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PLAN

SPARE PARTS

00 PREFACE

0.1 the importance of this operation manual

This operation manual is for the purpose of offer service for operators and maintenance staff: including: installation, operation, maintenance, until the machine is out of service, please read this manual carefully before using this machine.

This manually pay attention on narrating all kinds of danger for sufficient information of identifying all kinds of danger.

In this way, the manufacturer can guarantee the safety of machine in term of design and manufacturing, and protecting operator and environment.

this manual is un-separated parts of this machinee

This manual must be kept carefully until the machine is out of service life.

The manual reflects the conditions when the machine was being put into operation.

If you receive any modification, please confirm to replace previous ones.

Please handle the manual to its user or new owner, and the new owner should supply address to manufacturer for newest information of manufacturer.

The operation procedure, drawing and documents belong to manufacturer, can not be wholly or partially copied.

0.2 KEEPING THE MANUAL

Do not damage any contents in this manual.

Do not move, remove or rewrite this manual.

This manual should be kept on dry, air flowing position.

0.3 USING THIS MANUAL

this manual includes:

- cover
- catalogue
- notes and operation instruction
- appendix.

Please confirm this machine model on cover.

Please refer to regarding information of each chapter, each pages from catalogue.

All operation instruction and products description tells the safety warning, correct operation procedure of this machine to guarantee its normal running.

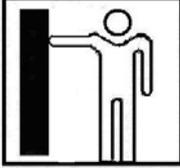
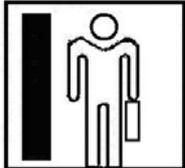
This manual appendix includes notes, warranty and machine instruction, being un-separated parts of this machine.

0.4 using symbol.

The symbol of this manual tells to operators how to do under each kinds of running condition. totally classify as the following serval parts:

04.1 working staff qualification

the following symbol indicates this lowest qualifications for operation and maintenance staff required.

	<p>Operator: no special skill required, can do simple job, operate loading and unloading through control buttons on panel.</p>
	<p>Maintenance engineer: qualified skilled man, not only can operate, but also know how to calibrate, adjust mechanical parts, and other repair job as well, but this staff can not intervene on electric wire when there is electric current on.</p>
	<p>Electrician: qualified technician, not only can operate, but can work on electrical parts, can adjust, maintain and repair, this person can work when distribution box is power on.</p>
	<p>Manufacturer or dealer engineer: this technician belongs to manufacturer, can do sophisticated job under special condition.</p>

04.2 safety measure

all kinds of safety label regarding all kinds of danger

warning

	<p>general danger</p>
	<p>electric shock</p>
	<p>high temperature</p>
	<p>forbidden smoking or forbidden fire.</p>

04.3 equipments state

running mode of machine

 A red circle with a white background and the word "OFF" in black capital letters in the center.	equipments still, and all supply shut off.
 A red circle with a white background, a black silhouette of a power plug, and a red diagonal slash over it.	equipments still, but there is supply.

if all the above conditions do not meet, the manufacturer does not take any correspondent responsibility.

0.5 technical assistance

If your washing machine require any technical assistance, please contact local dealer or company after-sale service department.

0.6 tells the world

The picture inside this manual is only for explanation, may not be the same as your machine due to different model.

Our company have have the authority to modify or improve this manual and related documents.

Any operation not mentioned in this manual, or any improper operation, may cause machine failure or person injury, our company does not take any responsibility for it.

01 SAFETY MEASURE

1.1 safety using environment

The washing machine developed by us is for the purpose of washing all kinds of textiles.

The machine working temperature setting is: +5°C (+41°F) to +40°C (+104°F), steam pressure 0.4 ~ 0.5MPa, compressed air pressure 0.5 ~ 0.7MPa, water supply pressure 0.15-0.25 MPa.

1.2 general safety

the following safety instruction:

Do not touch movable parts, nobody should be around when machine startup.



1. all the people who are responsible for installation, operation and maintenance must read the manual carefully and completely. The manual and its attached files must be kept in a clean site and be close to all the people who operate or maintain.
- 2 only the skilled worker can do all the transportation, installment, operation and the time maintenance. Only the trained skilled worker can touch and operate the machine.
- 3 The user's working environment must be kept clean and neat.
4. Warning symbol on the machine's control panel or the main switch of power must be added in the process of installment, operation, maintenance and repair. Prevent people from hurt. This warning must be a normalization sign. For example:

**Warning! Don't be near ---the
maintenance is on**

5. Proper clothing must be dressed in all the time in the working location and environment for the people who operate and maintain machine.
6. the operator must know the working environment、 means of operation and control 、 machine characteristic well before working. The safety device must be checked everyday. (Refer to chapter 4--- control system and operating interface)
- 7 The operator must wear defending tools (for example: activated carbon gas mask、 glove、 apron and blinkers) when abnormal (venomousness) operation is being made.
8. The demolition of the safety device installed on the machine is strictly prohibited.
- 9 maintenance、 adjust or installing operation of the running machine is strictly prohibited. Shut off electrical power、 gas source before these operations. Insure that no one start up the machine when carrying on the operations.
- 10 The machinery parts cannot be modified because of other equipments (for example: flange alteration、 drilling、 mending). Our company and all subordinate departments aren't responsible for the failure and other consequence resulted from the installment or amending of other parts without authorization. Any resolution about the machinery modification must be submitted to our after service department and only can be put in practice after approval.
- 11 No eating in the operating area.
No smoking near the machine.
Never use heat source with bright fire.
- 12 Insure that the machine is safely grounded. Otherwise electric shock may occur and failure may be resulted in.
Don't run the machine when nobody takes charge.
- 13 If it is possible to contact with the steam pipeline, please shut off the steam firstly and cooling. The surface temperature of these pipelines is very high and may cause severe scald.

02 BASIC MACHINE INFORMATION

2.1 general description

This machine includes mechanical parts, electrical parts and pneumatic parts, being assembled for its normal operation.

- mechanical parts:
- outer drum
- drum
- shaft, bearing

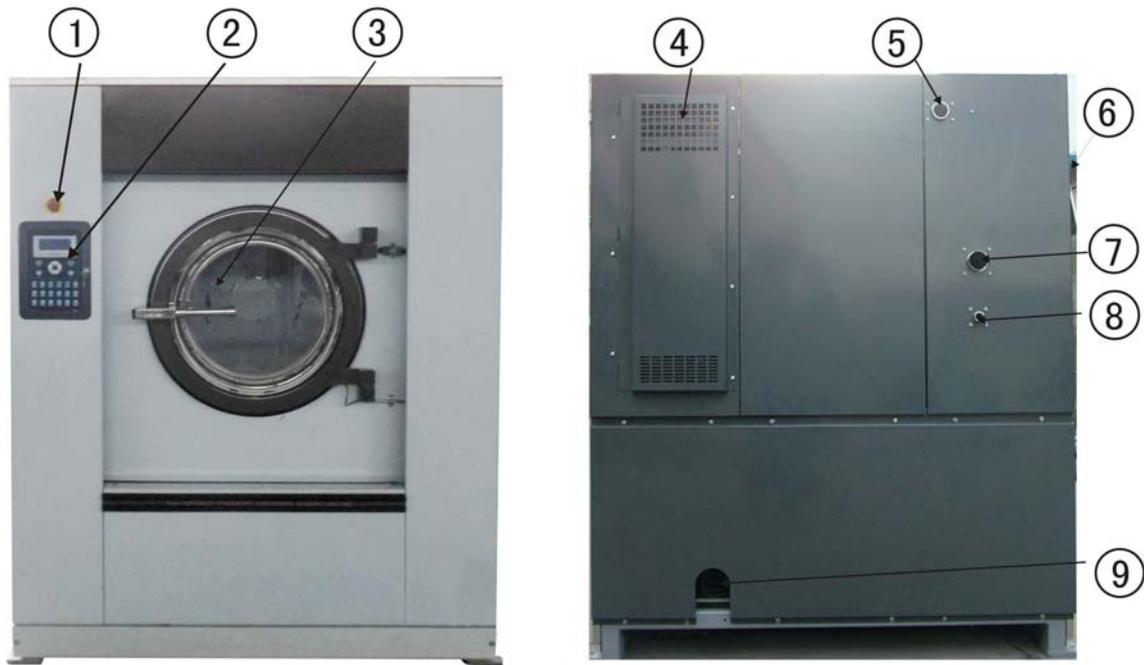
All above parts are made of qualified material, can sustain many year contract with solvent, and passed test, can sustain pressure and equipment vibration under every working cycle.

- Accessories
- main motor
- VFD
- water drain valve

all above components will be selected based on machine model
the following parts

- pneumatic components
- electrical components
- safety components

selecting depends on warranty and service life.



- | | | |
|---------------------------|----------------------|----------------------|
| 1 Emergency switch | 2 Compiter | 3 Loding door |
| 4 Electric box | 5 Water inlet | 6 Soap box |
| 7 Equibalance pipe | 8 Steam inlet | 9 Drain |

2.2 the equipment using purpose

the washing machine for washing all kinds of leather or textile
 this machine can not be used for other application.
 make sure the machine can not be damaged when using it.

