

Sales Guide

Barrier washer-extractor
SH 180 - 240 - 280

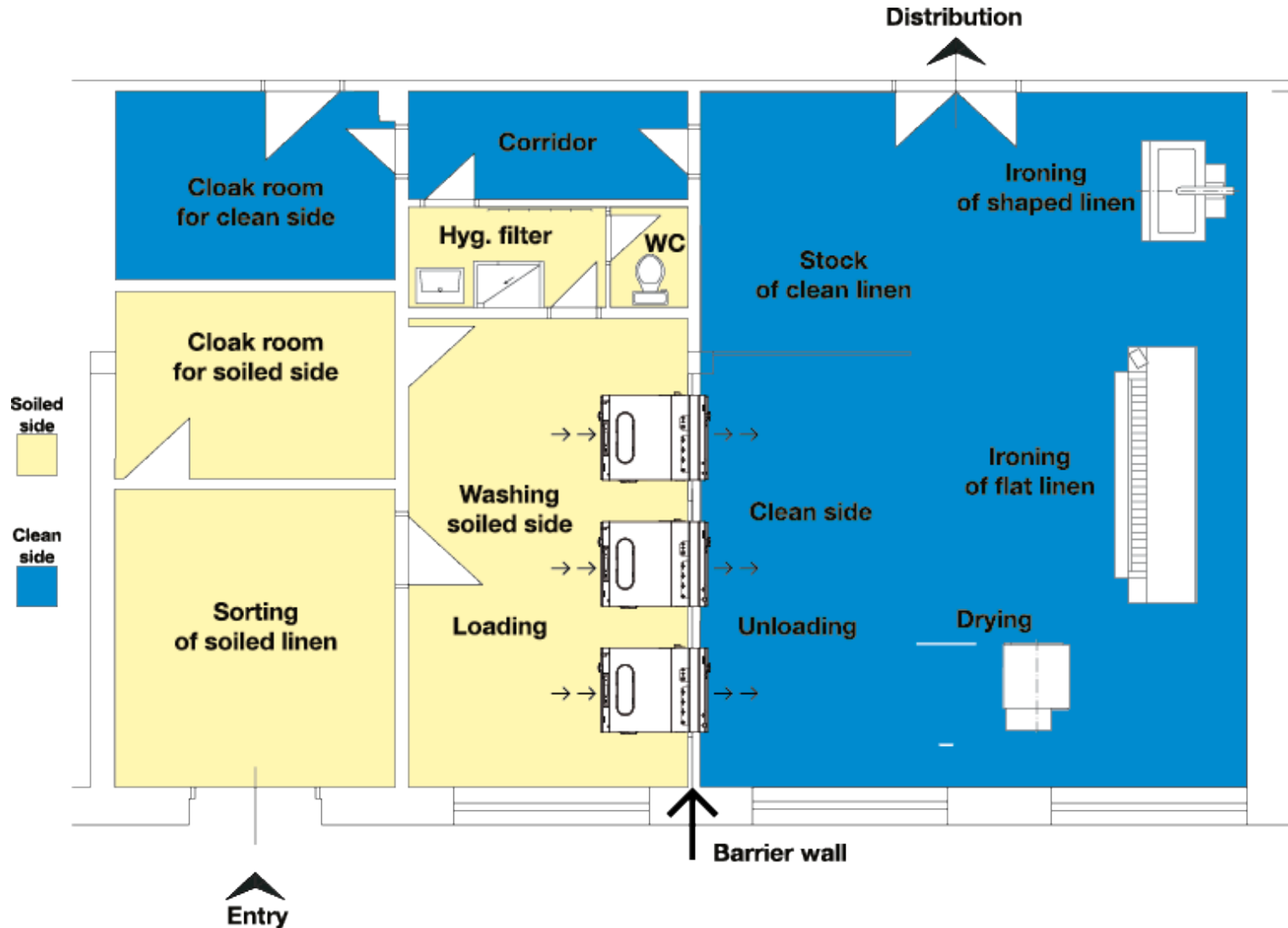


1. Range Overview

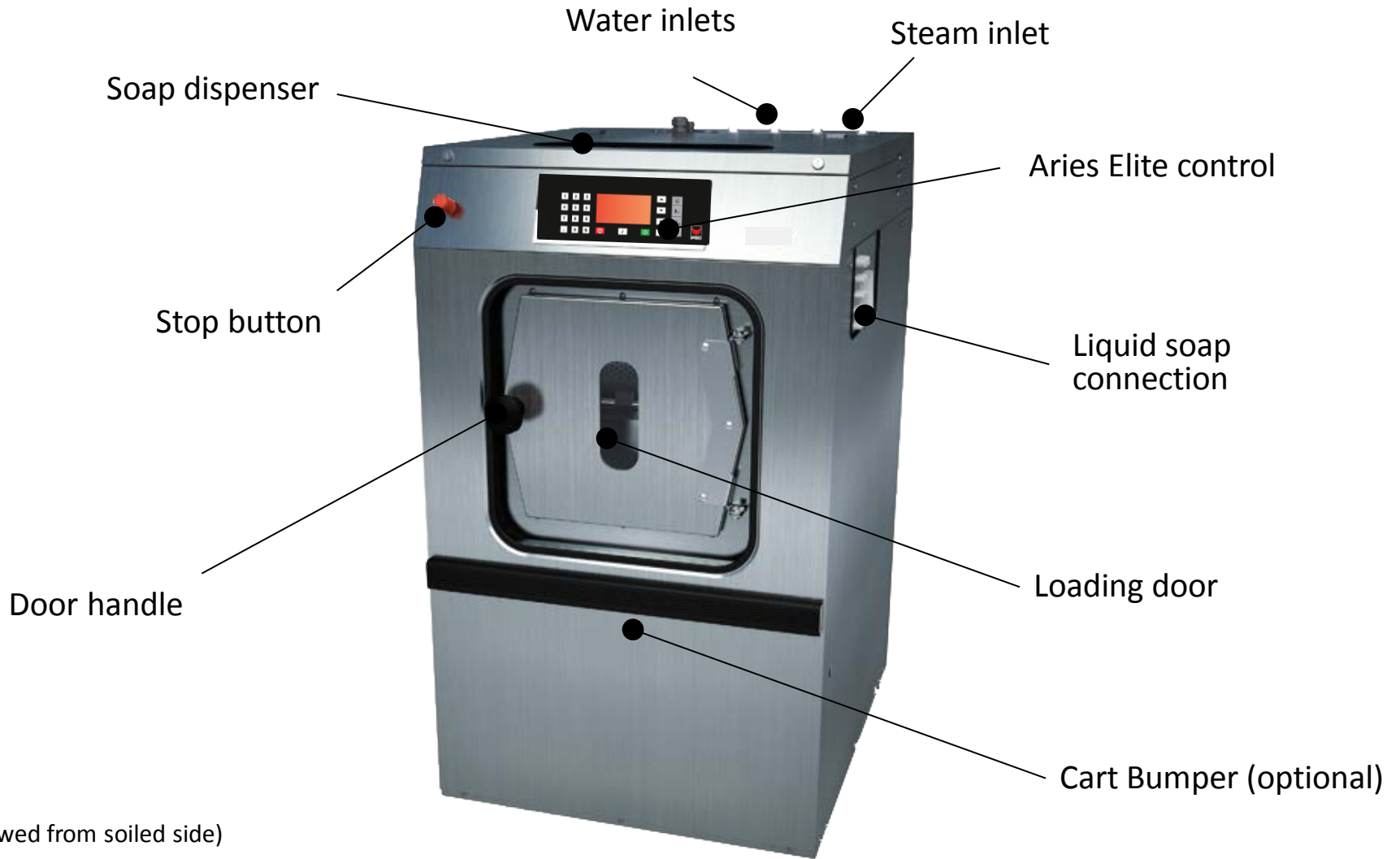


		SH 180	SH 240	SH 280
Capacity	(kg)	18 (40 lbs)	24 (55 lbs)	28 (65 lbs)
Drum volume	(l)	180	240	280
Extraction	(rpm)	939		914
G-factor		370		350

