OPERATION AND MAINTENANCE MANUAL

ATLA630CNC

EN 2022

FOREWORD

Dear Customers and Partners,

Thank you very much for purchasing our products, and we are confident it will create more value to your business.

In this manual book, you will find all the information and suggestions needed to operate our ATLA-CNC series workshop fitting welding machine in a safe, professional and proper way.
Therefore we strongly request you to read all messages in this book before the operators start using the machines.

As this machine is a professional device, and it must be limited to skilled and certificated personnel.

Now enjoy the welding journey through using RIYANG welding machines.

Sincerely

Note: We reserve the rights to change the technical parameters without prior notice.

Jack Chan

RIYANG™
INSPIRED BY FUSION WELDING

INDEX

1. Technical Parameter

RIYANG ATLA-CNC series is workshop fitting fabrication machine. It is used to fabricate fittings such es elbow, tee, crosses and wye. It is also suitable for welding plastic pipes and fittings made of HDPE, PP, PVDF and other thermoplastic materials.

Technical Parameters	ATLA 630 CNC
Welding Range/Elbow O.D. (mm)	315 - 630
Welding Range/Tee O.D. (mm)	315 - 630
Welding Range/Crosses O.D. (mm)	315 - 630
Welding Range/Wye O.D. (mm) *	315 - 630 (45°&60°)
Applicable Materials	HDPE, PP, PVDF and other thermoplastics material
Power Supply	380V, 50/60Hz
Rated Power (kW)	30
Overall Machine Weight	3750Kg/8250lb
Machine Chassis	
Piston Area(cm²)	19.63
Chassis Dimension (mm)	3750 x 2640 x 1350 148 x 104x 53in
Hydraulic Power Unit	
Rated Power (kW)	4
Working Pressure Range (Bar)	150 Bar
Hydraulic Oil	#46, SHELL TELLUS T46 is recommended
Oil Tank Volume (L)	24
Heating Plate	
Rated Power (kW)	22
Temperature Range	Maximum 270 ℃
Trimmer	
Rated Power (kW)	4
Options	
Stub end holder*	
Narrow clamp and layers*	

Each person who operate the machine has to confirm to the instruction of this manual.

* Available as option

2. Safety Precautions

The use of workshop fitting fabrication machine ATLA-CNC series is limited to skilled and certified personnel only. Any irregular operation could probably cause any injury. Attention please. ⚠

The safety precautions herein indicated must be taken into consideration all the time when operating the machine.

You should promptly replace the worn-out or damaged parts with original RIYANG spare parts only. Any sort of repair and maintenance must be conducted by authorized skilled and qualified personnel only.

2.1 Electrical Hazard

Hazard: Electric Shock
Parts involved: Electricity cabinet
Control unit

Make sure that the power supply correspond to the request of the machine. And all connections are done properly.

Earth the machine
Please make sure the earthed system is working properly.

⚠ **Important:**

The panel board plug must accord with the IEC 309 type with IP44 minimum protection degree.

Do not expose the machine to rain or any other liquids.

Do not expose the cables to chemical environment, mechanical strain, and keep it away from some sharp objects.

Make sure the the isolation protection device, such as safety gloves and shoes, are completely dry when machine working in wet environment.

It is forbidden to splash the machine in purpose of cleaning the machine.

Should clean the machine after use. It is forbidden to use solvents, gasoline, abrasive liquids and corrosive liquids, these could probably destroy the isolating parts.

Check insulation condition of machine periodically by qualified personnel, including earthed system, leakage switch, cables insulation.
Unplug the machine from power source immediately after use.

2.2 Cutting Hazard

Hazard: Cutting
Parts involved: Trimmer

Keep a safe distance from the trimmer when it is working.

Keep in mind that safety gloves is always needed.

2.3 Splintering Hazard

Hazard: Splintering
Part involved: Trimmer

Keep a safe distance from the trimmer when it is working.
Remember to clean the pipe ends before trimming, nothing remains on the trimming area.

Always wear safety glasses or goggles

2.4 Crush Hazard

Hazard: Crush
Part involved: Clamps/inserts and worktables

When crush happened between two worktables, immediately activate the directional lever to open the carriage. (the lever must go to the direction as show below)

Make sure that you are familiar to operate the machine before welding.
Make sure that the machine is stable at all times during the welding.
Make sure that nothing stays in the welding area before close the carriage.

2.5 Scald Hazard

Hazard: Scald
Part involved: Heating Plate

Keep a safe distance from the heating plate when it is working.
Do not touch the plate when it is working or still hot.
Clean the heating plate with maximum caution.
Do not touch the heating plate cover when the plate is heating or just take out.

Please always wear your safety gloves.

2.6 Fire Hazard

Hazard: Fire
Part Involved: Heating Plate

Be sure that flammable material kept away from the heating plate.

2.7 Equipment Safety

Hydraulic workshop welding machine is only operated by a professional or worker with trained certificate. A layman may damage the machine or others nearby.

2.7.1 Heating Plate

- The surface temperature of the heating plate could reach 270℃.Never touch it directly to avoid getting scald.
- Before and after using, clean the surface with a soft cloth. Avoid abrasive materials that may damage the Teflon coating.
- Check the heating plate cable and verify the surface temperature.

2.7.2 Trimmer

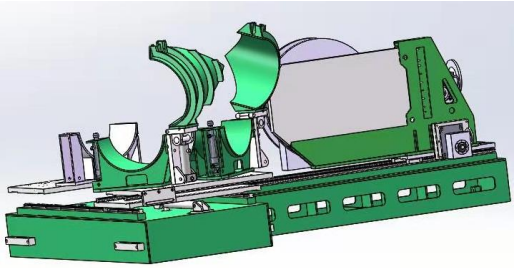
- Before trimming the pipes, ends of pipes should be cleaned. By doing this, the lifetime of blade can be prolonged, and also avoid the possibility of the shavings thrown out to the operator.
- Never be close to the trimmer when it is trimming the pipe ends.

2.7.3 Machine Carriage:

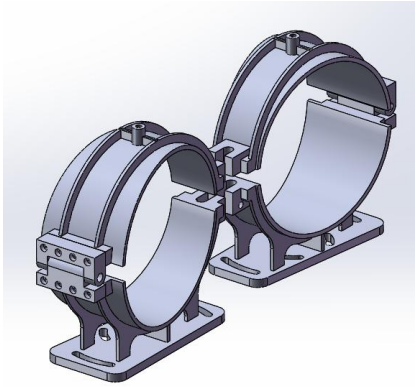
- Make sure the pipes or fittings are fixed correctly to get the right alignment.
- When joining pipes, the operator should keep a certain space to the machine for personnel safety.
- Make sure the machine body have a good balance before put into use.
- Before transporting, make sure all the clamps are fixed well and can not fall down during transportation.

3. General Welding Knowledge

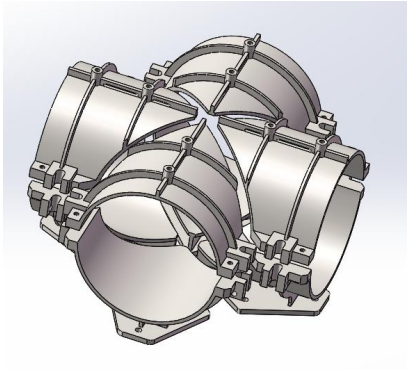
3.1 Parts you should know



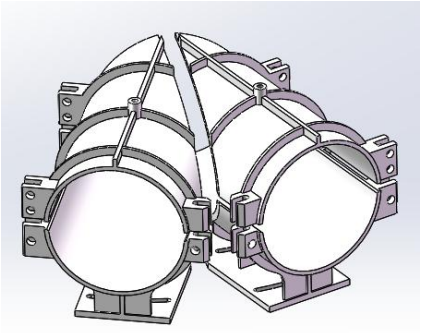
Name: General machine basis



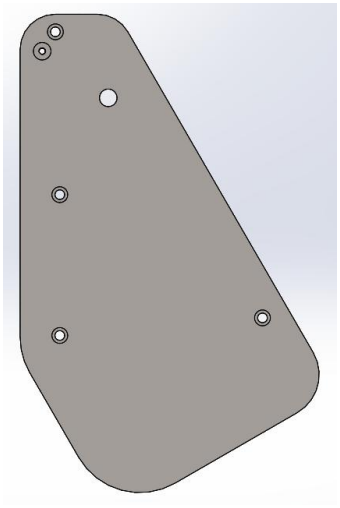
Name: Elbow clamps
Functionality:Used to make elbow fittings



Name: Tee&Crosses clamps
Functionality:Used to make tee&crosses fittings

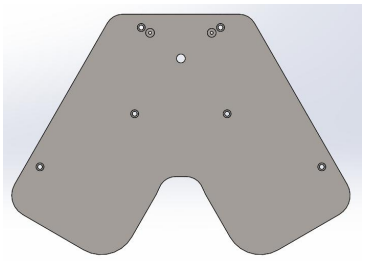


Name: Wye clamps
Functionality:Used to make wye fittings (45° & 60°)



Name: Wye clamps seat plate (I)
Functionality:Used to make wye fittings (45° & 60°)

Note: It is optional. Sent with Wye clamps upon request

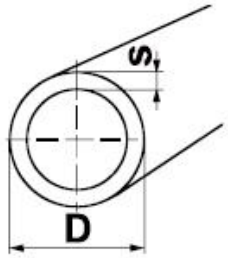


Name: Wye clamps seat plate (II)
Functionality:Used to make wye fittings (45° & 60°)

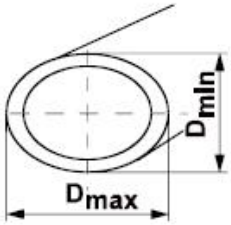
Note: It is optional. Sent with Wye clamps upon request

Name: Control unit
Functionality: All operations conducted by this control unit

3.2 Pipes specifications should respect the tolerance range established by the National Legislation and Regulation:

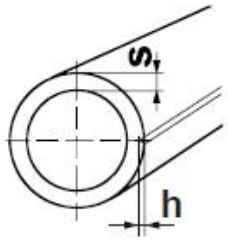


It must have same nominal outside diameter(D) and nominal thickness(S).



The oval-shaped

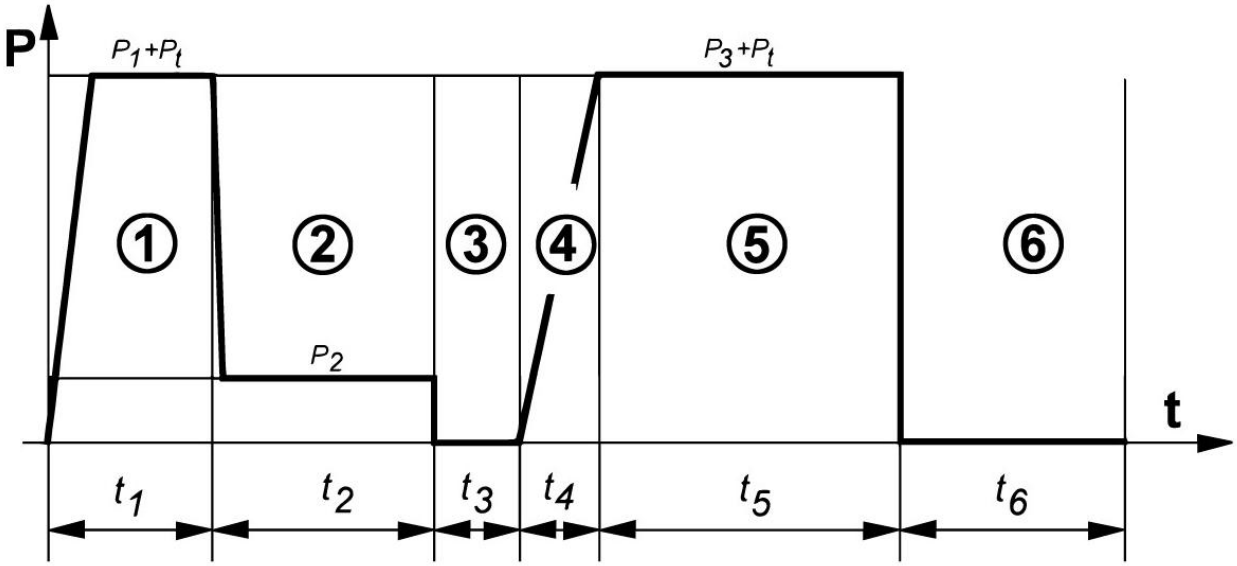
$$\frac{D_{max}-D_{min}}{D} \times 100$$



Scratches percentage(h: scratch depth)

$$\frac{h}{s} \times 100$$

3.2 Welding Procedure



P_1: Bead-up pressure

P_2: Maximum soaking pressure

P_3: Welding pressure

P_t: Dragging pressure (a pressure required to overcome the overall friction when machine carriage start to move with pipes/fittings fastened in the clamp. Operator read it from pressure gauge.)

t_1, t_2, t_3, t_4, t_5, t_6: Time requested for each phase 1, 2, 3, 4, 5, 6.

Phase 1: Bead-up

Approach both ends to be welded to the heating plate at the (P_1+P_t) pressure, and wait until the bead has reached the expected size from the standard requested.

Phase 2: Soaking

Reduce pressure to P_2 maximum value, to keep the ends in touch with the heating plate for the entire t_2 time.

IMPORTANT! The ends to be welded MUST NOT detach from the heating plate while the pressure is being reduced. If that happens, the welding must absolutely be repeated.

Phase 3: Removal of heating plate

Remove the heating plate within the maximum t_3 time, without damaging the beads.

Phase 4: Reach of welding pressure

Get both ends together while gradually increasing the pressure up to (P_3+P_t) value, within t_4 time.

Phase 5: Welding

Keep both ends together at the (P_3+P_t) pressure for the entire t_5 time.

Phase 6: Cooling

The joint must not be removed or suffer any sort of mechanical strain for the entire t6 time. Do not use water or compressed air to rush cooling. Protect the joint from very low or very high temperature, rain.

You are requested to follow the welding procedure strictly to make the right joints without any intention to reduce the welding time by mechanical strain.

3.3 Welding joint overview and analysis

Qualified joint by visual checking.

Narrow and fall bead. Too high pressure while welding.

Too small bead. Pressure is not enough while welding.

A ditch in the joint. Temperature is not reached or change-over time is too long before welding.

Misalignment. Welding under the condition that the misalignment exceeds 10% of pipe wall thickness while align the two ends.

4. Machine Description

Before operating this ATLA630CNC workshop fitting fabrication machine, the qualified operator should get to know the machine components and its functions. Any irregular operation could probably cause any injury or welding failure.

