

INSTALLATION MANUAL

DOC. NO. 438.9211-55/09 EDITION 20.2008

EX618cl – EX670cl

SU620cl – SU675cl

Clarus Control

Up to machine No. SU-model:

SU620	-00520/120946	SU625	-00595/106646
	-00521/400282-402182		-00521/401173-402182
SU630	-00595/106611	SU640	-00650/107383
	-00521/400106-402182		
SU655	-00725/105493	SU675	-00795/102509

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Installation manual

EX618cl – EX670cl

SU620cl – SU675cl

Clarus Control

WARNING: ALL OPERATING AND MAINTENANCE PROCEDURES SHOWN ON THE NEXT PAGE OF THIS MANUAL MUST BE FOLLOWED DAILY FOR PROPER OPERATION OF YOUR WASCOMAT MACHINE.

PLEASE ENTER THE FOLLOWING INFORMATION AS IT APPEARS ON THE MACHINE(S) DATA PLATE(S).

MACHINE TYPE OR MODEL	
MACHINE SERIAL NUMBER(S)	
ELECTRICAL CHARACTERISTICS: _____ VOLTS, _____ PHASE, _____ HZ.	

MAKE CERTAIN TO KEEP THIS MANUAL IN A SECURE PLACE FOR FUTURE REFERENCE.



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SAFETY AND WARNINGS SIGNS

Replace If Missing Or Illegible

One or more of these signs must be affixed on each machine as indicated, when not included as part of the front instruction panel.

LOCATED ON THE OPERATING INSTRUCTION SIGN OF THE MACHINE:

CAUTION

1. Do not open washer door until cycle is completed, operating light is off, and wash cylinder has stopped rotating.
2. Do not tamper with the door safety switch or door lock.
3. Do not attempt to open door or place hands into washer to remove or add clothes during operation. This can cause serious injury.

PRECAUCION

1. No abra la puerta de la máquina lavadora sino hasta que la máquina haya terminado su ciclo, la luz operativa esté apagada y el cilindro de lavado haya completamente terminado de girar.
2. No interfiera o manipule el switch o la cerradura de la puerta.
3. No trate de abrir la puerta o meta las manos dentro de la máquina para meter o sacar ropa mientras la máquina está en operación, pues puede resultar seriamente herido.

MACHINE MUST NOT BE USED BY CHILDREN

LAS MÁQUINAS NO DEBEN SER USADAS POR NIÑOS

LOCATED AT THE REAR OF THE MACHINE:

INSTALLATION AND

MAINTENANCE WARNINGS – AVERTISSEMENT

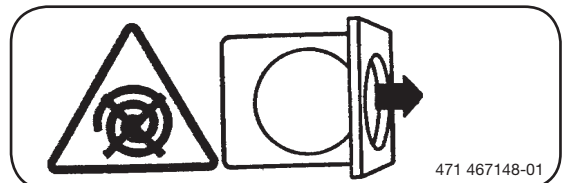
1. This machine **MUST** be securely bolted according to the installation instructions, to reduce the risk of fire and to prevent serious injury, or damage to the machine.
Pour reduire les risques d'incendie, fixer cet appareil sur un plancher beton sans revêtement.
2. If installed on a floor of combustible material, the floor area below this machine must be covered by a metal sheet extending to the outer edges of the machine.
3. This machine **MUST** be connected to a dedicated electrical circuit to which no other lightning unit or general purpose receptacle is connected. Use copper conductor only.
Utiliser seulement des conducteurs en cuivre.
4. This machine **MUST** be serviced and operated in compliance with manufacturer's instructions. **CHECK DOOR LOCK EVERY DAY FOR PROPER OPERATION TO PREVENT INJURY OR DAMAGE. IF THE DOOR LOCK FAILS TO OPERATE PROPERLY, PLACE THE MACHINE OUT OF ORDER UNTIL THE PROBLEM IS CORRECTED.**
5. Disconnect power prior to servicing of machine.
Deconnecter cet appareil del'alimentation avant de proceder a l'entretien.
6. To remove top panel, first remove screws at the rear. When remounting the top, reinstall them. To remove the top panel on models on which it is secured by one or two keylocks, use the keys provided in the drum package. Be certain to relock after remounting the top panel.

MANUFACTURED BY WASCATOR
DISTRIBUTED BY WASCOMAT, INWOOD, NEW YORK, USA

471 766202-04

LOCATED ON THE DOOR:

If you need to order more safety or warning signs, call Wascomat's parts department at 516-371-2000, or call your local dealer.



471 467148-01



NOTICE TO: OWNERS, OPERATORS AND DEALERS OF WASCOMAT MACHINES

IMPROPER INSTALLATION AND INADEQUATE MAINTENANCE, POOR HOUSEKEEPING AND WILLFUL NEGLECT OR BYPASSING OF SAFETY DEVICES MAY RESULT IN SERIOUS ACCIDENTS OR INJURY. TO ASSURE THE SAFETY OF CUSTOMERS AND/OR OPERATORS OF YOUR MACHINE, THE FOLLOWING MAINTENANCE CHECKS MUST BE PERFORMED ON A DAILY BASIS.

1. Prior to operation of the machine, check to make certain that all operating instructions and warning signs are affixed to the machine and legible. (See the following page of this manual for description and location of the signs.) Missing or illegible ones must be replaced immediately. Be sure you have spare signs and labels available at all times. These can be obtained from your dealer or Wascomat.
2. Check the door safety interlock, as follows:

(a) OPEN THE DOOR of the machine and attempt to start in the normal manner:

For CLARUS microprocessor models, choose a program and press the START button.

THE MACHINE(S) MUST NOT START !

(b) CLOSE THE DOOR to start machine operation and, while it is operating, attempt to open the door without exerting extreme force on the door handle. The door should remain locked!

If the machine can start with the door open, or can continue to operate with the door unlocked, the door interlock is no longer operating properly. The machine must be placed out of order and the interlock immediately repaired or replaced. (See the door interlock section of the manual.)

3. DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO BYPASS OR REWIRE ANY OF THE MACHINE'S SAFETY DEVICES, AS THIS CAN RESULT IN SERIOUS ACCIDENTS.
4. **Be sure to keep the machine(s) in proper working order:** Follow **all** maintenance and safety procedures. Further information regarding machine safety, service and parts can be obtained from your dealer or from Wascomat through its Technical Support Department - 516/371-0700.

All requests for assistance must include the model, serial number and electrical characteristics as they appear on the machine identification plate. Insert this information in the space provided on the previous page of this manual.

5. **WARNING:** DO NOT OPERATE MACHINE(S) WITH SAFETY DEVICES BYPASSED, REWIRED OR INOPERATIVE! DO NOT OPEN MACHINE DOOR UNTIL DRUM HAS STOPPED ROTATING!

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Safety



Safety



This machine must only be used with water. Never use dry cleaning agents or other solvents.

Do not allow children to operate the machine.

Do not hose down or spray the machine with water.

All mechanical and electrical installation must be carried out by qualified personnel.

Do not bypass the door locking device.

Should the machine malfunction, report the fault immediately to supervising personnel.

The manufacturer reserves the right to make changes to design and component specifications.

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			EX618	EX625	EX630	EX640	EX655	EX670
Innerdrum								
volume	litres/ft³	75/2.6	105/3.7	130/4.6	180/6.4	240/8.5	300/10.6	
diameter	mm/inch	520/20 1/2	595/23 7/16	650/25 9/16	725/28 9/16	795/31 5/16	795/31 5/16	
Drum speed								
wash	rpm	49	49	49	44	42	42	
extraction	rpm	1100	1025	980	930	890	820	
Heating								
electricity	kW	5.4/7.5	7.5/10	13	18	23	23	
steam		x	x	x	x	x	x	
hot water		x	x	x	x	x	x	
G-factor		350	350	350	350	350	300	
Weight, net	kg/lbs	159/350	201/443	267/588	350/771	400/882	509/1122	

[illegible]

Technical data

		SU620	SU630	SU640	SU655	SU675
Innerdrum						
volume	litres/ft ³	85/3.0	130/4.6	180/6.4	250/8.8	330/11.7
diameter	mm/inch	520/20 1/2	595/23 7/16	650/25 9/16	725/28 9/16	795/31 5/16
Drum speed						
wash	rpm	49	49	44	44	42
extraction	rpm	694	649	619	587	561
Heating						
electricity	kW	5.4/7.5	7.5/10	13	18	23
steam		x	x	x	x	x
hot water		x	x	x	x	x
G-factor		140	140	140	140	140
Weight, net	kg/lbs	136/300	175/386	228/503	287/633	330/727