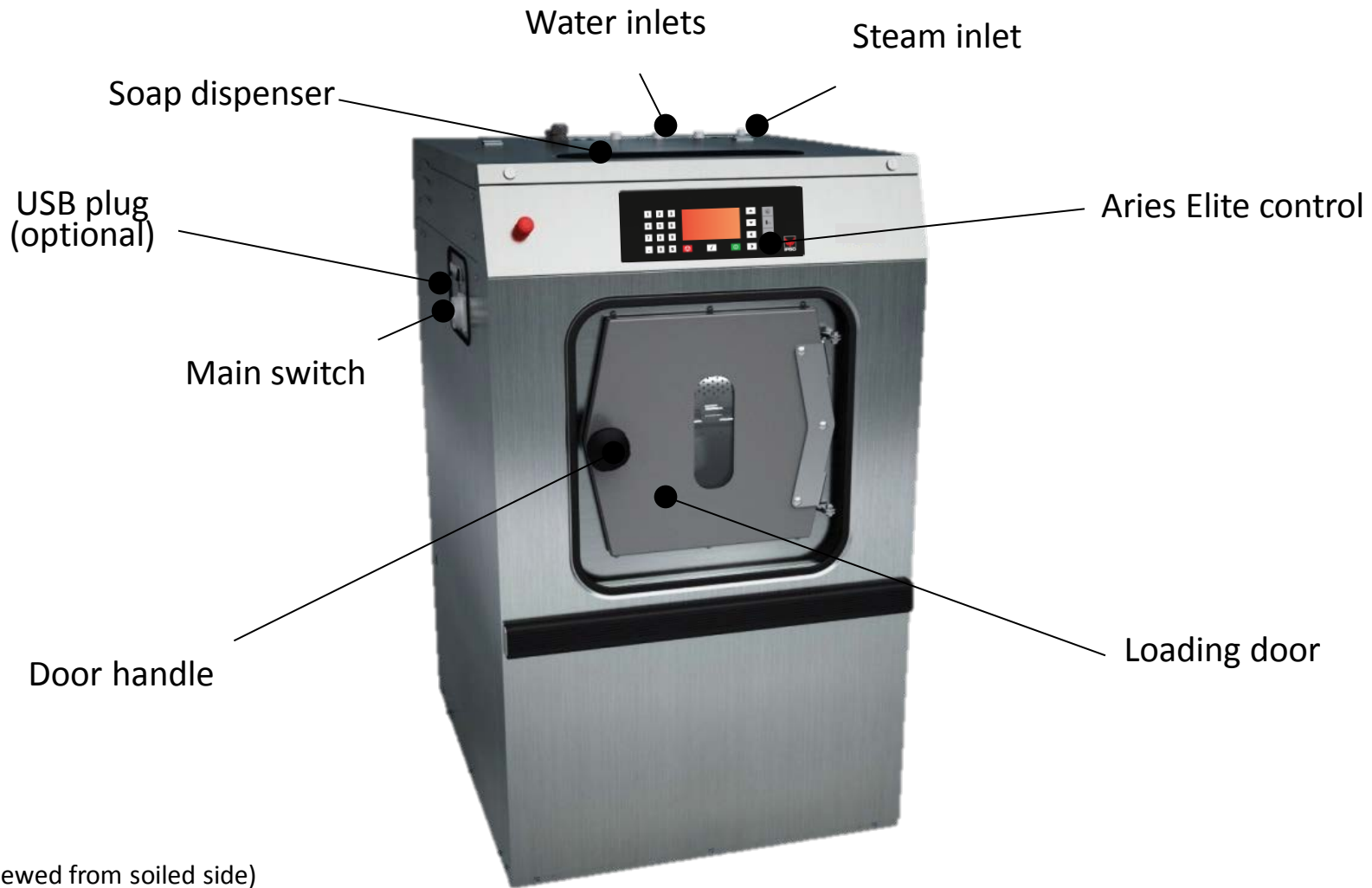
2. Hygienic Barrier Concept



3. Design Overview



3. Design Overview



4. Cabinet

Standard : All Stainless Steel construction

- Top panel - Stainless Steel
- Front panel - Stainless Steel
- Side panels - Stainless Steel



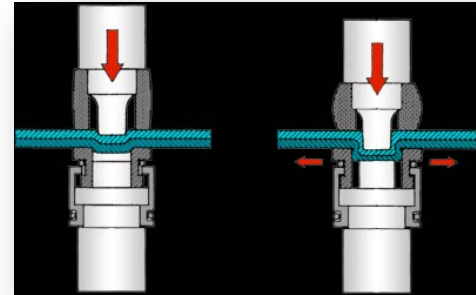
5. Side Panels

- Stainless Steel
- Reinforcement channel for extra strength



6. Frame

- Zinc plated steel
- Connected by “CLINCH” process
- Not welded
- Stronger assembly of components



BENEFITS:

- **Strength of connection is same as by spot welding**
- **Connection does not rust**

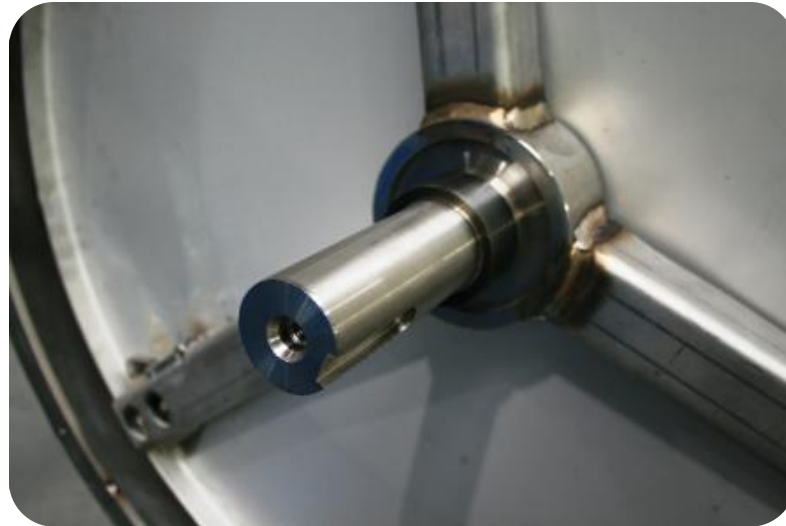
7. Drum and Cross Brackets

- Material: Stainless steel AISI 304
- 2 cross brackets with shaft per model



8. Shafts

- Special stainless steel for extreme strength
- Welded onto the drum for long life span
- Special coating for long service life



