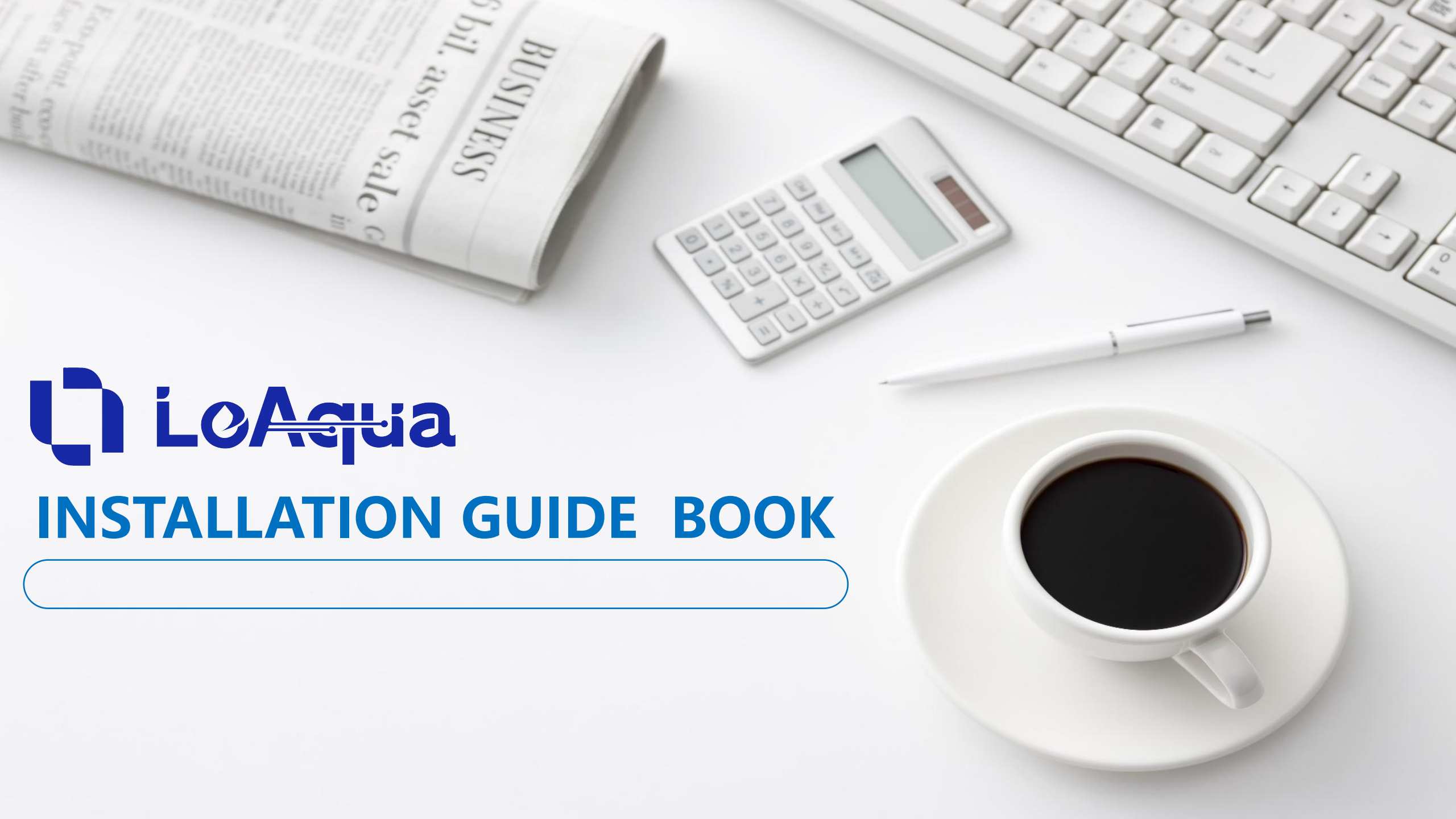




LoAqua

INSTALLATION GUIDE BOOK

目 录



01

PREPARATION



02

INSTALL
FODUNDATION



03

INSTALL WATER
TANK BODY



04

LEAKAGE
INSPECTION
AND
ACCEPTANCE

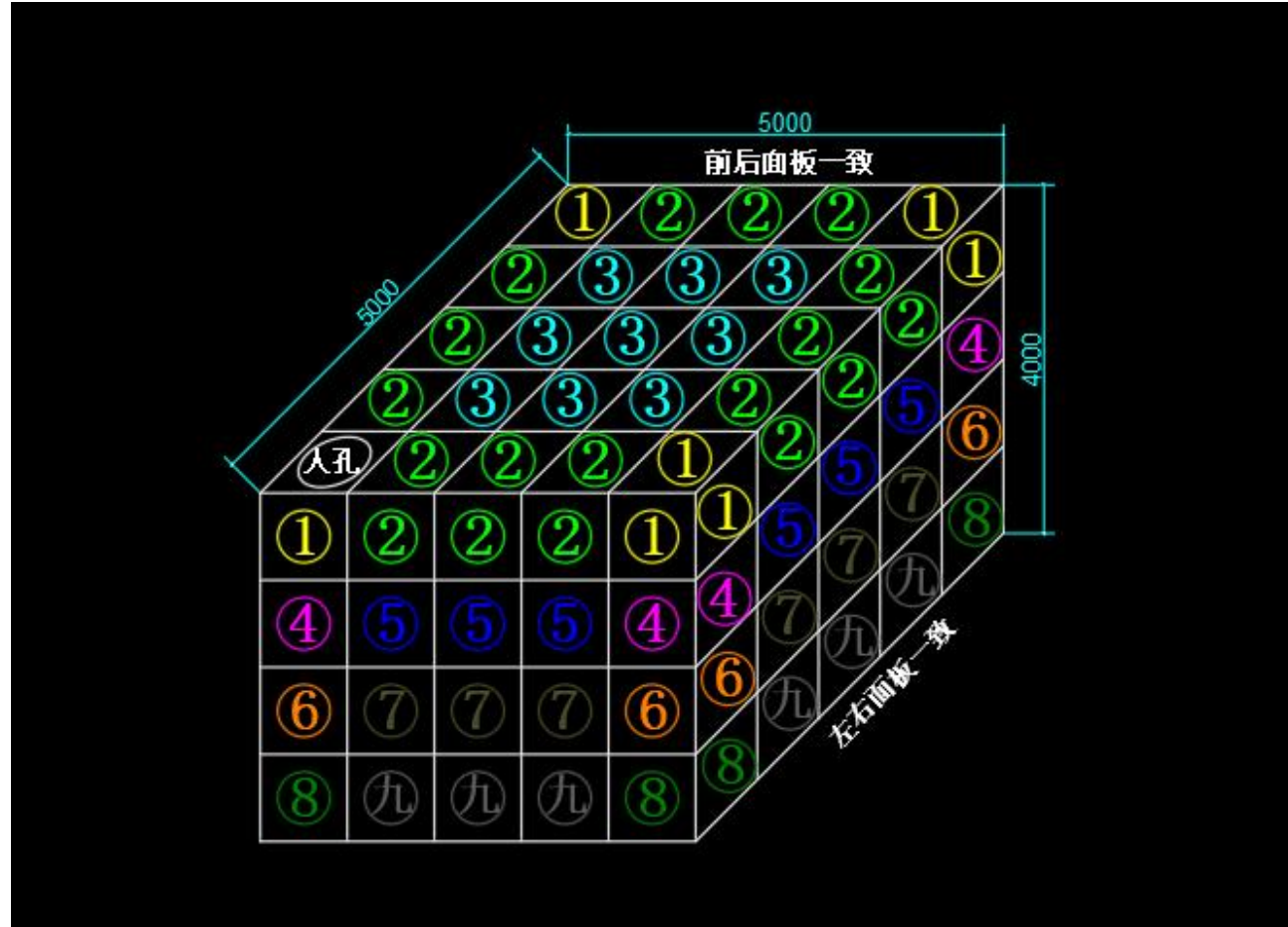


01



PREPARATION

Carefully review the water tank drawings, and check according to the supply material list. you can find the number ①②③...on the plates.assembling the water tank according to the drawing below and making sure every plate at its right place.



