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circuit diagram


00 Safety Information

0.1 Explanation of Safety Messages

Precautionary statements ["**DANGER**," "**WARNING**," and "**CAUTION**"], followed by specific instructions, are found in this manual and on machine decals. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.

	DANGER
Indicates an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.	

	WARNING
Indicates a hazardous situation that, if not avoided, could cause severe personal injury or death.	


	CAUTION
Indicates a hazardous situation that, if not avoided, may cause minor or moderate personal injury or property damage.	

Additional precautionary statements ["**IMPORTANT**" and "**NOTE**"] are followed by specific instructions.

IMPORTANT: The word "IMPORTANT" is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

NOTE: The word "NOTE" is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

0.2 Important Safety Instructions

	WARNING
To reduce the risk of fire, electric shock, serious injury or death to persons when using your washer, follow these basic precautions:	


- Read all instructions before using the washer.

- Install the washer according the INSTALLATION instructions. Refer to the GROUNDING instructions in the INSTALLATION manual for the proper grounding of the washer. All connections for water, drain, electrical power and grounding must comply with local codes and be made by licensed personnel when required. It is recommended that the machine be installed by qualified technicians.
- Do not install or store the washer where it will be exposed to water and/or weather.
- To prevent fire and explosion, keep the area around machine free from flammable and combustible products. Do not add the following substances or textiles containing traces of the following substances to the wash water: gasoline, kerosene, waxes, cooking oils, vegetable oils, machine oils, dry-cleaning solvents, flammable chemicals, thinners, or other flammable or explosive substances. These substances give off vapors that could ignite, explode or cause the fabric to catch fire by itself.
- Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. **HYDROGEN GAS IS EXPLOSIVE.** If the hot water system has not been used for such a period, before using a washing machine or combination washer-dryer, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. The gas is flammable, do not smoke or use an open flame during this time.
- To reduce the risk of an electric shock or fire, **DO NOT** use an extension cord or an adapter to connect the washer to the electrical power source.
- Do not allow children to play on or in the washer. Close supervision of children is necessary when the washer is used near children. This appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance. This is a safety rule for all appliances.
DO NOT reach and/or climb into the tub or onto the washer, **ESPECIALLY** if the wash drum is moving. This is an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.
- Never operate the washer with any guards, panels and/or parts removed or broken. **DO NOT** bypass any safety devices or tamper with the controls.
- Use washer only for its intended purpose, washing textiles. Never wash machine parts or automotive parts in the machine. This could result in serious damage to the basket or tub.
- Use only low-sudsing, no-foaming types of commercial detergent. Be aware that hazardous chemicals may be present. Wear hand and eye protection when adding detergents and chemicals. Always read and follow manufacturer's instructions on packages of laundry and cleaning aids. Heed all warnings or precautions. To reduce the risk of poisoning or chemical burns, keep them out of the reach of children at all times [preferably in a locked cabinet].
- Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
- Always follow the fabric care instructions supplied by the textile manufacturer.


- Loading door **MUST BE CLOSED** any time the washer is to fill, tumble or spin. **DO NOT** bypass the loading door switch by permitting the washer to operate with the loading door open. Do not attempt to open the door until the washer has drained and all moving parts have stopped.
- Be aware that hot water is used to flush the supply dispenser. Avoid opening the dispenser lid while the machine is running.
- Do not attach anything to the supply dispenser's nozzles, if applicable. The air gap must be maintained.
- Do not operate the machine without the water reuse plug or water reuse system in place, if applicable.
- Be sure water connections have a shut-off valve and that fill hose connections are tight. **CLOSE** the shut-off valves at the end of each wash day.
- Keep washer in good condition. Bumping or dropping the washer can damage safety features. If this occurs, have washer checked by a qualified service person.
- **DANGER:** Before inspecting or servicing machine, power supply must be turned **OFF**. The servicer needs to wait for at least 5 minutes after turning the power **OFF** and needs to check for residual voltage with a voltage meter. The inverter capacitor or EMC filter remains charged with high voltage for some time after powering **OFF**. This is an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.
- Do not repair or replace any part of the washer, or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that the user understands and has the skills to carry out. **ALWAYS** disconnect the washer from electrical, power and water supplies before attempting any service.
- Disconnect the power by turning off the circuit breaker or by unplugging the machine. Replace worn power cords.
- Before the washer is removed from service or discarded, remove the door to the washing compartment.
- Failure to install, maintain, and/or operate this washer according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

NOTE: The WARNINGS and IMPORTANT SAFETY INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when installing, maintaining, or operating the washer.

Any problems or conditions not understood should be reported to the dealer, distributor, service agent or the manufacturer.

	WARNING
<p>Machine installations must comply with minimum specifications and requirements stated in the applicable Installation Manual, any applicable municipal building codes, water supply requirements, electrical wiring regulations and any other relevant statutory regulations. Due to varied requirements and applicable local codes, this machine must be installed, adjusted, and serviced by qualified maintenance personnel familiar with applicable local codes and the construction and operation of this type of machinery. They must also be familiar with the potential hazards involved. Failure to observe this warning may result in personal injury, property damage, and/or equipment damage, and will void the warranty.</p>	

IMPORTANT: Ensure that the machine is installed on a level floor of sufficient strength. Ensure that the recommended clearances for inspection and maintenance are provided. Never allow the inspection and maintenance space to be blocked.


	WARNING
<p>Never touch internal or external steam pipes, connections, or components. These surfaces can be extremely hot and will cause severe burns. The steam must be turned off and the pipe, connections, and components allowed to cool before the pipe can be touched.</p>	

0.3 Safety Decals

Safety decals appear at crucial locations on the machine. Failure to maintain legible safety decals could result in injury to the operator or service technician.

Use manufacturer-authorized spare parts to avoid safety hazards.

0.4 Operator Safety

	WARNING
NEVER insert hands or objects into basket until it has completely stopped. Doing so could result in serious injury.	


The following maintenance checks must be performed daily:

1. Verify that all warning labels are present and legible, replace as necessary.
2. Check door interlock before starting operation of the machine:
 - a. Attempt to start the machine with the door open. The machine should not start.
 - b. Close the door without locking it and start the machine. The machine should not start.
 - c. Attempt to open the door while a cycle is in progress. The door should not open.

If the door lock and interlock are not functioning properly, disconnect power and call a service technician.

3. Do not attempt to operate the machine if any of the following conditions are present:
 - a. The door does not remain securely locked during the entire cycle.
 - b. Excessively high water level is evident.
 - c. Machine is not connected to a properly grounded circuit.

Do not bypass any safety devices in the machine.

	WARNING
Operating the machine with severe out-of-balance loads could result in personal injury and serious equipment damage.	

01 Introduction

First of all, thank you for the choice and purchase of our product. You must read it carefully before you operate.

SXT type suspension washing and spin-drying machine is equipment developed newly with frequency conversion, automatic computer control and accordant with damping system. It is a new product manufactured with overseas technology combined with our situation. It is ideal equipment for expertise, washing company, multiple shop, armies, hotel and tailor shop etc, satisfying the washing of various cotton, feather, fiber and woolen material clothing.

We would serve all of our customers warm-heartedly. Welcome valuable idea and suggestions.

Let us improve its quality and grade together.

1.1 Delivery Inspection

Upon delivery, visually inspect crate, protective cover, and unit for any visible shipping damage. If signs of possible damage are evident, have the carrier note the condition on the shipping papers before the shipping receipt is signed, or advise the carrier of the condition as soon as it is discovered.

1.2 Serial Plate Location

The serial plate is located at the rear of the machine. Provide the machine's serial number and model number when ordering parts or seeking technical assistance.

1.3 Customer Service

If you require any technique assistance for your water washing machine in the future, please contact with the local dealer or our after service department.

1.4 tell the world

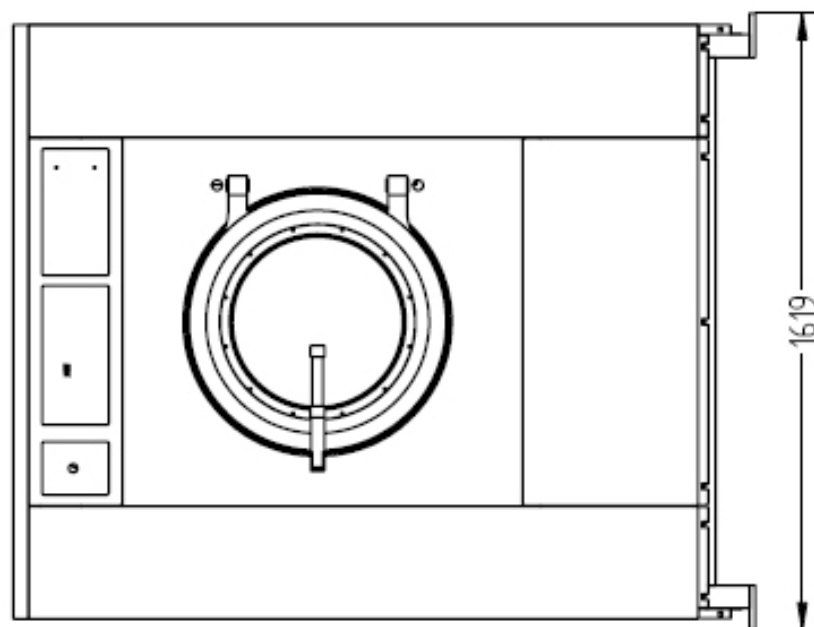
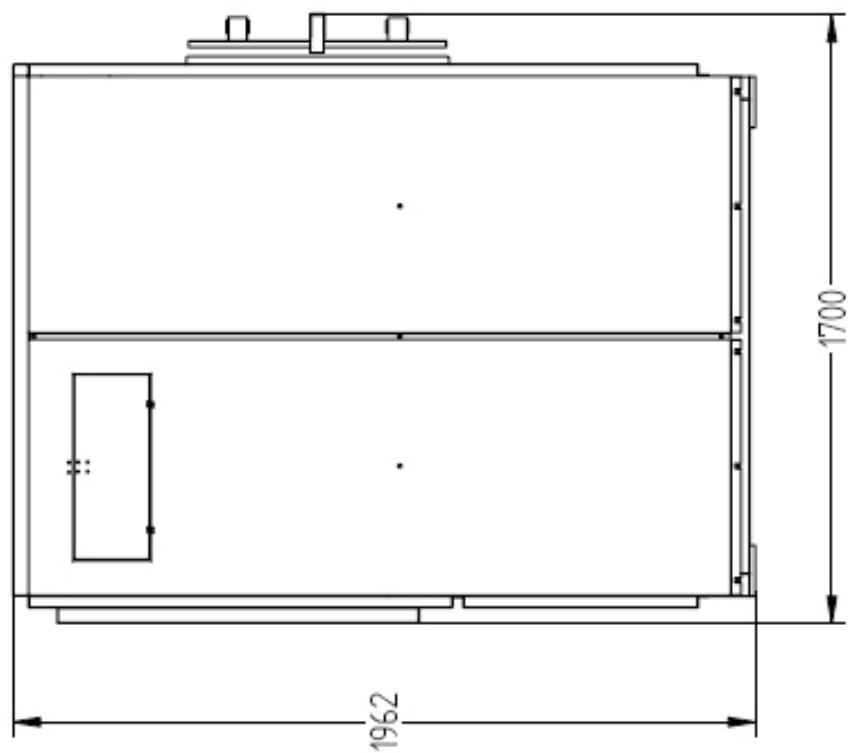
We have the right to amend and improve this manual and the correlative data. If the maintenance operation not mentioned in this manual or the improper operation is carried on and the failure or personal hurt is caused because of that. Our company won't be responsible.