03 TRANSPORTATION, REMOVE AND STORAGE

3.1 package and open

the machine is used being put inside wooden box to prevent damage.

there is safety symbol on package.

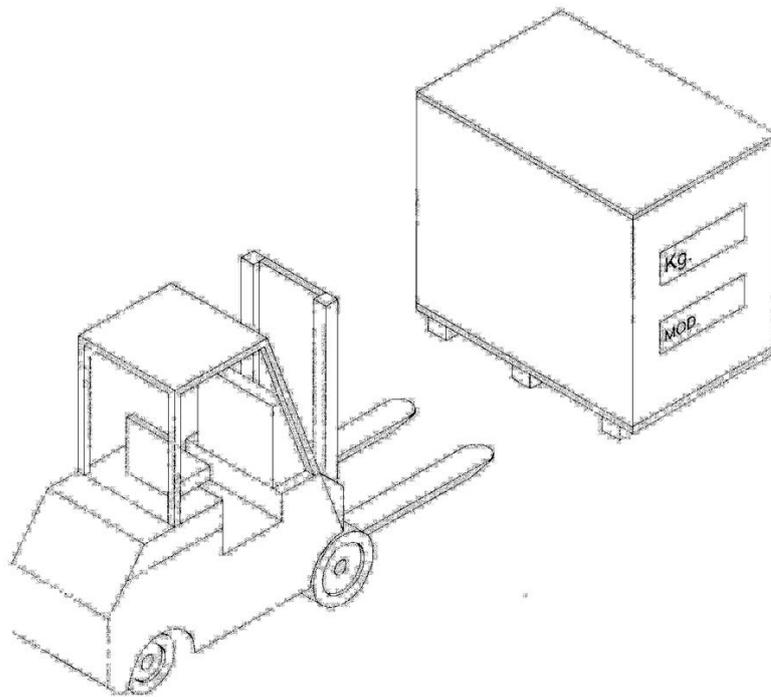
If there is damage during transportation, please take a photo and sent to manufacture and insurance company.

if there is doubt, do not open package.

checking it if it is complete according to packing list

remove package slightly in case of damage.

please keep package material properly.



attention: packing material can be used repeatedly.



attention: when open package, there is hanging mark on hanging point.

3.2 transport and remove machine which is properly packaged.



staff qualification



safety measure



equipment status

the packed machine can only be moved by fork lift.

the fork lift should have enough lift capacity.

put fork lift on indicated position of package, and lift up and down slightly.

do not stand inside working area.

the manufacturer does not take responsibility on improper operation.

3.3 machine storage

when machine do not use for long time, please drain water out completely.

the packed machine should be kept in the the clean environment whose temperature is between 5°C-50°C.

unpacked machine must be covered for dustproof.

04 INSTALLATION

4.1 installation requirement

4.1.1 installation requirement for machine room

- 1 .Enough space is required for installing machine.
- 2 . working room should be equipped with:
 - 1) 3 phase 5 line AC power, voltage 380V, capacity load equipment name plate, and equipped with Independent circuit breaker.
 - 2) water supply pressure: 0.15~0.25MPa, if water pressure is too low, then boost water pump is required to guarantee water requirement.;
 - 3) steam supply whose pressure is 0.4~0.5 MPa
 - 4) compressed air supply whose pressure is 0.7~0.8 MPa.

4.1.2 installation position

Enough space should be reserved around washing machine without any sundries for convenient operation and maintenance. The space reserved for machine please see below.

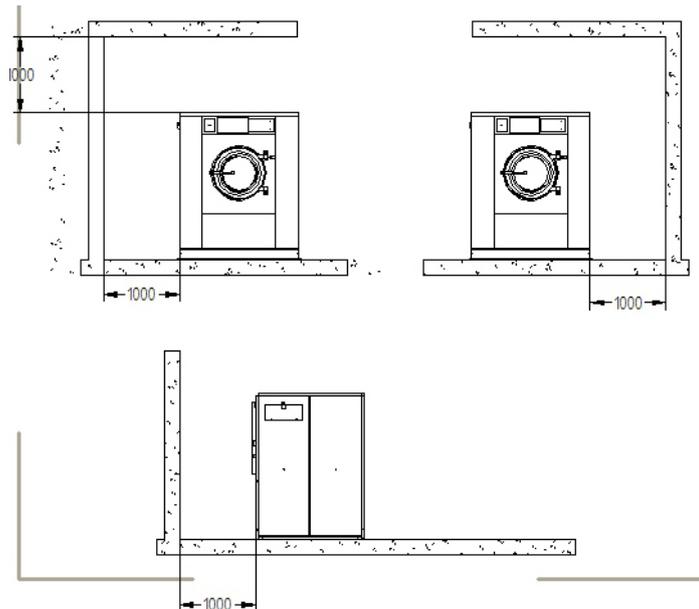


图 4-1 washing machine lay out drawing

4.2 machine installation

the washing machine installation staff must be approved professional technician, who can install machine correctly and make sure it will be on best condition, which could prolong its service life. Hence, please read the blow carefully:

4.2.1 ground

The machine using advanced vibration-absorption measure, so its vibration is very low, so no special ground is required for installation, only put the machine on sufficient bearing capacity level ground is OK (the cement floor thickness should be > 150mm, and please prepare reserved water drainage sewage.

4.2.2 installation method and procedure

4.2.2.1 Separate the machine with bottom of package with fork lift.

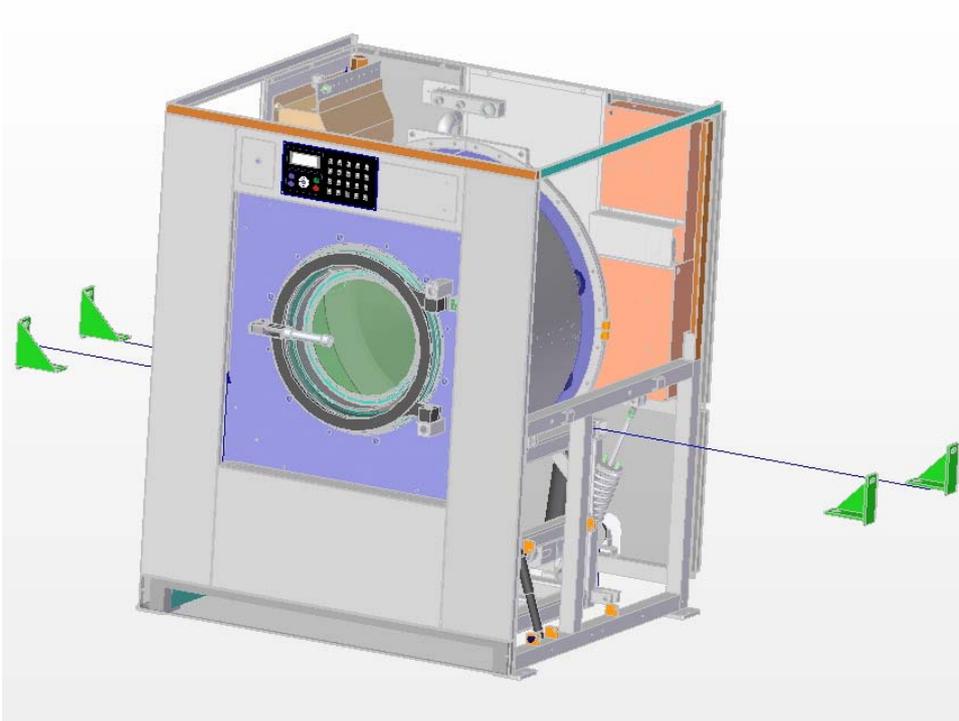
4.2.2.2 Move equipment to its position and adjust parallel.

4.2.2.3 remove transportation brack.

After washing machine positioned , remove front and back panel and dismantle transportation brack.

In order to avoid damage in the process of machine transportation, when ex-works, the drum body is fixed with fore transport bracks with outer support. Before using machine, open two side panel, remove all transport racks, which make drum on half-suspended status.

Forbidden running machine without dismantle transport racks!!!



4.3 connect with electricity (connection dimension please see 8 technical data)

It is better to closed all connection valve after work is finished everyday, before repair and maintenance, must following the requirement below to close connection valve

	close water before maintenance
	close steam before maintenance
	vent before maintenance

4.3.1 power connection



staff qualification



safety



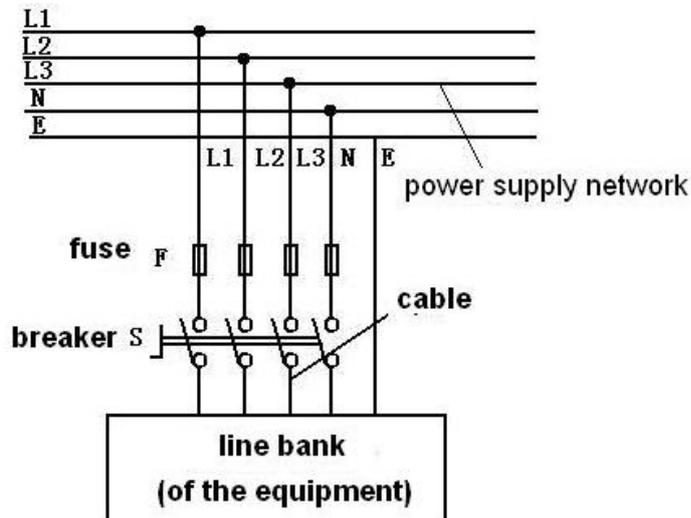
measure



Machine status

4.3.1.1 power

Each washing machine must be equipped with independent circuit breaker according to its power, machine must be grounded properly, the the ground resistance should be no more than 0.1Ω .