Check the foundation beam according to the drawing parameters. The center distance of adjacent strip beams shall be checked; Width and height of each beam; The surface of strip beam shall be leveled to a plane.



Two diagonal lines, one orange and one teal, in the top-left corner.

02



INSTALL FOUNDATION



The channel steel shall be straight and the weld shall be firm during butt joint. The butt joint of the channel steel must be set on the foundation. The length and width of the outer side of the foundation are the same as those of the water tank.



The steel direction of the main channel is 90 degrees to the direction of the concrete beam, with a spacing of 50cm.



After confirming the direction of the channel steel and the foundation beam, conduct welding. Ensure that the diagonal lines are equal during welding. The gap between the smooth and full weld and the flatness of the tank base shall not be greater than 5mm





Horizontal deviation of bottom base of water tank after assembly: $\pm 2\text{mm}$ for every 1000mm of length. See the table for diagonal deviation.

Specification, dimension and allowable deviation of water tank bottom plate

Length and width	Straightness deviation (1000mm)	Height deviation
1500mm×1000mm	$\pm 2\text{mm}$	$\pm 3\text{mm}$
2000mm×1000mm	$\pm 2\text{mm}$	$\pm 3\text{mm}$



Allowable deviation of diagonal length of water tank underframe

Length of water tank underframe (L)	Allowable diagonal deviation
$1\text{mm} \leq L < 2000\text{mm}$	$\pm 3\text{mm}$
$2000\text{mm} \leq L < 5000\text{mm}$	$\pm 5\text{mm}$
$5000\text{mm} \leq L < 8000\text{mm}$	$\pm 8\text{mm}$
$\geq 8000\text{mm}$	$\pm 10\text{mm}$



Two diagonal lines, one orange and one teal, in the top-left corner.

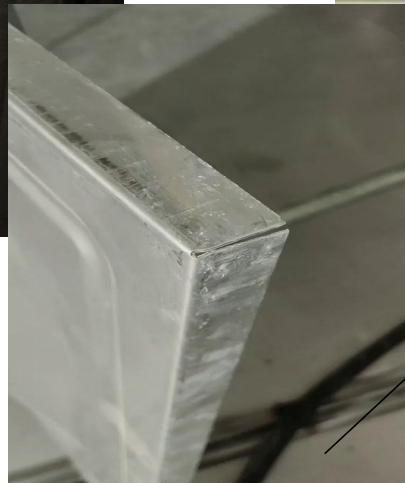
03

A white paperclip icon in the top-right corner of the blue box.

INSTALL WATER TANK BODY

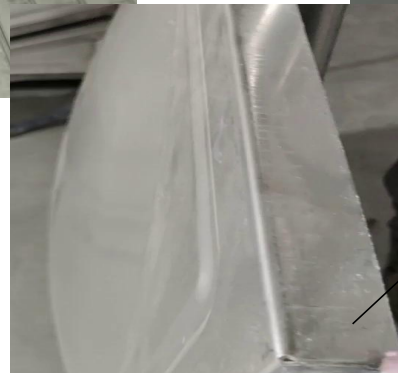
Two diagonal lines, one orange and one teal, in the bottom-right corner.

