

# Jackson Flight Machine

Project \_\_\_\_\_  
 Item \_\_\_\_\_  
 Quantity \_\_\_\_\_  
 CSI Section 11400 \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Date \_\_\_\_\_

## Models

JFT



## Options

- Blower dryer
- Additional wash section
- Additional load module
- Additional unload module
- 25' (8 m) wash down hose - mounted
- Electrical connection with circuit breakers
- Dual point electrical connection
- Low profile doors
- Flanged feet
- Multiple conveyor peg choice
- Drain at load or unload end

## Standard Features

- Uses 140 gallons (530 ltrs) of water per hour with sanitizing hot water rinse
- All tanks and hoods constructed from 16 gauge 304 stainless steel with a No. 3 finish and heliarced welded
- Stainless steel frame, legs and feet
- Two tank rackless conveyor shall have a maximum capacity of 17,101 dishes per hour at an NSF rated belt speed of 8.63 feet per minute. At 6.4 feet (2 m) per minute capacity will be 12,726 dishes per hour.
- Belt width of 29" (737 mm) and a maximum clearance of 25" (635 mm) throughout the machine
- Enclosure panels, hood and doors are stainless steel and double wall insulated to reduce heat dissipation, outside surface temperatures, and noise pollution
- Insulated access doors for removal, cleaning and servicing
- V-shape tank(s) design to increase visibility and accessibility for cleaning as well as insure complete tank draining
- Heated power rinse zone uses fresh rinse water a second time to provide pristine results
- A sequential digital temperature readout of each tank housed in the door of the electrical control panel. The readouts will constantly display the temperature of the prewash, wash, power rinse and final rinse in 5 second intervals
- A ball valve in the drain line of each tank and interconnected to a common machine drain connection at the load end of the machine
- Each tank will be automatically filled and maintained by a water level float. Water will be automatically added to the machine when required
- Block manifold wash arms are easy to remove, clean, and replace with non-clogging convex wash arm jets
- Large, removable scrap screens
- Self draining stainless steel pumps, impellers, and housings are readily accessible and serviceable
- Conveyor belt drive operates at two speeds and is protected by an overload safety device and an automatic shut-down actuator
- Each door is equipped with a door safety switch to prevent it from running when the door(s) are open. If a door is opened during operation the switch will immediately shut down the machine
- Operator activated start-stop switches on both the load and unload ends and the control panel
- Removable insulated panels to enclose the unit down to the base frame on both the front and rear of the machine
- A single, built-in 18" (457 mm) diameter indirect vent connection with a 0.19 HP exhaust fan mounted in a cleanable cross duct on the machine for condensate removal and indirect vent connection
- 3" minimum wall clearance
- Service access from front of machine

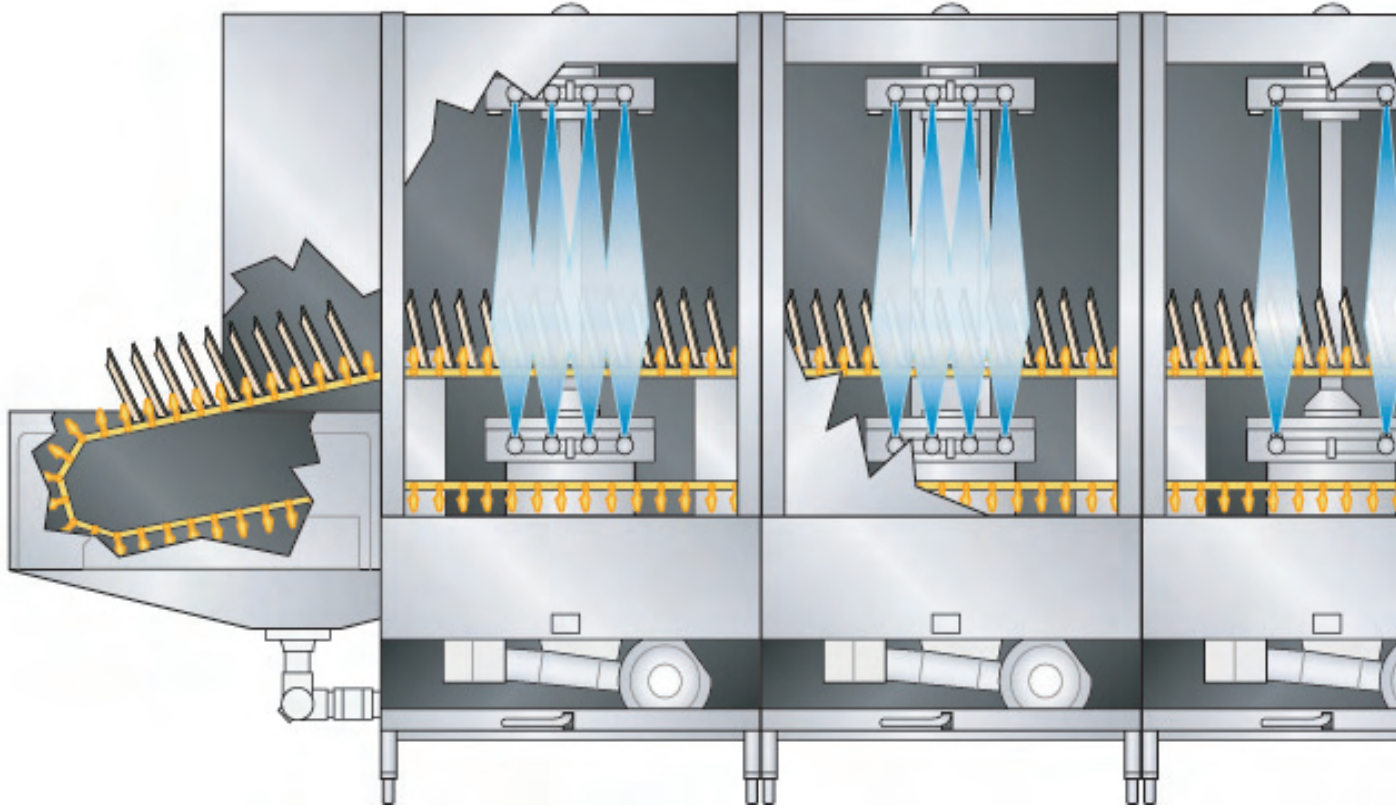


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### Load

A "start/stop" switch is located at the load end of the machine for the operators convenience

Load platform is 12 gauge stainless steel.