02 Specifications and Dimensions

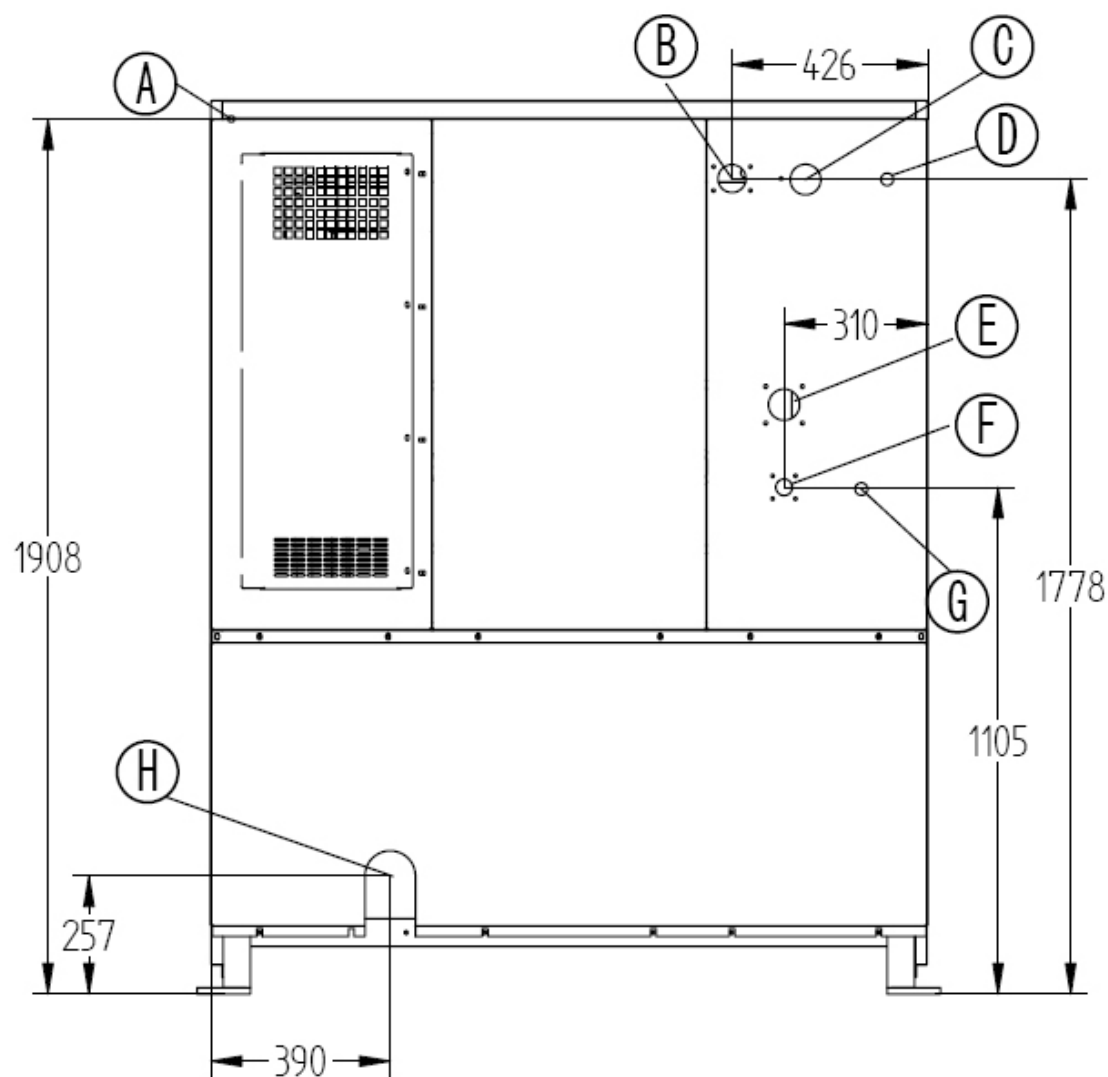
2.1 General Specifications

Item	unit	Electric	Steam
Washing capacity	kg	80	80
Roller capacity	L	800	800
Washing speed	r. p. m	30	30
Extract speed	r. p. m	700	700
Motor power	kw	7.5	7.5
Electric heat power	kw	30	/
Colt water inlet	"	1 1/2"	1 1/2"
Hot water inlet	"	1 1/2"	1 1/2"
Steam inlet	"	/	1"
Drain outlet	mm	Ø 76	Ø 76
Weight	kg	3300	3300
Dimensions			
Width	mm	1619	1619
Depth	mm	1700	1700
Height	mm	1962	1962

2.2 Machine Dimensions



connection

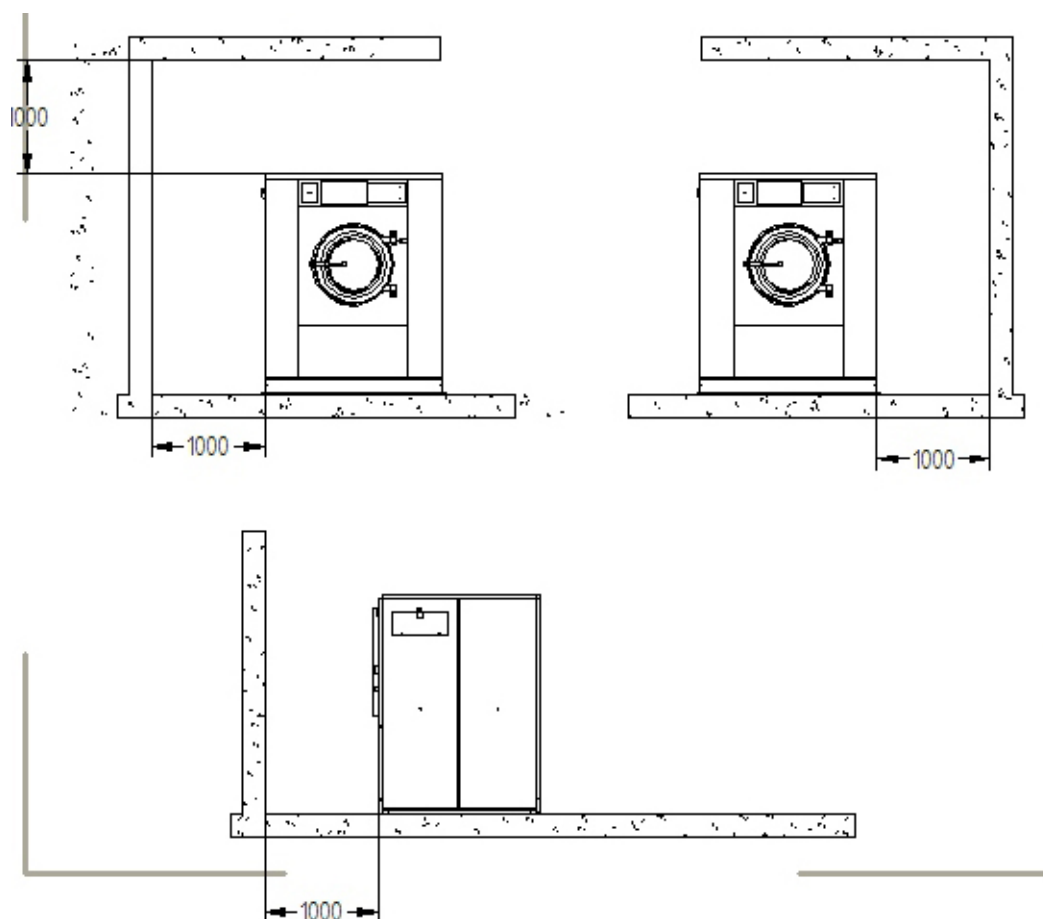


A	electricity connection	
B	Cool water inlet	1 1/2"
C	Hot water inlet	1 1/2"
D	compressed air inlet	Ø 8mm
E	Soap water inlet1	3/4"
F	steam inlet	1"
G	equibalance	Ø 63 mm
H	water drainage	Ø 76 mm

03 Installation

3.1 Requirements of installation location

The diagram illustrates the minimum distances which must be respected in order to guarantee a correct functioning of the machine and correct maintenance procedures.




3.2 Foundation Requirements

The machine must be placed on a solid floor which is level in both directions, and of a sufficient consistency to be able to support the weight of the machine, of any existing machinery and the means of transport.

NOTE: Do not mount on wooden floors, tile floors, elevated floor levels, stacked multiple base frames, or over basements or crawl spaces because of the high extract speed and the G-forces exerted.

Thoroughness of detail must be stressed with all foundation work to ensure a stable unit installation, eliminating possibilities of excessive vibration during extract.

	WARNING
To reduce the risk of fire, serious injury, property damage and/or death, install the machine on a level, uncovered concrete floor of sufficient strength at grade.	

3.3. Water Connection

Connections should be supplied by a hot and a cold water line of at least the sizes shown in Water Supply Line Sizing. Installation of additional machines will require proportionately larger water lines.

To connect water service to a machine with hoses, use the following procedure:

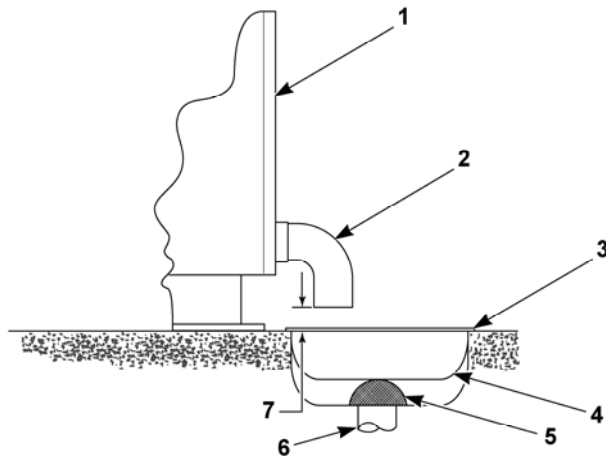
1. Before installing hoses, flush the building's water system at the machine connection valves for at least two [2] minutes.
2. Check filters in the machine's inlet hoses for proper fit and cleanliness before connecting.
3. Hang hoses in a large loop; do not allow them to kink.

3.4. Drain Connection

IMPORTANT: Machine must be installed in accordance with all local codes and ordinances.

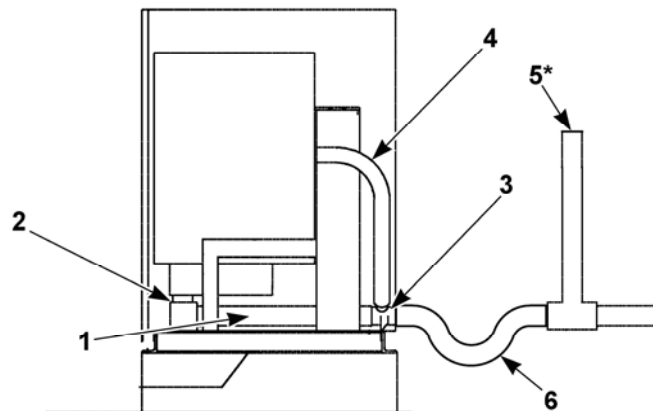
All drain systems must be vented to prevent an air lock or siphoning.

If proper drain size is not available or practical, a surge tank is required. A surge tank along with a sump pump should be used when gravity drainage is not possible.



Drain Trough System

- | | | | |
|--------------------|---------------|------------------------------|-----------------|
| 1. Rear of Machine | 2. Drain Pipe | 3. Steel Grate | 4. Drain Trough |
| 5. Strainer | 6. Waste Line | 7. 1 in. [25 mm] minimum gap | |



Drain line must be vented to meet local plumbing codes.

Direct Drain System


- | | | | |
|---------------|--------------------------------------|--------------|------------------|
| 1. Drain Hose | 2. Drain Valve | 3. Drain Tee | 4. Overflow Hose |
| 5. Vent Pipe* | 6. Trap [as required by local codes] | | |


IMPORTANT: Increasing the drain hose length, installing elbows, or causing bends will decrease drain flow rates and increase drain times, impairing machine performance.


NOTE: Installation of additional machines will require larger drain connections.

3.5. Electrical Installation

IMPORTANT: Electrical ratings are subject to change. Refer to serial plate for electrical ratings information specific to your machine.

	DANGER
Electrical shock hazard will result in death or serious injury. Disconnect electric power and wait five(5) minutes before servicing.	

	WARNING
Dangerous voltages are present inside the machine. Only qualified personnel should attempt adjustments and troubleshooting. Disconnect power from the machine before removing any cover and guards, and before attempting any service procedures.	

