INSTALLATION, OPERATION, AND SERVICE MANUAL

NOBLE C SERIES

C-44
C-54
C-66
C-76
C-80
C-90

REVISION HISTORY

Revision Letter	Revision Date	Made by	Applicable ECNs	Details
A	10-25-16	JH	N/A	Initial release of manual.
B	8-18-17	JH	8509	Updated manual to new format. Audited manual and made corrections throughout. Changed C-44/54 Drain Plumbing Assembly.
C	12-3-19	JH	QOF 18-022	Complete revision of manual. Added electrical requirements for available 380 V machines. Changed steam pressure to 10–30 PSI. Updated Item #7 on Motor page. Added 15 kW heater gasket on Heater page. Updated Item #11 on Curtains/Conveyor Switch page. Changed curtain rod P/N on pg. 79.
D	8-22-23	JH	22-1213 23-1736	Corrected dimensions on Side-loader Dimensions pgs. Updated motors and electrical information for 208, 230, and 460 60 Hz, 3-phase machines. Several P/N corrections throughout.

NOBLE WAREWASHING

C-44CE, C-54CE, C-66CE,
C-76CE, C-80CE, C-90CE

Electrically-heated rack conveyor machines, available in chemical-sanitizing and hot-water-sanitizing models.

C-44CS, C-54CS, C-66CS,
C-76CS, C-80CS, C-90CS

Steam-heated, hot-water-sanitizing rack conveyor machines.

The manufacturer provides technical support for all of the machines detailed in this manual. We strongly recommend that you refer to this manual before making a call to our technical support staff. Please have this manual open when you call so that our staff can refer you, if necessary, to the proper page. Technical support is not available on holidays.

Contact technical support toll free at 1-888-800-5672.

Technical support is available for service personnel only.

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PARTS

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- Risk of electrical shock


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ABBREVIATIONS & ACRONYMS

ANSI - American National Standards Institute
CFM - Cubic Feet per Minute
FPM - Feet per Minute
GHT - Garden Hose Thread
GPM - Gallons per Minute
GPG - Grains per Gallon
HP - Horse Power
Hz - Hertz
ID - Inside Diameter
in/lbs - Inch Pounds
kW - Kilowatts
NFPA - National Fire Protection Association
NPT - National Pipe Thread
PSI - Pounds per Square Inch
V - Volts

C-44 LEFT-TO-RIGHT

LEGEND

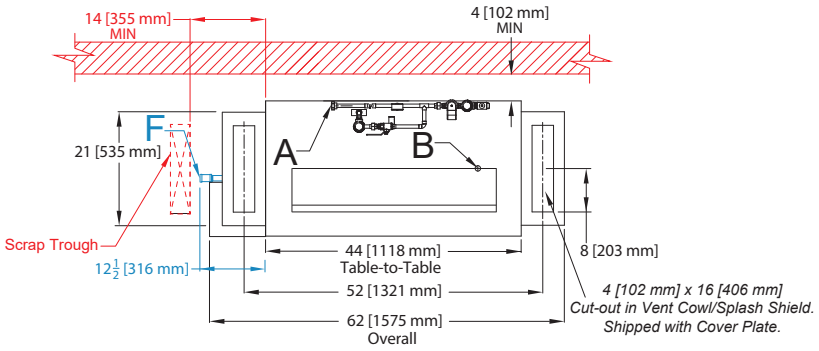
A - Main Water Inlet
(3/4" NPT, 180 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility)
(3/4" NPT, 110 °F)
M - Water Outlet to Machine
(3/4" NPT, 180 °F)

All dimensions from the floor can be increased 1" using the machine's adjustable feet.

Items in red are not supplied with the machine.

Items in blue are for the Steam option.

Top



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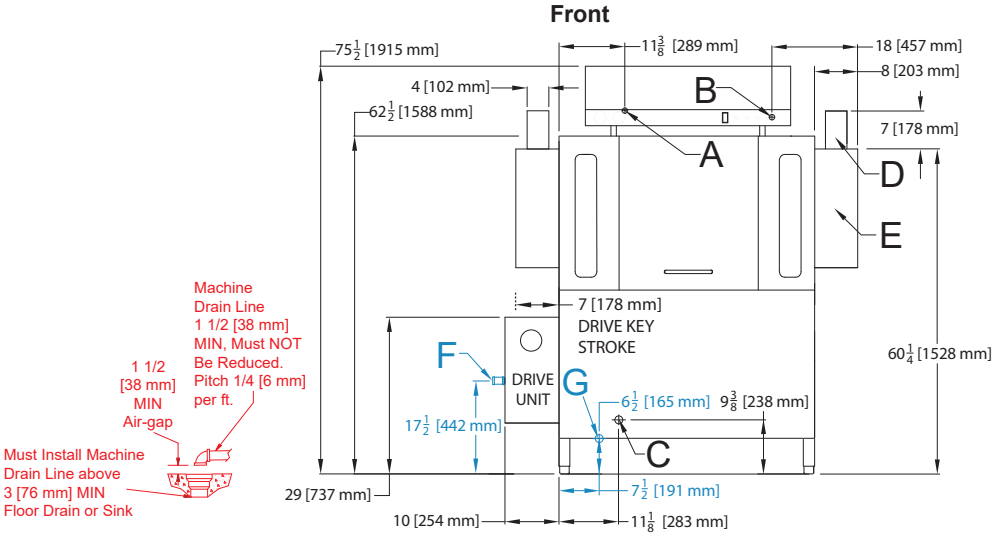

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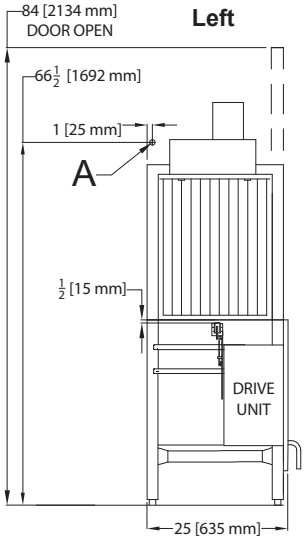

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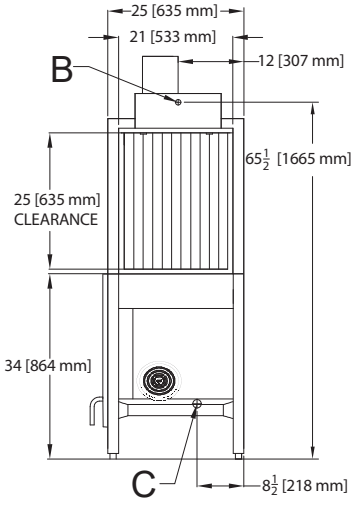

Steam Booster

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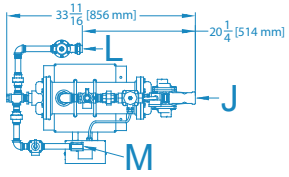

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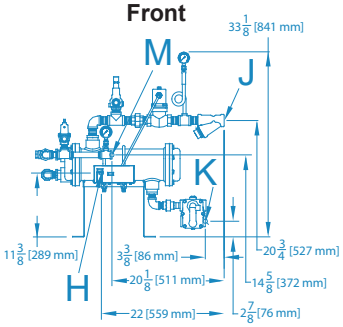

C-44 RIGHT-TO-LEFT

LEGEND

A - Main Water Inlet
(3/4" NPT, 180 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility) *(3/4" NPT, 110 °F)*
M - Water Outlet to Machine *(3/4" NPT, 180 °F)*

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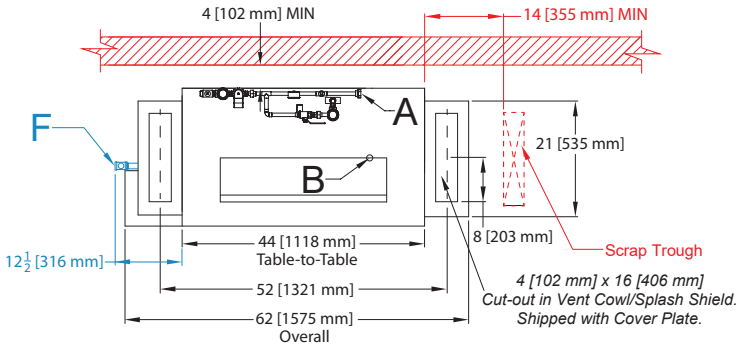

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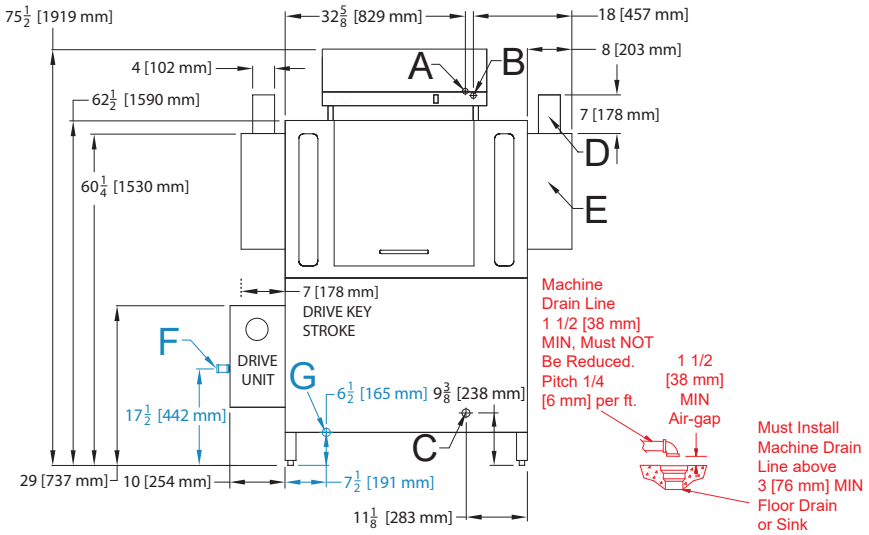

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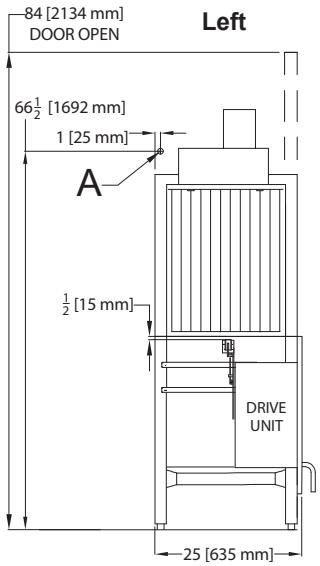

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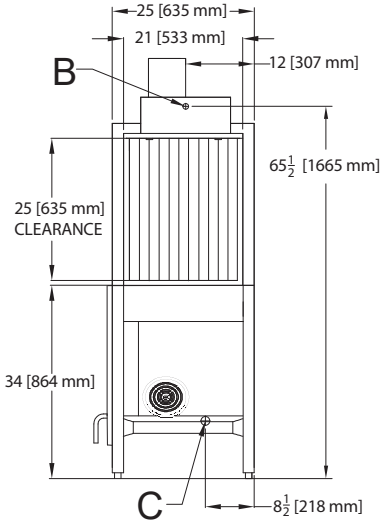

Steam Booster

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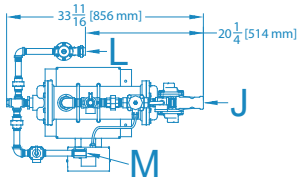

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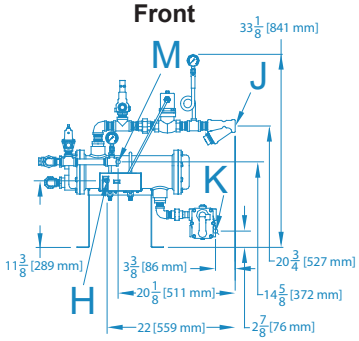

C-54 LEFT-TO-RIGHT

LEGEND

A - Main Water Inlet
(3/4" NPT, 180 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility)
(3/4" NPT, 110 °F)
M - Water Outlet to Machine
(3/4" NPT, 180 °F)

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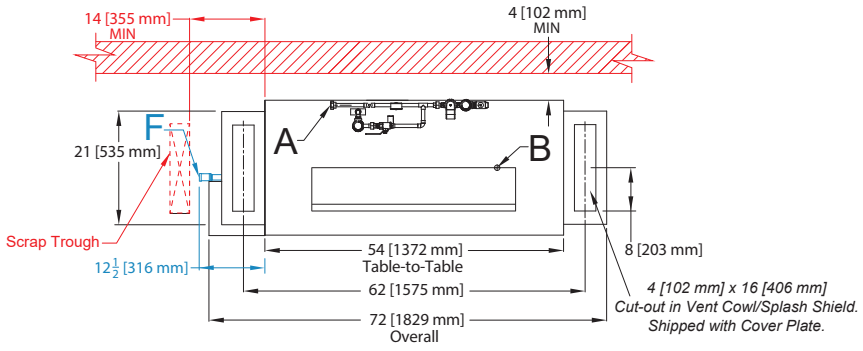

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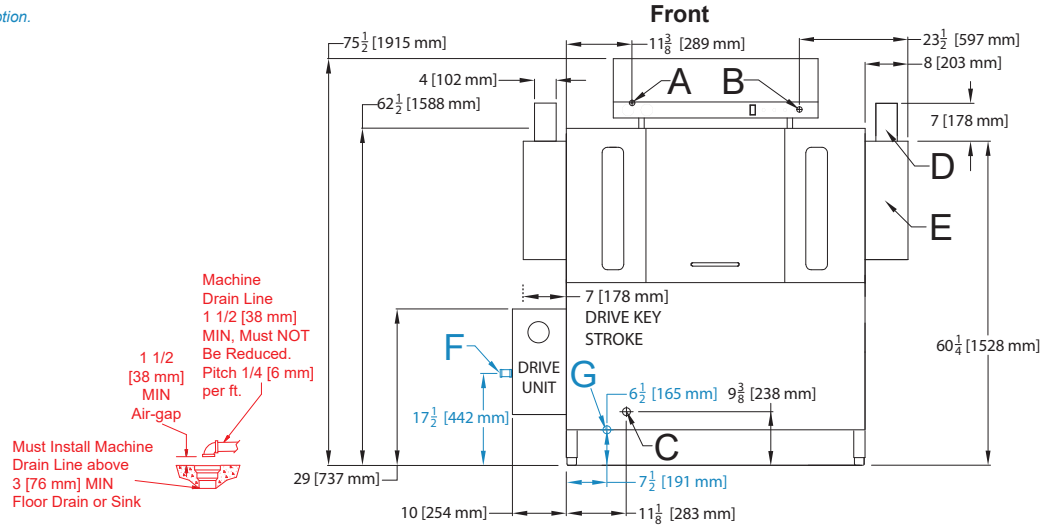

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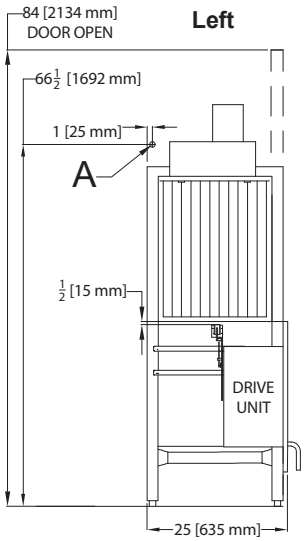

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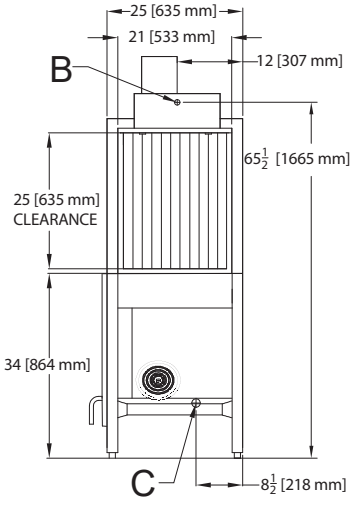

Steam Booster

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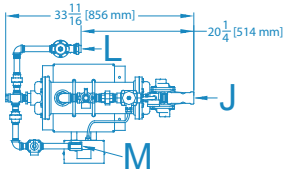

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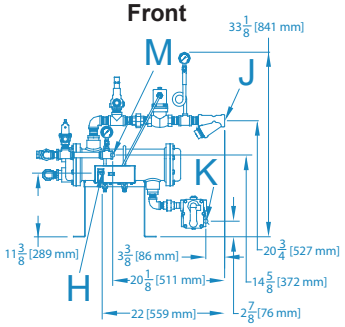

C-54 RIGHT-TO-LEFT

LEGEND

A - Main Water Inlet
(3/4" NPT, 180 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility) *(3/4" NPT, 110 °F)*
M - Water Outlet to Machine *(3/4" NPT, 180 °F)*

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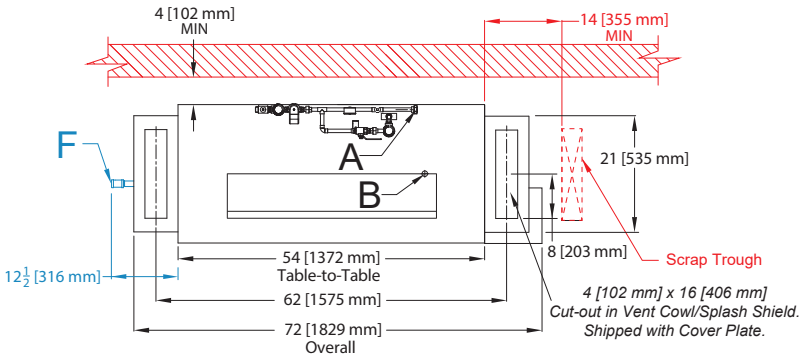
Top



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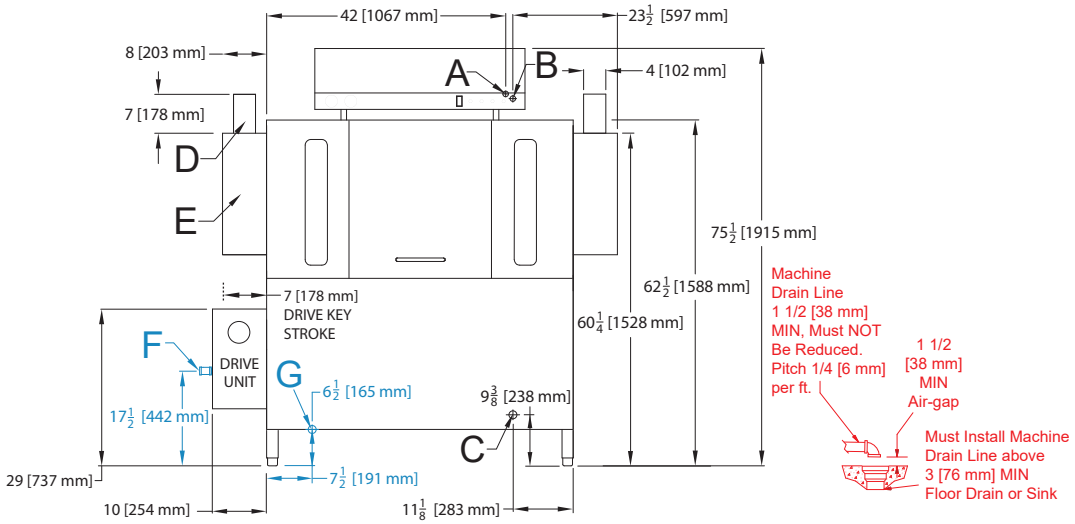

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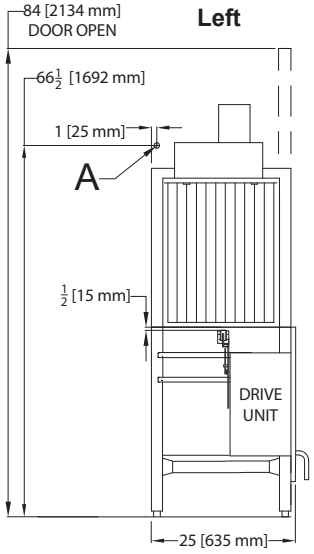

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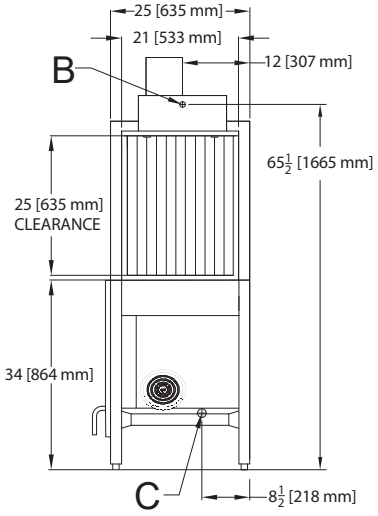

Steam Booster

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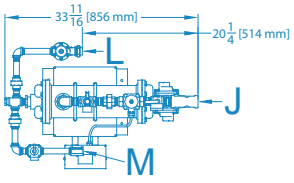

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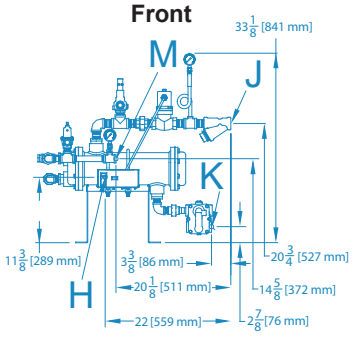

C-66 LEFT-TO-RIGHT

LEGEND

A - Water Inlet
(3/4" NPT, 110–140 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility) *(3/4" NPT, 110 °F)*
M - Water Outlet to Machine *(3/4" NPT, 180 °F)*
N - Pre-wash Water Inlet *(3/4" NPT, 110–140 °F)*
P - Cold Water Thermostat - Optional *(3/4" NPT)*

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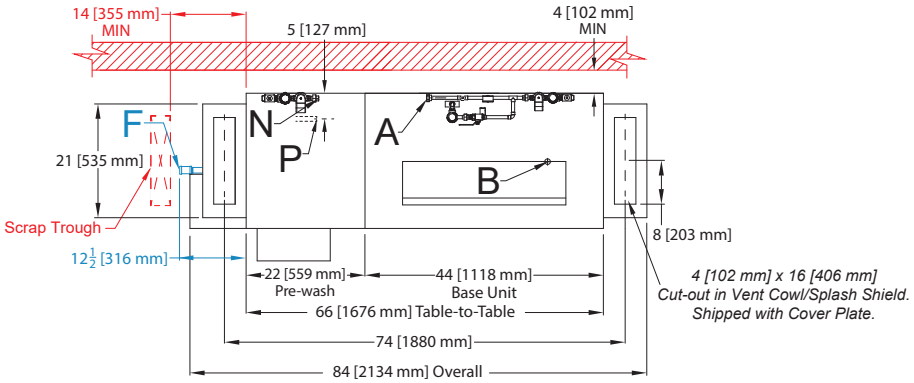
Top



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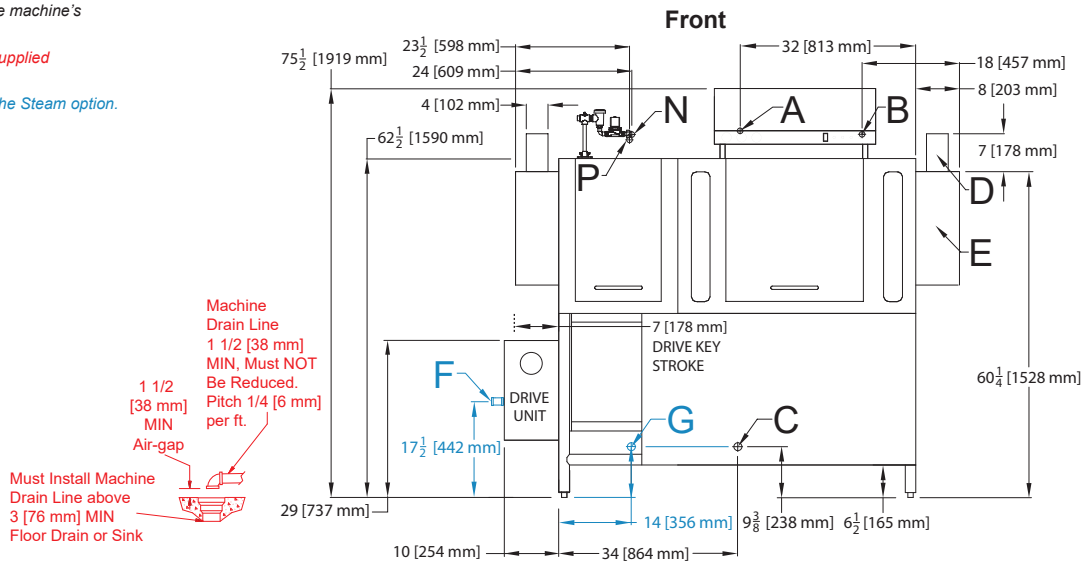

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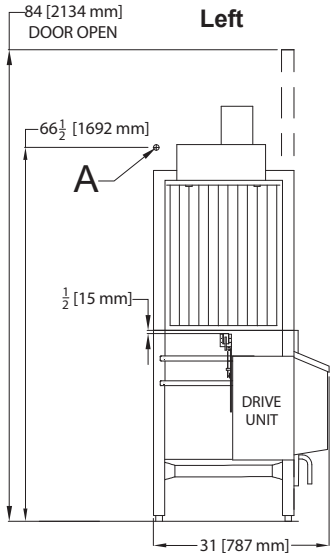

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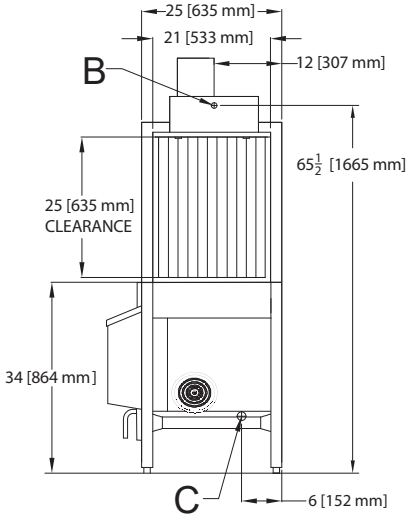
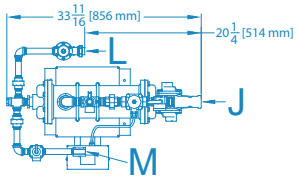


Steam Booster

Top



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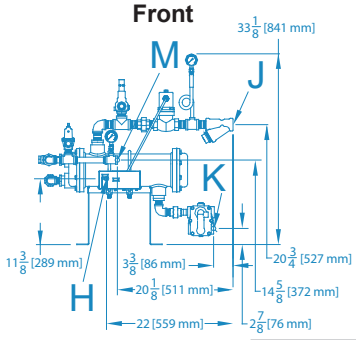

C-66 RIGHT-TO-LEFT

LEGEND

A - Water Inlet
(3/4" NPT, 110–140 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility) *(3/4" NPT, 110 °F)*
M - Water Outlet to Machine *(3/4" NPT, 180 °F)*
N - Pre-wash Water Inlet *(3/4" NPT, 110–140 °F)*
P - Cold Water Thermostat - Optional *(3/4" NPT)*

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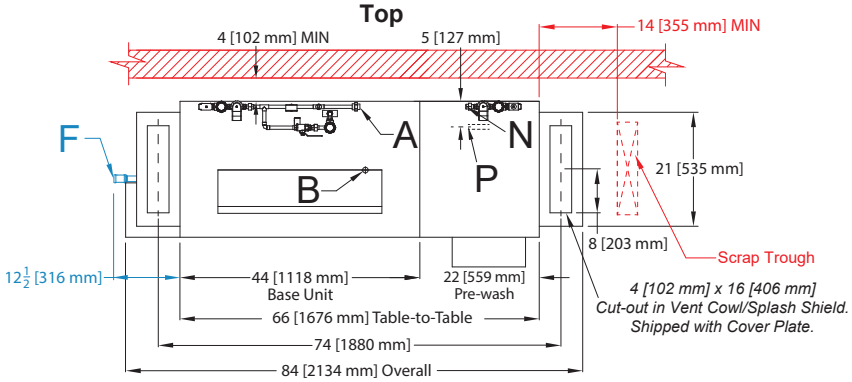
Top



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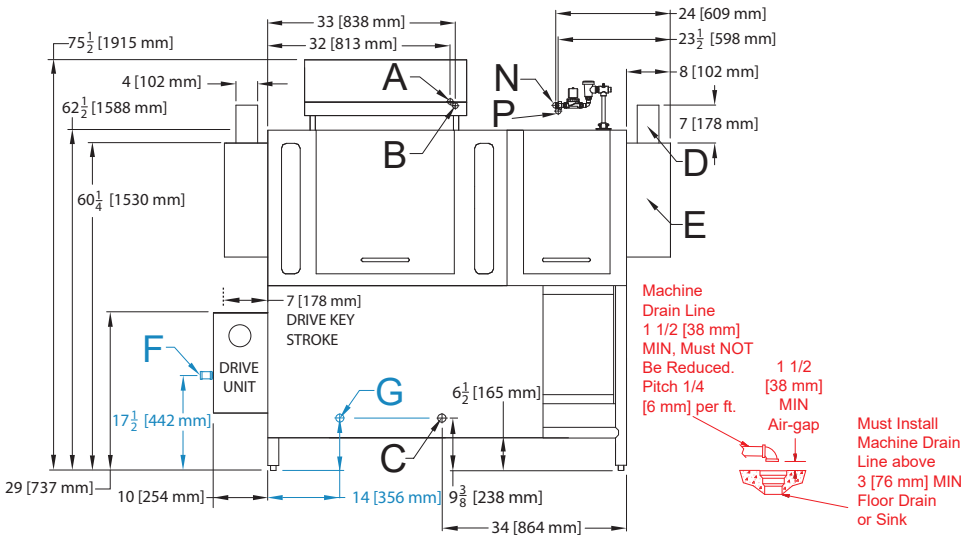

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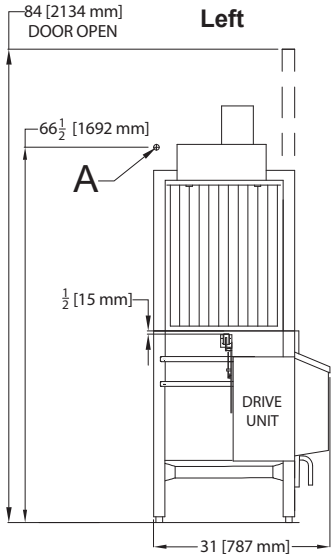

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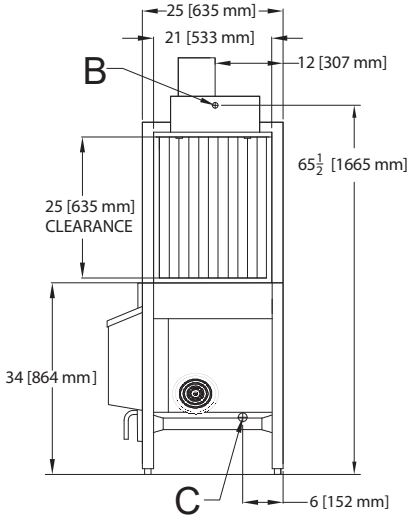
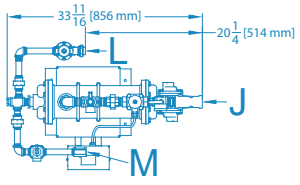


Steam Booster

Top



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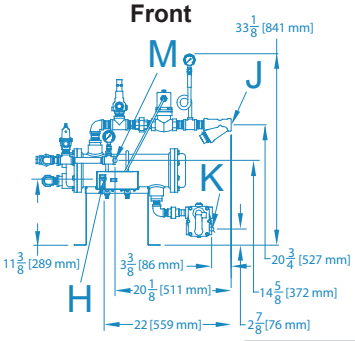

MACHINE DIMENSIONS

C-76 LEFT-TO-RIGHT

LEGEND

A - Water Inlet
(3/4" NPT, 110–140 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility) *(3/4" NPT, 110 °F)*
M - Water Outlet to Machine *(3/4" NPT, 180 °F)*
N - Pre-wash Water Inlet *(3/4" NPT, 110–140 °F)*
P - Cold Water Thermostat - Optional *(3/4" NPT)*

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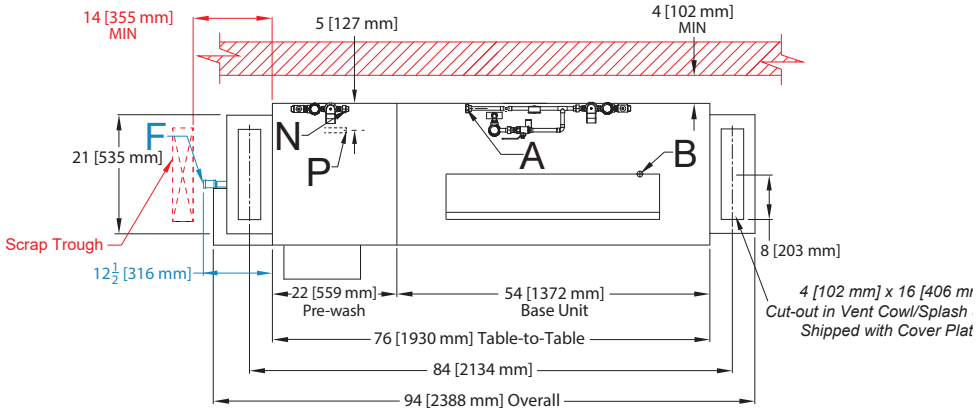

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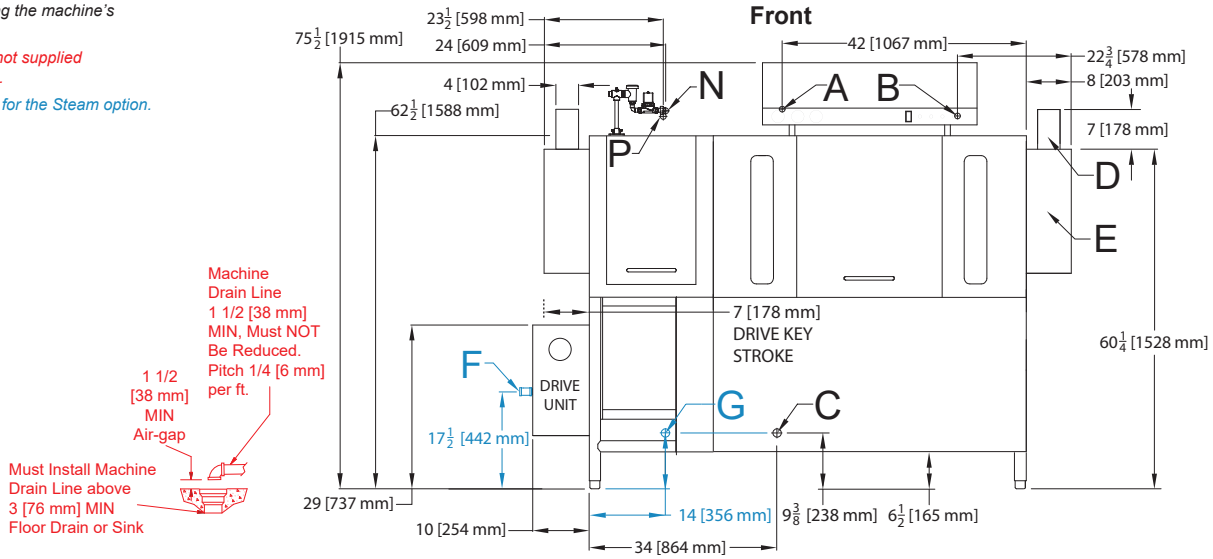

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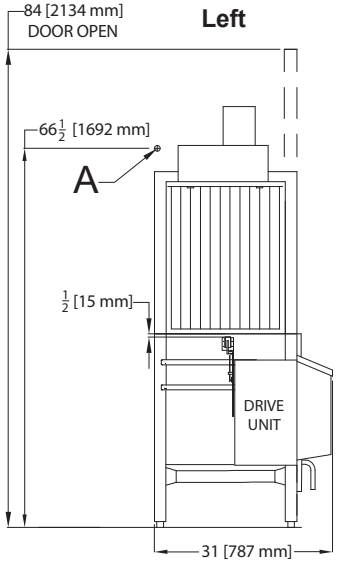

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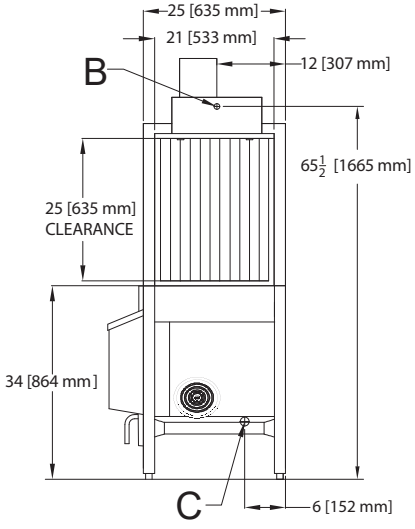
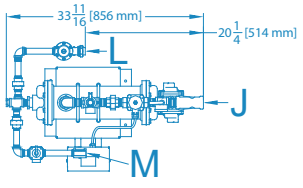


Steam Booster

Top



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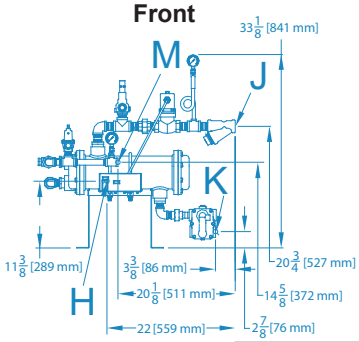


C-76 RIGHT-TO-LEFT

LEGEND

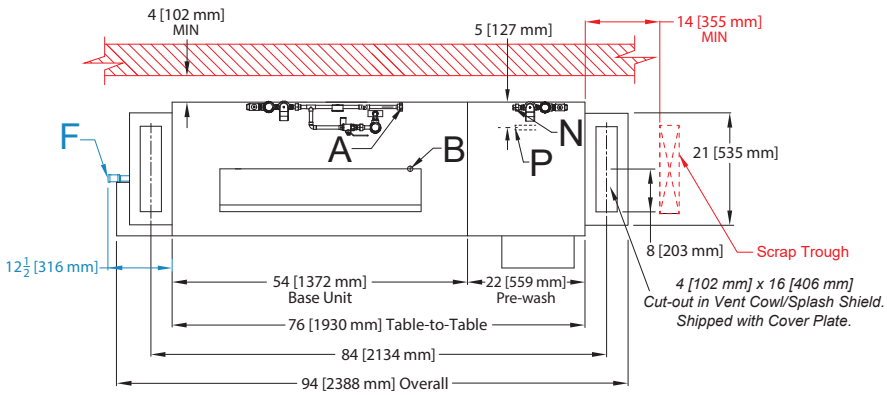
A - Water Inlet
(3/4" NPT, 110–140 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility) *(3/4" NPT, 110 °F)*
M - Water Outlet to Machine *(3/4" NPT, 180 °F)*
N - Pre-wash Water Inlet *(3/4" NPT, 110–140 °F)*
P - Cold Water Thermostat - Optional *(3/4" NPT)*

All dimensions from the floor can be increased 1" using the machine's adjustable feet.

Items in red are not supplied with the machine.

Items in blue are for the Steam option.

Top



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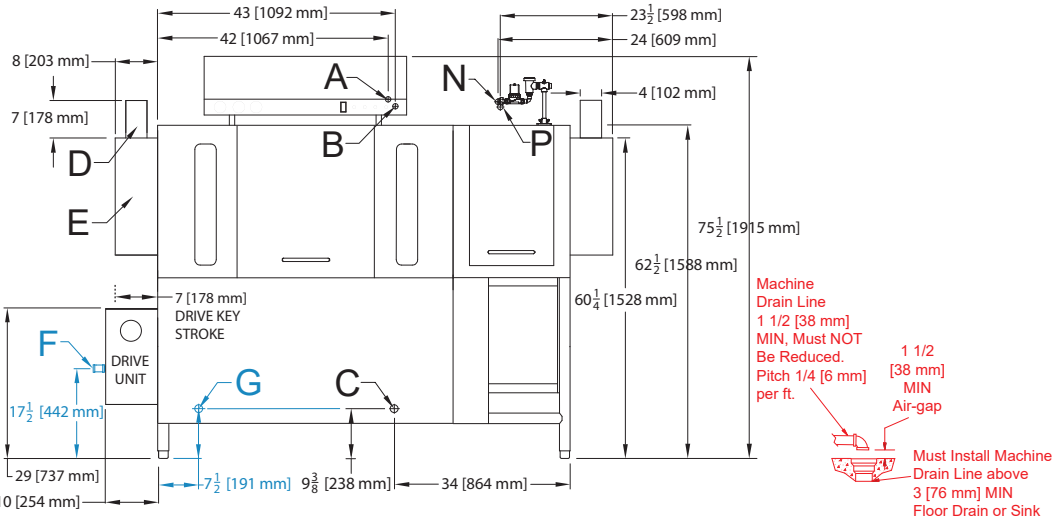

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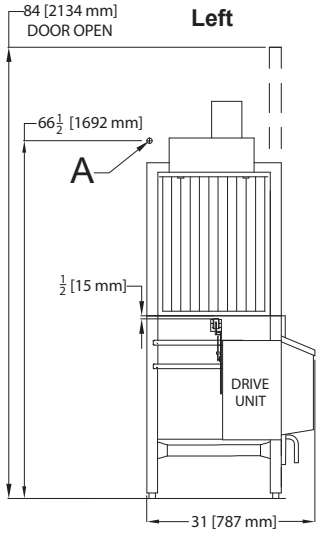

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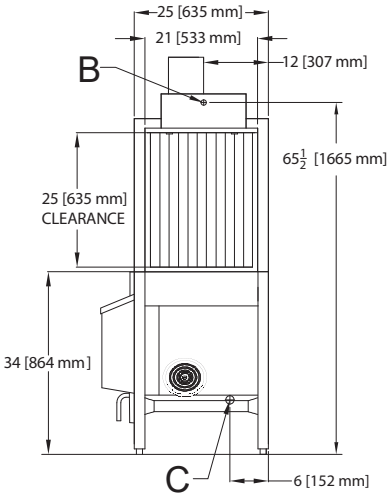
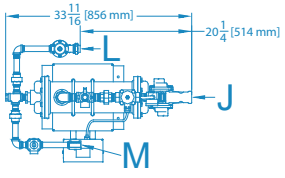


Steam Booster

Top



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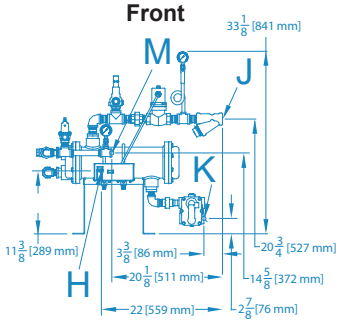


C-80 LEFT-TO-RIGHT

LEGEND

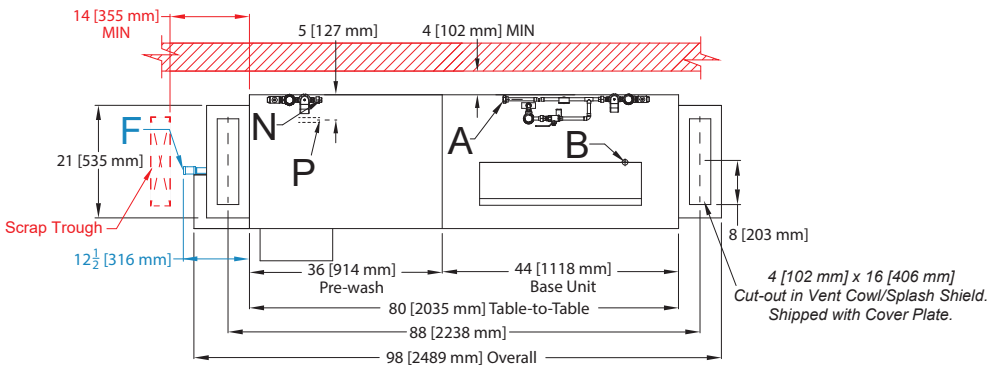
A - Water Inlet
(3/4" NPT, 110–140 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility) *(3/4" NPT, 110 °F)*
M - Water Outlet to Machine *(3/4" NPT, 180 °F)*
N - Pre-wash Water Inlet *(3/4" NPT, 110–140 °F)*
P - Cold Water Thermostat - Optional *(3/4" NPT)*

All dimensions from the floor can be increased 1" using the machine's adjustable feet.