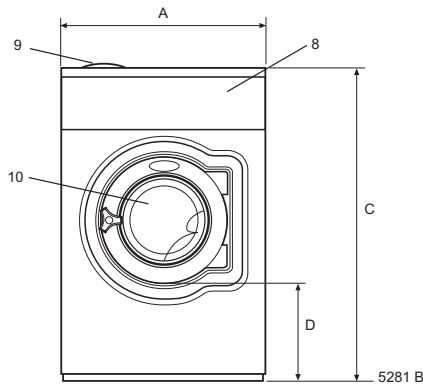
Connections

		SU620	SU630	SU640	SU655	SU675
Water valves connection		DN20 3/4"	DN20 3/4"	DN20 3/4"	DN20 3/4"	DN20 3/4"
Rec. water pressure	psi kPa	30-90 200-600	30-90 200-600	30-90 200-600	30-90 200-600	30-90 200-600
Functioning limits for water valve	psi kPa	8-145 50-1000	8-145 50-1000	8-145 50-1000	8-145 50-1000	8-145 50-1000
Capacity at 45 psi (300 kPa)	gallon/min l/min	5 20	5 20	5 20	15 60	15 60
Drain valve	inch outer Ø mm	3 75	3 75	3 75	3 75	3 75
Draining capacity	gallon/min l/min	45 170	45 170	45 170	45 170	45 170
Steam valve connection		DN15 1/2"	DN15 1/2"	DN15 1/2"	DN15 1/2"	DN15 1/2"
Rec. steam pressure	psi kPa	45-90 300-600	45-90 300-600	45-90 300-600	45-90 300-600	45-90 300-600
Functioning limits for steam valve	psi kPa	8-115 50-800	8-115 50-800	8-115 50-800	8-115 50-800	8-115 50-800

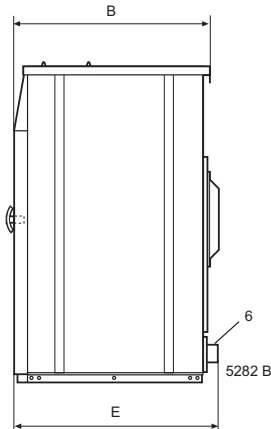
1	Electrical connection
2	Cold water
3	Hot water
4	Hard water (option)
5	Steam connection
6	Drain
7	Liquid detergent supply
8	Control panel
9	Soap box
10	Door opening, EX618: \varnothing 310 mm/12 3/16", EX625: \varnothing 365 mm/14 3/8", EX630: \varnothing 395 mm/15 9/16", EX640, EX655, EX670: \varnothing 435 mm/17 1/8"

	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	R	S
EX618	720	690	1115	355	720	825	45	1030	220	1010	135	910	830	360	100	240	–
EX625	830	705	1300	365	740	910	45	1115	220	1095	135	995	910	415	100	295	–
EX630	910	785	1325	435	825	1035	125	1245	215	1225	300	1125	–	–	100	305	455
EX640	970	870	1410	470	945	1120	115	1330	230	1290	315	1205	370	410	100	335	485
EX655	1020	915	1445	500	955	1155	100	1360	215	1320	300	1240	350	360	100	360	510
EX670	1020	1060	1445	500	1135	1155	100	1360	215	1320	300	380	–	–	100	360	335

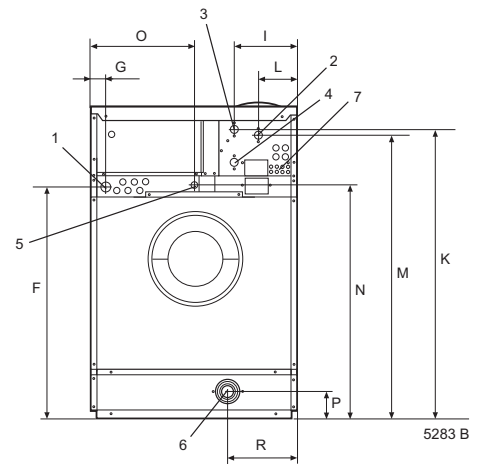
EX618, EX625, EX630



Front

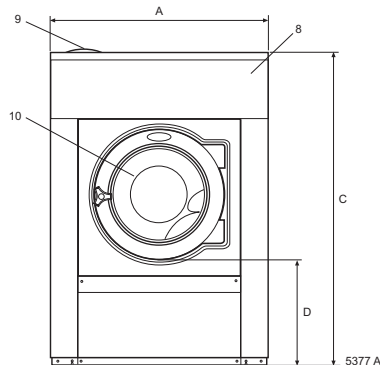


Right side

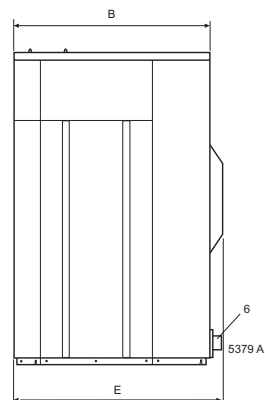


Rear side

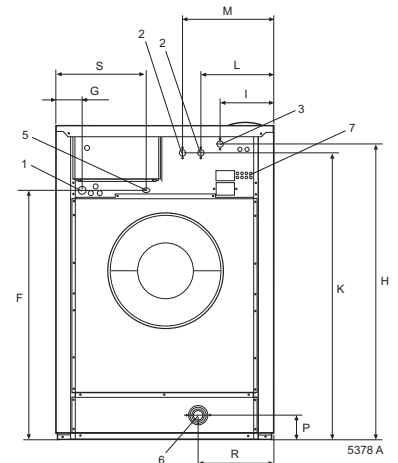
EX640, EX655, EX670



Front



Right side



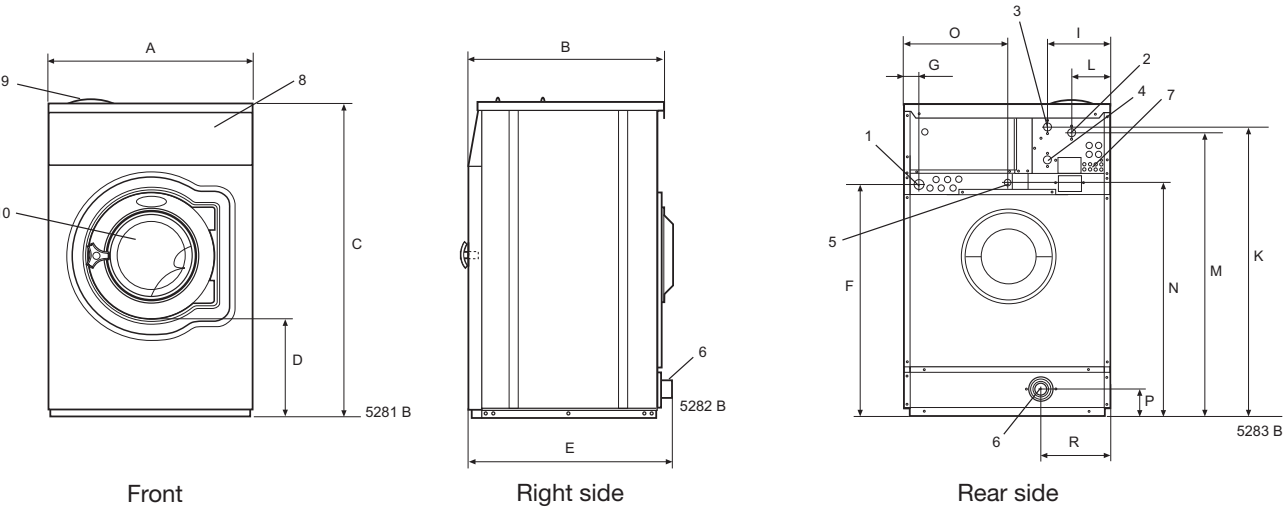
Rear side

Technical data

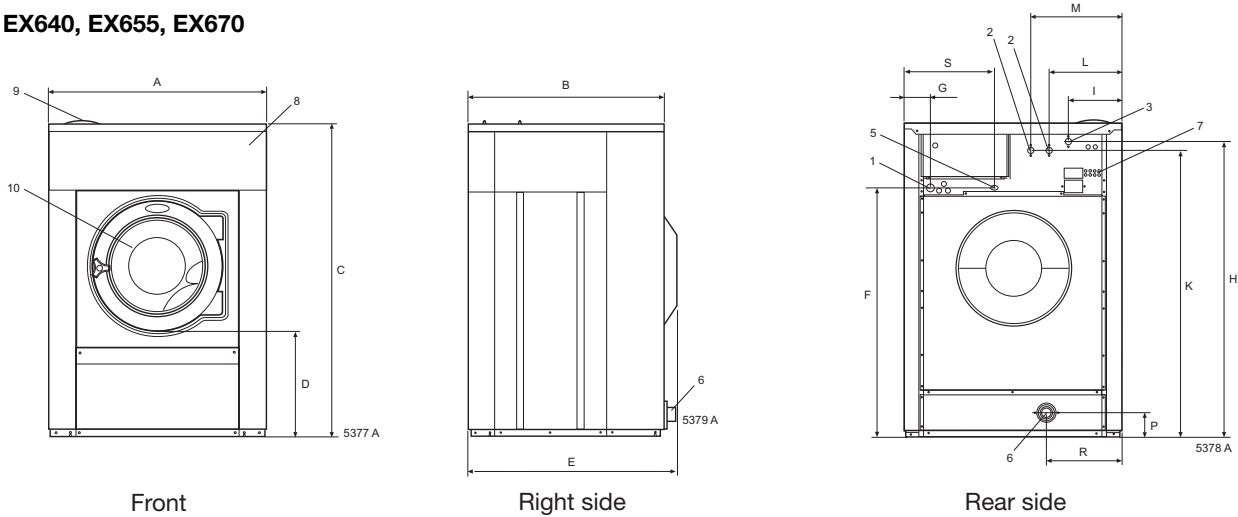
in inch	A	B	C	D	E	F	G	H	I	K
EX618	28 3/8	27 3/16	43 7/8	14	28 3/8	32 1/2	1 3/4	40 9/16	8 11/16	39 3/4
EX625	32 11/16	27 3/4	51 3/16	14 3/8	29 1/8	35 13/16	1 3/4	43 7/8	8 11/16	43 5/16
EX630	35 13/16	30 7/8	52 3/16	17 1/8	32 1/2	40 3/4	4 15/16	49	8 7/16	48 1/4
EX640	38 3/16	34 1/4	55 1/2	18 1/2	37 3/16	44 1/8	4 1/2	52 3/8	9 1/16	50 13/16
EX655	40 3/16	36	56 7/8	19 11/16	37 5/8	45 1/2	3 15/16	53 9/16	8 7/16	51 15/16
EX670	40 3/16	41 3/4	56 7/8	19 11/16	44 11/16	45 1/2	3 5/16	53 9/16	8 7/16	51 15/16