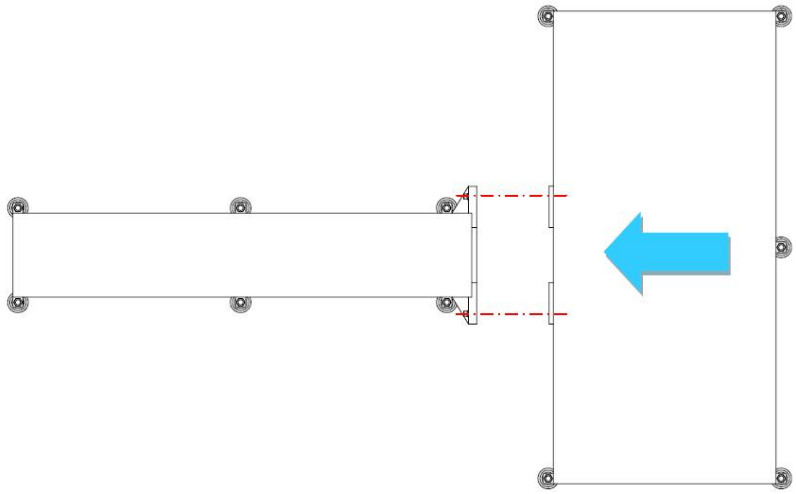
Item	Name	Functionality
①	Directional handle	Open/close the machine worktables
②	Trimmer on/off	Turn on/off the trimmer
③	Trimmer in/out	Electrically control the trimmer in/out movement
④	Heater on/off	Turn on/off the heater
⑤	Heater in/out	Electrically control the heater in/out movement
⑥	Buzzer	Alarm
⑦	Reset	Reset or terminate the welding program
⑧	USB port	Connect the USB flash device
⑨	Printer	Print out the welding record data
⑩	Screen	Display all information
⑪	Emergency button	Shut off the machine in case of emergency happen
⑫	Adjustable support wheel	Support the machine to have a good balance
⑬⑭	Table adjustment wheel	Adjust the worktable forward and backward for better alignment
⑮⑯	Table locker	To lock the worktable
⑰⑱	Clamps	Clamping the pipes
⑲	Electricity cabinet	Electricity cabinet
⑳	Trimmer	To shave the pipe ends before melting
㉑	Heating plate	To melt the pipe ends before jointing together

5. Operating Instruction

Again, please make sure below things are in position before welding:
Only qualified personnel is allowed to operate the machine.
The whole unit should be placed on the stable ground without water and fire, keep inflammable material out of heating plate reach.
The machine is in good condition, electricity cable and hydraulic hoses are not worn and broken.
The power supply should comply with that the machine requires.

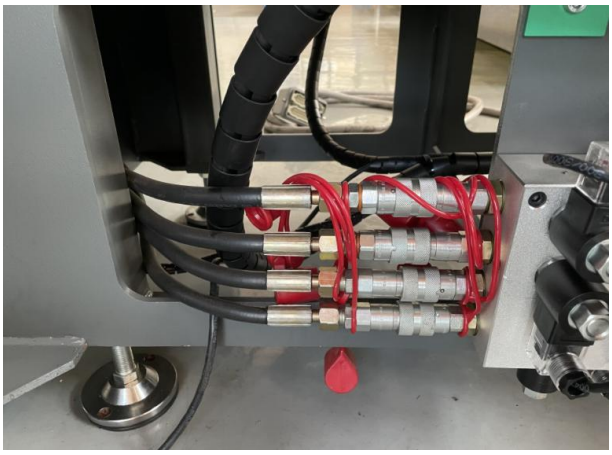
5.1 Chassis Connections

5.1.1 When lifting and installing the machine, keep it level.
5.1.2 The machine should be lifted by the hoisting point. If a forklift is used, it should be inserted carefully under the bottom of the machine to avoid damaging the oil hose and circuit.
5.1.3 Put the aft part of machine to right place, them move the fore part of machine to match the installing position, insert the locating pin then fixed them with.



5.1.4 Make sure two main parts are horizontal by adjusting the foot screws.
5.1.5 Connect the aft part and fore part by tightening the screws.

5.2 Hydraulic Connections



Remark: No mandatory for matching when you connect the male or female coupling

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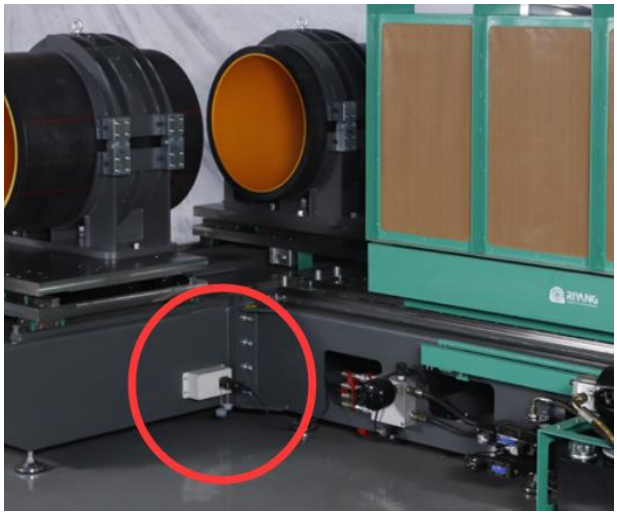
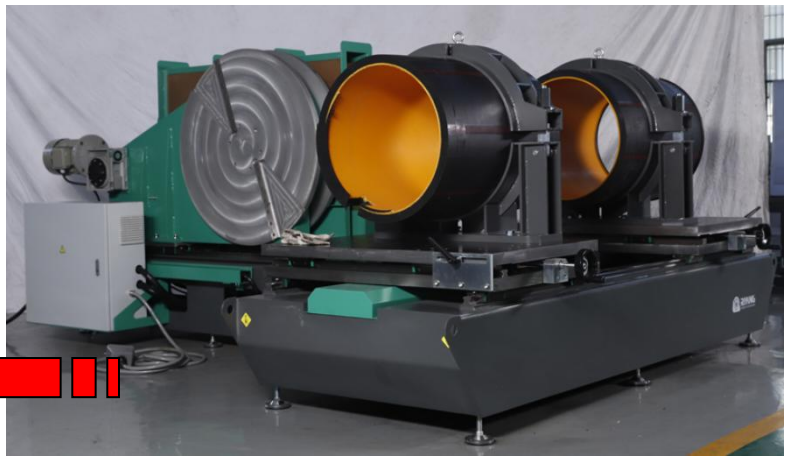
5.3 Electrical Connections

One-time quickly plug in the electricity cable and connect the machine with control table.





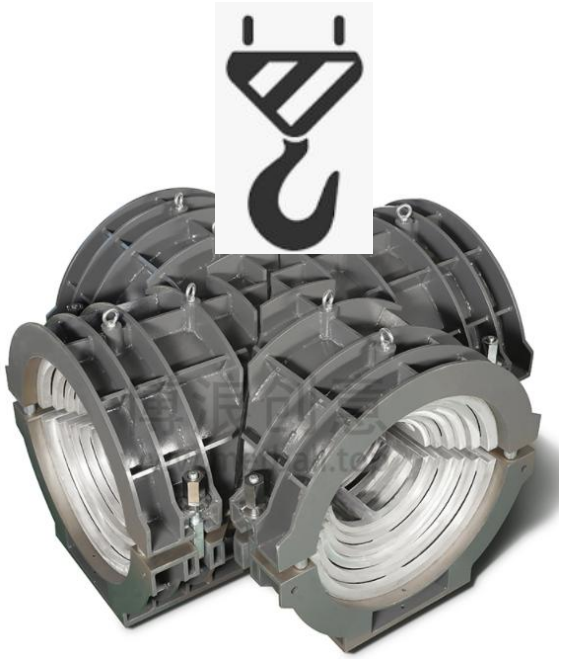
5.4 Clamps Installation

5.4.1 Lifting

When lifting and installing, the machine should be kept it horizontal, and never incline or reverse it to avoid possible damage.

If a forklift is used, it should be inserted carefully from the bottom of the machine carefully to avoid damaging the oil hose and structure frame.

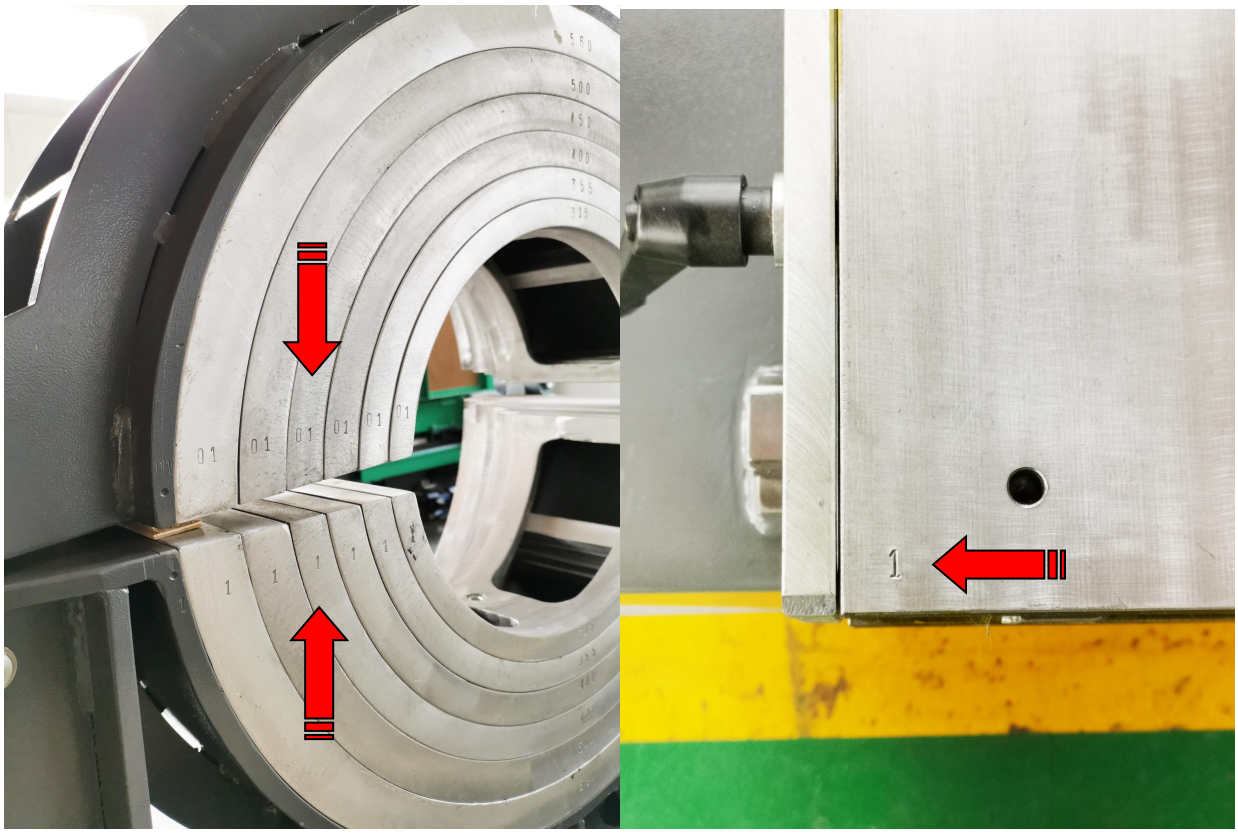
If a overhead crane is used, you should pay more attention to the lifting point and find the weight gravity for stable transportation.



Always remember to lift the eyebolt

5.4.2 Clamps selection and installation

When you install the reducers and clamps, please pay more attention to the unitarity. Image shown as below:

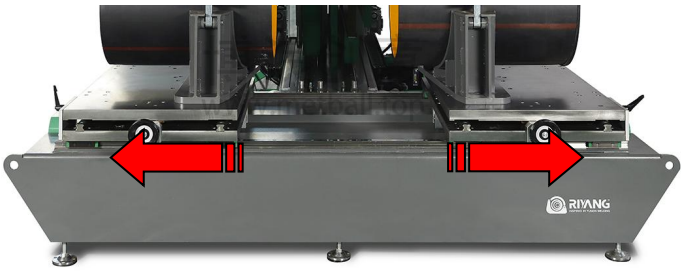


Important

Numbers(01/1, 02/2, 03/3, 04/4) marked on each layer and upper/bottom clamps, please pay attention to install the reducers and clamps by same number. When you fix the clamps on the worktables, please also pay attention to the number marked on the table.

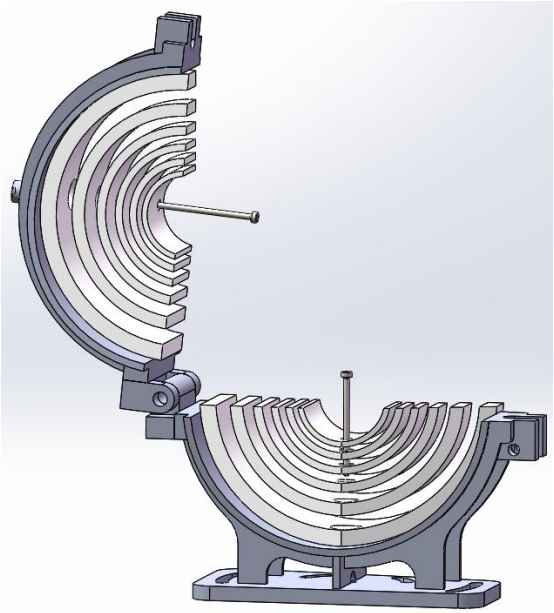
5.5 Prepare The Machine Carriage

Push the direction lever to left and open the carriage completely.



5.6 Select The Clamps & Inserts

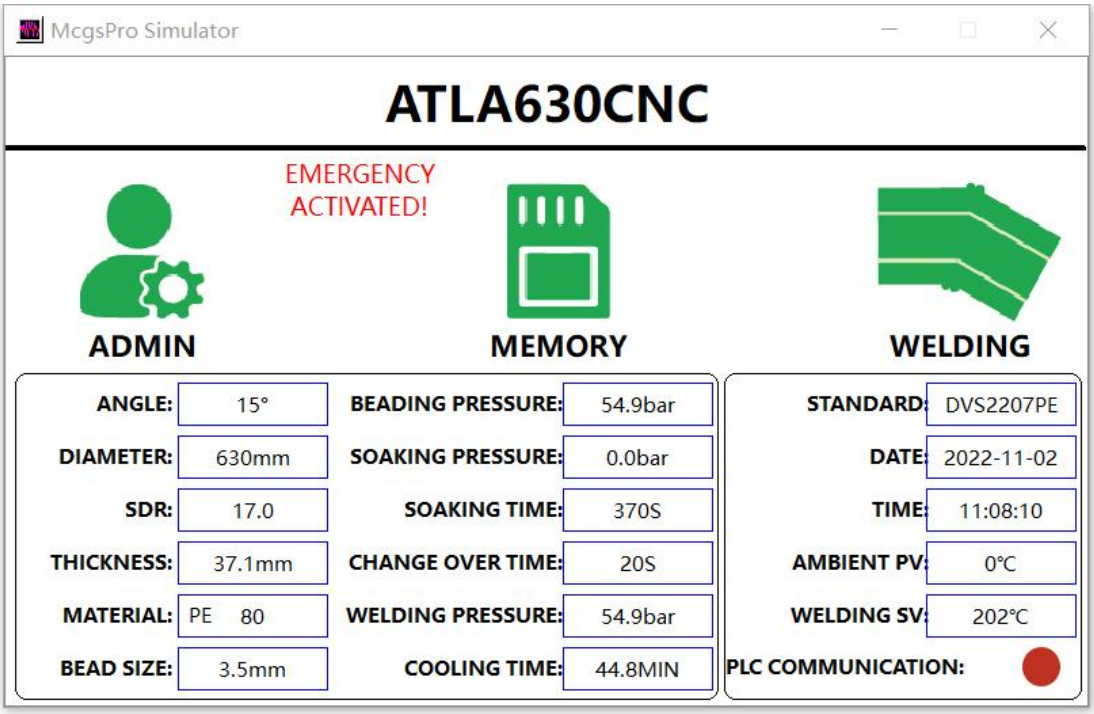
According to the fitting type fabricated, select the requested jaws and layers, and pick the suitable inserts screws in the toolbox, using the screwdriver to install the reductions to upper and bottom jaws. Repeat the operation with other clamps.