### Pre-wash Tank

The pre-wash tank features a stainless steel manifold system with stricture-free jets to optimize pressure for soil removal and to provide easy access for removal and cleaning.

A 3.0 HP, 1725 RPM motor and pump is horizontally mounted. The pump housing is stainless steel and self-draining. A stainless steel strainer with a removable basket is included. The pre-wash tank is a sloped design to ensure complete tank draining and to minimize soil build-up.

### Wash Tank

The wash tank features a stainless steel manifold system with stricture-free jets to optimize pressure for soil removal and to provide easy access for removal and cleaning.

A 3.0 HP 1725 RPM motor and pump is horizontally mounted. The pump housing is stainless steel and self-draining. A stainless steel strainer pan is included. The wash tank is a sloped design to ensure complete tank draining and to minimize soil build-up.

### Power Rinse

Stainless steel power jets are located below the wares area for cleaning.

A 2.0 HP, 1725 RPM motor and pump is horizontally mounted. The pump housing is stainless steel and self-draining. A stainless steel strainer pan is included. The power rinse tank is a sloped design to ensure complete tank draining and to minimize soil build-up.

## Machine Dimensions

Load		
Height	Depth	Length
36" (914.4 mm)	38-1/4" (972 mm)	36" (914.4 mm)

Pre-wash Tank		
Height	Depth	Length
73" (1854 MM)	46" (1168 MM)	36" (914.4 mm)

Wash Tank		
Height	Depth	Length
73" (1854 mm)	46" (1168 mm)	36" (914.4 mm)

Power Rinse		
Height	Depth	Length
73" (1854 mm)	46" (1168 mm)	36" (914.4 mm)

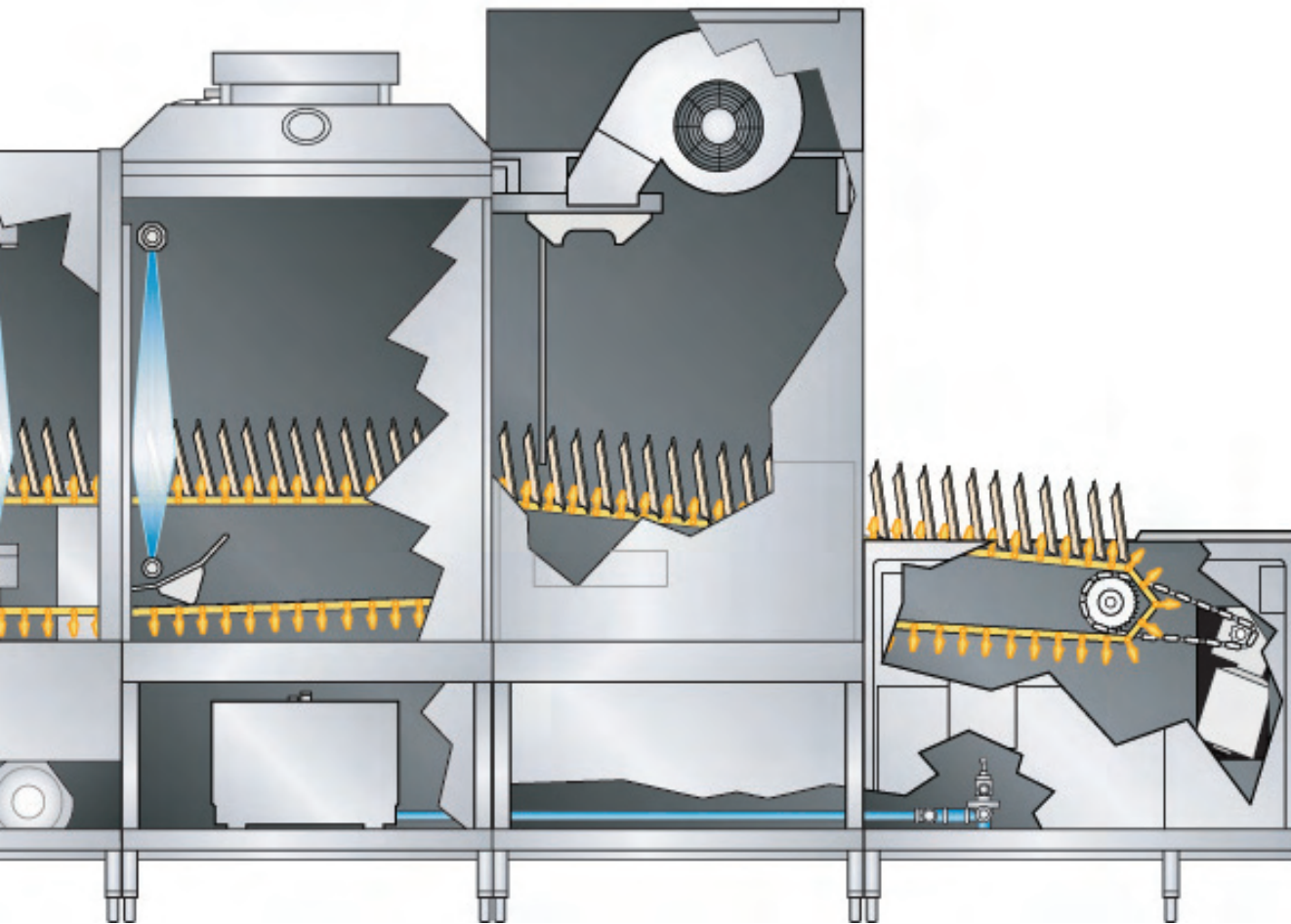
## Shipping Dimensions

Load / Unload (Shipped Together)		
Height	Depth	Length
71" (914.4 mm)	48" (1219 mm)	60" (1524 mm)
Weight: 621 lbs / 282 kg		

Pre-wash Tank		
Height	Depth	Length
79" (2007 mm)	48" (1219 mm)	60" (1524 mm)
Weight: 642 lbs / 291 kg		

Wash Tank		
Height	Depth	Length
79" (2007 mm)	48" (1219 mm)	60" (1524 mm)
Weight: 642 lbs / 291 kg		

Power Rinse		
Height	Depth	Length
79" (2007 mm)	48" (1219 mm)	60" (1524 mm)
Weight: 627 lbs / 282 kg		



**Pre-rinse Tank**

Pre-rinse arms with spray nozzles are mounted above and below the wares and are easily removable for cleaning.