9. Bearing Housing

- 2 high quality bearings per model
- Bearing housings mounted on both sides of drum
- Vibrations are optimally diverted to the suspension
- 4 lubrication ports on top of machine are standard



Lubrication ports

10. Seals

- Radial FKM seals
- Hardened sleeves each side
- Long life span
- Easy service
- Quick replacement time



Seals



Detail of seal

11. Outer Tub

- High quality AISI 304 stainless steel
- Easy assembly of tub side panels
- Rubber seal



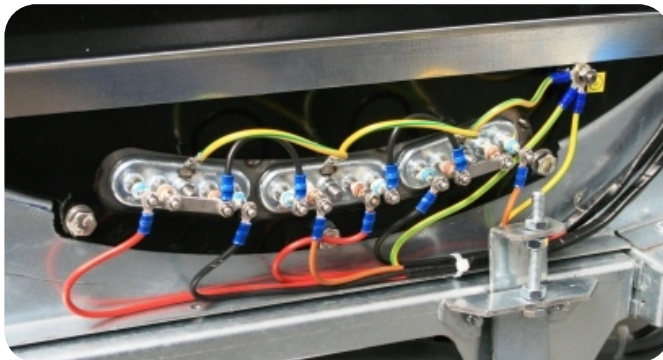
Outer tub (SH180)



12. Heating - Electrical

- Positioned on the left side
- Easy access for quick service
- Short wash cycles

	SH 180	SH 240	SH 280
kW	<i>12 / 18</i>	<i>18</i>	<i>21,9</i>



Heating elements
on the underside (soiled side)



Heating element

13. Heating – Steam



Steam inlet



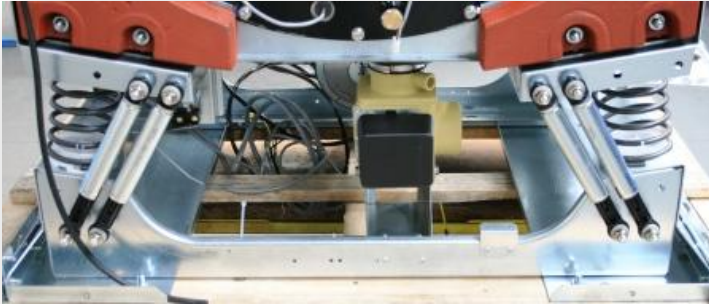
Steam inlet with injector



Steam injector

- Direct steam heating
- 1/2" inlet on the top of machine
- 1-8 bars pressure needed
- Positioned on soiled side
- Combinations with electrical heating are possible
- Switch between steam and electrical heat is on the soiled side

14. Suspension



Side double dampening

- Soft springs for high G-force
- Optimized balance, no anchoring required
- Easy installation



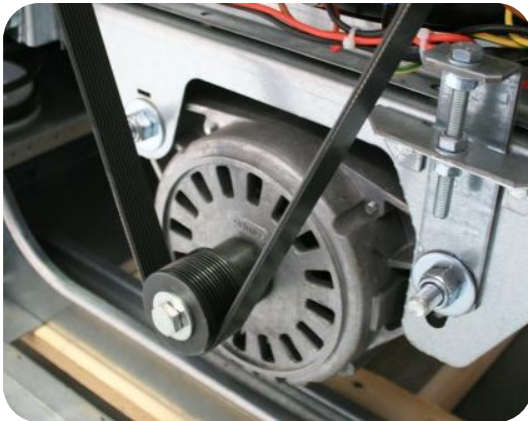
SH 180 frontal dampening



SH 240 frontal dampening

15. Pulley & V-Belts

- Main pulley: Aluminum
- Motor pulley: Black steel
- 2 sensors for automatic positioning of drum
- 1 micro V-belt with 10 ribs
- Belts are mechanically tensioned by bolt



V-belt on motor drive



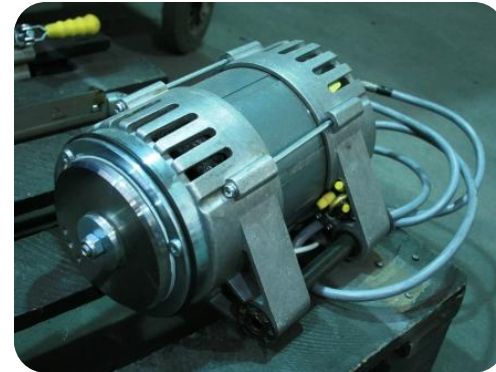
Close up V-belt



Main Pulley

16. Motors

- Frequency controlled drive
- Motor features:
 - High torque
 - High extraction speed
 - Low noise
 - Lessens unbalances
- Automatic brake system