Dig 4-4 washing machine electricity connection drawing

	<i>washing machine must grounded properly.</i>
--	---

4.3.1.2 connection

Connect electric wire L1、L2、L3、N、E to washing machine wire-terminal, cable must be protected by plastic hose from switch to machine.

After machine installation is finished, check insulation between electric wire and machine shell, and its insulation resistance should be no less than $5M\Omega$.

4.3.1.3 motor rotation direction

This machine is equipped with phase sequence protection device, if computer board has no display after power on, it means phase sequence is not right or lack sequence, so should change electric wire connection sequence, until phase sequence protection indicator light is on.

4.3.2 water hose connection



staff qualification



Safety Measure



Machine status

4.3.2.1 water inlet hose

- 1 Water inlet hose diameter of washing machine should be no less than 1 1/2", independent manual stop valve is required for easy maintenance.
- 2 Install pressure gauge to monitor the water pressure should be no lower than 0.15Mpa.
- 3 Open valve to drain for 2 minutes before connect with machine to drain out all impurities, then connect machine with water inlet hose.

4.3.2.2 water outlet hose

Water outlet hose should be 76mm, and it must be high-temperature-resistant material, the the temperature-resistant requirement is 100°C.

The installation way of drainage pipe is two kind: disposal sewage or water drain hose, depending on site condition.

attention:

the installation way of water drainage sewage

- 1 when using the way of drainage sewage, barrier is required to set up on sewage in order to avoid accident or contact with hazardous wasted chemical solution;
- 2 strainer is required to be installed before wasted water go inside sewage.

in installation way drainage pipeline

- 1 before installation, it must be confirmed that main pipe must have the enough capacity for discharging the water simultaneously for many machines.
- 2 balance pipe is required to be put on water drainage pipe to avoid siphon.
- 3 for rigid support machine, it should use the way of soft connection to avoid conduct vibration;

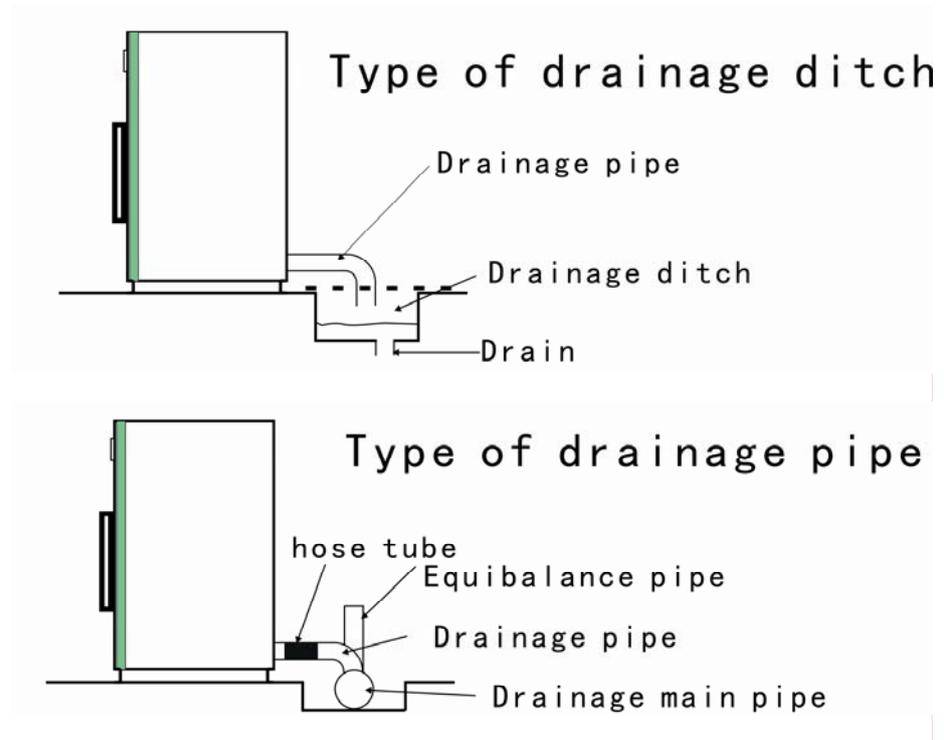


图 3-4 drain

4.3.3 steam connection



staff
qualification



safety



measure



equipment
status

4.3.3.1 steam supply requirement

The required steam pressure is 0.4 ~ 0.5MPa.

4.3.3.2 steam pipeline connection

steam inlet for connection steam

install one steam stop valve, install steam pressure reduce valve and pressure gauge on required position.

using hard iron tube or copper tube.

4.3.4 compressed air connection



staff
qualification



safety



Measure



Equipment
status

There is many pneumatic components on washing machine, which require to be connected with compressed air. There is one pneumatic three-way connection parts which includes: pressure-regulation valve, air filter and oil atomizer.

The inlet value of compressed air in minimum 0.7 Mpa.

The inlet pipe diameter of compressed air is 8mm.



reliable ground line is required on washing machine.

5 control interface

5.1 control interface

Control panel is installed on front panel, operators can use computer to carry out each washing cycle and monitor the working status of machine.



5.2 basic description and technical features

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

- manual and auto function
- 30 system auto program
- auto program has step-jump function
- when auto running, manual intervene is allowed
- extraction, vibration intelligent treatment
- off password protection function
- support Chinese and English

5.3 Buttons introduction

Icon	Function
	<p>[Heavy] button Press this button to start Heavy washing or stop washing.</p>
	<p>[Delicate] button Press this button to start Delicate washing or stop washing.</p>
	<p>[Standard] button Press this button to start Normal washing or stop washing.</p>
	<p>[Mid Extract] button Switch between starting medium extract and stopping medium extract by pressing this button.</p>
	<p>[High Extract] button Switch between starting high extract and stopping high extract by pressing this button.</p>
	<p>[Level] button Switch the level among low level, medium level, high level and calibration level by pressing this button.</p>
	<p>[Cold Water1] button 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>
	<p>[Cold Water2] button 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>

 <p>HOT WATER</p> <p>Hot Water</p>	<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>
 <p>HEAT</p> <p>Heat</p>	<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>
 <p>DRAIN1</p> <p>Drain1</p>	<p>[Drain1] button</p> <p>Switch between starting drain1 and stopping drain1 by pressing this button.</p>
 <p>DRAIN2</p> <p>Drain2</p>	<p>[Drain2] button</p> <p>Switch between starting drain2 and stopping drain2 by pressing this button.</p>
 <p>SUPPLY1</p> <p>Supply1</p>	<p>[Supply1] button</p> <p>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.</p>
 <p>SUPPLY2</p> <p>Supply2</p>	<p>[Supply2] button</p> <p>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.</p>
 <p>SUPPLY3</p> <p>Supply3</p>	<p>[Supply3] button</p> <p>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.</p>
 <p>SUPPLY4</p> <p>Supply4</p>	<p>[Supply4] button</p> <p>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.</p>
 <p>SUPPLY5</p> <p>Supply5</p>	<p>[Supply5] button</p> <p>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.</p>

 <p>TILTFWD</p> <p>Function</p>	<p>[Function] button Standby.</p>
 <p>FWD</p> <p>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</p> <p>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</p> <p>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</p> 	<p>[Stop/Esc] button</p> <p>Under “Close” status, press this button to lock the door</p> <p>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.</p> <p>Under “manual” Mode, press this button to stop current operation;</p> <p>Under “auto” Mode, press this button to stop current running 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>
 	<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>
	<p>[Down] button</p> <p>Under “Open”, “Close” or “Lock” Status, press this button to choose your desired automatic formula.</p>

Down	<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>
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5.4 program operation

Notes: computer running and programming please see computer manual

5.5 alarm

5.5.1 #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.

5.5.2 #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.

5.5.3 #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.

06 WASHING MACHINE OPERATION

For maximize the performance of washing machine, we suggest the load should be 80%-100% of rated capacity.

Forbidden overload running ! ! !

6.1 prepare job

- Open water inlet valve, and steam valve on steam pipeline
- Startup compressor
- Connect power supply
- Prepare washing detergent.

6.2 manual operation

6.2.1 loading garments

6.2.1.1 open the door

open loading door.

6.2.1.2 put in garments

put in garments which require to be washed according to washing capacity

6.2.1.3 close, and lock door

close loading door properly, press door lock key  gain to lock the door .

6.2.2 washing

6.2.2.1 setting water level, and water temperature

setting correspondent water level and water temperature according to requirement.

6.2.2.2 water feeding

Press cold water button  , starts feeding water, until auto stop water feeding when water level reach setting level.