	WARNING
Hazardous Voltage. Can cause shock, burn or death. Verify that a ground wire from a proven earth ground is connected to the lug near the input power block on this machine.	


Electrical connections are made at the rear of the machine. The machine must be connected to the proper electrical supply shown on the serial plate on the rear of the machine, using copper conductors only.

IMPORTANT: Our corporation warranty does not cover components that fail as a result of improper input voltage.

Input Voltage Requirements

For voltages above or below listed specifications, contact your power company or local electrician.

IMPORTANT: Improper connections will result in equipment damage and will void warranty.

	DANGER
Hazardous Rotation Speed. Will cause serious injury when controlling AC inverter drive with a parameter unit, safety features are bypassed allowing basket to rotate at high speeds with the door open. Place large sign on front of machine to warn people of imminent danger.	

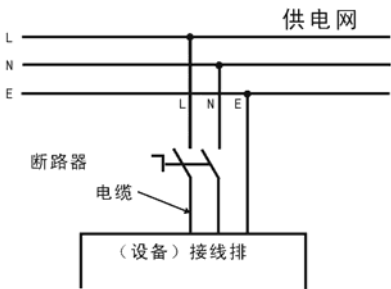
Connection Specifications

IMPORTANT: Connection must be made by a qualified electrician using wiring diagram provided with machine, or according to accepted European Unmon standards.

Connect machine to an individual branch circuit not shared with lighting or other equipment. Shield connection in a liquid-tight or approved flexible conduit. Copper conductors of correct size must be installed in accordance with NEC or other applicable codes.

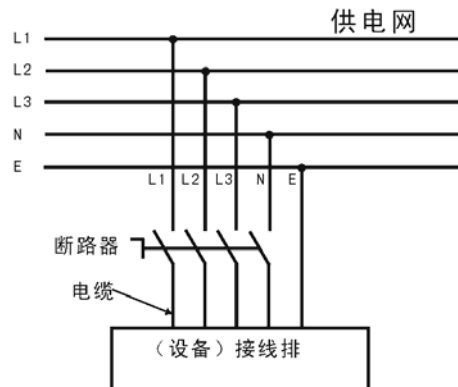
Single-Phase Connections

For single-phase input, connect L, N and Ground .



Three-Phase Connections


For three-phase input, connect L 1, L2, L3 and Ground.



Grounding

For personal safety and proper operation, the machine must be grounded in accordance with state and local codes. The ground connection must be made to a proven earth ground, not to conduit or water pipes.

3.6. Steam Connection (Steam Heat Option Only)


	WARNING
Hot Surfaces. Will cause severe burns. Turn steam off and allow steam pipes, connections and components to cool before touching.	

A steam inlet of 1/2" is equipped with the washing machine. The entering steam must be 4bar – 6bar (0.4– 0.6Mpa).

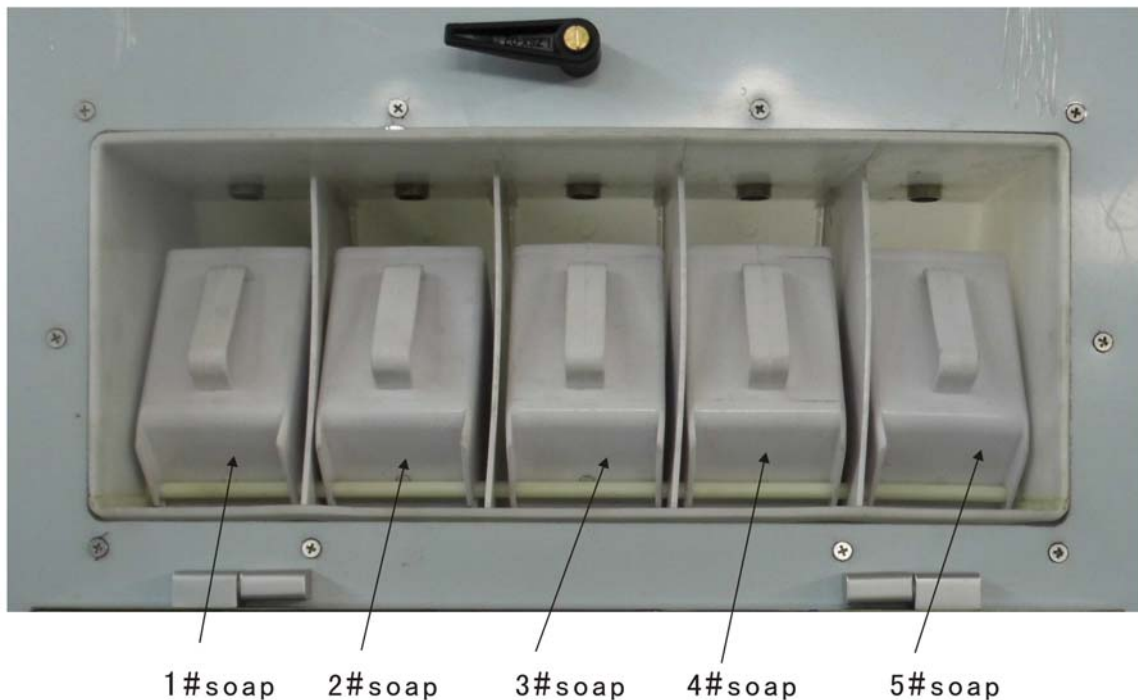
IMPORTANT: The connection of steam pipe must accord with the corresponding technique norms.

IMPORTANT: Failure to install the customer supplied steam filter may void the warranty.

3.7. Supply Dispensing

	WARNING
Dangerous Chemicals. May damage eyes and skin. Wear eye and hand protection when handling chemicals; always avoid direct contact with raw chemicals. Read the manufacturer's directions for accidental contact before handling chemicals. Ensure an eye-rinse facility and an emergency shower are within easy reach. Check at regular intervals for chemical leaks.	

This machine have 4 liquid chemical supply and 5 of external liquid supply connections

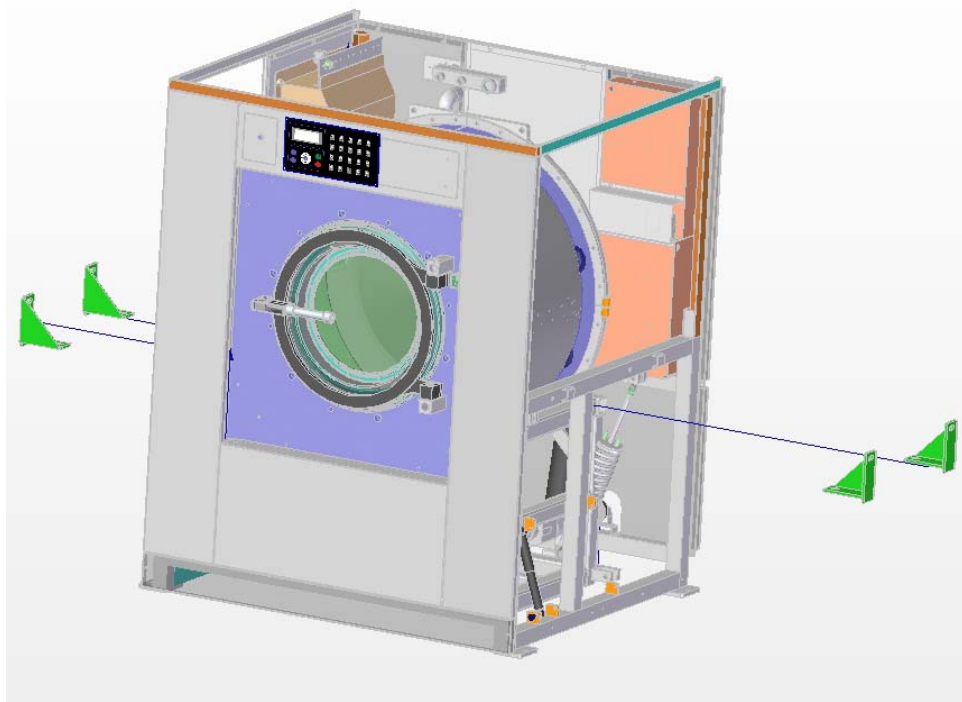


IMPORTANT: Undiluted chemical dripping can damage the machine. All chemical injection supply dispenser pumps and dispenser tubing should be mounted below the washer's injection point. Loops do not prevent drips if these instructions are not followed.

IMPORTANT: Failure to follow these instructions could damage the machine and void the warranty.

3.8. Remove the transportation support

After positioning, Remove the front, back and underside faceplates and remove the four blocks for fixing and connection in the transportation.





04 Control interface

The control panel of the controller is showing as below:















Computer is a kind of universal, powerful function control system, mainly used on washing machine, includes display, electrical board.





4.1 Buttons introduction

Icon	Function
	[Heavy] button Press this button to start Heavy washing or stop washing.
	[Delicate] button Press this button to start Delicate washing or stop washing.

 Standard	<p>[Standard] button</p> <p>Press this button to start Normal washing or stop washing.</p>
 Mid Extract	<p>[Mid Extract] button</p> <p>Switch between starting medium extract and stopping medium extract by pressing this button.</p>
 High Extract	<p>[High Extract] button</p> <p>Switch between starting high extract and stopping high extract by pressing this button.</p>
 Level	<p>[Level] button</p> <p>Switch the level among low level, medium level, high level and calibration level by pressing this button.</p>
 Cold Water1	<p>[Cold Water1] button</p> <p>Switch between starting adding cold water1 and stopping adding cold water1 by pressing this button when the actual level is lower than the set level.</p>
 Cold Water2	<p>[Cold Water2] button</p> <p>Switch between starting adding cold water2 and stopping adding cold water2 by pressing this button when the actual level is lower than the set level.</p>
 Hot Water	<p>[Hot water] button</p> <p>Switch between starting adding hot water and stopping adding hot water by pressing this button when the actual level is lower than the setting level.</p>
 Heat	<p>[Heat] button</p> <p>Switch between starting heating and stopping heating by pressing this button when the actual temperature is lower than the set temperature and the actual level is higher than the value of “Safety level of heat” parameter.</p>

 DRAIN1 Drain1	[Drain1] button Switch between starting drain1 and stopping drain1 by pressing this button.
 DRAIN2 Drain2	[Drain2] button Switch between starting drain2 and stopping drain2 by pressing this button.
 SUPPLY1 Supply1	[Supply1] button Under “manual” mode, the supply1 will work for 30 seconds by pressing this button and you also can stop the supply1 during supply1 working by pressing this button.
 SUPPLY2 Supply2	[Supply2] button Under “manual mode”, the supply2 will work for 30 seconds by pressing this button and you also can stop the supply2 during supply2 working by pressing this button.
 SUPPLY3 Supply3	[Supply3] button Under “manual mode”, the supply3 will work for 30 seconds by pressing this button and you also can stop the supply3 during supply3 working by pressing this button.
 SUPPLY4 Supply4	[Supply4] button Under “manual mode”, the supply4 will work for 30 seconds by pressing this button and you also can stop the supply4 during supply4 working by pressing this button.
 SUPPLY5 Supply5	[Supply5] button Under “manual mode”, the supply5 will work for 30 seconds by pressing this button and you also can stop the supply5 during supply5 working by pressing this button.
 TILTFWD Function	[Function] button Standby.