Fillet weld of water tank module. Firstly, the four corners shall be knocked and shaped. AS shown in the video



[click here to watch the video](#)

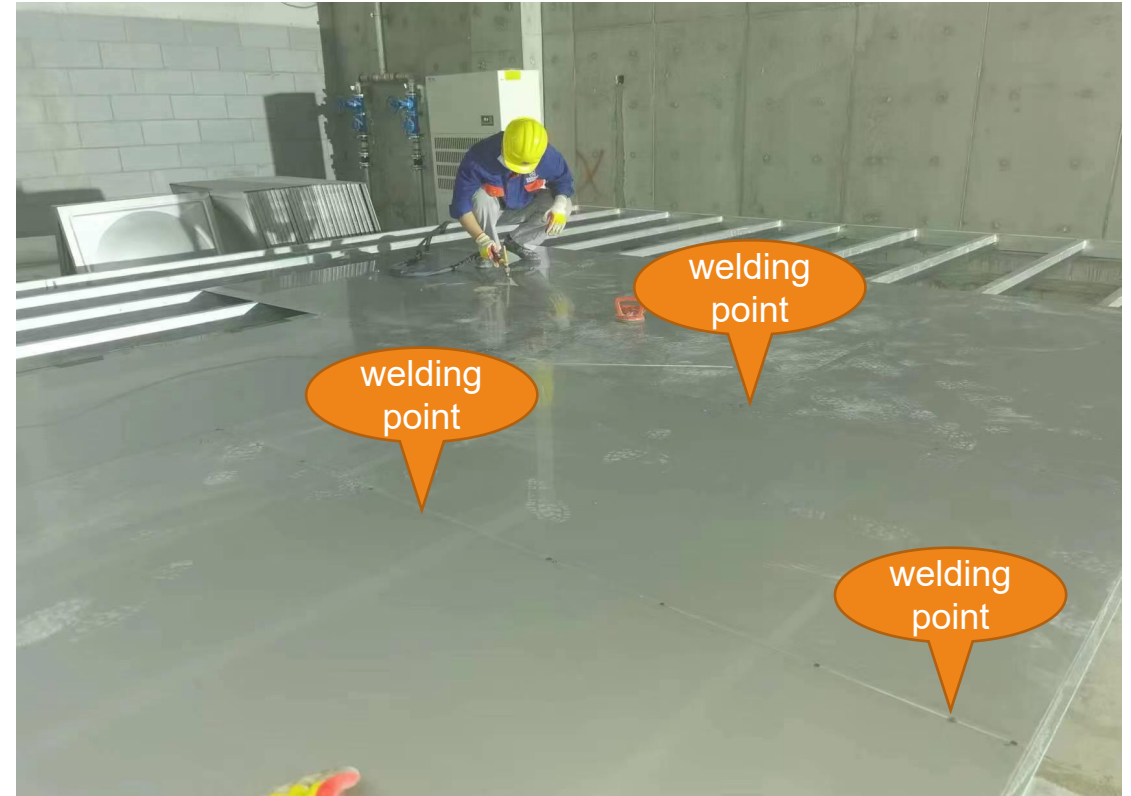
After treatment, argon arc welding shall be carried out, and the weld shall be flat to ensure no air hole.



[click here to watch the video](#)

1. BOTTOM PLATE

Laying and welding of the bottom plate: the bottom plate shall be assembled in an orderly manner from the big side to the inside, avoiding the "cross" weld. The plate weld shall be tight and flat, and the weld shall be on the channel steel foundation. The size of the assembled base plate shall be checked, and attention shall be paid to the adjustment when installing the side plate in case of any error.



2. SIDE PLATES



The assembled lower side plate shall be in the same line with the base plate, and the plate shall be close and flat.



The plate and plate shall be close and flat, the cross seam shall be horizontally aligned, and the outside of the assembled side plate shall be flat and free of solder joints.