6.2.2.3 adding detergent

Adding detergent to soap cup depending on requirement, and add corresponding additives on corresponding soap cups.

6.2.2.4 wash

Press standard washing for washing  , it need heating, then press heating for heat  , normally, washing 10-15min.

6.2.2.5 drainage, meddle extraction.

Press meddle extraction for extraction  , then washing machine starts washing, textile distribution, meddle extraction, until it becomes auto-stop.

6.2.3 rinsing

6.2.3.1 setting water level and water temperature

Set required water level and water temperature

6.2.3.2 water feeding

Press cold water key  , starts feeding water, stop when reach setting level.

6.2.3.3 add detergent

Add additives on soap cup depending on requirement (for example, bleach , neutralization,etc), adding corresponding additives on corresponding soap cup.

6.2.3.4 washing

Press standard washing to start rinse  , if require heating, press heating for heat  , normally washing 2-3 min.

6.2.3.5 extraction

Press meddle extraction for meddle extract  , washing machine starts washing-textile distribution-meddle extraction, stop to its setting time;

6.2.4 high extraction

Press high-extraction button  , washing machine starts washing-textile distribution-meddle extraction-high extraction, stops when reach setting time.

6.2.5 take out garment

Washing cycles finishes, then take out garment.

All the above operation is basic operation for your reference.

6.3 program operation

6.3.1 loading the garments, same as 6.2.1

6.3.2 choosing washing program

Under the status of standby, according to garments need to be washed, choose

corresponding washing program using  ,  , then press

running  confirm to start running.

6.3.3 Take out garments: washing finished, take out garments.

6.4 washing process key point notes

This machine is drum-type washer and extractor, using new model water flow balance bearing load drum, then carry out high-speed extraction. It mainly relies on mechanical force, chemical force and thermal force to realize the function of cleaning garments.

6.4.1 pre-wash

In order to archive the best washing effect, normally arrange 2-4 min pre-washing before main washing (no adding washing detergent), it mainly reach the requirement of fastly remove water-soluble dirt, improve cleaning effect, specially is very effective on cotton or woolen fiber textiles.

6.4.2 washing time

If the washing time too long, not only the cleaning effect is not very good, but may also damage garments. Normally, main washing is 8-15min.

6.4.3 washing temperature

The higher the water temperature is, the more easier for detergent to be dissolved, the interface active agent have faster absorption, the greater is the penetration force, easier to be cleaned. But for some textile, such as, woolen, silk, chemic fiber, it is better not be too hot, should be 40 degree around.

For normal cotton textile, it is better to control temperature with in 95 degree (suitable between 70-90), if too high, may quicken the aging, deformation and damage of sealing, and too high temperature do not good for cleaning effect.

6.4.4 washing duration and times

This machine creates better conditions for high-efficiency extraction and water flow, normally it is better for 3 time (each time 3-5 min), too much may waste time and water, and garments may become yellow, and not good for remove residual active agent.

6.5 operation notices

- 1 When using it, must follow operation manual, every time before startup machine, confirm water, electricity, steam, and air supply is normal.
- 2 Remember, load 80% rated capacity can have the best cleaning effect.
- 3 If in the process of running, machine stops or go to reset , please check computer or VFD display fault No and its solution notes, then repair it pointedly, do not restart blindly.
- 4 If the machine stops due to over-vibration protection, mainly because of accidental not even textile-distribution, you only re-distribute textile to extract is OK.

The User and edit on short program for spare, the program is specially re-feeding water and extraction, if machine stops due to over-vibration, start this program, you can realize re-extraction function fastly.

- 5 Heating temperature setting depends on the type of textile, the dirt degree of textile and the best active temperature range of detergent, to guarantee the ideal washing effect and prolong textile life. The being heated textile should be avoided cold water direct impact when it is still in high temperature.
- 6 When washing curtain, Sari, silk, ect light and thin garment, must being put inside washing bags for washing to avoid damage, if do not use washing bag, the damage is not caused by the machine problem itself.

7 WASHING MACHINE MAINTENANCE

7.1 special maintenance attention

7.1.1 over-vibration protection device

The machine is equipped with over-vibration protection device, which is a slight-move switch parts under equipment, using universal action mechanism to control drum vibration range, normally, vibration range electric signal is break off, in the case of over-vibration in the process of extraction which may cause switch close, which will send one signal to computer, computer will immediately carry out machine stop function, it will guarantee the life the whole machine. Detailed vibration amplitude user can modify depending on using conditions, which can move the channel hole of fixing ear to adjust the amplitude of limit vibration.

Attention: keep over- vibration switch work effectively is the key to make sure the machine will work long time in service.

7.1.2 VFD

1 The every parameters of VFD is being set already by manufacturer, if there is fault, should find manufacturer engineer to carry out repair, do not change it randomly otherwise may cause loss, and the manufacturer will be not responsible for it.

2 The display of VFD will show output frequency value normally, there is fault No under fault condition, can find out the reason depending on code and its solution.

3 The max RMP is 700r/min, no not change its corresponding frequency valve, because higher speed for extraction is meaningless, which may also cause machine structure failure.

7.2 regular maintenance

7.2.1 everyday maintenance

- 1 Everyday must check machine drainage pipeline, steam pipeline, is there any leakage and maintain its normal working pressure.
- 2 Operators should maintain the machine surface is clean, and clean its door seal and drum residuals.
- 3 After the washing machine finished its duty, it should close electricity, steam, air. Drain the accumulated water inside drum to avoid moisture and freeze, so as to prolong the life of rubber seal.
- 4 Everyday pay attention to door lock interlock is normal or not.

7.2.2 every week maintenance

- 1 Check the tightness of the belt, if too loose, adjust it or change it.
- 2 Check over-vibration micro-switch is in normal working state or not, make sure the machine can stop if there is over-vibration happens.

7.2.3 monthly maintenance

- 1 Dismantle real cover to check the motor is humid or not, if the temperature rise is normal or not, if the drainage pipeline there is block or not, re-check the tightness of belt tension condition.
- 2 Check the liquid level control is normal or not, if there is leakage on seals of pneumatic hose.
- 3 Clean the sludge on filter net of pipeline.

7.2.4 every half year maintenance

- 1 Check the electrical elements inside distribution box is normal or not, clean the dust on VFD drive plate.

- 2 Check all control components: Pneumatic valve, guide valve, press-reduce valve, water valve.

- 3 Check if there is looseness on bearing, if there is any abnormal noise, and repair it timely.

4. Check if there is buffering components is there any wear or not, any misplacement or break, adjust it or change it timely.

7.3 common practice of trouble shooting

Notes: the computer and VFD do not require repair, if there is problem, please inform our company or invite professionals to repair. .

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 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.

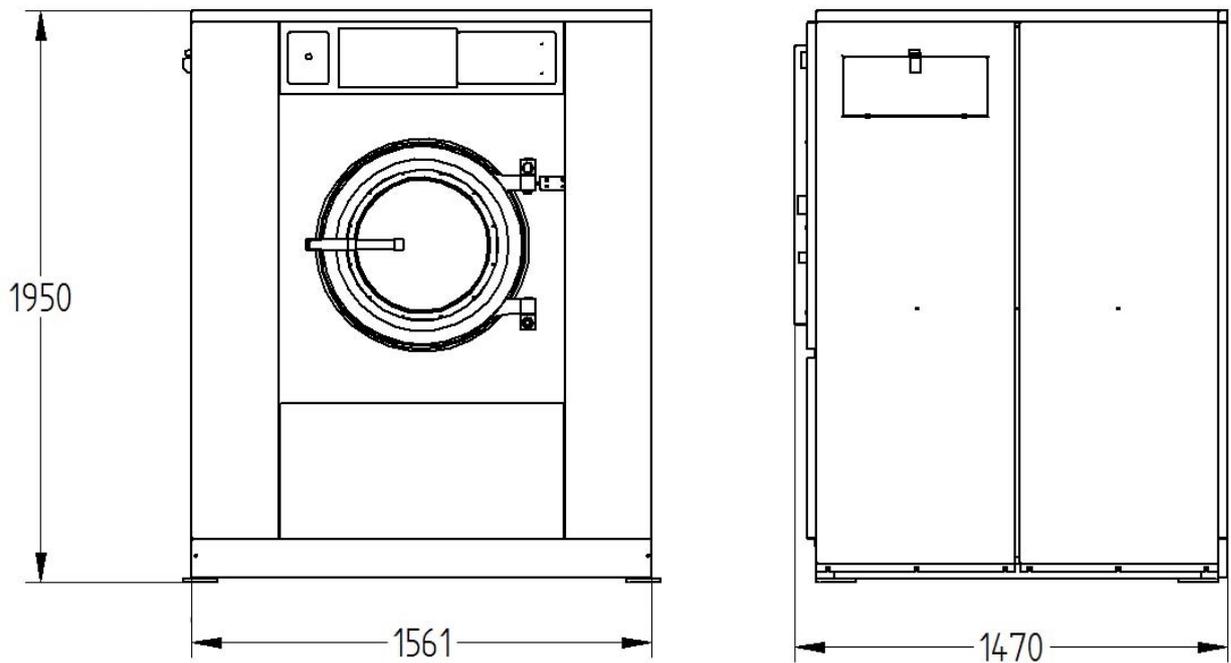
<p>The machine does not work at the normal speed</p>	<ul style="list-style-type: none"> . The output frequency of transducer is wrong. . Motor is failed. . Inner roller is failed. . Strap is worn. 	<ul style="list-style-type: none"> Check transducer . Check motor to see whether the loop is damaged or lack of phase. . Check with hand whether the inner roller is turning and foreign objects. . Check the strap or replace it.
<p>No high drying</p>	<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
<p>Over-shake when high speed drying</p>	<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
<p>Door leakage</p>	<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.