 <p>FWD Fwd</p>	<p>[Forward] button Under “Open” status, press this button to unload or load. Note: 1.If “Load & unload type” parameter is set to “None”, this button is invalid. 2.If “Load & unload type” parameter is set to “Manual”, press [Forward] button sostenuto to load & unload, loose to stop. 3.If “Load & unload type” parameter is set to “Auto”, press [Forward] button to start and press again to stop. (Warning: this type is very dangerous, could possibly result in loss of life or serious injury, so you need to confirm this model suit for your requirement, any inconvenience are not covered by this warranty) 4.If “Startup unload safely” parameter is set to “yes”,you need to press [Forward] button twice,but It is safe to startup unload.So we suggest that you use this method .</p>
 <p>REV Reverse</p>	<p>[Reverse] button Under “Open” status, press this button to unload or load. Note: 1.If “Load & unload type” parameter is set to “None”, this button is invalid. 2.If “Load & unload type” parameter is set to “Manual”, press [Reverse] button sostenuto to load & unload, loose to stop. 3.If “Load & unload type” parameter is set to “Auto”, press [Reverse] button to start and press again to stop. (Warning: this type is very dangerous, could possibly result in loss of life or serious injury, so you need to confirm this model suit for your requirement, any inconvenience are not covered by this warranty) 4.If “Startup unload safely” parameter is set to “yes”,you need to press [Reverse] button twice,but It is safe to startup unload.So we suggest that you use this method .</p>
 <p>START Start</p>	<p>[Start/Confirm] button Under “Lock” status, press this button to start executing the selected program; Under parameter setting status, press this button to shift the setting bit; Under parameter setting screen, switch among “Time setting”, “Level setting” and “Temperature setting” by pressing this button. The selected item will display in reverse video and last 5 seconds without further operation.</p>
 <p>STOP Stop</p>	<p>[Stop/Esc] button Under “Close” status, press this button to lock the door Under “Lock” status, press this button to unlock the door. If there is water in cage, the door can not be unlocked by pressing this button. Under “manual” Mode, press this button to stop current operation; Under “auto” Mode, press this button to stop current running</p>

	<p>program.</p> <p>When there is an error appeared in the machine, the computer will signal an alarm automatically with audible sound. Pressing this button will stop audible alarm sound. Press this button again after troubleshooting. If the error has been resolved or can be ignored, the computer will go back to “Open” or “Close” or “Lock” status. Or else the controller will alarm again.</p> <p>Under parameter setting or “Prog.” Status, press this button to confirm the prompting message.</p>
	<p>[+] button</p> <p>Under parameter setting screen, press this button to modify the value.</p>
	<p>[-] button</p> <p>Under parameter setting screen, press this button to modify the value.</p>
 Up	<p>[Up] button</p> <p>Under “Open”, “Close” or “Lock” Status, press this button to choose your desired automatic formula.</p> <p>Under parameters setting screen, press this button to choose your desired item.</p> <p>Under “Manual”, “Auto” or “Prog.” Status, press this button to adjust the value of level, setting time and set temperature.</p> <p>If Parameters “Skip step when running” and “Operate when running” are set “Yes”, press this button to skip the current step under “auto” mode.</p> <p>Under “Prog.” Status, press this button to delete a blank step before current step.</p>
 Down	<p>[Down] button</p> <p>Under “Open”, “Close” or “Lock” Status, press this button to choose your desired automatic formula.</p> <p>Under parameters setting screen, press this button to choose your desired item.</p> <p>Under “Manual”, “Auto” or “Prog.” Status, press this button to adjust the value of level, setting time and set temperature.</p> <p>If Parameters “Skip step when running” and “Operate when running” are set “Yes”, press this button to skip the current step under “auto” mode.</p> <p>Under “Prog.” Status, press this button to insert the current step.</p>

4.2 Alarming

1 #01 door status wrong

the loading door is not closed properly.

alarm reason:

1 please check door is properly closed or not;

2 electrical wire fault

Treatment: press “stop” button to close alarm, after trouble is settled, restart machine.

2 #03 vibration too high

excessive vibration travel switch closed

alarm reason:

1 drum vibration is too big;

2 excessive vibration switch fault.

Treatment way: press : stop key to close alarm, after trouble is settled, restart again.

3 #04 air pressure is too low

the input compressed air is too low

alarm reason

air supply fault

Treatment : press stop button close alarm, after trouble is settled, restart machine.

4.3 Programming and setting

look-up: KH-3000A.Factory Manual

4.4 Running

Startup

After power is on, the LCD shows the startup interface for 10 seconds. If press **[+]** and **[-]** button at the same time during the 10-second-display, you can enter into parameters setting interface.

Manual Running Mode

Start Manual Running

Power on and close the door, it will enter into "Closed status". Lock the door by pressing **[Stop]** button. Enter into "Manual mode" by pressing any of the following buttons (**[Wash]**, **[Cold Water]**, **[Hot Water]**, **[Heat]**, **[Drain1]**, **[Drain2]**, **[Extract]**, **[Supply1]**, **[Supply2]**, **[Supply3]**, **[Supply4]**, **[Supply5]**)

Change Time,temperature,level

Select the setting items between time, temperature or level by pressing **[Up]** or **[Down]** button and set the value by pressing **[+]** and **[-]** buttons under manual mode.

Switch the level among low level, medium level, high level and calibration level by pressing **[Level]** button.

Stop Machine

Press **[Stop]** button to stop all the actions running, and return to "Locked status". Enter into "Closed status" by pressing **[Stop]** again. Enter into "Open status" by opening the door.

Automatic Running

Start Automatic Running

On Idle interface, choose your desired program by pressing **[+]** and **[-]** buttons under "locked" status, and then press **[Start]** button to start the program.

On automatic running interface, shows the information, time, water level, water temperature and steps. User also can change time, speed, water level, water temperature manually.

Automatic Running

When the machine is running, user can pause, continue, or stop the machine, can change time, speed, water level, water temperature manually, and also can advance to a new step.

On pause status, the controller clue user "Pause run,press <Start>".

If the value of parameter "Type of soap ready" is "Button", the machine will pause when beginning of the step. The controller clue user "Check soap,press <Start>".

Pause and Continue

When the machine is running, user press **[Start]** button to stop the machine. On pause status all the actions is stopped, the count down time is also stopped. Press **[Start]** button to continue running.

Note:

1. Extract step can not be paused.

Manual Operate

When the machine is running, user can change time, speed, water level, water temperature, actions manually.

Note:

1. Press set parameter “Operate when running” to “Yes”.
2. On pause status, user can not manual operate.

Advance Step

When the machine is running, user can skip to the next or above step by pressing **[+]** or **[-]** button.

Note:

1. Parameter 1.7 “Operate when running” should be set as “Yes”.
2. Parameter 1.8 “Skip step when running” should be set as “Yes”.

Ending Automatic Running

After complete the last step or press **[Stop]** button, the controller becomes ending status. The controller beeps on to clue user, you can stop the buzzer by pressing **[Stop]** button during this beeping time. User also can lock or unlock the door, and run this program again immediately.

Lock or Unlock

Press **[Stop]** button to lock the door under closed status.

Press **[Stop]** button to unlock the door under locked status.

Note: If the temperature, water level is higher than the safety value, user can not unlock and open the door.

Load or Unload

Under “Open” status, press **[Fwd]** or **[Rev]** button to unload or load.

Note:

1. If “Load & unload type” parameter is set to “None”, **[Fwd]** and **[Rev]** button is invalid.
2. If “Load & unload type” parameter is set to “Manual”, press **[Fwd]** or **[Rev]** button sostenuto to load & unload, loose to stop.
3. If “Load & unload type” parameter is set to “Auto”, press **[Fwd]** or **[Rev]** button to start and press again to stop.
4. If “Startup unload safely” parameter is set to “yes”,you need to press**[Fwd]** or **[Rev]** button twice,**but It is safe to startup unload.So we suggest that you use this method .**

05 Opreation

5.1 Opreation instrutions

5.1.1 Open the door

Turn handle clockwise to open.

5.1.2 Load

Load to capacity whenever possible. **DO NOT OVERLOAD.**

NOIE: Underloading can cause out-of-balance conditions that can shorten machine lifo.

5.1.3 Close the door

Close door and turn handle counter clockwise.

5.1.4 Select the washing program

Select the washing program

5.1.5 Add detergent

Add liquid and/or powder detergent to supply dispenser

5.1.6 Washing

Press the START keypad.

5.1.7 Washing end

When cycle is complete,

5.2 Crux of washing

It is a spin-roller washer. It adopts new type water flow to balance the roler. And then high-dewatering begins. It takes advantage of mechanism action, chemical action and heat action to clean the clothes.

1 pre-washing

To achive the best washing effects, it often pre-wash for 2-4 min.before chief washing (no addition of detergent). Then it may remove the dirt quickly especially for cotton like clothing.

2 washing time

If the washing time is too long, it cannot clean clothing neatly, but damage the clothing. Generally 8-15 min is preferred.

3 washing temperature

The higher the temperature, the easier the detergent is dissolved. Interfacial agent can be adsorbed quickly with deep penetration. It is easy to clean. But for part clothing such as leather, silk and chemical fibre should not be washed at high temperature, it should be washed below 40 °C. Normal cotton etc clothing should be controlled below 95°C (70-90°C is proper). If it is too high, the sealing of equipment may be aged, distorted and damaged. And too high temperature is not proper for the cleanness of clothing.

4 washing time and washing times


The effective dewatering and design of water flow is good for rinse. Normally it is best to operate for 3 times (3-5 min for each time). Otherwise you may waste water and time, and the clothing is easy to become yellow and the activator is difficult to remove.

5.3 Attentions

1. the user must comply with the manual strictly and ensure the normal supply of water, electricity, steam and gas before starting.
2. 80% of rated capacity is best for washing.
3. if there is reset and stop in running process, please check the number of failure and elimination first on the displaying windows of computer or transducer. And repair it correspondingly. No blind immediate restart and running. The user should use the single link control smartly. If there is failure, you may use single link control to wash clothing completely and then repair again.
4. if it stops because of overloading protection, the reason is uneven distribution of clothing mostly. You may just distribute it evenly. You may program by yourself for entering water and dewatering. Once it stops because of overloading protection, start it quickly and dewater again.
5. the temperature should be set according to the kinds of clothing, dirty degree and the best temperature range for the detergent. To ensure ideal washing effects and lengthen lifespan of clothing. The heated clothing should not be impacted directly with cool water at high temperature.


06 Maintenance

6.1 Maintenance

	WARNING
Sharp edges can cause personal injury. Wear safety glasses and gloves, use proper tools and provide lighting when handling sheet metal parts.	

IMPORTANT: Replace all panels that are removed to perform service and maintenance procedures. Do not operate the machine with missing guards or with broken or missing parts. Do not bypass any safety devices.

6.2 Daily

	WARNING
Do not spray the machine with water. Short circuiting and serious damage may result.	

IMPORTANT: Door lock should be checked daily to ensure proper operation. Also check that all safety and instruction stickers are on the machine. Any missing or illegible safety instructions stickers should be replaced immediately.

Beginning of Day

1. Check door interlock before starting operation:

- Attempt to start the machine with the door open. The machine should not start.
- Close the door without locking it and start the machine. The machine should not start.
- Attempt to open the door while the cycle is in progress. The door should not open.

If the door lock and interlock are not functioning properly, disconnect power and call a service technician.

- Inspect water inlet valve hose connections on the back of the machine for leaks.
- Inspect steam hose connections for leaks [where applicable].
- Inspect all chemical inlets, lines and connections for leaks.



WARNING

To reduce the risk of electrical shock, serious injury or death, disconnect the electrical power to washer-extractor before examining the wiring.

5. Verify that insulation is intact on all external wires and that all connections are secure. If bare wire is evident, call a service technician.

End of Day

1. Clean the door gasket of residual detergent and all foreign matter.
2. Clean the door glass with a damp cloth.
3. Clean automatic supply dispenser lid and general area.
4. Clean the machine's top, front and side panels with mild detergent. Rinse with clean water. DO NOT use products that contain alcohol on the control panel.
5. Inspect and clean basket.
6. Clean the inverter drive box filter(s) weekly or more frequently as needed [where applicable]:
 - a. Wash the filter with warm water and allow filter to air dry. As an alternative, the filter may be vacuumed clean.

NOTE: Unload the machine promptly after each completed cycle to prevent moisture buildup. Leave leading door open after each completed cycle to allow moisture to evaporate.

6.3 Weekly

1. Check the machine for leaks.
 - a. Start an unloaded cycle to fill the machine.
 - b. Verify that door and door gasket do not leak.
 - c. Verify that the drain valve is operating and that the drain system is free from obstruction. If water does not leak out during the first wash segment, the drain valve is closed and functioning properly.
2. Clean the inverter drive box filter(s) weekly or more frequently as needed [where applicable]:
 - a. Wash the filter with warm water and allow filter to air dry. As an alternative, the filter may be vacuumed clean.