in inch	L	M	N	O	P	R	S
EX618	5 5/16	35 13/16	32 11/16	14 3/16	3 5/16	9 7/16	–
EX625	5 5/16	39 3/16	35 13/16	16 5/16	3 5/16	11 5/8	–
EX630	11 13/16	44 5/16	–	–	3 5/16	12	17 15/16
EX640	12 3/8	47 7/16	14 9/16	16 1/8	3 5/16	13 3/16	19 1/8
EX655	11 13/16	48 13/16	13 3/4	14 15/16	3 5/16	14 3/16	20 1/16
EX670	12 3/16	14 15/16	–	–	3 15/16	14 3/16	13 3/16

EX618, EX625, EX630

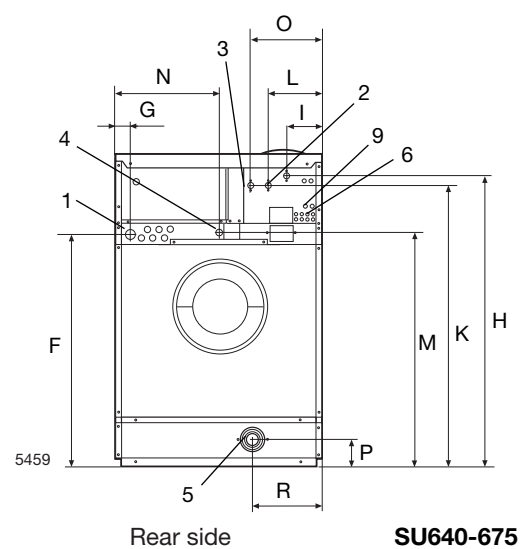
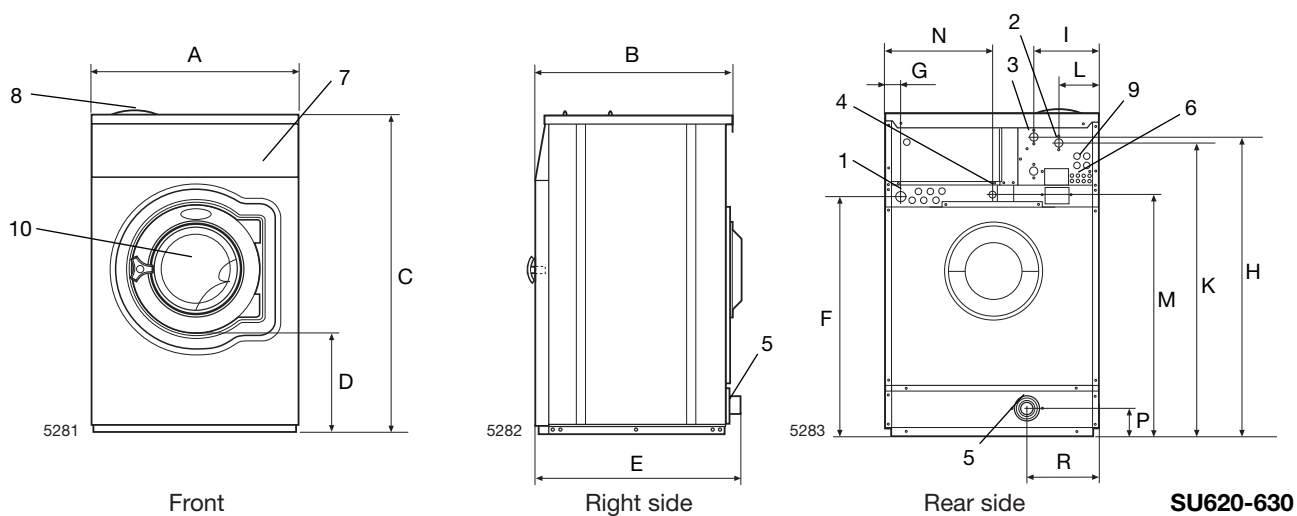


EX640, EX655, EX670



1	Electrical connection
2	Cold water
3	Hot water
4	Steam connection
5	Drain
6	Liquid detergent supply
7	Control panel
8	Soap box
9	Water reuse
10	Door opening, SU620: \varnothing 310 mm/12 3/16", SU630: \varnothing 365 mm/14 3/8", SU640: \varnothing 395 mm/15 9/16", SU655, SU675: \varnothing 435 mm/17 1/8"

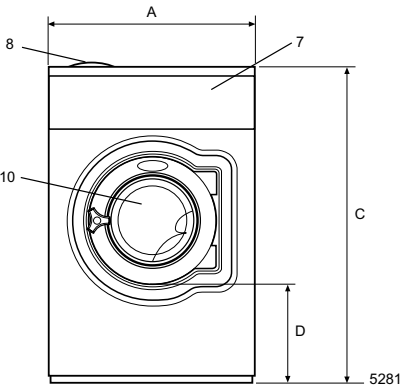
in mm	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	R
SU620	660	730	1115	355	765	825	45	1030	215	1010	130	830	385	–	100	210
SU630	720	790	1200	365	825	910	45	1115	215	1095	130	910	420	–	100	235
SU640	750	880	1325	435	915	1035	45	1245	130	1225	210	1040	325	295	100	225
SU655	830	955	1410	470	990	1120	45	1330	160	1290	245	1125	325	325	100	265



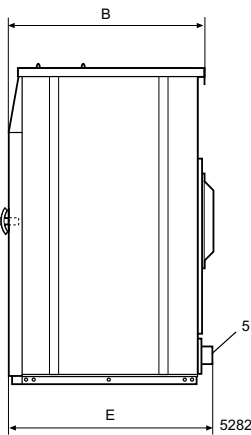
Technical data

in inch	A	B	C	D	E	F	G	H	I	K
SU620	26	28 3/4	43 7/8	14	30 1/8	32 1/2	1 3/4	40 9/16	8 7/16	39 3/4
SU630	28 3/8	31 1/8	47 1/4	14 3/8	32 1/2	35 13/16	1 3/4	40 7/8	8 7/16	43 1/8
SU640	29 1/2	32 11/16	52 3/16	14 3/8	36	40 3/4	1 3/4	49	5 1/8	48 1/4
SU655	32 11/16	37 5/8	55 1/2	17 1/8	39	44 1/8	1 3/4	52 3/8	6 5/16	50 13/16
SU675	35 13/16	40 15/16	56 7/8	19 11/16	42 5/16	45 1/2	1 3/4	53 3/4	6 5/16	52 3/16

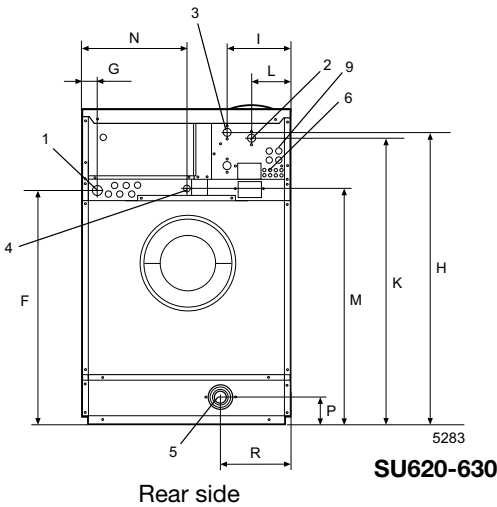
in inch	L	M	N	O	P	R
SU620	5 1/8	32 11/16	15 3/16	–	3 15/16	8 1/4
SU630	5 1/8	35 13/16	16 9/16	–	3 15/16	9 1/4
SU640	8 1/4	40 15/16	12 13/16	11 5/8	3 15/16	8 7/8
SU655	9 5/8	44 5/16	12 13/16	12 13/16	3 15/16	10 7/16
SU675	9 5/8	45 1/2	11	12 13/16	3 15/16	8 1/4



Front

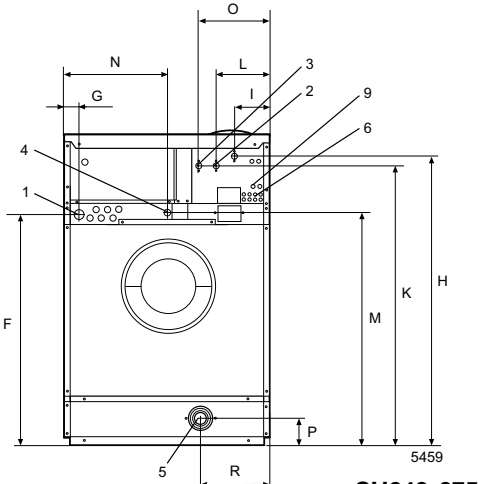


Right side



Rear side

SU620-630



Rear side

SU640-675

	EX618	EX625	EX630	EX640	EX655	EX670
Frequency of the dynamic force Hz	18.3	17.1	16.3	15.5	14.8	13.7
Max floor load lbs force	417±110	560±112	703±114	944±221	1158±221	1387±277
at extraction kN	1.9±0.5	2.5±0.5	3.1±0.5	4.2±1.0	5.2±1.0	6.2±1.2

	SU620	SU630	SU640	SU655	SU675
Frequency of the dynamic force Hz	11.6	10.8	10.3	9.8	9.4
Max floor load lbs force	375±741	518±1050	611±1320	842±1663	948±1974
at extraction kN	1.7±3.3	2.3±4.7	2.7±5.9	3.7±7.4	4.2±8.8

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Installation

Transportation and unpacking, EX618, EX625

The machine is delivered complete with expansion bolts etc. packed inside the machine in the drum.