Items in red are not supplied with the machine.

Items in blue are for the Steam option.

Top



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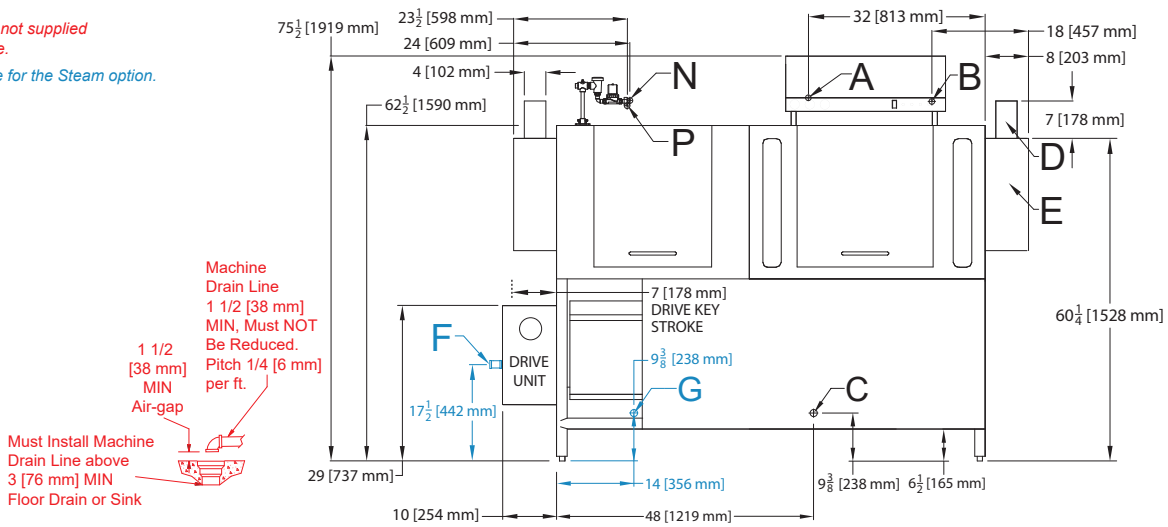

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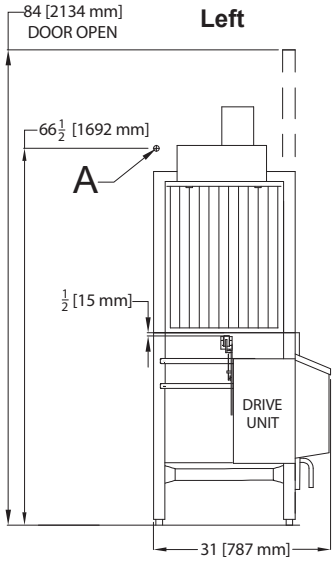

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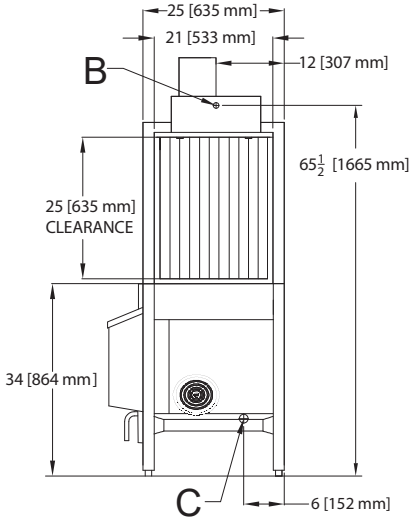
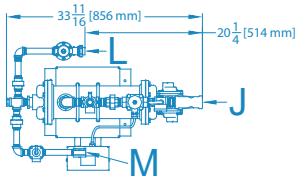


Steam Booster

Top



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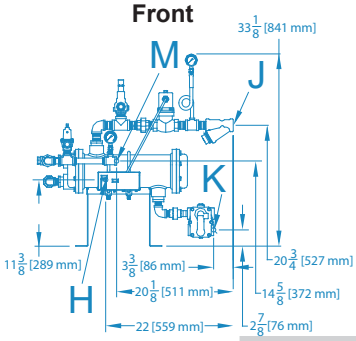

C-80 RIGHT-TO-LEFT

LEGEND

A - Water Inlet
(3/4" NPT, 110–140 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
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N - Pre-wash Water Inlet *(3/4" NPT, 110–140 °F)*
P - Cold Water Thermostat - Optional *(3/4" NPT)*

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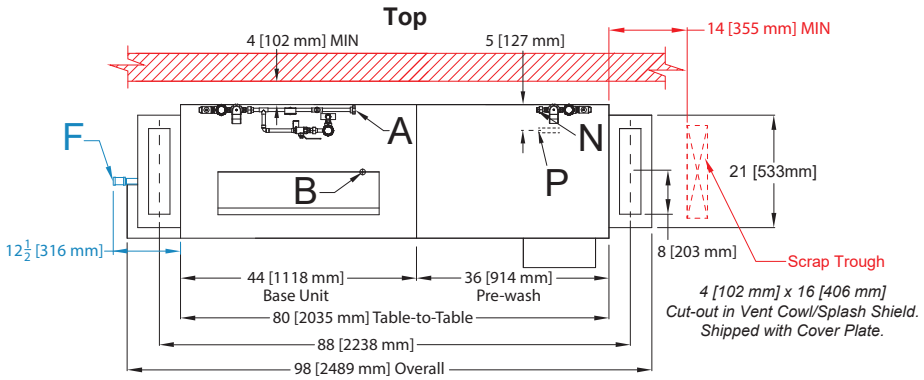
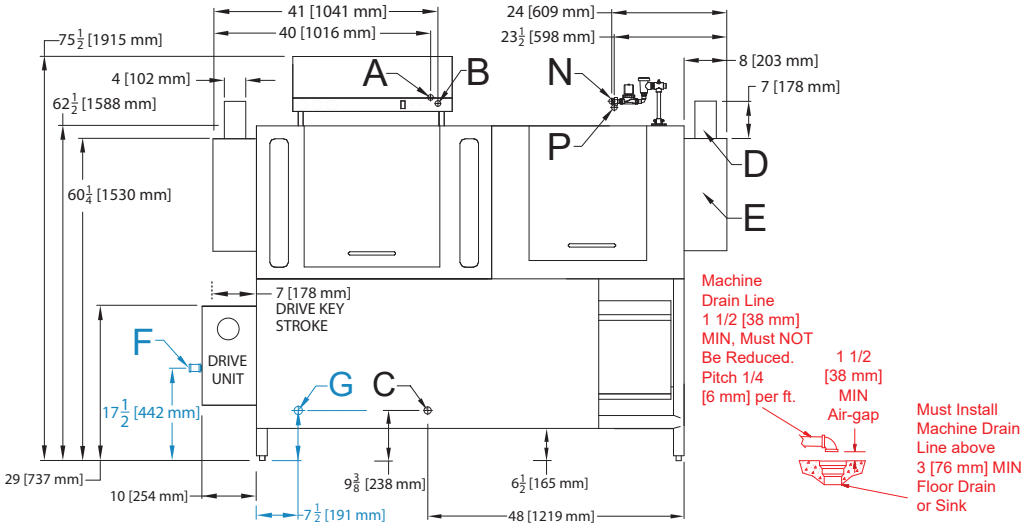
Top



4 [102 mm] x 16 [406 mm] Cut-out in Vent Cowl/Splash Shield. Shipped with Cover Plate.

Front



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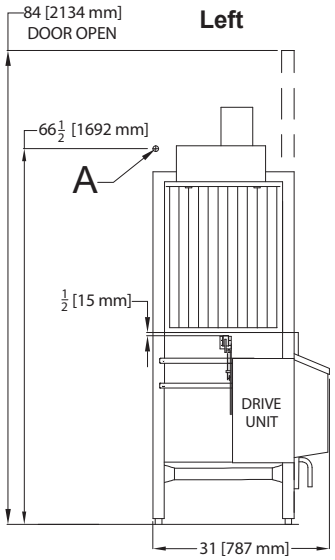

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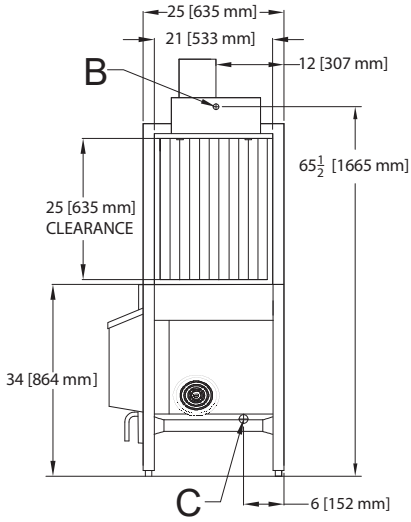
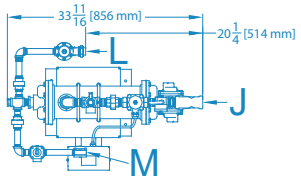


Steam Booster

Top



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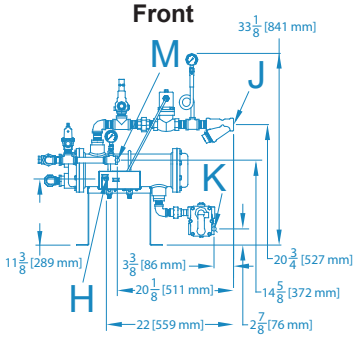

C-90 LEFT-TO-RIGHT

LEGEND

A - Water Inlet
(3/4" NPT, 110–140 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility) *(3/4" NPT, 110 °F)*
M - Water Outlet to Machine *(3/4" NPT, 180 °F)*
N - Pre-wash Water Inlet *(3/4" NPT, 110–140 °F)*
P - Cold Water Thermostat - Optional *(3/4" NPT)*

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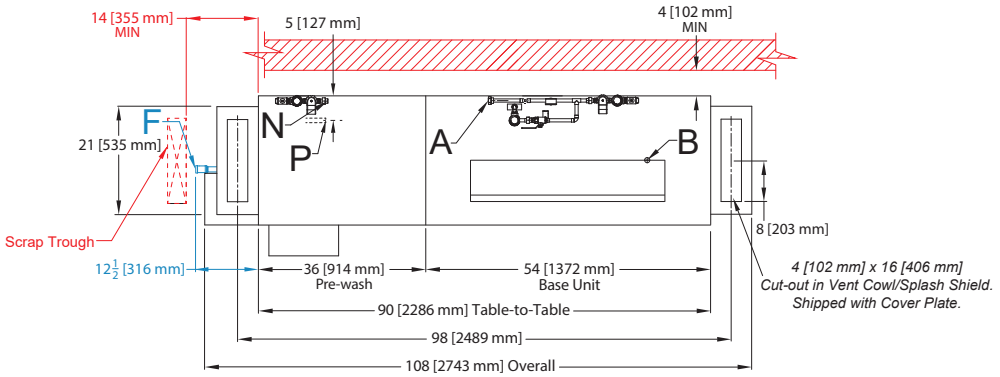
Top



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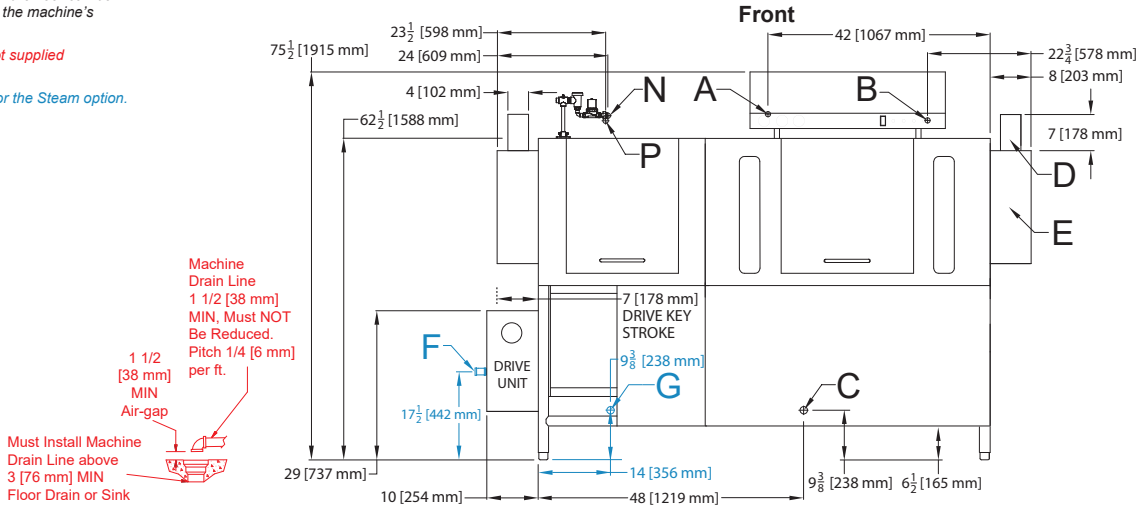

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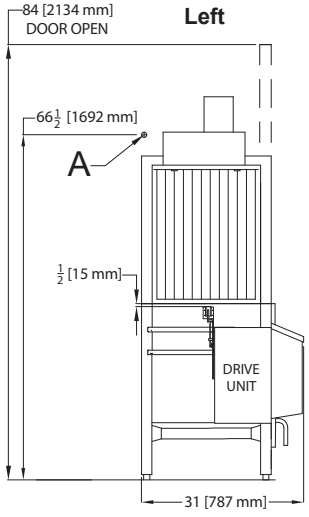

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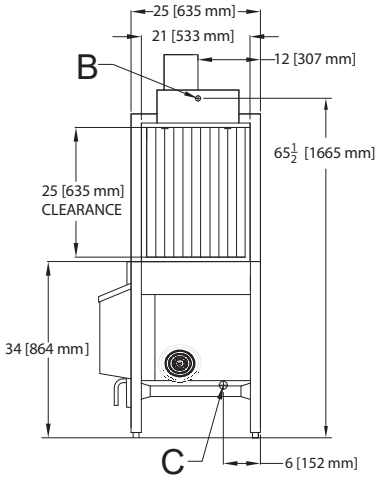
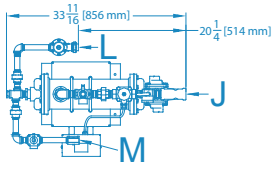


Steam Booster

Top



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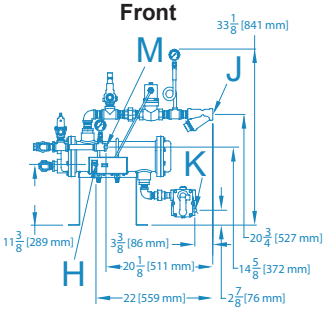


C-90 RIGHT-TO-LEFT

LEGEND

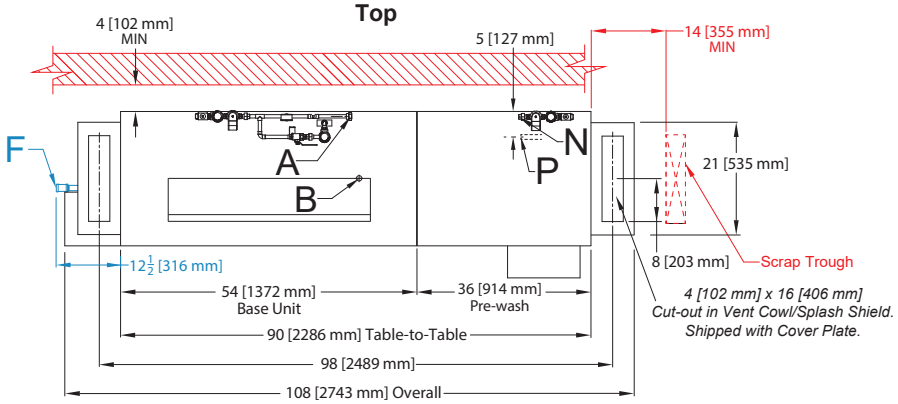
A - Water Inlet
(3/4" NPT, 110–140 °F MIN)
B - Electrical Connection
C - Drain Connection *(1 1/2" NPT)*
D - Vent Collar - Optional
E - Vent Cowl - Standard
F - Machine Steam Inlet *(3/4" NPT)*
G - Condensate Return *(3/4" NPT)*
H - Steam Booster Electrical Connection *(7/8" Hole)*
J - Booster Steam Inlet *(1" NPT)*
K - Condensate Connection *(3/4" NPT)*
L - Water Inlet for Booster (from Facility) *(3/4" NPT, 110 °F)*
M - Water Outlet to Machine *(3/4" NPT, 180 °F)*
N - Pre-wash Water Inlet *(3/4" NPT, 110–140 °F)*
P - Cold Water Thermostat - Optional *(3/4" NPT)*

All dimensions from the floor can be increased 1" using the machine's adjustable feet.

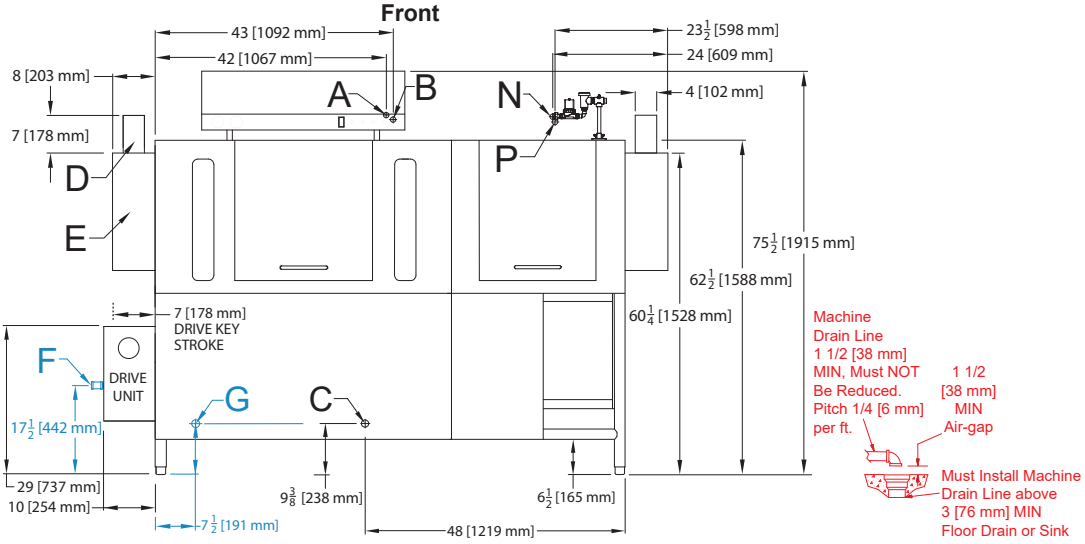
Items in red are not supplied with the machine.

Items in blue are for the Steam option.

Top



Front



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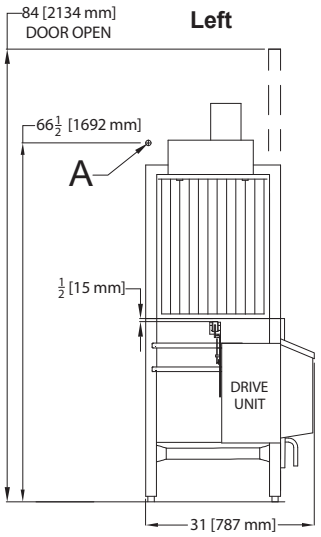

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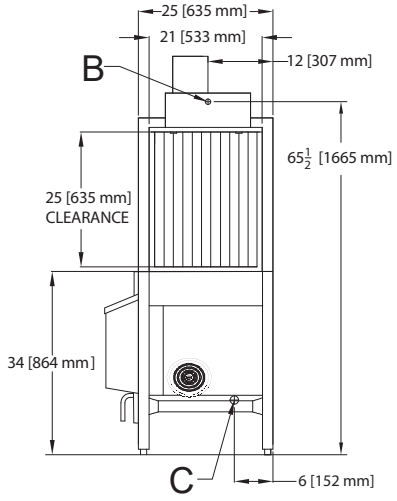
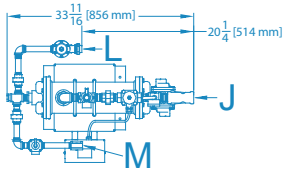


Steam Booster

Top



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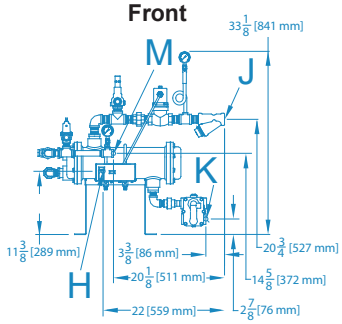
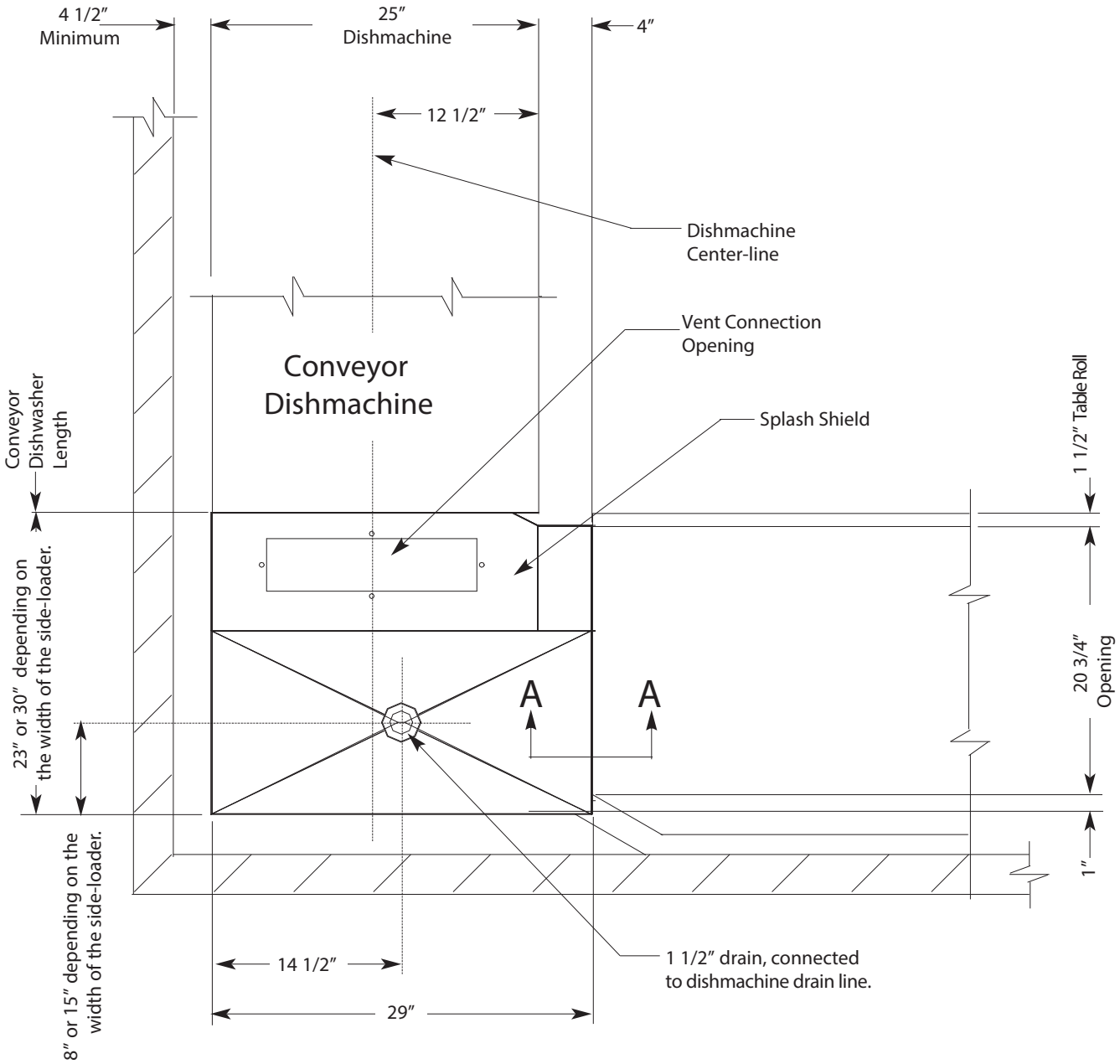
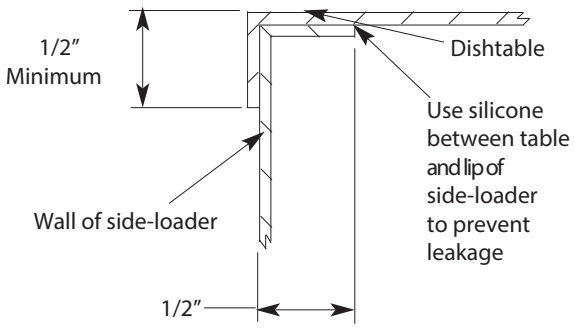


SIDE-LOADER LEFT-TO-RIGHT

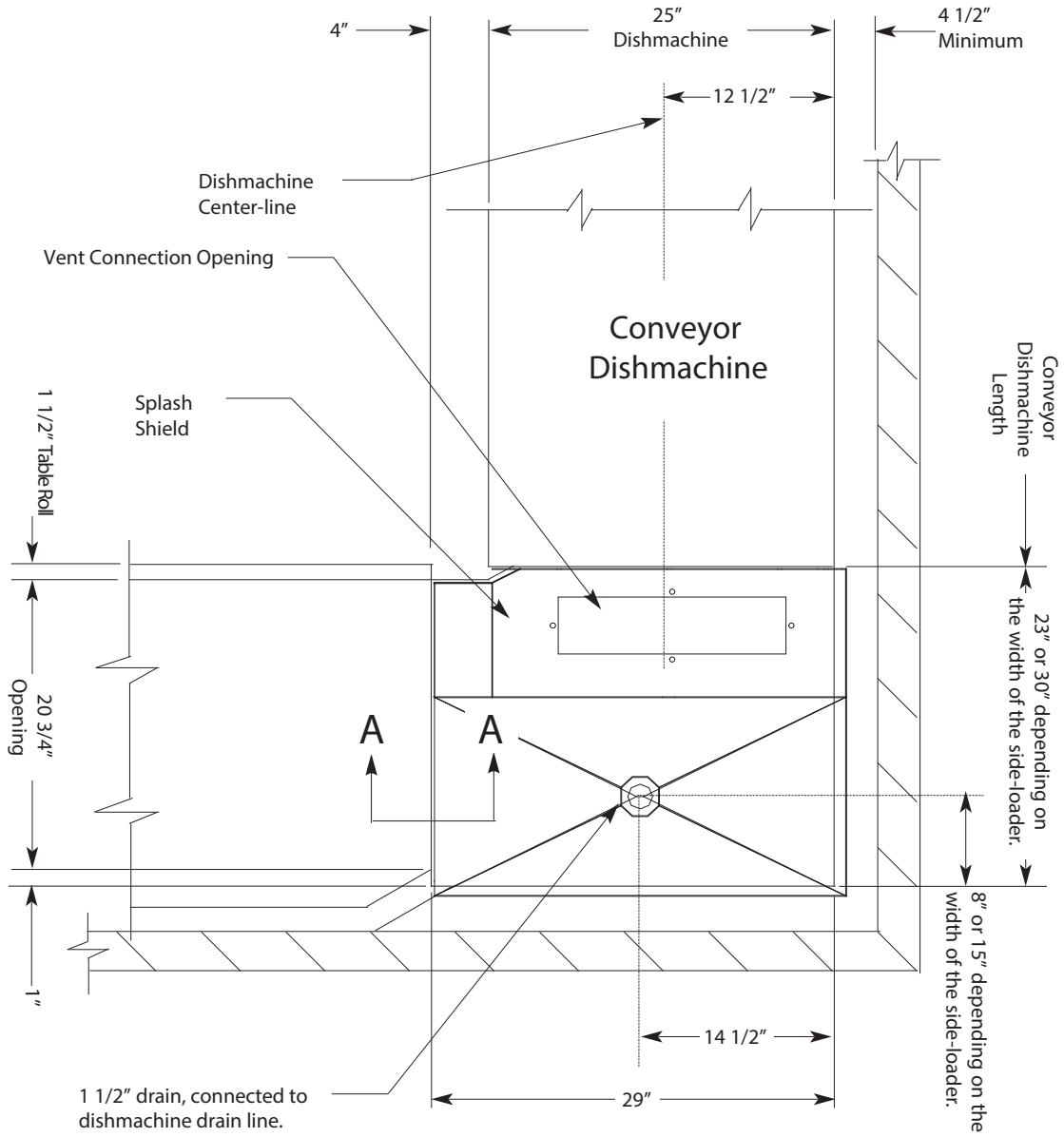


Section A-A

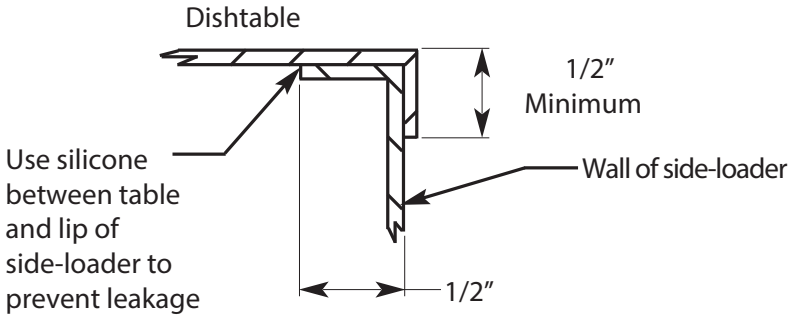


SIDE-LOADER DIMENSIONS

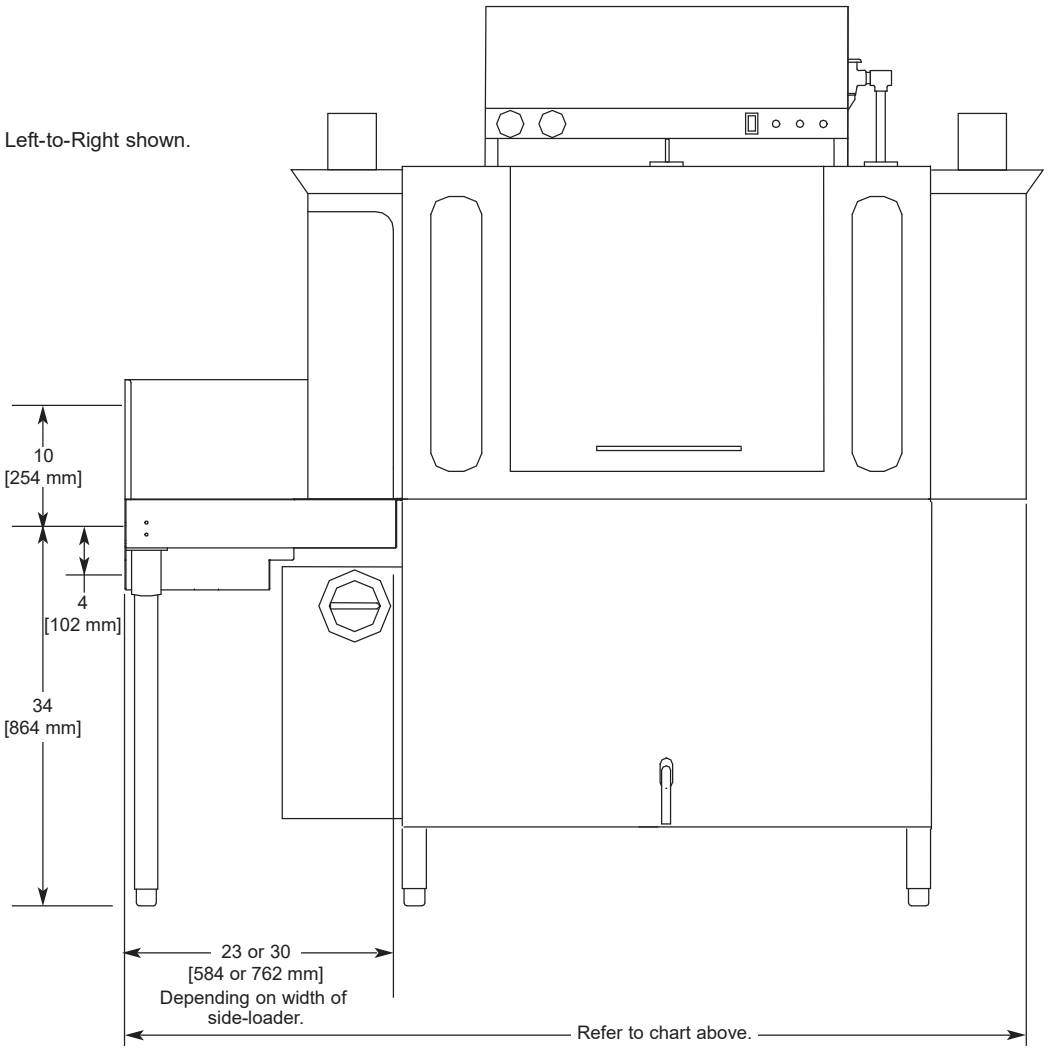
SIDE-LOADER RIGHT-TO-LEFT

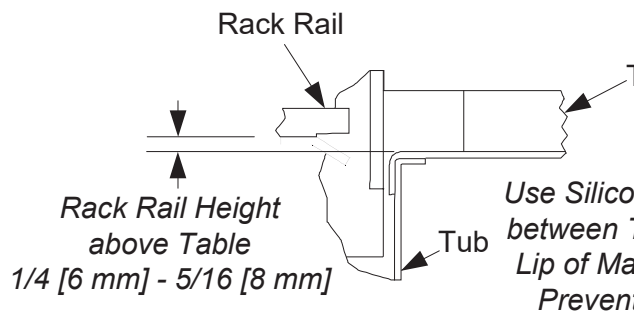


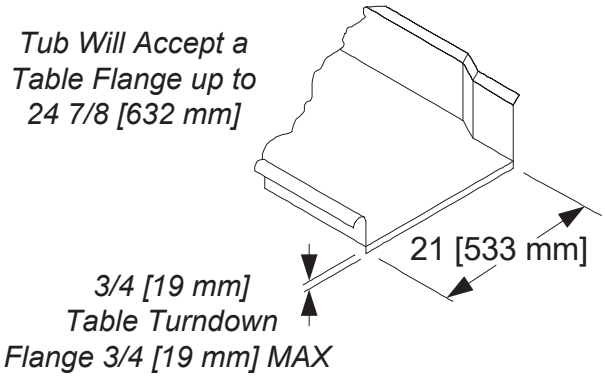
Section A-A



23" SIDE-LOADER DIMENSIONS		30" SIDE-LOADER DIMENSIONS	
MODEL	DIMENSIONS	MODEL	DIMENSIONS
AJX-44	75"	AJX-44	82"
AJX-66	97"	AJX-66	104"
AJX-80	111"	AJX-80	118"







OPERATING SPECIFICATIONS

High-temp	
Racks per Hour	225
Dishes per Hour	5625
Glasses per Hour	8100
Low-temp	
Racks per Hour	209
Dishes per Hour	5225
Glasses per Hour	7524
Pre-wash	
Tank Capacity (Gallons)	17.25
Pump Capacity, C-66/76 (GPM)	120
Pump Capacity, C-80/90 (GPM)	270
Wash	
Tank Capacity (Gallons)	20.4
Pump Capacity, All Models (GPM)	270
Ventilation Requirements (CFM)	
Input End	200
Output End	400
Total	600
Steam Requirements	
Steam Connection (NPT)	3/4"
Steam Flow Pressure (PSI)	10-30
Consumption at 15 PSI (lbs/hr)	60
Conveyor Speed (FPM)	
High-temp	6.2
Low-temp	5.75
Gallons per Rack	
High-temp	0.68
Low-temp	0.78
Motor Characteristics	
Drive Motor (HP)	1/4
Wash Motor (HP)	2
Pre-wash Motor, C-66/76 (HP)	1
Pre-wash Motor, C-80/90 (HP)	2

WATER REQUIREMENTS

High-temp	
Minimum Wash Temperature (°F/°C)	160/71
Minimum Rinse Temperature (°F/°C)	180/82
Pre-wash Temperature (°F/°C)	110-140/43-60
Flow Pressure (PSI)	15
Flow Rate (GPM)	2.57
Water Line Size (NPT)	1/2”
Drain Line Size (NPT)	1 1/2”
Low-temp	
Minimum Wash Temperature (°F/°C)	140/60
Minimum Rinse Temperature (°F/°C)	140/60
Pre-wash Temperature (°F/°C)	110-140/43-60
Flow Pressure (PSI)	15
Flow Rate (GPM)	2.74
Water Line Size (NPT)	1/2”
Drain Line Size (NPT)	1 1/2”
Minimum Chlorine Required (PPM)	50

NOTICE

Always refer to machine data plate for specific electrical and water requirements. Material provided on this page is for reference only and is subject to change without notice.

ELECTRICAL REQUIREMENTS

All electrical ratings provided in this manual are for reference only. Always refer to machine data plate to get exact electrical information for this machine. **All electrical work performed on machines should be done in accordance with applicable local, state, territorial, and national codes**. Work should only be performed by qualified electricians and authorized service agents.

Amperage loads for machine motors and heaters are listed on the data plate. If machine is equipped with a third-party booster heater, note booster heater has its own electrical connection and requires a separate service (consult booster manufacturer).

Available Electrical Characteristics:

- 208 V, 60 Hz, Single-phase
- 230 V, 60 Hz, Single-phase
- 208 V, 60 Hz, Three-phase
- 230 V, 60 Hz, Three-phase
- 380 V, 50 Hz, Three-phase
- 460 V, 60 Hz, Three-phase

Available Wash Tank Heaters:

- 18 kW

Available Booster Heaters:

- Third-party External Boosters

ELECTRICAL REQUIREMENTS

NOTICE *Local codes may require more stringent protection than what is displayed here and on data plate. Always verify with electrical service contractor that circuit protection is adequate and meets all applicable national and local codes. Numbers in this manual are for reference and may change without notice.*

NOTICE *On three-phase machines, imbalanced wild leg goes to L3. Also see Motor Rotation section.*

NOTICE *Information below is for machine components only. If using a third-party external booster, consult booster manufacturer for booster information. For steam booster information, see Steam Line Connections section.*

C-44/54CE

Volts	Phase	Freq	Wash Motor	Drive Motor	Wash Heater	Total Load	MCA	MOP
208	1	60 Hz	8.7 A	1.8 A	86.5 A	97.0 A	99.2 A	105 A
230	1	60 Hz	9.6 A	1.8 A	71.9 A	83.3 A	85.7 A	95 A
208	3	60 Hz	6.3 A	1.2 A	50.0 A	57.5 A	59.0 A	65 A
230	3	60 Hz	6.1 A	1.1 A	41.5 A	48.7 A	50.2 A	55 A
380	3	50 Hz	5.1 A	0.9 A	27.3 A	33.3 A	34.6 A	40 A
460	3	60 Hz	3.1 A	0.6 A	20.7 A	24.4 A	25.2 A	30 A
600	3	60 Hz	2.1 A	0.4 A	17.3 A	19.8 A	20.4 A	25 A

C-44/54CS

Volts	Phase	Freq	Wash Motor	Drive Motor	Wash Heater	Total Load	MCA	MOP
208	1	60 Hz	8.7 A	1.8 A	N/A	10.5 A	12.7 A	20 A
230	1	60 Hz	9.6 A	1.8 A	N/A	11.4 A	13.8 A	20 A
208	3	60 Hz	6.3 A	1.2 A	N/A	7.5 A	9.1 A	15 A
230	3	60 Hz	6.1 A	1.1 A	N/A	7.2 A	8.5 A	15 A

C-66/76CE

Volts	Phase	Freq	Pre-wash Motor	Wash Motor	Drive Motor	Wash Heater	Total Load	MCA	MOP
208	1	60 Hz	6.2 A	8.7 A	1.3 A	86.5 A	102.7 A	104.9 A	110 A
230	1	60 Hz	6.0 A	9.6 A	1.8 A	71.9 A	89.3 A	91.7 A	100 A
208	3	60 Hz	3.5 A	6.3 A	1.2 A	50.0 A	61.0 A	62.5 A	65 A
230	3	60 Hz	3.4 A	6.1 A	1.1 A	41.5 A	52.1 A	53.6 A	55 A
380	3	50 Hz	5.1 A	5.1 A	0.9 A	27.3 A	38.4 A	39.7 A	45 A
460	3	60 Hz	1.7 A	3.1 A	0.6 A	20.7 A	26.1 A	26.9 A	30 A
600	3	60 Hz	2.1 A	2.1 A	0.4 A	17.3 A	21.9 A	22.5 A	25 A

C-66/76CS

Volts	Phase	Freq	Pre-wash Motor	Wash Motor	Drive Motor	Wash Heater	Total Load	MCA	MOP
208	1	60 Hz	6.2 A	8.7 A	1.3 A	N/A	16.2 A	18.4 A	25 A
208	3	60 Hz	3.5 A	6.3 A	1.2 A	N/A	11.0 A	12.6 A	15 A
460	3	60 Hz	1.7 A	3.1 A	0.6 A	N/A	5.4 A	6.1 A	15 A

ELECTRICAL REQUIREMENTS

NOTICE *Local codes may require more stringent protection than what is displayed here and on data plate. Always verify with electrical service contractor that circuit protection is adequate and meets all applicable national and local codes. Numbers in this manual are for reference and may change without notice.*

NOTICE *On three-phase machines, imbalanced wild leg goes to L3. Also see Motor Rotation section.*

NOTICE *Information below is for machine components only. If using a third-party external booster, consult booster manufacturer for booster information. For steam booster information, see Steam Line Connections section.*

C-80/90CE

Volts	Phase	Freq	Pre-wash Motor	Wash Motor	Drive Motor	Wash Heater	Total Load	MCA	MOP
208	1	60 Hz	8.7 A	8.7 A	1.8 A	86.5 A	105.7 A	107.9 A	115 A
208	3	60 Hz	5.8 A	5.8 A	1.2 A	50.0 A	62.8 A	64.2 A	70 A
230	3	60 Hz	5.7 A	5.7 A	1.1 A	41.5 A	54.0 A	55.4 A	60 A
460	3	60 Hz	2.9 A	2.9 A	0.6 A	20.7 A	27.0 A	27.7 A	30 A

C-80/90CS

Volts	Phase	Freq	Pre-wash Motor	Wash Motor	Drive Motor	Wash Heater	Total Load	MCA	MOP
208	3	60 Hz	3.3 A	5.8 A	1.2 A	N/A	10.3 A	11.8 A	15 A
460	3	60 Hz	2.9 A	2.9 A	0.6 A	N/A	6.3 A	7.0 A	15 A

INSPECTION

Do not throw away packaging if damage is evident!