A 1/2 HP motor with a squirrel cage fan and impeller in the pre-rinse tank is a standard feature to ensure complete pre-rinse of wares to minimize soil.

**Final Rinse**

Stainless steel rinse arms with jets mounted above and below the wares are easily removable for cleaning.

The final rinse water will cascade back to the power rinse, wash and then the pre-wash tanks.

**Blower Dryer**

A stainless steel tunnel incorporated into the discharge section of the machine. The blower dryer keeps the operating personnel from removing the wares before it reaches the end of the unload section. An industrial fan-type with a squirrel cage driven by a 0.6 HP direct drive motor dries the wares as it exits the machine.

**\*The Blower Dryer is an option and must be specified at time of order.**

**Unload**

A "start/stop" switch is located at the unload end of the machine for the operators convenience.

Unload platform is 14 gauge stainless steel.

The drive wheel shaft is supported by two heavy-duty grease-lubricated ball bearings in pillow blocks.

Pre-rinse Tank	
Depth	Length
36" (914.4 mm)	36" (914.4 mm)

Final Rinse		
Height	Depth	Length
82" (2083 mm)	46" (1168 mm)	36" (914.4 mm)

Blower Dryer		
Height	Depth	Length
88" (2235 mm)	38-1/4" (972 mm)	36" (914.4 mm)

Unload		
Height	Depth	Length
36" (914.4 mm)	38-1/4" (972 mm)	42" (1067 mm)

Pre-rinse Tank	
Depth	Length
36" (914.4 mm)	60" (1524 mm)

Weight: 284 lbs / 284 kg

Final Rinse		
Height	Depth	Length
88" (2235 mm)	48" (1219 mm)	60" (1524 mm)

Weight: 635 lbs / 288 kg

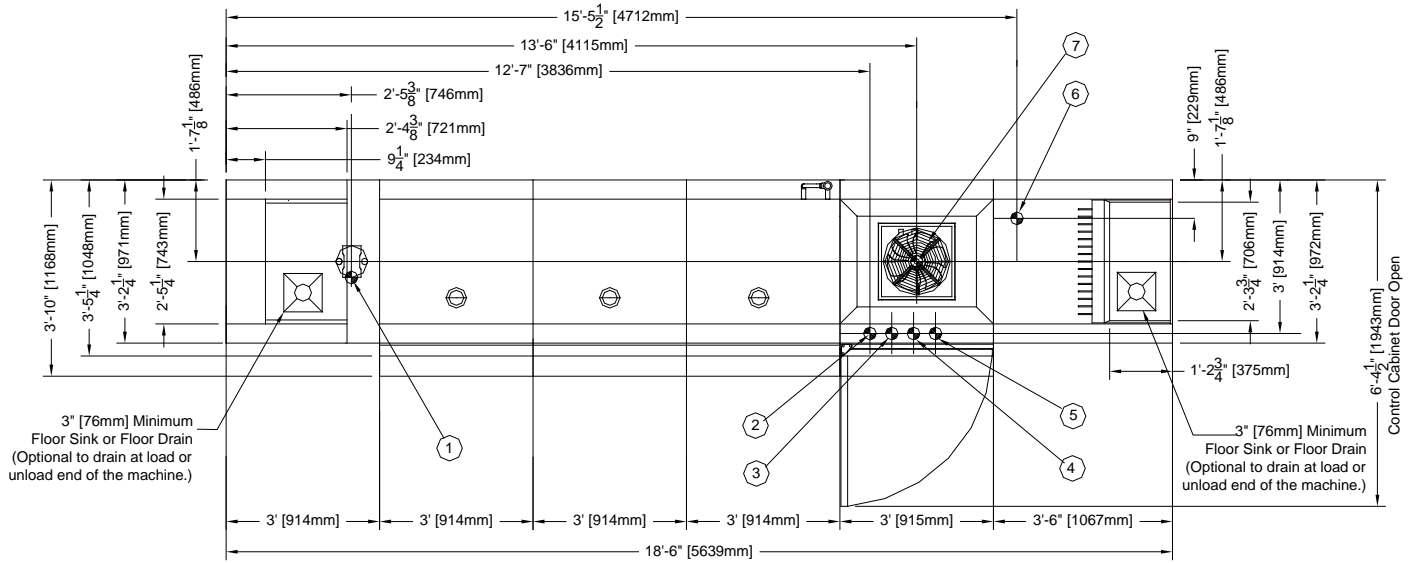
Blower Dryer		
Height	Depth	Length
93" (2362 mm)	48" (1219 mm)	60" (1524 mm)

