

# GLV

## Operator Manual



**STARLINE®**  
PROFESSIONAL WASH SYSTEMS

**WARNING**

Before installation and commissioning, you must read the safety instructions and warnings carefully and all the warning labels attached to the equipment.

**IMPORTANT**

Failure to comply (even partially) with the instructions given in this manual will invalidate the product warranty and relieves the manufacturer of any responsibility

**IMPORTANT**

The alteration of machine operation, design or the replacement of parts not approved by the manufacturer may void warranties and approvals.

**IMPORTANT**

This machine is intended for commercial use only.

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We have checked that the contents of this document correspond to the model described. There may be discrepancies nevertheless, and no guarantee can be given that they are completely identical. The information contained in this document is reviewed regularly and any necessary changes will be included in the next edition. We welcome suggestions for improvement.

Specifications and document subject to change without prior notice.

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**Service 0800 782 754**

**Parts 09 829 0930**

***STARLINE***<sup>®</sup>

Manufactured in New Zealand by Washtech Ltd.  
414 Rosebank Road, Avondale, Auckland 1026.  
PO BOX 90548, Auckland

# Safety Instructions



## **WARNING**

Equipment contains dangerous voltages and can be hazardous if installed or operated incorrectly. non-compliance with warnings or failure to follow the instructions contained in this manual can result in loss of life, severe personal injury or serious damage to property.

## **Installation**

- Use qualified, skilled personnel
- Follow installation instructions
- Connect to correct voltage and supply current
- Provide fully accessible electrical Isolation Switch & water supply valves

## **Training and Supervision**

- Read and understand the Operating instructions and train all staff
- This appliance must not be operated by children or infirm persons
- Machine front panel may be removed to access chemical pumps. Access of any further wiring or componentry must only be done by suitably qualified and trained personnel – internal hazards include live electrics and very hot surfaces
- This appliance is not intended for use as a stepladder

## **Hot Surfaces**

- Some surfaces may be hot or very hot

## **Chemicals**

- Commercial dishwashing detergents are hazardous – handle with care
- Read and follow the safety information found on the labels of detergent containers and Material Safety Data Sheets
- Use protective eyewear and clothing if decanting containers

## **Hot Water**

- Do not put hands in wash water which may be over 60°C and contain hazardous caustic detergent
- Rinse water can be over 90°C
- Door safety switches are designed for emergency use only

## **Cleaning**

- Do not hose down the machine or splash water over the exterior
- Watch for broken glass etc when cleaning the inside of the machine

## **Service/repair**

- Under no circumstances the user should attempt to carry out repairs
- All service/repair work must be carried out by qualified personnel only

## **Power Cord Replacement**

- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similar qualified person in order to avoid a hazard

# Installation Checklist



## WARNING

Installer must be suitably qualified and ensure compliance with all codes and standards including AS/NZS3500.1.

## Unpack

- Unpack the machine, check for damage and complete delivery.

## Positioning

- Place machine on sound waterproof self draining floor, fit feet and adjust feet to level
- Allow room for adjacent chemical containers

## Water

- Flush supply lines before connection
- Connect hose supplied to adjacent accessible isolator valve – 20 mm 3/4 male
- Flow rate required – 20 litres per minute
- Temperature – 65°C
- Consumption per cycle – 2.6 litres
- Pressure required – 200-350 kPa – fit limiter above this pressure
- Back Flow – Atmospheric Vacuum Breaker fitted
- Potable water quality is required – filter or soften if necessary

### Water Quality Requirements

Hardness	fH	dH	ppm	gf/gal	pH		
Min	2	1	220	1	7		
Max	10	6	100	6	8		
Ions	Cl <sup>-</sup>	SO <sub>4</sub>	Fe	Mn	Cu	Cl <sub>2</sub>	
Max mg/L	100	400	0.1	0.5	0.05	0.1	

## Power

- Machine ships single phase 25 A 230V 50Hz

## Waste

- Connect drain pump hose supplied to upstand or sink waste connection

## Detergent

- Note that detergent is hazardous – read instructions and handle with care
- Insert hose into container of commercial dishwasher low foam detergent
- Detergent will come up to strength with use during the day

