

SST

ULTRA HOMO MIXER 300L

- 1. Quotation*
- 2. Terms & Condition*
- 3. Specification*
- 4. Drawing*



WOOWON Mixing System

Offer Sheet

Ref No. : SST-22-002-01 / Date: 2022-10-05

Messrs, *SST Vietnam*

ULTRA HOMO MIXER 300L

Product		Capa	Q'ty	Unit Price	Amount
1	ULTRA HOMO MIXER (PLC Touch)	300 L	1 EA		US\$ 65,000
2	OIL & WATER AGITATOR	200 L	2 EA	US\$ 12,000	US\$ 24,000
3	WORKING PLATFORM (1st, All STS)		1 SET		US\$ 12,000
4	PIPING UNIT (STS Pipe)		1 SET		US\$ 14,000
5	IQQQ VALIDATION		1 SET		US\$ 6,000
6	WOODEN PACKING&FOB BUSAN		1 SET		US\$ 9,000
7	SUPERVISING INSTALLATION AND TRAINNING COST				US\$ 4,000
Total					US\$ 134,000

WOOWON Co.,Ltd.
M. R. Cho / President

WOOWON Mixing System

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Messrs, SST

Terms & Conditions

1. Period of delivery

- 1.1 100days (From down payment to Shipping date)
- 1.2 Not including installation and SAT.

2. Terms of payment

- 2.1 40% - Down payment
- 2.2 50% - 2nd payment (After FAT, before shipping)
- 2.3 10% - last payment (After SAT)

3. Required utility

- 3.1 Main Power (380, 50HZ, 3Phase) – 3Phase electricity following a site condition.
- 3.2 Total required electricity – 25KW
- 3.3 Compressed Air (5 bar per minute, Dry and without any dust such as oil and water.)
- 3.4 Steam or Hot water (Maximum 2bar)
- 3.5 Chiller or city water (Maximum 2bar)

4. Exclusion

- 4.1 Piping from utilities (a boiler or a chiller) to a manufacturing room.
- 4.2 Connection pipes from utilities to Woowon's piping unit.
- 4.3 Connection pipes from Woowon's Piping unit to a Mixer.
- 4.4 Lagging work for a pipes.
- 4.5 Connection pipes to water inlet and outlet of a vacuum pump.
- 4.6 Connection every drain pipes
- 4.7 Connection main power to Woowon's control panel.
- 4.8 Connection pipes or modification customer's raw material or water or utility pipes.

WOOWON Mixing System

- 4.9 Unpacking the wooden crate and discarding it.
- 4.10 Moving machines and a platform to the manufacturing room.

5. FAT

- 5.1 With reference to FAT, round trip air ticket and hotel shall be borne to customer, and transportation, meal & other things shall be borne to Woowon.
- 5.2 Following Woowon's check list or customer's list, checking from the design to operation by water.

6. Installation and SAT

- 6.1 With reference to SAT, round trip air ticket and hotel shall be borne to Woowon, and transportation, meal & other things shall be borne to User.
- 6.2 By riggers (Movers), a crane or a fork lift, setting up the machine to the position with Woowon's supervising.
- 6.3 SAT (At site)
 - Operation test by water.
 - Optimization the machine and operation and setting up every parameter.
 - Checking the specification and design.

7. Document

- 7.1 Manual (English) – 1EA
- 7.2 Manual data with USB – 1EA
- 7.3 Machine drawing
- 7.4 Electronic drawing
- 7.5 Specification
- 7.6 Operating manual
- 7.7 Maintenance Schedule
- 7.8 Spare part list

8. Quality warranty

- 8.1 1 Year warranty after SAT.
- 8.2 Supplying spare parts such as temperature sensor, Tank O-ring and ETC.