The machine is delivered bolted onto the transport pallet and packed in a crate or box.

- Remove packing from the machine.
- Remove front and rear panel. Remove the bolts between the machine and pallet.
- Mount front and rear panel.
- Mount the feet.
- Place the machine on its final position.
- Level the machine with the feet of the machine.

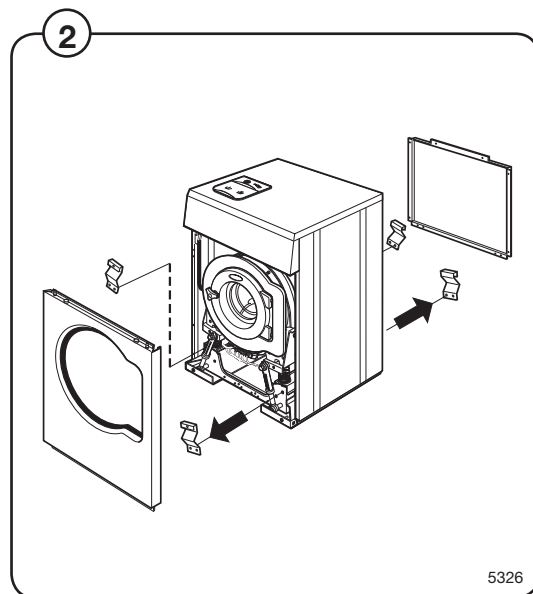
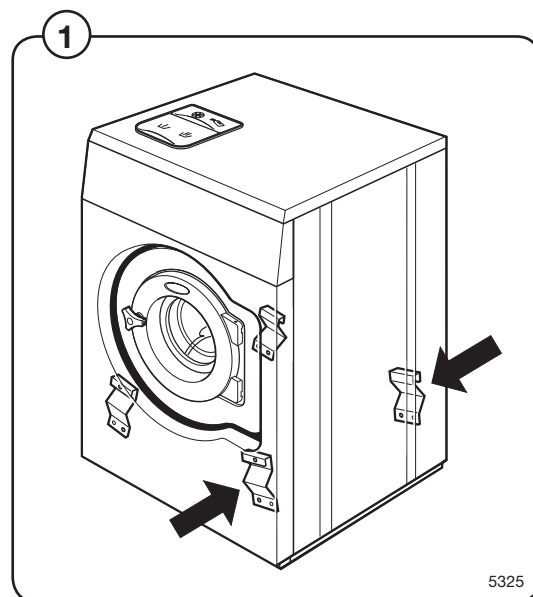
- 1 The machine also comes with transport safety devices (four plate angles between the frame and the drum).

In order to remove the safety devices:

- 2
 - Unpack the machine.
 - Remove front and rear panel.
 - Remove both front metal angels.
 - Remove both rear metal angels.

Note!

Once the shipping safety devices have been removed, handle the machine carefully to avoid damage to the suspension components.



Transportation and unpacking, EX630, EX640, EX655, EX670

The machine is delivered complete with expansion bolts etc. packed inside the machine in the drum.

The machine is delivered bolted onto the transport pallet and packed in a crate or box.

- Remove packing from the machine.
- Remove front and rear panel. Remove the bolts between the machine and pallet.
- Mount front and rear panel.
- Mount the feet.

④

NOTE!

Regarding EX670 note the positioning of the two front feet.

- Place the machine on its final position.
- Level the machine with the feet of the machine.

③

The machine also comes with transport safety devices (two plate angles between the support and the drum).

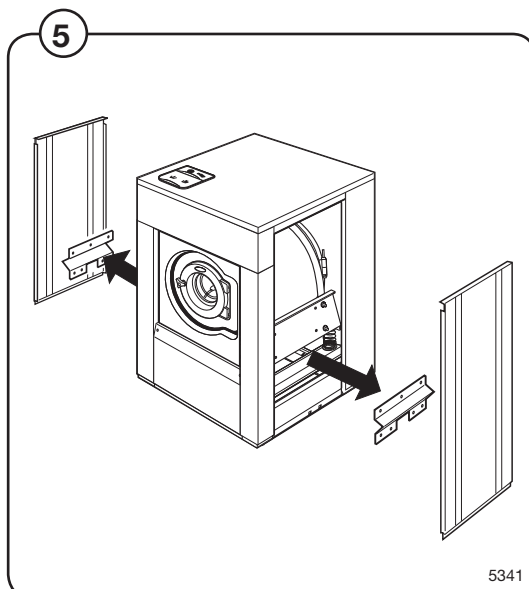
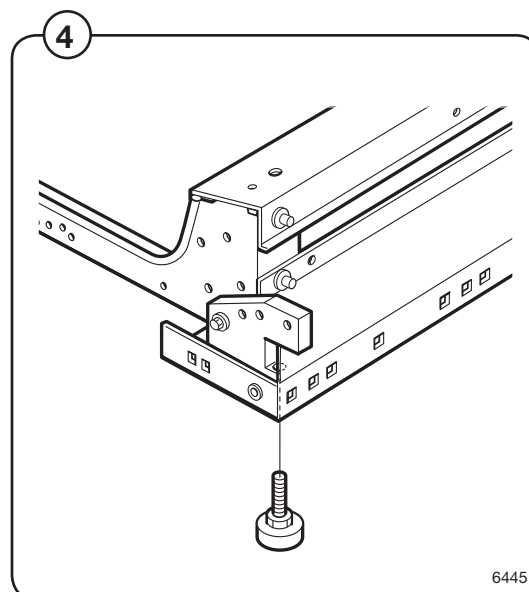
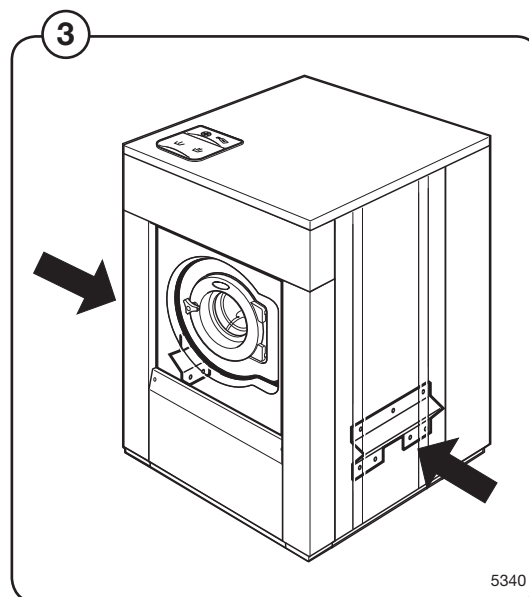
In order to remove the safety devices:

- Unpack the machine.
- Remove the two side panels.
- Remove the two transport securities.

⑤

Note!

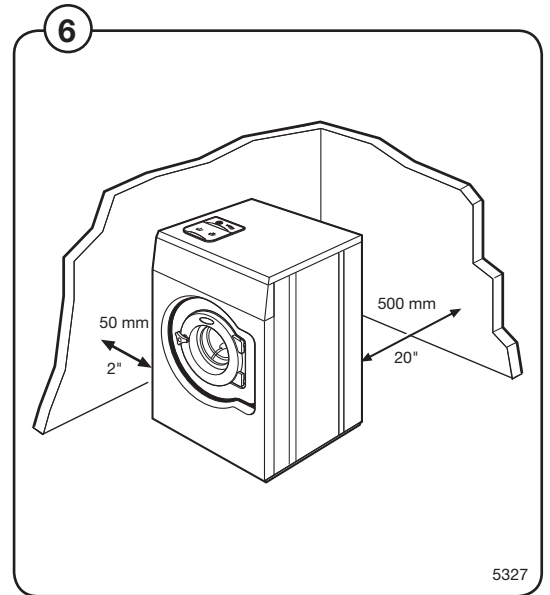
Once the shipping safety devices have been removed, handle the machine carefully to avoid damage to the suspension components.



Siting and floor

Install the machine close to a floor drain or open drain.

- 6 In order to make installation and servicing the machine easier the following clearances are recommended:
- At least 20 inches (500 mm) between the machine and the wall behind
 - and min. 2 inches (50 mm) on both sides of the machine whether installed next to the wall or other machines.