## Rinse Fluid

- Insert hose into adjacent container of commercial dishwasher rinse fluid

## Operation

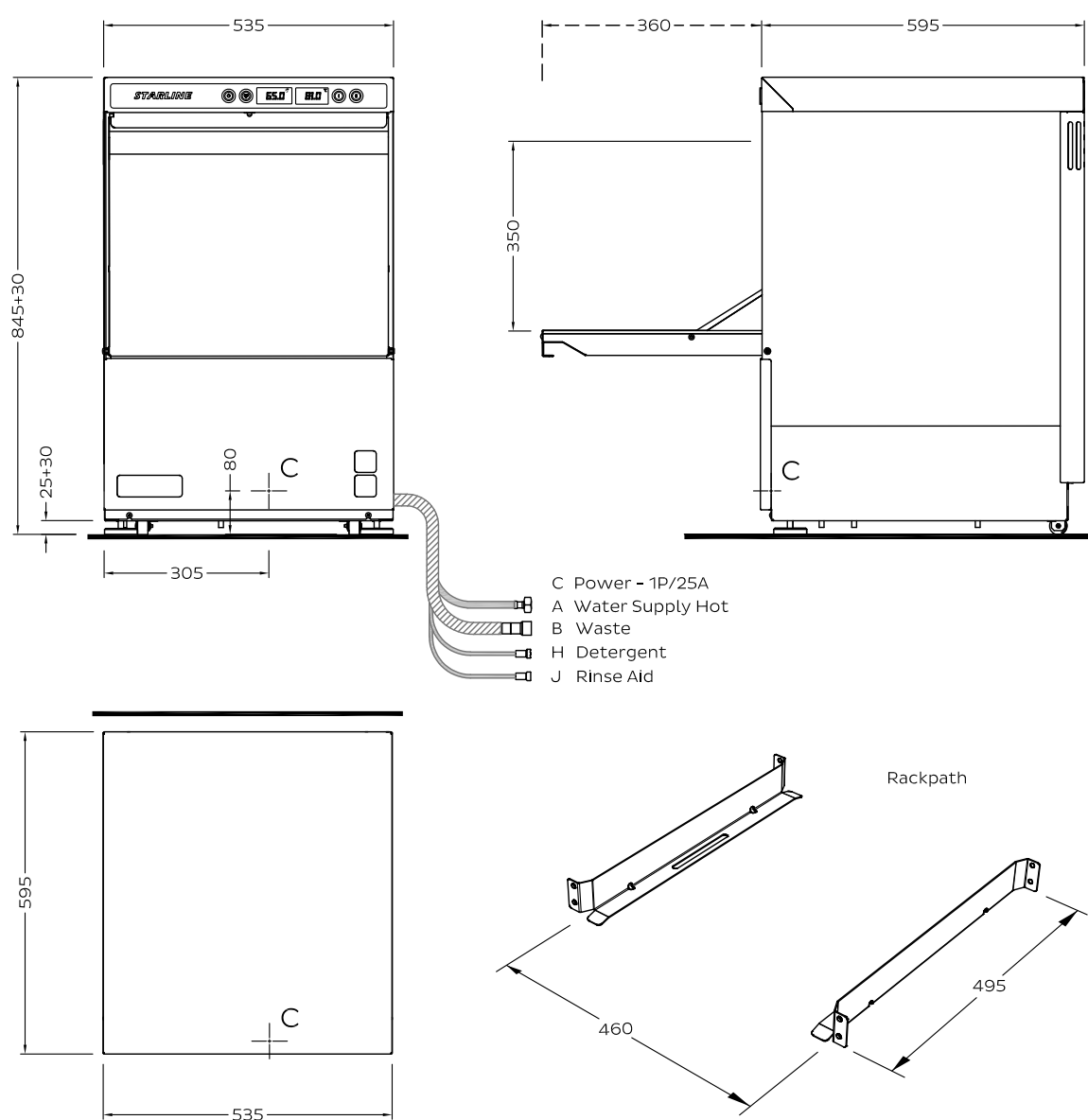
- Run several cycles, ensure that operator has read and understands instructions

## Troubleshooting Installation

- If machine doesn't fill after switching on power, check & ensure that hot water supply tap is open, water supply pressure is not below specification.

# GLV Installation Diagram

GLV-S INST 26-04-16 3 C



## Services

- A Hot water 65°C
- B Waste
- C Electrical connection

200-350 kPa  
Flexi hose supplied  
230, 50Hz, 1P-N+E~  
3/4"  
25mm  
25A

Note: Isolating switch must be within 1m of, and not directly behind the machine. Isolating water valve must be readily accessible

# GLV Operating Instructions



## Start

- Turn on at wall
- Ensure the Scrap Trays (2) and Filter (3) are in place
- Ensure the Upstand (1) is in place and shut door
- Press the Power button which will glow red, and the machine will fill automatically

## Operation

- Load rack into machine and shut door
- Select either Cycle 1 (60 seconds) or Cycle 2 (150 seconds) button to start a cycle
- Both Cycle buttons glow green while machine operates
- When Cycle lights go out, the cycle is complete

NOTE: The machine may be started while the rinse water is being heated – in this instance it will continue to run the wash cycle until the rinse water is up to 83 degrees

## Detergent & Rinse Aid

Detergent and rinse aid concentration can be changed using the adjusting screws on the front cover.