Specification

ULTRA HOMO MIXER 300L

	Name	Specification
1	Model	Ultra Homo Mixer-UHM300
2	Capacity	Full capacity: 390L Working capacity Max.: 300L Working capacity Min.: 90L
3	Material	Product contacted part: SUS316L Non contacted part: SUS304
4	Homo Motor	AC motor 7.5KW 2P, 500~3600RPM
5	Paddle Motor	Geared motor 2.2KW 1/10, 9~90RPM
6	Scraper Motor	Geared motor 1.5KW 1/15, 6~60RPM
7	Tank	Designed pressure and temperature condition Shell: Atmospheric pressure ~ Vacuum (-1bar) Jacket: 0~1.2 bar, 125°C Lamp: LED type
8	Vacuum	Watering AC motor 2.2KW
9	Hydraulic Unit	AC motor 2.2KW x 100LT Two cylinder
10	Frame	Frame: SS400, Cover: SUS304
11	Control panel	Button control, SUS BOX
12	Temp. control piping	Automatic temperature control (ON/OFF control) SS400 Pipes
13	Working platform	3640mmL x 2000mmW x 1500wwH Plate SUS304, Post SS400, Stairs SUS304

#These specifications are changeable by customer's offer.

WOOWON Mixing System
Specification

AGITATOR 200L

	Name	Specification
1	Model	Agitator-AGI200 Bracket type on the working platform
2	Capacity	Full capacity: 300L Working capacity Max.: 200L Working capacity Min.: 40L
3	Material	Product contacted part: SUS304 Non contacted part: SUS304
4	Impeller	Bottom Disk Type AC motor 1.5KW 6P, 500~1150RPM
5	Tank	Designed pressure and temperature condition Shell: Atmospheric pressure Jacket: 0~1.2 bar, 125°C Open type
6	Temperature control	Heating only

#These specifications are changeable by customer's offer.

WOOWON Mixing System

1. Homogenizer

Woowon Homogenizer mounted at the bottom of the vessel effectively works for small volume batches. This high powered homogenizer makes steady and high shearing force for effective homogenizing, emulsifying, mixing from low viscosity to high viscosity.

- | | |
|-------------------------|--|
| a. RPM | RPM control by Inverter |
| b. Homogenizer Impeller | Mark II Impeller |
| | Down to Up Flow |
| | Strong pumping force with high emulsifying ability |
| | Suitable for liquid & liquid mixing |



Homogenizer Motor & Impeller

Mark II Impeller Driving

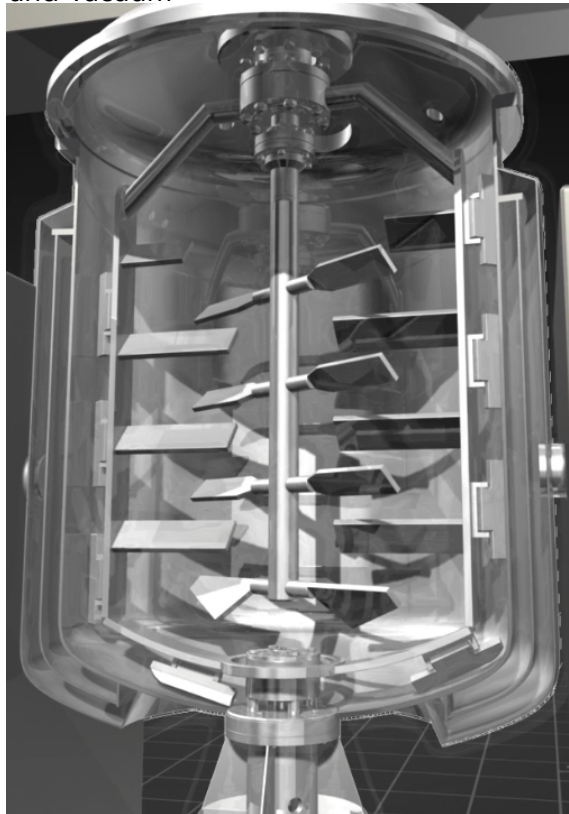
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|------------------------|---|
| c. Driving Method | Direct Drive |
| d. Sealing | Double type Mechanical Seal |
| Product Contacted Part | Sic/Sic |
| Non Contacted Part | Sic/Carbon |
| Cooling | By city water |
| Safety equipment | Pressure sensor for seal cooling water |
| | If there is no pressure, homogenizer stops automatically. |

WOOWON Mixing System

2. Paddle & Scraper

The paddle and the counter rotating scraper mixes the product well at low speed. And during heating, cooling and deaeration, they help improving efficiency.