Mechanical installation

- 7 • Mark and drill 2 holes (\varnothing 8 mm/5/16") about 40 mm/1 9/16" deep (EX618-625) and \varnothing 10 mm/3/8" and 50 mm/2" deep (EX630-655) in the positions.

● = position of feet

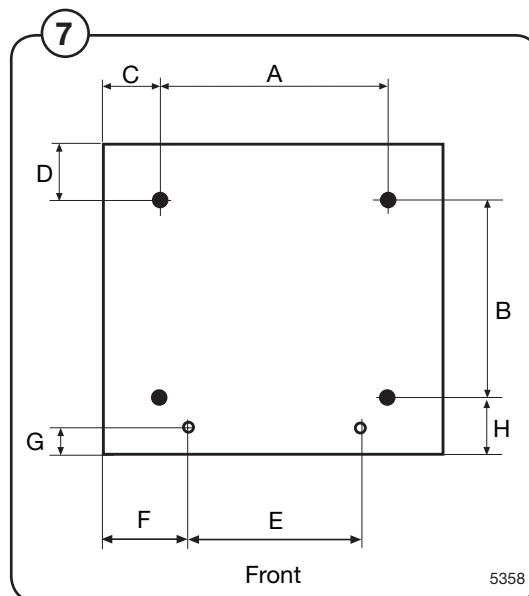
○ = drilling points for expander bolts

- The machine must be lifted in its base frame.
- Place the machine over the two drilled holes on the foundation.
- Check that the machine is in level, both side-to-side and front to back. Adjust with the feet.



It is of utmost importance that the machine level, from side to side as well as front to rear. If the machine is not properly leveled, it may result in out-of-balance without a real out of balance in the drum.

- Insert the expansion bolts supplied in the holes drilled in the floor. Fit the washers and nuts, and tighten securely.



in mm	A	B	C	D	E	F	G	H
EX618	495	460	110	130	375	170	40	100
EX625	575	465	130	140	455	185	35	95
EX630	635	490	135	175	515	195	60	110
EX640	715	545	125	205	595	185	60	115
EX655	790	615	115	180	670	175	60	115
EX670	790	755	60	180	670	175	60	75

in inch	A	B	C	D	E	F	G	H
EX618	19 1/2	18 1/8	4 5/16	5 1/8	14 3/4	6 11/16	1 9/16	3 15/16
EX625	22 5/8	18 5/16	5 1/8	5 1/2	17 15/16	7 5/16	1 3/8	3 3/4
EX630	25	19 5/16	5 5/16	6 7/8	20 1/4	7 11/16	2 3/8	4 5/16
EX640	28 1/8	21 7/16	4 15/16	8 1/16	23 7/16	7 5/16	2 3/8	4 1/2
EX655	31 1/8	24 3/16	4 1/2	7 1/16	26 3/8	6 7/8	2 3/8	4 1/2
EX670	31 1/8	29 5/8	2 3/8	7 1/16	26 3/8	6 7/8	2 3/8	2 15/16

Installation SU-model

Leave the machine on the transport pallet until it can be placed in the final, prepared position.

Siting

Install the machine close to a floor drain or open drain. In order to make installation and servicing the machine easier the following clearances are recommended:

- 8
 - At least 20 inches (500 mm) between the machine and the wall behind.
 - Minimum 1 inch (25 mm) to next machine if more than one machine is installed on a foundation.

Floor

In this type of machine, the drum is attached directly to the frame. As a result the floor under the machine must be stable enough to absorb the dynamic forces generated during spin cycles. For that reason, the mounting bolts must be cast into the floor material itself.

The machine must be securely fastened to a suitable foundation using M16 (5/8 inch) threaded rod, flat washers and lock nuts or lock washers. Failure to properly secure the machine to its foundation, or securing the machine to an inadequate foundation, will result in severe vibration, damage to the machine, and will void the manufacturer's warranty.

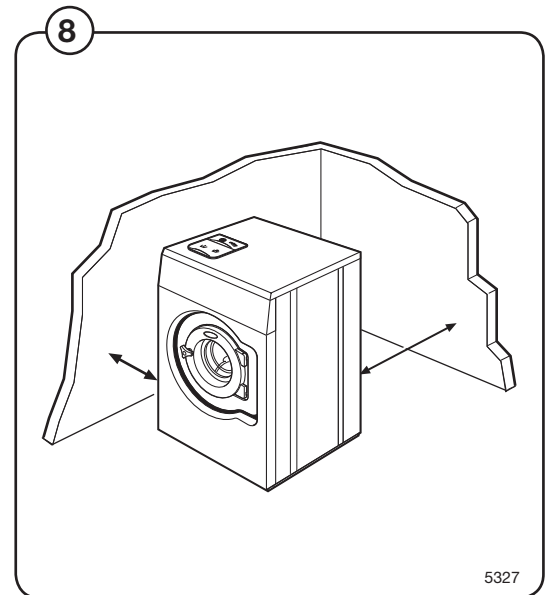
When fixing the machine to an existing cement floor, it must be at least 8 inches (200 mm) thick.

The floor must be able to withstand the loads indicated in the table.

If it isn't possible to cast the bolts into the floor, an alternative might be to use so-called chemical anchors. Your local dealer can provide the information you need.

IMPORTANT NOTE:

The use of chemical anchors and/or the use of a fabricated steel mounting base DOES NOT reduce the thickness requirement for the underlying concrete floor. The floor MUST BE AT LEAST 8 INCHES (200 MM) THICK, or a new concrete foundation MUST be poured.



5327

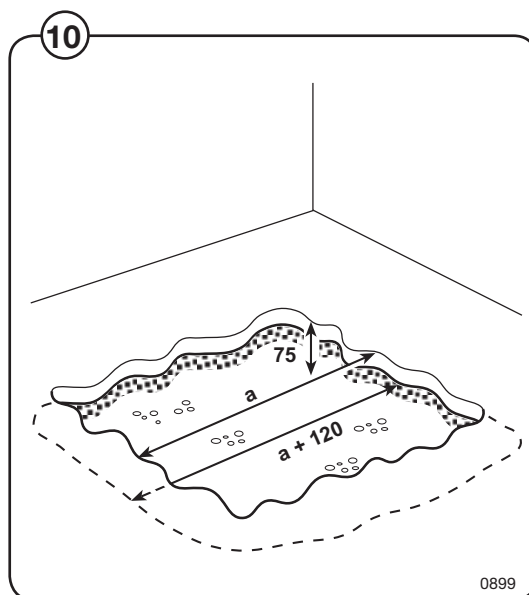
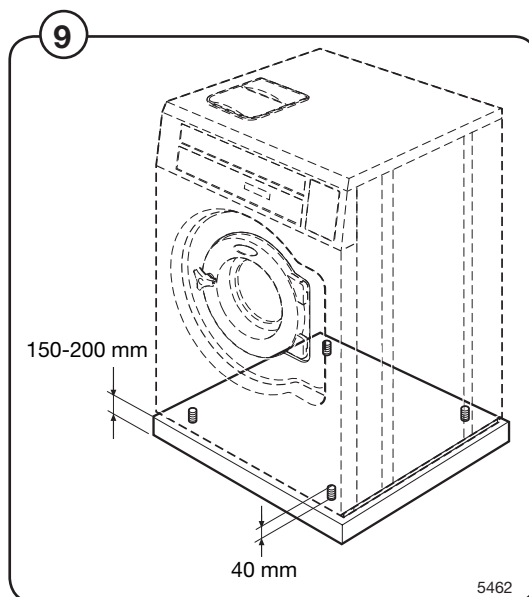
Casting a plinth

- 9 A foundation should be used where the existing floor is less than 8 inches (200 mm) thick or in order to ensure that the machine is securely anchored and will not vibrate excessively.

The foundation must be at least 8 inches (200 mm) thick.

Proceed as follows:

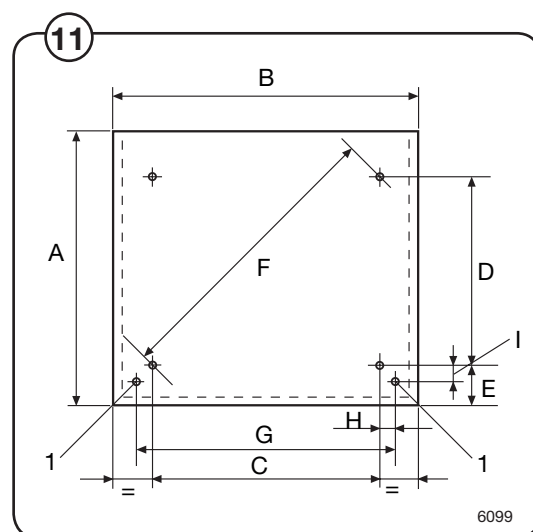
- 10
- Break up the existing floor to a depth of approx. 5 inches (125 mm) and check that the sides of the hole are tapered outward so that the longest side at the bottom measures 5 inches (125 mm) more than at the top.
 - Make the forms for the foundation.
 - Moisten the hole well and apply cement to the sides and bottom.
 - A number of mounting bolts must be set into the concrete of the foundation. The bolts need to project 1-1 1/2 inches (40 mm) out of the base. Pour the concrete into the prepared base mold and make sure that the surface is level.
 - The concrete should be left to set for at least two days before mounting the machine on the foundation.
 - Mounting bolt locations are shown with respect to the outer surface of the machine's front panel. If the front panel is to be set back from the front of the foundation, add the set-back distance to dimension "E".