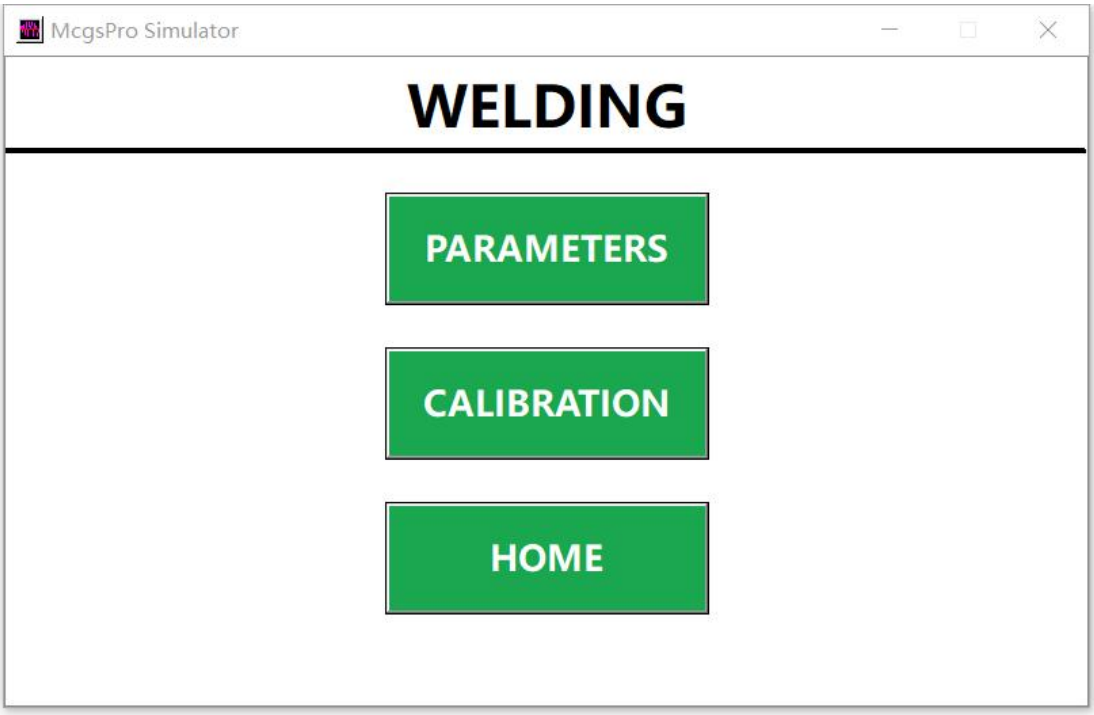
Note: More information about clamps installation will appear in the chapter of "Fabricating Fittings"

5.7 How to operate the welding system

5.7.1 Switch on the machine and shown as below screen.



5.7.2 Parameter setting. Press “WELDING” and shown as below.



“PARAMETERS”: Where the operator will set the pipe specifications, welding standard, fitting welded angles etc....

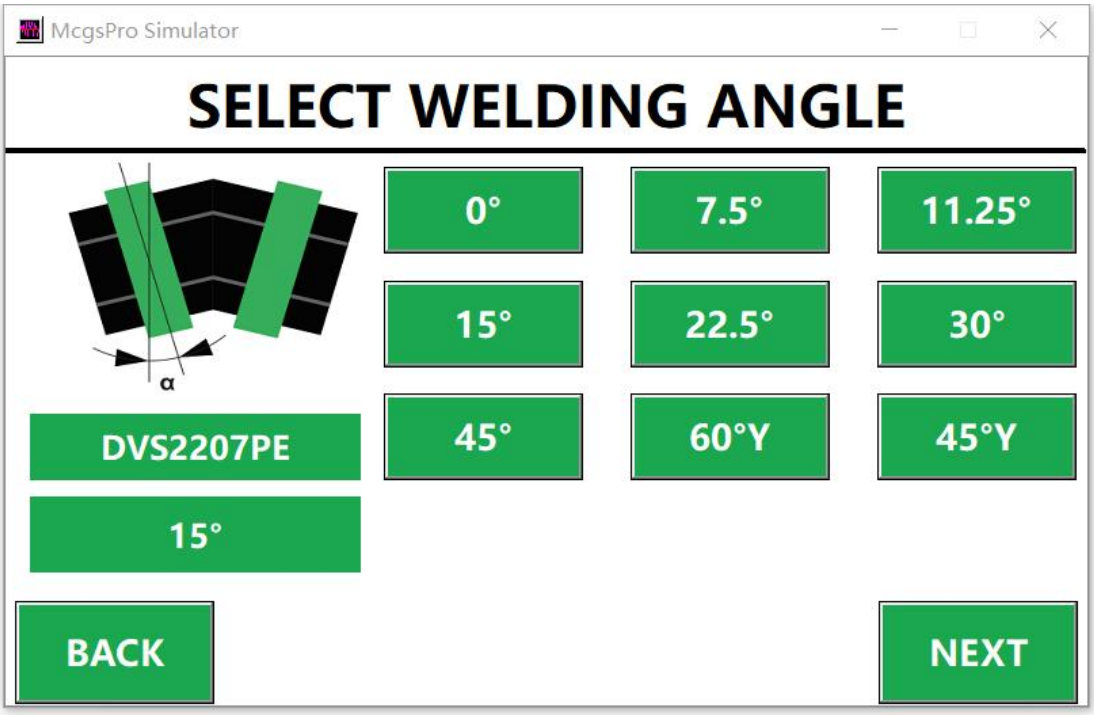
“CALIBRATION”: N/A at present.

“HOME”: Back to homepage

5.7.2-1 Press “PARAMETER” and go to select welding standard

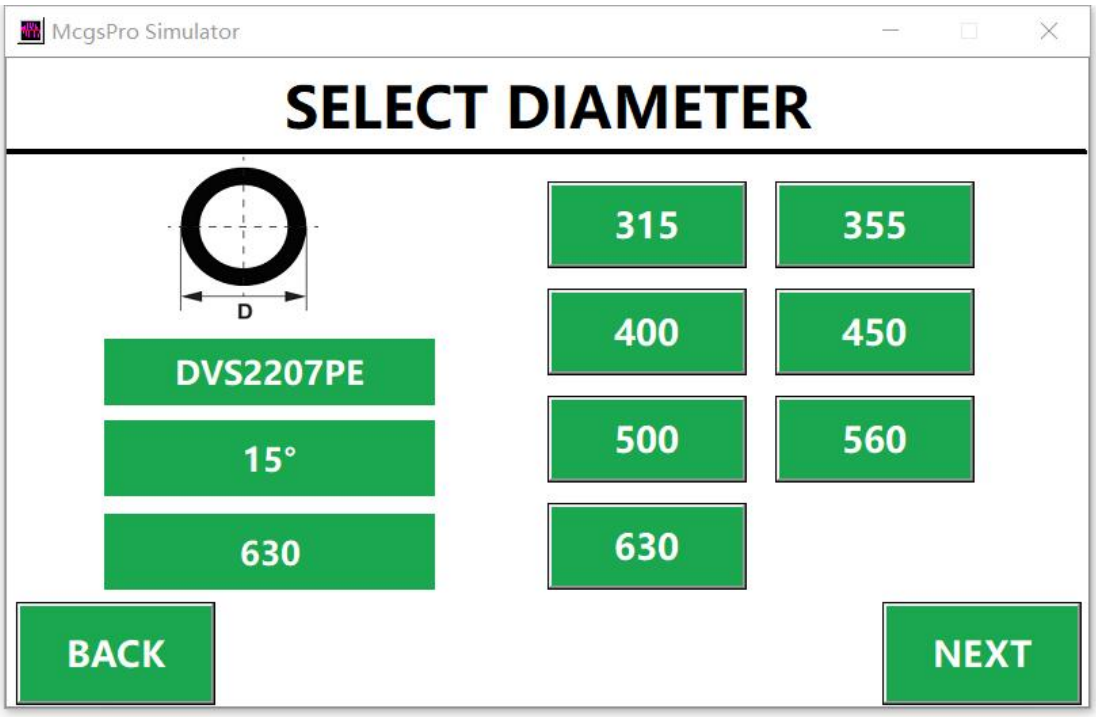
“CUSTOM”: Operator could custom the welding standard upon actual request.
After selecting, press “NEXT” .

5.7.2-2 Select Welding Angle



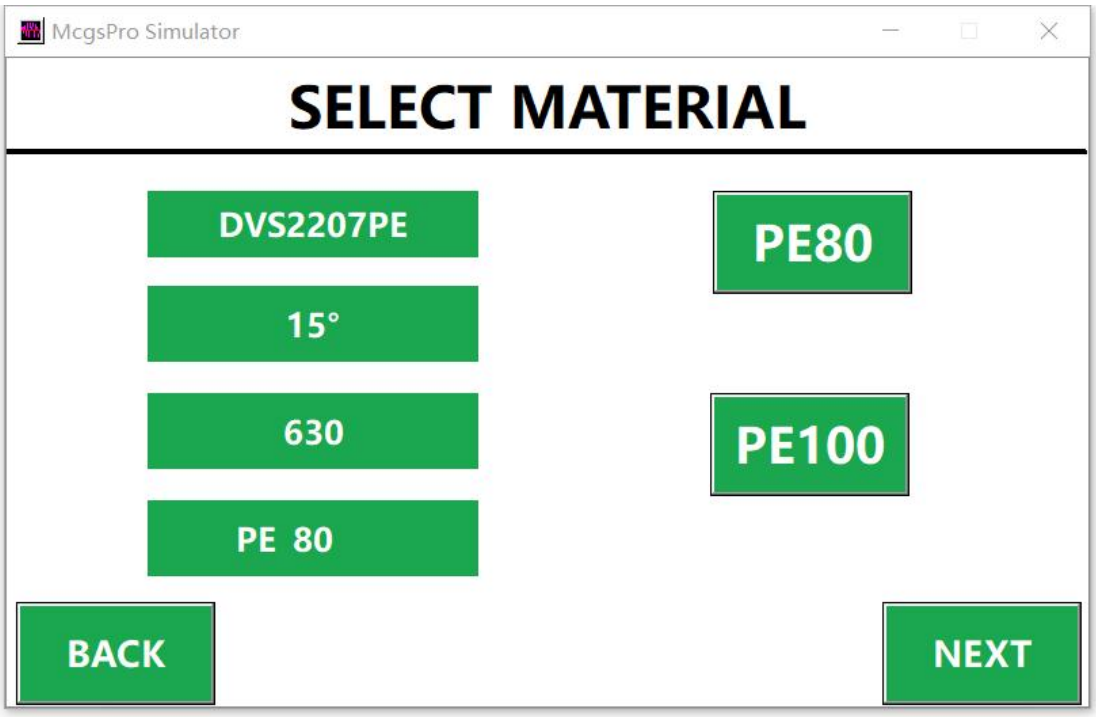
All selected parameters will be shown on the left, this gives operator one more chance to re-check.
After selecting, press “NEXT” .

5.7.2-3 Select Diameter



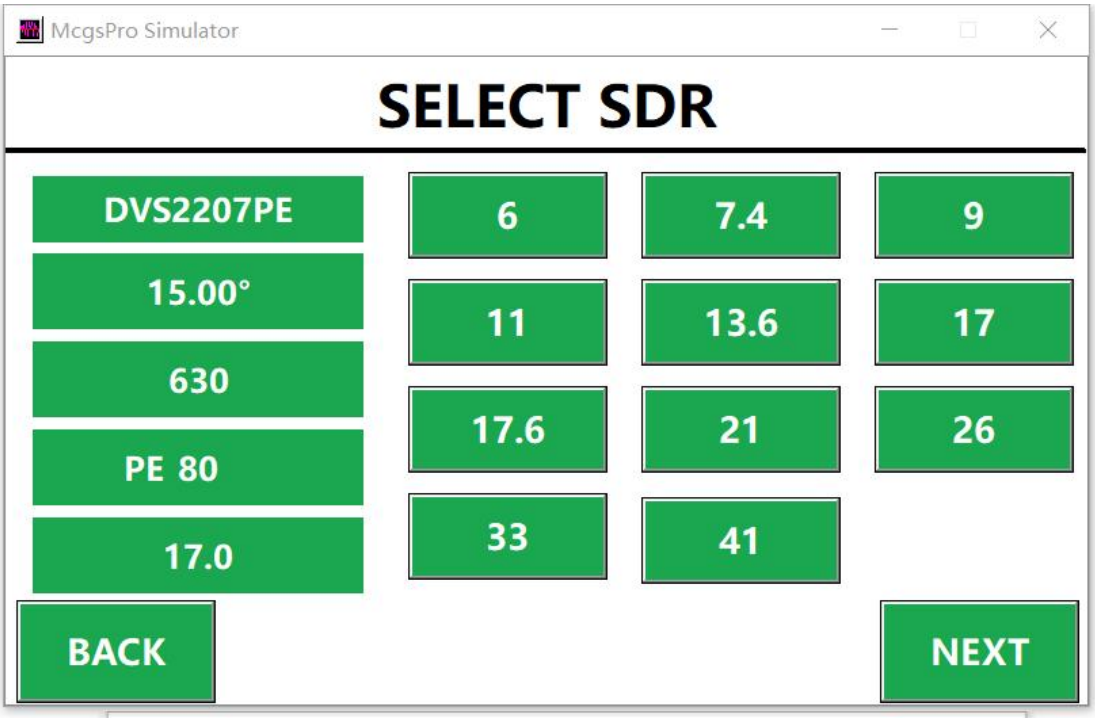
After selecting, press “NEXT” .

5.7.2-4 Select Material



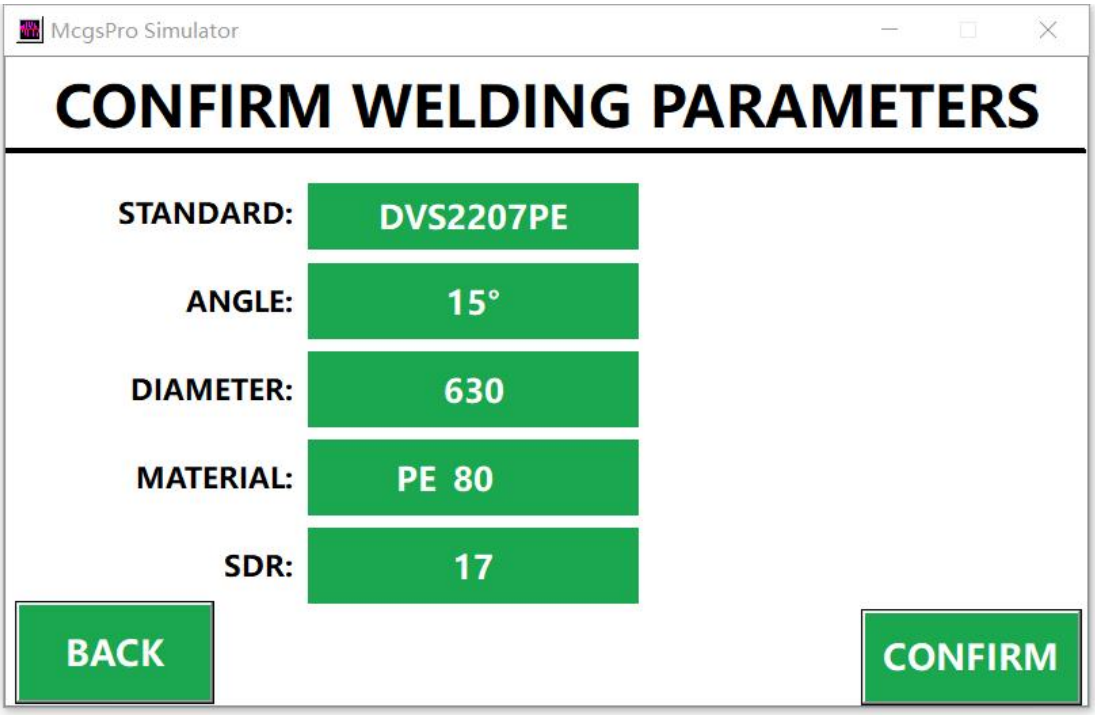
After selecting, press “NEXT” .