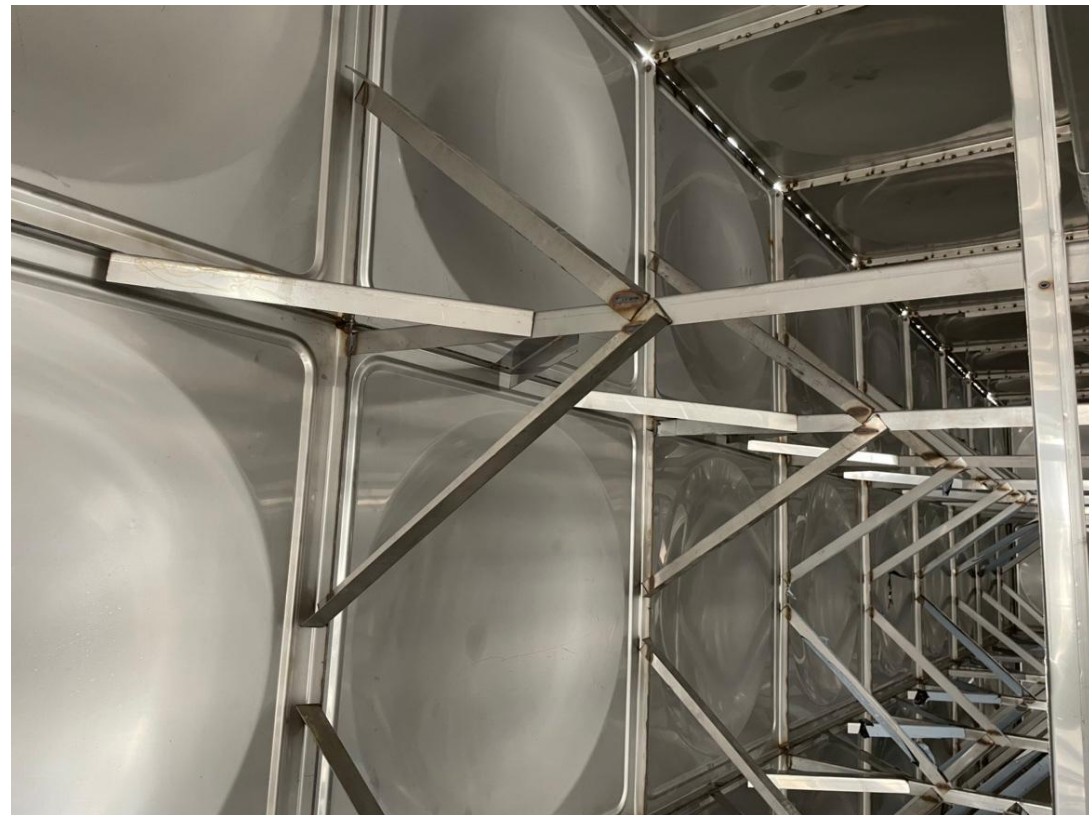
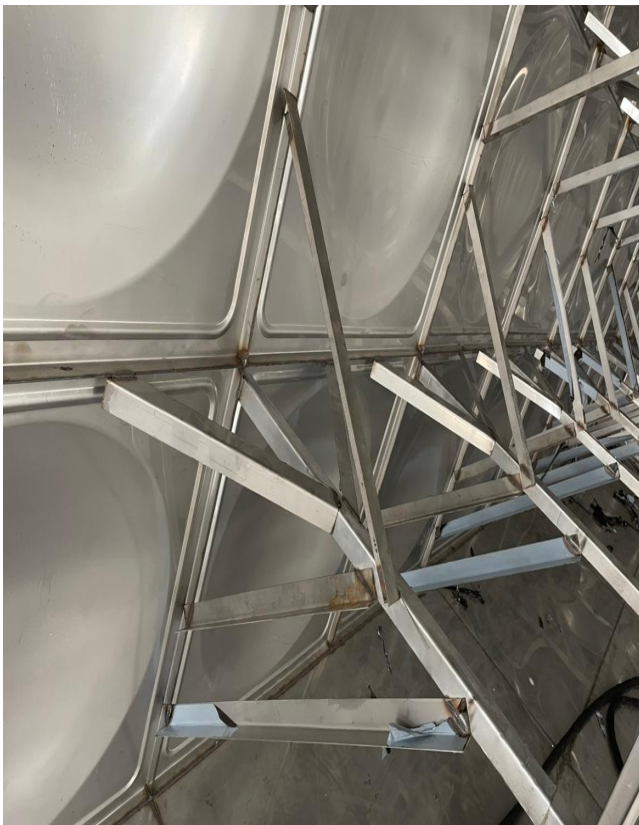


After the side plates are assembled, the cross seams of the side plates shall be welded by argon arc welding, and then the horizontal and vertical seams shall be welded. There shall be no air hole or undercut, and the seam shall be smooth without notch.