## Shut Down - Every Night

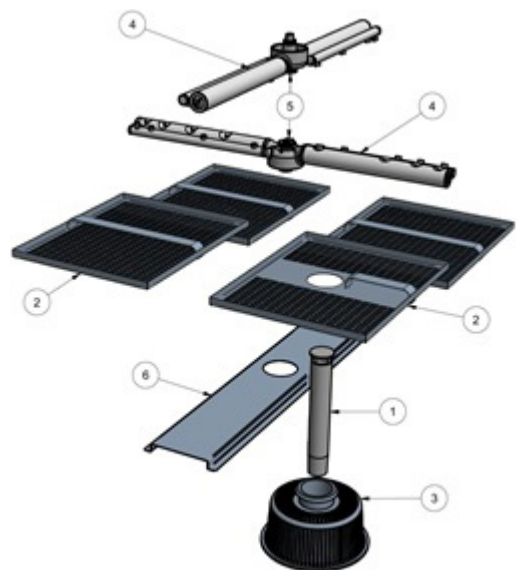
- Open the door and press the Drain button
- Remove Upstand (1) once the top of this is above the level of the water
- Allow to drain with the door open for approximately 1 minute or until the tank is empty
- Turn the Drain and then the Power buttons off
- Remove and rinse Scrap Trays (2) and Filter (3) before replacing back in machine along with the Upstand (1)

## Cleaning - At Least Once A Week

Remove, rinse and replace:

Upstand	1
Scrap Trays	2
Filter	3
Wash/rinse Arm	4
Thumbscrew	5
Scrap Tray Support	6

Inspect and clear all jets in the wash/rinse arms



## Suggested Best Practice

Pre-rinse      Scrape and/or rinse plates & glasses in cool water  
Chemical      Use good quality non foaming commercial detergent and drying agent. Do not

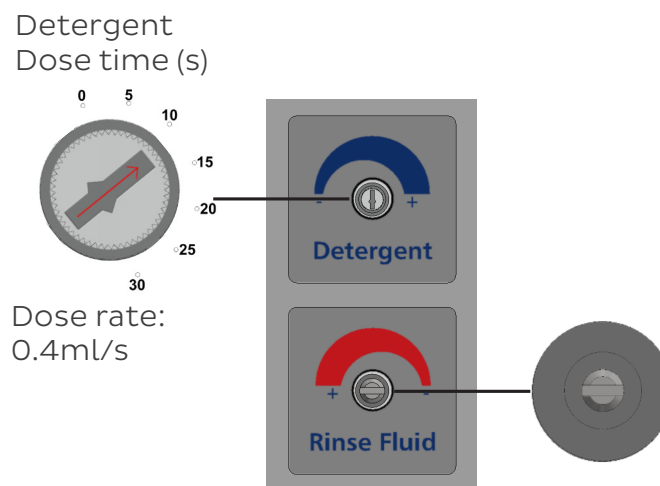


# Chemical Adjustment

## Chemical Pumps

This machine includes external adjustment ports for the detergent pump and rinse aid injector. These ports are clearly marked by new labels.

Chemical dosing times per cycle may now be adjusted by turning the dial on each pump with a screwdriver through the front panel.



### To reset to the factory default level of detergent:

Turn the dial anticlockwise as far as it will go using a small flat or philips screwdriver, then turn it back clockwise one quarter turn. This equates to a 12 second injection rate or a 4.8mL dose of detergent per cycle.

### To reset to the factory default level of rinse aid:

Turn the screw clockwise as far as it will go using a sturdy flat screwdriver, then turn it back anticlockwise 5 full turns. This equates to 1mL per cycle.

### To prime detergent:

Fill the machine, then drain and fill again. The detergent pump will operate during each fill cycle and will need a complete fill cycle to prime approximately 1.5m of the inlet line.

### To prime rinse aid:

First, fully unscrew the rinse aid adjustment screw anticlockwise. Press firmly on this screw and it will spring inwards. Repeat ~15 times to fully prime chemical (less if the inlet lines have been shortened), and then reset the adjustment to the factory setting as above.

NOTE: A wide range of commercial detergents are available and the effectiveness of these can be impacted by water quality, the operation of the dishwasher and how frequently it is cleaned. As such, fine tuning of the chemical dosage is generally required with the best person to assist being a chemical specialist.