IMPORTANT: The control module cover and fan filter must be in place for the fan to properly cool the inverter drive. Failure to observe this warning will void the warranty and could lead to expensive inverter drive repair.

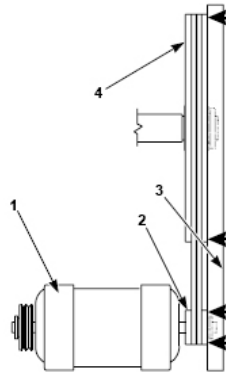
3. On machines equipped with an automatic chemical supply system, check chemical connections by inspecting all connections and chemical hoses for leaks or cracks.

IMPORTANT: Chemical leaks can quickly cause permanent damage to the machine components and structure.

6.4 Monthly

NOTE: Disconnect power to the machine at its source before performing the monthly maintenance procedures.

1. Check belt(s) require replacement or adjustment. Call a qualified service technician in either case.
 - a. Check belt(s) for uneven wear and frayed edges.
 - b. For groove-pulley drive systems, verify alignment by placing a straightedge across both pulley faces. The straightedge should make contact with the pulleys in four places.

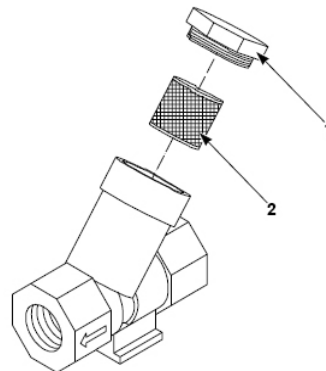


1. Motor
2. Motor Pulley
3. Straightedge
4. Basket Pulley

6.5 Quarterly

NOTE: Disconnect power to the machine at its source before performing the quarterly maintenance procedures.

1. Tighten door hinges and fasteners, if necessary.
2. Tighten anchor bolts, if necessary.
3. Clean customer-supplied steam filter, where applicable. Refer to Figure.
 - a. Turn off steam supply and allow time for the valve to cool.
 - b. Unscrew cap.
 - c. Remove element and clean.
 - d. Replace element and cap.



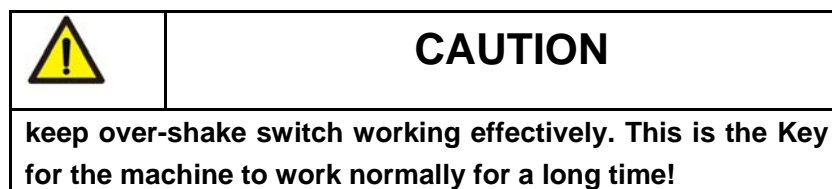
1. Cap
2. Steam Filter Element

4. Check the controlling components: pneumatic valve, conducting valve, decompression valve and water valve. Clean them if necessary.
5. Check the bearing. If it is loose or noisy, repair it in time.
6. Check the buffer, if there is abrasion, dislocation or rupture, please adjust or replace it.

6.6 Specific suggestions

6.1.1 Over-shake protection

Over-shake protection is equipped in this machine. There is a jiggle switch on the left under side of the equipment. The roller swing is controlled by a universal action frame. The swing electric signal is cut under normal working condition. Once it shakes overly, the switch will be turned on and send out a signal to the computer. The machine will stop automatically by the computer, ensuring a long lifespan of the entire machine. Specific swing can be amended according to the user's conditions. The limiting swing can be adjusted by shift of aperture of slot.



6.1.2 Transducer

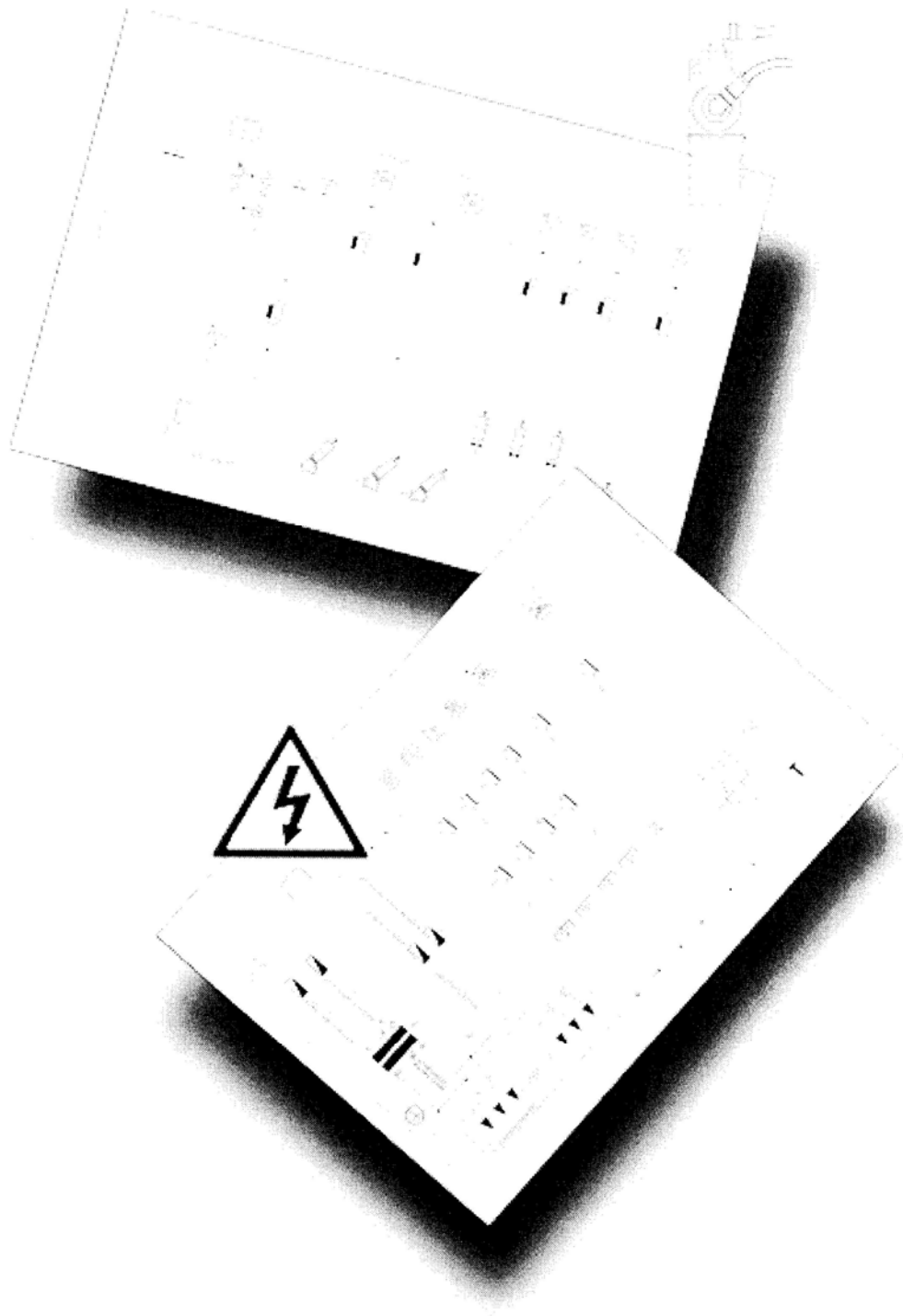
1. Each parameter has been set by manufacturer. Failures should be eliminated by manufacturer. Don't alter optionally. Otherwise, the manufacturer doesn't answer for that.
2. The output frequency value should be displayed on the window under normal working conditions. Failure number will be displayed in the state of failure. Find the cause and handle it according to the code name.
3. The highest rotary speed is set. The corresponding frequency value cannot be altered. Because a higher speed has no actual meaning and it will result in structural failure.

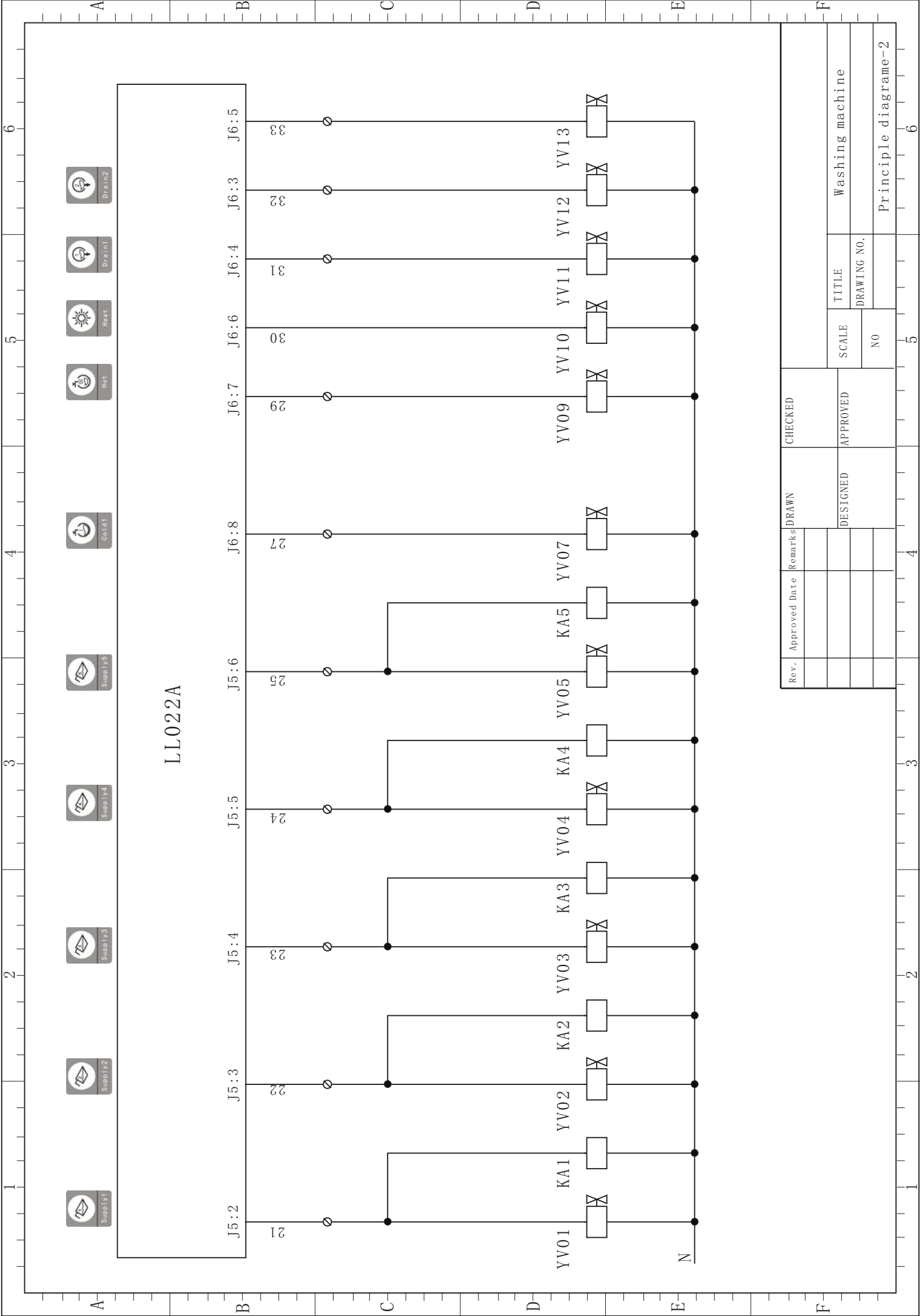
6.7 Ordinary failure and elimination

failure	cause	elimination
The machine does not run	<ul style="list-style-type: none"> • Disabled power • Disabled controlling switch • Computer does not work • The transducer does not emit outputting signal 	<ul style="list-style-type: none"> • Check the air switch and fuse outside and repair • Check the conducting wire and connect it well • Check the door approach switch and adjust the distance again or replace it • Check the over-shake switch and adjust • Check whether there is output indication, if there isn't, notify the manufacturer. If there is, check the corresponding controlling components outside or the outputting circuit. • Check the computer whether there is normal output signal(transducer output) • Check the transducer driver alarm code.
The machine does not work at the normal speed	<ul style="list-style-type: none"> • The output frequency of transducer is wrong. • Motor is failed. • Inner roller is failed. • Strap is worn. 	<ul style="list-style-type: none"> • Check transducer • Check motor to see whether the loop is damaged or lack of phase. • Check with hand whether the inner roller is turning and remove foreign objects. • Check the strap or replace it.
No high drying	<ul style="list-style-type: none"> • The speed of drain is too low • The frequency of transducer is wrong. • Over-shaking protection 	<ul style="list-style-type: none"> • Check the drain valve and clean the pipeline. • Amend it and notify the manufacturer. • Enter water again and even clothing and dewater
Over-shake when high speed drying	<ul style="list-style-type: none"> • The braces for transport isn't removed • The machine isn't installed levelly. • Disabled over-shake switch • Too little loading • deflection loading • Loose bearing seat • Damaged buffer 	<ul style="list-style-type: none"> • Remove braces for transport • Adjust it as level • Check the working state of jiggle switch and adjust or replace it • Supply to a loading of 12-15KG • Washing the same kind of clothing • Enter water again and dewater • Adjust again and fix the bearing seat • Repair or replace
Door leakage	<ul style="list-style-type: none"> • The pressure of door sealing loop is low. • The door sealing loop is aging. • The door is dislocated. 	<ul style="list-style-type: none"> • Adjust the door gap • Replace sealing loop • Adjust roller door