- a. RPM RPM control by Inverter
- b. Scraper Teflon (PTFE)
For the installation and de-installation of these scrapers no Stainless steel safety and no screw in needed.
The bottom scraper is fixed by a single bolt
- c. Drive Method Bevel Gear (2:1) + Coupling
2:1 S.N.C.M Helical Type
- e. Sealing Oil seal
Each shaft sealing rings are installed against over pressure and vacuum

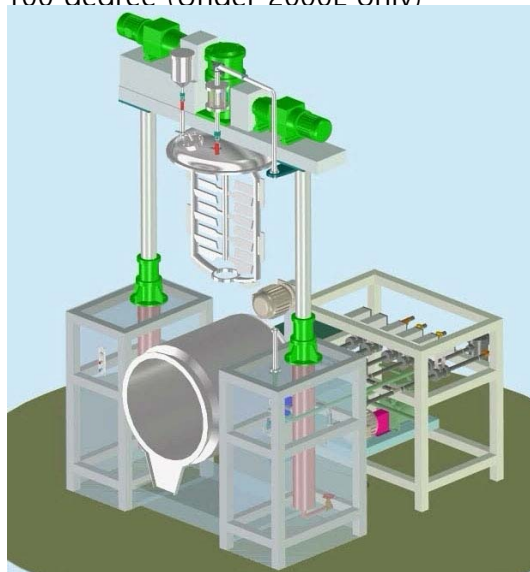


Paddle & Scraper

WOOWON Mixing System

3. Tank

- | | |
|----------------------------|--|
| a. Lid | Dome type |
| b. Nozzle | Stem in/ Water out
Water in/ Steam out
Product Discharge
Temperature sensor (Bottom of a tank)
Lamp Hole
Manhole (With wiper)
Product Inlet
Hopper
CIP Ball
Vacuum Line |
| c. Buffing | Mirror Polishing
Contacted Part: #400~320
Non Contacted Part: #200 |
| d. Product discharge valve | Manual Y-Valve |
| e. Gasket | Silicon packing |
| f. Tilting | 100 degree (Under 2000L only) |

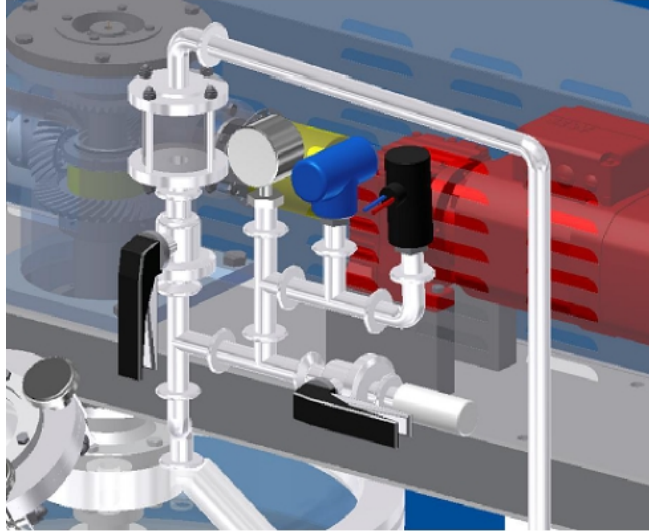


- | | |
|------------------------------|------------------------|
| g. Jacket Design Pressure | 2.2kg /cm ² |
| Jacket Operating Pressure | 1.2kg /cm ² |
| h. Jacket Design Temperature | 135°C |
| Jacket Operating Temperature | 122°C |
| i. Shell Design Pressure | 0.05Mpa ~ F.V.(min) |
| Shell Operating Pressure | 0Mpa ~ F.V.(min) |
| j. Shell Design Temperature | 100°C |
| Shell Operating Temperature | 80°C |