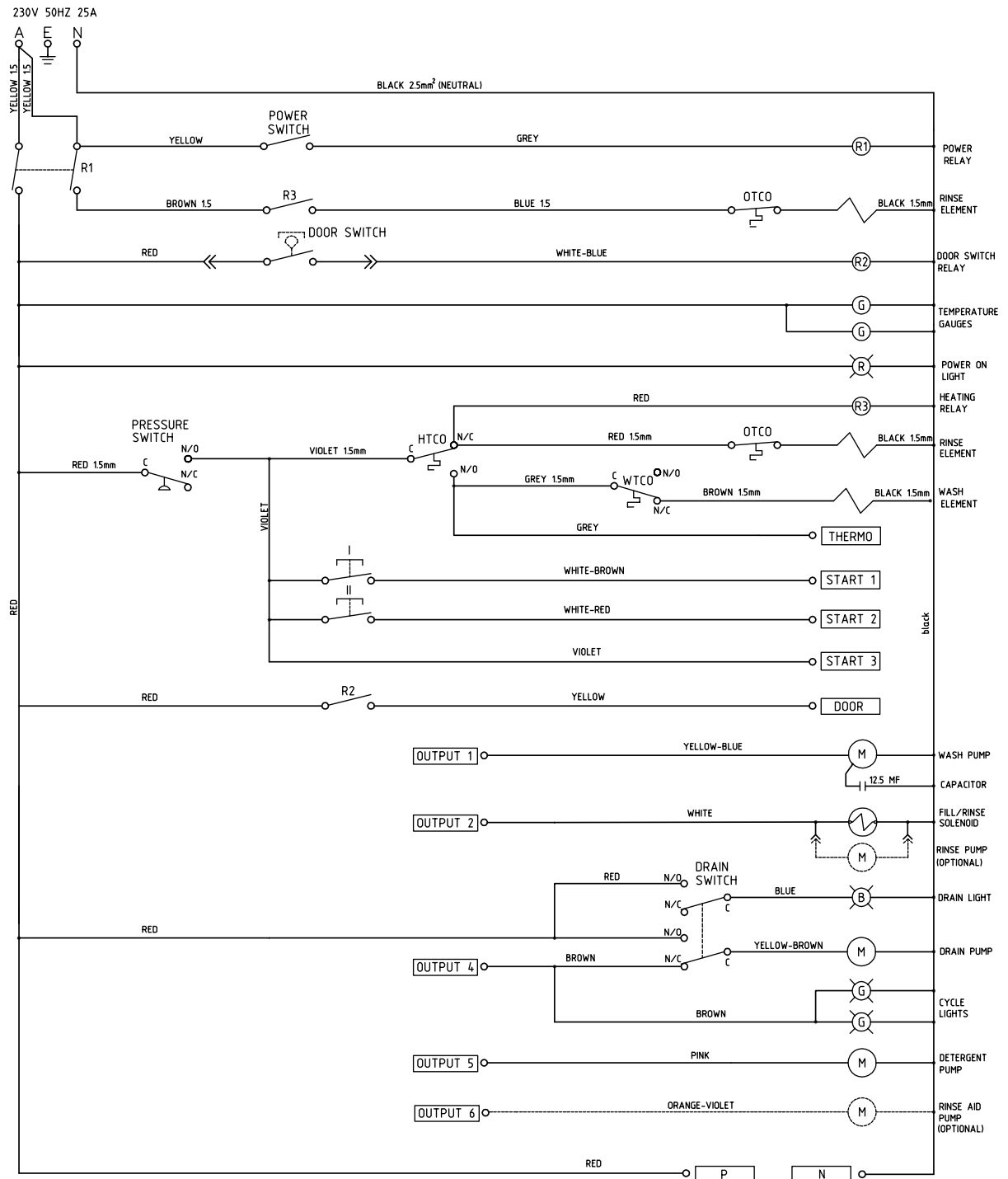
# Troubleshooting

<b>Fault</b>	<b>Cause</b>	<b>Remedy</b>
<b>Filling</b>		
Not filling	Water supply valve shut	Check Water supply valve
Filling during wash cycle	Door Switch not operating	Check Door is closed
	Upstand not fitted properly	Check Drain upstand is fitted
<b>Heating</b>		
Dishes not hot enough	Machine not rinsing	Check water supply temperature
	Rinsing but not hot	Check water supply temperature & arms spinning freely
<b>Cycle start</b>		
Does not start	Door switch	Check door is closed
<b>Cycle Finish</b>		
Wash too long	Water supply cold	Check water supply temperature
<b>Performance</b>		
Poor wash result	Detergent not used	Use quality low foam product
	Overloading racks	Do not overload racks
	Not pre-rinsing	Use Fisher pre-rinse
	Wash arms not rotating	Remove and clean arms/check bushes
	Wash jets blocked	Remove arms and clean jets
	Excessive soiling	Pre-rinse/use long cycle
Poor rinse results	Unrealistic expectation	E.g. baked on soiling requires pre-soaking
	Rinse jets blocked	Remove arms and clean jets
	Rinse arms not turning	Remove arms, clean jets, check bushes
	Poor racking procedures	Do not overload racks
Not drying	Excessive wash tank soil build up	Pre-rinse, change wash water regularly
	Poor wash/rinse performance	Refer above
	Low temperatures	Check heating systems
Foaming Wash	Drying agent not used	Use quality drying agent/rinse fluid
	Excessive Rinse Fluid	Adjust Rinse Fluid Injector

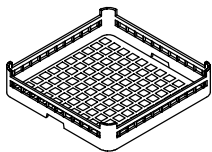


# GLV7 Schematic Diagram

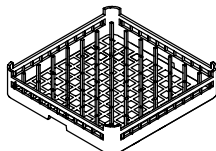
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# Accessories



**600 70080**  
**CUPRACK 450mm PLASTIC**



**600 70081**  
**DISHRACK 450mm PLASTIC**



**C660503**  
**CUTLERY CONTAINER G**



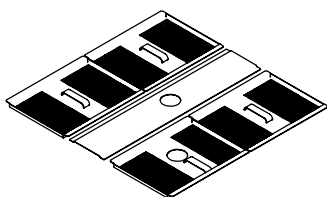
**600 60080**  
**HOSE SS 2M**



**C440201**  
**RUBBER FOOT D.60 X 10**



**600 41209**  
**FILTER**



**216 10006**  
**SCRAP TRAY**

**216 10009**  
**UPSTAND TRAY**

**216 20013**  
**BRACKET SCRAP TRAY CENTRAL**

# Warranty Conditions

**WASHTECH** warrants that new STARLINE products are free from defects in material or workmanship for a period of one year from the date of purchase.

## EXTENT OF WARRANTY

- Washtech shall repair or, at its discretion, replace any part of the machine found to be defective.
- The labour for the repairing or the replacement of defective parts shall be provided during normal office hours at no cost to the user.