The water cannot stop	<ul style="list-style-type: none"> • Disabled liquid position controller • Water-in valve is failed. 	<ul style="list-style-type: none"> • Check whether the hose for liquid position is leaked. If it is, seal it. • Check and clean the controlling valve.
No water in	<ul style="list-style-type: none"> • No water or the pressure is too low • Jam of filtrating net • Water-in valve is Failed. • Too low liquid position. 	<ul style="list-style-type: none"> • Use it after all is normal. • Clean it • Check the controlling valve. • Check and adjust liquid position controller.
No water in or leaking water	<ul style="list-style-type: none"> • Jam of drain valve • Uncertainty of drain valve 	<ul style="list-style-type: none"> • Clean it • Check the drain bicycle pump and sealing loop. • Replace if they are abnormal.
Abnormal temperature increase	<ul style="list-style-type: none"> • Too low steam pressure • Disabled temperature controller • The steam valve isn't open 	<ul style="list-style-type: none"> • Check the steam pressure whether in the working range. • Remove the temperature sensor. If there is no output of temperature, replace it. • Check whether the controlling valve is normal.
No water when adding solvent	<ul style="list-style-type: none"> • the water pressure is too low • Error program • Electromagnetism valve is disabled. 	<ul style="list-style-type: none"> • Use it after all is normal. • Check. If the program is error, modify it or replace the location of cup. • Check and clean the scraps in the Electromagnetism valve.

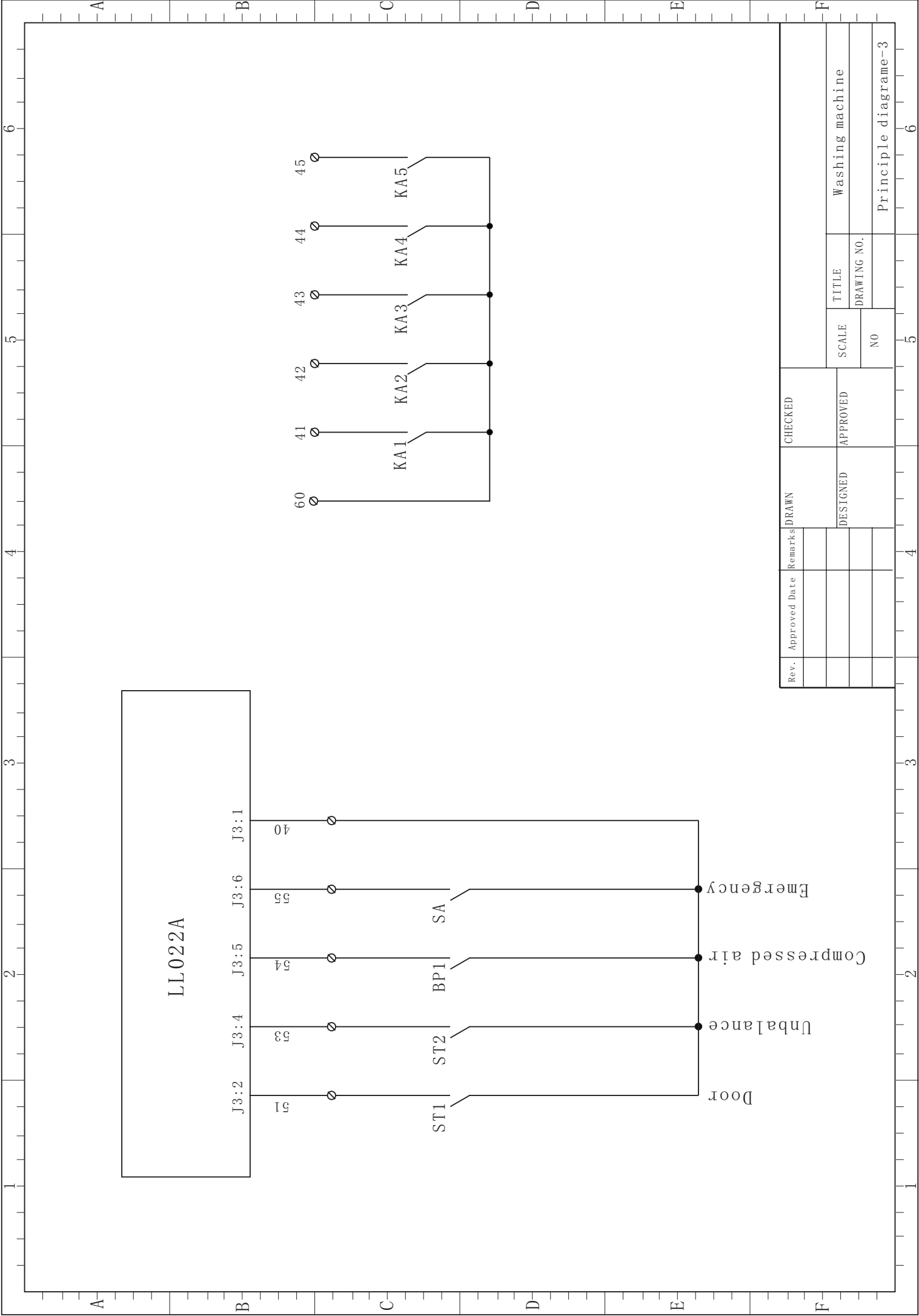
ELECTRIC PLAN



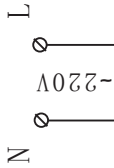


1 2 3 4 5 6

A B C D E F



soap pump supply



soap pump supply may use various voltage

for example:

soap pump supply is AC 220V

soap pump 6 follow-up soap1

soap pump 7 follow-up soap2

soap pump 8 follow-up soap3

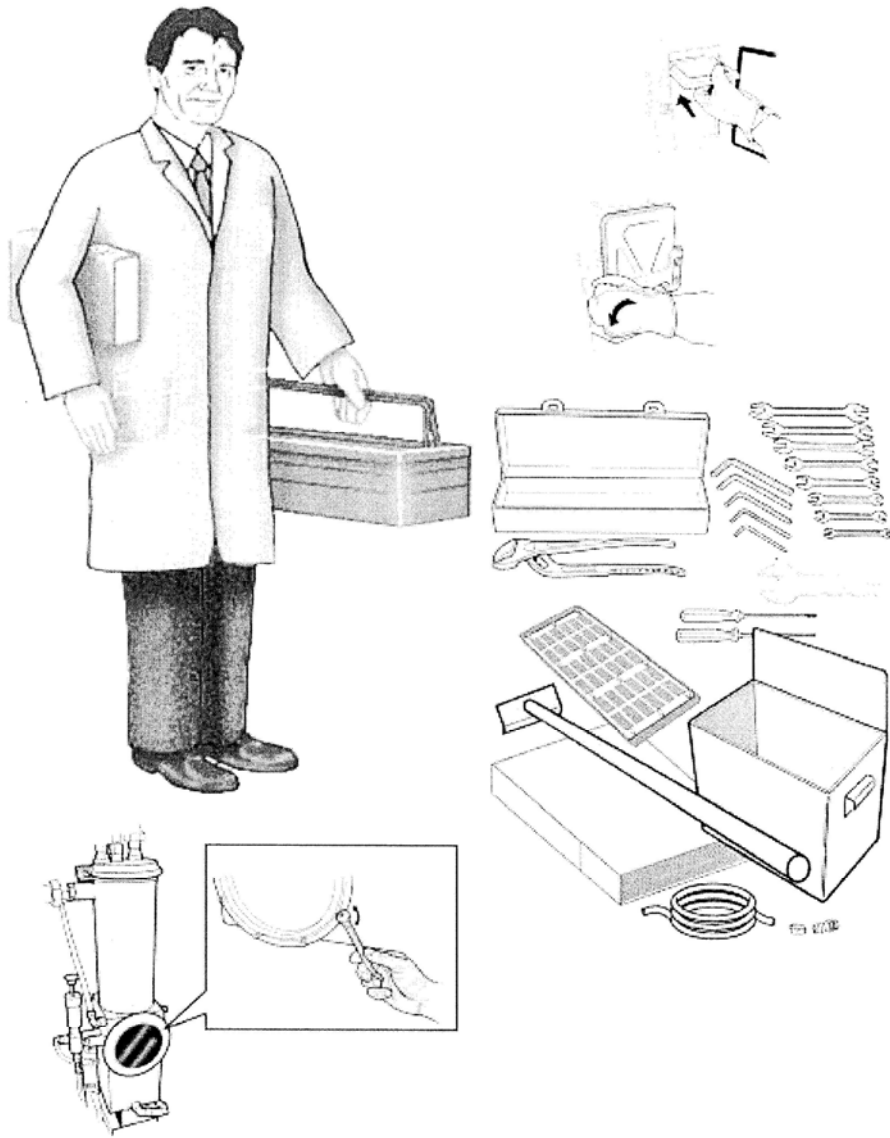
soap pump 9 follow-up soap4

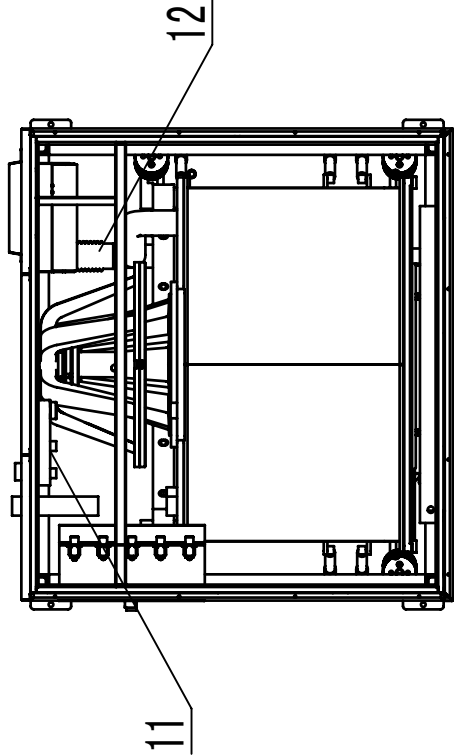
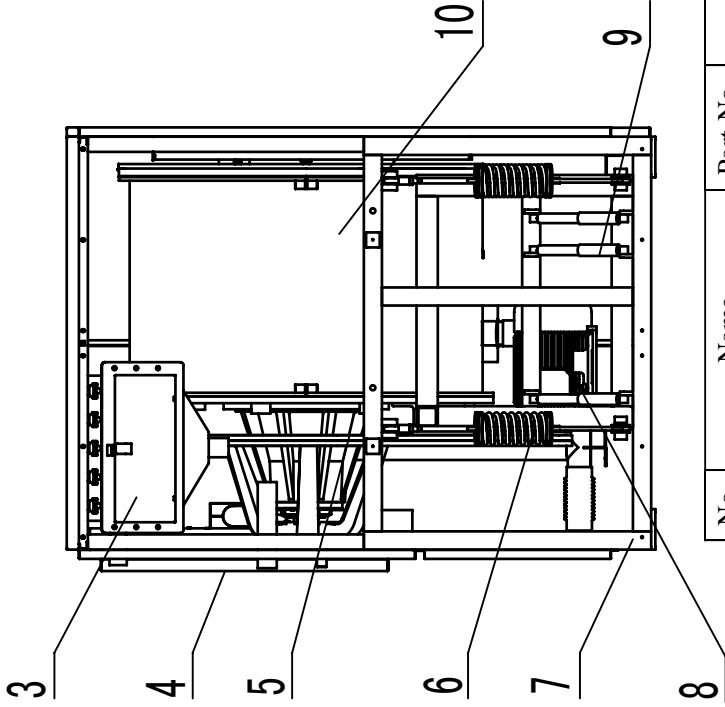
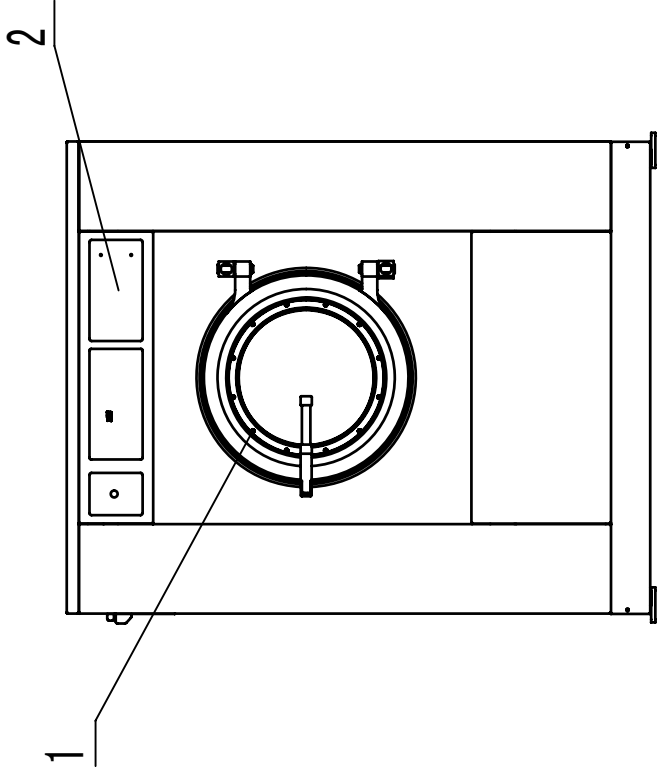
soap pump 10 follow-up soap5

washing machine

Rev.	Approved Date	Remarks	DRAWN	CHECKED			
			DESIGNED	APPROVED	SCALE	TITLE	
						DRAWING NO.	
					NO		Principle diagrame-4

SPARE PARTS



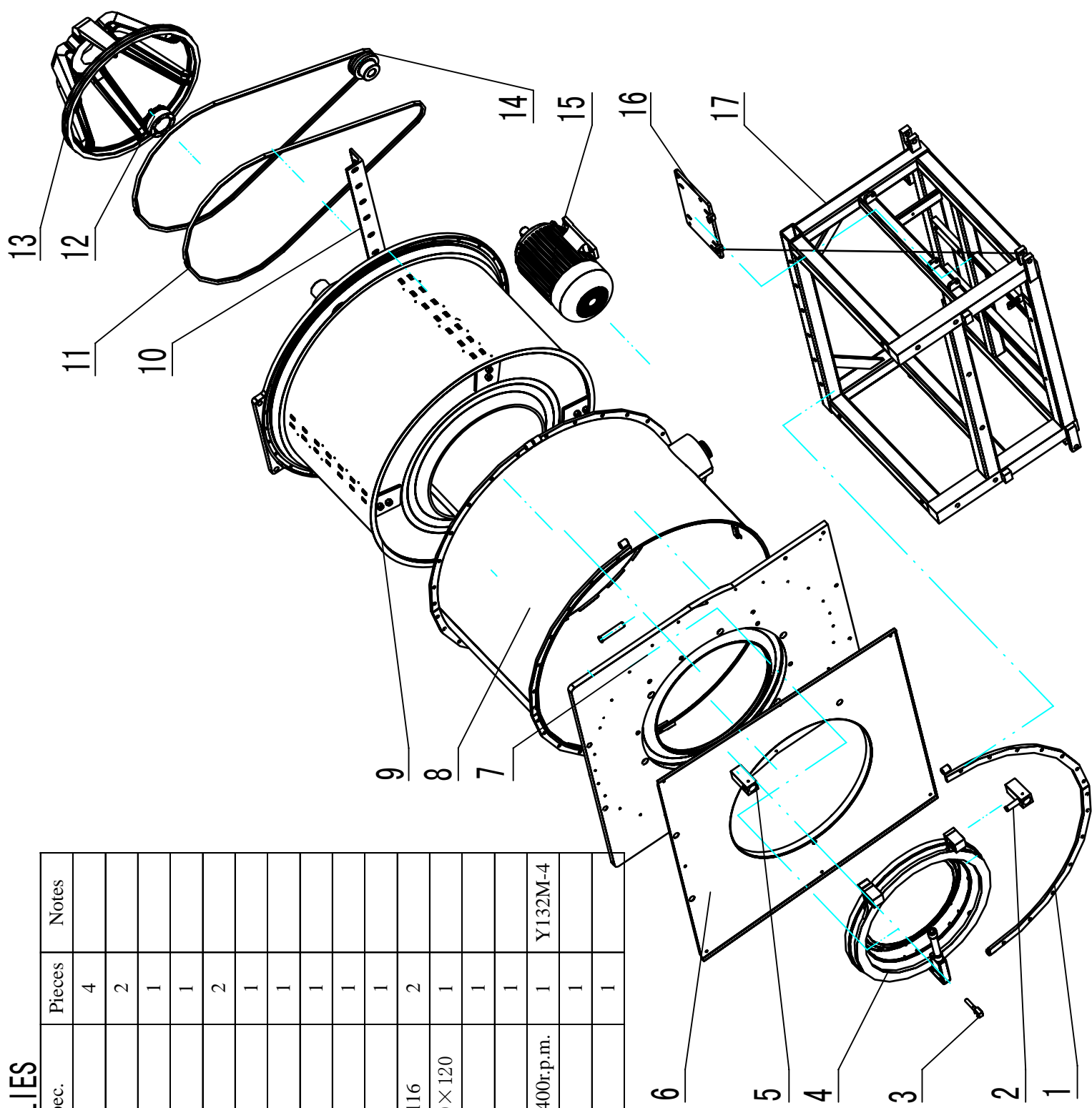


No.	Name	Part-No.	Spec.	Pieces
1	Load door assemblies	142404		1
2	Computer	844204	SX075502A	1
3	Soap box	782019		1
4	Electric box	143002		1
5	Belt sheave	142411		1
6	Spring	735001		4
7	Framework	143001		1
8	Motor	791025	7.5kw 1400r.p.m.	1
9	Damper	733005		6
10	Drum	142408		1
11	Water inlet assemblies	144100		1
12	Drain assemblies	144110		1

Rev.	Approved Date	Remarks	DRAWN	CHECKED			
			DESIGNED	APPROVED	SCALE	TITLE	
					NO	DRAWING NO.	SXT-600 Washing Machine

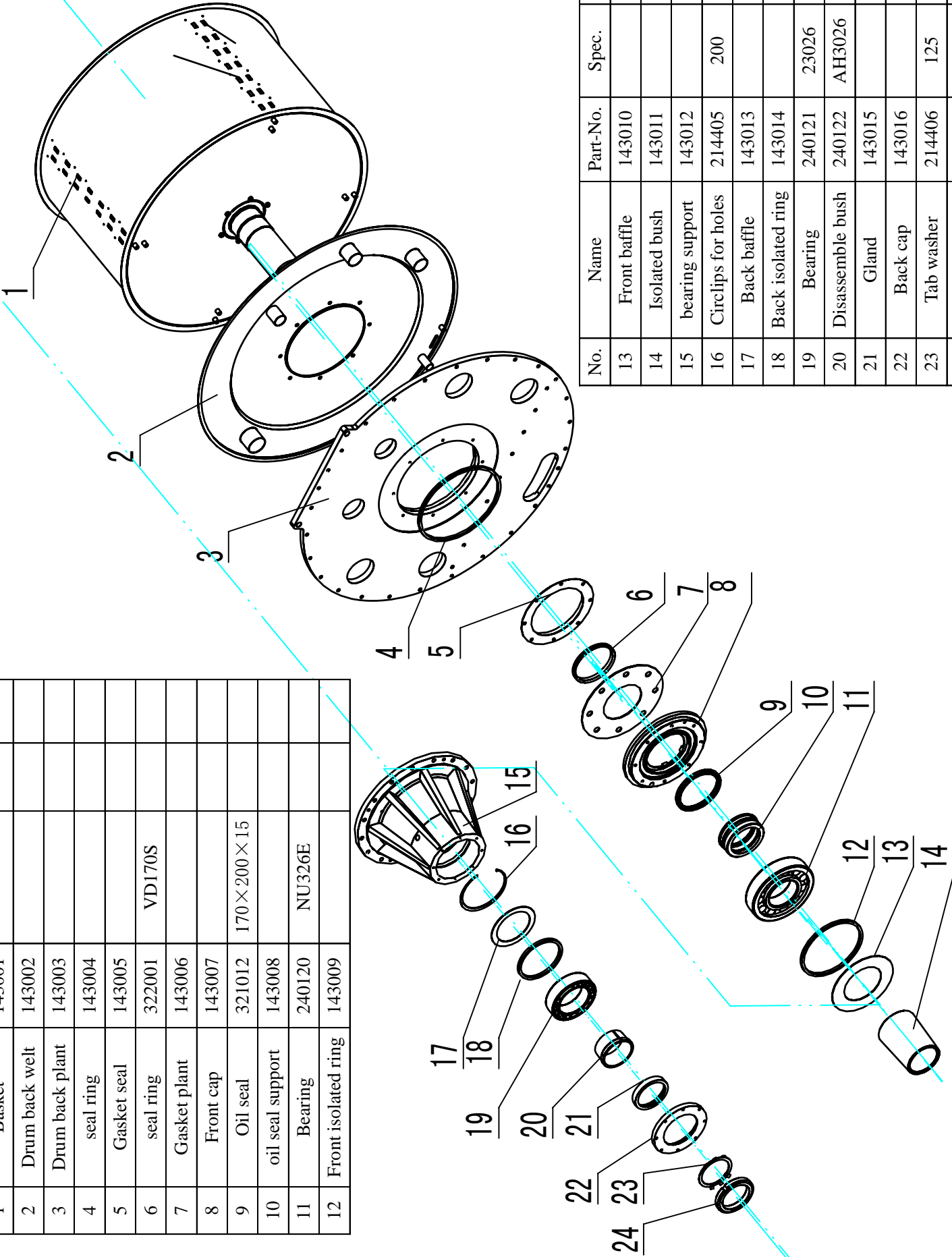
LEVITATION ASSEMBLIES

No.	Name	Part-No.	Spec.	Pieces	Notes
1	Link flanch	142401		4	
2	Door shaft	142402		2	
3	Door hook	142403		1	
4	Load door	142404		1	
5	Door support	142405		2	
6	welt	142406		1	
7	Front plate	142407		1	
8	Drum	142408		1	
9	Basket	142409		1	
10	Link angle steel	142410		1	
11	V-belt	231004	B116	2	
12	Locking assemblies	222007	Z3 80×120	1	
13	Belt sheave	142411		1	
14	Motor belt sheave	142412		1	
15	Motor	791025	7.5kw 1400r.p.m.	1	Y132M-4
16	Motor plate	142413		1	
17	Framework	142414		1	