Motor

		SH 180	SH 240	SH 280
Motor power	(kW)	2,2	3	
Wash speed	(rpm)	42		
Extraction speed	(rpm)	939		914
G force		370		350
Noise – wash	dB(A)	<56		
Noise - extraction	dB(A)	<69		

17. Water Inlets

- Standard: 3 inlet valves on top of machine
- Optional: 2 inlet valves
- $\frac{3}{4}$ " inlet size
- Easy to remove filter without having to remove the valve - service friendly
- High capacity water inlet standard



18. Soap Dispenser

- 4 compartments on middle of top
(2 for powder and 2 for liquid soap)
- Scandinavian design
- Easy service, anti-damage protection



Rubber top of soap box is fully flexible, thus preventing any damage during handling



Lid of soap box



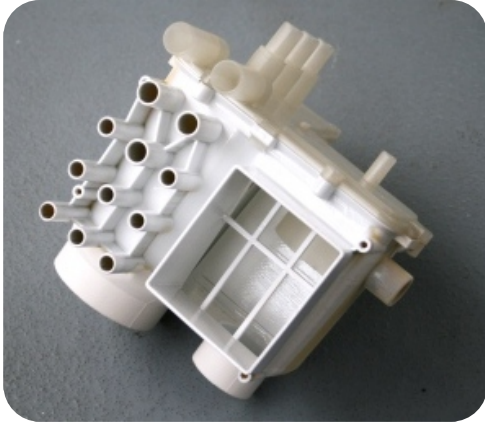
Soap box

18. Soap Dispenser



- No aggressive chemicals directly on linen
- Chemicals enter the tub between the side plate of the tub and the drum

19. Supply Injection Mixer



Mixer

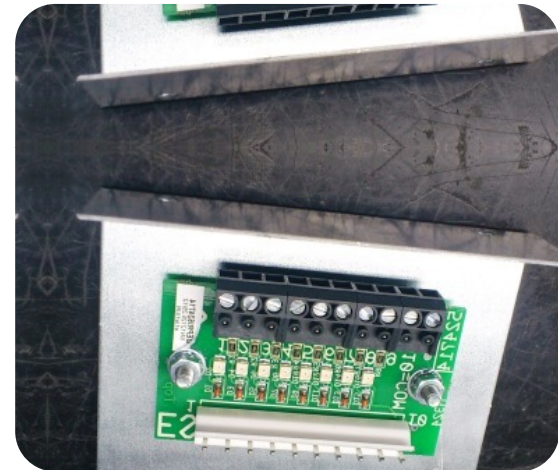


Liquid soap connections

- 13 external hose connection possibilities
 - 2 x Ø 19mm
 - 3 x Ø 14,5mm
 - 8 x Ø 11,5mm
- Up to 8 liquid soap pumps can be controlled
- Chemicals are diluted before entering the tub
- No hot water directly onto linen
- Holes of liquid soap inlets must be drilled through before hose connections can be made

20. Supply Injection Signal Output

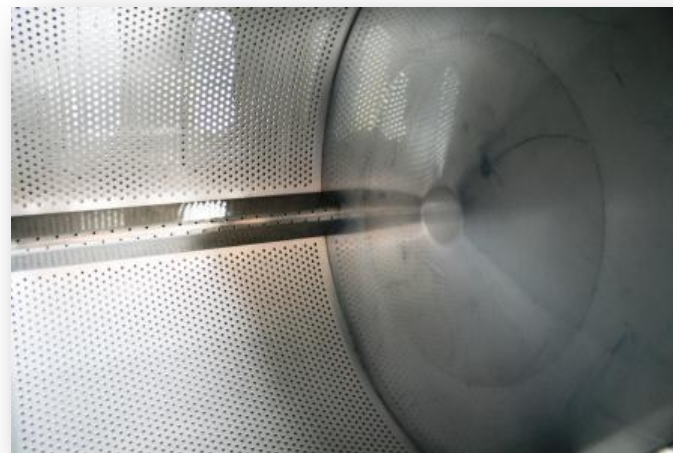
- Standard on the SH line
- Electrical board with connection to liquid soap inlets
- To access box with PCB board and 8 LEDs unscrew cover on side of machine
- Easy access : Machine remains unopened



PCB board

21. Inner Drum

- 3 lifting ribs for ideal mechanical action
- High quality AISI 304 stainless steel
- Perforated baffle ribs improve wash



Rib in inner drum

		SH 180	SH 240	SH 280
Volume	(l)	180	240	280
Capacity	(kg)	18	24	28
	(lbs)	40	55	65
Diameter	(mm)	750		
Depth	(mm)	409	544	639
Perforation size	(mm)	5		

22. Door Handle & Lock



Door handle

- Ergonomic door knob for easy opening
- Scandinavian design
- Clutch mechanism protects handle from forced over-rotation in either direction
- Strong oversized lock for safety
- Dual pawl with plastic pad