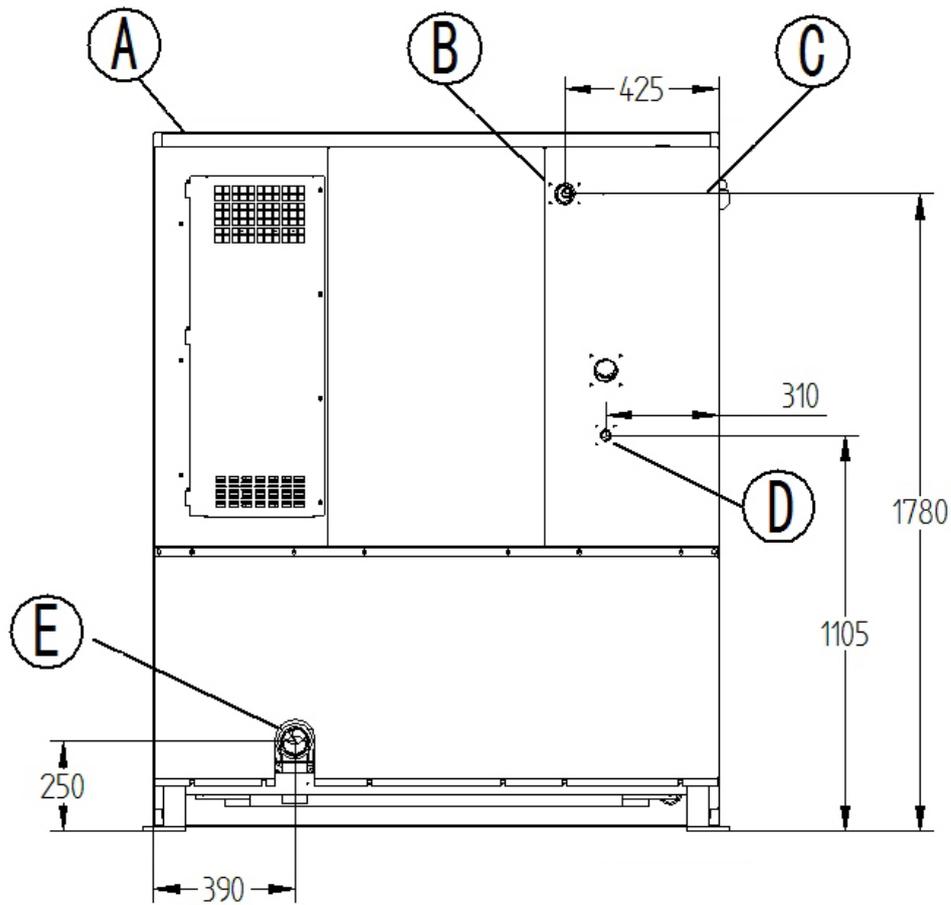
8 TECHNICAL DATA

machine capacity	Kg	60
drum		
diameter	mm	1078
depth	mm	620
washing speed	rpm	30
extraction speed	rpm	700
power supply		400V-50Hz
washing motor	Kw	7.5
machine weight	Kg	3000