Model SU675

For these machines two expander bolts shall be mounted at the front part of the machine.

- 11
- Drill two holes (1) $\varnothing 10$ mm/ 3/8" and 40 mm/ 1 9/16" deep.
 - After the machine has been placed over the other four bolts, place the two spacer washers over the two holes. They shall be placed between the machine and foundation.
 - Mount the expander bolts in the drilled holes and fasten the machine. Don't forget the washers.



in mm	A	B	C	D	E	F	G	H	I
SU620	725	660	495	445	115	665	495	0	75
SU630	785	720	575	495	120	760	595	10	80
SU640	875	750	635	570	120	855	655	10	85
SU655	950	830	715	635	125	955	735	10	85
SU675	1035	910	790	695	135	1050	810	10	95

in inch	A	B	C	D	E	F	G	H	I
SU620	28 9/16	26	19 1/2	17 1/2	4 1/2	26 3/16	19 1/2	0	2 15/16
SU630	30 7/8	28 3/8	22 5/8	19 1/2	4 3/4	29 15/16	23 7/16	13/32	3 1/8
SU640	34 7/16	29 1/2	25	22 7/16	4 3/4	33 11/16	25 13/16	13/32	3 3/8
SU655	37 3/8	32 11/16	28 1/8	25	4 15/16	37 5/8	28 15/16	13/32	3 3/8
SU675	40 3/4	35 13/16	31 1/8	27 3/8	5 5/16	41 5/16	31 7/8	13/32	3 3/4

Installing the machine

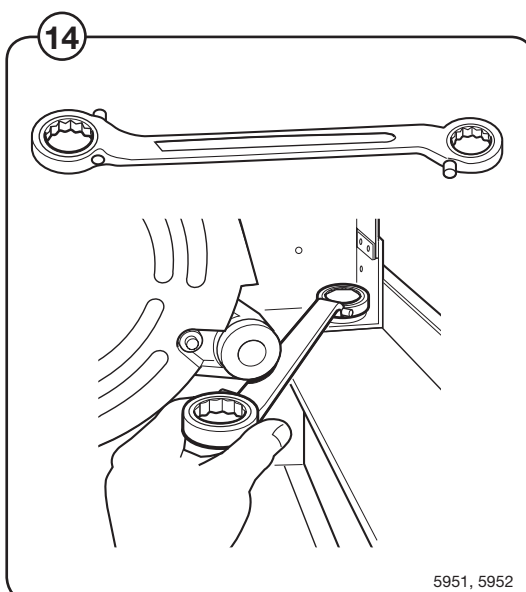
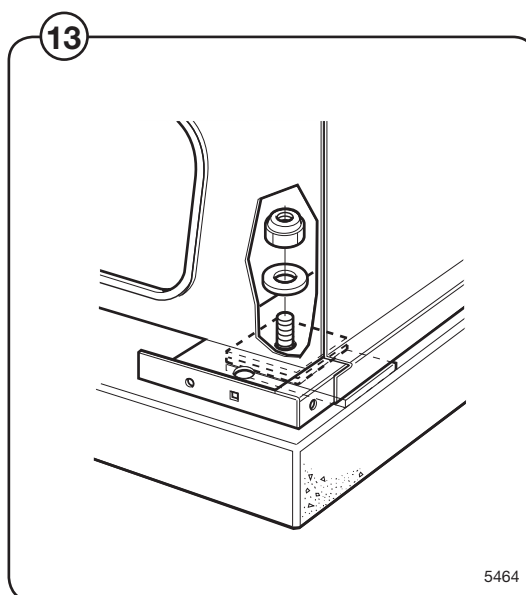
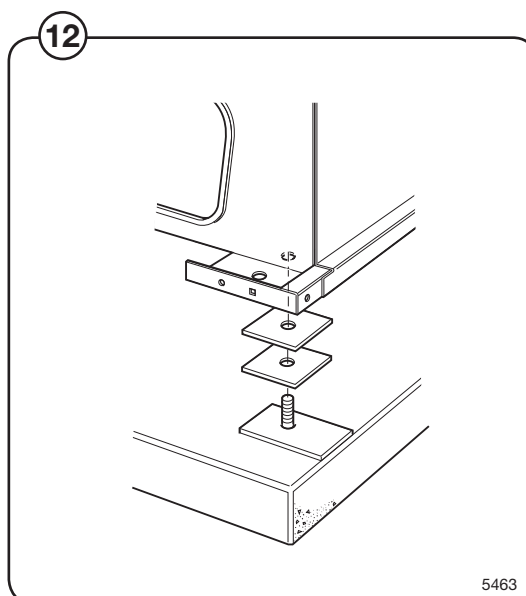
To install the machine:

- Remove the transport packaging
- Remove the front panel.
- Remove the machine from the transport pallet and locate it on the bolts.
Always lift the machine by the chassis, never by the door or door handle.
- ⑫ • Check that the machine is level and steady at all four corner mounting points. Adjust the level by using stainless or galvanized steel washers or shims between the machine and the floor. The washers must be of a size to cover the support surface.
- ⑬ • Fit the washers and self-locking nuts supplied with the machine and tighten securely.
- ⑭ • To tighten the nuts we recommend to use a ratchet wrench, especially in the right rear corner.

During the first several weeks of use, check and tighten the nuts (as necessary) frequently. Continue to check them periodically, thereafter.

IMPORTANT NOTE:

Failure to closely follow the instructions provided in this manual may result in severe damage to the machine, and the risk of personal injury. The manufacturer is not responsible for damage or injury resulting from improper installation.



Water connections

All intake connections to the machine are to be fitted with manual shut-off valves and filters, to facilitate installation and servicing.

Water pipes and hoses should be flushed clean before installation. After installation hoses should hang in gentle arcs.

The machine may have between two and four 3/4" DN 20 water connectors. All connectors present on the machine must be connected up. The table shows the possible connection options, which will depend on the water types to be connected to the machine. Check the machine plates too.

All water connectors must be connected up, otherwise the wash program will not function correctly.

Hoses are to be of an approved type and grade, to comply with national regulations.

The water pressure data is as follows:

- min: 6 psi (40 kPa)
- max: 140 psi (1 MPa)
- recommended: 30-90 psi (200-600 kPa)

	Water type	Water connection			
		1	2	3	4
15	cold and hot	cold	hot		**
16	cold and hot	cold	hot	cold*/hot	**

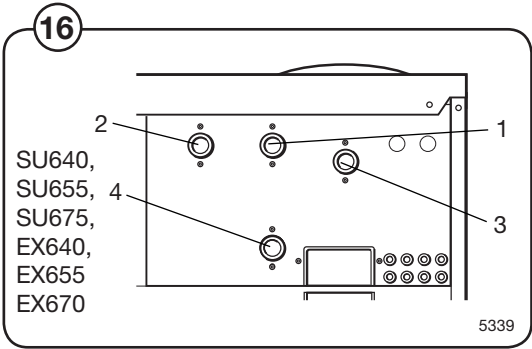
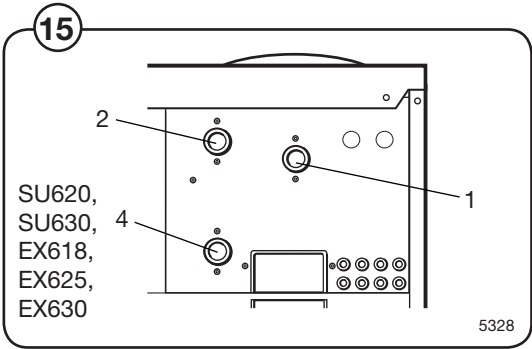
* For detergent container.

** Only machine with Clarus Control.

Extra water valve which can be used for hard water if soft water is connected to 1.

This valve can also be used for water reuse from tank.

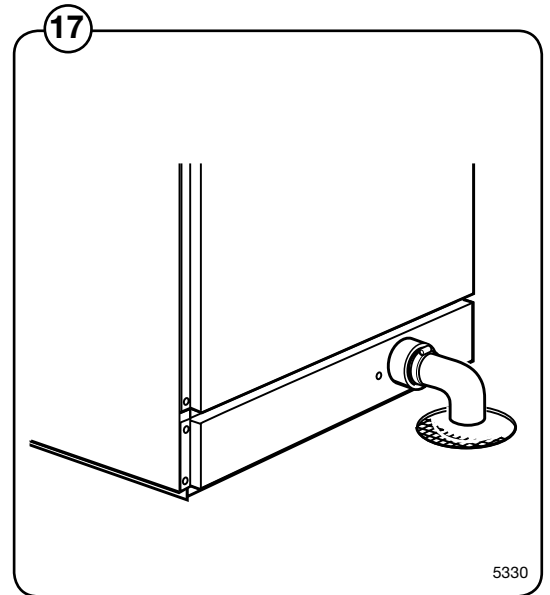
If pump is used, it is only a water connection without valve.



Drain connection

Connect a 75 mm (2 1/2") pipe or rubber hose to the machine's drain pipe, ensuring a downward flow from the machine. Avoid sharp bends which may prevent proper draining.

- ①⑦ The washer may drain in to a drainage through or into a closed drain system. In either case, be sure to comply with all applicable national and local plumbing code provisions.