Door lock

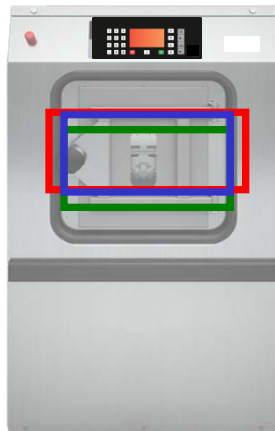
23. Doors

- Easy loading & unloading
- Door opens 170°
- Very strong 8,4 mm door glass resistant to temperatures $>100^{\circ}\text{C}$
- Automatic door positioning system is standard

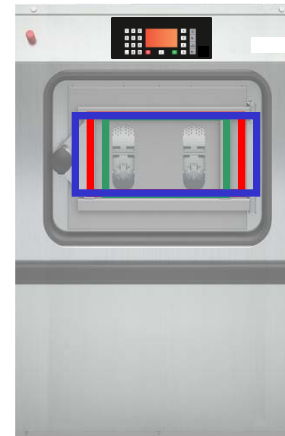


24. Door Openings

- Extremely wide door openings



SQ
Electrolux
Fagor



SQ
Danube
Image

		SH 180	SH 240/280
Door dimensions (HxW)	(mm)	325x376	325x496

25. Door Hinges



Hinges

- Oversized hinges for long life span
- Integrated into new design



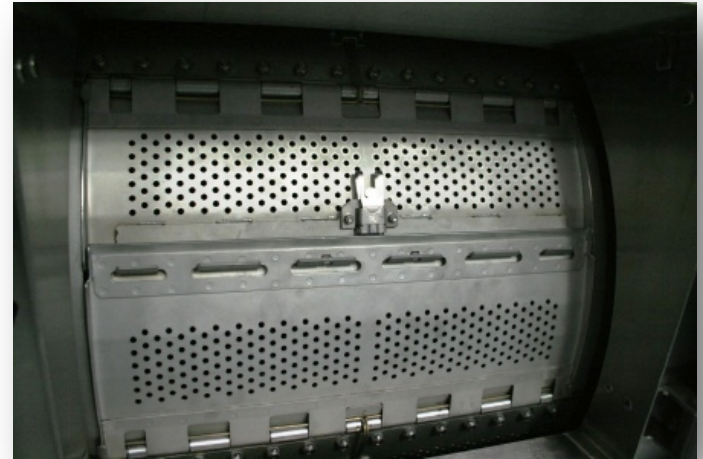
Close up hinges



Opened door

26. Drum Opening

- Easy to open
- Safe system



26. Control Panel



	SPEED QUEEN
Shape	<i>Slanted - 20°</i>
Material	<i>Stainless steel</i>



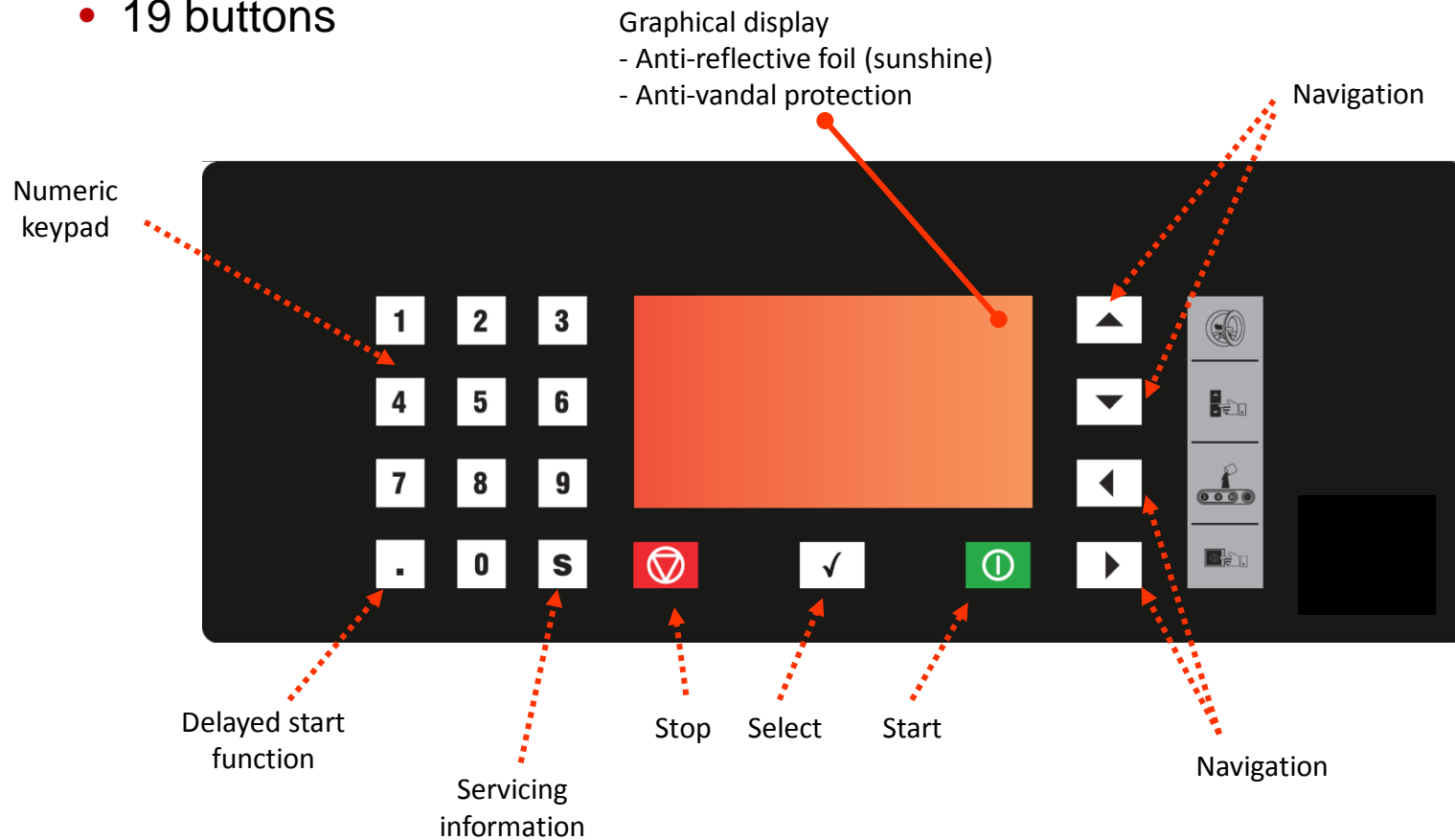
Soiled side programmer -
standard



Clean side display -
option

27. QED Select Control

- 19 buttons



27. QED Select Control

- Up to 99 programs
- 20 Factory pre-programmed settings:
 - 5x Intensive
 - 4x Standard
 - 4x Eco
 - 2x Extraction
 - 5x Special (Sport, Mops, Jeans,..)
- Extra wash / drain steps:
 - Spray
 - Cool down
 - Soak
 - Static drain
 - Reverse drain
- Possible to update wash programs:
 - Manually on machine
 - Through USB memory stick
 - With PC and QED Select Assist software
- Semi-automatic weighing capability

27. QED Select Control

Other Main Features –

- Text can be shown in 21 languages (*others may be possible*)
 - English
 - French
 - Spanish
 - German
 - Dutch
 - Czech
 - Finnish
 - Danish
 - Swedish
 - Norwegian
 - Italian
 - Portuguese
 - Polish
 - Slovene
 - Romanian
 - Croatian
 - Hungarian
 - Russian
 - Latvian
 - Turkish
 - Lithuanian
- 8 liquid soap signals
- Ready for water recycling kit connection
- Buzzer signal to inform about significant events (end of cycle, error, etc.)