Weight: 504 lbs / 229 kg

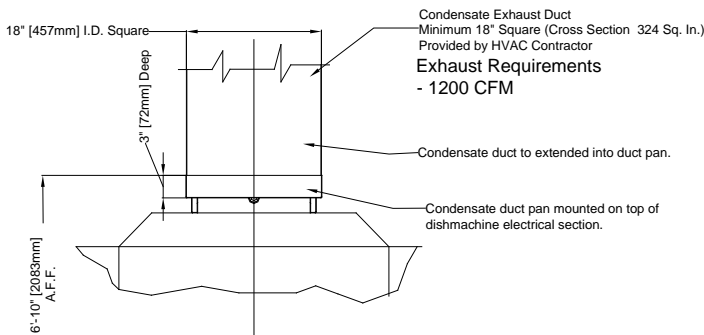
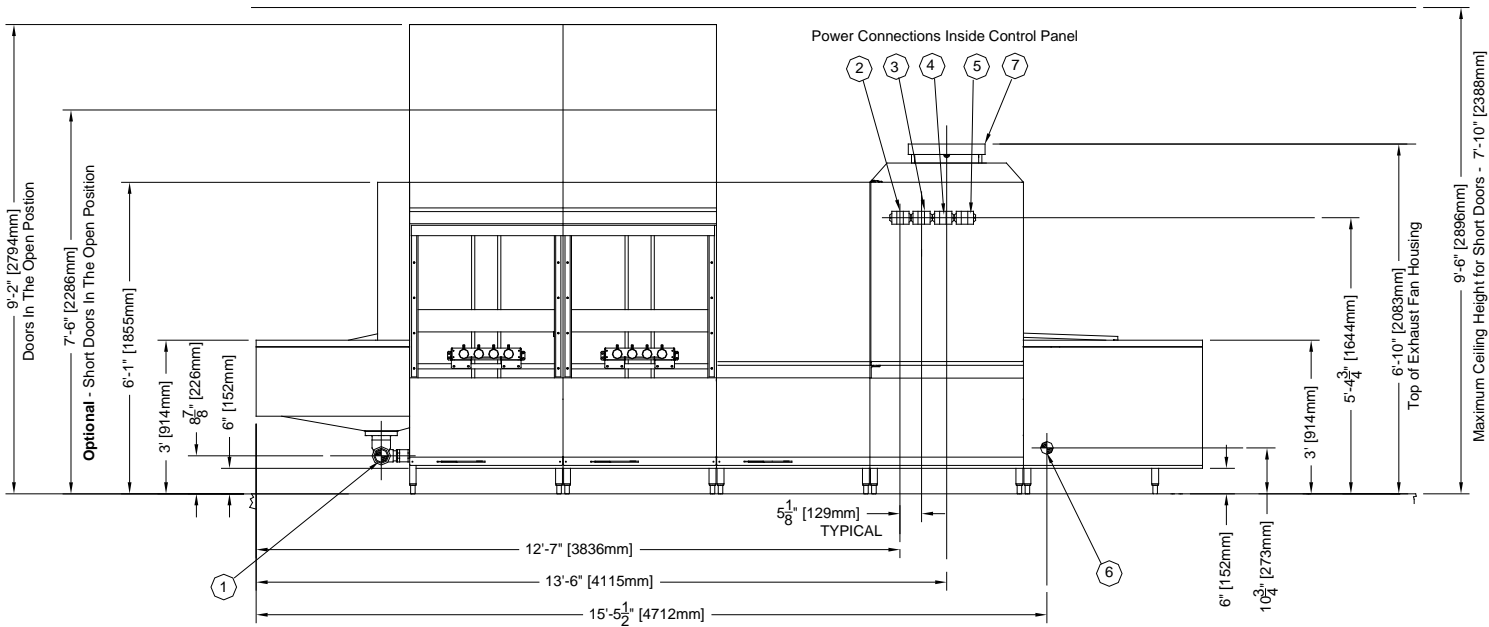
**Unload / Load**