- Washtech shall not otherwise be liable for any other loss or damage arising out of any person's use or inability to use the machine.
- Washtech shall not be liable for the cost of work done outside normal office hours, and for travel costs outside regional centres.
- Washtech shall not be liable for detergent related issues, including detergent pump adjustment or squeeze tube replacement, drain pump blockages and other related damages.

## CONDITIONS OF WARRANTY

This warranty shall not be binding on Washtech unless the warranty registration card is completed and received by Washtech within 30 days from the date of purchase

### **This warranty shall be void if:**

- The equipment has not been properly installed by an authorised Washtech Service Provider.
- Persons other than Washtech Service Providers have undertaken repairs or attempts at repair.
- The equipment has not been operated and maintained in accordance with the Operator Manual.
- Damage has resulted from shipment, handling, fire, water, accident, abuse, detergent equipment fitted by others or any other event beyond the control of Washtech.

Any defect must be notified to Washtech or its authorised dealer within 30 days of the discovery of the defect.

## IF YOU WISH TO MAKE A WARRANTY CLAIM

- First check the things you can do for yourself. Refer to the Operator Manual provided to ensure that the machine is correctly installed and that you are familiar with its operation. If a service technician calls and determines that the equipment is not defective you will be charged with the cost of the call-out.
- If you need service during the warranty period, first contact the dealer from whom you purchased the equipment. The Dealer will arrange service by Washtech or an authorised Starline Service Provider.
- If you have a problem contacting your dealer or if your dealer is unable to assist, then please contact the Service Department, Washtech, telephone 09 829 0923.
- When you write or call you will need to provide your name and address, the model and serial number (refer lower front cover) and the date of purchase so that your warranty claim may be validated.

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**WASHTECH®**

414 Rosebank Road  
Avondale  
Auckland 1026  
New Zealand

PO Box 90548, Auckland

24HR Service	0800 Starline
Tel	09 829 0930
Fax	09 829 0935
E-mail	<a href="mailto:info@washtech.co.nz">info@washtech.co.nz</a>
web	<a href="http://www.starline.co.nz">www.starline.co.nz</a>

#### ISO9001

All Washtech products are designed and  
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