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4. Vacuum

- a. Range 0~760 mmHg (Max)
- b. Vacuum device
 - Vacuum glass
 - Pressure Gauge
 - Pressure Switch
 - Filter
 - Ferrule & Tri clamp connection



Vacuum Line

5. Hydraulic Lifting unit

- a. Device
 - Oil Tank
 - Pump
 - Check Valve
 - Relief Valve
 - Air Breather
 - Suction filter
- b. Safety device
 - 3 Limit Switch for lid up & down
 - Pressure sensor for lid up & down

6. Frame

- a. Material
 - Frame SS400
 - Cover SUS304

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7. Control Panel

- a. Material
 - SUS304 BOX
- b. Parts
 - Inverter
 - NFB
 - Magnetic
 - Relay
 - Temperature controller
 - Digital timer
 - RPM indicator
 - RPM controller
 - Ampere indicator
 - Signal lamp
- c. Feature
 - Main power on& off
 - Emergency switch
 - Driving part on& off
 - Driving part RPM control
 - Driving part Timer
 - Temperature control
 - Heating on& off
 - Cooling on& off
 - Vacuum on& off
 - Motor trouble
 - Hydraulic lift up& down (Lock by key)
 - Cooling water for homogenizer trouble

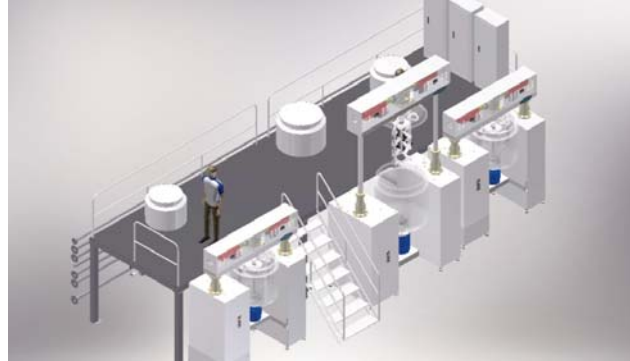
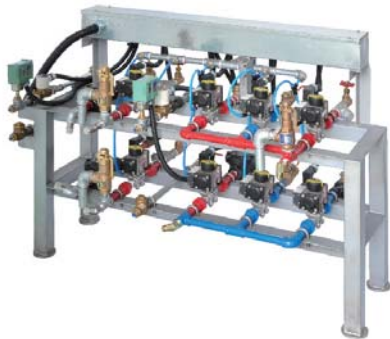
#Electronic parts are following CE regulation.



WOOWON Mixing System

8. Piping Unit

- a. Material
- b. Component
 - Steam In
 - Steam Out
 - Water In
 - Water Out
 - Water In for cooling mechanical seal
 - Water out for cooling mechanical seal
 - Jacket Drain
 - Air In
- c. Parts
 - Pneumatic Valve
 - Safety Valve
 - Solenoid Valve
 - Pressure Switch
 - Y-Strainer
 - Check Valve
 - Bucket Trap
 - Regulator for air



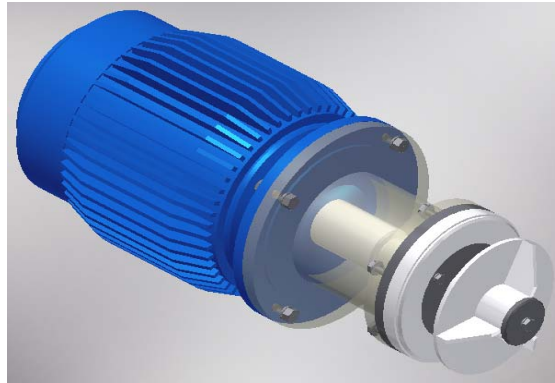
9. Working Platform

- a. Material
 - Post SS400
 - Plate SUS304 (Check plate)
 - Stairs SUS304
- b. Type
 - 1st floor