Shipped with load end

# Electric



DIRECTION OF OPERATION →

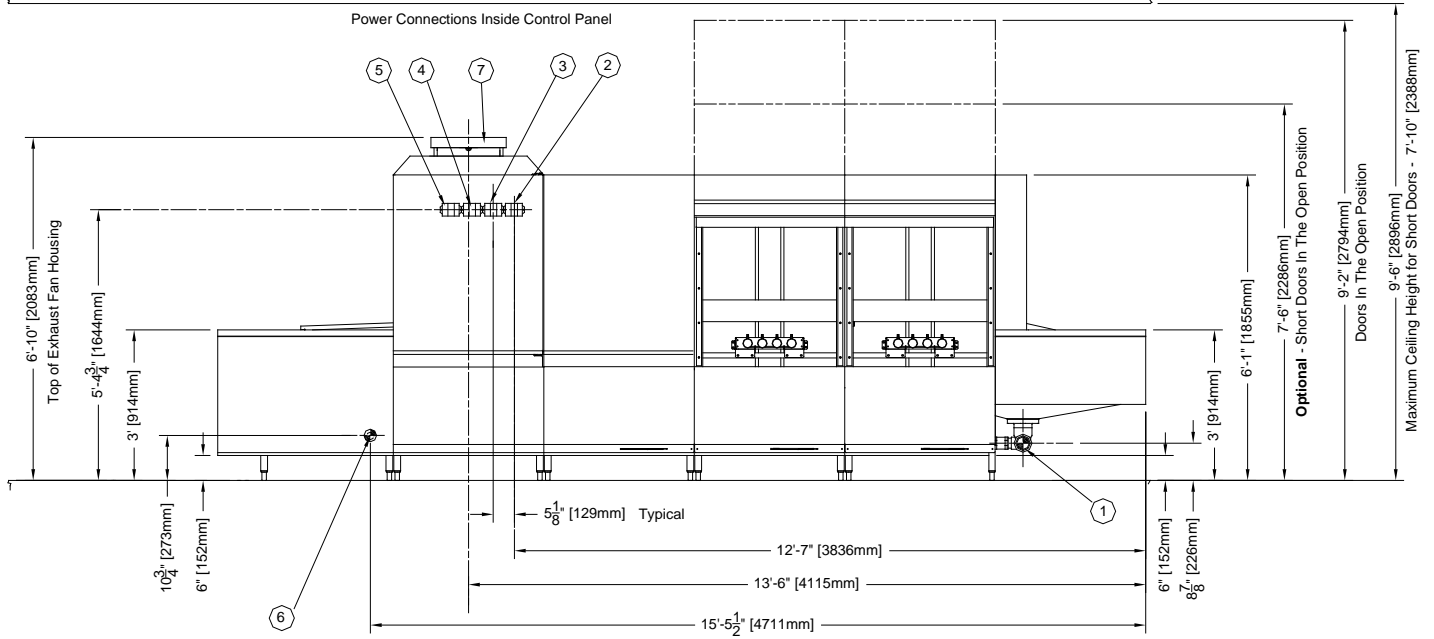
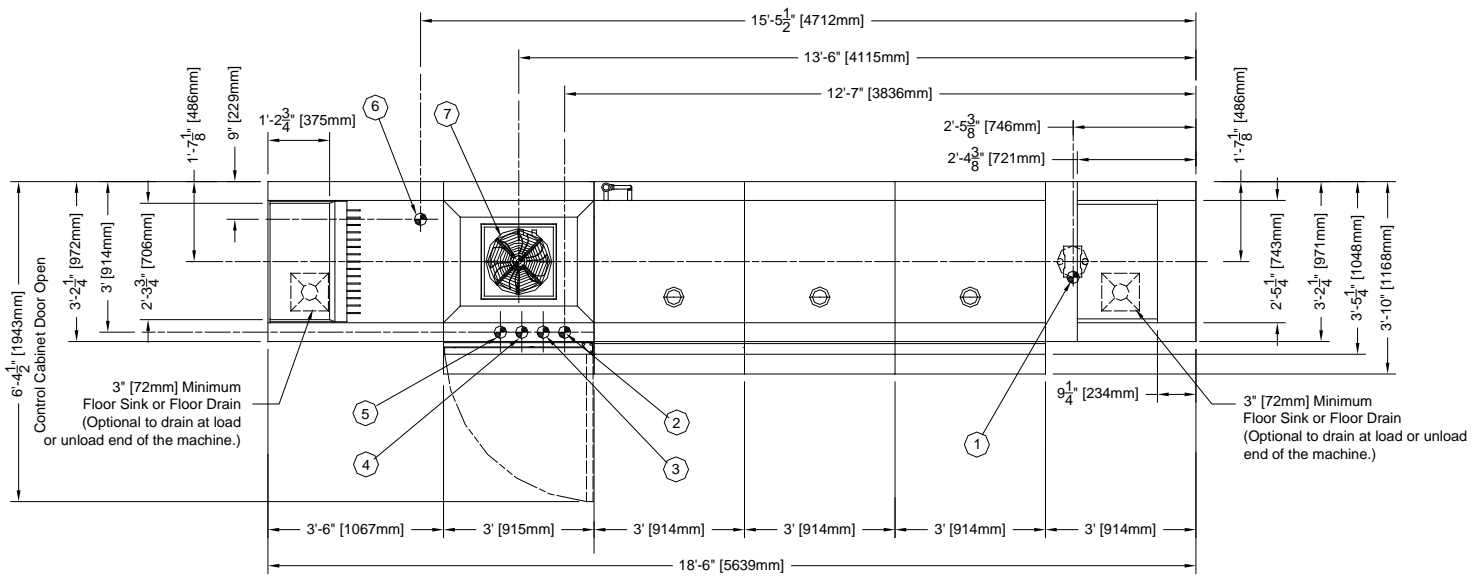


### Legend

- 1 - 1-1/2" NPT Machine Drain Connection (Floor drain - optional to either end)
- 2 - \*Wash Tank Electrical Connection
- 3 - \*Rinse Tank Electrical Connection
- 4 - \*Booster Heater Electrical Connection
- 5 - \*Motor Controls Electrical Connection
- 6 - 3/4" NPT Incoming Water Connection
- 7 - Condensate Connection - See Detail