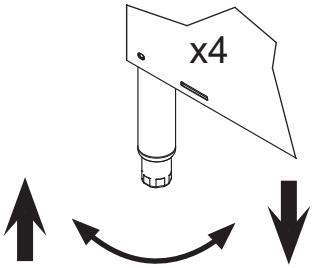
Before installing machine, check packaging and machine for damage. Damaged packaging indicates possible damage to product. If there is any type of damage to both packaging and machine, DO NOT THROW AWAY PACKAGING. The machine has been inspected at the factory and is expected to arrive in new, undamaged condition. However, rough handling by carriers or others might result in damage to machine while in transit. If this occurs, DO NOT RETURN MACHINE TO MANUFACTURER. Instead, contact carrier and ask them to send a representative to inspect damage and complete an inspection report. Contact carrier and dealer twithin 48 hours of receiving the machine.

UNPACKING

Unpack machine and remove from pallet. Remove wooden lift beams and associated brackets after machine has been positioned. Open front doors and remove all materials from inside. Once unpacked, verify there are no missing parts. If a part is missing, contact manufacturer immediately.

LEVELING

The machine is designed to operate while level. This is important to prevent damage to machine during operation and to ensure best results. The machine comes equipped with adjustable bullet feet, which can be turned using a pair of pliers. Verify machine is level from front-to-back and side-to-side before making any electrical or plumbing connections.



FACILITY HOT WATER HEATER

The manufacturer does NOT endorse "Tankless On-demand" water heaters for use with this machine. The manufacturer DOES endorse, and highly recommends, standard "Tank" style water heaters, sized to properly handle water heating requirements of the facility.

PLUMBING

Plumber MUST flush incoming water line!

All plumbing connections must adhere to local, state, territorial, and national codes. Installing plumber is responsible for ensuring incoming water lines are flushed of debris before connecting to the machine. Chips and materials from cutting processes can become lodged in solenoid valves and prevent them from opening or closing. Any valves found to be fouled or defective because of foreign matter left in water line—and any subsequent water damage—are not the responsibility of the manufacturer.

A water hardness test MUST be performed.

If water hardness tests at greater than 3 GPG, install Scaltrol Water Treatment system (see Plumbing Options page) into water line before machine's incoming water connection point. If water hardness tests at 3 GPG or lower, install water supply line directly to machine's incoming water connection point. Iron in water line can cause staining. A filter designed to remove iron from water supply is highly recommended for supplies in excess of 0.1 ppm.

The manufacturer has an optional water pressure regulator to accommodate areas where water pressure fluctuates or is higher than recommended pressure (see Plumbing Options page). The machine uses a flow pressure of 15 PSI for incoming water line. Do not confuse static pressure with flow pressure. Static pressure occurs when there is no flow and valves are closed. Flow pressure occurs when water is running into machine.

The water supply line must be 3/4" NPT minimum and must be able to provide water at minimum temperature indicated on machine data plate.

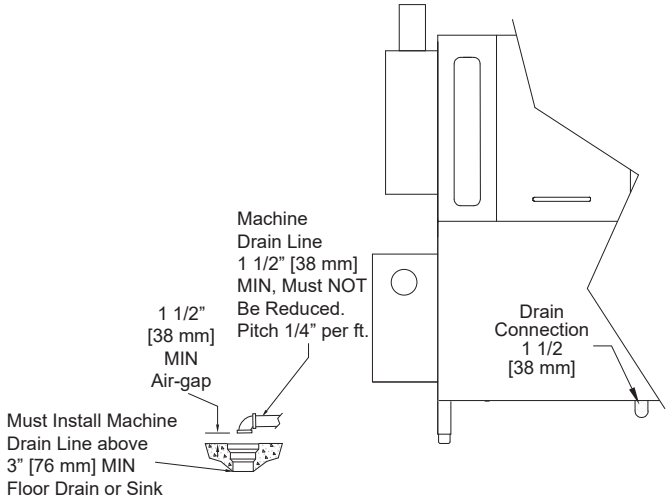
A shut-off valve (**not supplied**) should be installed to isolate machine from water system in the event service is required. An optional shock absorber (**not supplied**) should also be installed on incoming water line (see Plumbing Options page). This prevents water hammer (hydraulic shock) from causing damage to equipment.

DRAIN LINE

The machine drain is a gravity-discharge drain. All piping to drain must be a minimum 1 1/2" NPT and must not be reduced. There must be a minimum 1 1/2" air-gap between machine drain line and floor drain or sink. Floor drain or sink must be a minimum 3" NPT. If a grease trap is required by code, it should have a flow capacity of 30 GPM. C-44/54 machines have one drain connection point and C-66/76/80/90 machines have two (connected and drained into one facility floor drain or sink).

CAUTION

CAUTION! ***An air-gap is required between the drain line and floor drain or sink.***



STEAM LINE CONNECTIONS

Steam models come with lines to connect the source steam. Connect all steam lines to machine as applicable codes provide. See machine data plate for information on steam flow pressure.

Click on instructions icon for Steam Booster manual.

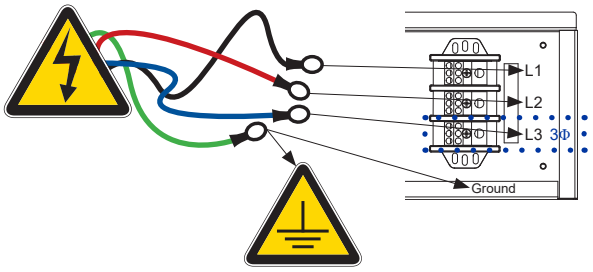
ELECTRICAL POWER CONNECTIONS

Disconnect electrical power at breaker or disconnect switch and tagout in accordance with procedures and codes.

All electrical connections must be made in accordance with applicable portions of local, state, territorial, and national codes.

Refer to data plate for machine operating requirements, machine voltage, total amperage, and serial number.

1. Locate main power terminal blocks (for machine and for external booster option, if applicable) at top of machine.
2. Remove top cover to access terminal blocks.
3. Route incoming power lines within conduit that will connect via fittings to the pre-punched holes in back of control box.
4. Install power and ground wires to lugs as indicated by the appropriate decals in control box. Use copper conductors only. Use of an anti-oxidation agent is recommended on power connections.

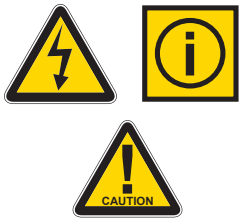


NOTICE
Imbalanced wild leg goes to L3.

5. Tighten all connections.
6. Verify incoming voltage matches voltage indicated on decal next to incoming power pre-punched hole.

NOTICE *Machine has a separate power connection for external boosters and circuit protection requirements are different for each. Consult booster manufacturer for information.*

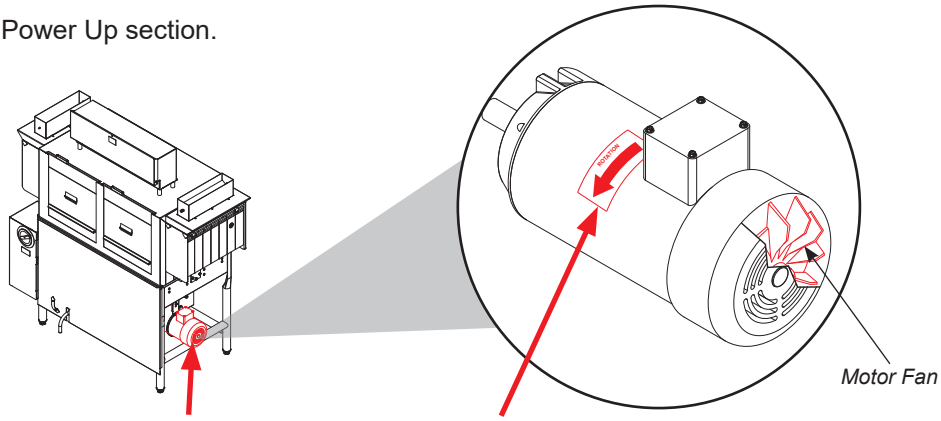
MOTOR ROTATION



CAUTION! ***On 3-Phase machines only, correct pump motor rotation must be verified before operation!***

On 3-Phase machines only, correct pump motor rotation must be verified before machine is operated. Failure to do so can result in damage to machine and components.

1. Follow Power Up section.



2. Locate wash pump motor and identify arrow decal which shows correct motor rotation (if no decal is present, correct rotation is toward front of machine).
3. Flip AUTOMATIC/DELIME button to DELIME.
4. Flip ON/OFF button to ON.
5. Observe rotation of motor fan and quickly flip ON/OFF button to OFF.
6. If rotation is incorrect, disconnect electrical power and reverse L1 and L2 connections at terminal block shown in previous section.

VENTILATION

Locate machine under an adequate exhaust hood or ventilation system with provisions for venting. This is essential to permit efficient removal of condensation exhaust. Ensure exhaust system is acceptable in accordance with applicable codes and standards.

NOTICE *Any damage caused by steam and/or moisture due to improper ventilation is NOT covered under warranty.*

Machine ventilation requirements:

- **Load End: 200 CFM**
- **Unload End: 400 CFM**

Exhaust system must be sized to handle this volume for machine to operate properly.

THERMOSTATS

Thermostats have been set by manufacturer and should only be adjusted by an authorized service agent.

TABLE LIMIT SWITCH OPTION

There are two Table Limit Switch options available. Click instruction icons below for install guides.

Striker Switch

Whisker Switch

CHEMICAL FEEDER EQUIPMENT

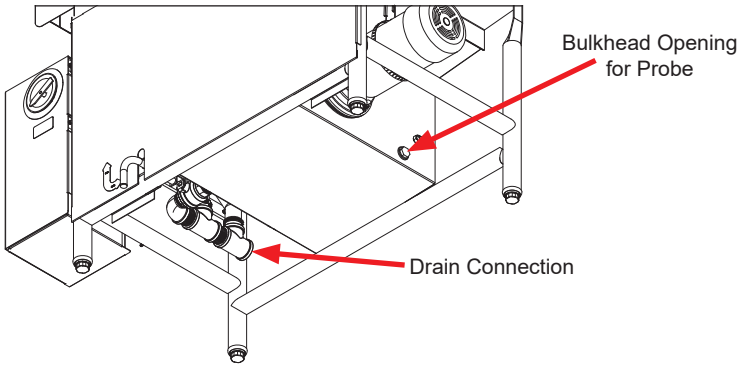
WARNING! ***Some chemicals used in dishwashing can cause chemical burns if they come in contact with skin. Wear protective gear when handling these chemicals. If any skin comes in contact with these chemicals, immediately follow instructions provided with chemicals for treatment.***

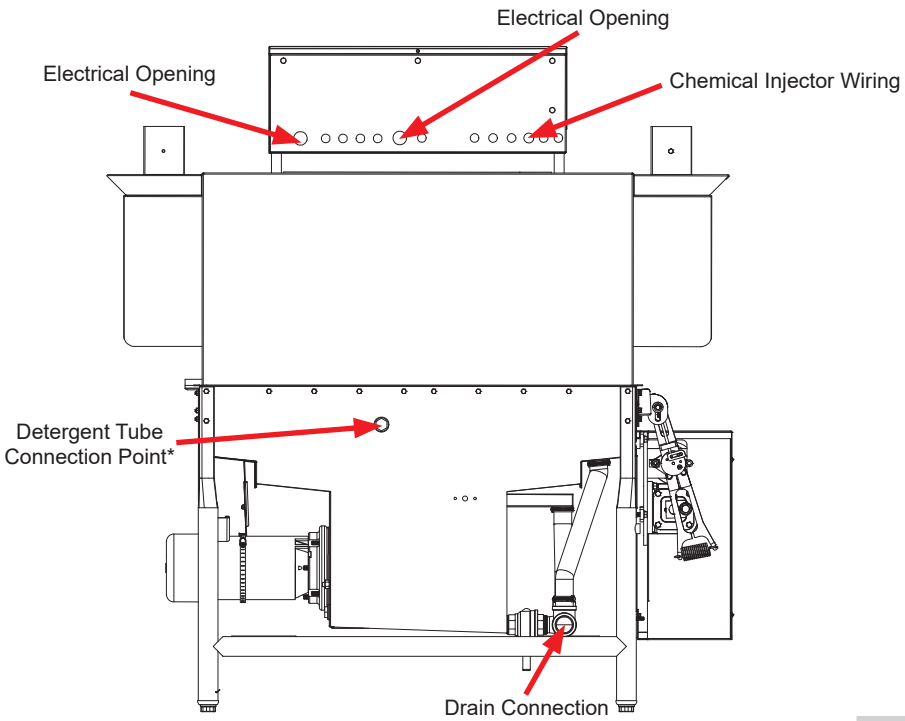
This machine does not come with an integrated chemical supply/feeder system. For the machine to operate correctly, connect it to a third-party chemical dispenser (see Connection Points section) that meets requirements of NSF Standard 29. Contact a chemical supplier about connecting a dispenser to machine. Chemical dispensers must be set for type and concentration of chemicals being used.

Detergent usage and water hardness are two factors that contribute greatly to how efficiently machine will operate. Using proper amount of detergent can be a source of substantial savings. A qualified water treatment specialist can explain what is needed to gain the maximum efficiency from detergent.

CONNECTION POINTS

Shown with plumbing removed for clarity.

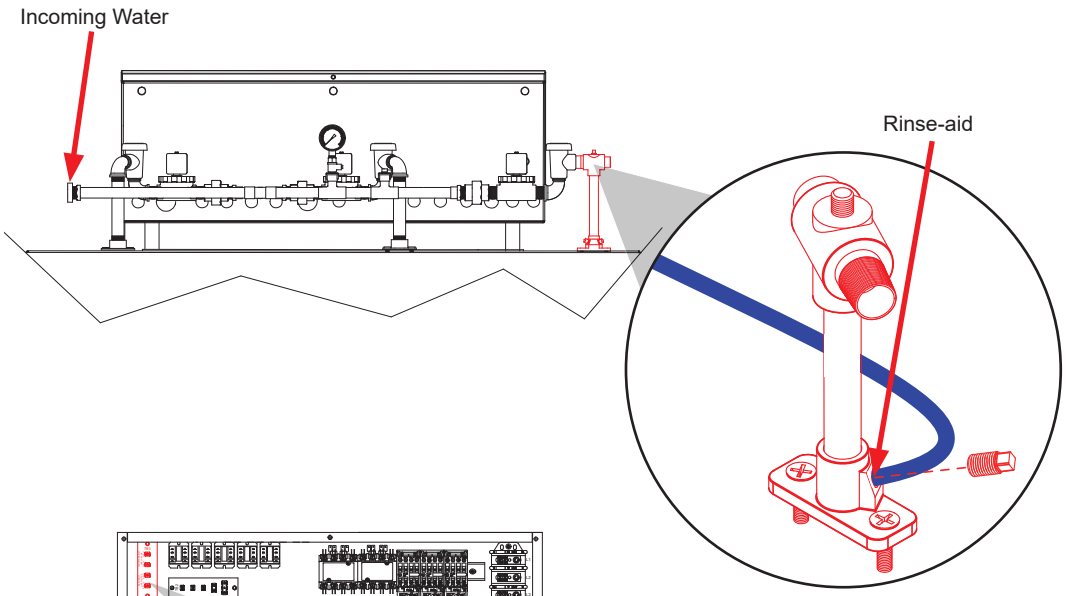




**See next page for rinse-aid tube connection.*

CONNECTION POINTS

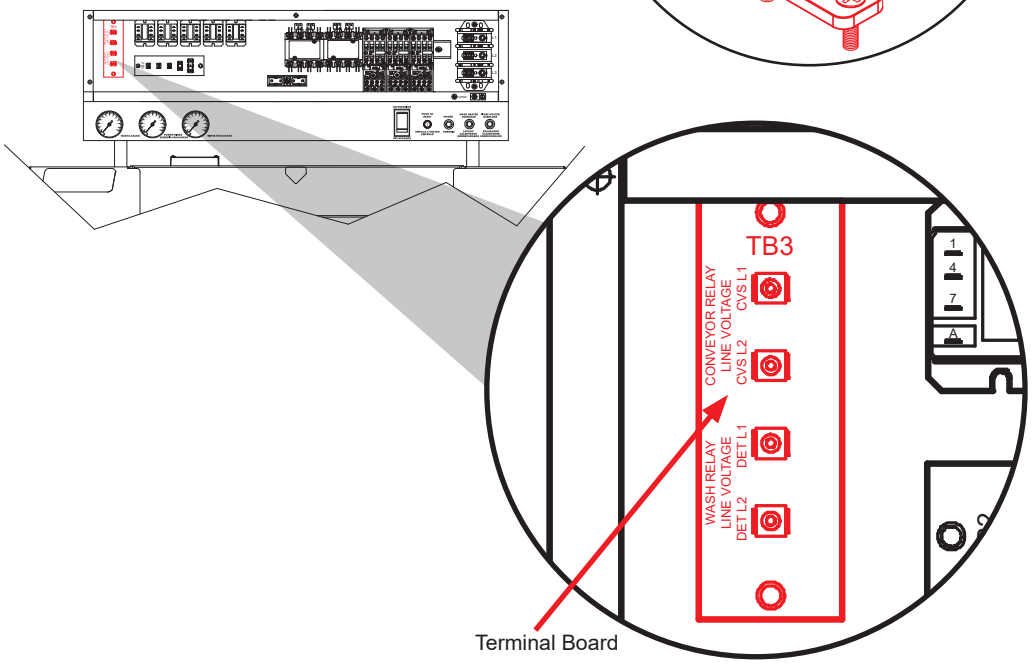
Rinse-aid tube connection shown on right.



Terminals marked "CVS" provide a voltage signal whenever drive motor is operating.

Terminals marked "DET" provide a voltage signal whenever wash motor is operating.

There is no dedicated connection for a rinse-aid dispenser.



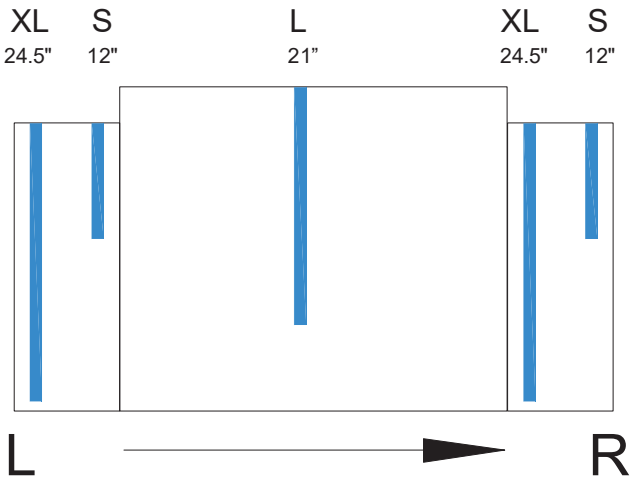
EXHAUST FAN TIMER

Click on the icon for instructions on programming exhaust fan timer.

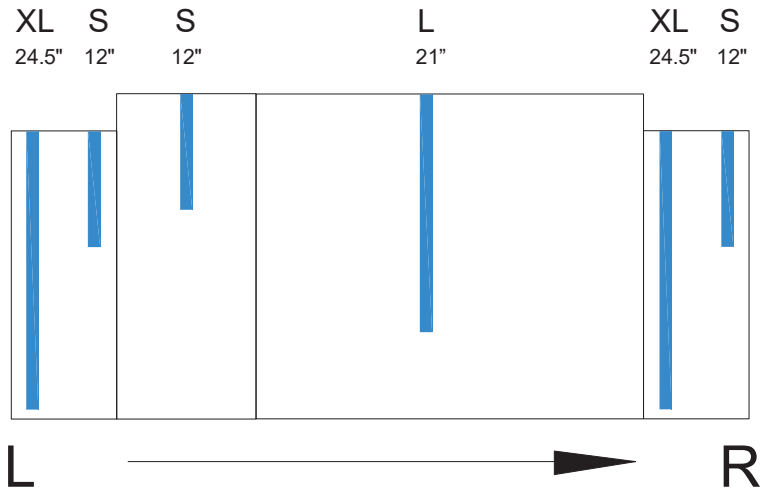
Decals mark curtain locations inside machine, starting at load end and ending at unload end. Illustrations below (Left-to-Right machines shown, Right-to-Left are mirrored) indicate curtain size to be placed on curtain hooks provided. If any curtain components are missing, they MUST be obtained and installed before operation.

CE & CS

44/54



66/76/80/90

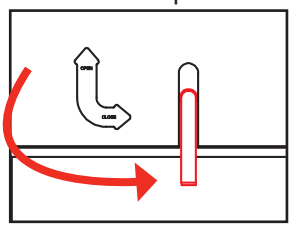


NOTICE *See Curtains/Conveyor Switch page for part numbers.*

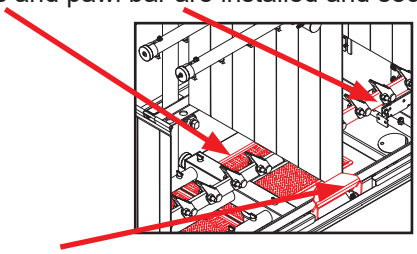
PREPARATION

Before operating, verify:

1. Drain handle is turned to “CLOSE” position.

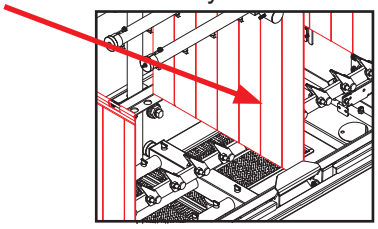


2. Strainers and pawl bar are installed and secure.



3. Actuator switches move with relative freedom and do not bind.

4. Curtains are installed correctly.

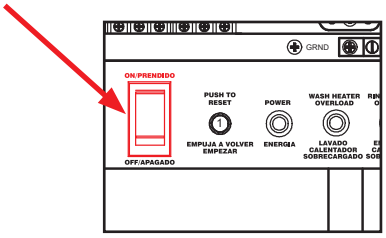


POWER UP

1. Turn power on at service breaker.

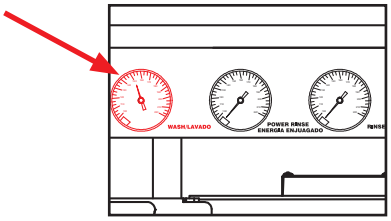
2. Press ON button on front of machine to fill machine and heat water.

For machines with pre-wash sections, ensure water is present in pre-wash section before operating.



3. Allow wash tub to fill completely and wash water to reach operating temperature before continuing (an accurate rinse temperature will not display until machine is rinsing).

For steam models, ensure steam is connected and flowing to machine.



4. For Steam machines, ensure steam service is connected and steam is flowing to machine.

FIRST RACK

The first rack will typically reduce temperature of wash tank and might need to be run through again. This might be necessary any time machine has not been operated for an extended period of time; although this is dependent on type of ware being used, its temperature, and ambient temperature of kitchen area. To ensure proper operation, always observe temperatures of wash and rinse when first starting machine.

WARE PREPARATION

Proper preparation of ware is essential for smooth, efficient operation of machine.

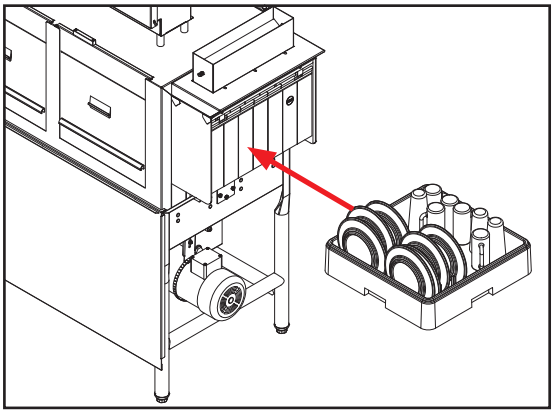
Any ware placed in machine should have all solid food waste and scraps removed. Ware should also be sprayed-down before entering machine.

Place cups and glasses upside-down in racks so they don't hold water during cycle. Pre-soak flatware in warm water to assist in removing food. Load plates and saucers in same direction, with food surface facing unload end of machine.

WASHING A RACK OF WARE

This machine is designed to wash ware that is placed in a rack. Nothing should be placed in machine unless it is properly secured in a dish rack.

To start cycle, gently push rack into machine on load end. Once wash actuator has moved sufficiently, machine will automatically begin to convey dish rack through machine. The entire cycle is automatic.



R-L machine shown.

OPERATIONAL INSPECTION

Operators should periodically review the following items while machine is operating. These items are important for operating machine efficiently.

- Review wash and rinse temperatures and compare to minimums on data plate.
- Verify strainers are not becoming clogged. Keep these free of soil and debris for much better flow of water through machine and to prevent re-deposit issues.
- Machine is designed to run at 15 PSI. If water pressure is any lower there will not be enough rinse water to properly remove detergent from ware.
- Wash and rinse arm nozzles should be free of debris. Open nozzles are essential to operation of machine.

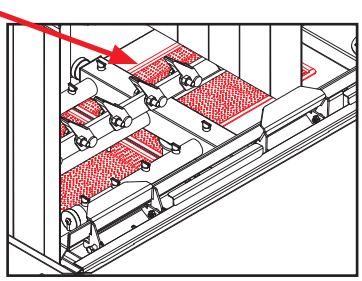
For machines with pre-wash sections, also inspect pre-wash strainer and wash arm nozzles.

SHUTDOWN & CLEANING

Press OFF button on front of machine. Move drain handle to OPEN position. If machine is equipped with a booster, shut it down according to third-party manufacturer's instructions.

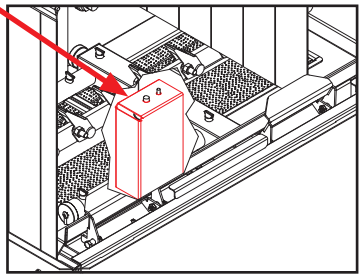
Clean machine at least once every 24 hours or at end of day. Cleaning removes soil and debris that might become trapped in nozzles or deposited onto ware.

1. Remove all strainers and use a hand-scraper to scrape foodsoil into trash.

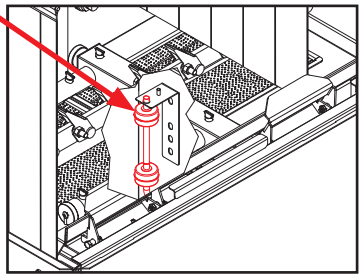


For machines with pre-wash sections, also remove and clean pre-wash strainer.

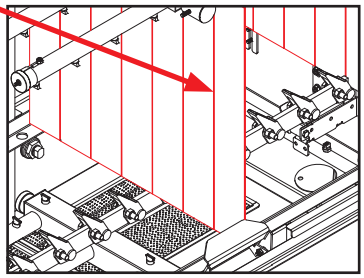
2. Remove float switch cover and clean it and strainers with pre-rinse hose.



3. Rinse float switch off and rinse tank out. Inspect tank for debris.



4. Remove curtains, scrub with mild detergent and brush, and allow to air-dry.

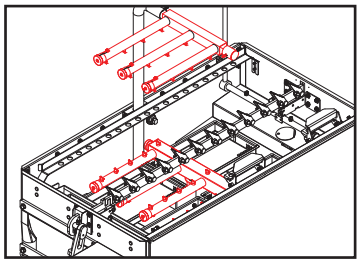


For machines with pre-wash sections, also remove and clean pre-wash curtains.

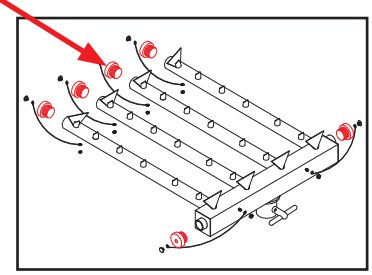
SHUTDOWN & CLEANING

For machines with pre-wash sections, also remove and clean the pre-wash arm.

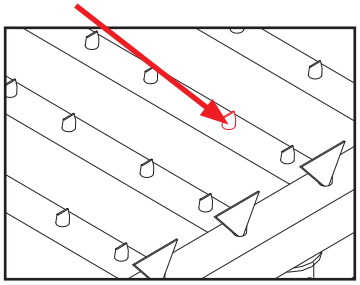
5. As needed, clean wash and rinse arms:
   a. Remove wash arm manifolds.

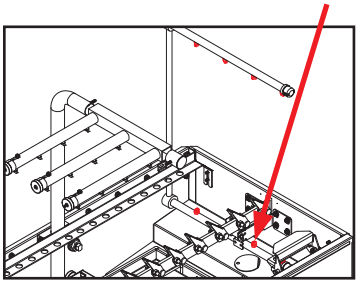


   b. Remove end-caps from arms and manifolds.

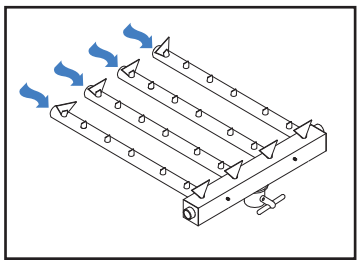


   c. Clean nozzles with a brush. Also clean rinse assembly nozzles.





   d. Use a small wire or toothpick to remove remaining debris or lime deposits from nozzles.
   e. Flush arms with water.



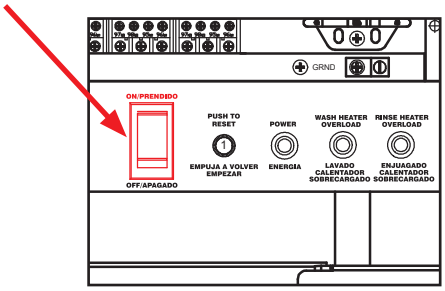
   f. Replace end-caps and ensure they have been tightened.
   g. Replace wash arm manifolds.

Do NOT clean machine with any type of metallic scrubbing sponge!

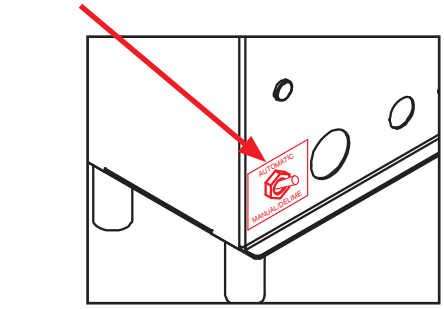
Clean outside of machine with stainless steel polish. Do not attempt to clean inside any compartments, boxes, or chambers secured with a cover. These normally contain live electrical components.

DELIMING

1. Disconnect/turn off chemical feeder equipment.
2. Turn machine on.



3. Add deliming solution according to chemical supplier's instructions.
4. Close door.
5. Flip AUTOMATIC/DELIME switch to DELIME.
6. Run machine period of time recommended by chemical supplier.
7. Wait five minutes, then inspect inside of machine. If machine is not delimed, run again.
8. Flip AUTOMATIC/DELIME switch to AUTOMATIC.



9. Run an empty rack through machine twice.
10. Drain and re-fill machine.
11. Reconnect/turn on chemical feeder equipment.

CAUTION! *This equipment is not recommended for use with deionized water or other aggressive fluids. Use of deionized water or other aggressive fluids will result in corrosion and failure of materials and components. Use of deionized water or other aggressive fluids will void manufacturer's warranty.*

PREVENTATIVE MAINTENANCE

The manufacturer highly recommends that only qualified service personnel perform any maintenance and repairs not specifically discussed in this manual.

WARNING! *Unqualified personnel performing maintenance on the machine may void the warranty, lead to larger problems, or cause harm to operator.*

Following operating and cleaning instructions in this manual will ensure the machine operates efficiently. As a reminder, here are the most important daily checks:

CAUTION! ***Do NOT beat strainers to remove debris!***

1. Ensure water temperatures match those listed on machine data plate.
2. Ensure all strainers are clean and in place (laying flat) before operating machine. When cleaning strainers, do NOT beat them on waste cans. Wipe-out strainers with a rag and rinse under a faucet if necessary. Use a toothpick to dislodge any stubborn debris.
3. Ensure all wash and rinse arms are secure.
4. Ensure drains are closed.
5. Remove as much soil from dishes by hand as possible before loading into racks.
6. Do not overfill racks.
7. Ensure glasses are placed upside-down in rack.
8. Ensure all chemicals have been verified at correct concentrations.
9. Clean machine every 24 hours or end of every workday.
10. Follow all safety procedures, whether listed in this manual or put forth by local, state, or national codes/regulations.

TORQUE SETTINGS

When replacing components in control box or heater box, see torque specs below:

ITEM	TORQUE SPEC
Relays	16 in/lbs
Heater Contactor	35 in/lbs
Heater Nuts	16 in/lbs
Terminal Block	50 in/lbs

DRIVE GEAR REDUCER LUBRICATION

The maintenance procedures detailed here are manufacturer's instructions for the brand of gear reducer that is installed on the machines covered in this manual.

Ambient Temperature	-30 to 15°F	16 to 50°F	51 to 95°F	51 to 95°F	96 to 131°F	96 to 131°F
Final Stage Worm Speed*	up to 2000 FPM	up to 2000 FPM	up to 450 FPM	above 450 FPM	up to 450 FPM	above 450 FPM
ISO Viscosity Grade	220	460	680	460	680	460*
AGMA Lubricant No.	5S**	#7 Compounded***	#8 Compounded***	#7 Compounded***	8 S**	7S**

Mobil	SHC 630	600W Super Cylinder	Extra Hecla Super	600W Super Cylinder	SHC 636	SHC 634
American Lubricants	SHC-90W	AGMA #7 Gear Oil	AGMA #8 Gear Oil	AGMA #7 Gear Oil	N/A	N/A
Castrol	Tribol 800/220	Tribol 1105-7C	Tribol 1105-8C	Tribol 1105-7C	Tribol 800/680	Tribol 800/460
Chevron	Tegra 220	Cylinder Oil W460	Cylinder Oil W680	Cylinder Oil W460	Tregra 680	Tegra 460
Conoco	Syncon R & O 220	Inca Oil 460	Inca Oil 680	Inca Oil 460	N/A	Syncon R & O 460
Exxon (Esso)	Teresstic SHP 220	Spartan EP 460	Spartan EP 680	Spartan EP 460	Teresstic SHP 680	Teresstic SHP 460
Fiske Brothers	SPO-MG	SPO-277	SPO-288	SPO-277	N/A	N/A
Shell	Omala RL 220	Valvata J 460	Valvata J 680	Valvata J 460	Omala RL 680	Omala RL 460
Texaco	Pinnacle 220	Vanguard 460	Vanguard 680	Vanguard 460	Pinnacle 680	Pinnacle 460

*The sliding velocity in feet per minute (FPM) for standard ratios is determined by multiplying the speed of the worm in RPM by the factor from the following table. For selecting the proper lubricant, use the speed of the worm in the final stage (input RPM divided by the first stage ratio).
**Synthetic oil.
***3% to 10% fatty or synthetic oils or mild EP additives.

Lubricant selections are provided by the lubricant manufacturer based on AGMA recommended viscosity grades.
Viscosity grades are based on Lubrication Standard ANSI/AGMA 9005-D94.

Nominal Ratio

Size	5	7.5	10	15	20	25	30	40	50	60	80	100
920	0.347	0.263	0.225	0.216	0.202	0.191	0.215	0.200	0.188	0.182	0.164	0.161

Factory filling - Speed reducers are filled with oil at the factory to the proper level for the standard mounting position it will be found on the machine. The oil level should be checked and adjusted (if necessary) before operation, using the oil level plug provided and while the machine is oriented in its operating position.

Ambient temperature - If the operating ambient temperature is other than 51–95 °F, refer to the lubrication chart and refill the machine with the correct grade based on actual ambient temperature and operating speed. See "Oil changing" below for additional information.

Oil changing - When changing the oil for any reason, it should be remembered that oils of various types might not be compatible. Therefore, when changing to a different oil, it is recommended that the housing be completely drained and thoroughly flushed with a light flushing oil before refilling with the appropriate lubricant. The oil level should be rechecked

DRIVE GEAR REDUCER LUBRICATION

after a short period of operation and adjusted, if necessary. When changing double-reduction models, each housing should be drained and filled independently, even though there could be a common level.

Initial oil change - The new oil in a speed reducer should be changed at the end of 250 hours of operation. This is equivalent to 30 days of operation for eight hours per day; 15 days of operation for 16 hours per day, or 10 days of operation for 24 hours per day.

Subsequent oil changes - Under normal conditions, after the initial oil change, the oil should be changed after every 2500 hours of operation, or every six months, whichever comes first. Under severe conditions (rapid temperature changes, moist, dirty, or corrosive environment) it could be necessary to change the oil at intervals of one to three months. Periodic examination of oil samples taken from the machine will help establish the appropriate interval.

Synthetic oils - Synthetic lubricants can be advantageous over mineral oils in that they generally are more stable, have a much longer life, and operate over a wider temperature range. These oils are appropriate for any application but are especially useful when machines are subjected to low start-up temperatures or high operating temperatures. However, continuous operation above 225 °F may cause damage to seals or other components. It is recommended that the initial oil be changed or filtered after the first 1500 hours of operation to remove metal particles that accumulate during break-in. Subsequent oil changes should be made after 5000 hours operation if machines are operating in a clean environment. This can be extended to 10,000 hours if using new reformulated Mobil SHC lubricants (orange in color) and the lubricant remains free of contamination over this period. See comments under “Subsequent oil changes” for discussion of severe ambient conditions.

Long-term storage or infrequent operation - If a speed reducer is to stand idle for an extended period of time, either before installation or during use, it is recommended that the machine be filled completely with oil to protect interior parts from rust and corrosion due to internal condensation. Be sure to drain the oil to the proper level before placing the speed reducer in service.

Grease fittings - Some machines are equipped with grease fittings to lubricate bearings not adequately lubricated by the oil splash. These fittings must be lubricated every three to six months depending on operating conditions. Bearing greases must be compatible with the type of gear lubricant being used (e.g. mineral, synthetic, food grade, etc.). For mineral oils, use a high-quality lithium base NLGOI #2 bearing grease. For synthetic oils, use a synthetic bearing grease such as Mobil Synthetic Universal grease, Mobilith SHC 100 or a suitable equivalent. For food-grade lubricants, use Chevron FM grease, NGLI 2, or equivalent.

Low input speeds (under 1600 RPM) - When input speeds are less than 1600 RPM, grease fittings will be required to lubricate any bearings not partially covered by the normal oil level.

