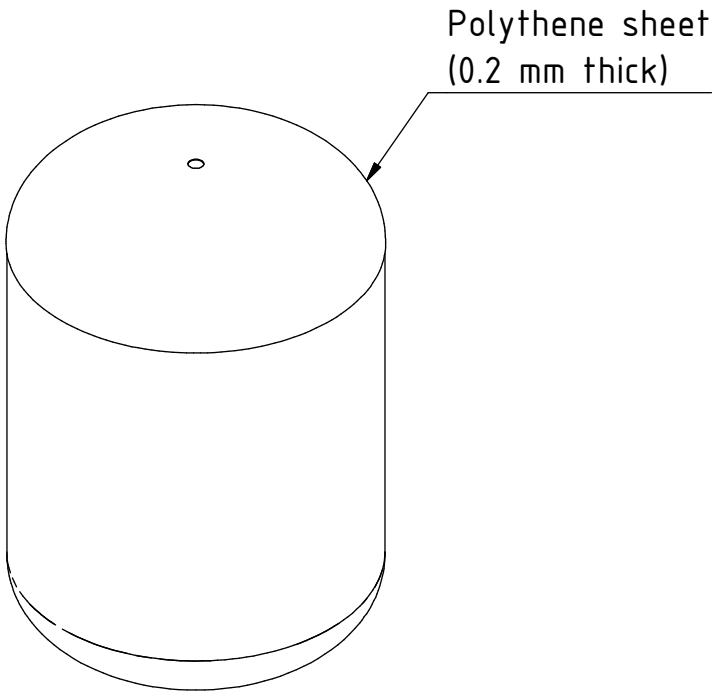


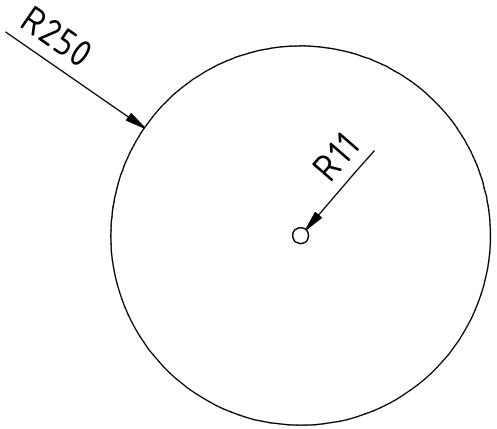
Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Plastic circle B	Plastic circle B.ipt			2.11
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Part	Plastic	2
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:0.50	16 /18

OPEN SOURCE ECOLOGY GERMANY

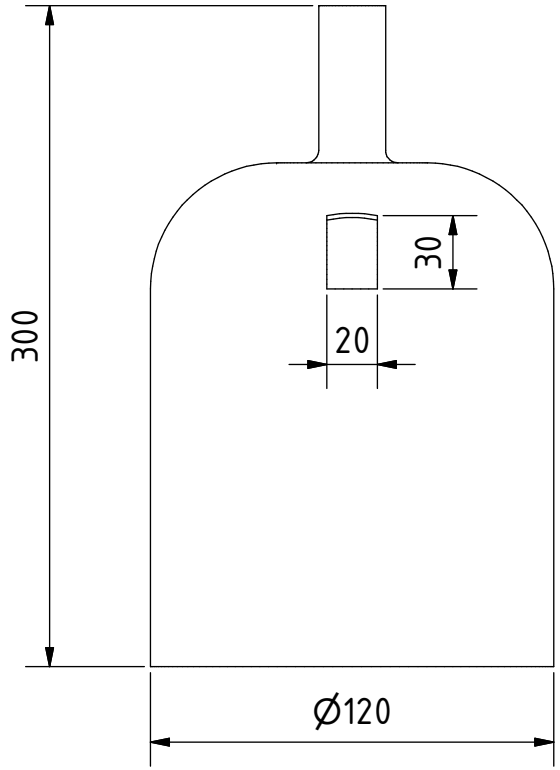


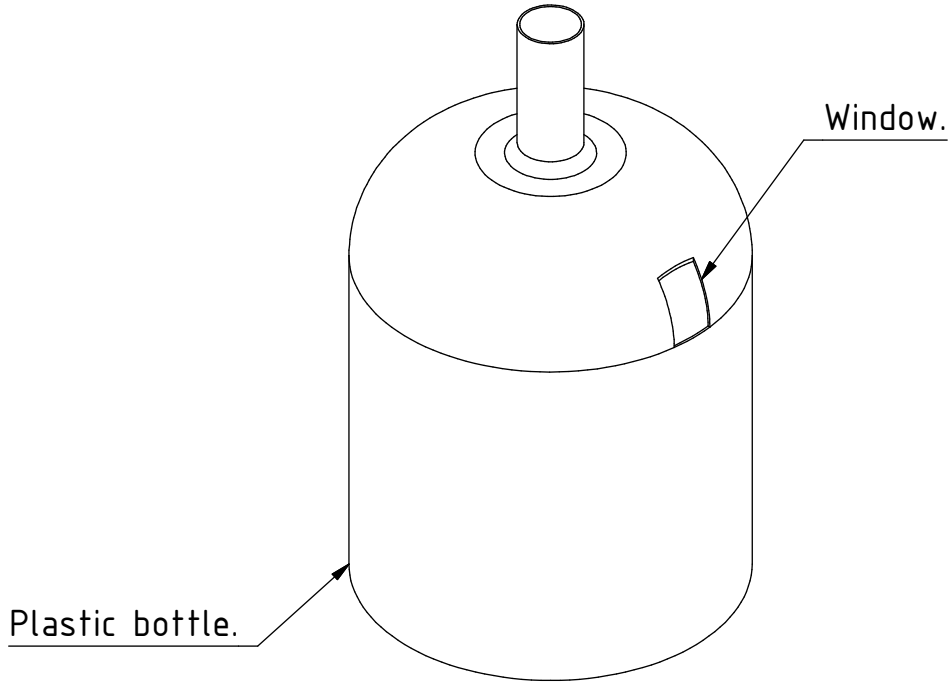


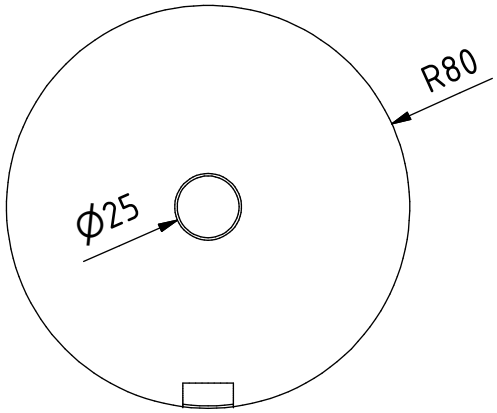


Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Reservoir	Reservoir.ipt			2.12
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Part	Polythene sheet	1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:10	17 /18







Note: All units in mm.

PROJECT	CREATED BY	APPROVED BY	DATE	VERSION
Tubular plastic biodigester	J. Zeron	A. Morillo	18/09/2021	1.0
PART NAME	FILE NAME			POS
Water trap	Water trap.ipt			2.14
DEVELOPED BY	REDESIGNED BY	DOC. TYPE	MATERIAL	QUANTITY
University of Aarhus	OSEG	Part	Plastic bottle	1
		LICENCE	SCALE	SHEET
		CC-BY-SA 4.0	1:3	18 /18