\*See Table For Amp Draw

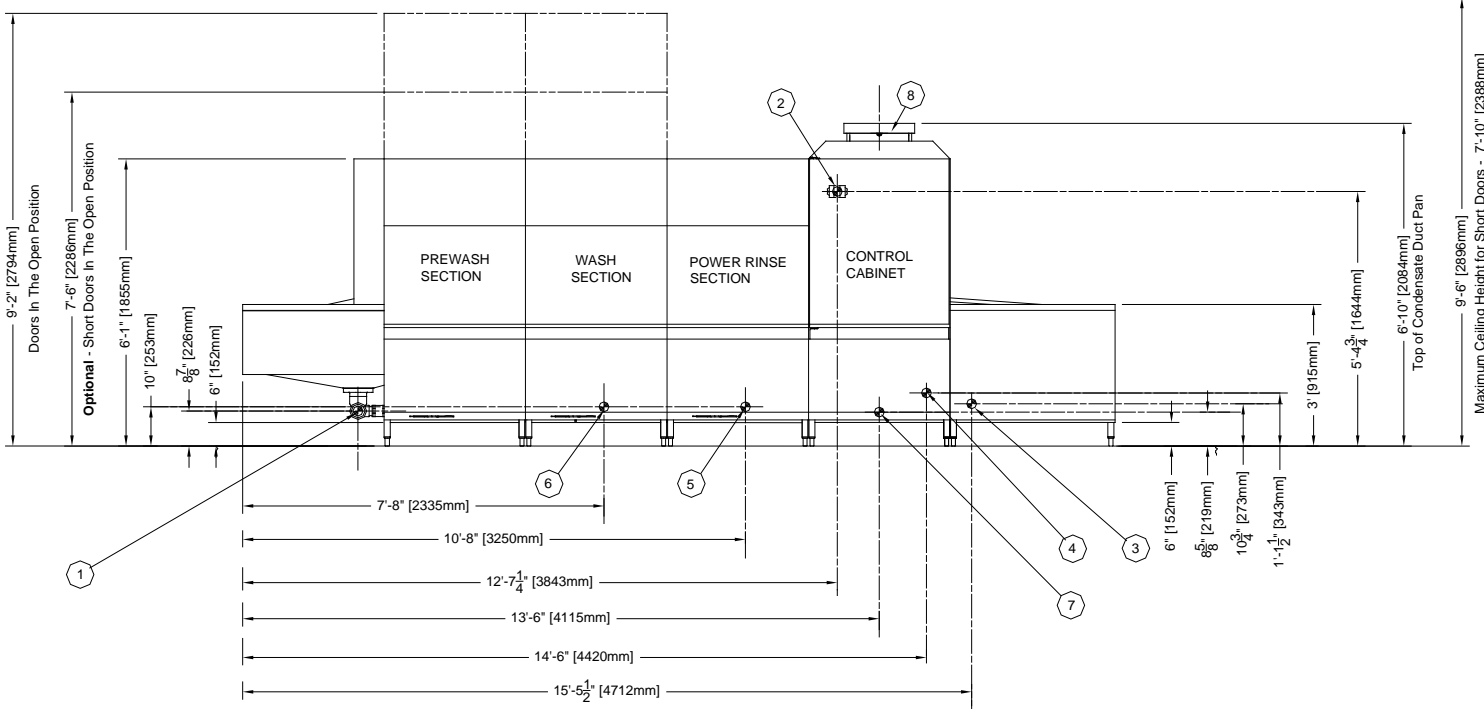
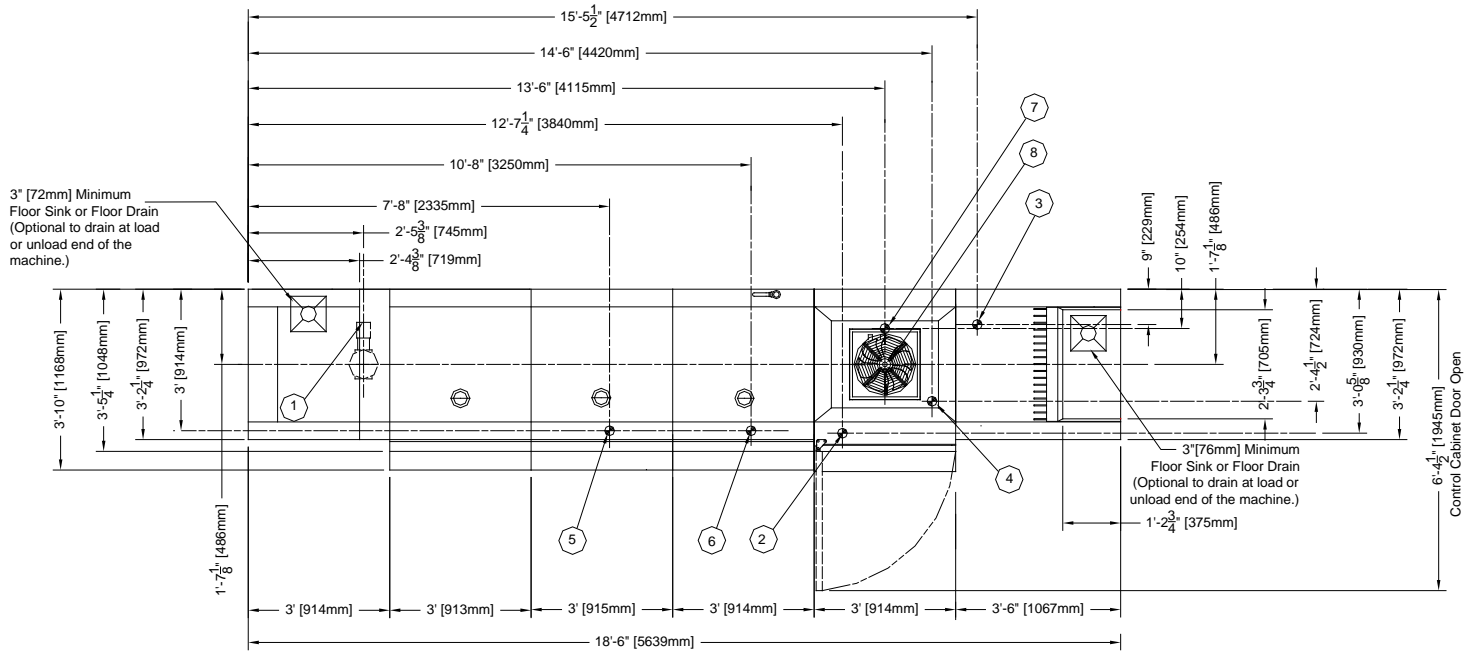
**Note:**  
The condensate removal system built into the dishmachine consists of a fan that will remove 1200 CFM. A single condensate connection must be provided by the installing contractor. This is an indirect connection that must be capable of removing 1200 CFM from the area.



Jackson Rackless Conveyors				
Wash, Power Rinse & Final Rinse (18'-6" minimum length)				
Electric requirements with booster				
	KW	208V	230V	460V
Wash	24	76.3	69.9	35.0
Rinse	26	77.8	70.8	35.4
Motors and Controls		12.2	12.3	6.2
Booster	27	75.0	67.8	33.9
Total		241.3	220.8	110.5

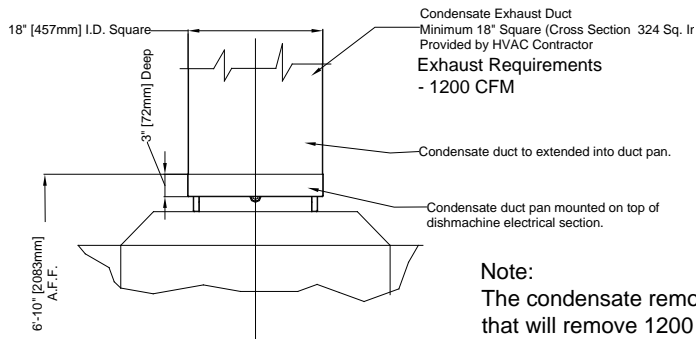
Jackson Rackless Conveyors				
Wash, Power Rinse & Final Rinse (18'-6" minimum length)				
Electric requirements with booster and blower dryer				
	KW	208V	230V	460V
Wash	24	76.3	69.9	36.0
Rinse	26	77.8	70.8	35.4
Blower Dryer, Motors and Controls	20	43.7	41.4	20.7
Booster	27	75.0	67.8	33.9
Total		272.8	249.9	126