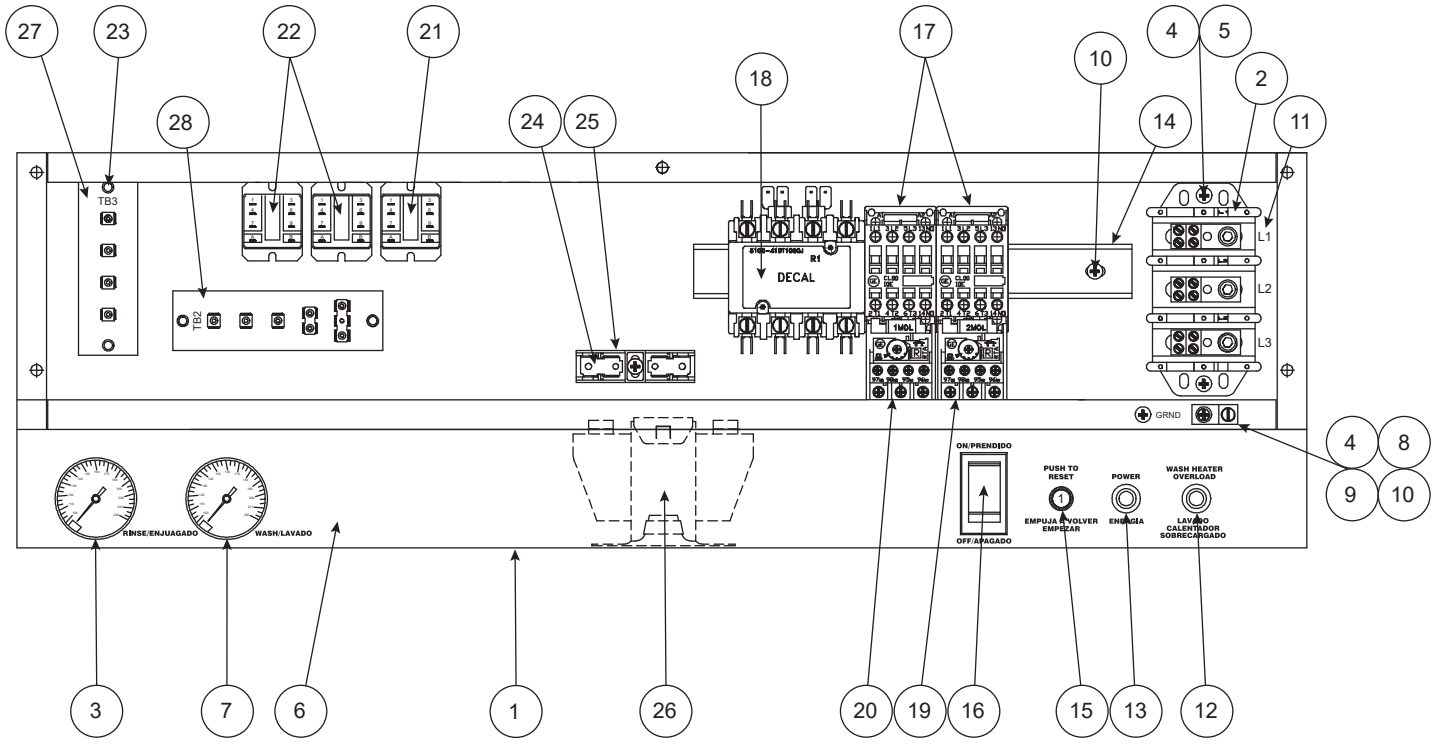
Oil temperature - Speed reducers in normal operation can generate temperatures up to 200 °F depending on the type of reducer and the severity of the application (loading, duration of service, ambient temperatures). Excessive oil temperatures could be the result of several factors including overloading, overfilling, underfilling, or inadequate cooling.

WARNING: *Inspection, testing, and repair of electrical equipment should only be performed by a qualified service technician. Many of the tests require that the machine have power to it and live electrical components be exposed. USE EXTREME CAUTION WHEN TESTING THE MACHINE.*

OBSERVATION	POSSIBLE CAUSE	REMEDY
Nothing on machine operates. The power switch is ON and the power indicator light is OFF.	1. Machine is not wired correctly to incoming power source. 2. Machine circuit breaker is tripped. 3. Service breaker is tripped.	1. Have an electrician verify wiring. 2. Reset the circuit breaker. If it trips again, contact an electrician to verify the machine amp draw. 3. Reset the service breaker. If it trips again, contact an electrician to verify the machine amp draw.
Machine will not fill. The power switch is ON and the power indicator light is ON.	1. No water supplied to machine. 2. Machine doors are not closed. 3. Incoming water solenoid valve damaged/faulty. 4. Tank floats faulty.	1. Verify water lines have been connected to the machine. 2. Close doors completely. 3. Verify the valve is operating. If not, replace. 4. Verify the wiring of the floats. Verify that no debris is jamming the floats. Replace if necessary.
Machine fills, but fill is weak.	1. Low incoming water pressure. 2. Incoming water solenoid is clogged.	1. Verify incoming water pressure during fill is 15 PSI. 2. Verify debris is not trapped in valve. If so, remove debris.
Low wash tank temperature.	1. Low incoming water temperature. 2. Heater not energizing. 3. Low incoming voltage.	1. Verify the incoming water temperature matches the data plate. 2. Verify the wash tank heater is operating. If not, replace. 3. Have an electrician verify incoming power is the same as indicated on the data plate.
Low wash arm pressure, poor spray pattern.	1. Clogged wash arm nozzles. 2. Clogged wash tank or wash pump strainers. 3. Worn wash pump impeller.	1. Verify nozzles are not clogged with debris. If so, remove debris. 2. Clean out strainers if necessary. 3. Verify status of impeller and replace if necessary.
Inadequate rinse.	1. Low incoming water pressure. 2. Incoming water solenoid is clogged.	1. Verify incoming water pressure during fill is 15 PSI. 2. Verify debris is not trapped in valve. If so, remove debris.

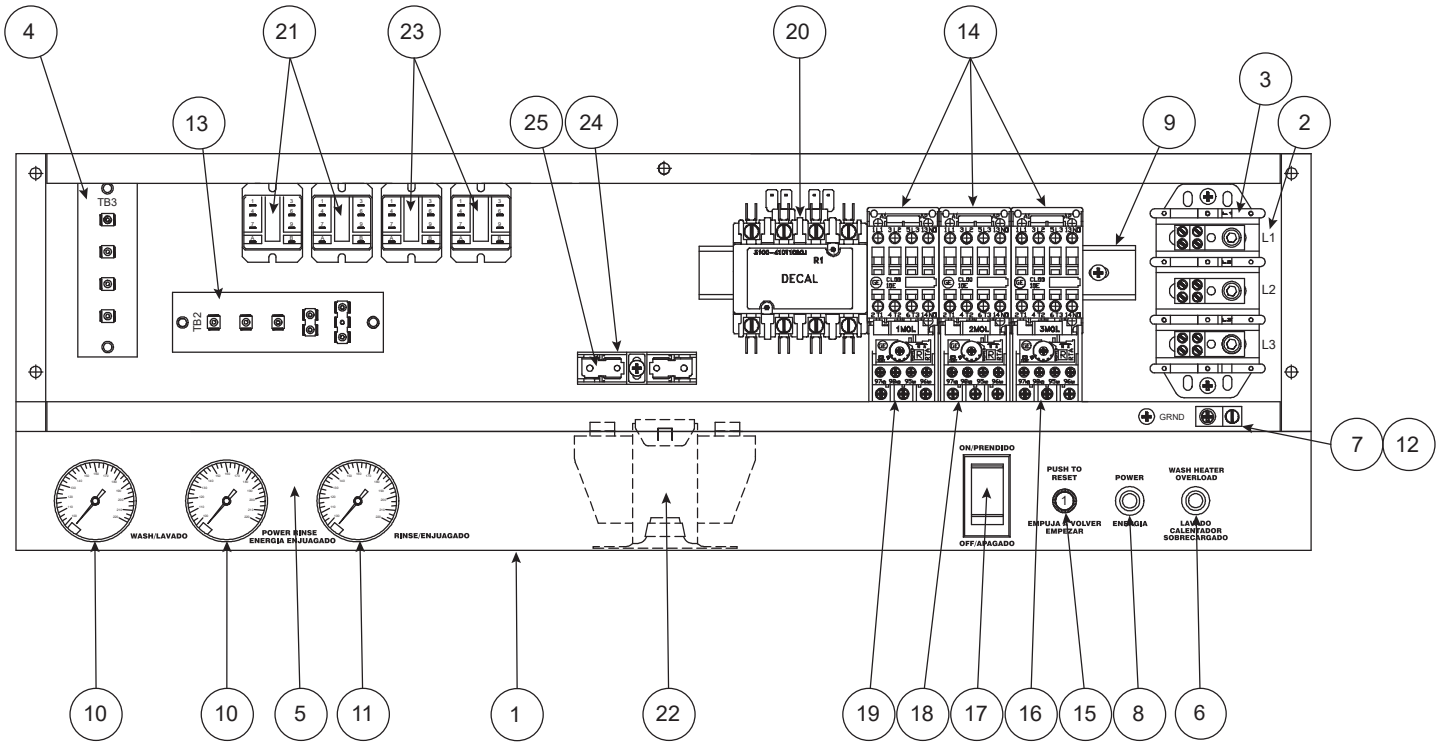
WARNING: *Inspection, testing, and repair of electrical equipment should only be performed by a qualified service technician. Many of the tests require that the machine have power to it and live electrical components be exposed. USE EXTREME CAUTION WHEN TESTING THE MACHINE.*

OBSERVATION	POSSIBLE CAUSE	REMEDY
Pawl bar does not move.	1. Failed or broken overload spring. 2. No power to the drive motor or failed drive motor. 3. Pawl bar not properly installed.	1. Replace spring if necessary. 2. Verify power and wiring connections to the motor. If necessary, replace the motor. 3. Verify the pawl bar is installed correctly.
Racks go through the machine, but results are poor.	1. Incorrect quantity of detergent for the water volume. 2. Clogged strainers/scrap basket. 3. Ware not being properly pre-scrapped. 4. Wash or rinse arms missing end-caps. 5. Low tank heat. 6. Inadequate rinse. 7. Incorrect voltage coming to the machine. 8. Wash pump cavitation due to low water level.	1. Adjust detergent to appropriate level. 2. Clean out strainers and scrap basket. 3. Review Ware Preparation section. 4. Verify and replace as required. 5. See previous page. 6. See previous page. 7. Verify the voltage matches that on the machine data plate. 8. Verify the drains are shut and the water level is correct.
Spotting of silverware, glasses, and dishes.	1. Incorrect final rinse temperature. 2. Clogged wash and/or rinse nozzles and arms. 3. Excessively hard water. 4. Loss of water pressure due to clogged/obstructed wash pump. 5. Ware not being properly pre-scrapped. 6. Incorrect detergent/chemical concentrations.	1. Verify the rinse water temperature matches the data plate. 2. Remove the arms and verify they and their nozzles are free of debris. 3. Install a water softener. 4. Turn the power off to the machine at the source. Drain the wash tank of water and verify the pump intake is free of debris. 5. Review the Ware Preparation section. 6. Verify the detergent/chemical concentrations are correct for the associated water volume.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Electrical Box	05700-041-88-43
2	1	Terminal Block	05940-011-48-27
3	1 1	Rinse Thermometer, 96” Lead Rinse Decal, 180 °F	06685-111-68-48 09905-002-97-62
4	6	Star Washer, External Tooth, 10-24	05311-273-02-00
5	6	Screw, 10-32 x 3/4” Long Phillips Trusshead	05305-011-62-17
6	1	Decal, Gauge	09905-021-72-29
7	1 1	Wash, Thermometer, 48” Lead Wash Decal, 160 °F	06685-111-68-49 09905-003-00-69
8	1	Wire Lug, 2 AWG to 14 AWG	05940-200-76-00
9	1	Decal, Ground	09905-011-86-86
10	2	Screw, 10-32 x 1/2” Long Phillips Trusshead	05305-011-39-36
11	1	Decal, L1, L2, L3	09905-101-12-66
12	1	Light, Amber (CE Only)	05945-111-44-44
13	1	Light, Red	05945-111-44-45
14	1	Din Rail	05700-021-72-75

ITEM	QTY	DESCRIPTION	PART NUMBER
16	1	Switch, ON/FILL - OFF/DRAIN	05930-301-46-00
17	2	Motor Contactor	05945-111-68-38
18	1	Heater Contactor (CE Only)	05945-002-24-70
19	1	Overload	See Motor Overloads page.
20	1	Overload	See Motor Overloads page.
21	1	Control Relay	05945-111-35-19
22	2	Control Relay	05945-111-72-51
23	10	Screw, 6-32 x 3/8” Long Round Phillipshead	05305-002-25-91
24	1	Fuse (460 V Only)	05920-011-72-88
25	1	Fuse Holder (460 V Only)	05920-011-72-89
26	1	Transformer	05950-011-68-35
27	4	Locknut, 10-24 with Nylon Insert	05310-373-01-00
28	1	Terminal Board	05940-002-78-97
29	1	Terminal Board	05940-021-89-41



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Electrical Box	05700-041-88-50
2	1	Decal, L1, L2, L3	09905-101-12-66
3	1	Terminal Block	05940-011-48-27
4	1	Terminal Board	05940-021-89-41
5	1	Decal, Gauge	09905-021-72-30
6	1	Light, Amber (CE Only)	05945-111-44-44
7	1	Wire Lug, 2 AWG to 14 AWG	05940-200-76-00
8	1	Light, Red	05945-111-44-45
9	1	Din Rail	05700-021-72-75
10	2	Rinse Thermometer, 96” Lead Rinse Decal, 180 °F	06685-111-68-48 09905-002-97-62
11	1	Wash, Thermometer, 48” Lead Wash Decal, 160 °F	06685-111-68-49 09905-003-00-69
12	1	Decal, Ground	09905-011-86-86

ITEM	QTY	DESCRIPTION	PART NUMBER
13	1	Terminal Board	05940-002-78-97
14	3	Motor Contactor	05945-111-68-38
15	1	Circuit Breaker (208-230 Volt, 60 Hz Models Only)	05925-011-68-34
16	1	Overload	See Motor Overloads page.
17	1	Switch, ON/FILL - OFF/DRAIN	05930-301-46-00
18	1	Overload	See Motor Overloads page.
19	1	Overload	See Motor Overloads page.
20	1	Heater Contactor (CE Only)	05700-002-24-70
21	2	Control Relay	05945-111-72-51
22	1	Transformer	05950-011-68-35
23	2	Control Relay	05945-111-35-19
24	1	Fuse Holder (460 V Only)	05920-011-72-89
25	1	Fuse (460 V Only)	05920-011-72-88

C-44/54

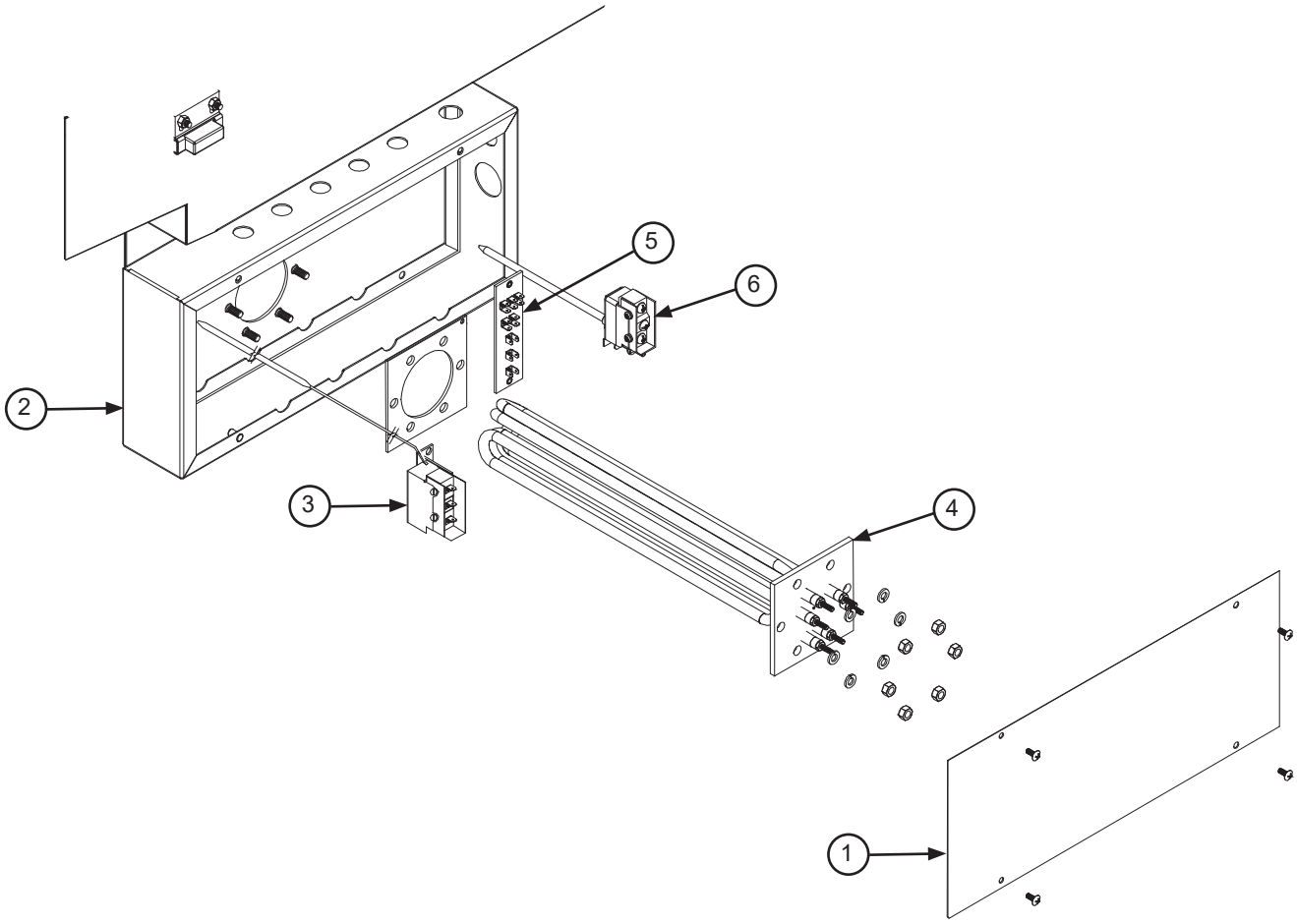
VOLTS	Hz	PHASE	DRIVE MOTOR	PRE-WASH MOTOR	WASH MOTOR
208	50	3	05945-011-84-59	N/A	05945-111-68-40
220	50	3	05945-011-84-59	N/A	05945-111-68-40
230	50	3	05945-011-84-59	N/A	05945-111-68-40
380	50	3	05945-002-71-09	N/A	05945-111-68-40
415	50	3	05945-111-69-12	N/A	05945-111-81-33
440	50	3	05945-111-69-12	N/A	05945-111-81-33
208	60	1	N/A	N/A	N/A
230	60	1	N/A	N/A	N/A
200	60	3	05945-002-66-00	N/A	05945-002-65-99
208	60	3	05945-111-68-39	N/A	05945-111-68-40
230	60	3	05945-111-68-39	N/A	05945-111-68-40
380	60	3	05945-111-69-12	N/A	05945-111-81-33
460	60	3	05945-111-68-39	N/A	05945-111-68-40
600	60	3	05945-111-69-12	N/A	05945-111-81-33

C-66/76

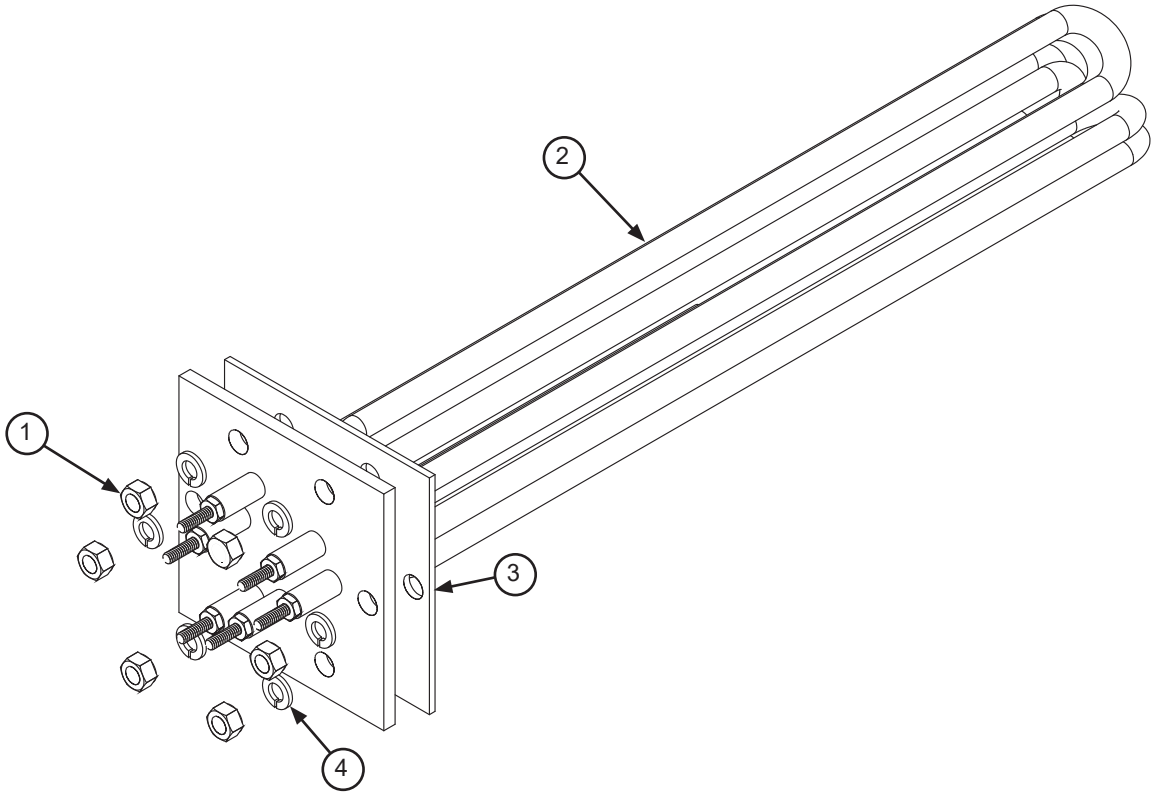
VOLTS	Hz	PHASE	DRIVE MOTOR	PRE-WASH MOTOR	WASH MOTOR
208	50	3	05945-011-84-59	N/A	05945-111-68-40
220	50	3	05945-011-84-59	N/A	05945-111-68-40
230	50	3	05945-011-84-59	N/A	05945-111-68-40
380	50	3	05945-002-71-09	N/A	05945-111-68-40
415	50	3	05945-111-69-12	N/A	05945-111-81-33
440	50	3	05945-111-69-12	N/A	05945-111-81-33
208	60	1	N/A	N/A	N/A
230	60	1	N/A	N/A	N/A
200	60	3	05945-002-66-00	N/A	05945-002-65-99
208	60	3	05945-111-68-39	N/A	05945-111-68-40
230	60	3	05945-111-68-39	N/A	05945-111-68-40
380	60	3	05945-111-69-12	N/A	05945-111-81-33
460	60	3	05945-111-68-39	N/A	05945-111-68-40
600	60	3	05945-111-69-12	N/A	05945-111-81-33

C-80/90

VOLTS	Hz	PHASE	DRIVE MOTOR	PRE-WASH MOTOR	WASH MOTOR
208	50	3	05945-011-84-59	N/A	05945-111-68-40
220	50	3	05945-011-84-59	N/A	05945-111-68-40
230	50	3	05945-011-84-59	N/A	05945-111-68-40
380	50	3	05945-002-71-09	N/A	05945-111-68-40
415	50	3	05945-111-69-12	N/A	05945-111-81-33
440	50	3	05945-111-69-12	N/A	05945-111-81-33
208	60	1	N/A	N/A	N/A
230	60	1	N/A	N/A	N/A
200	60	3	05945-002-66-00	N/A	05945-002-65-99
208	60	3	05945-111-68-39	N/A	05945-111-68-40
230	60	3	05945-111-68-39	N/A	05945-111-68-40
380	60	3	05945-111-69-12	N/A	05945-111-81-33
460	60	3	05945-111-68-39	N/A	05945-111-68-40
600	60	3	05945-111-69-12	N/A	05945-111-81-33



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Heater Box Cover	05700-002-02-04
2	1	Heater Box	05700-002-98-38
3	1 1	Thermostat, High Limit Fitting, 1/4”, Imperial Brass	05930-011-49-43 05310-924-02-05
4	1	Heater	See next page.
5	1	Terminal Board	05940-002-78-97
6	1 1	Thermostat, Wash Regulating (CE Series) Kit, Wash Regulating Thermostat (CS Series)	05930-003-13-65 06401-003-18-21



ITEM	QTY	DESCRIPTION	PART NUMBER
1	5	5/16-18 Hex Nut	05310-275-01-00
2	1	Heater	See table below.
3	1	Heater Gasket	05330-200-02-70
4	2	5/16" Lockwasher	05311-275-01-00

HEATERS

VOLTS	kW	PHASE	PART NUMBER
208	18	1	04540-121-79-30
230	18	1	04540-121-79-31
208	18	3	04540-121-79-30
230	18	3	04540-121-79-31
460	18	3	04540-121-79-32

*Steam models do not use electric heaters.

NOTICE *When replacing a heater, it is HIGHLY recommended that the heater gasket be changed as well. Once installed, gaskets become compressed and are subjected to extreme temperature changes. Replacing the gasket when replacing the heater can prevent future leaks.*

NOTICE *The nuts used to secure the heater to the tub should be torqued to 16 in-lbs. After tightening, the unit should be allowed to heat-up and operate normally for approximately 30 minutes. Secure power to the machine and check the nuts once more to ensure that they are torqued to 16 in-lbs.*

HEATER SYSTEM TROUBLESHOOTING

The wash tank heater system is electrically-connected in the circuit and is dependent upon the machine being properly filled with water and maintaining a safe water level. The system consists of two thermostats (mounted in the heater box behind the dress panel), a float switch (mounted in the wash tank), the heater relay (mounted in control box), and the heater which is activated by the thermostats.

Once the dishmachine has filled to the correct level, the heater should operate automatically. Should the tank heat be too high or too low or if there is no indication of temperatures at all, the following checks should be made by an authorized service agent or electrician:

Heater System Check

1. If the temperature is too high, adjust thermostat using instructions on the next page.
2. If temperature is too low, adjust thermostat as above, then:
3. Turn off power to machine by placing customer's circuit breaker in the "OFF" position. Turn off machine circuit breaker located on right side of control box.
4. Remove cover from control box on top of machine.
5. Make sure water temperature is below 140 °F (preferably about 130 °F).
6. Turn on both circuit breakers. Observe heater relay (R1) while the power switch is turned "ON" and "OFF." If relay contacts move in and out, the heater relay is operating correctly. Based on results, follow the appropriate section below (Relay Closes if contacts move in and out, Relay Does Not Close if contacts do not move in and out).

Relay Closes

1. Check power supply at incoming terminal board (L1, L2, L3). It should be the same voltage as indicated on the machine data plate.
2. Check power at connections on heater relay (R1). The voltage should agree with the voltage on the machine data plate. If not, check wires for breaks or bad connections.
3. Check power at terminals of heater, which should agree with the data plate. If not, check wires for breaks or bad connections.
4. Temperatures should rise as explained in Step 1 of the Relay Does Not Close section below, and amperage can be checked according to those instructions. Replace any defective elements.

Relay Does Not Close

1. There is an insulated movable bar on the relay across the top. With an insulated probe, depress this bar and observe the thermometer: the temperature should rise noticeably in a minute or two. If it moves slowly, the element is probably faulty. If it moves constantly higher at a good rate, the element should be good.

NOTICE *A check with an amp-probe at heater relay (R1) terminals should be made to verify the amp draw on each leg. This should be appropriate for the voltage and phase indicated on the data plate.*

HEATER PROTECTION AND AUTOMATIC FILL (FOR UNITS EQUIPPED WITH AUTOMATIC FILL)

This control is activated when the power switch is turned “ON.” The primary function is to automatically energize the wash tank heating circuit. It will also cut-off the wash tank heating circuit should the water be accidentally drained from the machine with the power switch still “ON.” The power switch should always be turned-off before draining the unit.

This water level control consists of two floats that operate when the power switch is turned "ON" and works in conjunction with the thermostats and heater relays.

When the power switch is turned “ON,” water starts to enter the dishmachine. When it reaches the proper level, the normally-open contacts in the water level float switch close, activating the heating circuit for tank heat.

If the water level falls below the correct level while power is still on, the float switch will sense the lack of water and deactivate the heater.

THERMOSTATS

The thermostat range is from 140 °F to 240 °F with a maximum bulb-exposure temperature of 300 °F.

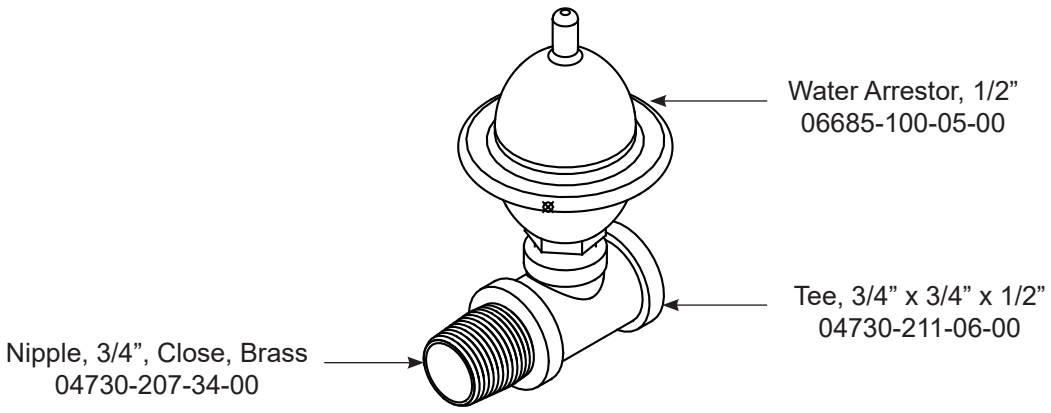
Calibration:

Wash Thermostat: Setpoint: 165 °F (Adjustable range)
High-Limit Thermostat: Fixed setpoint: 210 °F (Non-adjustable)

The high-limit thermostat is used to protect the heater element in the event of a run-away regulating thermostat or a dry-fire situation. It is set for 210 °F +0 °F or -10 °F with a fixed setpoint. This part is not adjustable.

The wash tank regulating thermostat will maintain the correct wash water temperature to meet regulatory requirements. These specify that the wash be no lower than 140 °F on chemical-sanitizing machines and no lower than 160° F on hot-water-sanitizing machines.

SHOCK ABSORBER (WATER ARRESTOR) OPTION

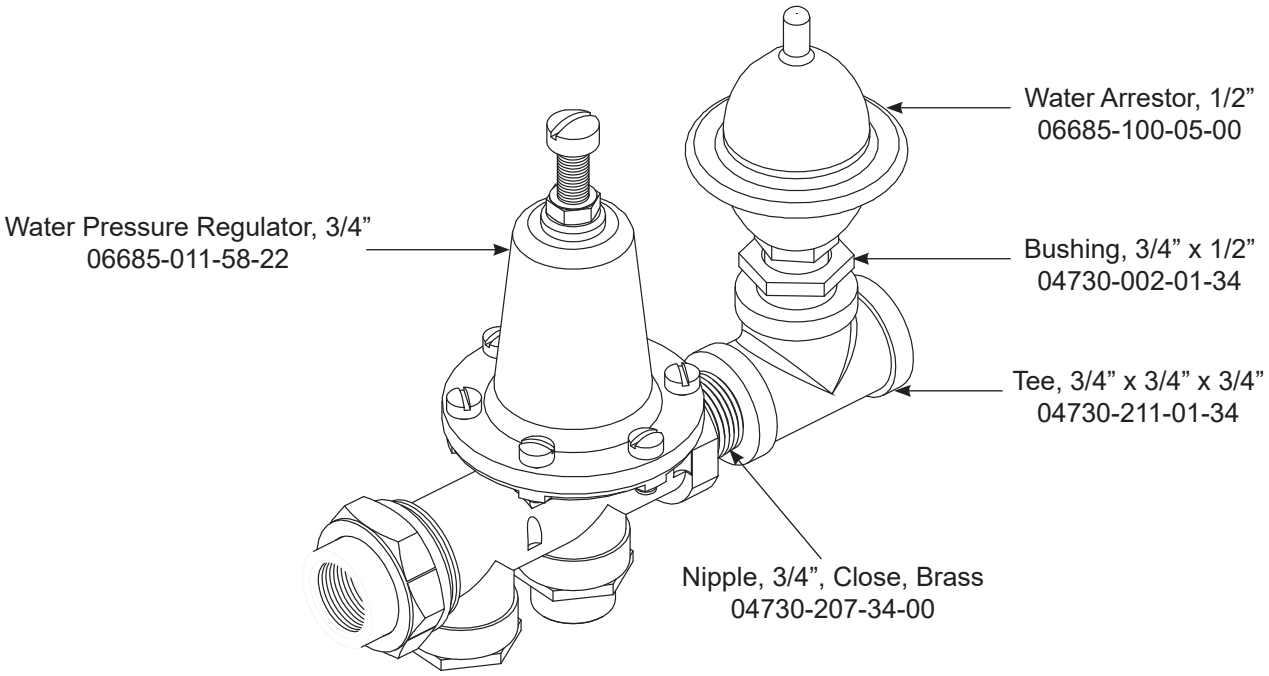


WATER TREATMENT OPTION

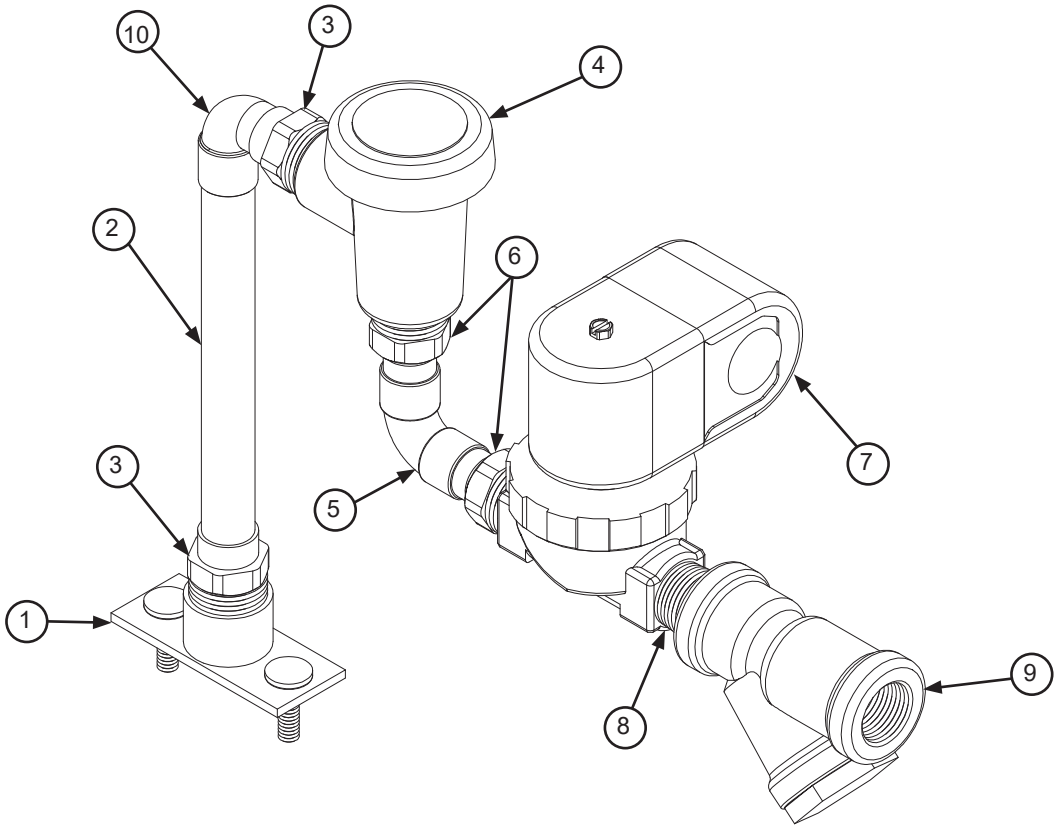
Scaltrol System
04730-003-05-76

Replacement Cartridge
(inspect at least every 6 months)
RSC-100

PRESSURE REGULATING VALVE OPTION (WITH SHOCK ABSORBER)

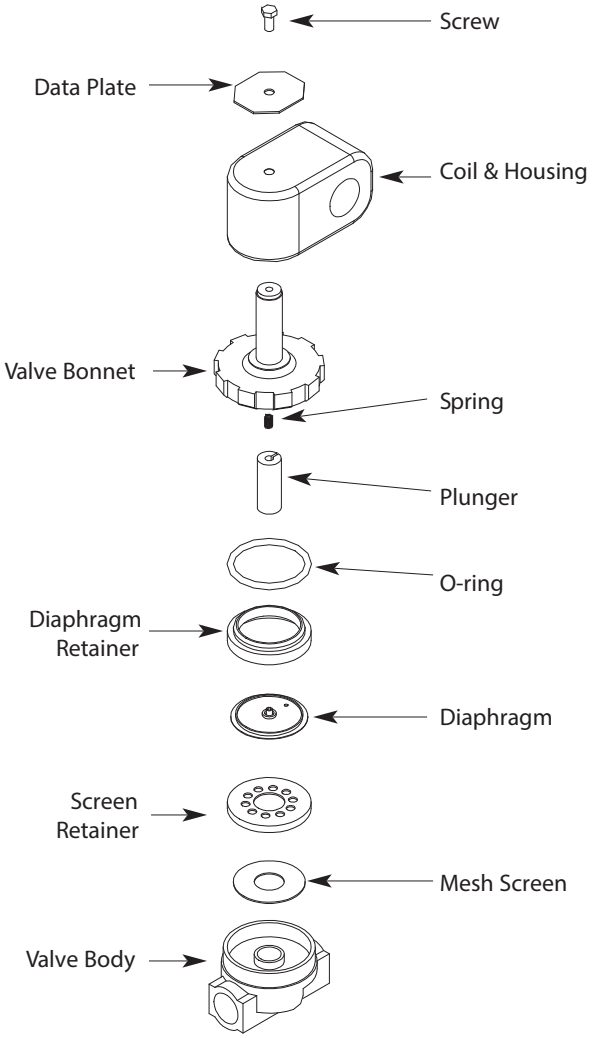


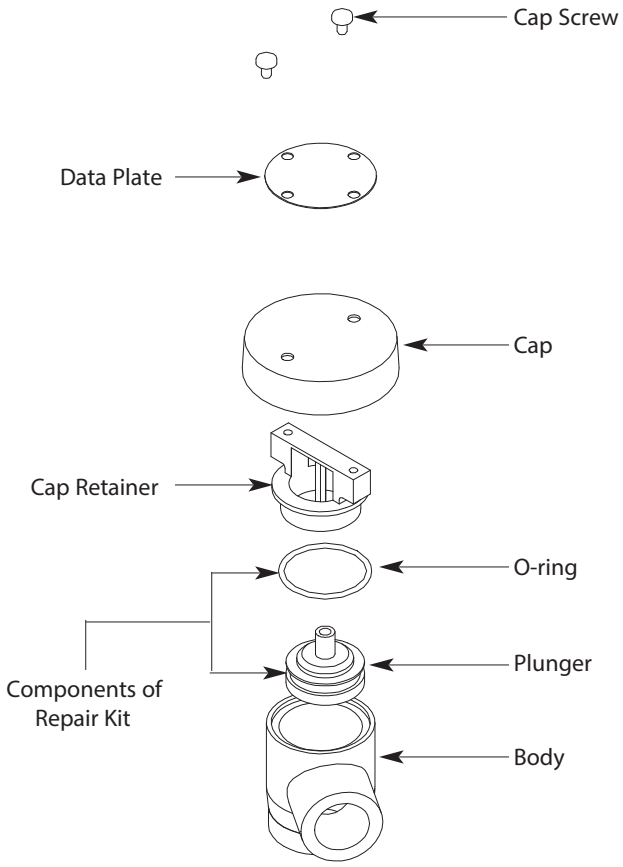
PRE-WASH INLET PLUMBING



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1 1	Fill Line Injector Gasket, Fill Line Injector	05700-002-04-71 05330-111-42-81
2	1	Tube, Copper, 1/2”	05700-002-04-93
3	2	Adapter, Male	04730-401-03-01
4	1	Vacuum Breaker	04820-003-06-13
5	1	Elbow, 1/2”	04730-406-01-01
6	2	Adapter, 1/2”	04730-011-59-53
7	1	Valve, Solenoid, 1/2”, 110 V	04810-100-12-18
8	1	Nipple, 1/2”, Close, Brass	04730-207-15-00
9	1	Y-strainer, 1/2”	04730-217-01-10
10	1	Elbow, 1/2”	04730-406-31-01

SOLENOID VALVE & VACUUM BREAKER





Solenoid Valve Plunger Kit
Includes plunger and spring
06401-003-07-40

Solenoid Valve Diaphragm Kit
Includes diaphragm and o-ring
06401-003-07-41

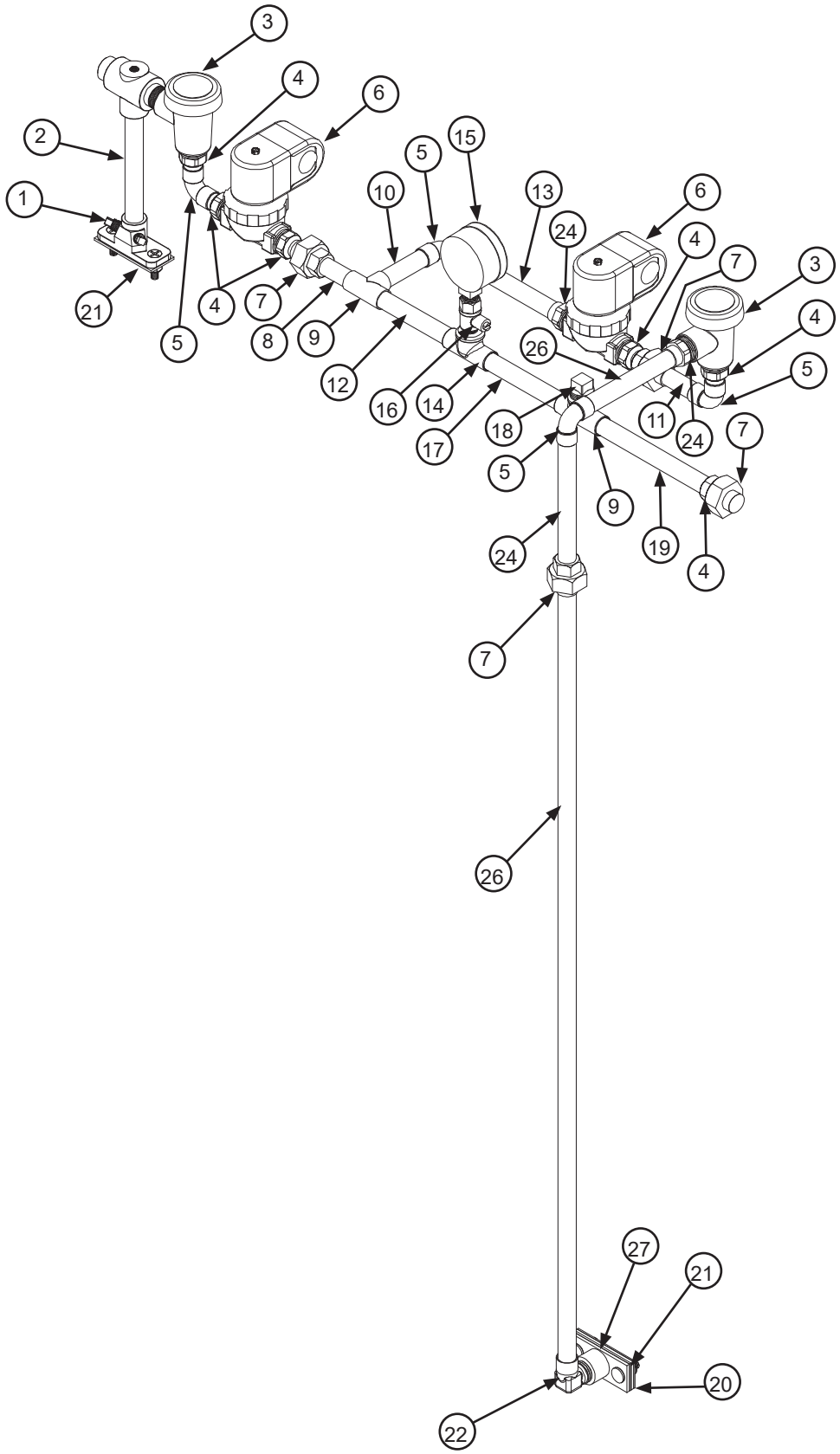
Solenoid Valve 110 V Coil and Housing Kit
06401-003-07-43