- Simple firmware update through USB memory stick
- Possibility to load & unload linen only from soiled side

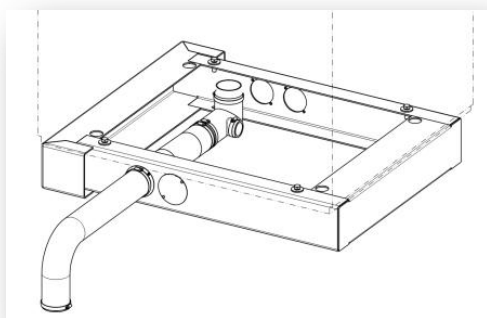
27. QED Select Factory Programs

No.	Name	Temp. ° C	Description	Prewash	Rinses
1	Hot wash - Intensive	90	Normally to heavily soiled laundry. Good temperature for white and light coloured cotton, such as bed linen	Yes	3
2	Warm wash - Intensive	60	Normally soiled laundry. Good for clothes worn next to skin	Yes	3
3	Color wash - Intensive	40	Normally soiled laundry, whites and colors	Yes	3
4	Bright wash - Intensive	30	For delicate blended materials and permanent press cotton. Suitable for shirts and blouses	No	3
5	Woollens	15	A gentle laundry program for wool, silk and garments that should be washed by hand. Short spin	No	3
6	Hot wash - Standard	90	Normally to heavy soiled laundry with less water consumption	No	3
7	Warm wash - Standard	60	Normally soiled laundry with less consumption	No	3
8	Color wash - Standard	40	Normally soiled laundry, whites and colors. With less water consumption	No	3
9	Bright wash - Standard	30	For delicate blended materials and permanent press cotton. Suitable for shirts and blouses. With less water consumption	No	3
10	Hot wash - Eco	90	Ecology program for normal to heavy soiled laundry	No	2
11	Warm wash - Eco	60	Ecology program for normal soiled laundry	No	2
12	Color wash - Eco	40	Ecology program for normal soiled laundry, whites and colors	No	2
13	Bright wash - Eco	30	Ecology program for delicate blended materials and permanent press cotton. Suitable for shirts and blouses	No	2
14	Low spin - Extraction		Suitable for laundry that just needs to be dampened	No	1
15	High spin - Extraction		Suitable for laundry that just needs to be dampened	No	1
16-20	Special		Special programmes for sport garments, jeans, mops, etc		