# Steam

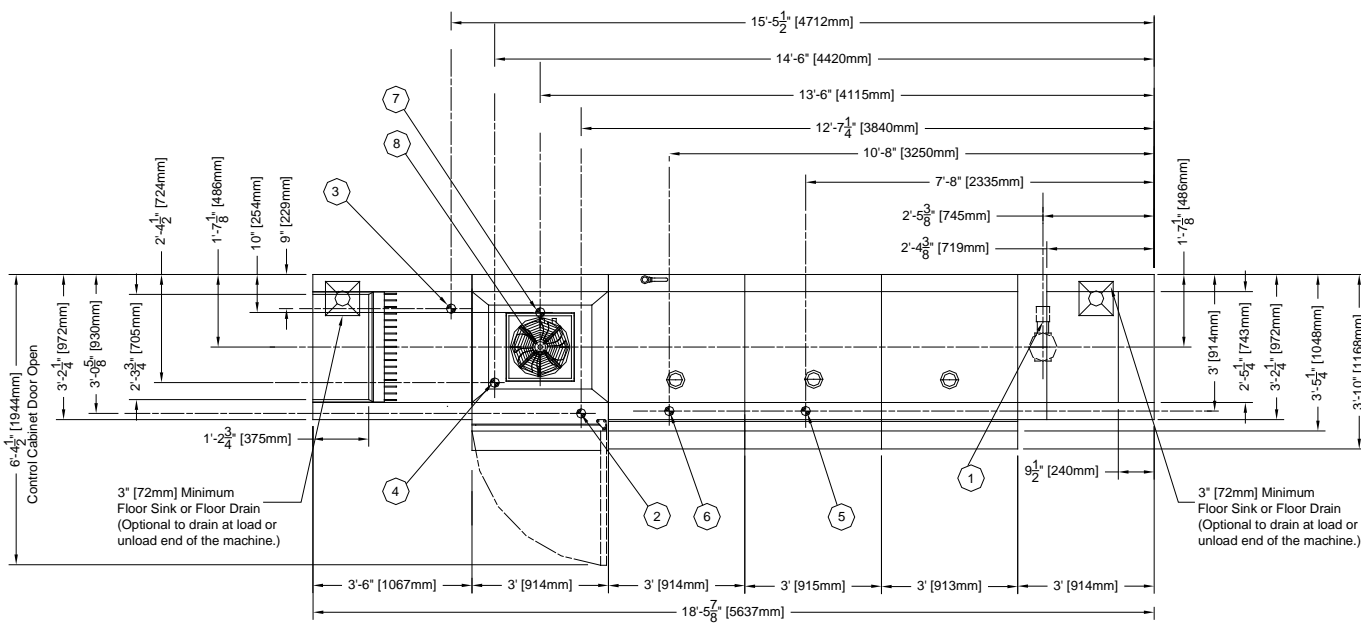


## Legend

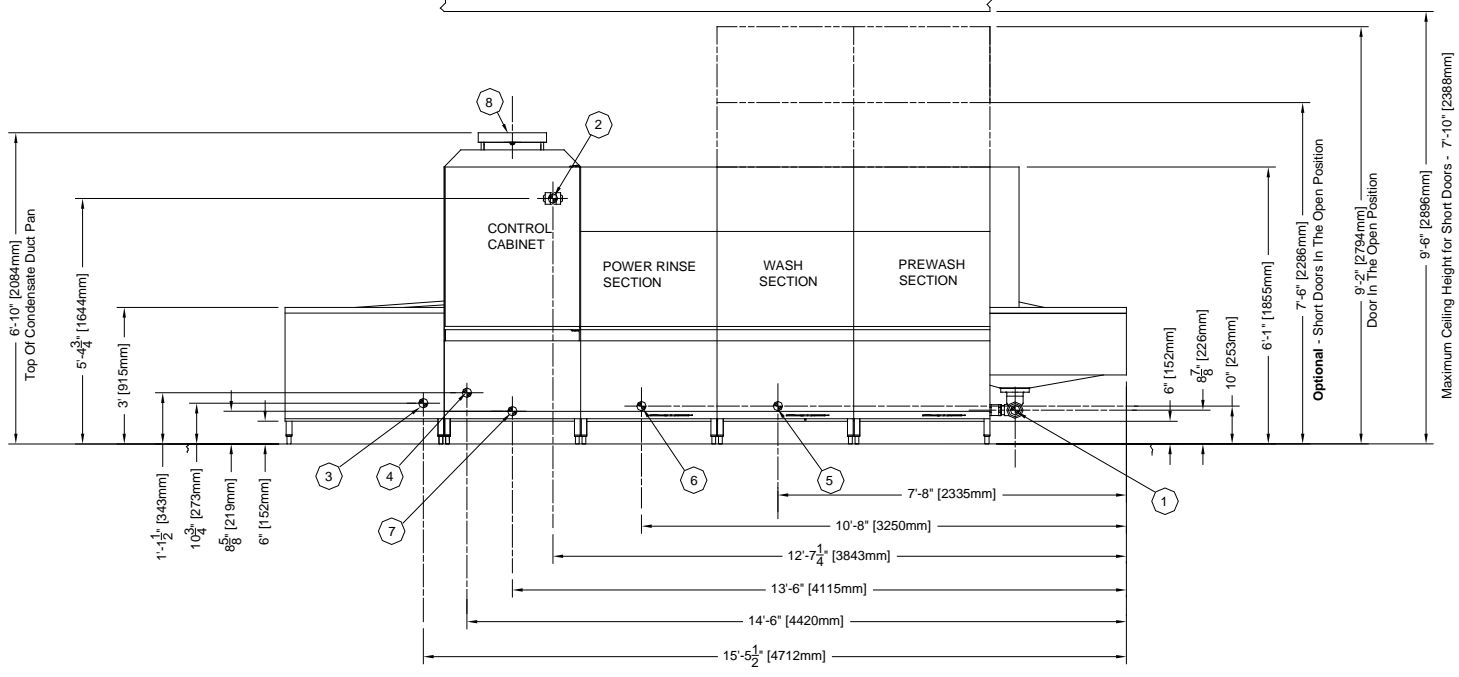
- 1 - 1-1/2" NPT Machine Drain Connection (Floor drain - optional to either end)
- 2 - Electrical Connection - See Table for Amp Draw
- 3 - 3/4" NPT Incoming Water Connection
- 4 - 1-1/2" NPT Steam Connection
- 5 - 3/4" NPT Wash Section Condensate Return
- 6 - 3/4" NPT Power Rinse Section Condensate Return
- 7 - 3/4" NPT Booster Heater Condensate Return
- 8 - Condensate Connection - See Detail