dimension



connection

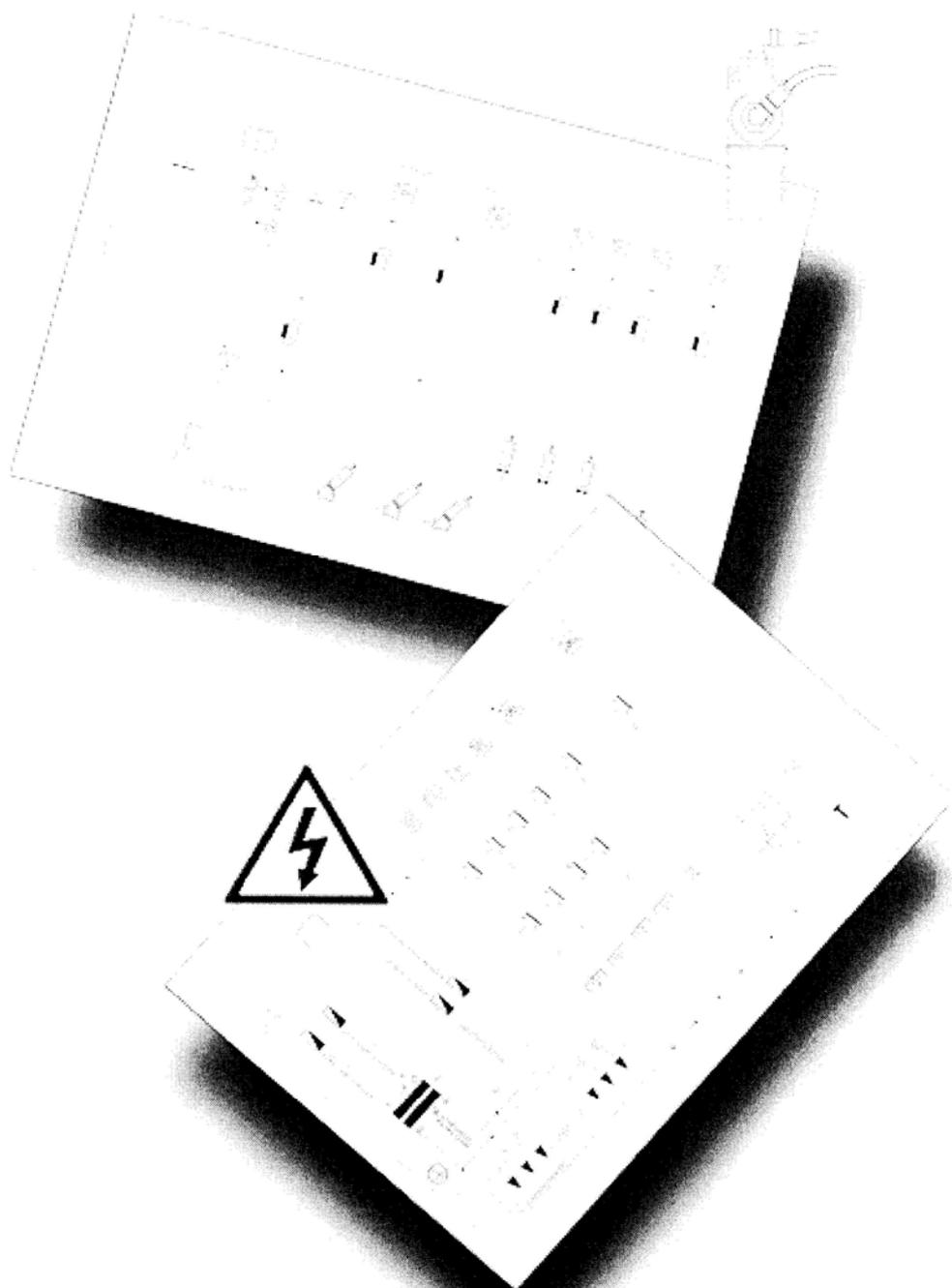


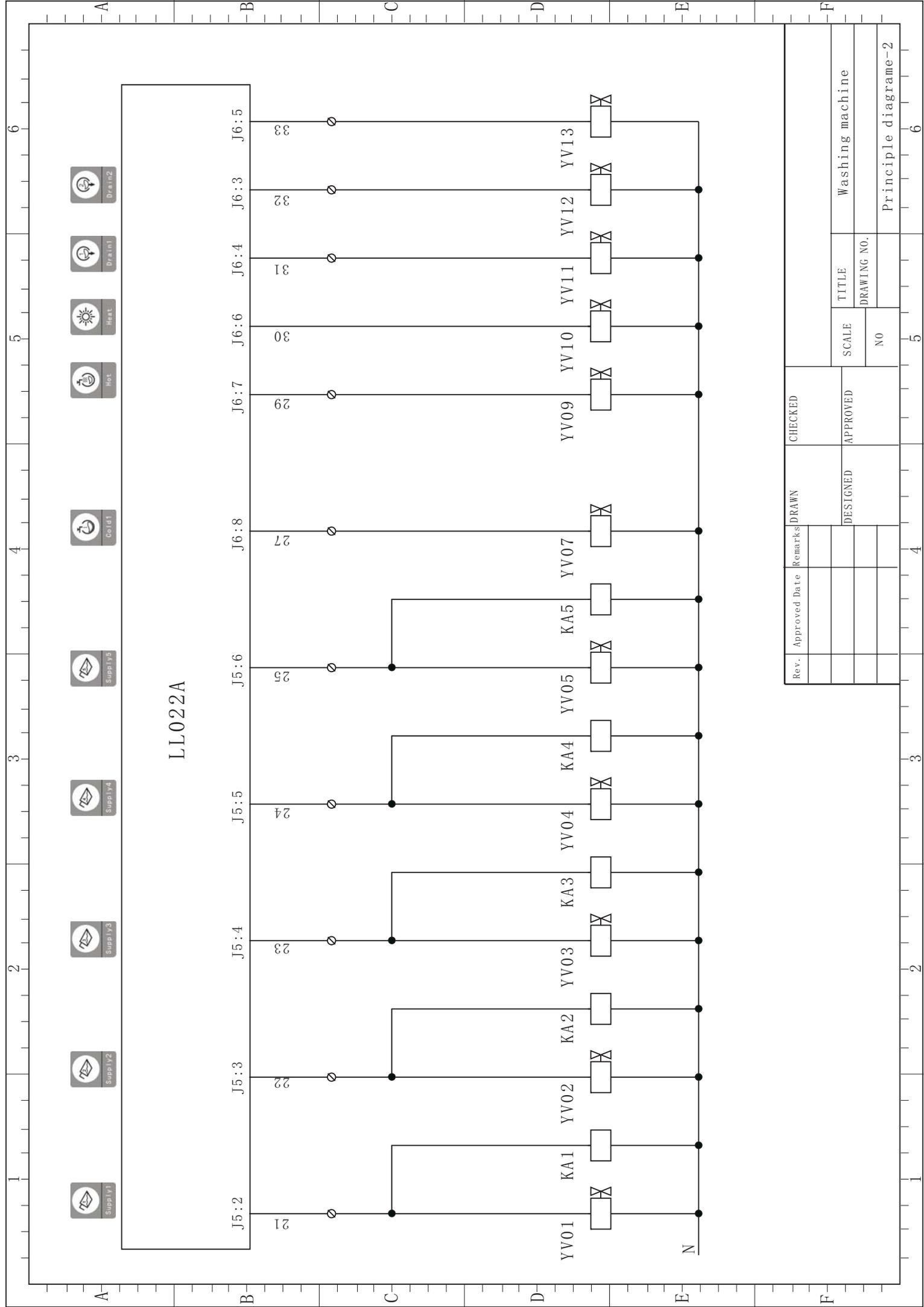
A	electricity connection	
B	water inlet	ϕ 1 1/2"
C	compressed air inlet	ϕ 8mm
D	steam inlet	ϕ 3/4"
E	water drainage	ϕ 76 mm

general information

water feeding pressure	MPa	0.2-0.3
compressed air pressure	MPa	0.7-0.8
steam pressure	MPa	0.4-0.5

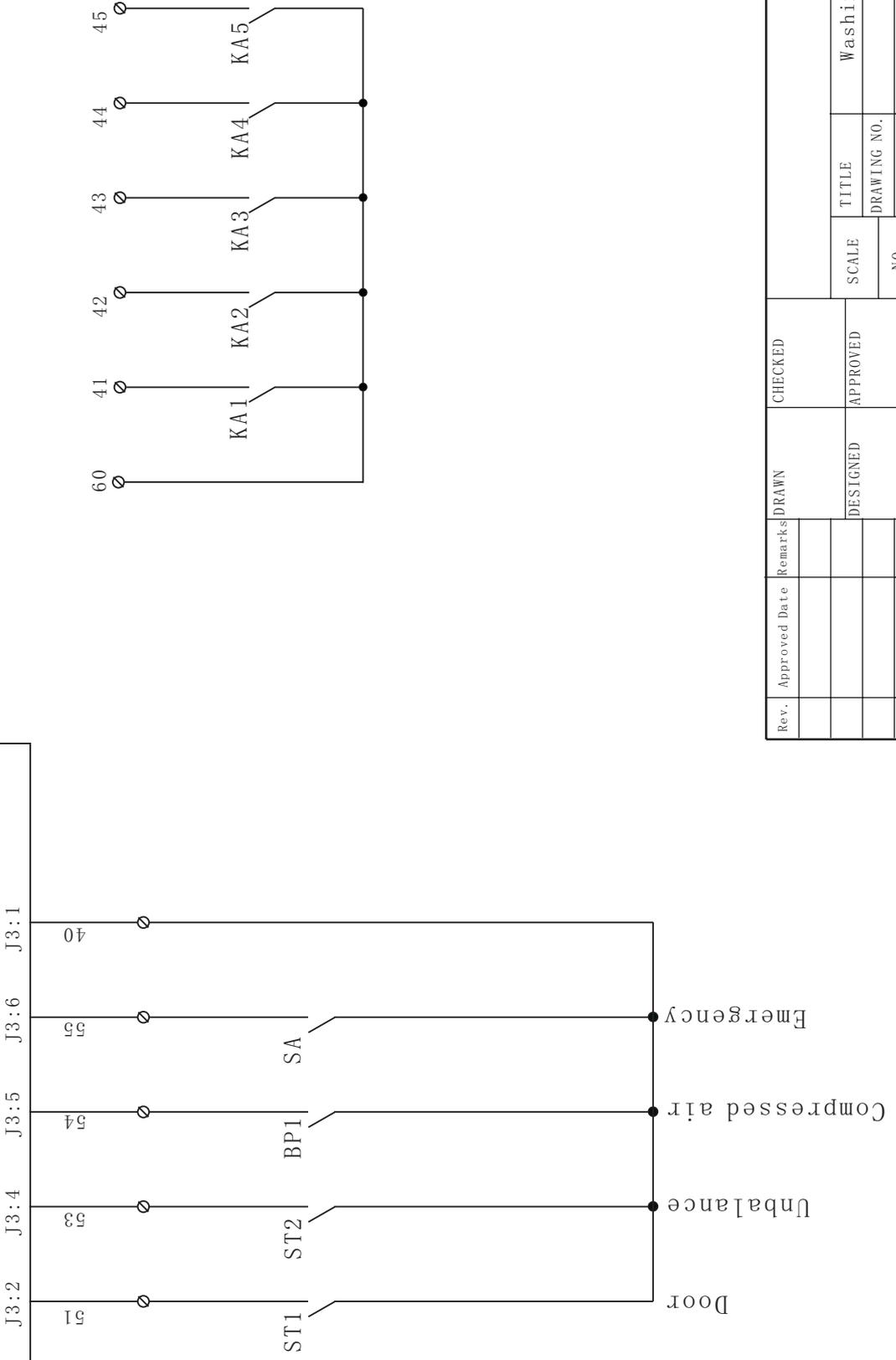
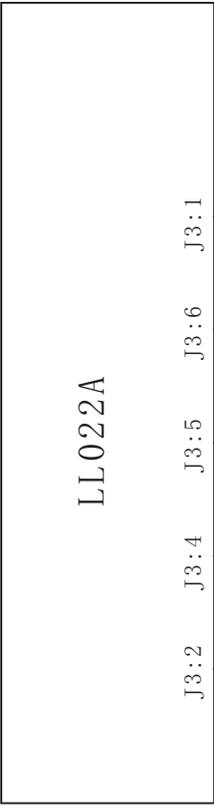
ELECTRIC PLAN





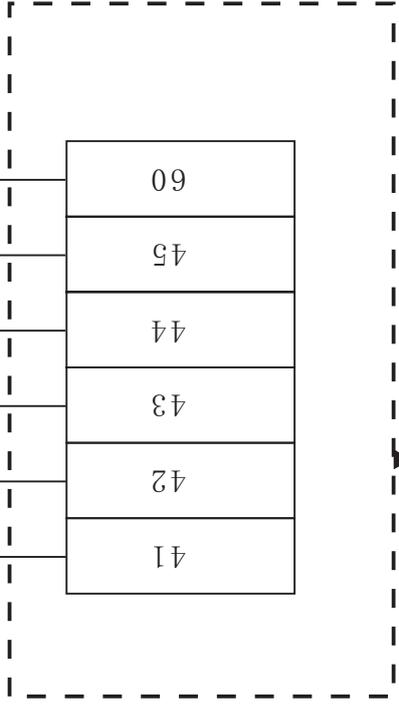
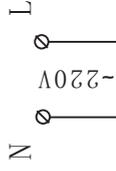
LLO22A

Rev.	Approved Date	Remarks	DRAWN	CHECKED
			DESIGNED	APPROVED
TITLE			Washing machine	
DRAWING NO.				
SCALE			NO	
Principle diagrame-2				