WOOWON Mixing System

1. Agitator

- | | |
|----------------------|-------------------------|
| a. RPM | RPM control by Inverter |
| b. Agitator Impeller | Bottom disk type |



Disk type impeller

- | | |
|-------------------|---------------------------------------|
| c. Driving Method | Direct Drive |
| d. Sealing | Multi one o-ring type Mechanical Seal |

2. Tank

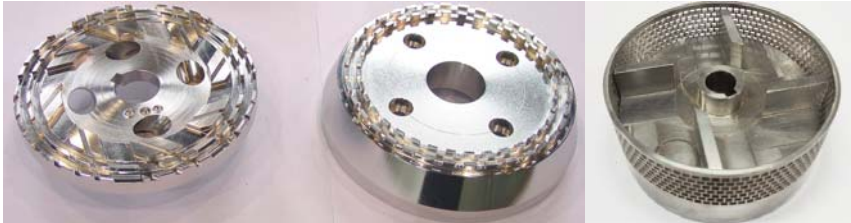
- | | |
|----------------------------|--|
| a. Lid | Open type |
| b. Nozzle | Stem in
Steam out
Product Discharge
Temperature sensor (Bottom of a tank) |
| c. Buffing | Mirror Polishing
Contacted Part: #400~320
Non Contacted Part: #200 |
| d. Product discharge valve | Automatic ball valve |

WOOWON Mixing System

#OPTION

1. 2nd Homogenizer

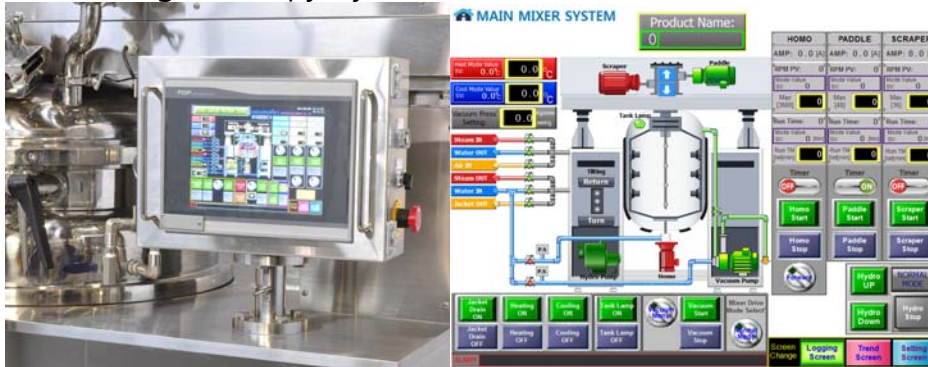
-You can use various type of homogenizer by product which is easy to change.



2. PLC TOUCH SCREEN

-Easy to control. (Control is available in one screen)

-Data Saving and copy by USB drive.



3. Additional Temperature sensor. (Or upper temperature sensor)

-For the more accurate temperature sensing, setting the sensor on the paddle shaft or at the place that customer want is available.

4. Electrolytic Polishing

-Removes iron or dust from the surface and enhances the chromium/ nickel content providing the most superior form of passivation for stainless steel.

5. Digital Recorder

-Saving every parameters are available such as RPM of every driving part, temperature and so on.



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6. Paravisc

-It helps up-down flow especially density product or big size tank.



7. Load cell (Including a indicator)

-Weight a product inside the tank is available. Error range is ± 1 kg.



8. CIP system

-For the economical and comfortable cleaning, Woowon has various CIP system. By discussion with customer, exact specification is decided.

9. Automatic vacuum control by bubble sensor.

-During deaeration, this system prevent product overflow and make it easier.

10. EC sensor

-Checking the condition of product during mixing is available by not only user's visual check but also conductivity through EC sensor.

11. Pressure vessel certification.

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-Pressure vessel certification by Korea Energy Management Cooperation.

12. IQ/OQ

-Supplying IQ/OQ by Woowon's document.