The internal lacing bars and supports of the water tank shall be made of angle steel made of stainless steel plates of the same grade. After all module welds are welded, prepare to weld the internal tie bars. First, butt the lacing bars according to the size of the water tank. The overlap of butt joints shall not be less than 10 cm. The overlapping parts shall be fully welded. The thickest lacing bars shall be placed at the lower side of the water tank, and so on. The lacing head and side plate joint shall be fully welded without false welding.

The tie bar is a U-shaped large tie bar welded at an interval of 1m. Each tie bar head shall be welded with 4 diagonal bars. The top shall be welded 0.5m downward and the corners of the box shall be welded with diagonal bars. All tie bar joints shall be fully welded. The tie bar shall be channel steel with the notch downward or to the side. The profiles are L-shaped or U-shaped, and the internal lacing bars are required to be 1-meter square three-dimensional layout.



The tie bar is a U-shaped large tie bar welded at an interval of 1m. Each tie bar head shall be welded with 4 diagonal bars.



3. TOP PLATES

The top plate can be installed as a whole, row or single piece. Ribs and top columns shall be added under the top plate, and the middle of the installed top plate shall be slightly higher than that without depression.



[Click here to watch the video](#)



Install the air vent on the top of the water tank
according to the number required in the drawing
(insect screen is required).





The escalator is installed in the middle of the two plates and close to the manhole or according to the customer's requirements, the U-shaped channel steel with a length of about 120mm is welded on the module of the box (4 for 2m escalator and 6 for 3m escalator). After that, the processed escalator and the claw of the escalator are welded. The installed escalator should be straight.





The water level gauge shall be installed at a place where it is not easy to collide or the installation position shall be determined according to the customer's requirements. The water level pipe with a height of more than 2 meters shall be equipped with a fixing buckle in the middle, and the water level pipe with a floating ball shall be installed in place inside the water tank.



Two diagonal lines, one orange and one teal, in the top-left corner.

04

A white paperclip icon in the top-right corner of the blue box.

LEAKAGE INSPECTION AND ACCEPTANCE

Two diagonal lines, one orange and one teal, in the bottom-right corner.



First, conduct the self inspection of the water tank. All welds shall be full and smooth, without slag inclusion, weld beading, air hole, undercut and crack. The installation position and quantity of water tank interface shall be consistent with the drawing. The inner hole diameter of interface and water level gauge shall be the same as that of connecting pipe. The escalator shall be installed firmly. There shall be no sundries inside the box. The box surface shall be straight, smooth, free of oil stains and free of obvious defects. The visible welding spots and welds on the outside of the channel steel foundation and the box surface shall be treated with paint.





After the self inspection is qualified, kerosene shall be used for preliminary leakage inspection. Clean the water tank first; The outside of the water tank plate shall be wiped clean; There shall be no gap between the bottom plate of the water tank and the strip beam.

During oil testing, kerosene shall be applied several times on the front side, and the inner side shall be carefully searched. Repair welding shall be carried out where kerosene is found.





Finally, the water holding test shall be carried out, and the water holding height shall reach the overflow hole. The inside and outside of the water tank shall be cleaned before the water test. The duration of the water test shall not be less than 24h. During the test, the observation surface of the water tank shall be kept dry. All welded joints and connection parts shall be inspected and there shall be no leakage. In case of leakage, retest after repair. The water shall be drained after the water test.