Rev.	Approved Date	Remarks	DRAWN	CHECKED
			DESIGNED	APPROVED
			SCALE	TITLE
			NO	DRAWING NO.
				Washing machine
				Principle diagrame-3

soap pump supply



washing machine

Increase soap pump

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

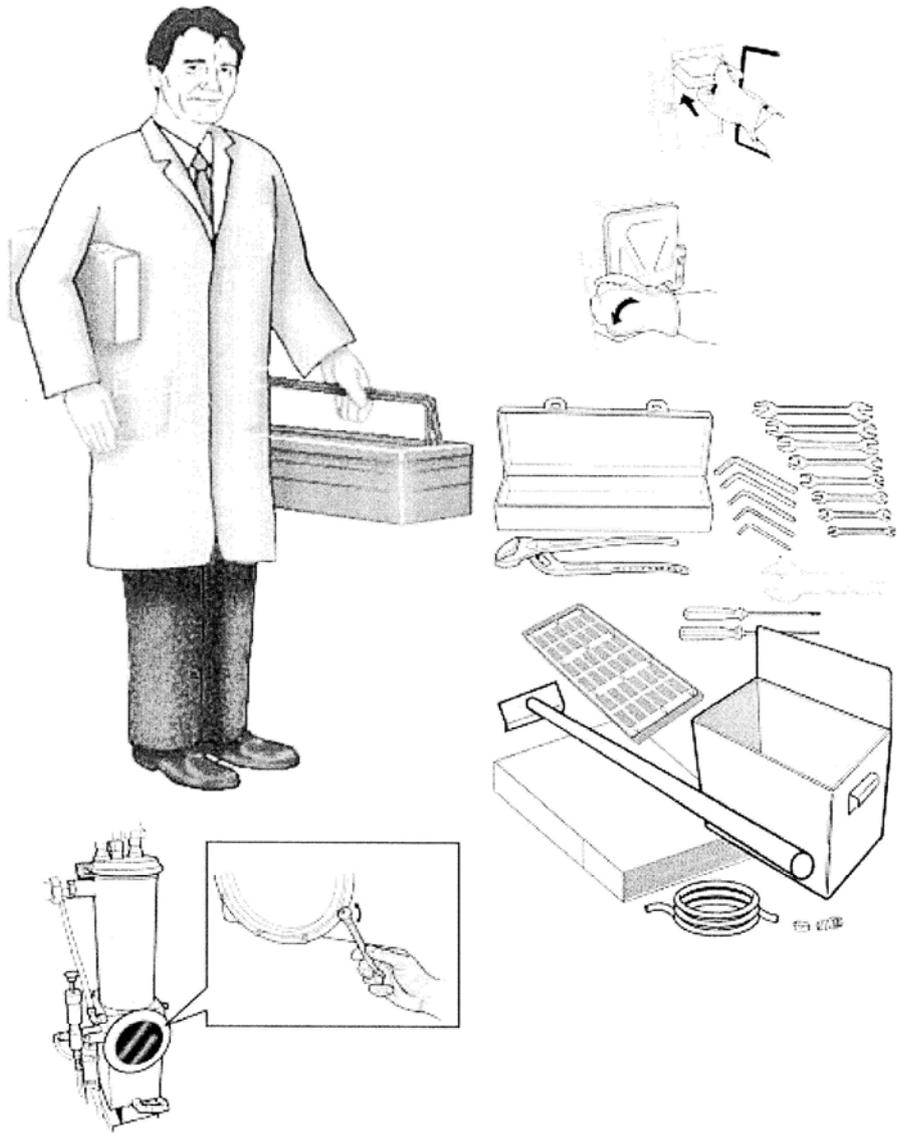
soap pump 9 follow-up soap4

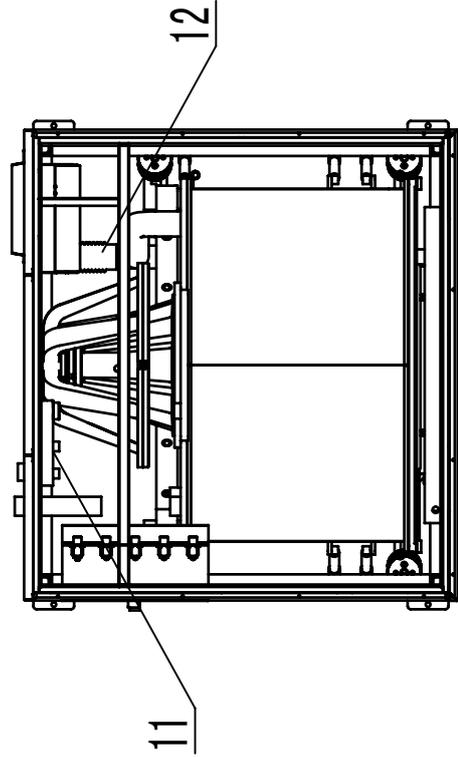
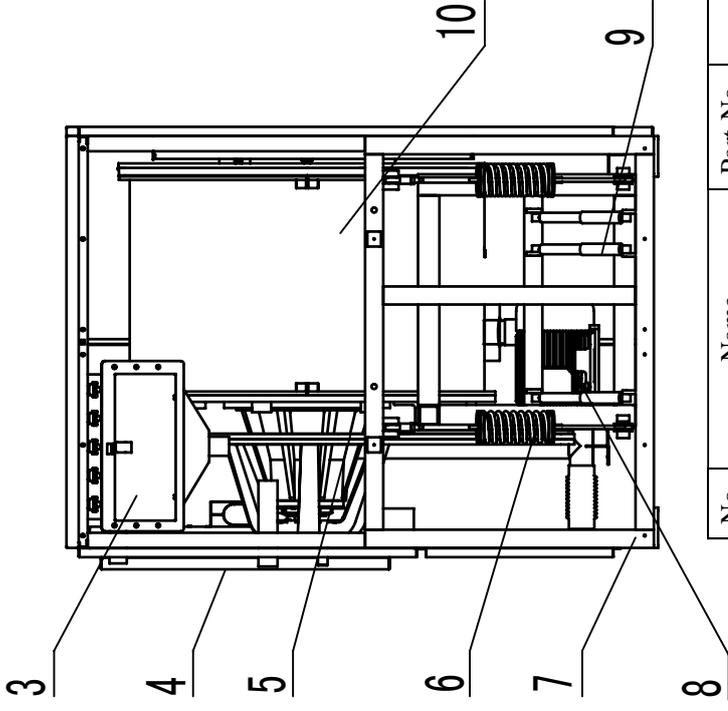
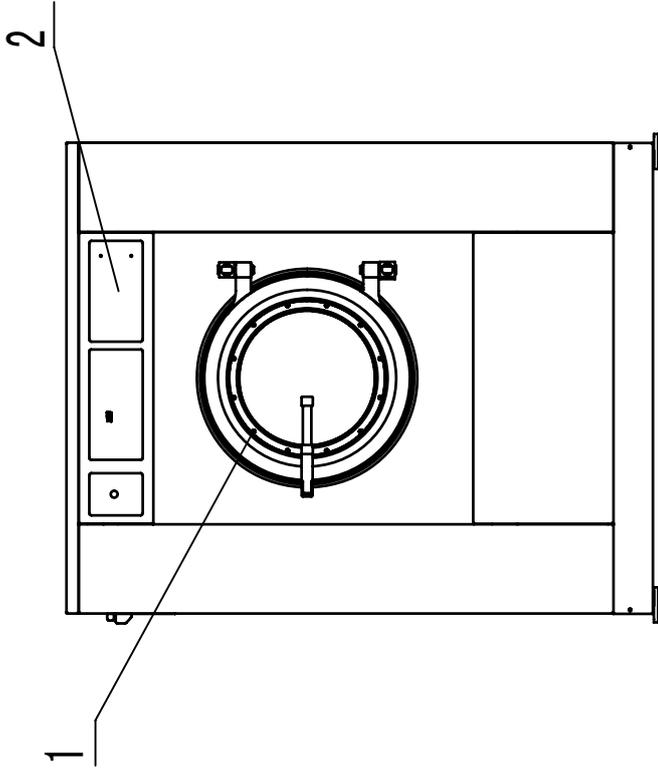
soap pump 10 follow-up soap5