**Note:**  
The condensate removal system built into the dishmachine consists of a fan that will remove 1200 CFM. A single condensate connection must be provided by the installing contractor. This is an indirect connection that must be capable of removing 1200 CFM from the area.



DIRECTION OF OPERATION



Jackson Rackless Conveyors			
Wash, Power Rinse & Final Rinse (18'-6" minimum length)			
Steam tank heat electrical requirements with booster			
	208V	230V	460V
Wash	9.7	9.7	4.9
Rinse	5.6	5.6	2.8
Pre-wash/Drive/Exhaust	12.2	12.3	6.2
Total	27.5	27.6	13.9

Jackson Rackless Conveyors			
Wash, Power Rinse & Final Rinse (18'-6" minimum length)			
Steam tank heat, booster and blower dryer electrical requirements			
	208V	230V	460V
Wash	9.7	9.7	4.9
Rinse	5.6	5.6	2.8
Pre-wash/Drive/Exhaust	18.7	17.9	6.2
Total	34.0	33.2	13.9



# Flight Machine

## ELECTRICAL

An electromechanical control system for increased reliability mounted in a stainless steel control cabinet on the front of the machine. A step-down transformer is included to provide 115 volt, 60 cycles, 1 phase operation for controls including solenoid valves, timers, etc. Wiring is 105 C, 600-volt thermoplastic insulated wire and routed through UL approved conduit.

Low watt density tubular heating elements are mounted inside the wash and power rinse tanks and are easily removable from the exterior of the unit. Heaters are protected by a water level float switch control and a high limit overload.

Tank water temperature is maintained by a fast reacting thermostat which will control the heating element.

## STEAM

Stainless steel tubular steam coils mounted inside the wash and power rinse tanks below the optimum water level and protected by a water level float switch control. An external "Y" strainer and high temperature steam solenoid to regulate the flow of steam through the coil. Tank temperature is controlled and maintained by a fast reacting thermostat that will control the operation of the steam solenoid. A float and thermostatic steam trap to remove the condensate from the coil are included. Steam coils will require a 15-30 PSI flowing steam pressure.

## BOOSTER HEATERS - ELECTRIC

An internally mounted 27 kW electric booster heater sized to raise incoming 110°F (43°C) water supply to 180°F (82°C) minimum for sanitizing rinse. The electric booster heater will have the capacity to heat 155 GPH from 110°F (43°C) to 180°F (82°C) minimum. The tank is designed for a working pressure 150 PSI and hydrostatically tested at 300 PSI. The heater is complete with all plumbing, including NPT pipe and fittings from inlet and outlet. Electric heating elements are metal sheathed controlled by a close tolerance immersion thermostat. The booster is protected with a high temperature limit switch and low water cut-off.

## BOOSTER HEATERS - STEAM

An internally mounted steam booster heater sized to raise incoming 110°F (43°C) water supply to 180°F (82°C) minimum for sanitizing rinse. The steam booster heater will have the capacity to heat 216 GPH from 110°F (43°C) to 180°F (82°C) minimum. The tank is designed for a working pressure 150 PSI and hydrostatically tested at 300 PSI. The heater is complete with all plumbing, including NPT pipe and fittings necessary to meet all installation requirements. The booster is protected with a high temperature limit switch and low water cut-off.

### DIMENSION REQUIREMENTS

Wall Clearance (Minimum)	3" / (19 mm)
Inside Clearance	25"H x 30"W (635 mm x 762 mm)

### OPERATING CAPACITY

Dishes per Hour - Belt Speed 6.4 FPM	12,726
Dishes per Hour - Belt Speed 8.6 FPM	17,101

### OPERATING TEMPERATURES

Pre-Wash (Recommended)	140°F / (60°C)
Wash (Minimum)	152°F / (67°C)
Rinse (Minimum)	161°F / (72°C)
Final Rinse	180°F / (82°C)

### MOTORS

Pre-wash Pump Motor	3.0 HP
Wash Pump Motor	3.0 HP
Power Rinse Pump Motor	2.0 HP
Conveyor Drive Motor	1/4 HP

### HOW TO SPECIFY - JFT:

### STEAM REQUIREMENTS

Steam Flow Pressure (PSIG)	15-30
Consumption @ 110°F Incoming Water Temperature	145 lbs./hr.
Consumption with blower dryer	245 lbs./hr.

### WATER REQUIREMENTS

Inlet Temperature	110°F / (43°C)
Gallons per Hour	140 / (530 Ltr)
Waterline Size IPS (Minimum-inches)	3/4 / (19 mm)
Drainline Size IPS (Minimum-Inches)	2 / (51 mm)
Flow Pressure (PSI)	15-25

### TANK CAPACITY

Pre-wash Tank	36 gal / (136 ltr)
Wash Tank	36 gal / (136 ltr)
Power Rinse Tank	36 gal / (136 ltr)

### PUMP CAPACITY

Pre-wash Pump	260 gal / (984 ltr)
Wash Pump	260 gal / (984 ltr)
Power Rinse Pump	230 gal / (871 ltr)

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