Complete Solenoid Valve
04810-100-12-18

Vacuum Breaker Repair Kit
06401-003-06-23

Complete Vacuum Breaker Assembly
04820-003-06-13

RINSE INLET PLUMBING

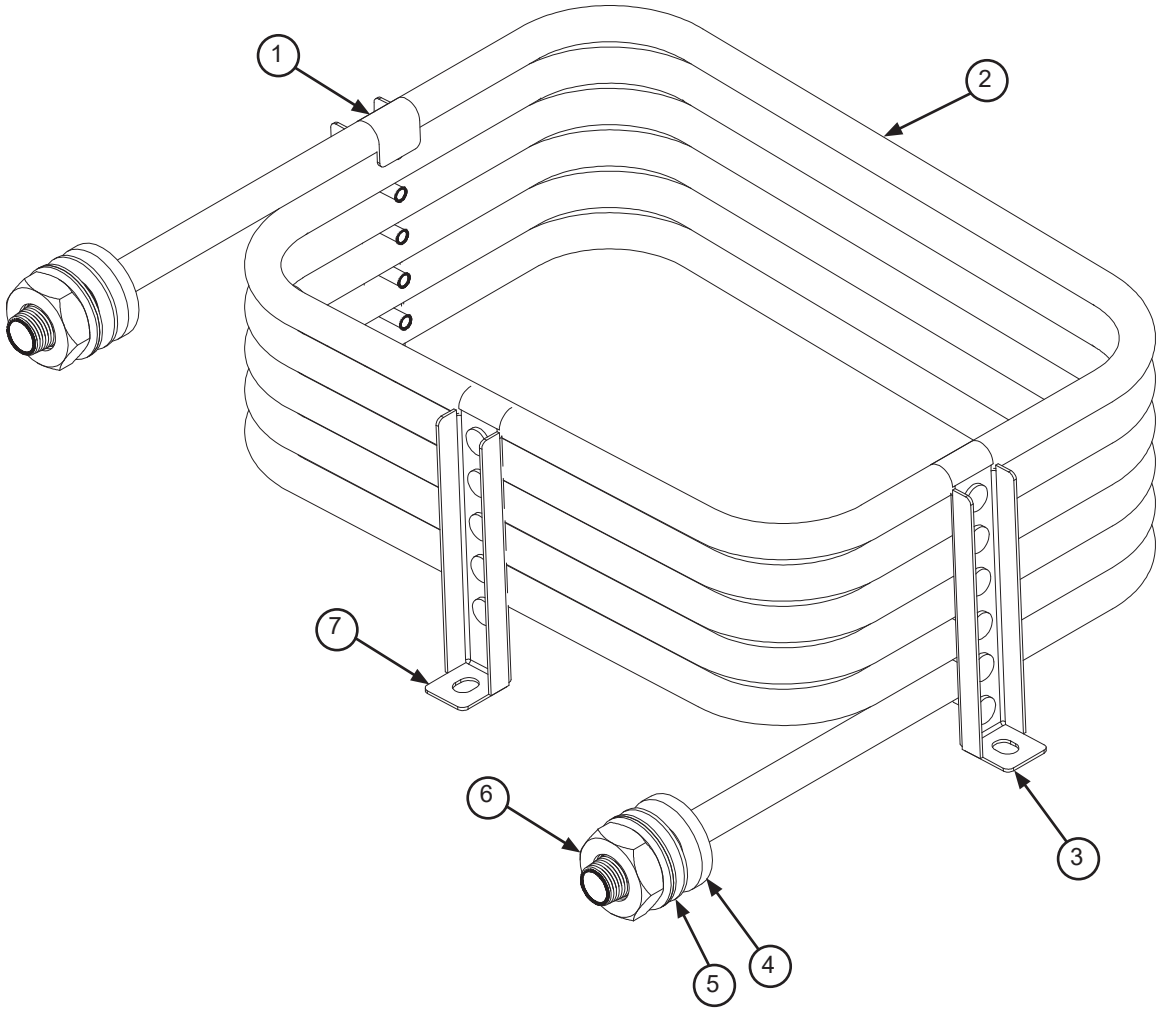


RINSE INLET PLUMBING

ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Plug, 1/8”, Brass	04730-209-07-37
2	1 1	Rinse Injector Gasket, Rinse Injector	05700-002-03-42 05330-111-42-81
3	2	Vacuum Breaker, 1/2”	04820-003-06-13
4	6	Adapter, 1/2”	04730-011-59-53
5	3	Elbow, 1/2”	04730-406-01-01
6	2	Valve, Solenoid, 1/2”	04810-100-12-18
7	4	Union, 1/2”	04730-412-05-01
8	1	Tube, Copper, 1/2” x 2”	See note below.
9	1	Tee, Copper, 1/2”	04730-411-01-01
10	1	Tube, Copper, 1/2” x 3.06”	See note below.
11	1	Tube, Copper, 1/2” x 2.08”	See note below.
12	1	Tube, Copper, 1/2” x 4”	See note below.
13	1	Tube, Copper, 1/2” x 5.27”	See note below.
14	2	Tee, 1/2” x 1/2” x 1/4”	04730-411-25-01
15	1 1	Gauge, Pressure, 0-100 PSI Decal, 15-25 PSI	06685-111-88-34 09905-002-97-74
16	1	Valve, Ball, 1/4”	04810-011-72-67
17	1	Tube, Copper, 1/2” x 4.185”	See note below.
18	1	Plug, 1/4”, Brass	04730-209-01-00
19	1	Tube, Copper, 1/2” x 5.92”	See note below.
20	1	Plate, Rinse Plumbing	05700-011-82-86
21	2	Gasket	05330-111-42-81
22	1	Elbow, 90-degree, 1/2”	04730-406-32-01
23	2	Adapter, Male	04730-401-03-01
24	1	Tube, Copper, 1/2” x 5.75”	See note below.
25	1	Tube, Copper, 1/2” x 4.75”	See note below.
26	1	Tube, Copper, 1/2” x 40”	See note below.
27	1	Plate, Deflector	05700-002-62-49

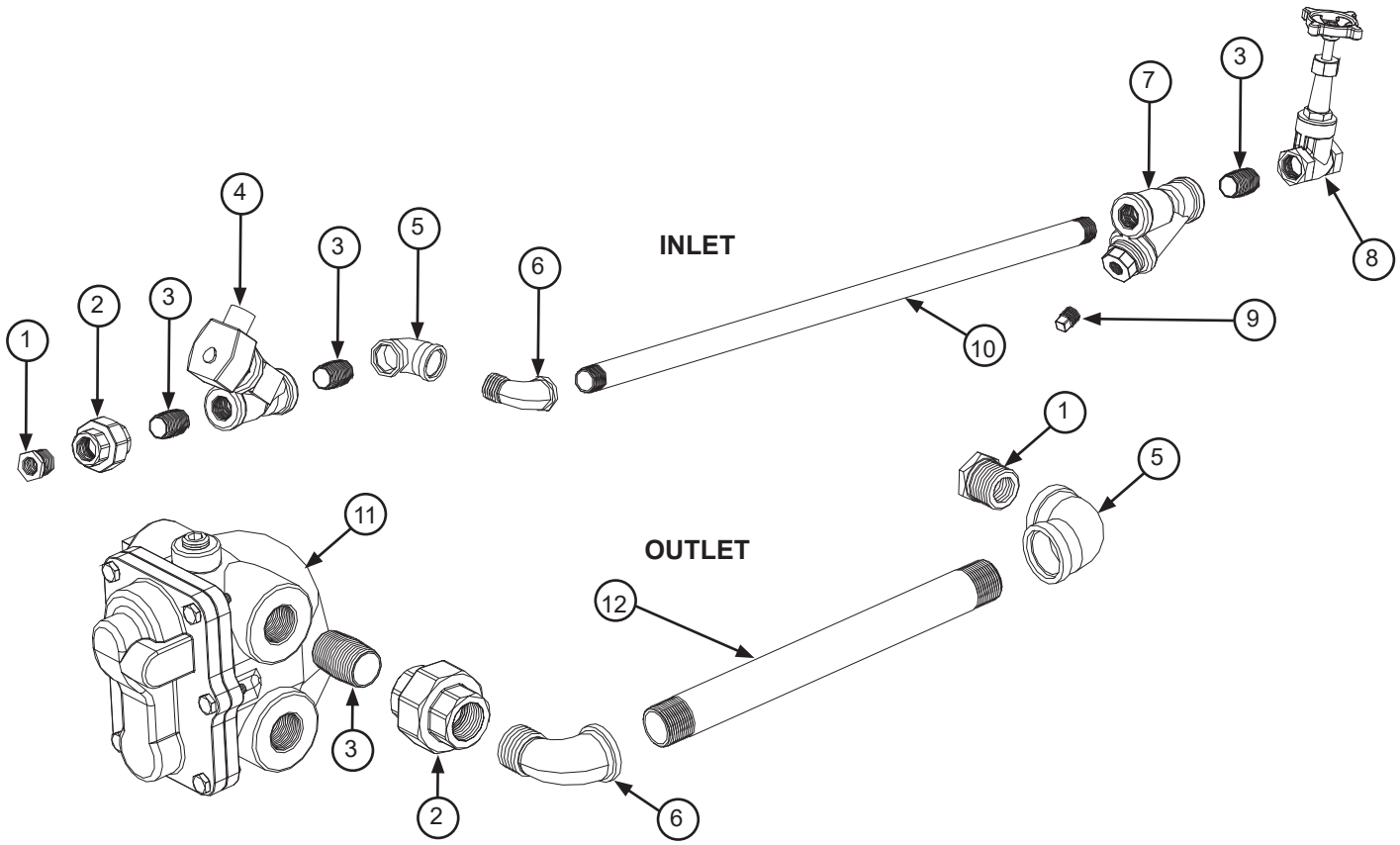
NOTICE *Copper tubing should be purchased locally and cut to the length shown in the part description.*

Complete Steam Coil Assembly
05700-002-11-78

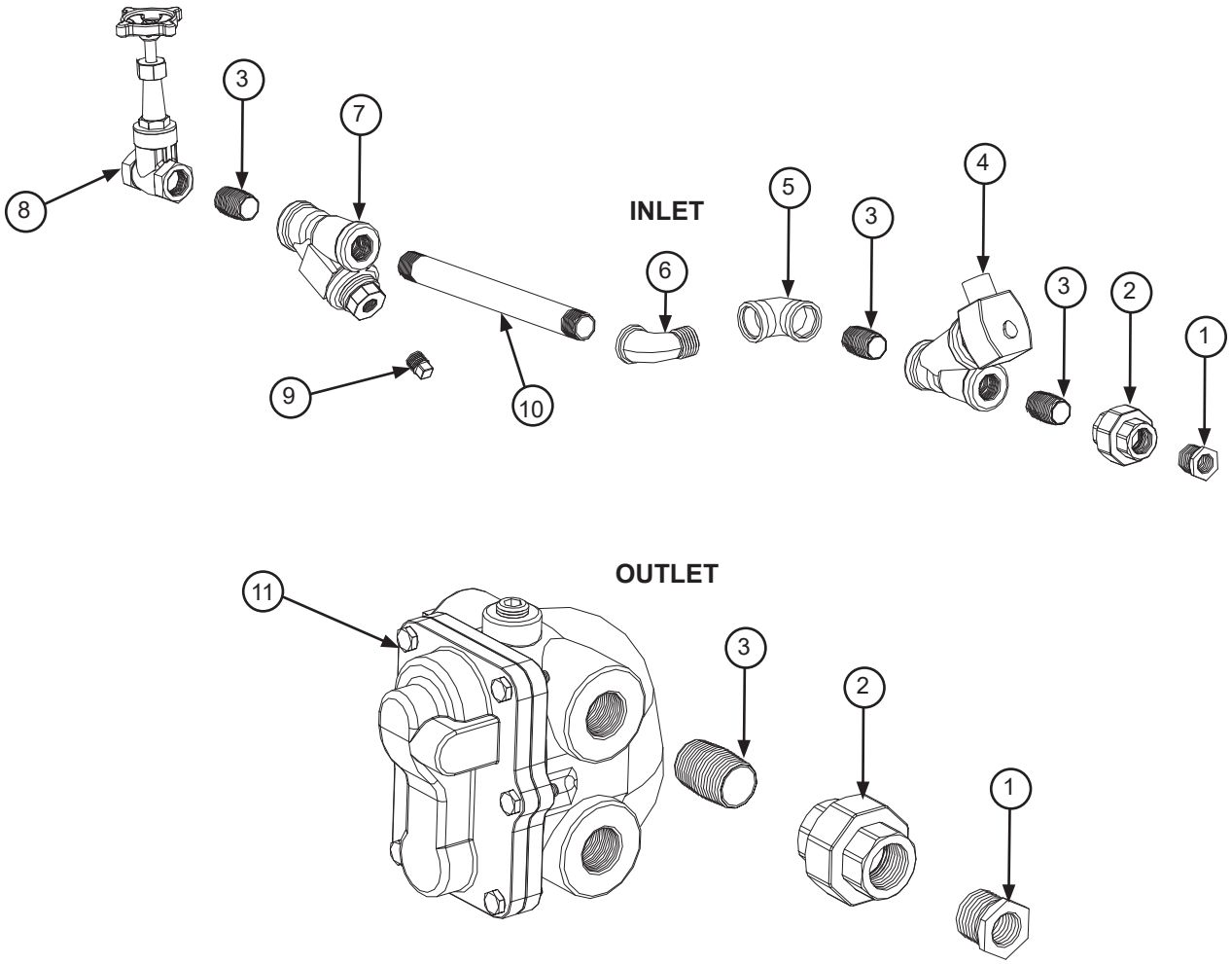


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Stand "D"	05700-002-74-85
2	1	Steam Coil	05700-002-84-03
3	1	Stand "C"	05700-002-74-84
4	1	Coil Gasket	05700-001-17-86
5	1	Flat Washer	05700-001-17-87
6	1	Coil Nut	05310-011-17-85
7	1	Stand "B"	05700-002-74-83

NOTICE *The Coil Gasket should be replaced any time the Steam Coil is replaced or removed for an extended period of time.*

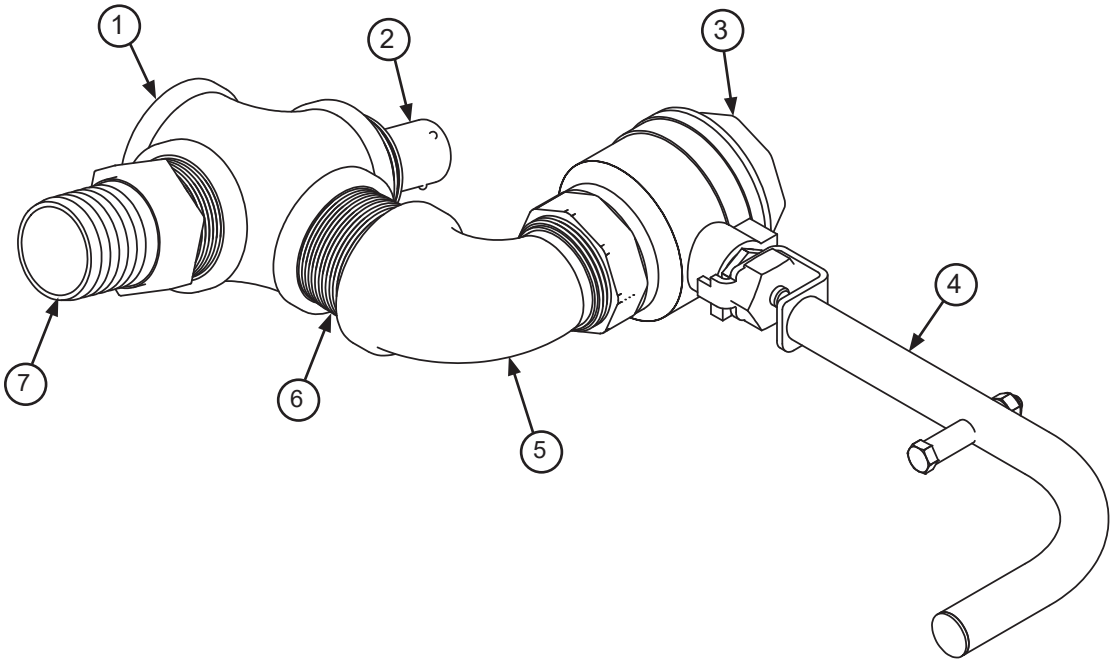


ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Reducer, 3/4” to 1/2”, Black Iron	04730-911-02-34
2	2	Union, 3/4”, Black Iron	04730-912-01-00
3	4	Nipple, Close, 3/4”, Black Iron	04730-907-01-00
4	1	Valve, Steam Solenoid, 3/4”, 120 V	04820-011-87-39
5	2	Elbow, 90-degree, 3/4”, Black Iron	04730-906-10-34
6	2	Elbow, Street, 90-degree, 3/4”, Black Iron	04730-011-87-37
7	1	Y-strainer, 3/4”, Black Iron	04730-217-01-32
8	1	Valve, Gate, Steam, 3/4”	04820-100-19-00
9	1	Plug, 3/8”, Black Iron	04730-909-02-34
10	1	Pipe, 3/4” x 32” Long, Black Iron	04730-002-21-27
11	1	Steam Trap, 3/4”	06680-500-02-77
12	1	Pipe, 3/4” x 10” Long, Black Iron	04730-907-06-34



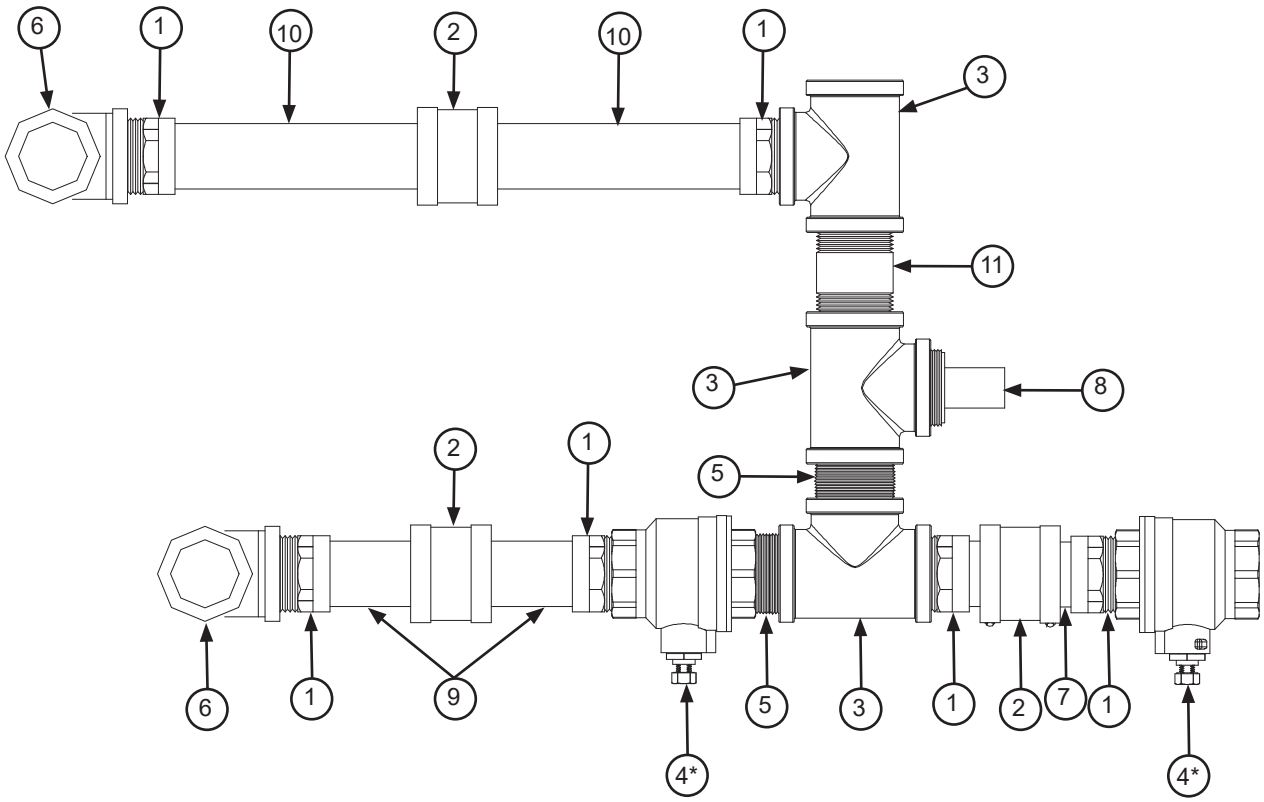
ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Reducer, 3/4” to 1/2”, Black Iron	04730-911-02-34
2	2	Union, 3/4”, Black Iron	04730-912-01-00
3	4	Nipple, Close, 3/4”, Black Iron	04730-907-01-00
4	1	Valve, Steam Solenoid, 3/4”, 120 V	04820-011-87-39
5	1	Elbow, 90-degree, 3/4”, Black Iron	04730-906-10-34
6	1	Elbow, Street, 90-degree, 3/4”, Black Iron	04730-011-87-37
7	1	Y-strainer, 3/4”, Black Iron	04730-217-01-32
8	1	Valve, Gate, Steam, 3/4”	04820-100-19-00
9	1	Plug, 3/8”, Black Iron	04730-909-02-34
10	1	Pipe, 3/4” x 32” Long, Black Iron	04730-002-21-27
11	1	Steam Trap, 3/4”	06680-500-02-77

C-44/54 DRAIN PLUMBING



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Cross Connector, 1 1/2"	04710-004-43-65
2	1	Nipple, Rinse	05700-021-84-61
3	1	Ball Valve, 1 1/2”	04820-111-71-46
4	1	C-44 Ball Valve Handle Assembly	05700-021-84-74
5	1	Elbow, 1 1/2”, 90-degree, Street Brass	04730-206-32-00
6	1	Nipple, 1 1/2”, Close Brass	04730-207-40-00
7	1	Fitting, Barbed, 1 1/2" x 1 1/2"	04730-011-69-92

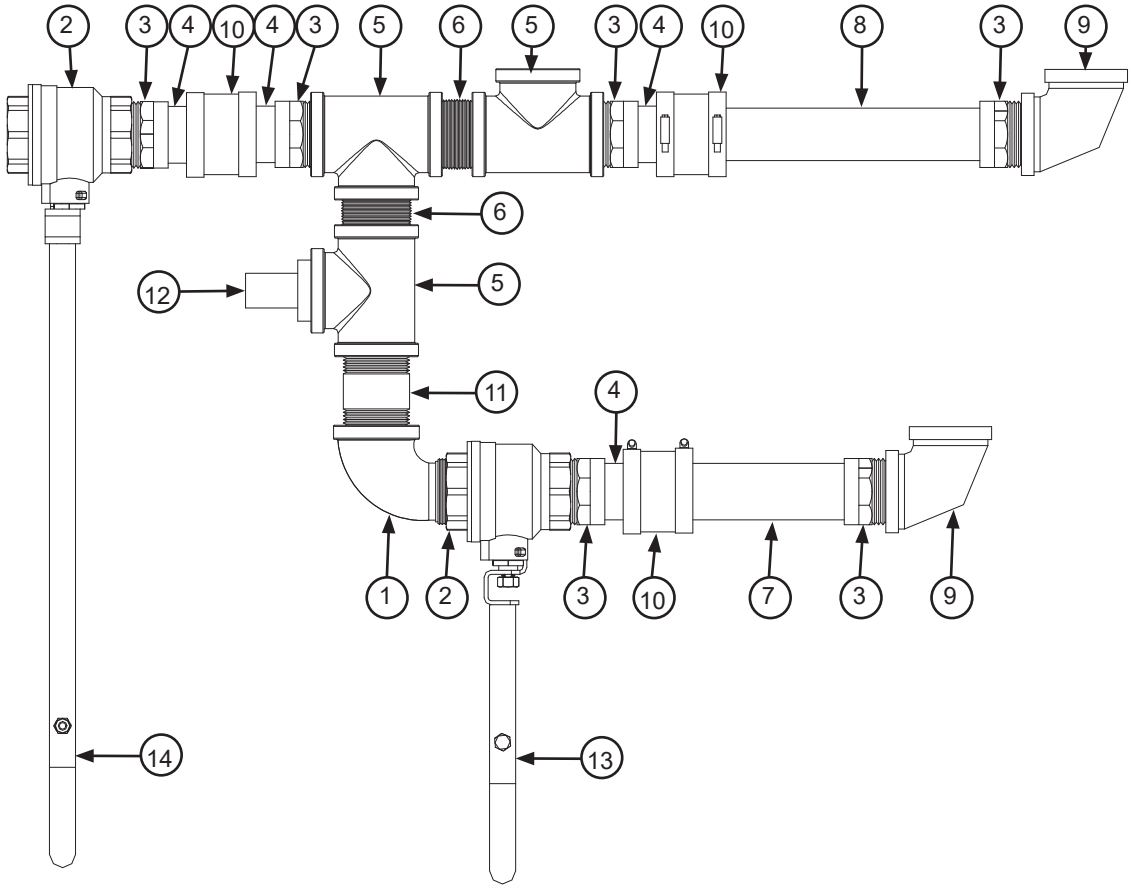
C-66/76/80/90 DRAIN PLUMBING, L-R



ITEM	QTY	DESCRIPTION	PART NUMBER
1	6	Adapter, Male to Female, 1 1/2”	04730-401-25-01
2	3	Connector, No-hub, 1 1/2”	04720-003-73-73
3	3	Tee, Brass, 1 1/2”	04730-011-69-93
4	2 2	Ball Valve, 1 1/2” Valve Handle Assembly (Not Shown)	04820-011-71-46 05700-021-84-74
5	2	Nipple, Close Brass, 1 1/2”	04730-207-40-00
6	2	Elbow, Brass, 90-degree, 1 1/2”	04730-011-73-77
7	2	Tube, Copper, 1 1/2” x 1 3/4” (All Models)	See note below.
8	1	Nipple, Rinse	05700-021-84-61
9	2	Tube, Copper, 1 1/2” x 3 1/2” (C-66), 1 1/2” x 6 1/2” (C-76) 1 1/2" x 10 1/4" (C-80), 1 1/2” x 11 1/2” (C-90)	See note below.
10	2	Tube, Copper, 1 1/2” x 7 1/2” (C-66), 1 1/2” x 10 1/4” (C-76) 1 1/2" x 14" (C-80), 1 1/2” x 15 1/4” (C-90)	See note below.
11	1	Nipple, Brass, 1 1/2” x 3”	04730-011-87-04

NOTICE *Copper tubing should be purchased locally and cut to the length shown in the part description.*

C-66/76/80/90 DRAIN PLUMBING, R-L

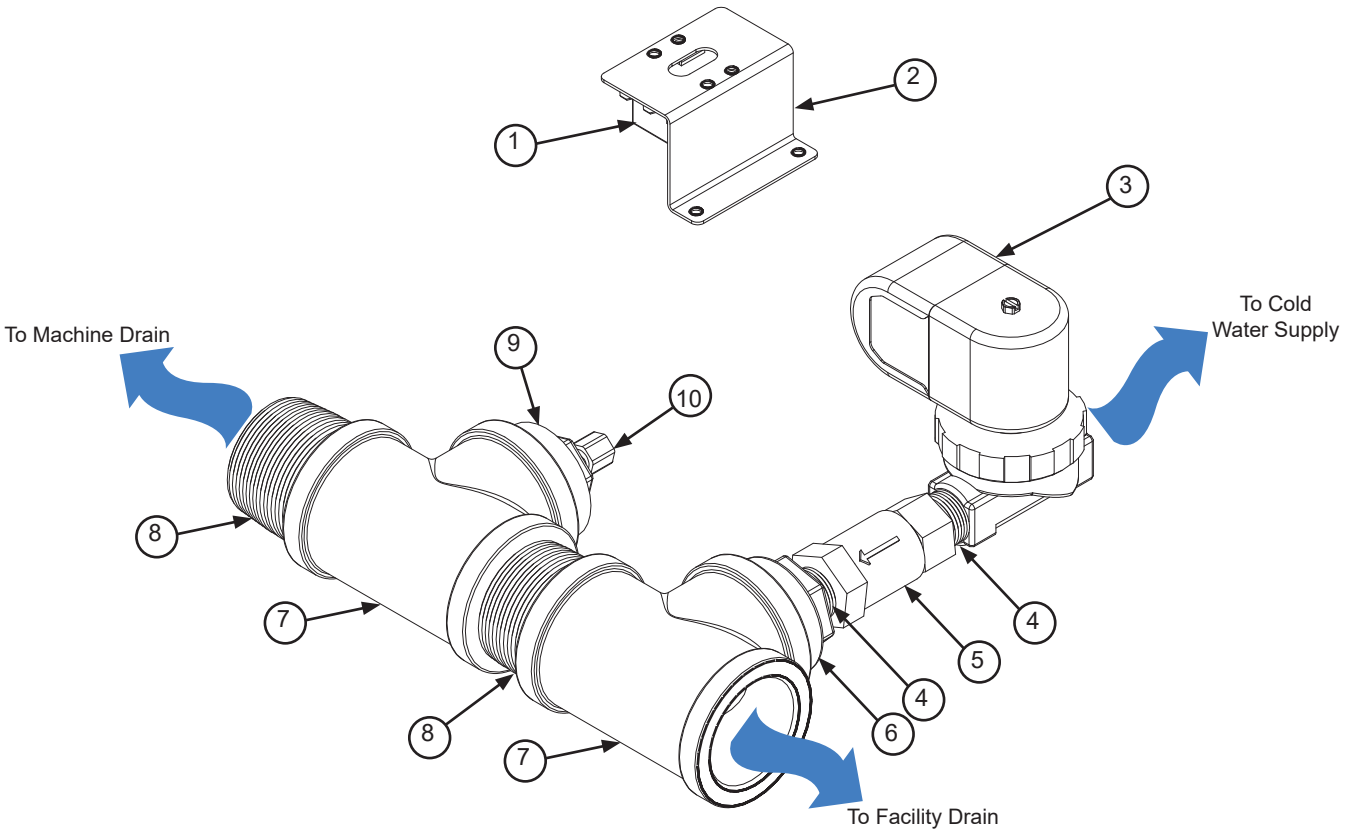


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Elbow, 1 1/2”, Street Brass	04730-206-32-00
2	2	Ball Valve, 1 1/2”	04820-011-71-46
3	6	Adapter, Male to Female, 1 1/2”	04730-401-25-01
4	4	Tube, Copper, 1 1/2” x 1 7/8” (All Models)	See note below.
5	3	Tee, Brass, 1 1/2”	04730-011-69-93
6	2	Nipple, Close Brass, 1 1/2”	04730-207-40-00
7	2	Tube, Copper, 1 1/2” x 5 3/16” (C-66), 1 1/2” x 10 3/16” (C-76) 1 1/2" x 14 3/16" (C-80), 1 1/2” x 19 3/16” (C-90)	See note below.
8	2	Tube, Copper, 1 1/2” x 8 1/8” (C-66), 1 1/2” x 13 1/8” (C-76) 1 1/2" x 17 1/8" (C-80), 1 1/2” x 22 1/8” (C-90)	See note below.
9	2	Elbow, Brass, 90-degree, 1 1/2”	04730-011-73-77
10	3	Connector, No-hub, 1 1/2”	04720-003-73-73
11	1	Nipple, Brass, 1 1/2” x 3”	04730-011-87-04
12	1	Nipple, Rinse	05700-021-84-61
13	1	Valve Handle Assembly	05700-021-84-74
14	1	Valve Handle Assembly	05700-002-57-82

NOTICE *Copper tubing should be purchased locally and cut to the length shown in the part description.*

DRAIN WATER TEMPERING SYSTEM

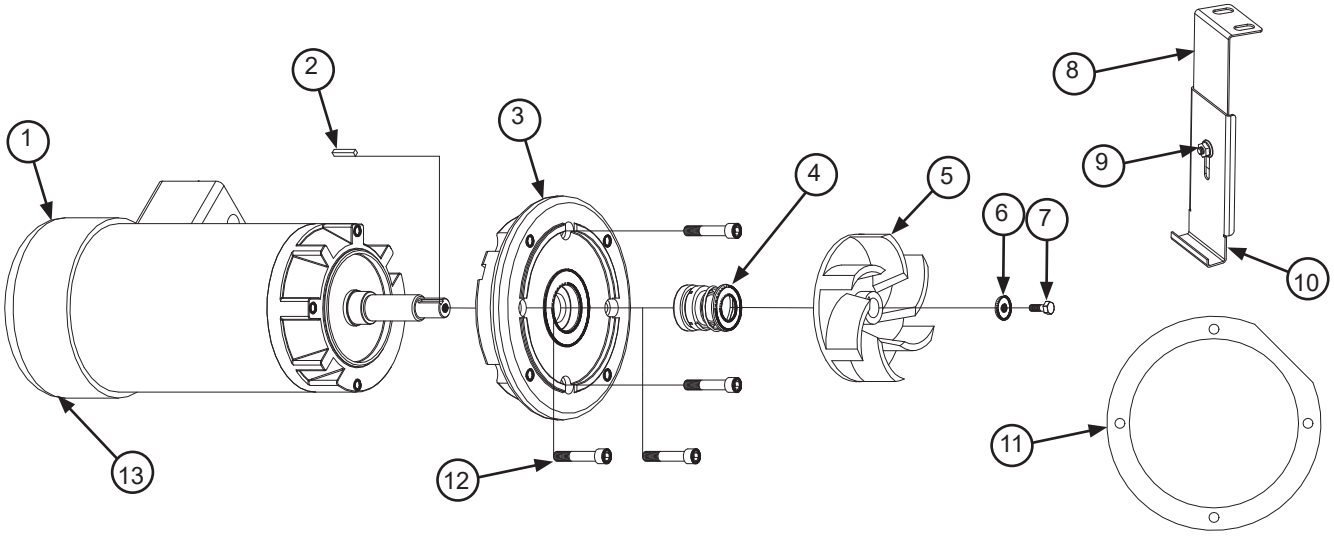
Complete Drain Water Tempering System
05700-002-44-07



From the existing drain, attach the two additional Tees (Item 7) using the 1 1/2” Close Brass Nipples (Item 8). Tighten the Reducers (Items 6 and 9) into the Tees as shown above. Attach the Modified Compression Fitting (Item 10) into the 1 1/2” to 1/4” Reducer (Item 9). Position the bulb of the thermostat (Item 1) so that it rests approximately 1/4” from the bottom of the Tee (Item 7). Tighten the Modified Compression Fitting (Item 10) as required.

Mount the Thermostat (Item 1) to the tub using the Thermostat Bracket (Item 2) and set it for 120–140 °F. Install the Solenoid Valve (Item 3) to the second Tee (Item 7) and then attach to the incoming cold water line. Use thread tape as required to prevent any leaks.