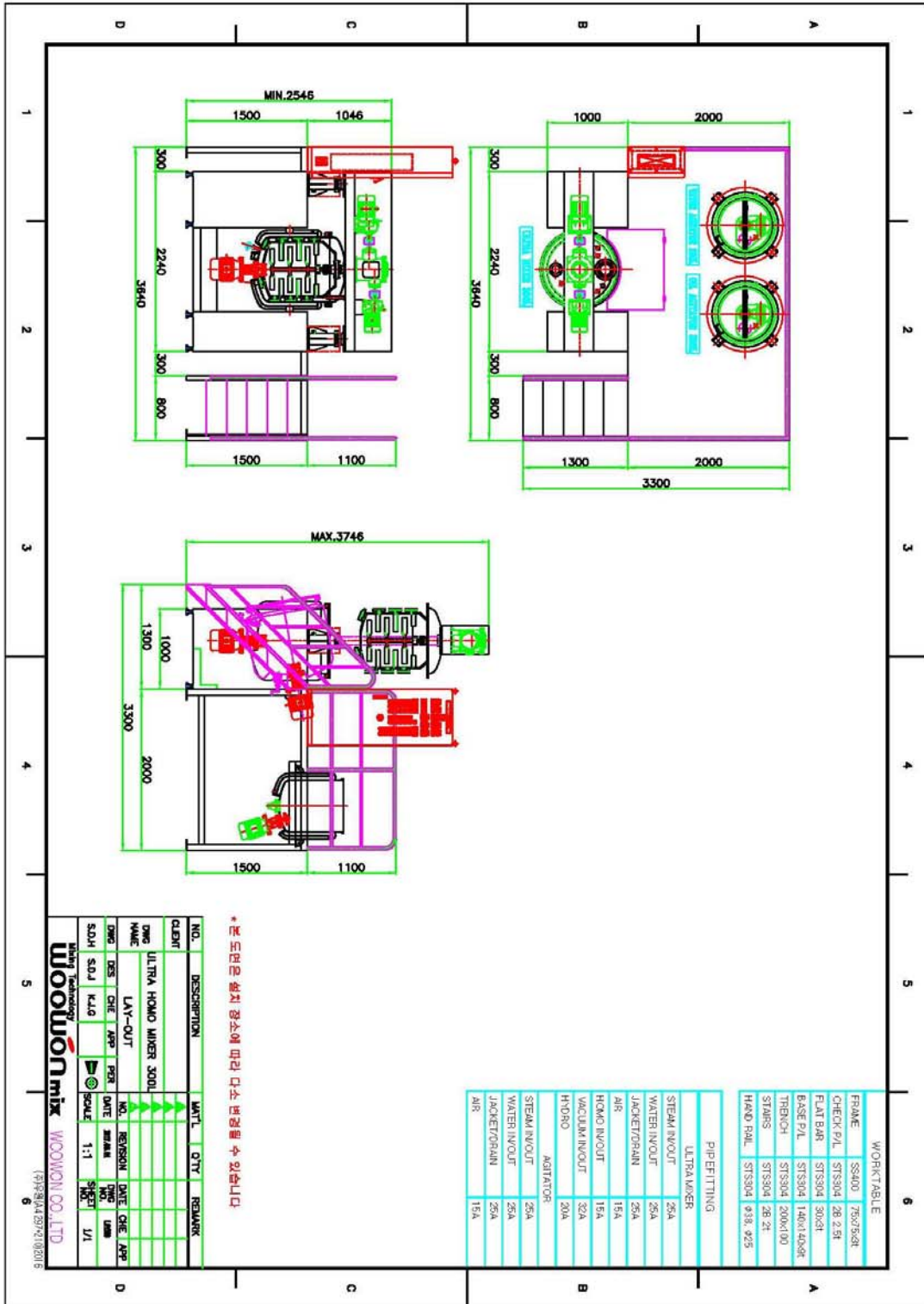
13. PID Temperature control

-For the more elaborate temperature control, we can provide PID control by using heat exchanger.



WOOWON Mixing System

#Drawing



WOOWON Mixing System

#Drawing

