



## TECHNICAL NOTES

NOTES	CONTENT
General notes	
Metal structure treatment	<p>Iron structures should be painted to prevent rust and improve equipment life.</p> <ul style="list-style-type: none"> <li>- Remove loose rust with a wire brush, sandpaper or chemical rust remover.</li> <li>- If applicable, sand areas where paint is chipping until surface is smooth.</li> <li>- Remove dust or oil with a degreaser or denatured alcohol.</li> <li>- Prime surface to protect against rust and corrosion.</li> </ul> <p>Inside the absorber: After the paint or primer, paint the topside with two layers of dull blackboard paint.</p>
Foundations fixing	<ul style="list-style-type: none"> <li>- The ground must be stable and have a low water table.</li> <li>- The structure must be fixed on firm concrete soil or on poured footings with steel reinforcement.</li> <li>- The anchorage can be bolted with expansive ramplugs or welded.</li> </ul>
Wood treatment	<ul style="list-style-type: none"> <li>- The wood must be treated with pesticides and kiln-dried to ensure adequate humidity.</li> <li>- Wood sealer should be applied for later use.</li> </ul>
Insulation material	<p>For thermal insulation material, the following can be used, among others:</p> <ul style="list-style-type: none"> <li>- polystyrene, - fiberglass, - empty bags of fibre with sawdust, - Coconut-fibre.</li> </ul> <p>With good radiation and thermal insulation, the system can produce water between 40 and 70 °C.</p>
Tube bending	<ul style="list-style-type: none"> <li>- A wooden frame is needed to support the iron parts of the pipe bending set.</li> <li>- Bend gradually without forcing the set.</li> <li>- The horizontal pieces of the pipe should be slightly inclined upwards to avoid airlocks.</li> <li>- Use a water pump plier to prevent that the pipe slips away during the bending activity.</li> <li>- After bending the pipe, it will spring back. To keep the right angle in between the bends, you have to measure 12 cm. (in the middle).</li> </ul>

PROJECT		CREATED BY	APPROVED BY		
ZIGZAG SOLAR WATER HEATER		D. MOSQUERA	D. JAEGER		
PART NAME		PART CODE	DOCUMENT TYPE	MATERIAL	
		C1	TECH NOTES		
DEVELOPED BY	REDESIGNED BY	LICENCE	FILE NAME	VERSION	QUANTITY
		CC-BY-SA		1.1	
WOT-UNIVERSITY OF TWENTE			SCALE	SHEET	DATE
				8 /54	4/3/2021