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Thermostat	05930-003-13-65
2	1	Thermostat Bracket	05700-011-81-64
3	1	Solenoid Valve	04810-100-12-18
4	2	Nipple, Close Brass, 1/2”	04730-207-15-00
5	1	Valve, Check, 1/2”	04820-002-55-77
6	1	Reducer, 1 1/2” to 1/2”	04730-002-55-75
7	2	Tee, 1 1/2” x 1 1/2” x 1 1/2”	04730-011-69-93
8	2	Nipple, Close Brass, 1 1/2”	04730-207-40-00
9	1	Reducer, 1 1/2” to 1/4”	04730-002-55-76
10	1	Modified Compression Fitting	05700-001-16-52



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Motor	See table on the next page.
2	1	Key, 3/16” x 1”	05700-011-89-17
3	1	Pump Plate	05700-021-71-83
4	1	Pump Seal	05330-011-71-98
5	1 1	Impeller (C-44/54) Impeller (C-66/76/80/90)	05700-031-67-45 05700-031-71-78
6	1	Impeller Washer	05700-011-71-95
7	1	Bolt, Hex Head 1/4-20 x 3/4”	05305-004-42-64
8	1	Upper Support Bracket	05700-021-73-68
9	1	Nut, 1/4-20 Serrated	05310-011-66-49
10	1	Lower Support Bracket	05700-021-73-71
11	1	Motor Mounting Gasket	05330-011-71-62
12	1	Cap Screw, 3/8-16 x 2”	05305-011-74-98
13	1	Motor Mounting Clamp, 4 1/8” - 7” (Not Shown)	04730-002-32-15

Complete Motor Bracket Assembly
Items 8,9, and 10
05700-021-73-42

WASH MOTORS

Volts	Phase	Hz	Motor Part Number	Complete Kit Part Number
200-440	3	50	06105-121-81-34	06401-003-09-96
208-230	1	60	06105-021-70-57	06401-003-09-97
208-230	3	60	06105-004-69-12	06401-003-09-98
380	3	60	06105-121-81-34	06401-003-09-96
460	3	60	06105-004-69-12	06401-003-09-98
600	3	60	06105-002-48-31	06401-003-09-99

PRE-WASH MOTORS

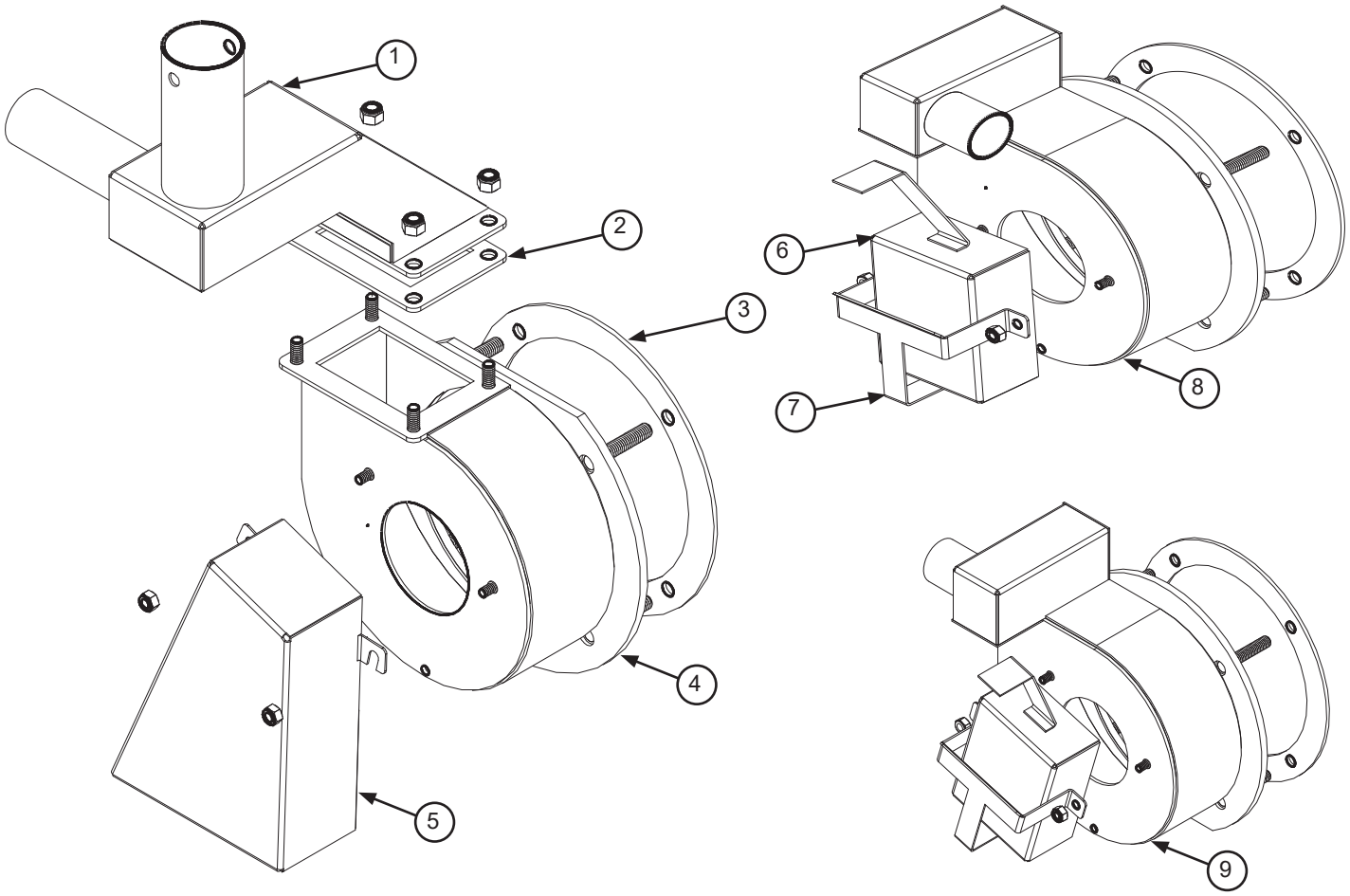
C-66/76

Volts	Phase	Hz	Motor Part Number	Complete Kit Part Number
208-230	3	50	06105-121-70-56	06401-003-10-38
380	3	50	06105-121-81-34	06401-003-10-39
415	3	50	06105-121-81-34	06401-003-10-39
440	3	50	06105-121-70-56	06401-003-10-38
208-230	1	60	06105-121-70-55	06401-003-10-40
208-230	3	60	06105-004-69-11	06401-003-10-38
380	3	60	06105-121-70-56	06401-003-10-38
460	3	60	06105-004-69-11	06401-003-10-38
600	3	60	06105-002-48-31	06401-003-10-41

C-80/90

Volts	Phase	Hz	Motor Part Number	Complete Kit Part Number
208-230	3	50	06105-121-81-34	06401-003-10-39
380	3	50	06105-121-81-34	06401-003-10-39
415	3	50	06105-121-81-34	06401-003-10-39
440	3	50	06105-121-81-34	06401-003-10-39
208-230	1	60	06105-021-70-57	06401-003-10-42
200-230	3	60	06105-121-70-58	06401-003-10-43
380	3	60	06105-121-81-34	06401-003-10-39
460	3	60	06105-121-70-58	06401-003-10-43
600	3	60	06105-002-48-31	06401-003-10-41

PRE-WASH & WASH PUMPS

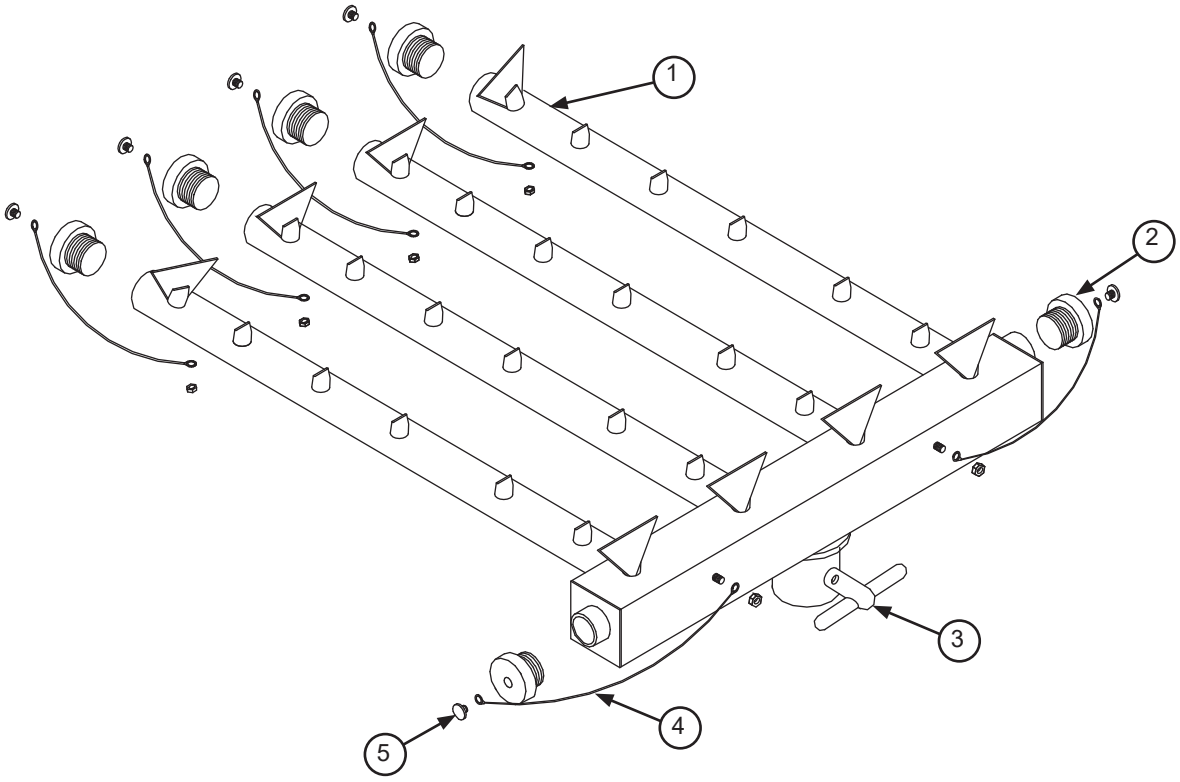


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Pump Discharge	05700-002-50-90
2	1	Gasket	05330-002-54-55
3	1	Motor Mounting Gasket	05330-011-71-62
4	1	Wash Pump	05700-002-50-92
5	1	Intake Suction Scoop	05700-002-51-20
6	1	Pre-wash Intake Strainer	05700-021-74-96
7	1	Pre-wash Strainer Bracket	05700-021-74-94
8	1	Pre-wash Pump, C-66/76/80/90, L-R	05700-002-43-56
9	1	Pre-wash Pump, C-66/76/80/90, R-L	05700-002-42-69

LOWER WASH ARM

Complete Lower Wash Arm Assembly, 50 Hz Machines
05700-002-24-86

Complete Lower Wash Arm Assembly, 60 Hz Machines
05700-031-74-66

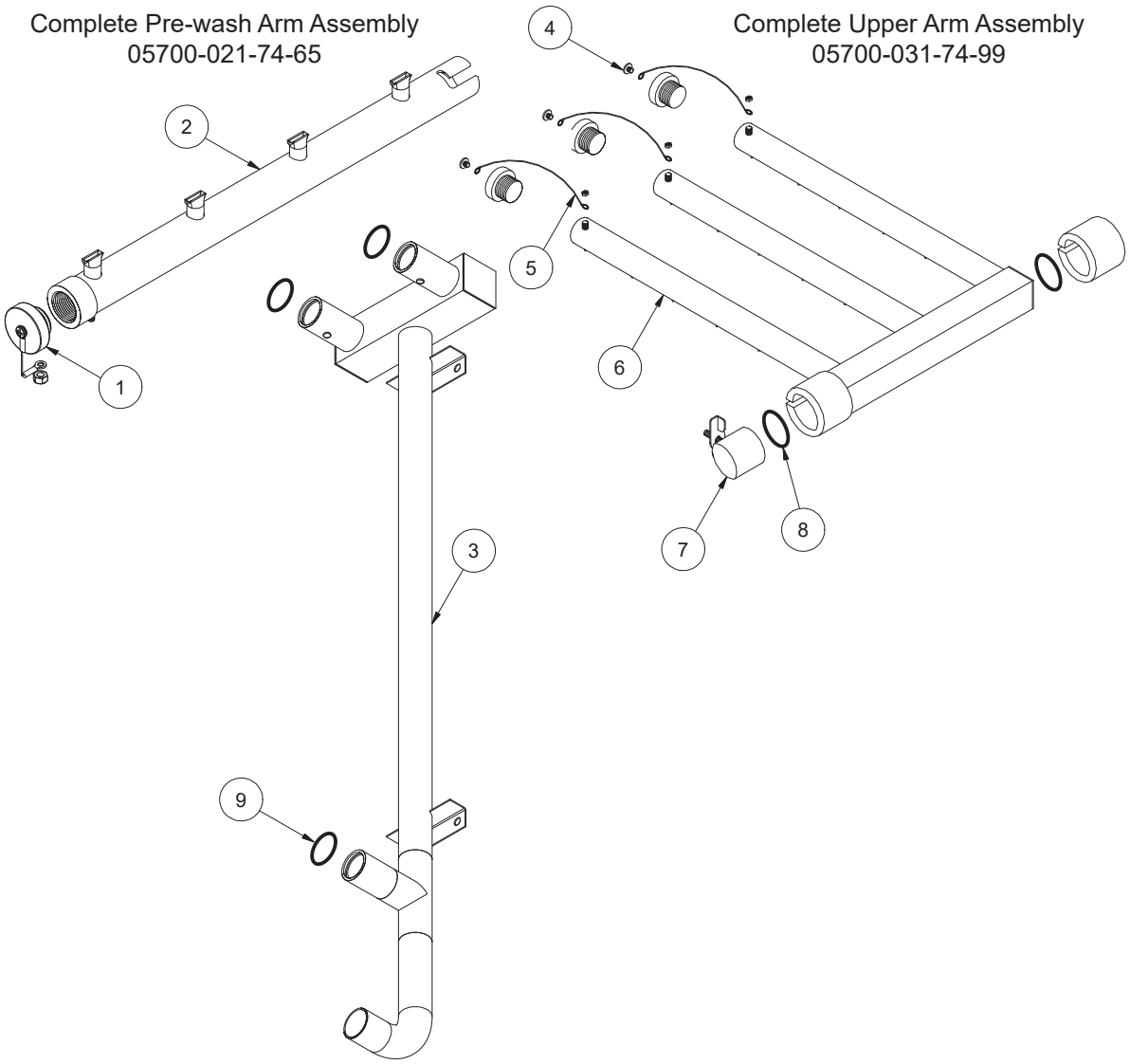


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1 1	Lower Wash Arm Manifold, 50 Hz Machines Lower Wash Arm Manifold, 60 Hz Machines	05700-002-24-87 05700-031-67-29
2	6 6	End-cap End-cap Replacement Kit*	05700-011-67-11 06401-003-10-19*
3	1	Manifold Quick-Release Key	05700-011-94-45
4	6	Lanyard	05340-011-72-46
5	6	Mounting Screw, End-cap, 10-32 x 3/8"	05305-173-12-00

*Kit includes the end-cap, lanyard, and mounting screw.

NOTICE *When replacing the screws in the end-caps, use a thread-locking product to ensure the mounting screws do not come loose during operation.*

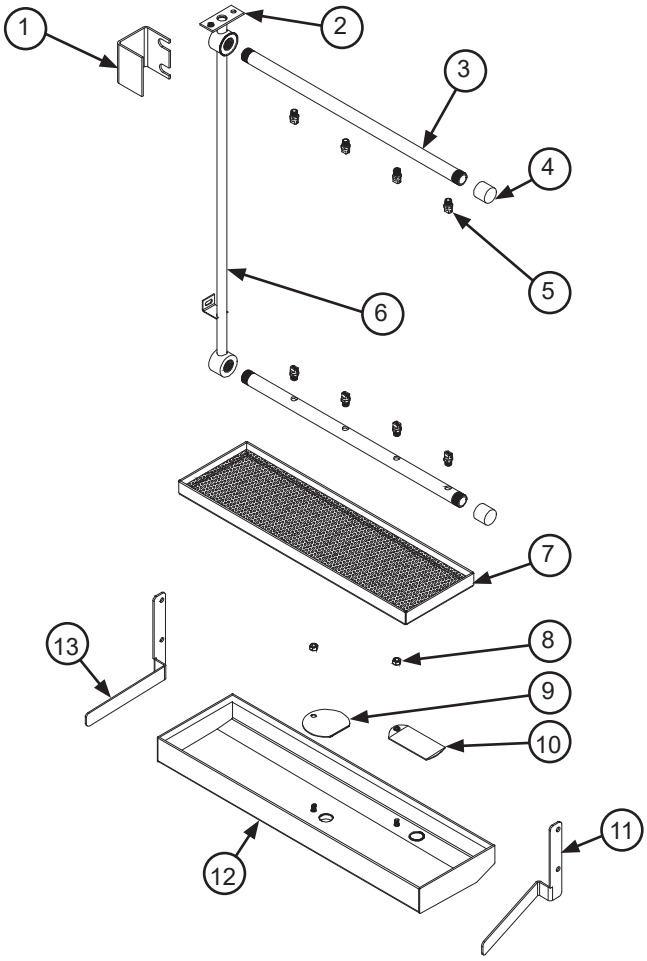
PRE-WASH ARM & UPPER WASH ARM



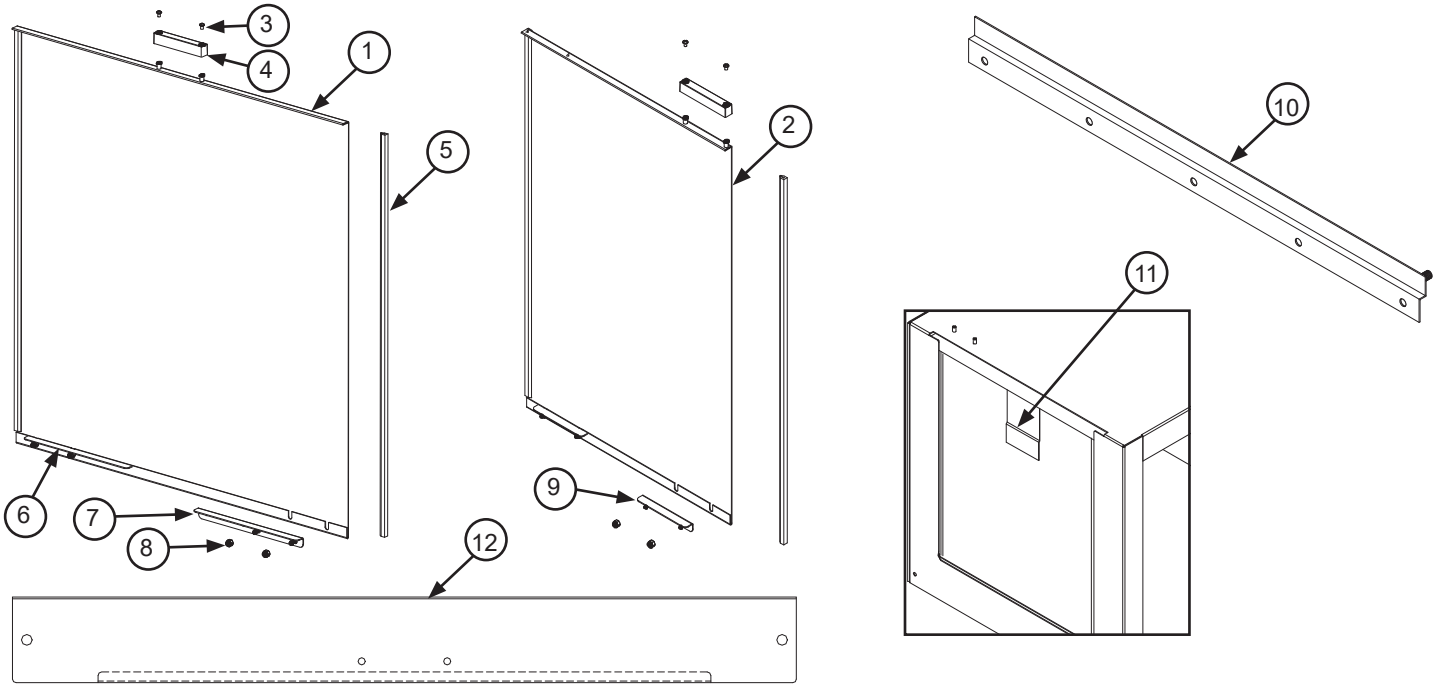
ITEM	QTY	DESCRIPTION	PART NUMBER
1	4 4	End-cap End-cap Replacement Kit*	05700-011-67-11 06401-003-10-19*
2	1	Pre-wash Tube (C-66/76/80/90)	05700-001-16-89
3	1	Pre-wash Manifold (C-66/76/80/90)	05700-031-69-70
4	4	Mounting Screw, End-cap, 10-32 x 3/8"	05305-173-12-00
5	4	Lanyard	05340-011-72-46
6	1	Upper Wash Arm	05700-031-67-34
7	1	Cap, Wash Tube	05700-021-69-68
8	2	O-ring, Upper Wash Arm	05330-011-74-56
9	3	O-ring, Pre-wash Manifold	05330-400-12-08
10	1	Upper Wash Manifold Support Bracket (Not Shown)	05700-021-73-97

** Kit contains part(s) and all hardware.*

NOTICE *When replacing the screws in the end-caps, use a thread-locking product to ensure the mounting screws do not come loose during operation.*

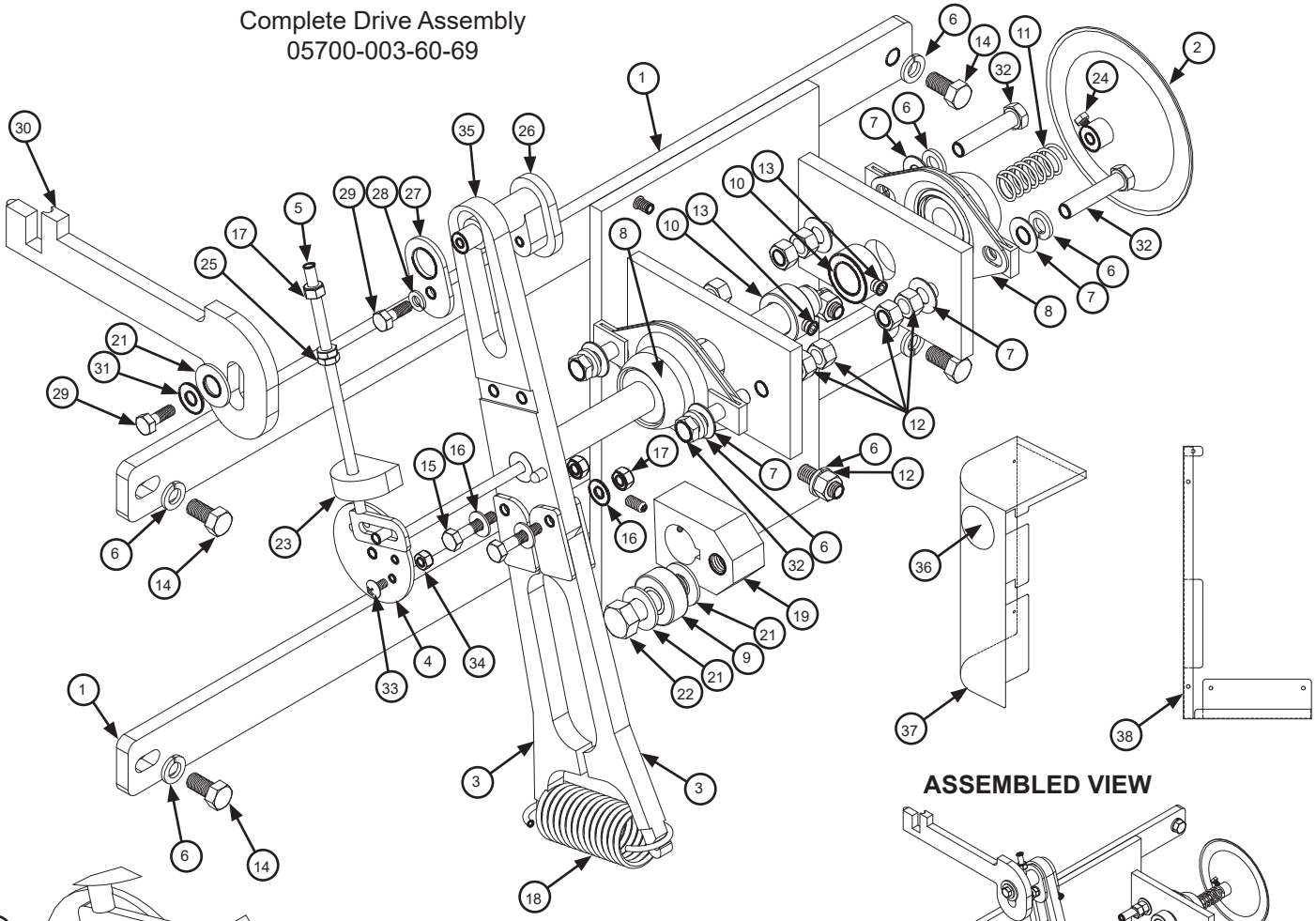


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Rinse Arm Support Bracket	05700-002-06-24
2	1	Gasket, Final Rinse Manifold	05330-111-42-81
3	2	Rinse Arm	05700-002-02-18
4	2	End-cap	05700-002-02-19
5	8	Rinse Nozzle	04730-003-59-63
6	1	Final Rinse Manifold	05700-002-97-41
7	1	Rinse Pan Strainer	05700-041-85-09
8	2	Locknut, 1/4-20 with Nylon Insert	05310-374-01-00
9	1	Rinse Drain Control Plate	05700-011-68-70
10	1	Rinse Drain Overflow Plate	05700-002-53-62
11	1	Left Rinse Pan Locator Bracket	05700-021-92-38
12	1	Rinse Tray	05700-002-51-18
13	1	Right Rinse Pan Locator Bracket	05700-021-92-37

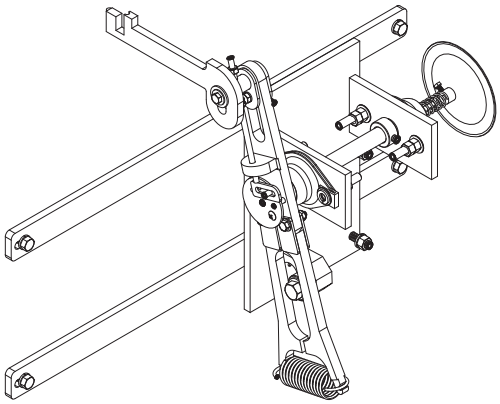


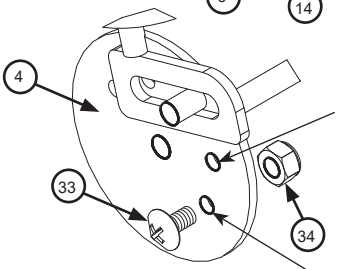
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Door	05700-003-13-47
2	1 1	Pre-wash Door, Left-to-Right Pre-wash Door, Right-to-Left	05700-003-13-42 05700-003-13-40
3	1	Screw, 8-32 x 1/4”	05305-172-09-00
4	1	Door Switch Magnet	05700-111-51-68
5	2	Door Guide	05700-111-70-92
6	1	Bracket, Right Door Stop	05700-002-96-33
7	1	Bracket, Left Door Stop	05700-002-96-32
8	4	Locknut, 10-24 Hex with Nylon Insert	05310-373-01-00
9	2	Bracket, Pre-wash Door Stop	05700-002-05-46
10	1 1	Left Door Guide Right Door Guide	05700-002-32-51 05700-031-76-44
11	1	Door Catch	05700-031-84-80
12	1 1	Door Hood Support Pre-wash Door Hood Support	05700-031-84-13 05700-031-84-14
13	1	Door Stiffener (Not Shown)	05700-031-83-43

Complete Drive Assembly
05700-003-60-69



ASSEMBLED VIEW





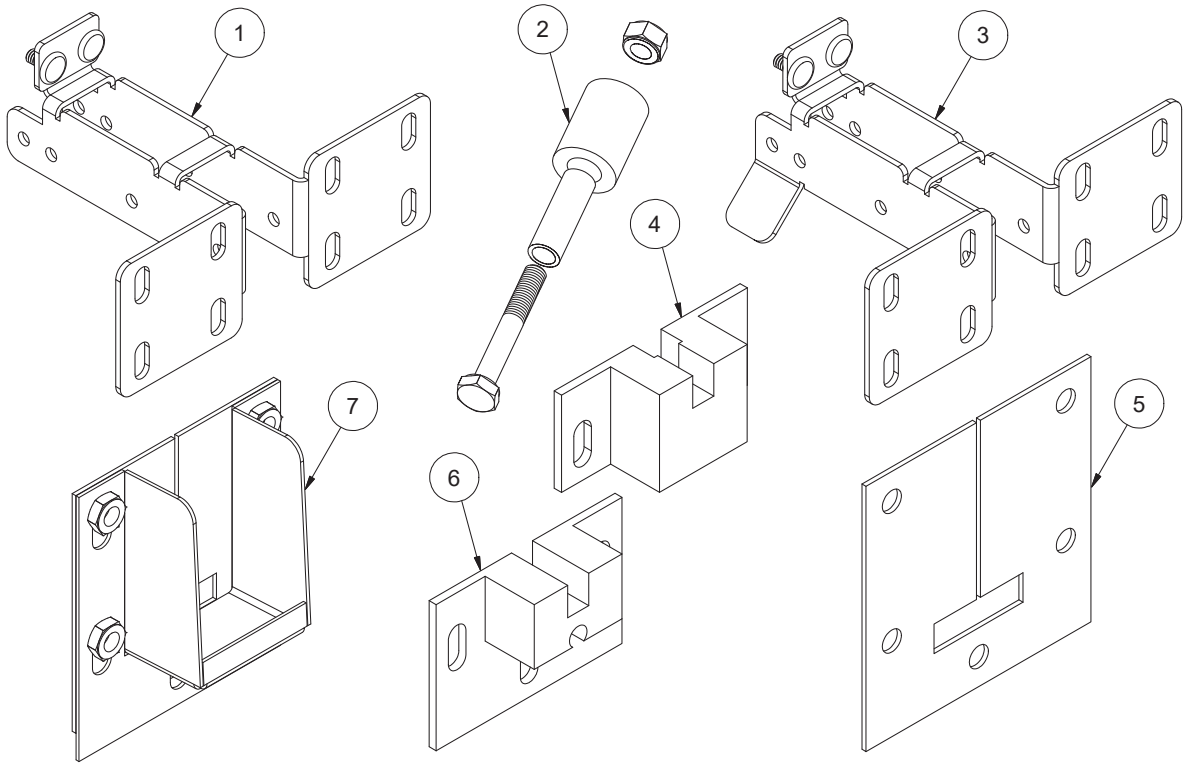
Part numbers 33 and 34 are assembled in this hole for all low-temperature (chemical-sanitizing) machines.

Part numbers 33 and 34 are assembled in this hole for all high-temperature (hot-water-sanitizing) machines. (This is the hole in the farthest clockwise position.)

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Mounting Bracket Drive Motor	05700-031-73-56
2	1	Adjuster, Handle	05700-021-72-28
3	2	Coupling & Expansion Legs	05700-021-67-50
4	1	Adjuster, Crank Assembly	05700-021-69-95
5	1	Adjuster, Scotch Yoke	05700-021-69-76
6	12	Lockwasher, 3/8"	05311-276-01-00
7	8	Flat Washer, 3/8”	05311-176-01-00
8	2	Block, Pillow	03120-021-71-87
9	1	Bearing, Roller	03120-011-71-81

ITEM	QTY	DESCRIPTION	PART NUMBER
10	2	Collar, Shaft Conveyor Drive	05700-011-89-18
11	1	Spring, Adjuster	05315-011-71-90
12	12	Nut, Hex, 3/8-16	05310-276-01-00
13	2	Set Screw, 5/16-18 x 1/4"	05305-002-98-39
14	4	Bolt, 3/8-16 x 3/4”	05306-011-71-60
15	2	Bolt, 1/4-20 x 1/4"	05305-274-22-00
16	4	Washer, 1/4-20	05311-174-01-00
17	3	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
18	1	Spring, Drive	05315-011-83-51
19	1	Hub, Drive	05700-011-67-97
20	1	Set Screw, 1/4-20 x 1/2"	05305-011-71-51
21	3	Flat Washer, 1/2”	05311-011-71-93
22	1	Bolt, 1/2-13 x 1 3/4"	05305-011-71-94
23	1	Plate, Drive Rod	05700-021-67-42
24	1	Bolt, 10-32 x 3/8" Hex Head	05306-011-62-45
25	2	Nut, Hex, 1/4-20	05310-274-01-00
26	1	Socket, Drive	05700-021-67-39
27	1	Plate, Spacer	05700-011-67-58
28	1	Lockwasher, Spring, 1/4"	05311-274-01-00
29	2	Bolt, Hex Head 1/4-20 x 3/4"	05305-004-42-64
30	1	Casting, Pawl Bar Drive Linkage	09515-021-87-73
31	1	Washer, 5/16-18	05311-175-01-00
32	4	Bolt, 3/8-16 x 1 3/4”	05306-011-36-94
33	1	Screw, 10-24 x 3/8"	05305-173-03-00
34	1	Locknut, 10-24 Hex with Nylon Insert	05310-373-01-00
35	1	Drive Plate and Rod	05700-021-67-44
36	1	Decal, Drive Adjuster	09905-003-61-01
37	1	Front Drive Motor Cover	05700-031-69-39
38	1	Rear Drive Motor Cover	06401-004-84-81
39	1	Gear Drive (Not Shown)	06105-011-71-88
Drive Motors	1	Drive Motor (50 Hz Machines)	06401-003-08-41
	1	Drive Motor (208-230 V, 60 Hz, Single-Phase Machines)	06401-003-08-42
	1	Drive Motor (208-230 V, 60 Hz, Three-Phase Machines)	06401-003-08-40
	1	Drive Motor (460 V, 60 Hz, Three-Phase Machines)	06401-003-08-40
	1	Drive Motor (600 V, 60 Hz, Three-Phase Machines)	06401-002-48-32

PAWL BAR ROLLER BRACKET



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Pawl Bar Bracket (No Tabs)	05700-031-92-36
2	1	Pawl Bar Roller Replacement Kit[1]	06401-003-11-80
3	1	Pawl Bar Bracket (Tabs)	05700-031-84-68
4	1 1	Top Guide Block Guide Block Replacement Kit[2]	05700-011-69-49 06401-003-10-15
5	1	Pawl Bar Gutter Gasket	05330-011-68-55
6	1	Bottom Guide Block	05700-011-69-50
7	1	Pawl Bar Gutter Replacement Kit[3]	05700-021-74-94

[1]Kit contains roller, roller shaft, and hardware.

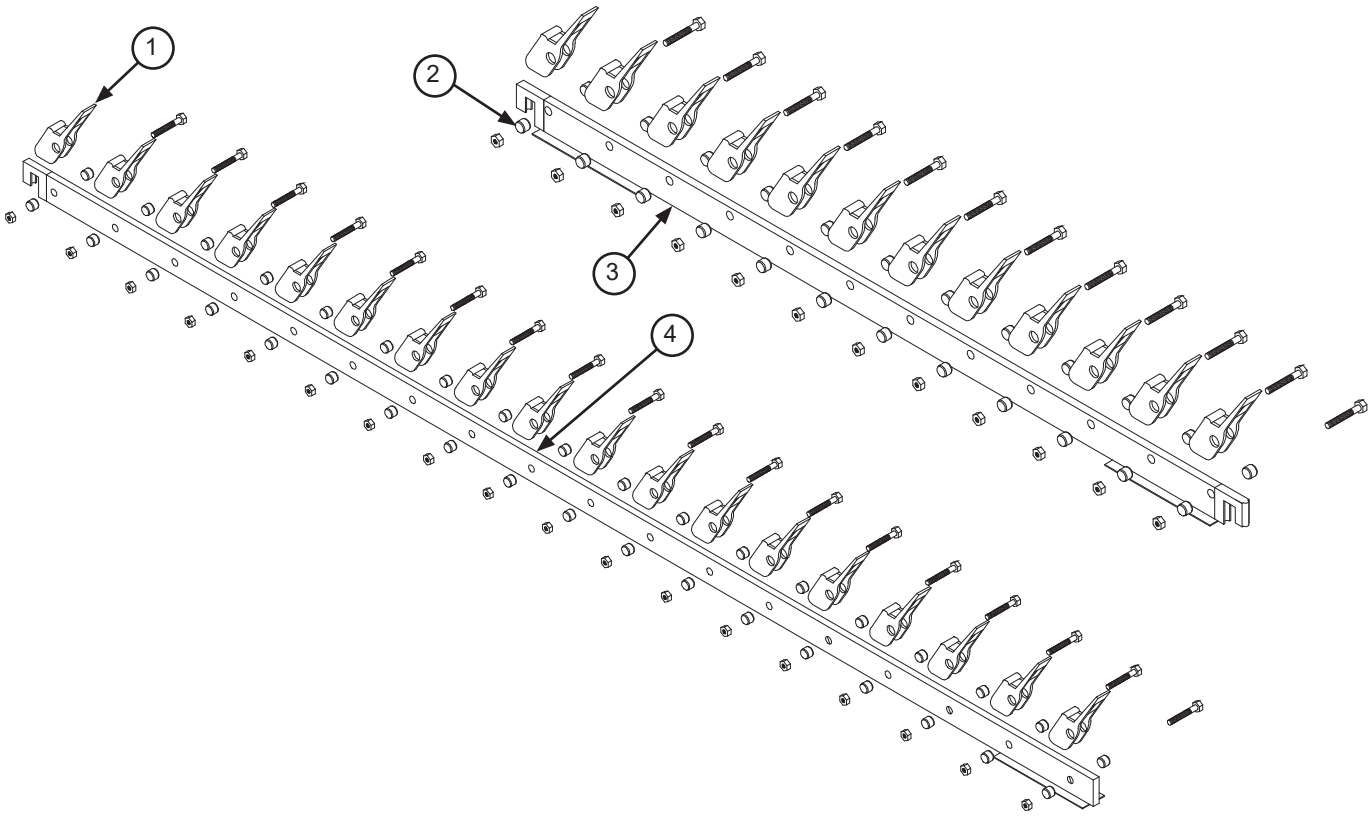
[2]Kit contains top guide block, bottom guide block, and gasket.

[3]Kit contains weldment, gasket, and hardware.

NOTICE *When replacing one guide block, other guide block and gasket should be replaced as well.*

Complete C-44 Pawl Bar Assembly with Hardware
06401-131-81-00

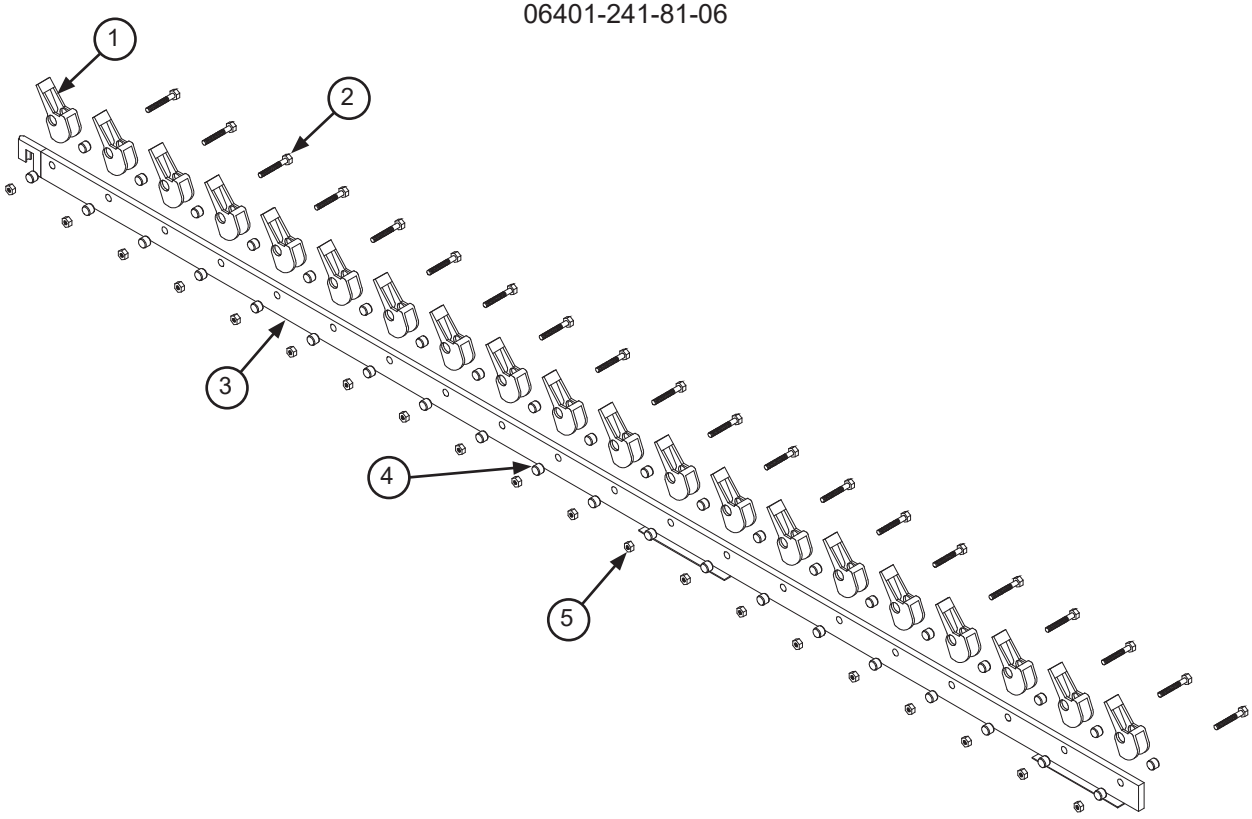
Complete C-66 Pawl Bar Assembly with Hardware
06401-141-74-64



ITEM	QTY	DESCRIPTION	PART NUMBER
1	12 on C-44 18 on C-66	Pawl Bar Dog Casting	09515-021-69-00
2	24 on C-44 36 on C-66	Pawl Bar Spacer	05700-011-71-45
3	1	Pawl Bar (C-44)	05700-031-72-77
4	1	Pawl Bar (C-66)	05700-031-72-78

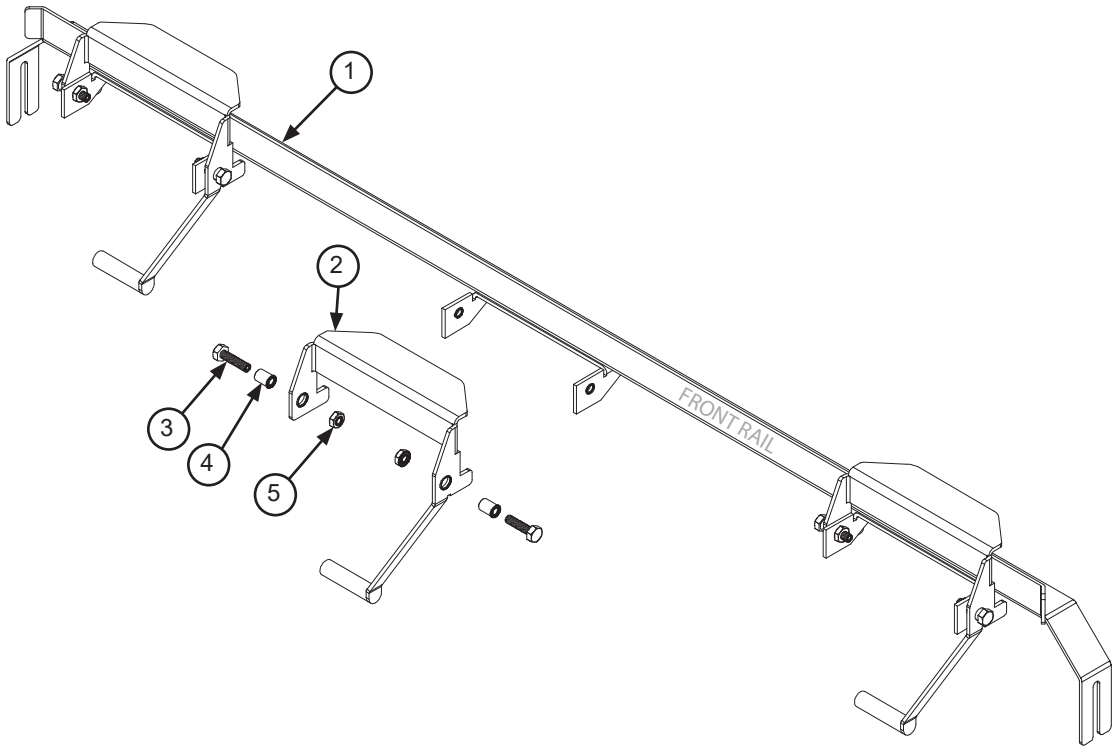
Complete C-80 Pawl Bar Assembly with Hardware, L-R
06401-131-81-06

Complete C-80 Pawl Bar Assembly with Hardware, R-L
06401-241-81-06



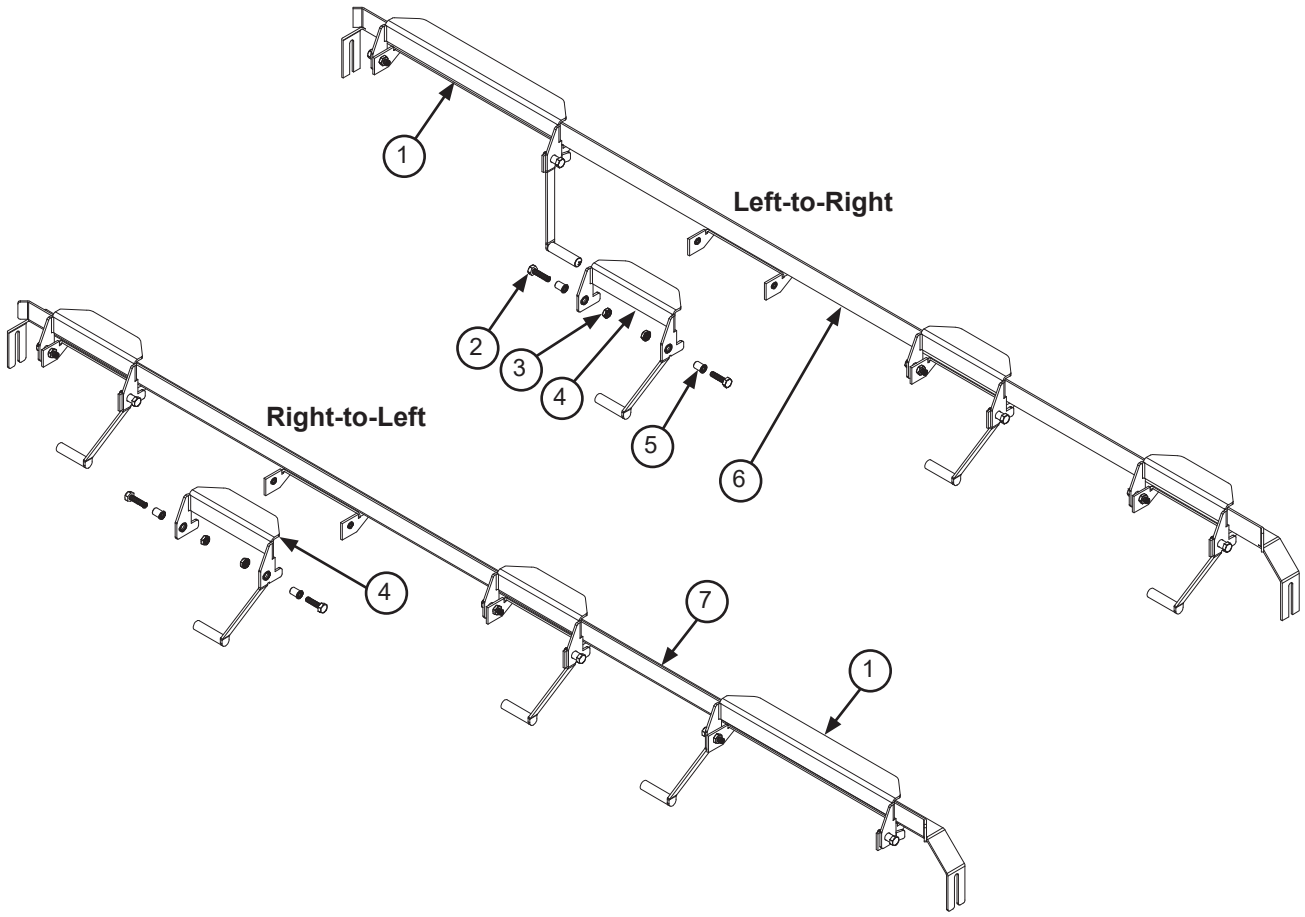
ITEM	QTY	DESCRIPTION	PART NUMBER
1	20	Pawl Bar Dog Casting[1]	09515-021-69-00
2	20	Bolt, 3/8-16 x 1-3/4” Long	05306-011-36-94
3	1 1	Pawl Bar (L-R) Pawl Bar (R-L)	05700-031-74-19 05700-041-82-01
4	40	Pawl Bar Spacer	05700-011-71-45
5	20	Locknut, 3/8-16 with Nylon Insert	05310-011-72-55

[1]When replacing pawl bar dog castings, ensure to re-install in appropriate direction. If not, rack will not be pulled through machine during operation.