5.7.2-5 Select SDR

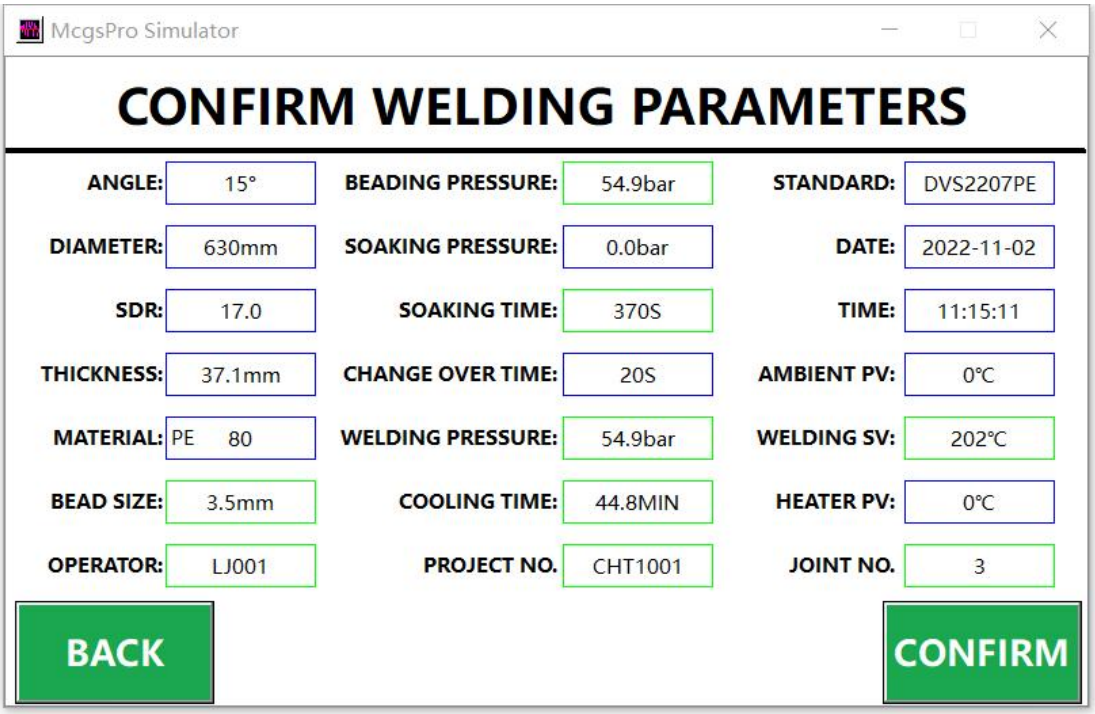


After selecting, press “NEXT” .

5.7.2-6 Confirm Welding Parameters

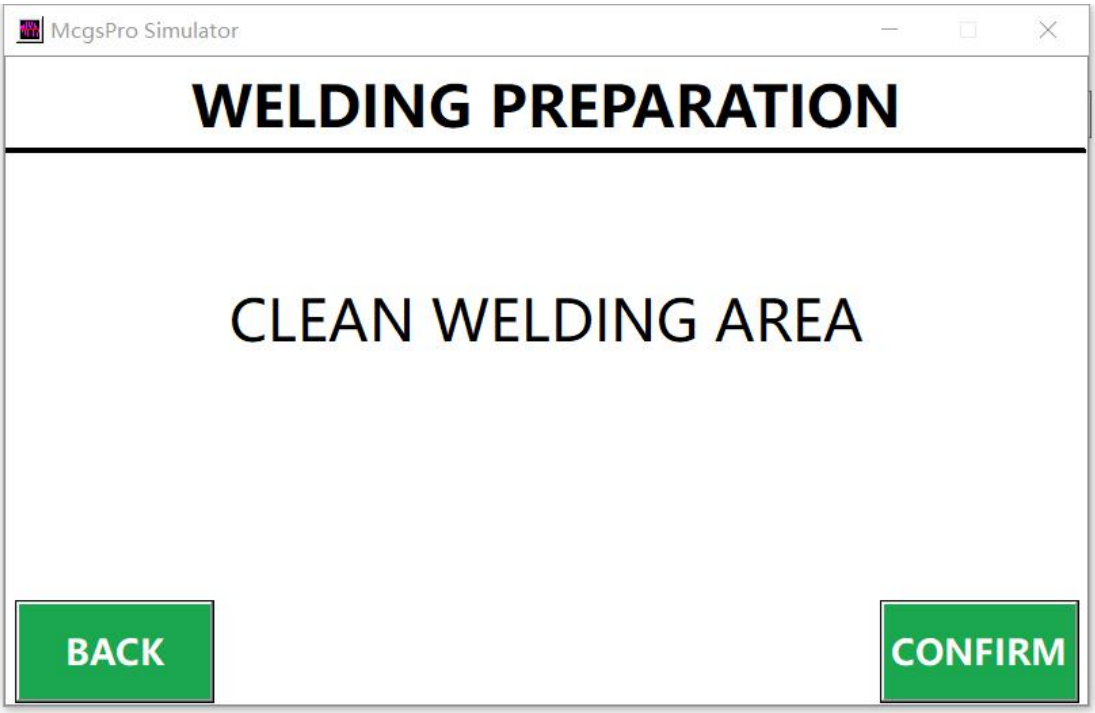


Press “CONFIRM” and show as below:



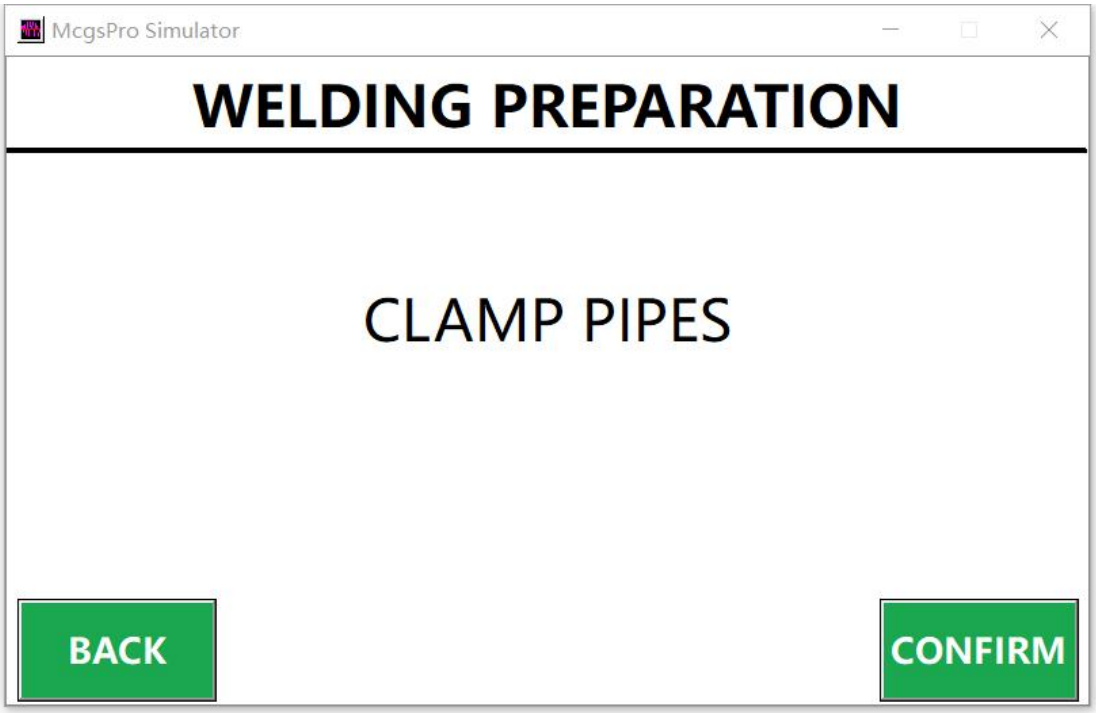
Operator has the access to edit content in green cells.
Fill in the information of “Operator” “project No.” “Joint No.”
Then press “CONFIRM” to move to next step.

5.7.3 Welding
5.7.3-1 Welding Preparation



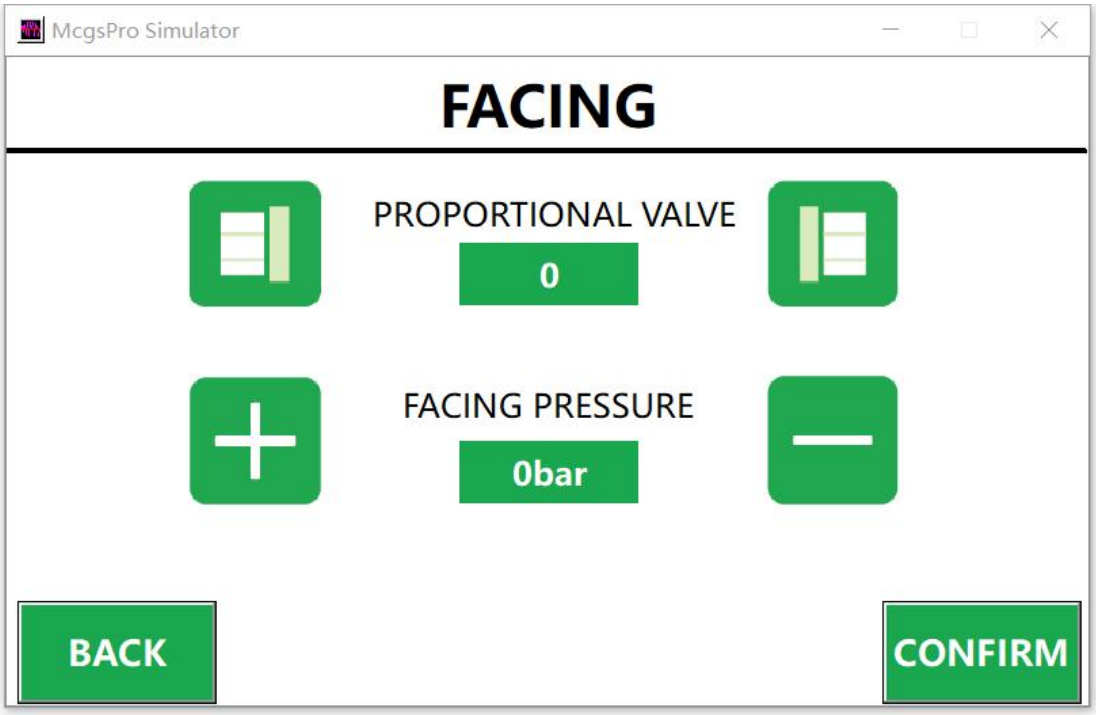
You are requested to clear the welding area and be sure no extra stuffs stay in this area.
Then press “CONFIRM”,

5.7.3-2 Welding Preparation- Clamping Pipes

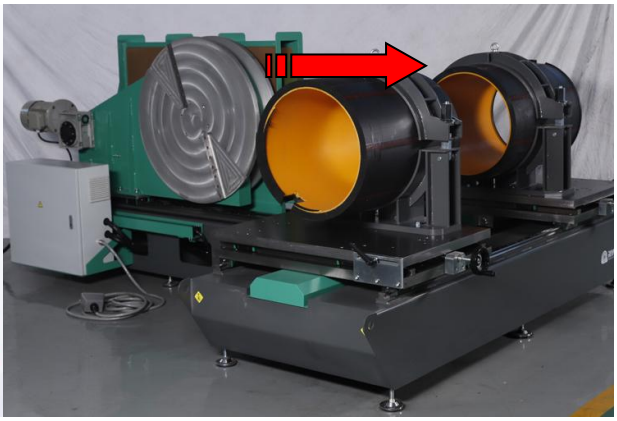


Do remember to leave enough trimming area of the pipes end.
Then press “CONFIRM”.

5.7.3-3 Facing



Rotate the switch of trimmer in/out to right and let the trimmer in between the pipe ends to be welded. Move the trimmer to the end position.



Turn on the trimmer by pressing trimmer on/off button. Then closing the worktables push the directional handle to right side.

In order to not overstress the trimmer motor, you should increase the trimming pressure gradually, to overcome the dragging pressure P_t. And the trimming pressure could be up to 20bar maximum.

You could increase and decrease the trimming pressure by pressing "  " "  " accordingly. The value of proportional valve will change according to the trimming pressure, this just gives a sign that the trimming pressure is increasing or decreasing, beside this, nothing matters.

The thickness of the chips should be within 0.2-0.5mm and can be adjusted by adjusting the height of the trimmer blades.

When the continuous and even chips come out from both pipe ends, push the directional handle to neutral position, and wait one moment before opening the worktables to the end. Stop the motor by pressing the on/off button.

Please remove the chips without touching the trimmed ends. Please clean the pipe ends if some dust remains.

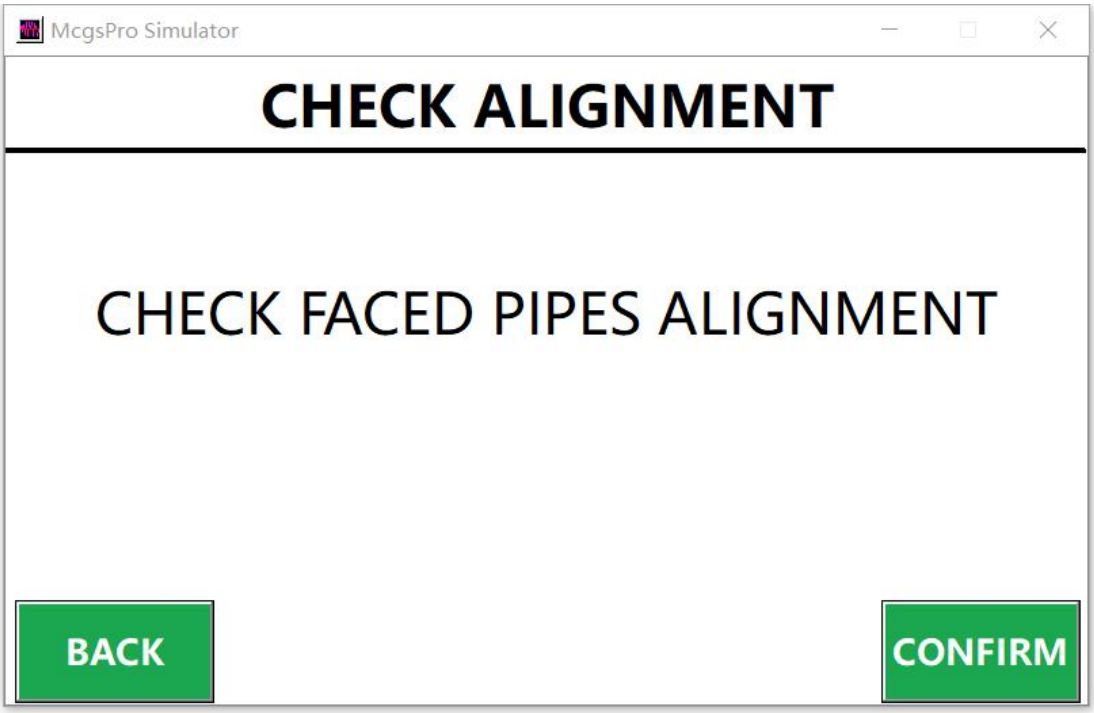
One side trimming

It is necessary when one pipe end is faced completely but another not done.