Rev.	Approved Date	Remarks	DRAWN	CHECKED
			DESIGNED	APPROVED

		SCALE	TITLE
		NO	DRAWING NO.
Principle diagrame-4			

SPARE PARTS





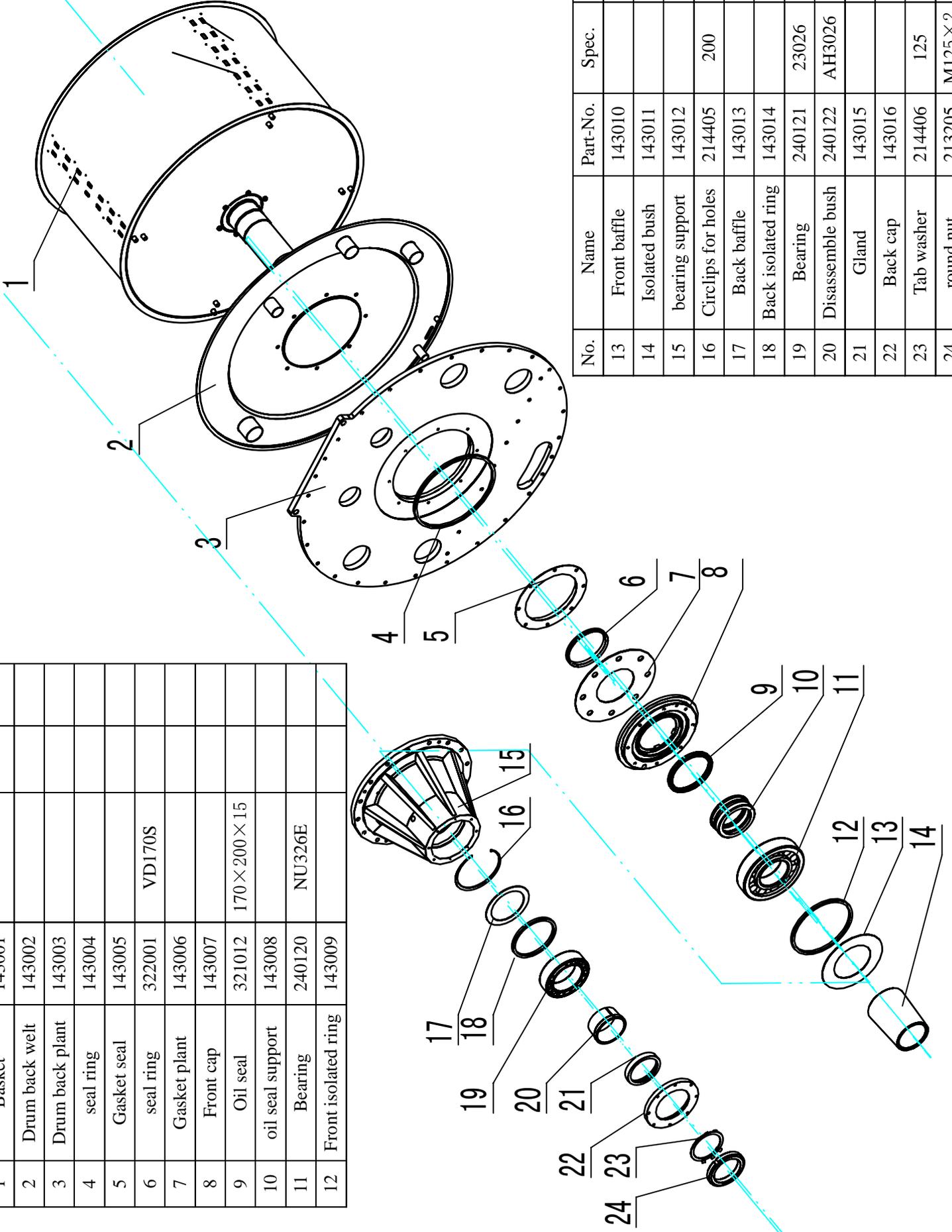
No.	Name	Part-No.	Spec.	Pieces
1	Load door assemblies	142404		1
2	Computer	844204	SX075502A	1
3	Soap box	782019		1
4	Electric box	143002		1
5	Belt sheave	142411		1
6	Spring	735001		4
7	Framework	143001		1
8	Motor	791025	7.5kw 1400r.p.m.	1
9	Damper	733005		6
10	Drum	142408		1
11	Water inlet assemblies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

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

BASKET-SHAFT ASSEMBLIES

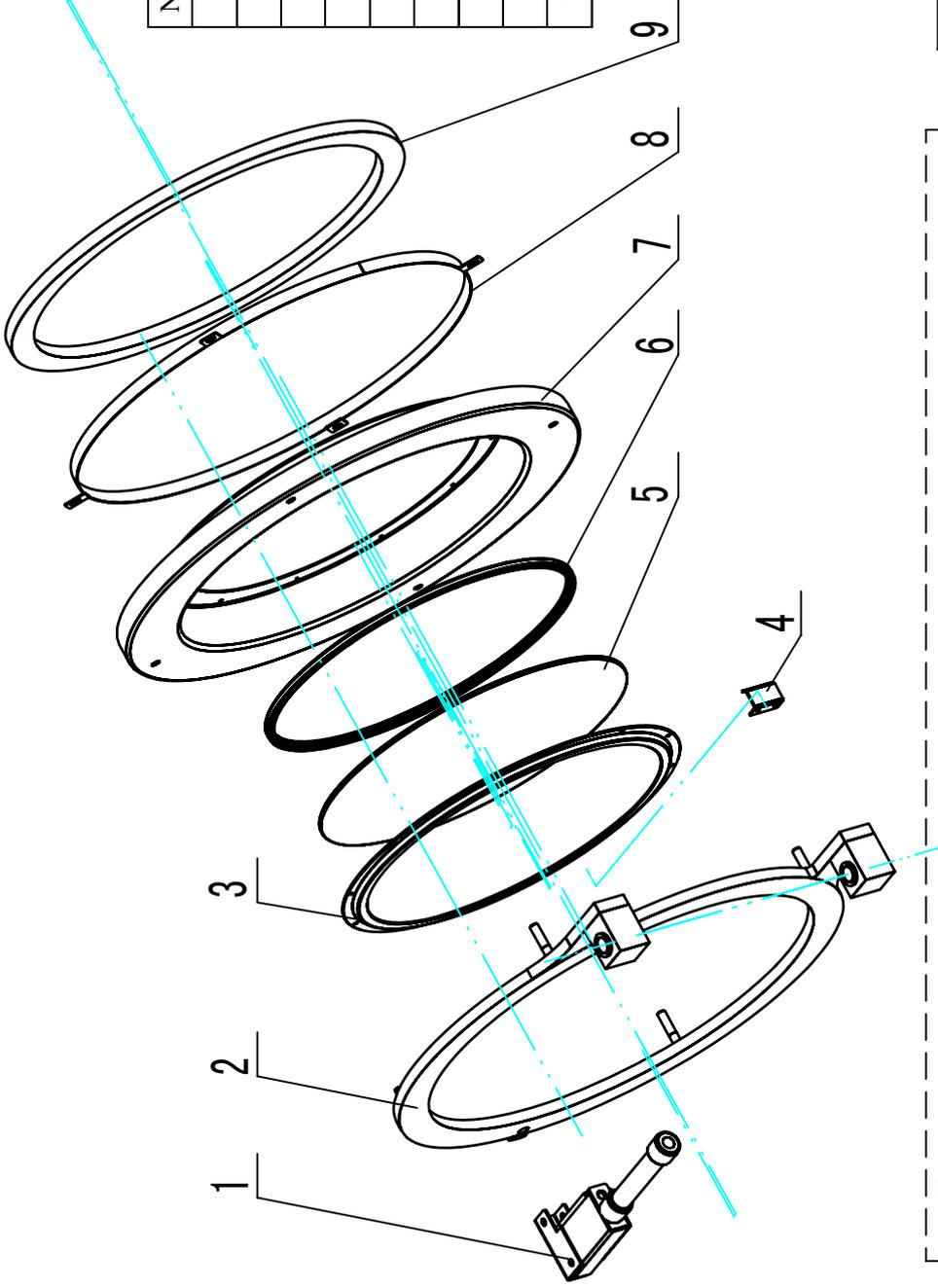
No.	Name	Part-No.	Spec.	Pieces	Notes
1	Basket	143001			
2	Drum back welt	143002			
3	Drum back plant	143003			
4	seal ring	143004			
5	Gasket seal	143005			
6	seal ring	322001	VD170S		
7	Gasket plant	143006			
8	Front cap	143007			
9	Oil seal	321012	170×200×15		
10	oil seal support	143008			
11	Bearing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



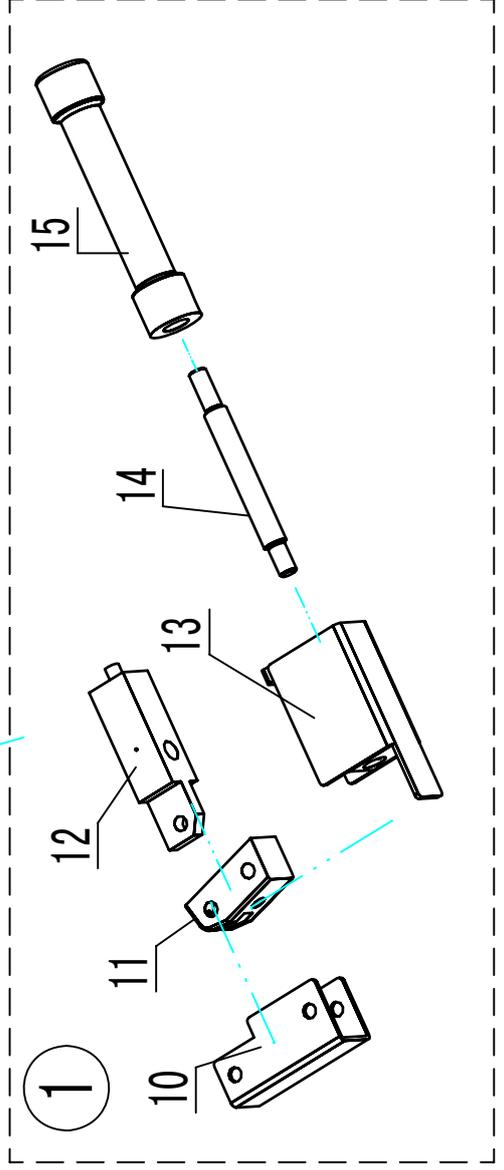
LOAD DOOR ASSEMBLIES

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	