28. Drain



Drain under tub

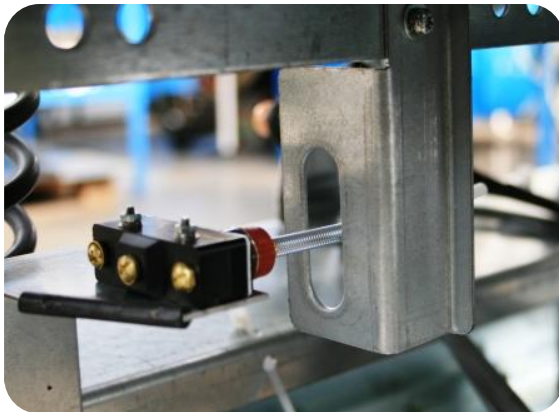


Optional plinth with drain to the side of machine

- Directly under the tub:
 - Low water consumption
 - No wasted chemicals
- Standard 3" drain valves:
 - Small objects are evacuated
- 90° drain valve:
 - Auto-rinsing effect behind the valve
- Easy service:
 - Access from the soiled side of machine
- Option:
 - 2nd drain valve for water recuperation
 - Drain to the side of machine (only with plinth)

29. Tilt Switch

- 1 unbalance switch positioned below the tub on the side
- Switch activated during high unbalances
- Positioned in the factory



Unbalance switch

- With extreme unbalances:
 - Machine will repeat maximum of 10 times (is not changeable)
- Activated when unbalances occur during:
 - Low spin
 - High spin

Note: During installation & service always check if the tilt switches are well positioned

30. Balance Technology

- Balance detection system software detects any unbalance and adapts spin speed accordingly

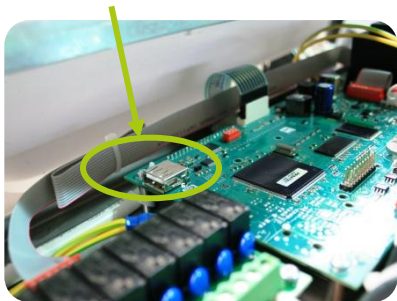
Advantages:

- Machine is optimally protected against unbalances, which results in a longer life
- Noise level is reduced
- Optimised stability during the entire cycle
- Mechanical tilt switch remains as extra protection

31. USB Access Port

- Connection inside machine or at rear panel
- Export programs from the machine
- Import programs to the machine*
- Copy machine settings from machine (machine parameters)
- Import settings and programs to the machine (created in QED Select Assist)
- Simple firmware updates

Inside the machine



Left side panel of the machine
(soiled side)



* At present you can copy and import programs *only* from and to the same model of washer – e.g., from SH 180 to another SH 180.

32. Voltages

Phase	Voltage (V)	Frequency (Hz)	Heating (kW)
1/3	200-240	50/60	0
3	200-240	50/60	12/18
3	380-415 + N	50/60	0/12/18
3	380-415	50/60	0/12/18
3	440-480	50/60	0/12/18

33. Safety

- SH machines correspond to all CE and EMC directives
- Noise level below 69 dB
- Standard: Emergency button (both sides)
- One main switch
- Buzzer signal at end of cycle



Emergency button



Main switch

34. Optional Status 'Traffic Light'



- Red: linen can be removed
- Orange: end operation within 4-5 min
- Green: in operation



35. Dimensions

	Net weight	Gross weight	Dimensions (HxWxD)	Transport dimensions (HxWxD)	Volume
	(kg)	(kg)	(mm)	(mm)	(m ³)
SH 180	430	485	1455x900x1145	1610x1010x1235	2,01
SH 240	460	515	1455x1020x1145	1610x1130x1235	2,25
SH 280	490	550	1455x1130x1145	1610x1240x1235	2,46

35. Dimensions

- Compact dimensions
- Less required space compared to SB models



	SB 160	SH 180	Diff.
Height (mm)	1600	1455	- 145
Width (mm)	1410	900	- 510

	SB 260	SH 240	Diff.
Height (mm)	1600	1455	- 145
Width (mm)	1410	1020	- 390

36. Options Overview

- USB plug (on side panel)
- Liquid soap pumps (up to 8 can be controlled)
- Steam heating, combination of electrical and steam heating
- Water sample tap
- QED Select Assist traceability software and networking
- Secondary display (on clean side)
- Status 'traffic light', cart bumper
- Weighing system
- 2nd drain valve for water recovery
- Plinth (150 mm height)
- Drain to the side of machine (only with plinth)

Markets

Care & Treatment:



Laundry & Others:



For further details please contact your distributor.