 : Left side trimming only. When pressing it, it is allowed to trim left pipe only and right worktable will stop moving. When press it once again, function will pause, right worktable will move to trimmer.

 : Right side trimming only. When pressing it, it is allowed to trim right pipe only and left worktable will stop moving. When press it once again, function will pause, left worktable will move to trimmer.

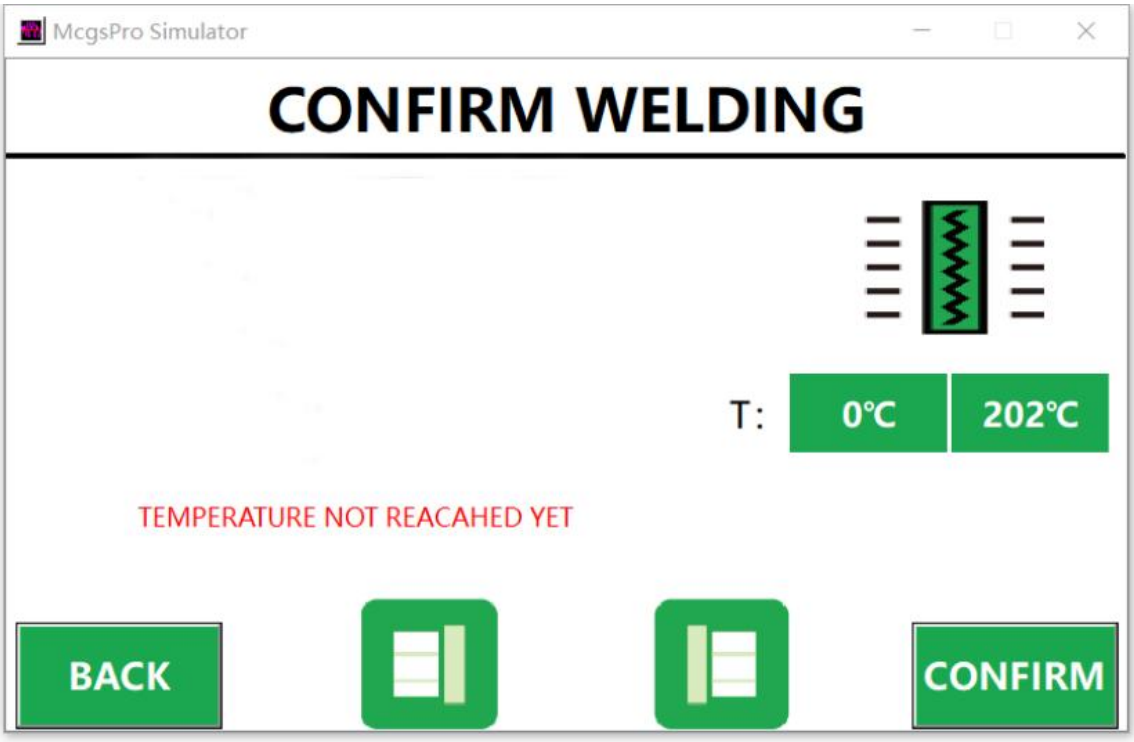
5.7.3-4 Check Alignment



You are requested to check the pipes alignment, if necessary, please adjust it by moving table adjustment wheels to achieve a better alignment.

If the alignment is confirmed, please press “CONFIRM” to move on, if not, please press “BACK” to repeat the trimming.

5.7.3-5 Confirm Welding



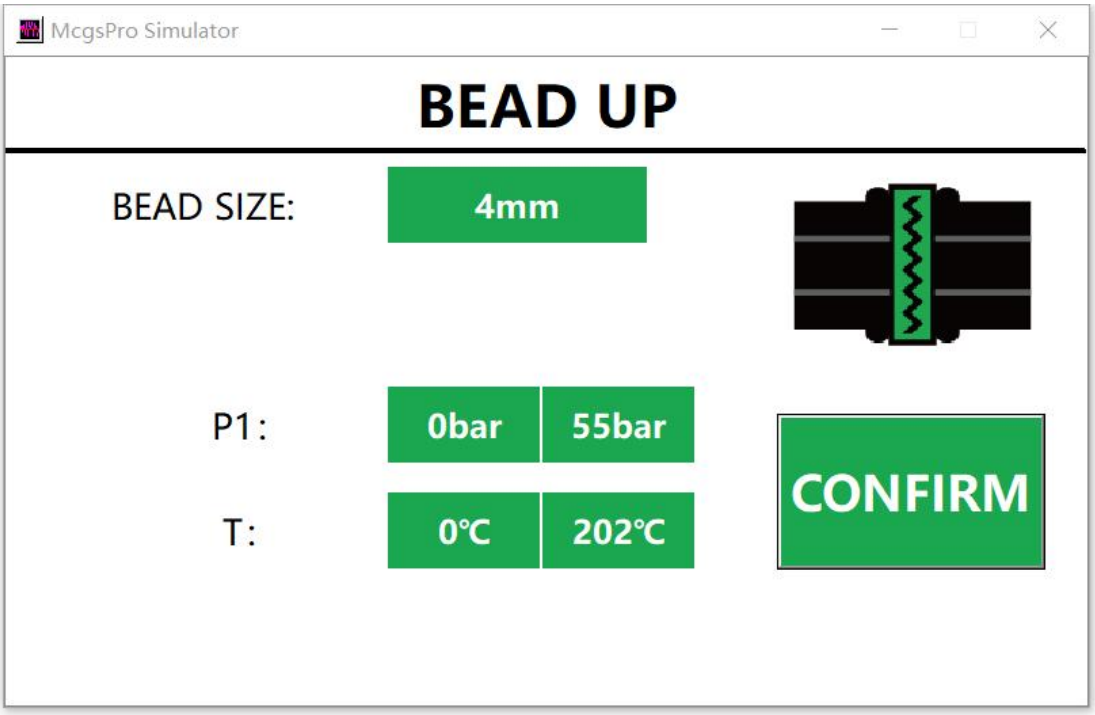
One side moving only. The purpose is to allow the pipes on both sides to touch the heater at the same time as possible


: Left side moving only


: Right side moving only

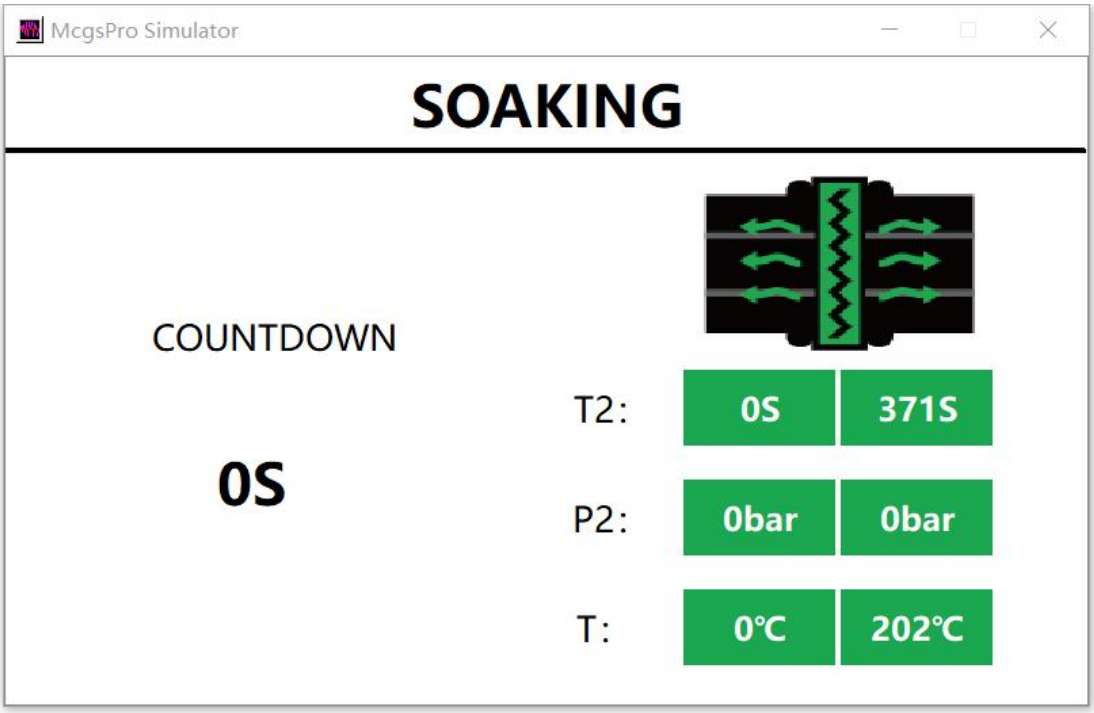
Note: Only when the temperature difference between the actual temperature and the set temperature is less than 10° C, it will be allowed to enter the next step.

5.7.3-6 Bead Up



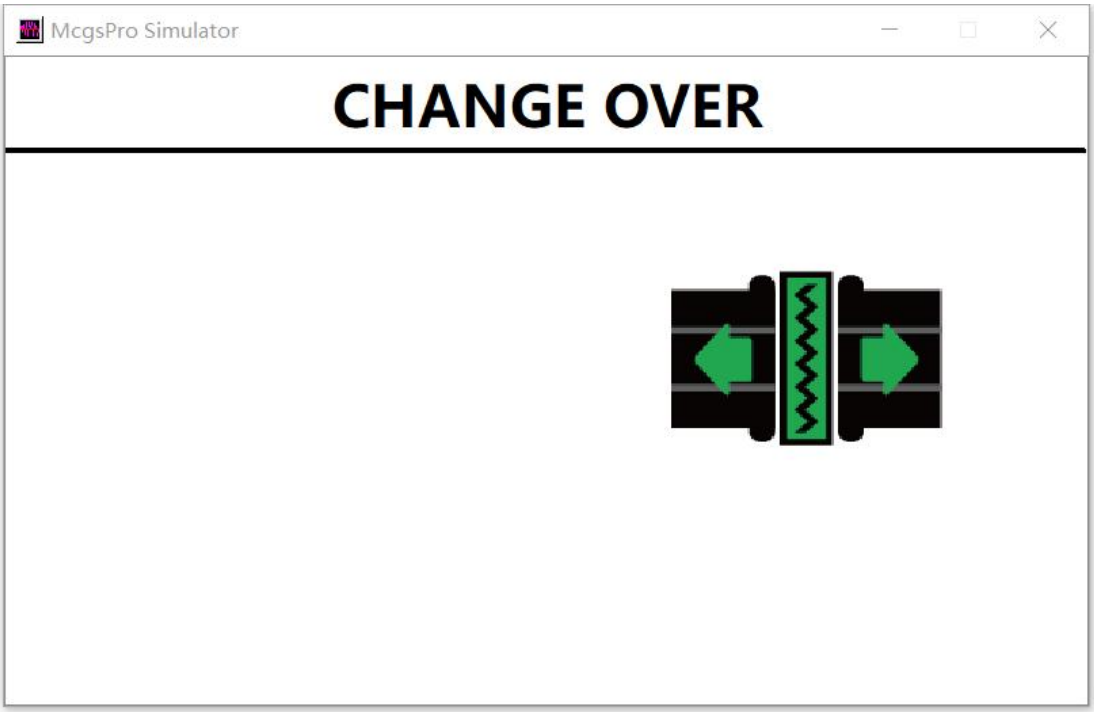
Check the bead height by eyes or measure it, press “CONFIRM” when it reaches to requested height.

5.7.3-7 Soaking



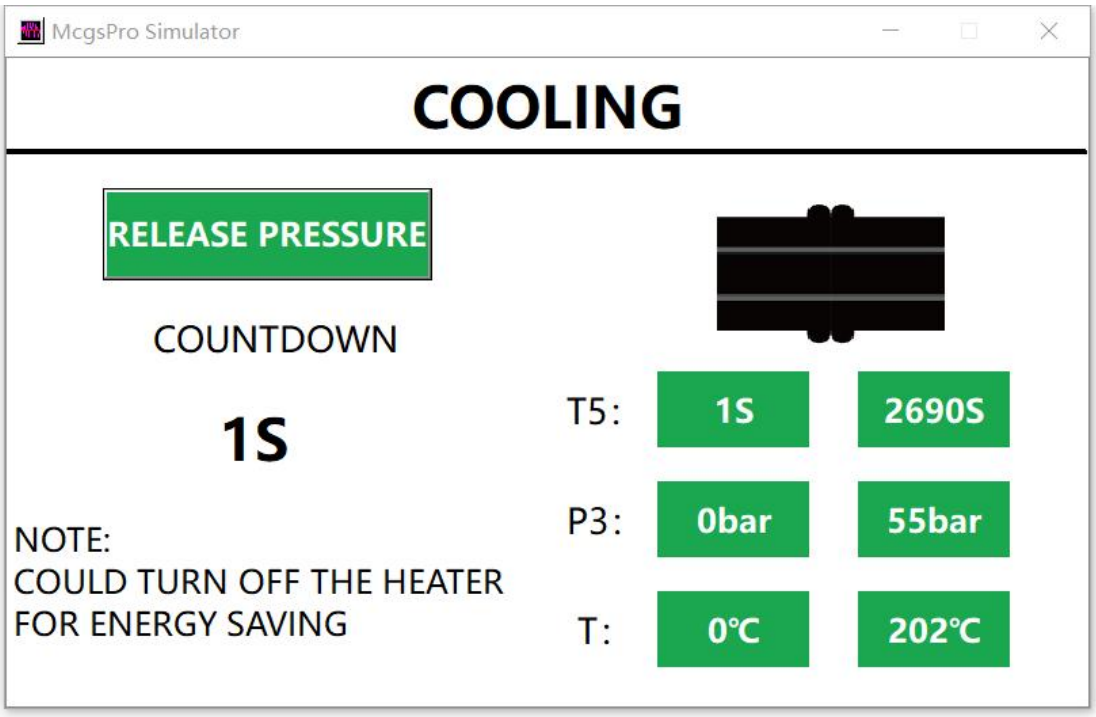
When the countdown is over, it will switch to changeover automatically.

5.7.3-8 Changeover



The worktables will open automatically, and the heater will move backward to original position automatically.

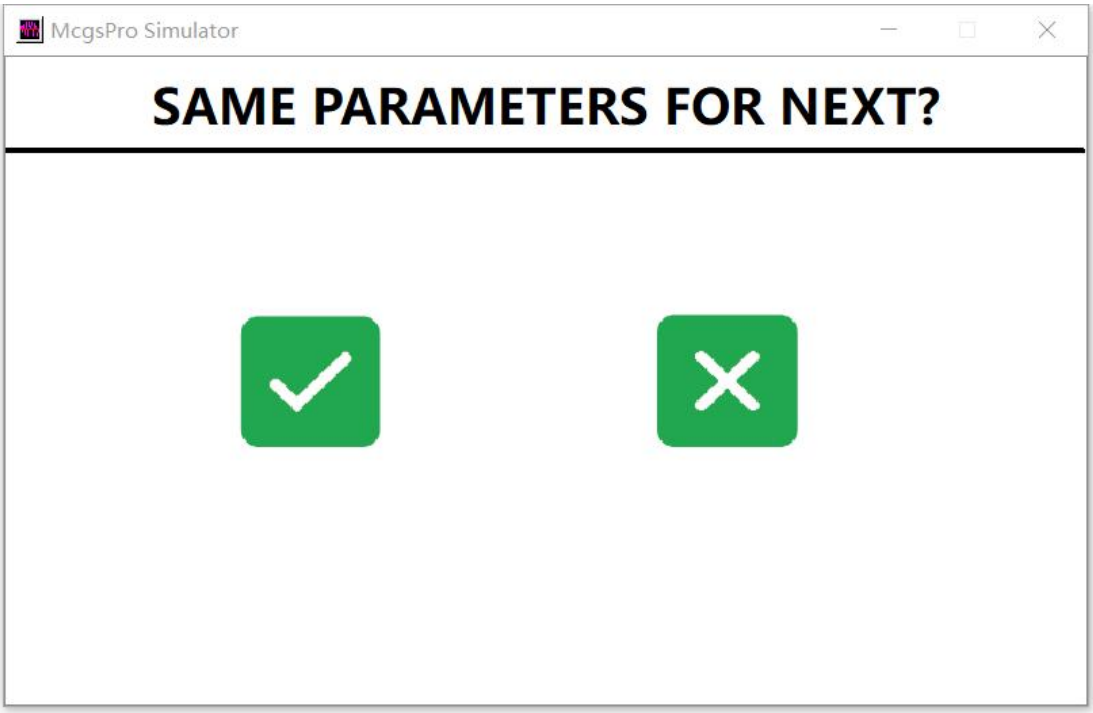
5.7.3-9 Cooling



5.7.3-10 Result

If you need to remark the jointed fitting, please fill in the blank.
Then press “CONFIRM”.