BASKET-SHAFT ASSEMBLIES

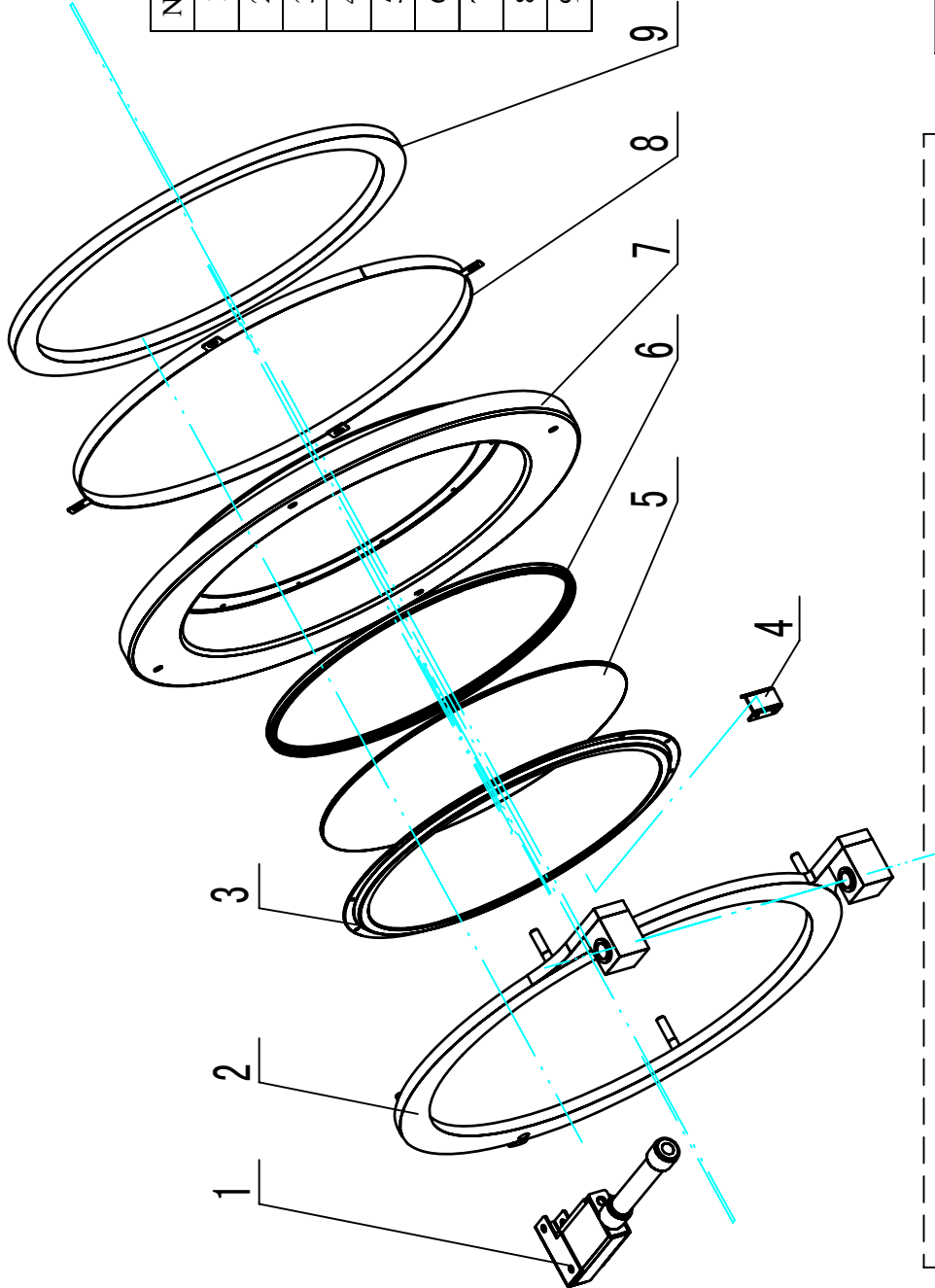
No.	Name	Part-No.	Spec.	Pieces	Notes
1	Basket	143001			
2	Drum back welt	143002			
3	Drum back plant	143003			
4	seal ring	143004			
5	Gasket seal	143005			
6	seal ring	322001	VD170S		
7	Gasket plant	143006			
8	Front cap	143007			
9	Oil seal	321012	170×200×15		
10	oil seal support	143008			
11	Bearing	240120	NU326E		
12	Front isolated ring	143009			



No.	Name	Part-No.	Spec.	Pieces	Notes
13	Front baffle	143010			
14	Isolated bush	143011			
15	bearing support	143012			
16	Circlips for holes	214405	200		
17	Back baffle	143013			
18	Back isolated ring	143014			
19	Bearing	240121	23026		
20	Disassemble bush	240122	AH3026		
21	Gland	143015			
22	Back cap	143016			
23	Tab washer	214406	125		
24	round nut	213205	M125×2		

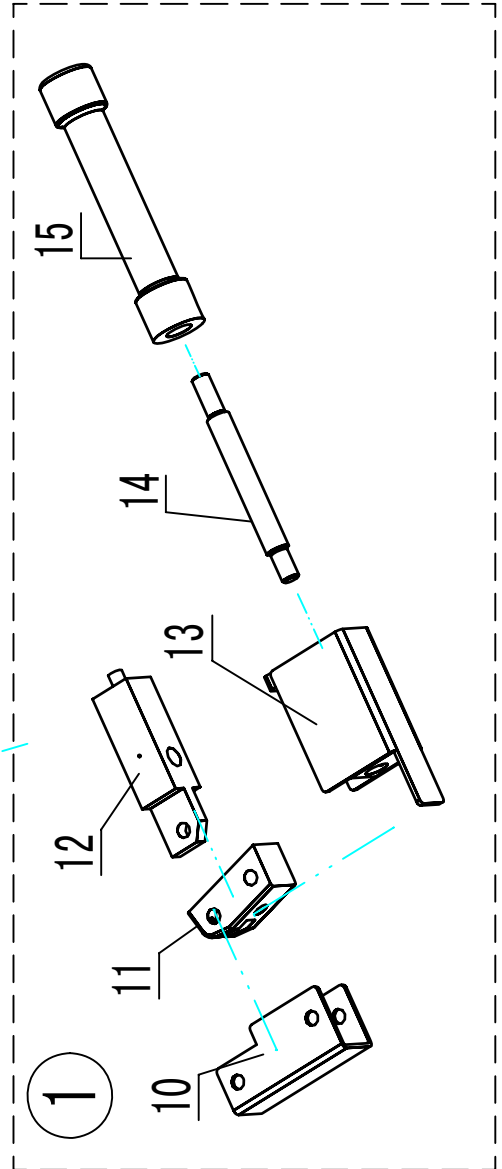
LOAD DOOR ASSEMBLIES

No.	Name	Part-No.	Spec.	Pieces	Notes
1	Handle	146201		1	
2	Door frame	146202		1	
3	Glass gland	146203		1	
4	Switch bracket	149204		1	
5	Glass	771014		1	
6	Glass gasket	351006		1	
7	Door cone	146205		1	
8	Gasket gland	146206		1	
9	Door gasket	351007		1	

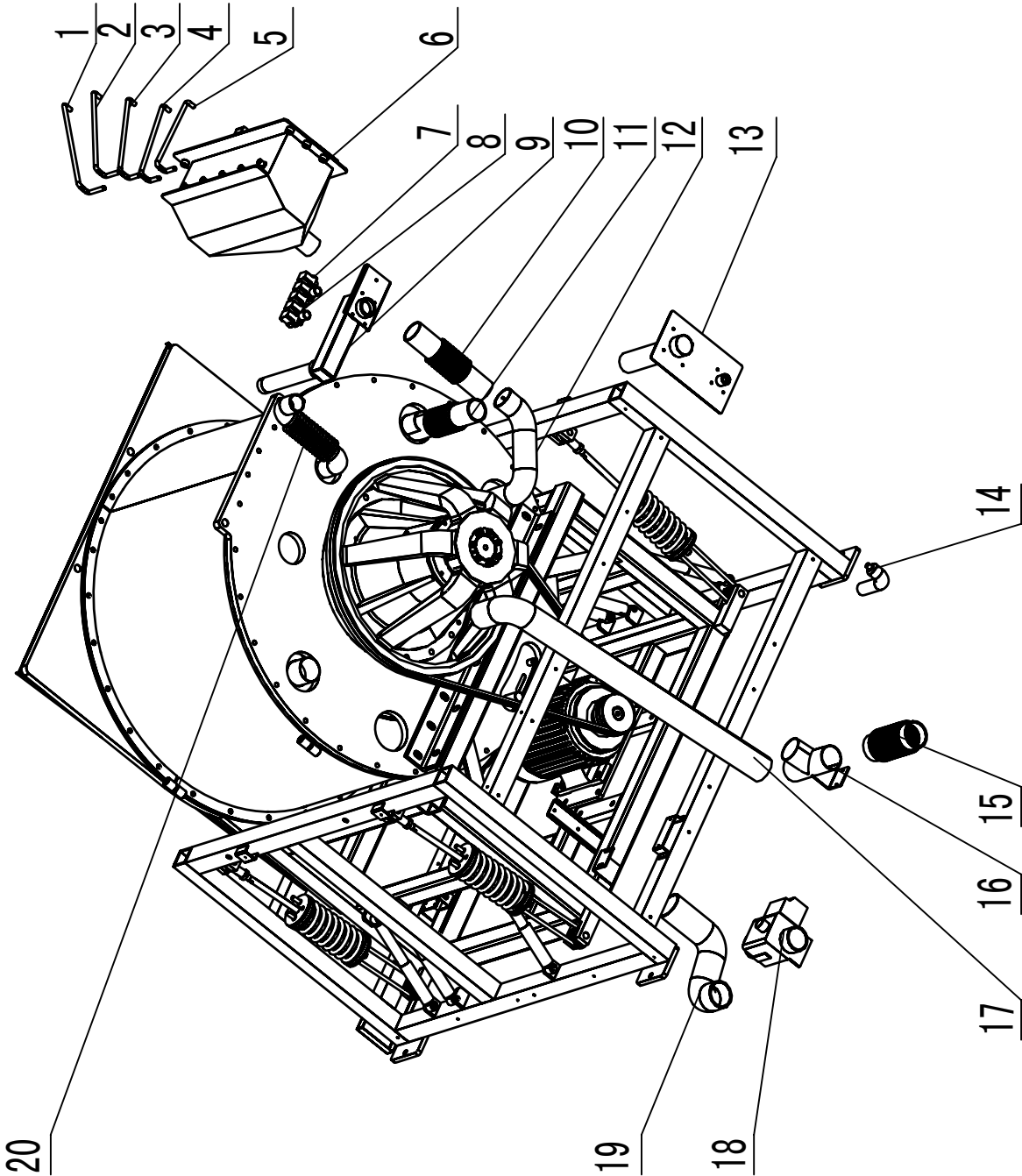


DOOR HANDLE ASSEMBLIES

No.	Name	Part-No.	Spec.	Pieces	Notes
10	Door hook	127156		1	
11	Lock block	127152		1	
12	Lock support	102004		1	
13	Handle shell	146207		1	
14	link rod	146208		1	
15	Hand	146209		1	



P-160 SOLVENT FILTER ASSEMBLIES



No.	Name	Part-No.	Spec.	Pieces	Notes
1	Soap hose 5	950101		1	
2	Soap hose 4	950102		1	
3	Soap hose 3	950103		1	
4	Soap hose 2	950104		1	
5	Soap hose 1	950105		1	
6	Soap box	782019		1	
7	Feeder water valve-3	840505		1	
8	Feeder water valve-2	840502		1	
9	Water allotter	144101		1	
10	Soap hose A	362015		1	
11	Soap hose B	362016		1	
12	Soap hose	362017		1	
13	Dock plate	144102		1	
14	overflow pipe	362014		1	
15	Drum hose	362018		1	
16	76 T-bend	144103		1	
17	Overflow pipe	362019		1	
18	Drain valve	840504		1	
19	Drum drain	362020		1	
20	Water-inlet hose	362021		1	