Steam connection

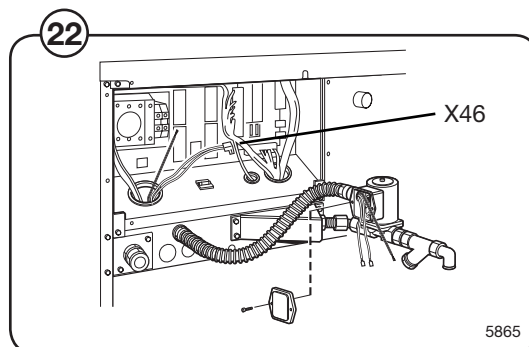
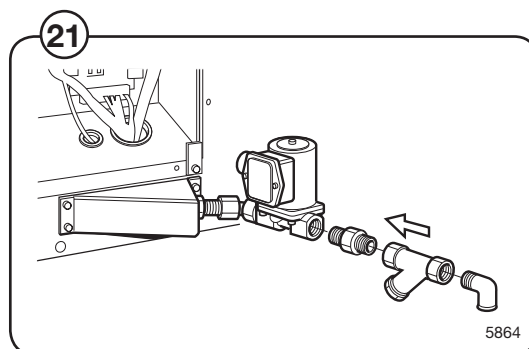
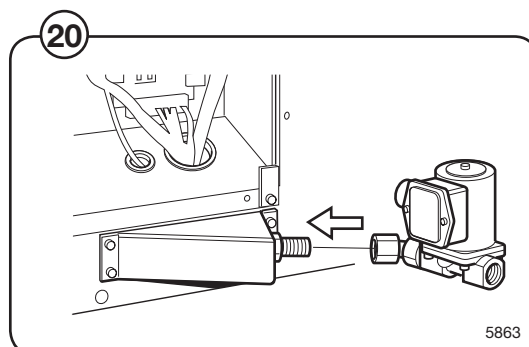
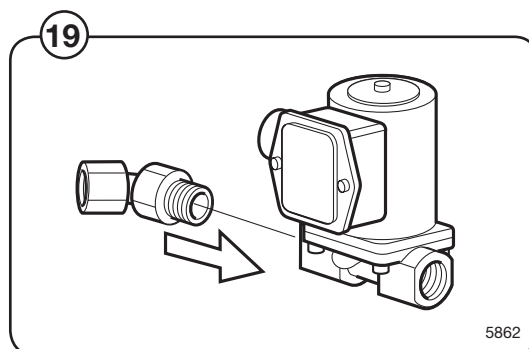
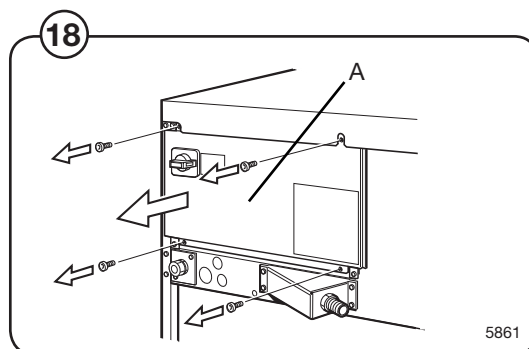
The water supply to the machine should be fitted with manual shut-off valves and filters to facilitate installation and servicing.

The connection hose must be of type ISO/1307-1983 or equivalent. Connection size at filter: DN 15 (1/2").

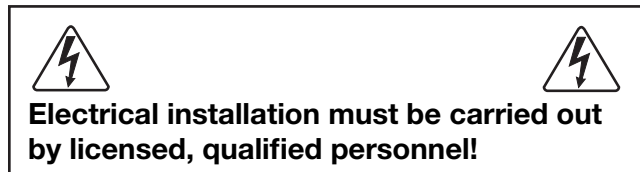
Steam pressure required:

- minimum: 7 psi (50 kPa)
- maximum: 115 psi (800 kPa)

- 18 • Remove the cover (A).
- 19 • Mount the articulated nipple to the steam valve.
- 20 • Mount the steam valve on the machine.
- 21 • Mount nipple, strainer and elbow. Note the direction of the strainer. Mount steam hose to the elbow. Check that there are no sharp angles or bends on the connected steam hose.
- 22 • Mount the hose with wires between steam valve and machine. Connect wires in the steam valve. Connect ground cable to the terminal ground connection. Mount the cable connector on X46 on distribution card.



Connection of external liquid supplies



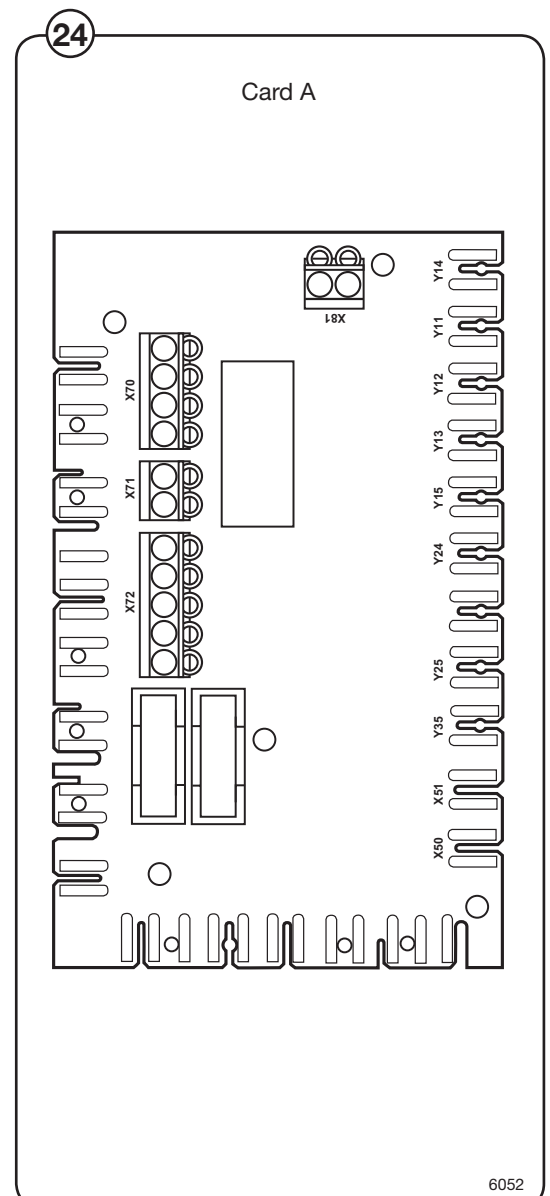
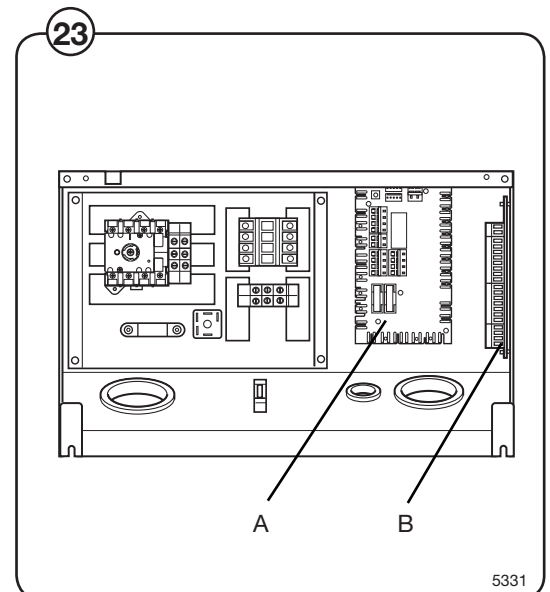
- 23 Distribution card A can be used to control machine functions, output and input signals.

24 **Outputs (110-240V AC):**

- X71:1,2 Signal "Door locked, program on"
- X72:1 0 V (common)
- X72:2 Liquid supply 1
- X72:3 Liquid supply 2
- X72:4 Liquid supply 3
- X72:5 Liquid supply 4
- X73:1 Detergent box 1 (Y11)
- X73:2 Detergent box 2 (Y12)
- X73:3 Detergent box 3 (Y13)
- X73:4 Detergent box 4 (Y14)
- X73:5 Detergent box 2 (Y22)

Inputs:

- X70:1,2 Paus/PC5
- X70:3,4 Start/Stop



- 25 If more signals are required the machine can be equipped with a second distribution card B.

Outputs (200-240V AC):

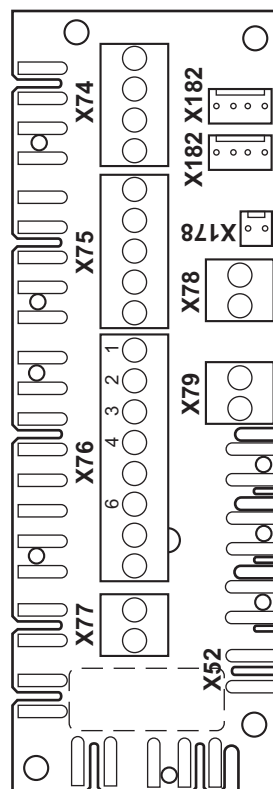
X75:1	0 V (common)
X75:2	Liquid supply 5
X75:3	Liquid supply 6
X75:4	Liquid supply 7
X75:5	Liquid supply 8
X76:1	0 V (common)
X76:2	Drain lock
X76:3	Drain A
X76:4	Drain B
X76:5	Drain C
X76:6	Inlet A
X76:7	Inlet B
X76:8	Inlet C
X77:1	Buzzer (N)
X77:2	Buzzer (L1)

Inputs:

X74:1,2	Switch between heating 1/heating 2
X74:3,4	No function

25

Card B



Electrical installation



Electrical installation must be carried out by licensed, qualified personnel!