5.7.3-11 Same Parameters Welding Or Not

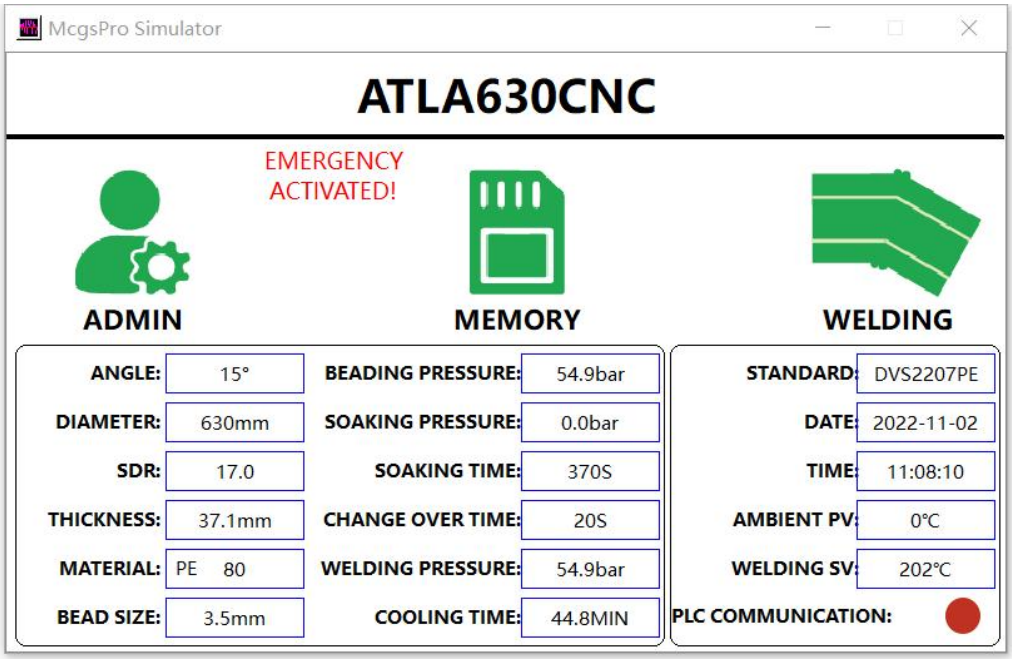


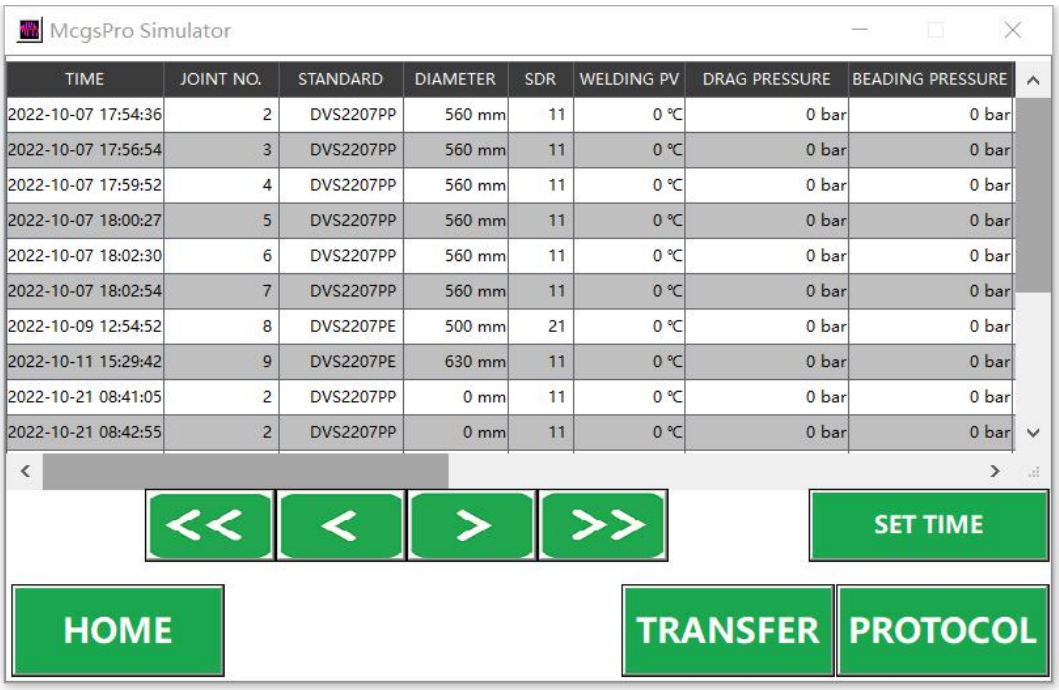
When press “  ”, it will repeat the welding with same parameters, unnecessary to input the welding parameters for a new welding.

When press “  ”, it will back to the homepage, and you are requested to input the new welding parameters.

5.7.4 Memory

When you need to review all welding reports, please go to homepage and press “MEMORY”. The storage capacity can reach 30,000 pieces.





“<<”: Go to first page

“>>”: Go to last page

“<”: Last page

“>”: Next page

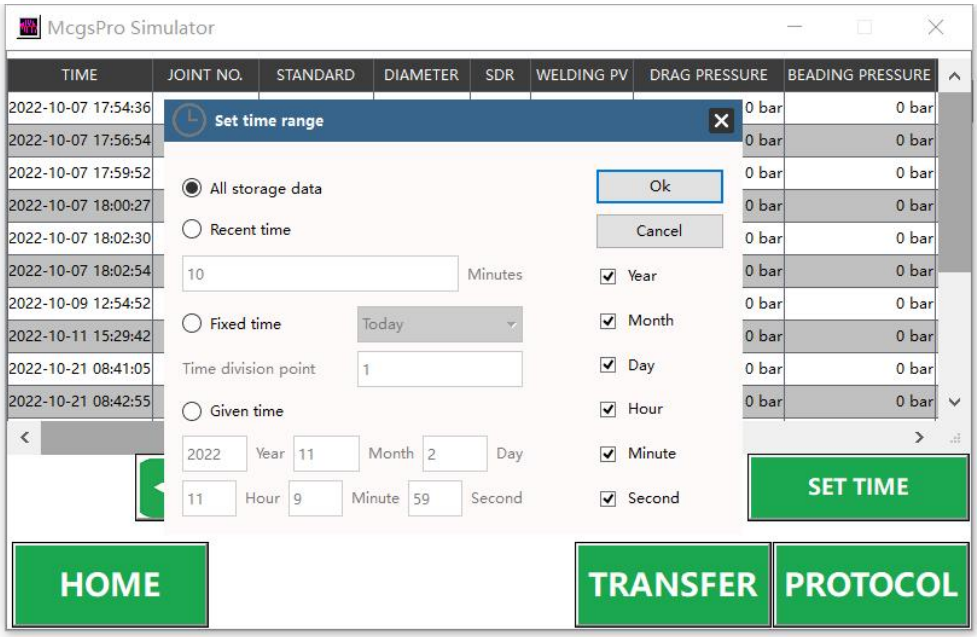
“HOME”: Back to homepage

“TRANSFER”: Go to transfer welding data

“PROTOCOL”: Review the welding data

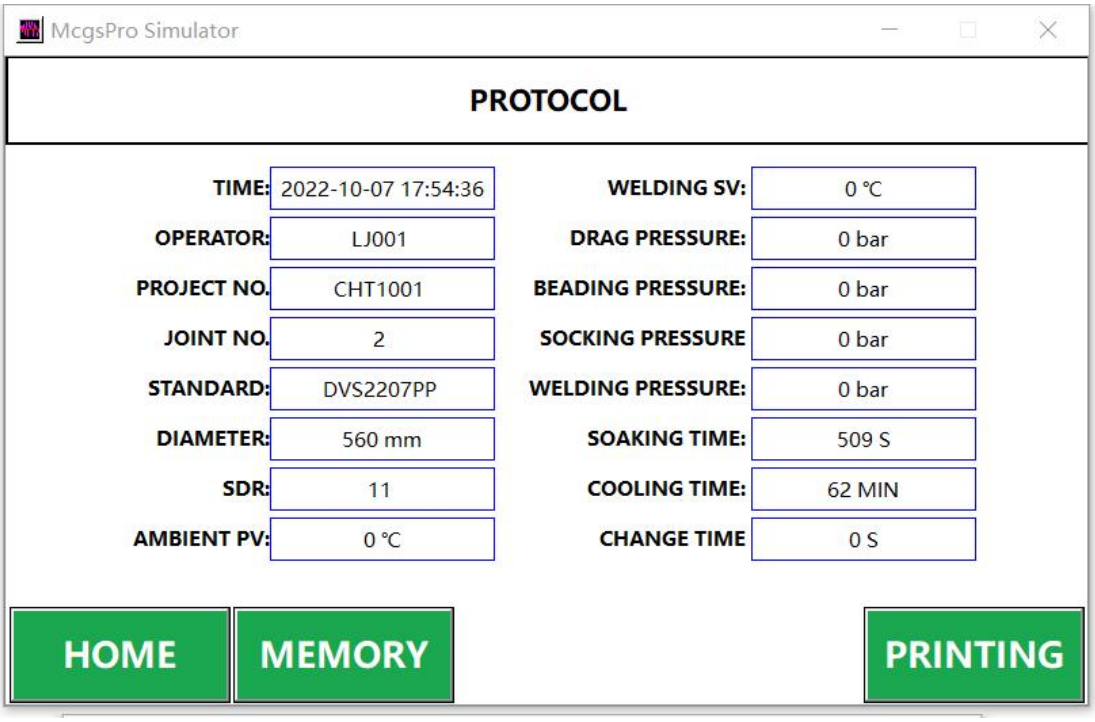
“SET TIME”

When you want to review some reports within a certain period of time, you can press "SET TIME" to have a quick selection, shown as below:

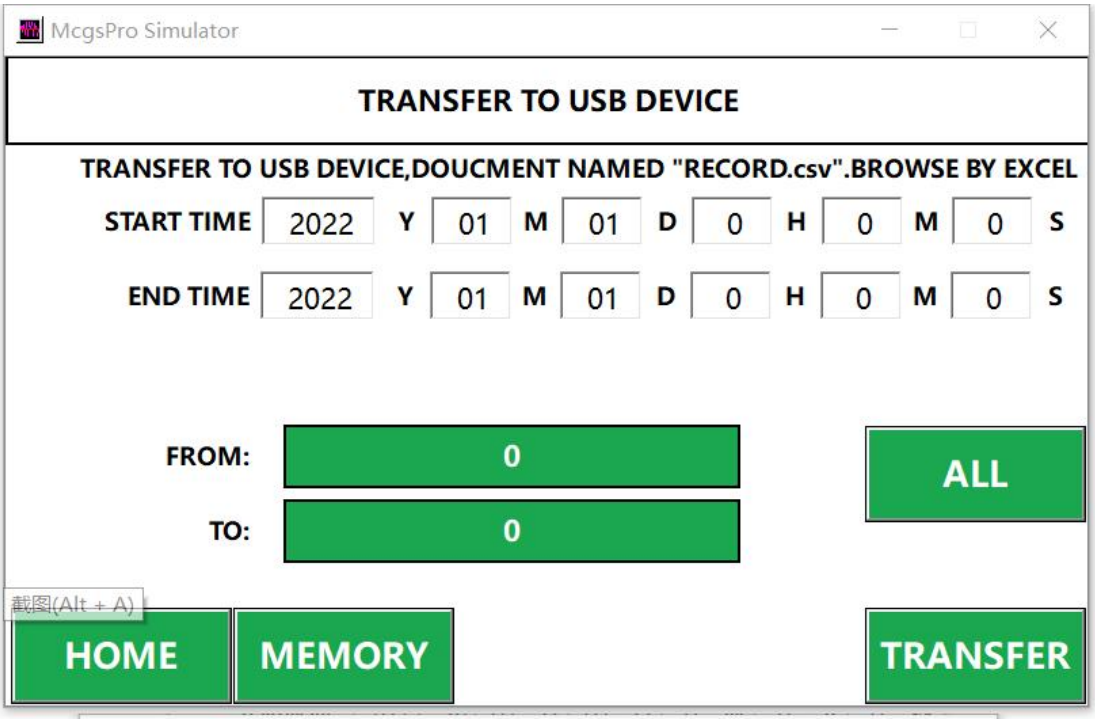


5.7.5 Print

Press “PROTOCOL” and enter to print the welding report.



5.7.6 Transfer

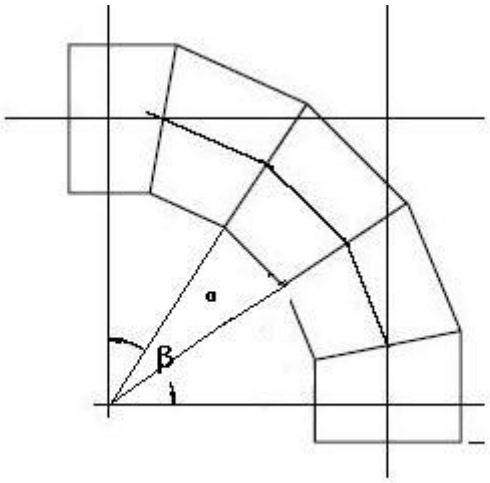


Insert the USB flash drive to the USB port on control panel, and press “TRANSFER” to export all welding record data after selecting the period.The file format is CSV format, which can be opened in EXCEL.