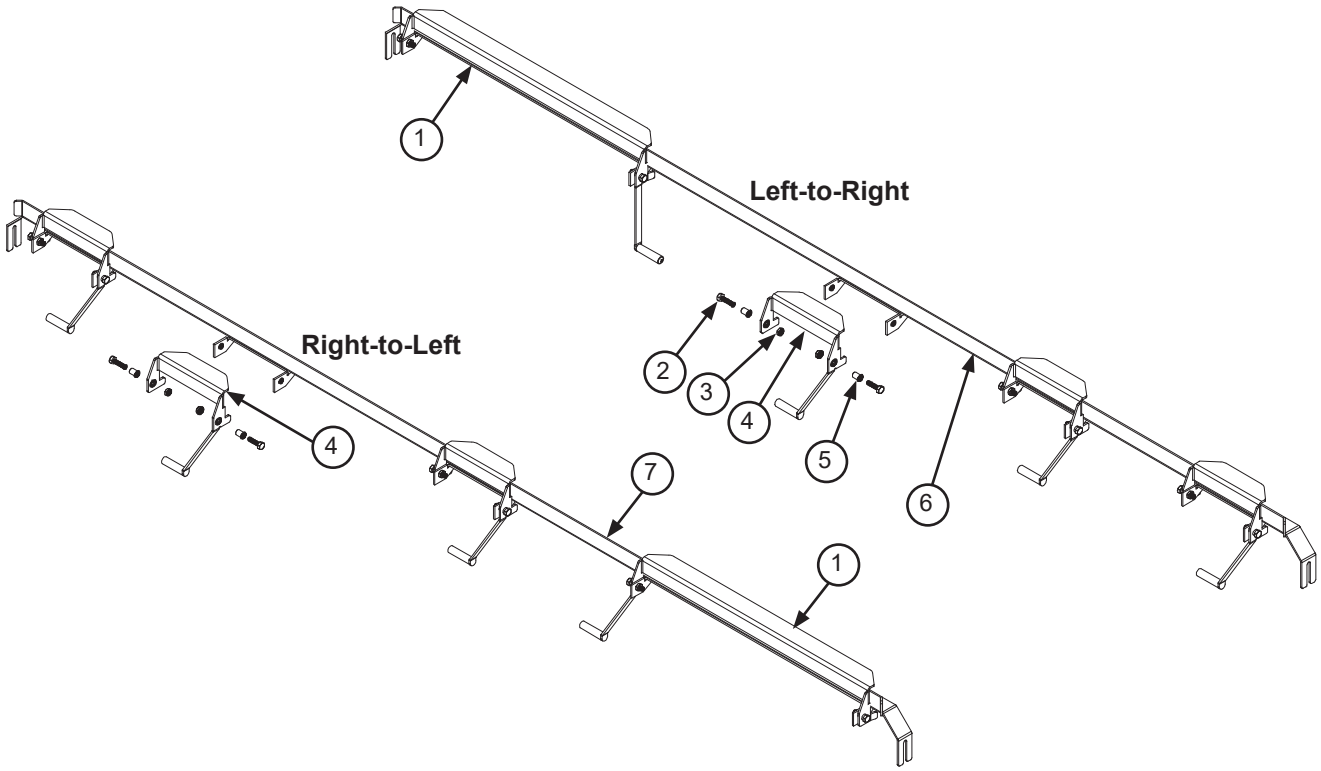
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1 1	Front Rack Rail Rear Rack Rail (Not Shown)	05700-031-69-48 05700-031-67-59
2	3	Actuator Switch Actuator Switch Replacement Kit[1]	05700-021-72-39 06401-003-10-14
3	6	Bolt, Hex Head 1/4-20 x 3/4"	05305-004-42-64
4	6	Pawl Bar Spacer	05700-011-71-44
5	6	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00

[1]Kit contains the switch, two spacers, and hardware.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1 1	Large Actuator Switch, L-R Large Actuator Switch Replacement Kit, L-R[1] Large Actuator Switch, R-L Large Actuator Switch Replacement Kit, R-L[1]	05700-021-76-97 06401-003-10-99 05700-002-91-09 06401-003-10-86
2	8 per rail	Bolt, Hex Head 1/4-20 x 3/4"	05305-004-42-64
3	8 per rail	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
4	3 per rail	Actuator Switch Actuator Switch Replacement Kit[1]	05700-021-72-39 06401-003-10-14
5	8 per rail	Pawl Bar Spacer	05700-011-71-44
6	1	Rack Rail, L-R Opposite Rack Rail, L-R	05700-031-76-27 05700-041-71-37
7	1	Rack Rail, R-L Opposite Rack Rail, R-L	05700-031-76-28 05700-041-69-54

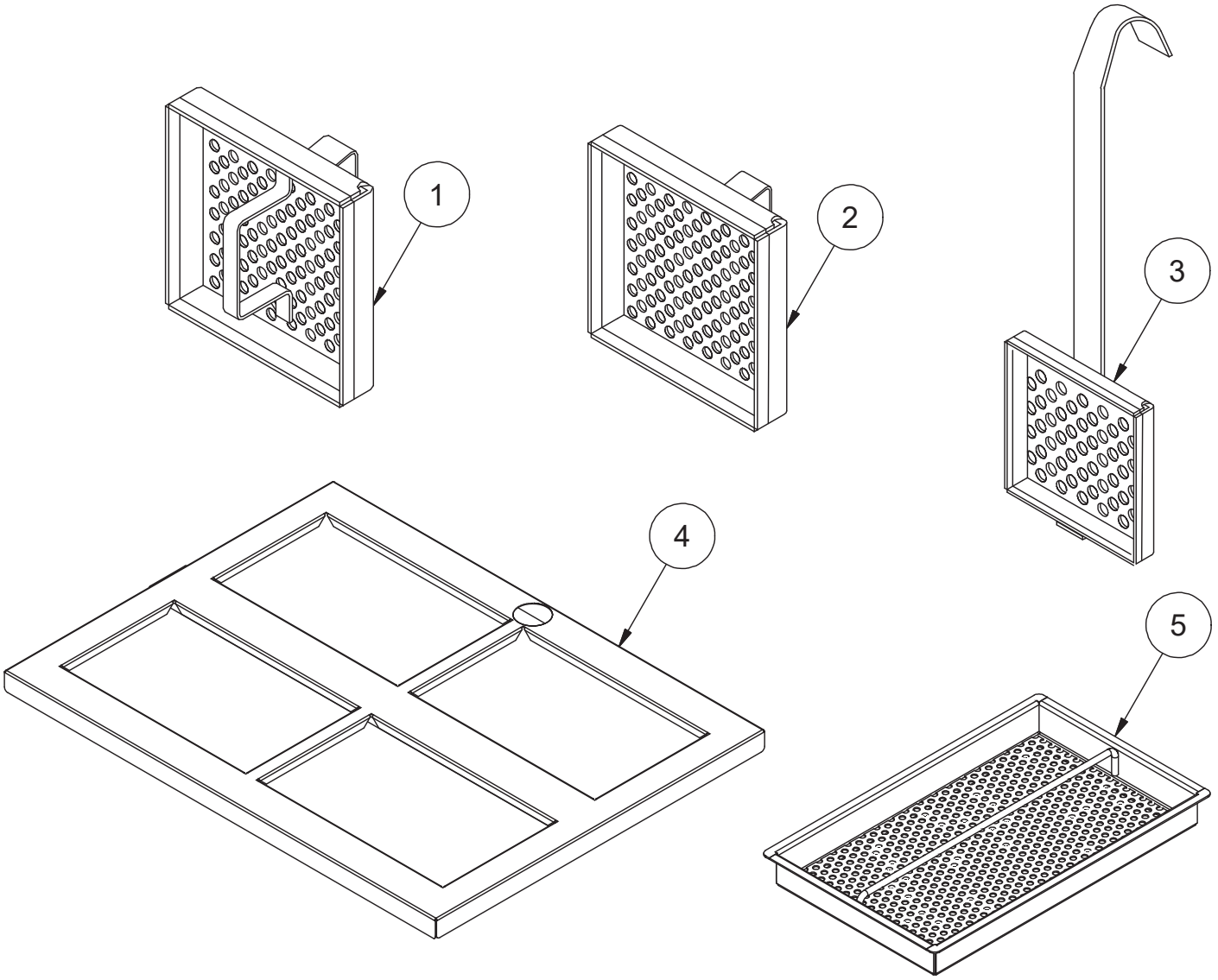
[1]Kits contain the switch, two spacers, and hardware.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1 1	Large Actuator Switch, L-R Large Actuator Switch Replacement Kit, L-R[1] Large Actuator Switch, R-L Large Actuator Switch Replacement Kit, R-L[1]	05700-021-77-01 06401-003-10-83 05700-002-91-10 06401-003-10-85
2	8 per rail	Bolt, Hex Head 1/4-20 x 3/4"	05305-004-42-64
3	8 per rail	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
4	3 per rail	Actuator Switch Actuator Switch Replacement Kit[1]	05700-021-72-39 06401-003-10-14
5	8 per rail	Pawl Bar Spacer	05700-011-71-44
6	1	Rack Rail, L-R Opposite Rack Rail, L-R	05700-031-81-53 05700-041-74-13
7	1	Rack Rail, R-L Opposite Rack Rail, R-L	05700-031-81-54 05700-041-74-14

[1]Kits contain the switch, two spacers, and hardware.

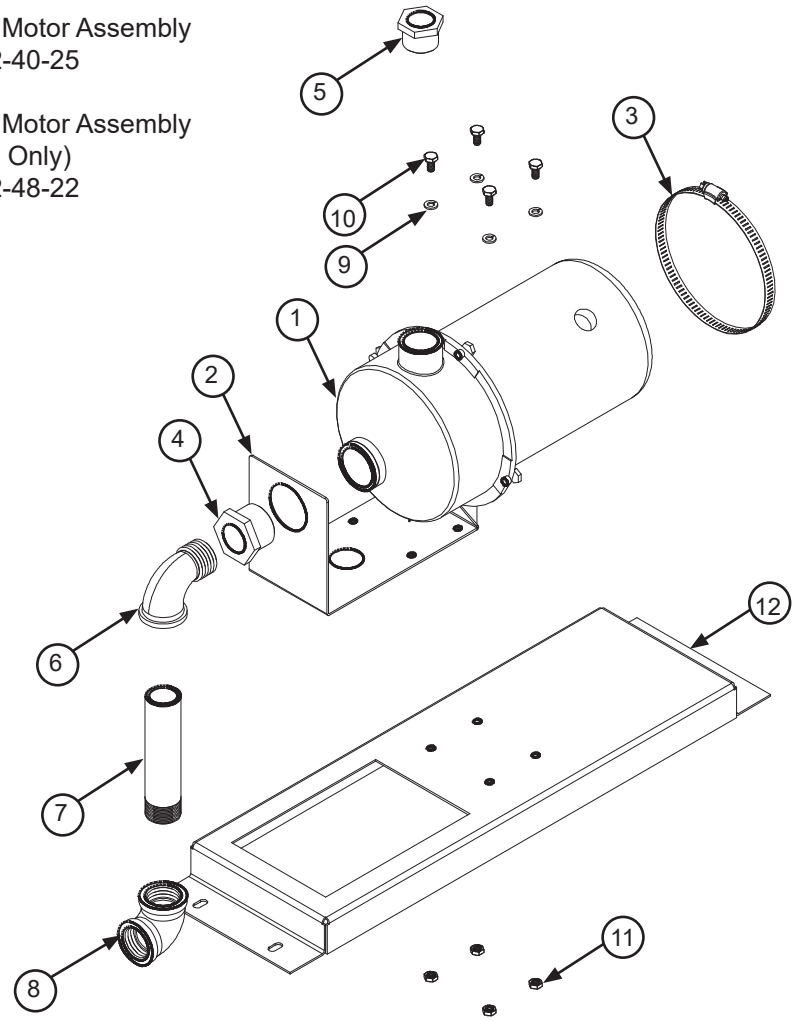
Parts are not shown to scale with relation to each other.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Drain Guard Strainer	05700-002-09-15
2	1	Screen Strainer with Handle	05700-002-09-04
3	1	Wash Intake Strainer	05700-001-22-23
4	1	Wash Strainer Separator	05700-002-48-43
5	1	Tub Strainer	05700-002-03-21

Complete Rinse Fill Motor Assembly
05700-002-40-25

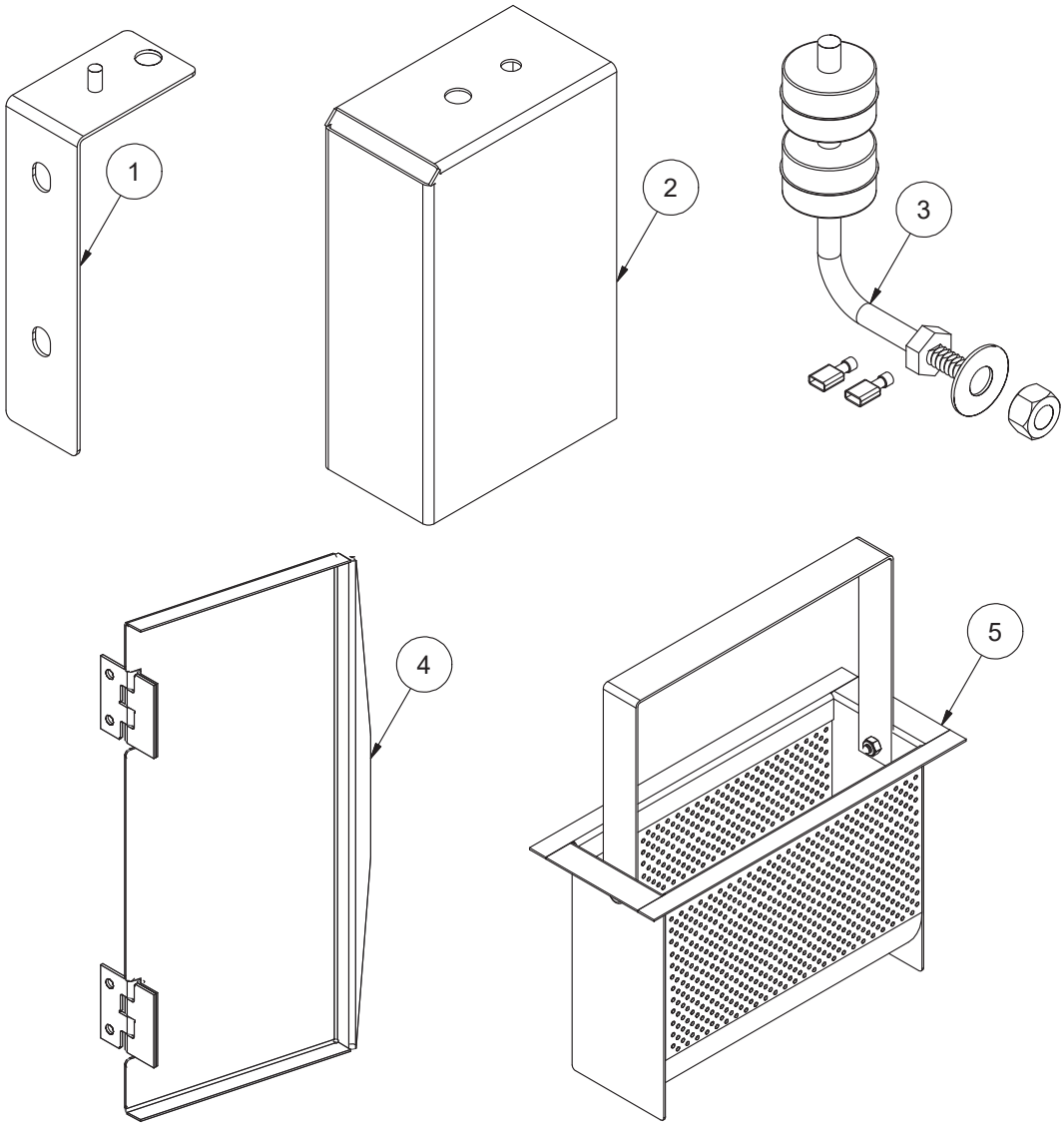
Complete Rinse Fill Motor Assembly
(C-66 L-R Only)
05700-002-48-22



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Motor	06105-002-72-71
2	1	Bracket, Pump Mounting	05700-003-17-56
3	1	Clamp, Hose 5 5/8” to 6”	04730-011-34-90
4	1	Reducer Bushing, 1 1/4” to 1”	04730-002-73-62
5	1	Reducer Bushing 1” to 3/4”	04730-011-65-14
6	1	Elbow, 90-Degree, 1” Street Brass	04730-002-11-99
7	1	Nipple, 1” x 6” Brass	04730-002-12-00
8	1	Elbow, 90-Degree, Brass Female	04730-002-12-55
9	4	Lockwasher, 1/4”	05311-274-01-00
10	4	Bolt, 1/4”-20 x 1/2”	05305-274-02-00
11	4	Nut, Hex 1/4-20	05310-274-01-00
12	1	Rinse Motor Mounting Bracket Rinse Motor Mounting Bracket (C-66 L-R Only)	05700-002-38-90 05700-002-39-33

FLOAT SWITCH/SCRAP BASKET

Parts are not shown to scale with relation to each other.



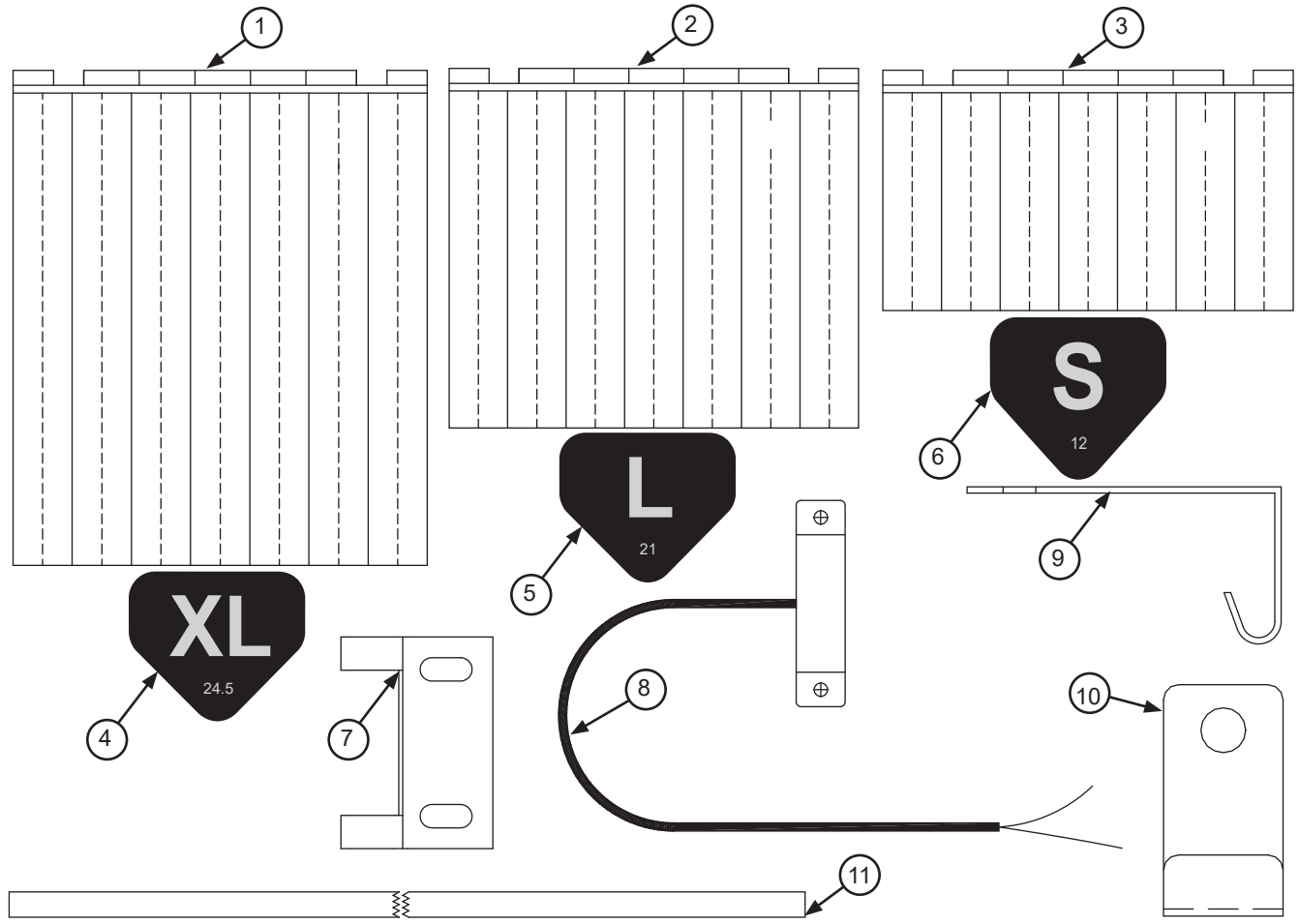
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Float Switch Support Bracket Kit*	06401-003-11-77
2	1	Float Switch Cover	05700-021-75-71
3	1	Wash Tank Float Switch Kit* Pre-wash Tank Float Switch Kit*	06401-003-11-75 06401-003-11-76
4	1	Scrap Basket Lid	05700-002-56-55
5	1	Scrap Basket Assembly	06401-011-87-78

** Kit contains part(s) and all hardware.*

NOTICE *When installing float switch kit, washer goes inside tub and nut goes outside tub.*

CURTAINS/CONVEYOR SWITCH

Parts are not shown to scale with relation to each other.

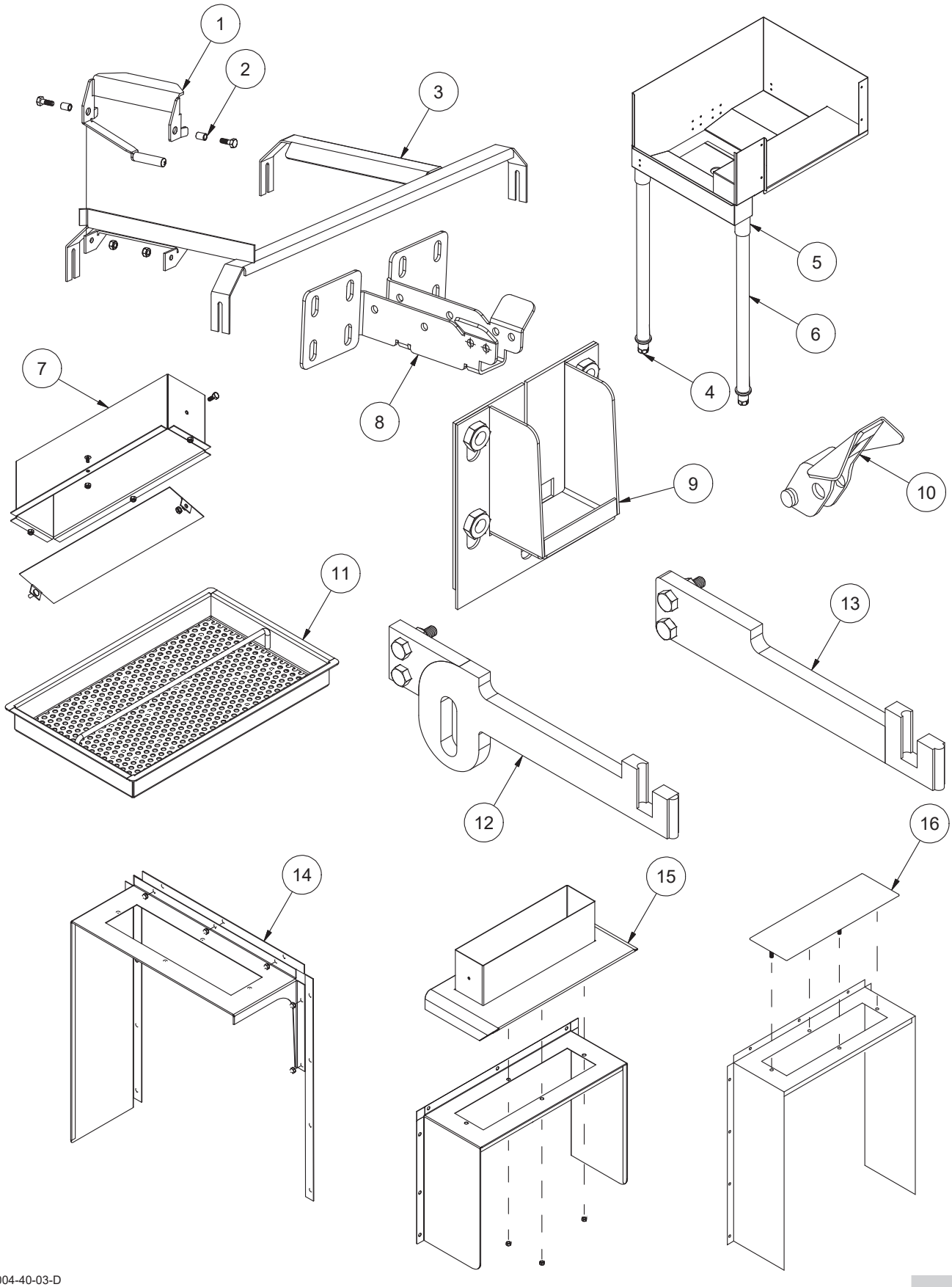


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Curtain, XL, 24 1/2” x 20 1/2”	08415-002-47-37
2	1	Curtain, L, 21” x 20 1/2”	08415-131-73-45
3	1	Curtain, S, 12” x 20 1/2”	08415-131-73-44
4	1	Decal, XL Curtain	09905-004-38-49
5	1	Decal, L Curtain	09905-004-38-48
6	1	Decal, S Curtain	09905-004-38-46
7	1	Limit Switch Bracket	05700-021-71-18
8	1	Conveyor Switch Kit[1]	06401-003-11-79
9	1	Middle Curtain Hook	05700-011-72-65
10	1	Curtain Hook	05700-011-83-54
11	1	Curtain Rod	05700-021-73-43
12	1	Curtain, XL, Side-loader (Not Shown)	08415-003-84-88
13	1	Curtain Rod, Side-loader (Not Shown)	05700-003-84-57

** Kit contains switch, terminal, and wire nut. Cut cord on Conveyor Switch to length and install terminal.*

SIDE-LOADER PARTS

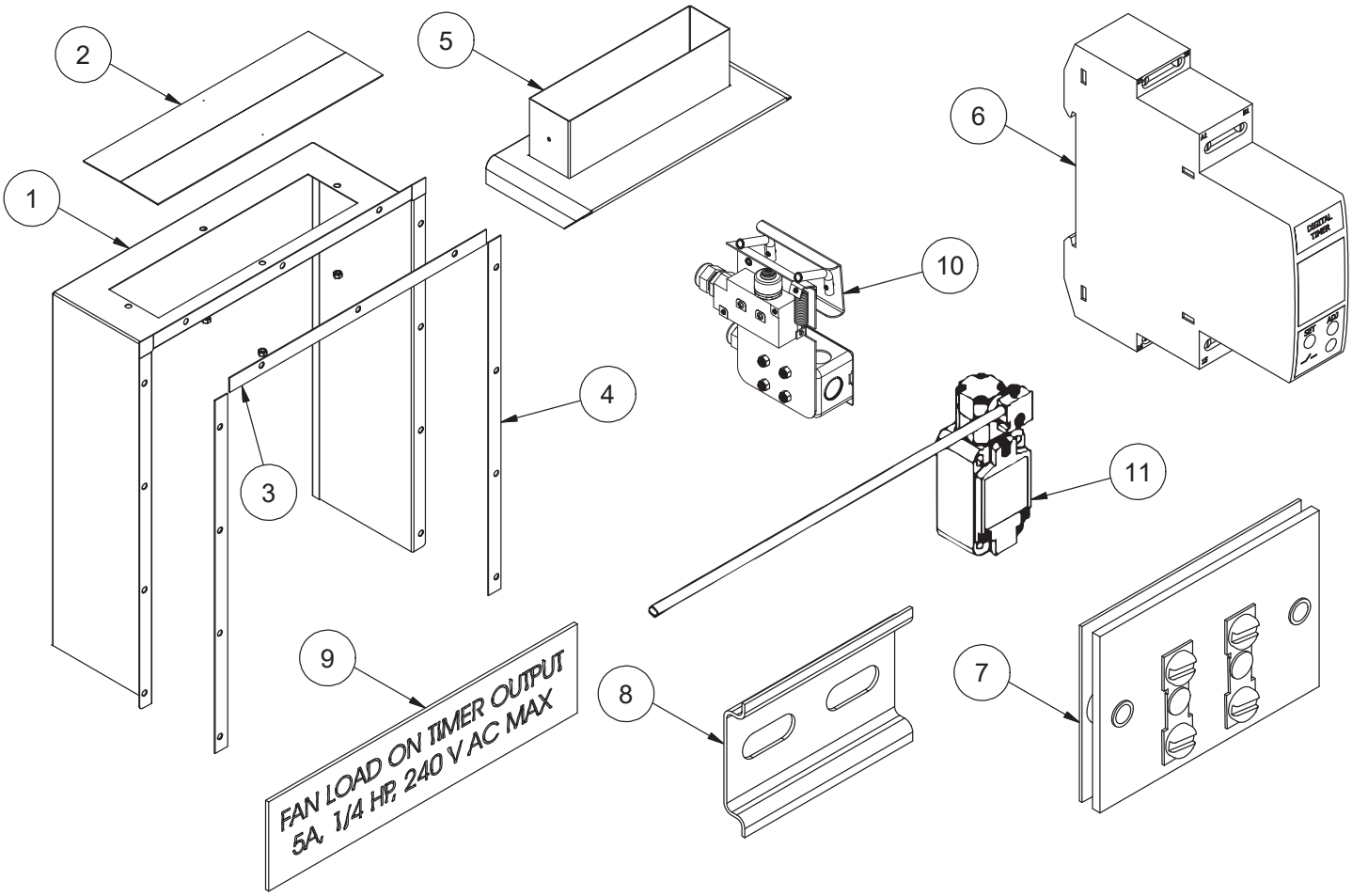
Parts are not shown to scale with relation to each other.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Actuator Switch, Side-loader Actuator Switch Kit*	05700-002-91-12 06401-003-10-64
2	1	Pawl Bar Spacer	05700-011-71-44
3	1	Track, Side-loader (L-R), 23” Track, Side-loader (R-L), 23” Track, Side-loader (L-R), 30” Track, Side-loader(R-L), 30”	05700-031-78-98 05700-031-95-20 05700-003-04-57 05700-003-04-58
4	1	Adjustable Foot, Side-loader	05340-108-01-03
5	1	Leg Socket Kit*	06401-003-09-79
6	1	Leg Support Kit*	06401-003-09-80
7	1	Vent Cowl Assembly for Hooded Side-loader	05700-003-15-66
8	1	Pawl Bar Roller Bracket	05700-031-77-94
9	1	Pawl Bar Gutter Kit*	06401-003-09-95
10	1	Rack Catch	05700-021-86-79
11	1	Front Strainer, Side-loader	05700-021-85-10
12	1	Drive Linkage Kit (L-R)*	06401-003-11-59
13	1	Drive Linkage Kit (R-L)*	06401-003-11-60
14	1	Vent Scoop Option Assembly	05700-002-04-08
15	1	Vent Cowl Cover Kit*	06401-003-10-16
16	1	Vent Cowl Option Assembly for Hooded Side-loader	05700-003-15-66

** Kit contains part(s) and all hardware.*

Parts are not shown to scale with relation to each other.

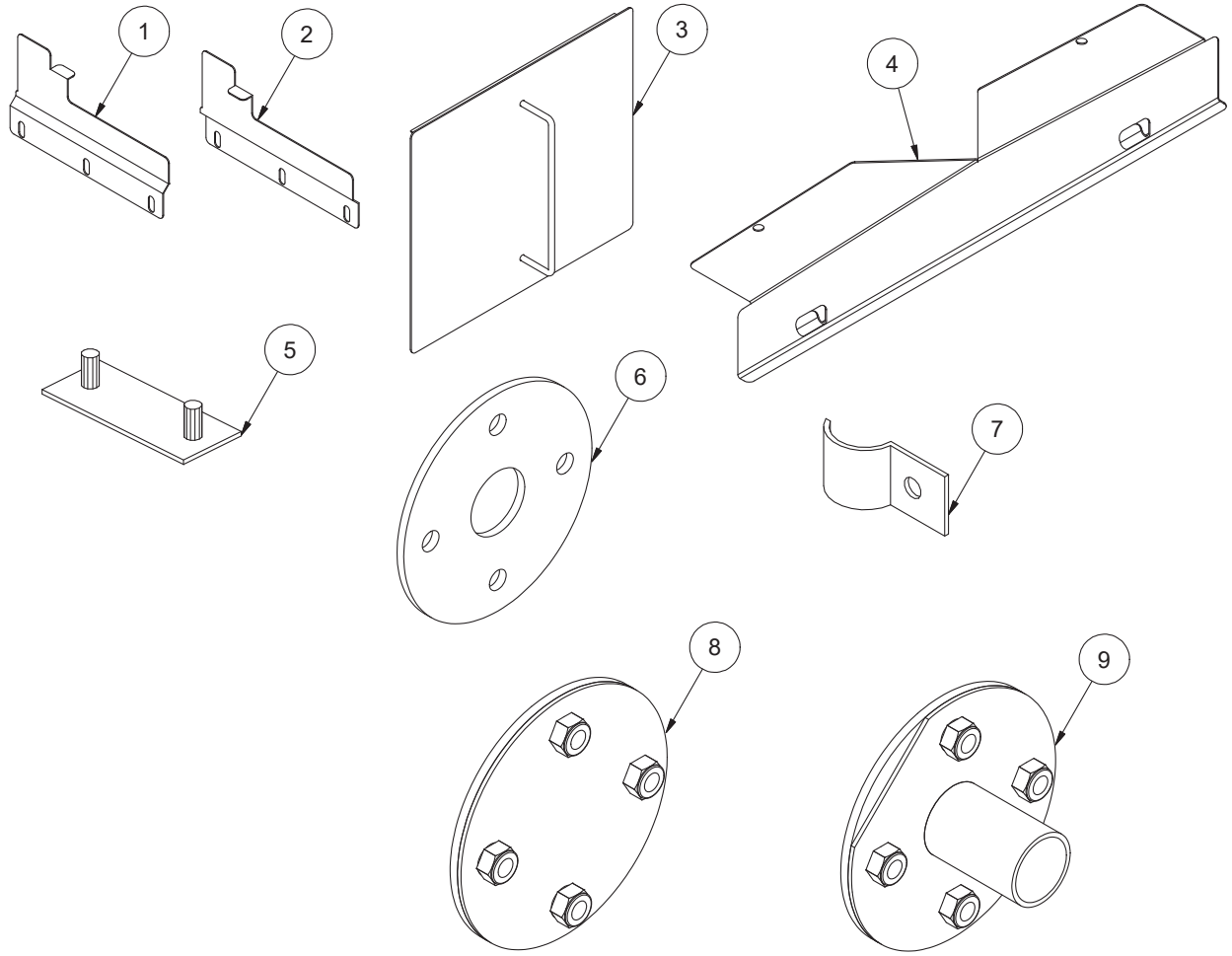


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Vent Cowl	05700-041-86-94
2	1	Vent Cowl Cover Vent Cowl Cover Replacement Kit*	05700-011-74-67 06401-003-10-16
3	1	Gasket, Top Vent Cowl	05330-031-83-47
4	1	Gasket, Side Vent Cowl	05330-031-83-48
5	1	Vent Scoop Option	05700-002-04-08
6	1	Delay Timer, Exhaust Fan	05945-004-22-78
7	1	Terminal Board, Exhaust Fan	05940-011-84-41
8	1	Din Rail, Exhaust Fan	05700-002-36-09
9	1	Decal, Exhaust Fan Load	09905-003-32-20
10	1	Striker Plate Limit Switch Complete Assembly	05700-002-62-94
11	1	Whisker Plate Limit Switch Complete Assembly	05700-002-06-83

** Kit contains part(s) and all hardware.*

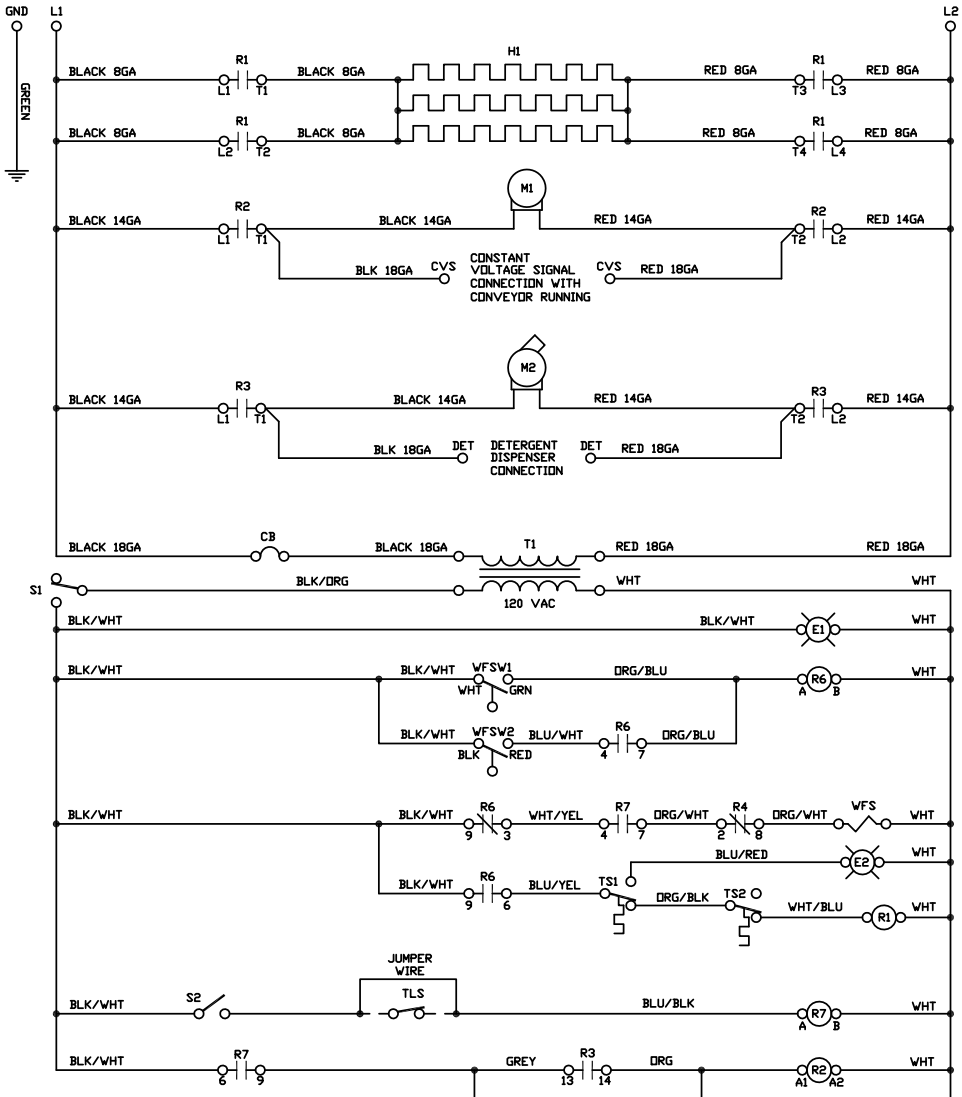
Exhaust Fan Kit
05700-031-90-53

Parts are not shown to scale with relation to each other.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Plate, Left Water Directional	05700-021-79-27
2	1	Plate, Right Water Directional	05700-021-79-23
3	1	Run-off Sheet	05700-021-71-39
4	1	Splash Shield	05700-031-85-16
5	1	Hole Direction Plate Kit*	06401-003-10-00
6	1	Rinse Drain Plate Gasket	05330-011-72-27
7	1	Pipe Clamp	05700-000-35-05
8	1	Rinse Drain Plug Kit*	06401-003-10-06
9	1	Rinse Drain Weldment Kit*	06401-003-10-05