Machines with frequency-controlled motors can be incompatible with certain types of earth leakage circuit breakers. It is important to know that the machines are designed to provide a high level of personal safety, which is why items such as ground-fault interrupting circuit breakers are not necessary. If you still want to connect your machine across ground fault circuit breaker, please remember the following:

- **contact a licensed, qualified electrician to ensure that the appropriate type of breaker is chosen and that the breaker rating is correct**
- **for maximum reliability, connect only one machine per circuit breaker**
- **it is important that the earth wire is properly connected, including to the ground fault circuit breaker.**

An individual electrical disconnect must be provided in proximity to each machine.

The connecting cable should hang in a gentle curve.

For proper circuit breaker sizes, see table on the next page.

Single-phase connection:

- ②⑥ Connect the earth and other two wires as shown in example "1AC" in the figure.

For the W640 and W655, special circuit breaker considerations must be made. The following guidelines will assist you in selecting an appropriate circuit breaker.

W640:

Select a 25 Amp circuit breaker capable of maintaining at 60 Amperes for 8 seconds.

W655:

Select a 30 Amp circuit breaker capable of maintaining at 70 Amperes for 7 seconds.

Three-phase connection:

- ②⑦ Connect the earth and the three phases as shown in example "3AC" in the figure.

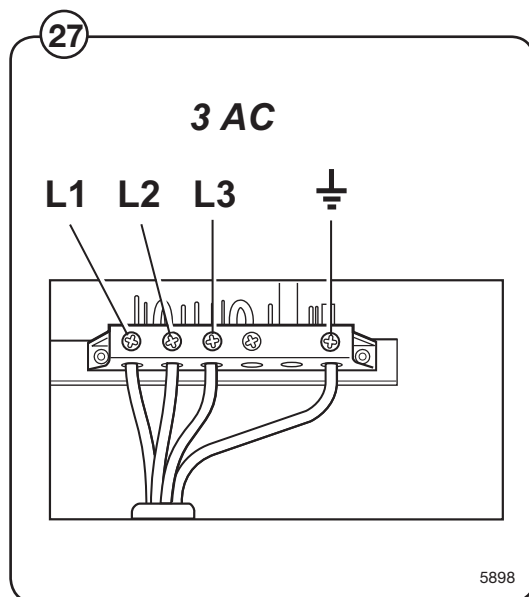
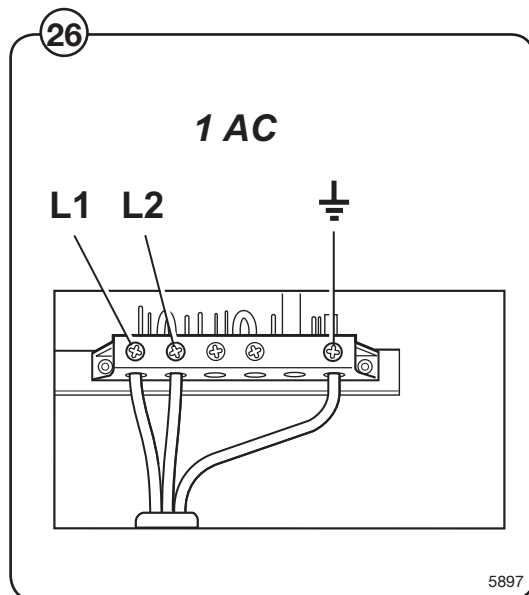
When the installation is completed, check:

- that the drum is empty.
- that the machine operates by turning on the mains switch, starting the machine and using RAPID ADVANCE to reach the spin cycle (see operations manual).

**IMPORTANT**

When making power supply connections to machines rated 208-240V AC, do not connect any phase measuring in excess of 125 V AC (with respect to earth ground) to the L1 or L2 terminals on the connection block. So-called "stinger legs" must be connected to the "L3" terminal, which does not feed power to the control circuits of the machine.

On three-phase models (except SU675), check that the drum rotates in the direction indicated on the machine while in extraction. If the direction is incorrect, reverse two of the power line phases to correct the rotation direction, while observing the note above.



EX618

Heating alternative	Voltage alternative	Total kW	Fuse A
No heating	100-120 V 1 AC	1.1	15
or Steam heating	208-240 V 1 AC	1.1	15
El heating	220-230 V 3 AC	7	20

EX625

Heating alternative	Voltage alternative	Total kW	Fuse A
No heating	208-240 V 1 AC	1.3	15
or Steam heating			
El heating	208-240 V 3 AC	9.2	30

EX630

Heating alternative	Voltage alternative	Total kW	Fuse A
No heating	208-240 V 1 AC	1.6	15
or Steam heating			
El heating	208-240 V 1 AC	12.5	60
	208-240 V 3 AC	11.8	35
	440/480 V 3 AC	13.5	20

EX640

Heating alternative	Voltage alternative	Total kW	Fuse A
No heating or Steam heating	208-240 V 1 AC	2.3	15

EX655

Heating alternative	Voltage alternative	Total kW	Fuse A
No heating	208-240 V 1 AC	2.6	15
or Steam heating	480 V 1 AC	2.6	15
El heating	208-240 V 3 AC	18.3	60

EX670

Heating alternative	Voltage alternative	Total kW	Fuse A
No heating or Steam heating	208-240 V 1 AC	2.1	15

SU620

Heating alternative	Voltage alternative	Total kW	Circuit breaker A
No heating or Steam heating	208-240 V 1 AC	0.6	15

SU630

Heating alternative	Voltage alternative	Total kW	Circuit breaker A
No heating or Steam heating	208-240 V 1 AC	0.8	15
EI heating	208-240 V 1 AC	9.2	50
	208-240 V 3 AC	9.3	30

SU640

Heating alternative	Voltage alternative	Total kW	Circuit breaker A
No heating or Steam heating	208-240 V 1 AC	0.9	15
EI heating	208-240 V 1 AC	12.1	60

SU655

Heating alternative	Voltage alternative	Total kW	Circuit breaker A
No heating or Steam heating	208-240 V 1 AC	1.2	15

SU675

Heating alternative	Voltage alternative	Total kW	Circuit breaker A
No heating or Steam heating	208-240 V 1 AC	1.5	15

Function checks

Manual operation

- Switch on the machine's main switch.
- Open the manual valves for water and for steam if the machine has steam heating.

In the operating manual, chapter "Manual operation", one can find how to operate the machine manually.

- Check that the drum is empty and close the door.
- Close the drain valve.
- Operate the machine manually to fill with cold water, then hot water. Check that these water supplies are connected as they should be.
- Start the motor on wash action, and check that the motor is revolving clockwise and anticlockwise alternately, as normal for wash action.
- Start heating by entering a final temperature and then pressing **START**. Check that the steam valve opens or the heating element relay reacts, as appropriate.
- Check that all sources of detergent supply are working as they should, including the built-in detergent supply compartments, where present.
- Check the water and steam connections and the drain valve for signs of any leakages.
- Empty the water from the machine and open its door.

Intentionally blank

Preventive maintenance

To keep your machine in proper working order, follow the preventive maintenance recommendations provided below.

The maintenance interval should be adjusted according to machine usage. The suggested schedule assumes an 8 hour work day, and a 5 day work week..

Daily

- Check the door and door lock:
 - Open the door and try starting the machine. The machine **MUST NOT START**.
 - Close the door, start the machine and try opening the door. It **MUST NOT BE POSSIBLE TO OPEN THE DOOR WHILE THE MACHINE IS OPERATING!**
 - Check that the door does not leak.
 - Clean the door seal, removing any detergent and fluff.
- Check that the drain valve does not leak during the wash cycle.
- Clean out any detergent remaining in the detergent compartment. Rapid advance through a program and let the water rinse the compartment.
- Inspect liquid chemical tubing and connections for leaks. Repair as necessary.

Every third month



- Check that the door does not leak.
- Check the drain valve and remove any lint.
- Inspect the interior of the machine (during an actual wash cycle to ensure that no leaks are noticed) by:
 - Turning of the main power switch of the machine.
 - Remove the top cover and the protective front and rear plates.
 - Cover the detergent dispenser to prevent water from splashing inside the machine.
 - Start a wash program.
 - **KEEP CLEAR OF MOVING PARTS WHILE MACHINE IS OPERATING!!**

- Inspect all internal hoses, seals and gaskets for signs of leakage. Repair as necessary.
- Check that water inlet screens are clean of debris. Dirty screens result in longer fill times, which reduce productivity.
- Inspect the drive belt. Adjust the tension or replace if necessary.
- Check that there are no signs of leakage on the floor beneath the machine. Locate and repair any leak.
- On heated machines, if the heating time is unusually long, check the heating elements. If the water is very hard, check whether there are lime deposits on the heating elements. Decalcify the elements if necessary. Adapt the amount of deliming agent to the manufacturer's guidelines.
- Never switch on the heating elements when there is no water in the machine. This will cause the slow-blow fuse to trigger.
- Inspect the shock absorbers and coil springs.