6. Fabricating Fittings

6.1 Elbow Fabrication

6.1.1 According to the elbow`s angle and segment quantity, the welding angle of each joint could be calculated.



Explanation: α – *welding angle*

β – *elbow angle*

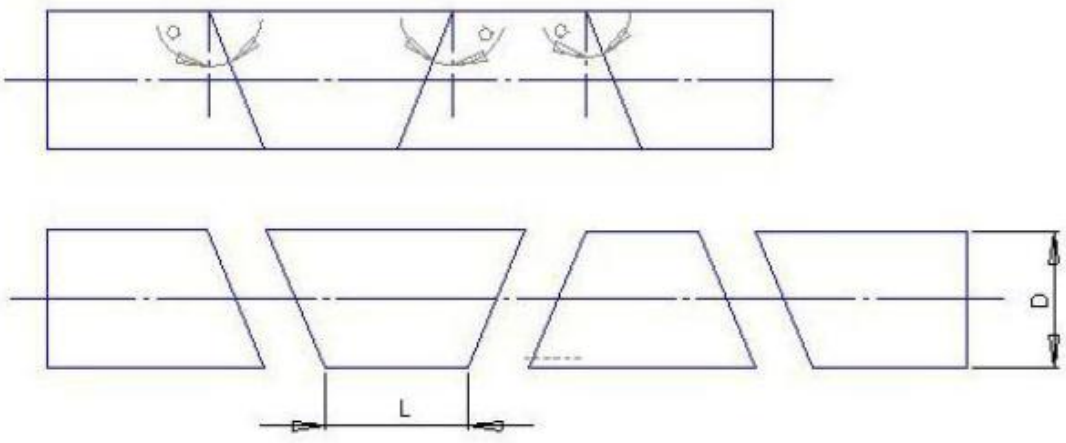
n – *quantity of segments*

For example:

90°elbow is divided into five segments to be welded, the welding angle

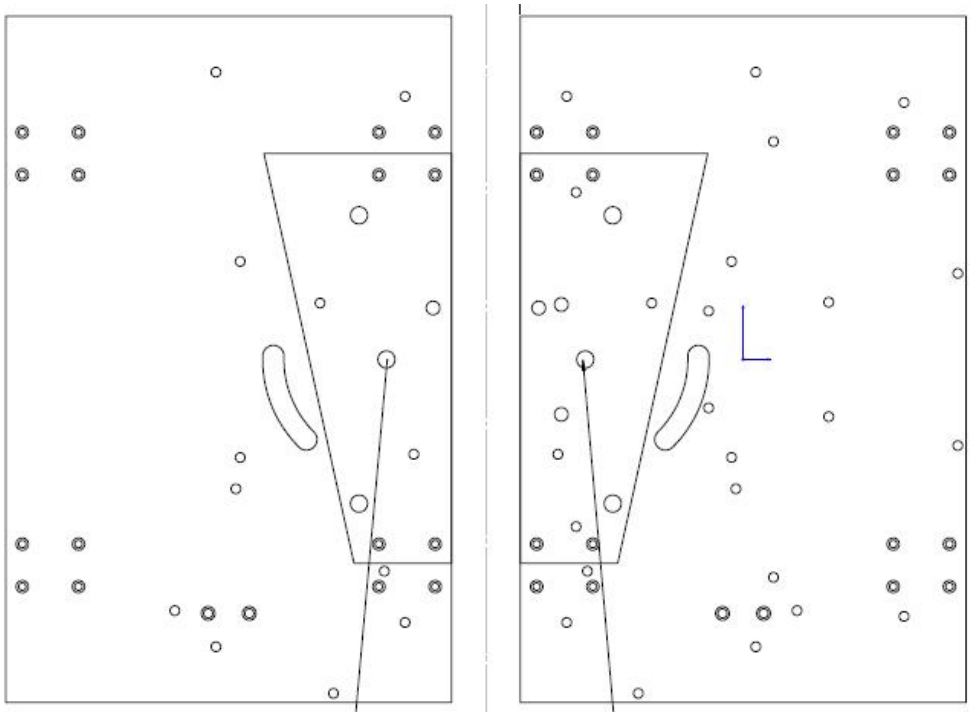
$\alpha=\beta/(n-1)=90°/(5-1)=22.5°$

6.1.2 According to the minimum dimension of segments and fitting angle, the pipe can be cut as below:

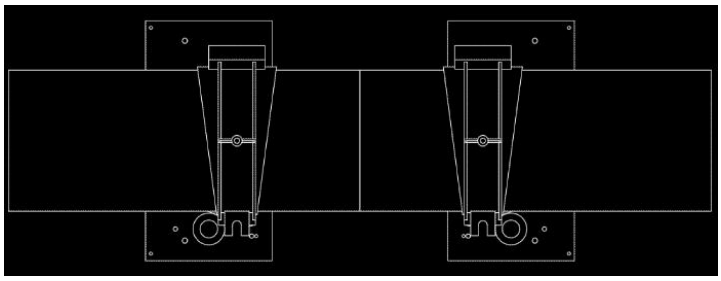


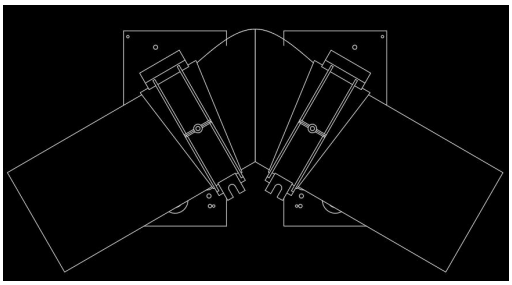
Note: Please pay attention to the minimum length according to your project requirement.

6.1.3 Insert the pins to worktables and fix the clamps by screws



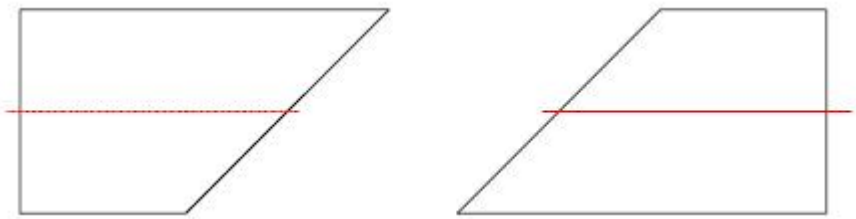
6.1.4 The segments could be welded as below:





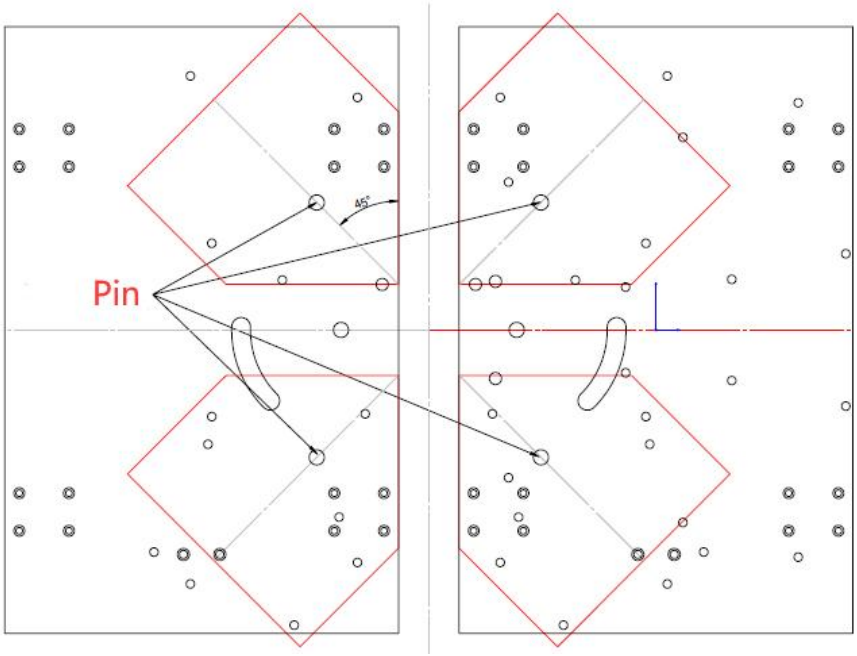
6.2 Fabricating Tees

6.2.1 Cut the pipe as below to prepare for the first joint.

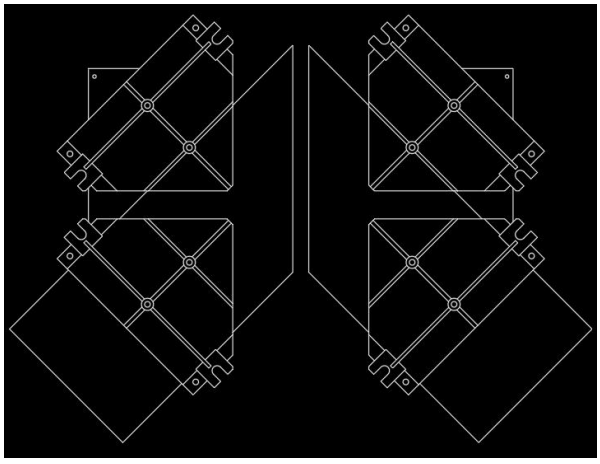


Note: Please pay attention to the minimum length according to your project requirement.

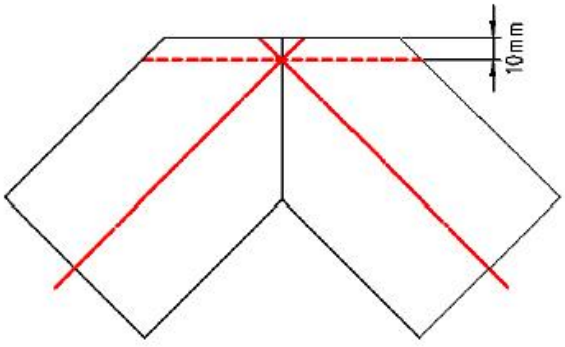
6.2.2 Insert the pins and position the clamps according to the red markets as below, then fix the clamps by screws.



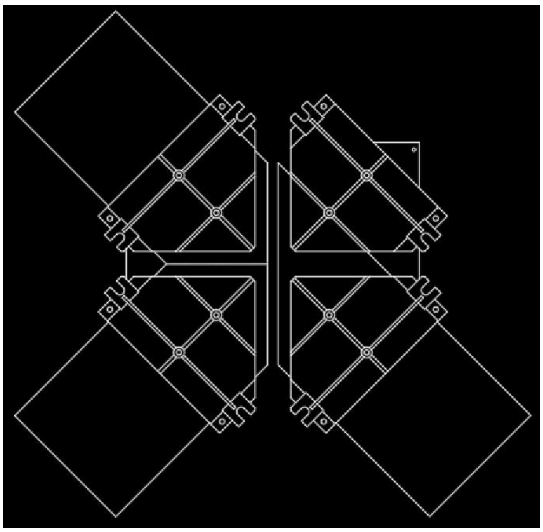
6.2.3 Make the first weld as below:



6.2.4 Cut the piece of the first joint as below and ensure a 10mm excess for trimming and compensation for the bead melt.

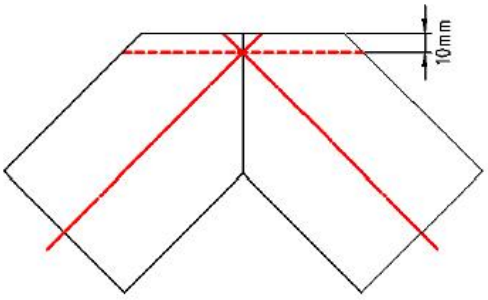


6.2.5 Make the second weld as below:



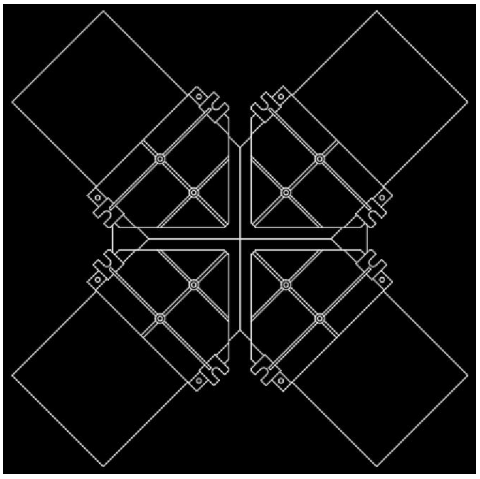
6.3 Fabricating Cross

6.3.1 Follow steps 6.2.1 to 6.2.4 to fabricate two pieces as below:



X 2

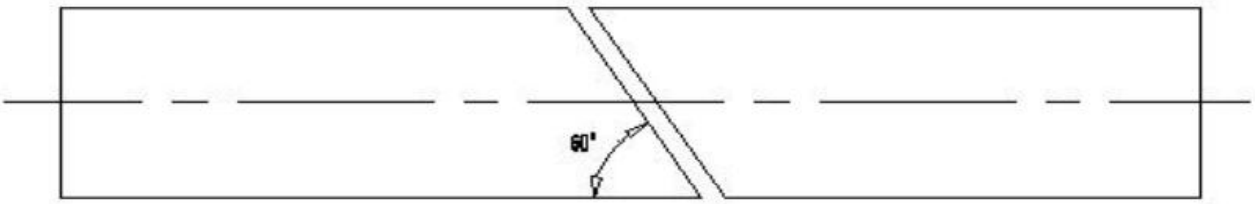
6.3.2 Then make the final joint.



6.4 Fabricating Wye (60°)

6.4.1 Cut the pipe as below, to prepare for the first joint.

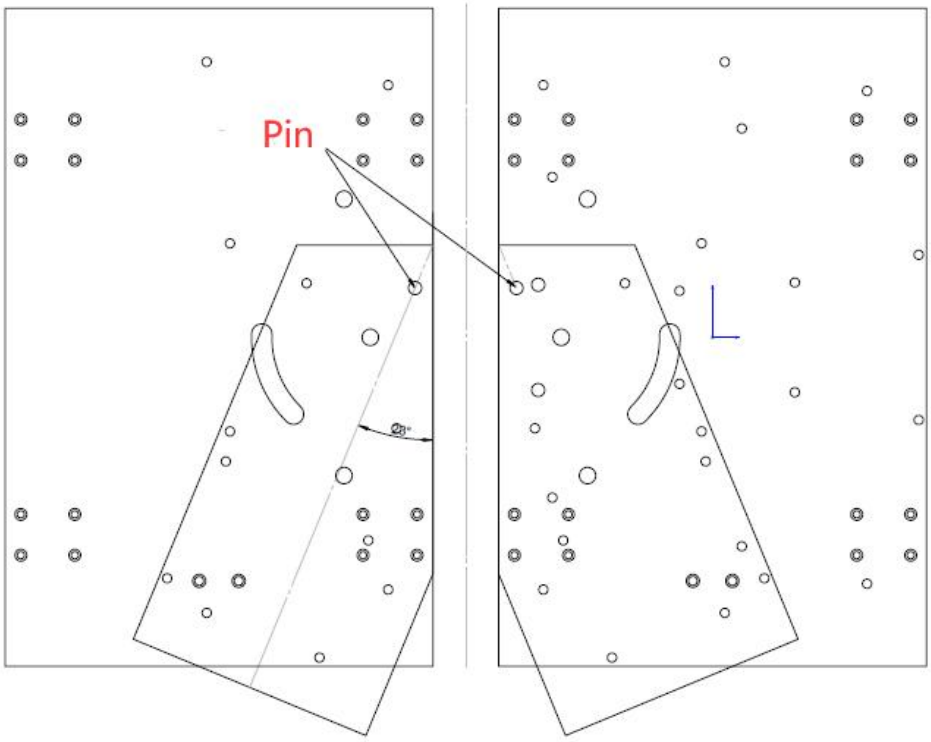
Cut I:



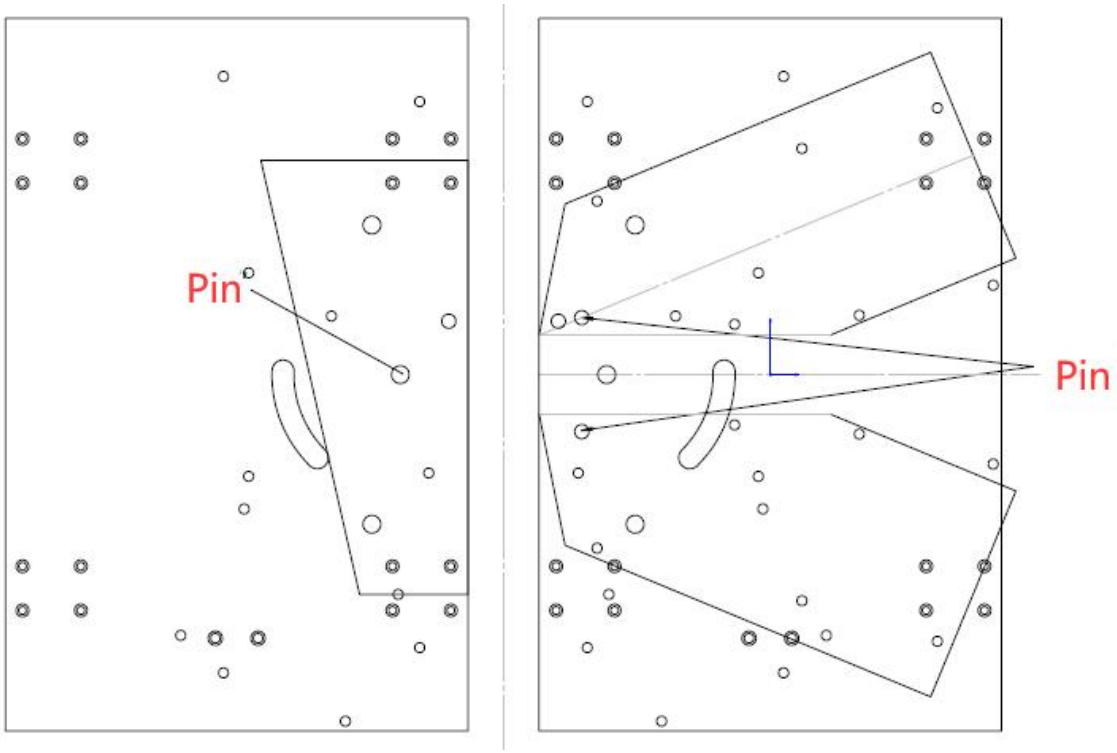
Note: Please pay attention to the minimum length according to your project requirement.