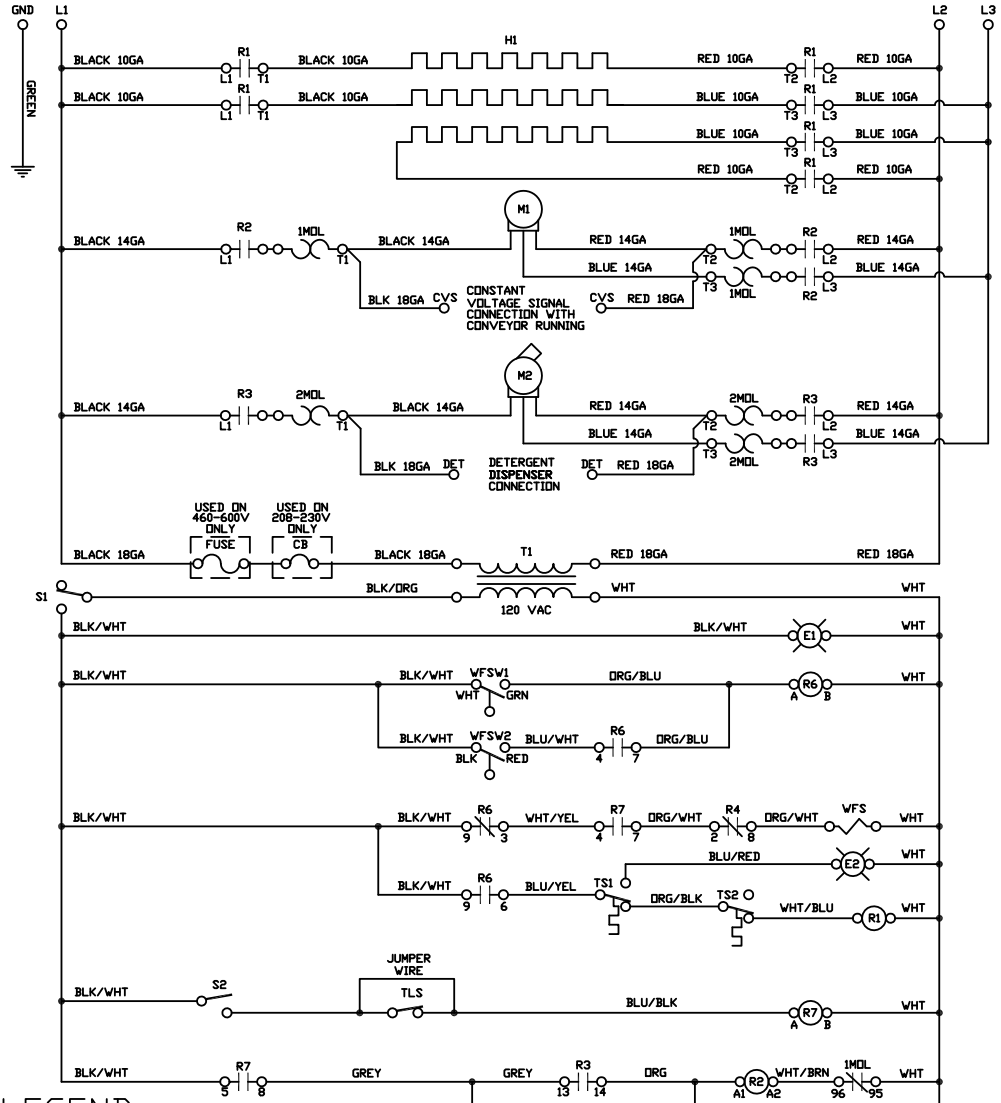
** Kit contains part(s) and all hardware.*



LEGEND

L1 L2	POWER DISTRIBUTION BLOCK
GND	GROUND
R1	HEAT CONTACTOR
R2	DRIVE MOTOR CONTACTOR
R3	WASH PUMP MOTOR CONTACTOR
R4	FINAL RINSE RELAY
R6	WASH TANK FILL RELAY
R7	DOOR SAFETY SWITCH RELAY
H1	WASH HEATER
M1	DRIVE MOTOR
M2	WASH PUMP MOTOR
CB	CONTROL CIRCUIT BREAKER
T1	CONTROL TRANSFORMER
DET	DETERGENT DISPENSER CONNECTION
CVS	CONSTANT VOLTAGE SIGNAL
S1	POWER SWITCH
S2	DOOR SAFETY SWITCH
S3	WASH PUMP SWITCH 1
S4	WASH PUMP SWITCH 2
S5	AUTO - MAN./DELIME SWITCH
S6	FINAL RINSE SWITCH
E1	POWER LIGHT
E2	HEATER HIGH LIMIT LIGHT
WFSW1	WASH FLOAT SWITCH 1
WFSW2	WASH FLOAT SWITCH 2
TS1	HEATER HIGH LIMIT THERMOSTAT
TS2	WASH REGULATING THERMOSTAT
TLS	TABLE LIMIT SWITCH (OPTIONAL)
WFS	WASH FILL SOLENOID
RS	FINAL RINSE SOLENOID

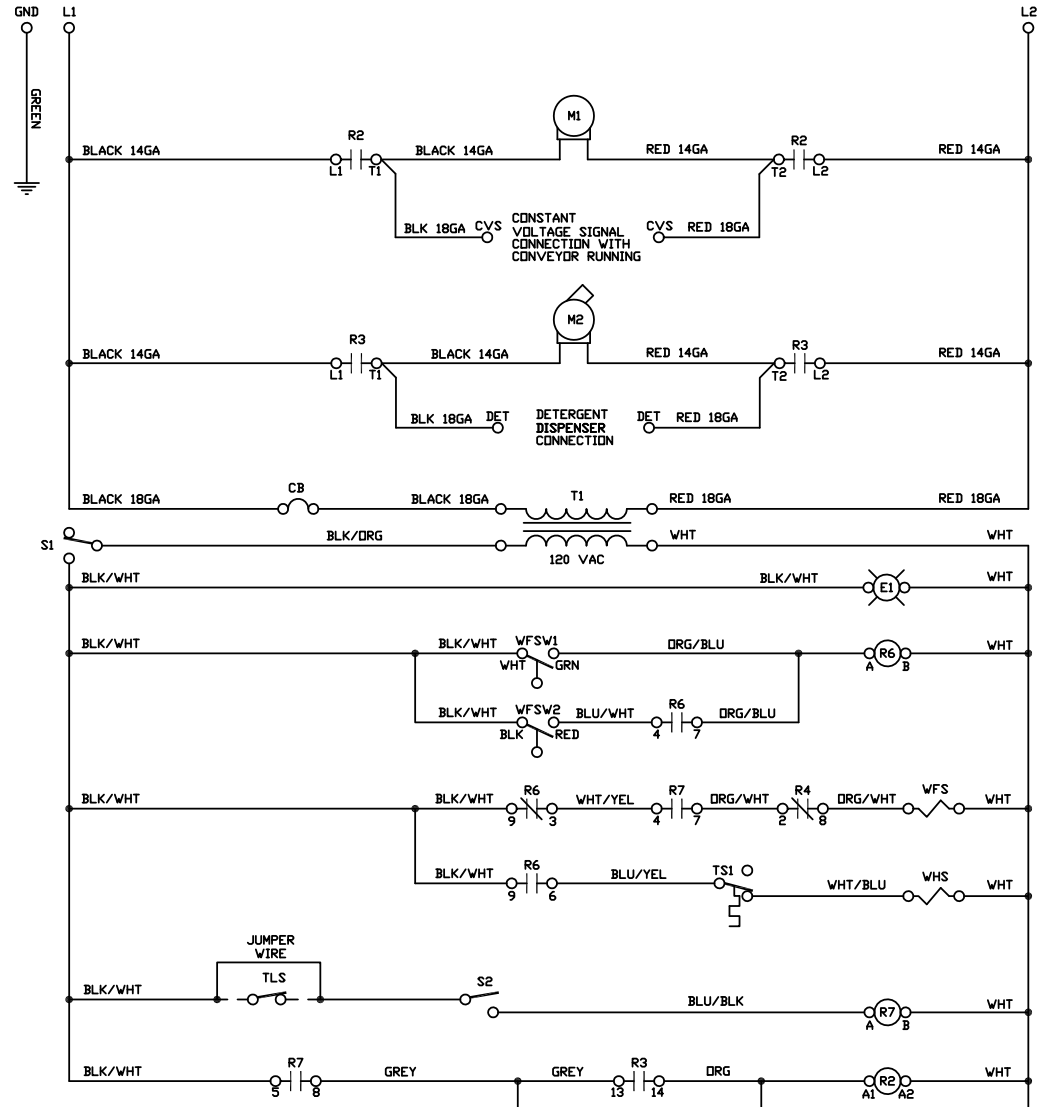
09905-003-65-05



LEGEND

L1 L2 L3	POWER DISTRIBUTION BLOCK
GND	GROUND
R1	HEAT CONTACTOR
R2	DRIVE MOTOR CONTACTOR
R3	WASH PUMP MOTOR CONTACTOR
R4	FINAL RINSE RELAY
R6	WASH TANK FILL RELAY
R7	DOOR SAFETY SWITCH RELAY
H1	WASH HEATER
M1	DRIVE MOTOR
M2	WASH PUMP MOTOR
1MDL	DRIVE MOTOR OVERLOAD
2MDL	WASH PUMP MOTOR OVERLOAD
CB	CONTROL CIRCUIT BREAKER
FUSE	CONTROL CIRCUIT TRANSFORMER FUSE
T1	CONTROL TRANSFORMER
DET	DETERGENT DISPENSER CONNECTION
CVS	CONSTANT VOLTAGE SIGNAL
S1	POWER SWITCH
S2	DOOR SAFETY SWITCH
S3	WASH PUMP SWITCH 1
S4	WASH PUMP SWITCH 2
S5	AUTO - MAN/DELIME SWITCH
S6	FINAL RINSE SWITCH
E1	POWER LIGHT
E2	HEATER HIGH LIMIT LIGHT
WFSW1	WASH FLOAT SWITCH 1
WFSW2	WASH FLOAT SWITCH 2
TS1	HEATER HIGH LIMIT THERMOSTAT
TS2	WASH REGULATING THERMOSTAT
TLS	TABLE LIMIT SWITCH (OPTIONAL)
WFS	WASH FILL SOLENOID
RS	FINAL RINSE SOLENOID

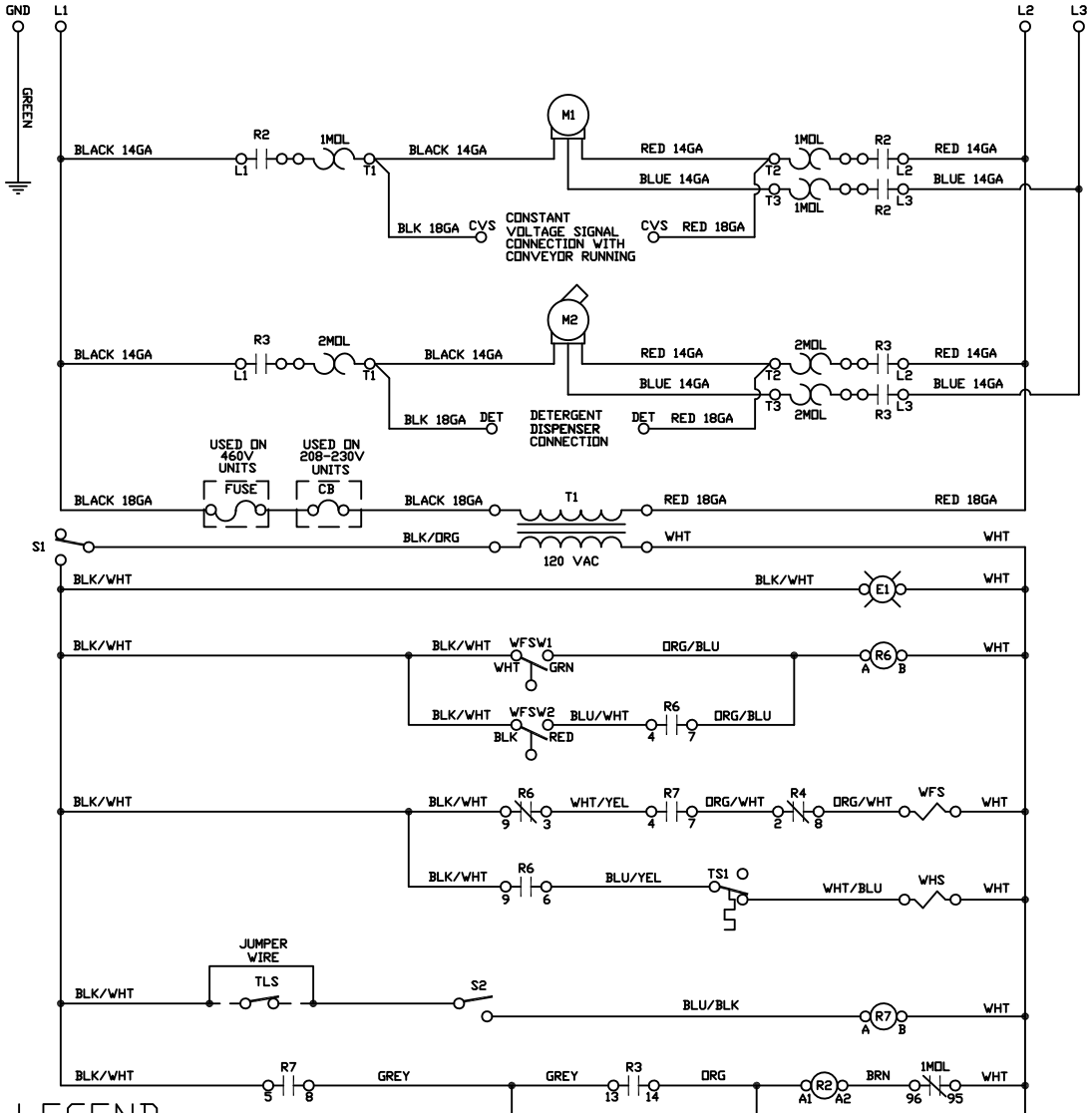
09905-003-60-99 C



LEGEND

L1 L2 L3	POWER DISTRIBUTION BLOCK
GND	GROUND
R2	DRIVE MOTOR CONTACTOR
R3	WASH PUMP MOTOR CONTACTOR
R4	FINAL RINSE RELAY
R6	WASH TANK FILL RELAY
R7	DOOR SAFETY SWITCH RELAY
M1	DRIVE MOTOR
M2	WASH PUMP MOTOR
CB	CONTROL CIRCUIT BREAKER
T1	CONTROL TRANSFORMER
DET	DETERGENT DISPENSER CONNECTION
CVS	CONSTANT VOLTAGE SIGNAL
S1	POWER SWITCH
S2	DOOR SAFETY SWITCH
S3	WASH PUMP SWITCH 1
S4	WASH PUMP SWITCH 2
S5	AUTO - MAN/DELIME SWITCH
S6	FINAL RINSE SWITCH
E1	POWER LIGHT
WFSW1	WASH FLOAT SWITCH 1
WFSW2	WASH FLOAT SWITCH 2
TS1	WASH REGULATING THERMOSTAT
TLS	TABLE LIMIT SWITCH (OPTIONAL)
WFS	WASH FILL SOLENOID
WHS	WASH HEAT SOLENOID
RS	FINAL RINSE SOLENOID

09905-003-64-34

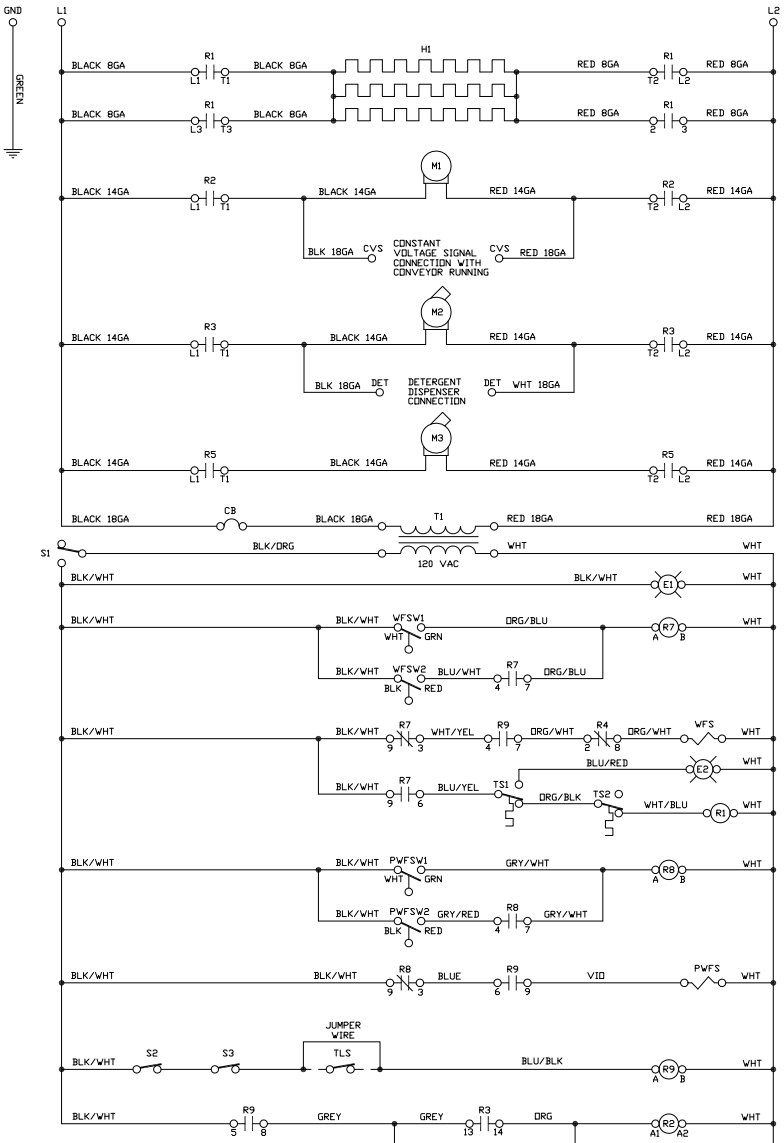


LEGEND

L1 L2 L3	POWER DISTRIBUTION BLOCK
GND	GROUND
R2	DRIVE MOTOR CONTACTOR
R3	WASH PUMP MOTOR CONTACTOR
R4	FINAL RINSE RELAY
R6	WASH TANK FILL RELAY
R7	DOOR SAFETY SWITCH RELAY
M1	DRIVE MOTOR
M2	WASH PUMP MOTOR
1MOL	DRIVE MOTOR OVERLOAD
2MOL	WASH PUMP MOTOR OVERLOAD
CB	CONTROL CIRCUIT BREAKER
FUSE	CONTROL CIRCUIT FUSE
T1	CONTROL TRANSFORMER
DET	DETERGENT DISPENSER CONNECTION
CVS	CONSTANT VOLTAGE SIGNAL
S1	POWER SWITCH
S2	DOOR SAFETY SWITCH
S3	WASH PUMP SWITCH 1
S4	WASH PUMP SWITCH 2
S5	AUTO - MAN/DELIME SWITCH
S6	FINAL RINSE SWITCH
E1	POWER LIGHT
WFSW1	WASH FLOAT SWITCH 1
WFSW2	WASH FLOAT SWITCH 2
TS1	WASH REGULATING THERMOSTAT
TLS	TABLE LIMIT SWITCH (OPTIONAL)
WFS	WASH FILL SOLENOID
WHS	WASH HEAT SOLENOID
RS	FINAL RINSE SOLENOID

09905-003-61-78

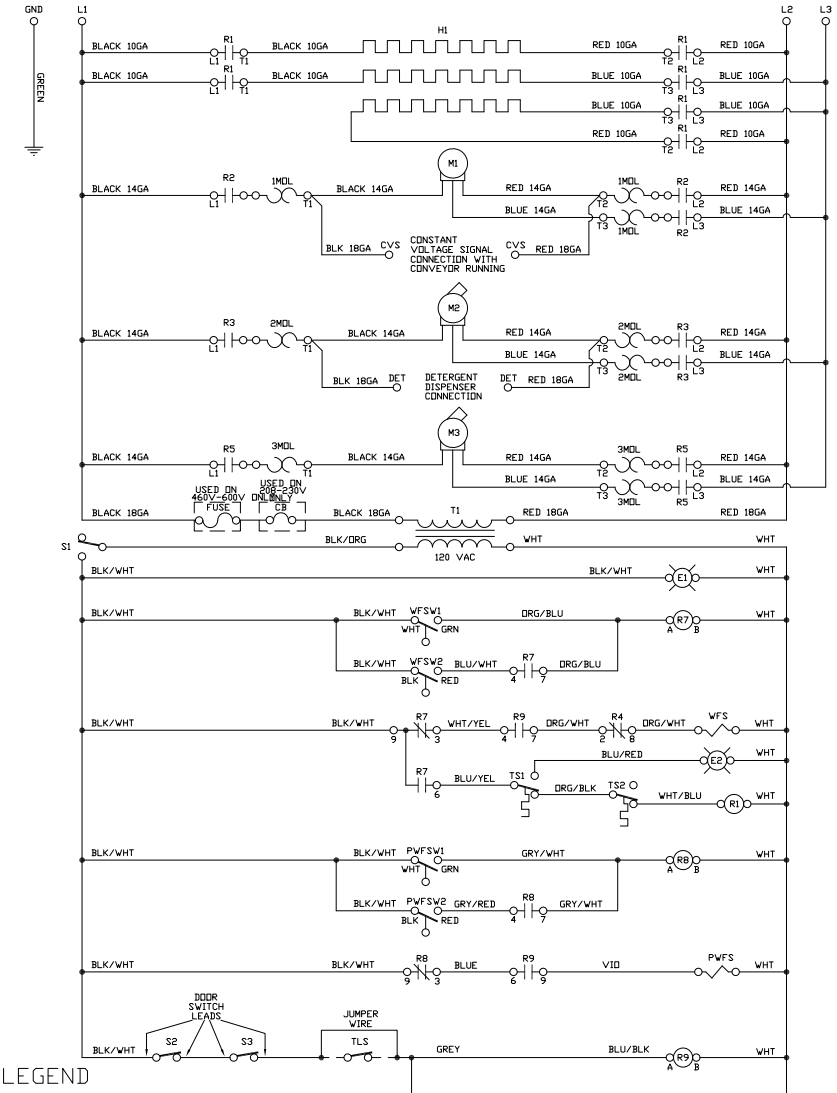
C-66/76/80/90CE 208-230 V/50-60 HZ/1-PHASE



LEGEND

L1 L2	POWER DISTRIBUTION BLOCK
GND	GROUND
R1	HEAT CONTACTOR
R2	DRIVE MOTOR CONTACTOR
R3	WASH PUMP MOTOR CONTACTOR
R4	FINAL RINSE RELAY
R5	PRE-WASH PUMP MOTOR CONTACTOR
R7	WASH TANK FILL RELAY
R8	PRE-WASH TANK FILL RELAY
R9	DOOR SAFETY SWITCH RELAY
H1	WASH HEATER
M1	DRIVE MOTOR
M2	WASH PUMP MOTOR
M3	PRE-WASH PUMP MOTOR
CB	CONTROL CIRCUIT BREAKER
T1	CONTROL TRANSFORMER
DET	DETERGENT DISPENSER CONNECTION
CVS	CONSTANT VOLTAGE SIGNAL
S1	POWER SWITCH
S2	DOOR SAFETY SWITCH 1
S3	DOOR SAFETY SWITCH 2
S4	WASH PUMP SWITCH 1
S5	WASH PUMP SWITCH 2
S6	AUTO - MAN/DELIME SWITCH
S7	FINAL RINSE SWITCH
S8	PRE-WASH PUMP SWITCH
E1	POWER LIGHT
E2	HEATER HIGH LIMIT LIGHT
WFSW1	WASH FLOAT SWITCH 1
WFSW2	WASH FLOAT SWITCH 2
PWFSW1	PRE-WASH FLOAT SWITCH 1
PWFSW2	PRE-WASH FLOAT SWITCH 2
TS1	HEATER HIGH LIMIT THERMOSTAT
TS2	WASH REGULATING THERMOSTAT
CWTS	COLD WATER THERMOSTAT (OPTIONAL)
CWV	COLD WATER VALVE (OPTIONAL)
TLS	TABLE LIMIT SWITCH (OPTIONAL)
WFS	WASH FILL SOLENOID
PWFS	PRE-WASH FILL SOLENOID
RS	FINAL RINSE SOLENOID

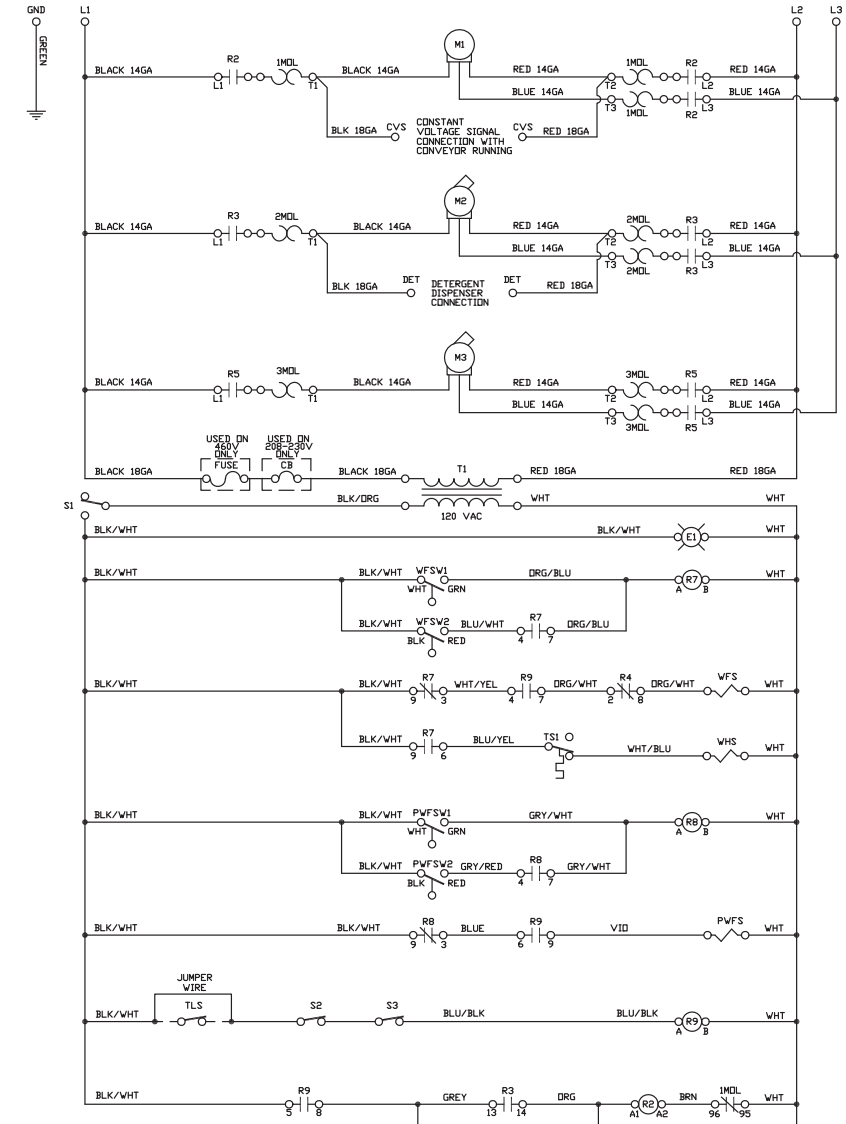
09905-003-65-06



LEGEND

L1 L2 L3	POWER DISTRIBUTION BLOCK
GND	GROUND
R1	HEAT CONTACTOR
R2	DRIVE MOTOR CONTACTOR
R3	WASH PUMP MOTOR CONTACTOR
R4	FINAL RINSE RELAY
R5	PRE-WASH PUMP MOTOR CONTACTOR
R7	WASH TANK FILL RELAY
R8	PRE-WASH TANK FILL RELAY
R9	DOOR SAFETY SWITCH RELAY
H1	WASH HEATER
M1	DRIVE MOTOR
M2	WASH PUMP MOTOR
M3	PRE-WASH PUMP MOTOR
1MOL	DRIVE MOTOR OVERLOAD
2MOL	WASH PUMP MOTOR OVERLOAD
3MOL	PRE-WASH PUMP MOTOR OVERLOAD
CB	CONTROL CIRCUIT BREAKER
FUSE	CONTROL CIRCUIT FUSE
T1	CONTROL TRANSFORMER
DET	DETERGENT DISPENSER CONNECTION
CVS	CONSTANT VOLTAGE SIGNAL
S1	POWER SWITCH
S2	DOOR SAFETY SWITCH 1
S3	DOOR SAFETY SWITCH 2
S4	WASH PUMP SWITCH 1
S5	WASH PUMP SWITCH 2
S6	AUTO - MAN/DELIME SWITCH
S7	FINAL RINSE SWITCH
S8	PRE-WASH PUMP SWITCH
E1	POWER LIGHT
E2	HEATER HIGH LIMIT LIGHT
WFSW1	WASH FLOAT SWITCH 1
WFSW2	WASH FLOAT SWITCH 2
PWFSW1	PRE-WASH FLOAT SWITCH 1
PWFSW2	PRE-WASH FLOAT SWITCH 2
TS1	HEATER HIGH LIMIT THERMOSTAT
TS2	WASH REGULATING THERMOSTAT
CWTS	COLD WATER THERMOSTAT (OPTIONAL)
CWV	COLD WATER VALVE (OPTIONAL)
TLS	TABLE LIMIT SWITCH (OPTIONAL)
WFS	WASH FILL SOLENOID
PWFS	PRE-WASH FILL SOLENOID
RS	FINAL RINSE SOLENOID

09905-003-63-75 REVISION D

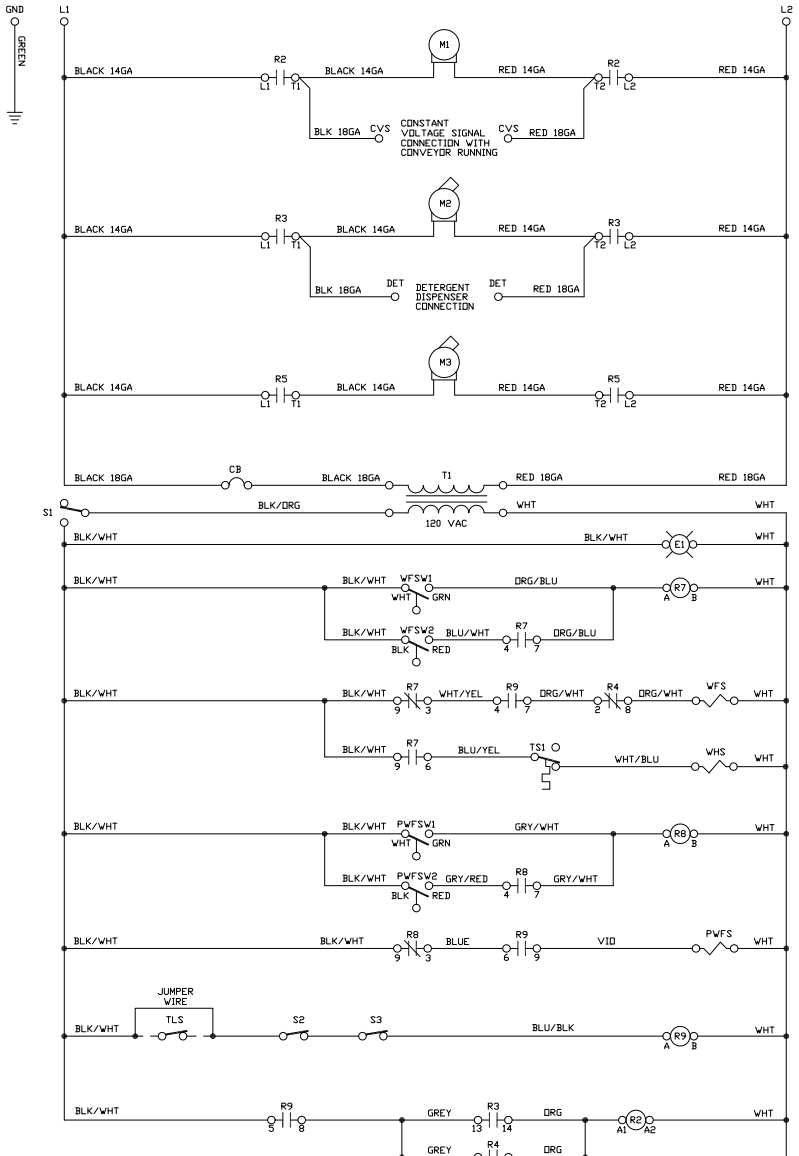


LEGEND

L1 L2 L3	POWER DISTRIBUTION BLOCK
GND	GROUND
R2	DRIVE MOTOR CONTACTOR
R3	WASH PUMP MOTOR CONTACTOR
R4	FINAL RINSE RELAY
R5	PRE-WASH PUMP MOTOR CONTACTOR
R7	WASH TANK FILL RELAY
R8	PRE-WASH TANK FILL RELAY
R9	DOOR SAFETY SWITCH RELAY
M1	DRIVE MOTOR
M2	WASH PUMP MOTOR
M3	PRE-WASH PUMP MOTOR
1MOL	DRIVE MOTOR OVERLOAD
2MOL	WASH PUMP MOTOR OVERLOAD
3MOL	PRE-WASH PUMP MOTOR OVERLOAD
CB	CONTROL CIRCUIT BREAKER
FUSE	CONTROL CIRCUIT FUSE
T1	CONTROL TRANSFORMER
DET	DETERGENT DISPENSER CONNECTION
CVS	CONSTANT VOLTAGE SIGNAL
S1	POWER SWITCH
S2	DOOR SAFETY SWITCH 1
S3	DOOR SAFETY SWITCH 2
S4	WASH PUMP SWITCH 1
S5	WASH PUMP SWITCH 2
S6	AUTO - MAN/DELIME SWITCH
S7	FINAL RINSE SWITCH
S8	PRE-WASH PUMP SWITCH
E1	POWER LIGHT
WFSW1	WASH FLOAT SWITCH 1
WFSW2	WASH FLOAT SWITCH 2
PWFSW1	PRE-WASH FLOAT SWITCH 1
PWFSW2	PRE-WASH FLOAT SWITCH 2
TS1	WASH REGULATING THERMOSTAT
CWTS	COLD WATER THERMOSTAT (OPTIONAL)
CWV	COLD WATER VALVE (OPTIONAL)
TLS	TABLE LIMIT SWITCH (OPTIONAL)
WFS	WASH FILL SOLENOID
WHS	WASH HEAT SOLENOID
PWFS	PRE-WASH FILL SOLENOID
RS	FINAL RINSE SOLENOID

09905-003-65-07

C-66/76/80/90CS 460 V/50-60 HZ/3-PHASE



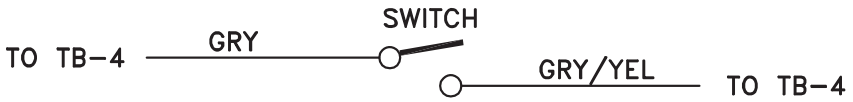
LEGEND

L1 L2 L3	POWER DISTRIBUTION BLOCK
GND	GROUND
R2	DRIVE MOTOR CONTACTOR
R3	WASH PUMP MOTOR CONTACTOR
R4	FINAL RINSE RELAY
R5	PRE-WASH PUMP MOTOR CONTACTOR
R7	WASH TANK FILL RELAY
R8	PRE-WASH TANK FILL RELAY
R9	DOOR SAFETY SWITCH RELAY
M1	DRIVE MOTOR
M2	WASH PUMP MOTOR
M3	PRE-WASH PUMP MOTOR
CB	CONTROL CIRCUIT BREAKER
T1	CONTROL TRANSFORMER
DET	DETERGENT DISPENSER CONNECTION
CVS	CONSTANT VOLTAGE SIGNAL
S1	POWER SWITCH
S2	DOOR SAFETY SWITCH 1
S3	DOOR SAFETY SWITCH 2
S4	WASH PUMP SWITCH 1
S5	WASH PUMP SWITCH 2
S6	AUTO - MAN/DELIME SWITCH
S7	FINAL RINSE SWITCH
S8	PRE-WASH PUMP SWITCH
E1	POWER LIGHT
WFSW1	WASH FLOAT SWITCH 1
WFSW2	WASH FLOAT SWITCH 2
PWFSW1	PRE-WASH FLOAT SWITCH 1
PWFSW2	PRE-WASH FLOAT SWITCH 2
TS1	WASH REGULATING THERMOSTAT
CWTS	COLD WATER THERMOSTAT (OPTIONAL)
CWV	COLD WATER VALVE (OPTIONAL)
TLS	TABLE LIMIT SWITCH (OPTIONAL)
WFS	WASH FILL SOLENOID
WHS	WASH HEAT SOLENOID
PWFS	PRE-WASH FILL SOLENOID
RS	FINAL RINSE SOLENOID

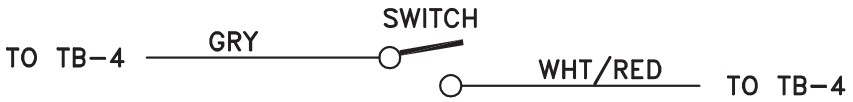
09905-003-65-08

CONVEYOR SIDE LOADER

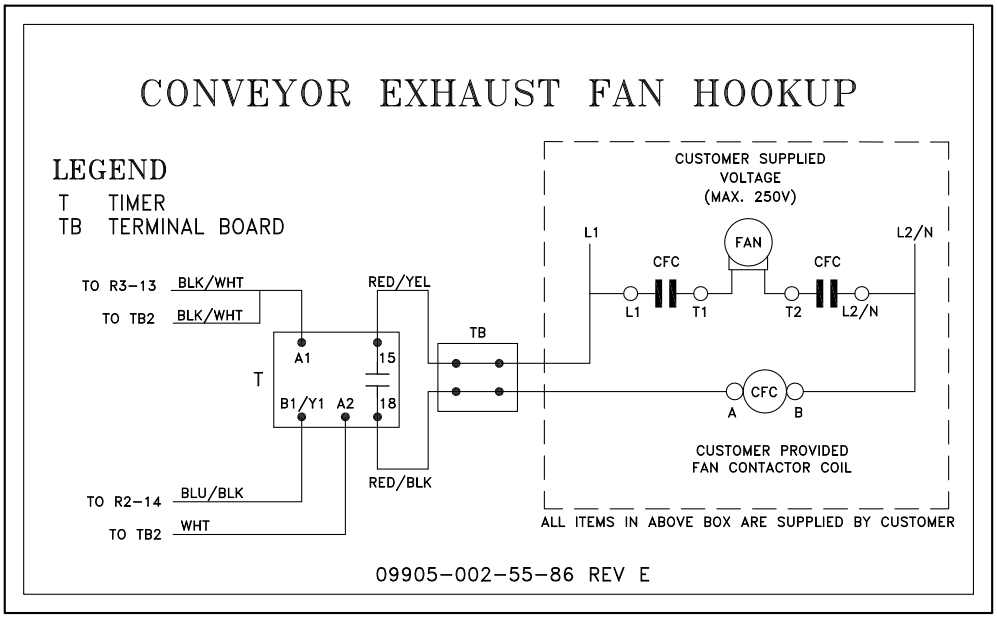
44, 54, 64 INCH CONVEYORS

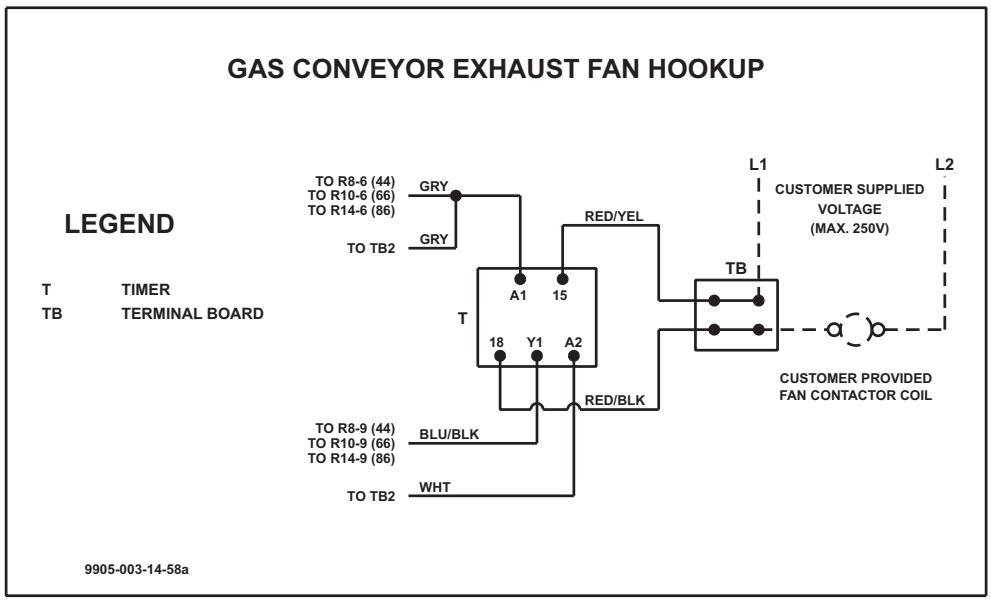


ALL CONVEYORS WITH PRE-WASH



9905-002-56-84a


CONVEYOR EXHAUST FAN HOOKUP
LEGEND
T TIMER
TB TERMINAL BOARD
CUSTOMER SUPPLIED
VOLTAGE
(MAX. 250V)
L1
FAN
L2/N
CFC
CFC
L1
T1
T2
L2/N
TO R3-13
BLK/WHT
TO TB2
BLK/WHT
RED/YEL
TB
A1
15
T
B1/Y1
A2
18
CFC
A
B
CUSTOMER PROVIDED
FAN CONTACTOR COIL
TO R2-14
BLU/BLK
TO TB2
WHT
RED/BLK
ALL ITEMS IN ABOVE BOX ARE SUPPLIED BY CUSTOMER
09905-002-55-86 REV E


GAS CONVEYOR EXHAUST FAN HOOKUP
LEGEND
T TIMER
TB TERMINAL BOARD
L1
L2
CUSTOMER SUPPLIED
VOLTAGE
(MAX. 250V)
TO R8-6 (44)
TO R10-6 (66)
TO R14-6 (86)
GRY
TO TB2
GRY
RED/YEL
TB
A1
15
T
18
Y1
A2
CUSTOMER PROVIDED
FAN CONTACTOR COIL
RED/BLK
TO R8-9 (44)
TO R10-9 (66)
TO R14-9 (86)
BLU/BLK
TO TB2
WHT
9905-003-14-58a

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