Cut II:

6.4.2 The first weld of Wye fitting.



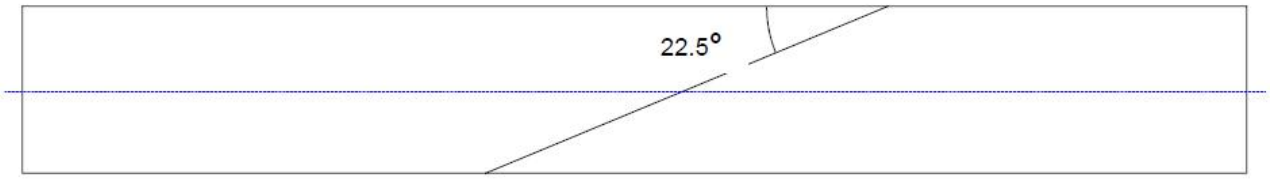
6.4.3 The second weld of Wye fitting.



6.5 Fabricating Wye (45°)

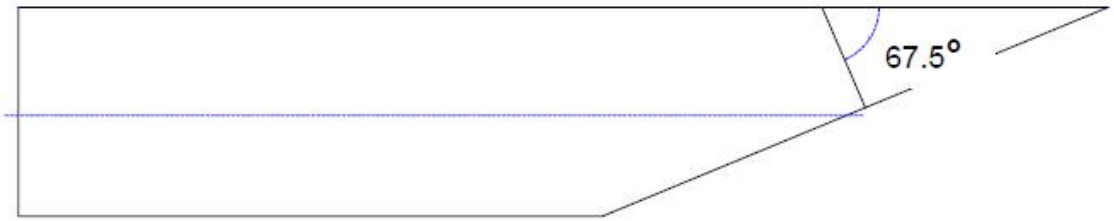
6.5.1 Cut the pipe as below, to prepare for the first joint.

Cut I:

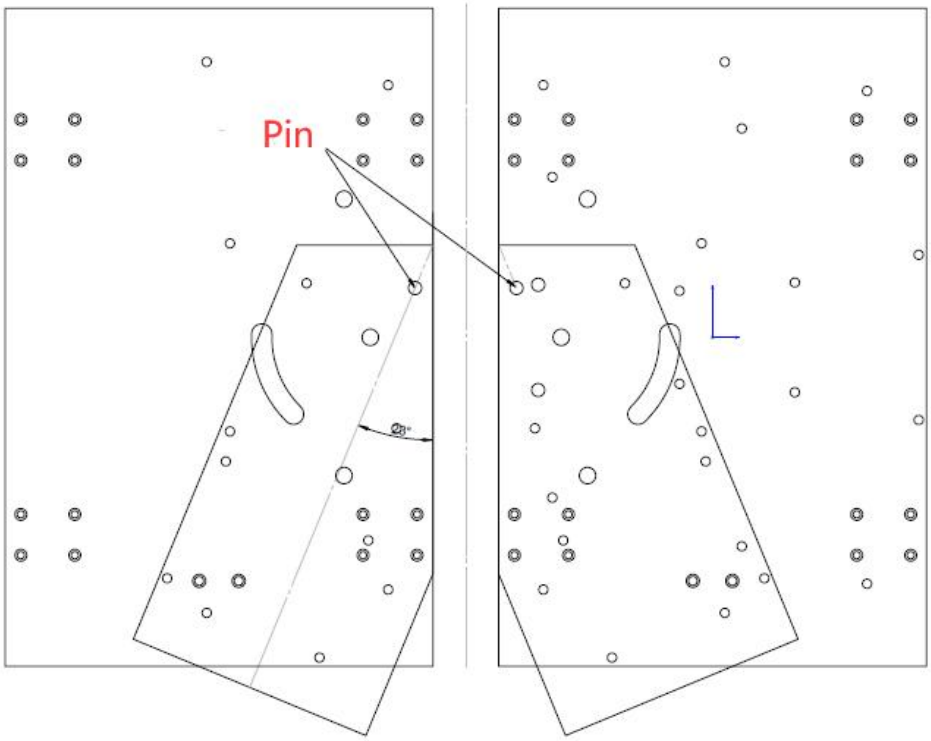


Note: Please pay attention to the minimum length according to your project requirement.

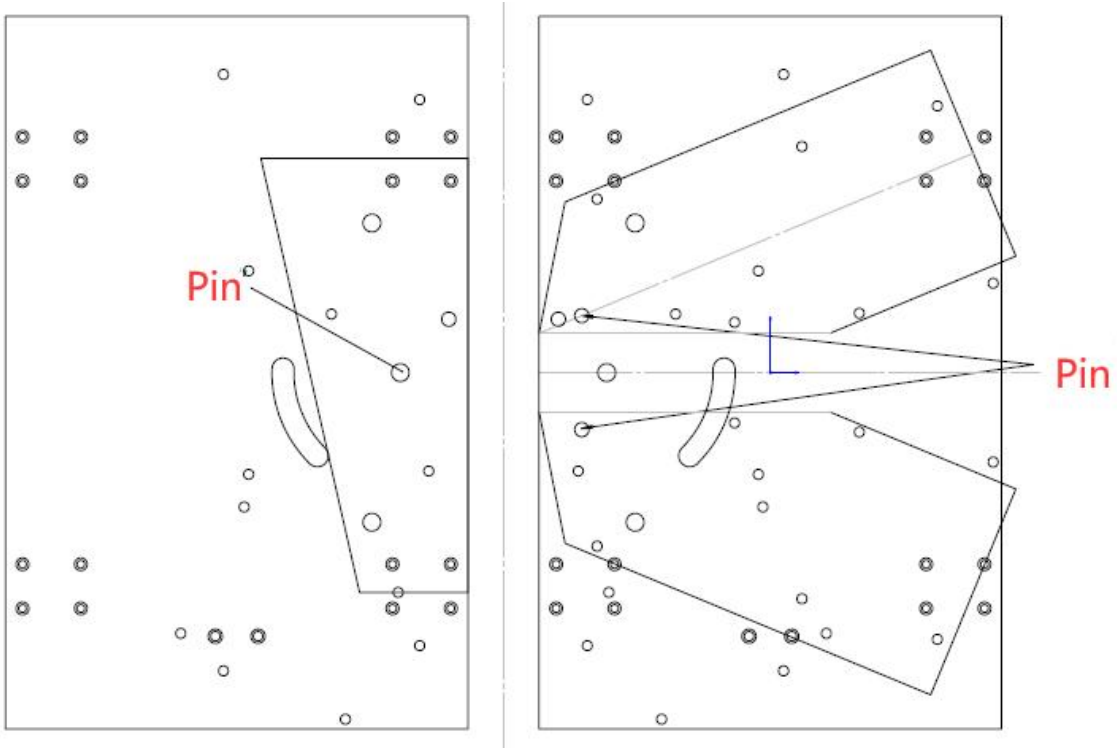
Cut II:



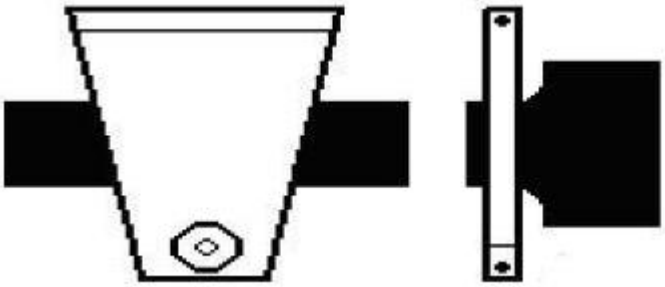
6.5.2 The first weld of Wye fitting.



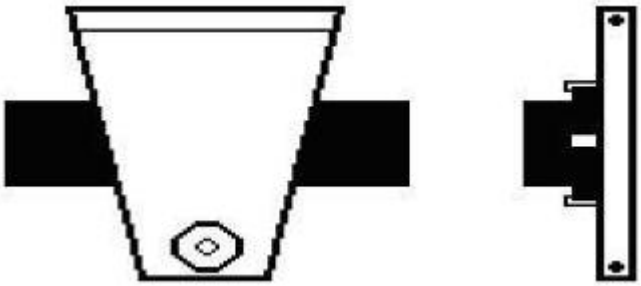
6.5.5 Make the second joint



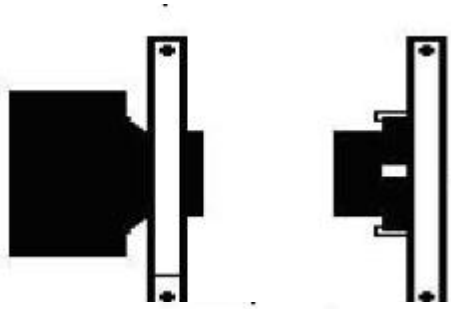
6.6 Other welding (optional tools needed)



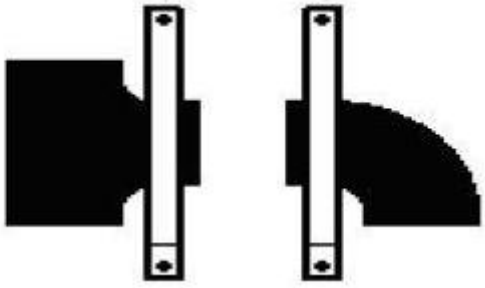
Pipe with fittings



Pipe with stub flange



Fitting with stub flange



Fitting with fitting

Note: The narrow clamps and stub end device are needed when do above welding.

7. Maintenance

Note: Please use the recommended hydraulic oil to replace used oil (See technical specification chart).

Used oil is very pollutant, take it to the nearest hazardous waste collection site.

Item	Description	Check before use	First month	Every 6 months	Every year
Trimmer	◎Replace both blades			●	
	◎Replace the cable if it is broken	●			●
	◎Tighten mechanical connections		●	●	
Heating plate	◎Clean the heating plate	●			
	◎Re-coat heating plate with Teflon again if necessary or replace the heating plate	●			●
	◎Tighten mechanical connections	●		●	
Hydraulic system	◎Check pressure gauge if works in normal or not	●			●
	◎Replace seals if the hydraulic unit is leaking	●			
	◎Check the oil level		●	●	
	◎Completely replace the hydraulic oil				
	◎Replace if the oil hose is broken	●			●
	◎Keep the quick coupling and connectors clean	●			
Basic Frame	◎Keep piston rod clear	●			
	◎Keep the quick coupling connectors clean	●			
	◎After use, cover the quick coupling connectors with plastic cap	●			
	◎Tighten mechanical connections		●	●	
Power Supply	◎Press the testing button of circuit protector to make sure it works	●			
	◎Replace the cable, plug and sockets if broken	●			

8. Trouble Shooting

If the malfunctions happened with your ATLA-CNC series machines, please send the machine to RIYANG`s authorized dealer or contact directly RIYANG in China. We will assist you to resolve the problems. If your machine still under warranty period, RIYANG dealer will totally cover the responsibility to fix your machine; if no RIYANG dealer in your area, we will send you the replacement parts, and please replace it by certified technical personnel.

Note: Please unplug the machine from main power before you working on the electrical problems.

7.1 Hydraulic Power Unit

Problem: The pump motor does not work.	
Possible Cause	Solution
Power source not connected well	Check the power cable connected well with main power or not.
Sockets connection is loosen	Check the sockets connection, please restore it if necessary.
The power supply is fault.	Check the power source

Problem: The pump motor rotating slowly with abnormal noise.	
Possible Cause	Solution
The motor is overloaded	Make sure the working pressure is less than 80bar.
The oil filter is blocked	Check the oil filter and clean it.
Failure on the motor	Repair or replace the motor.
The input voltage is unstable	Check the power instability.

Problem: Oil leakage.	
Possible Cause	Solution
Hydraulic connectors loosen or worn out	Tighten the loosen connectors, or replace the worn-out connectors.
Hydraulic hoses worn out	Replace the hydraulic hoses.
Oil seal between oil tank and block not fitted well	Restore the oil seal, replace it if necessary.
The hydraulic block is not working well	Replace the hydraulic block.

Problem: Lack of pressure.	
Possible Cause	Solution
Hydraulic oil in the tank is not sufficient	Add the oil to requested level.
The pressure relief valve is not closed completely	Completely close the pressure relief valve by rotating in a clockwise way.
Air in the hydraulic system	Move the cylinder several times to exhaust the air.
The pressure relief valve is out of operation	Replace the pressure relief valve.
The pressure regulation valve is out of operation	Replace the pressure regulation valve.

Problem: Pressure adjustment is in failure.	
Possible Cause	Solution
The pressure regulation valve is blocked	Clear the core of the valve or replace the valve.
The pressure relief valve is out of operation	Replace the pressure relief valve.
The oil pump is out of operation	Replace the oil pump

7.2 Heating Plate

Problem: The temperature display shows up ”HH”.	
Possible Cause	Solution
Circuit open	Check the heating sensor connected well or not. Check the sockets disconnected or not. Check the cable disconnected or not.

Problem: The heating plate can not heat up, display indicated the environment temperature.	
Possible Cause	Solution
Signal interrupted	Replace the contactor. Replace the temperature controller.

Problem: The heating plate can heat up, however the display not show the actual temperature.	
Possible Cause	Solution
Failure on the temperature controller	Replace the temperature controller.

7.3 Trimmer

Problem: The motor does not work.	
Possible Cause	Solution
Power source not connected well	Check the power cable connected well with main power or not.
Sockets connection is loosen	Check the sockets connection, please restore it if necessary.
Failure on motor	Repair it, if can not, replace it.

Problem: It could not face the pipe ends with continuous chips.	
Possible Cause	Solution
Blade is blunt	Switch to another side, or replace it.
Blade surface lower than the trimmer plate	Using thin paper or copper to fill in between blade and trimmer plate.