

# Champion®

The Dishwashing Machine Specialists

Project \_\_\_\_\_  
Item No. \_\_\_\_\_  
Quantity \_\_\_\_\_

## STANDARD FEATURES

- **NEW Auto Delime Function**
- 22" Prewash
- PROgressive drive system, with intuitive jam alert, and drive protection
- Proportional rinse, delivering unmatched total ware coverage, utilizing digital pattern cloning, stainless steel nozzles
- 348 racks per hour
- 100 GPH with energy sentinel (idle pump shut-off)
- Prodigy series HMI display, intuitive condition alerts, with user friendly cleaning and operation visual guidance, multi-lingual, touch control
- Proactive maintenance interface, self-diagnostics, problem recognition, with repair recommendation, from HMI touch screen
- Programmable machine dwell with automatic rack alignment into the optimal wash zone
- **Automatic drain valve *Exclusive!***
- Single-piece hood design
- Single-piece stainless steel upper and lower wash arm manifolds
- Two point electrical connection, machine and built-in booster heater
- Full 180° opening leak proof insulated hinged access doors
- Stainless steel heavy gauge construction including base, legs and feet
- Enclosure panels (front and sides)
- 2 HP pump motors, with stainless steel impeller
- Factory Authorized Start-up
- Vent fan control
- **ENERGY STAR® Qualified**
- **Made in America**



## PRO-FF SERIES

**86 PRO-FF Electric**

High Temperature 2-Tank Rack Conveyor Dishwashing Machine



*66PRO-FF-HR with optional blower-dryer shown for representation purposes only.*



*Photo is for general visual representation only. Please refer to specifications for the latest detailed product information.*

## SPECIFIER STATEMENT

Specified unit will be Champion Model 86 PRO-FF Series high temperature 2-tank Front Feeding rack conveyor dishwashing machine. Features top mounted Prodigy HMI user interface controls with proactive maintenance software, proportional rinse, using only 100 GPH, progressive anti-jam drive system, energy sentinel (idle pump shut-off), 348 racks per hour, single-piece hood design, single-piece stainless steel upper & lower wash arms manifolds, full 180° opening leak proof insulated hinged access doors.

1 year parts and labor warranty.

Champion Industries, Inc.  
3765 Champion Blvd., Winston-Salem, NC 27105  
Tel: 336/661-1556 Fax: 336/661-1979  
[www.championindustries.com](http://www.championindustries.com)

# PRO SERIES

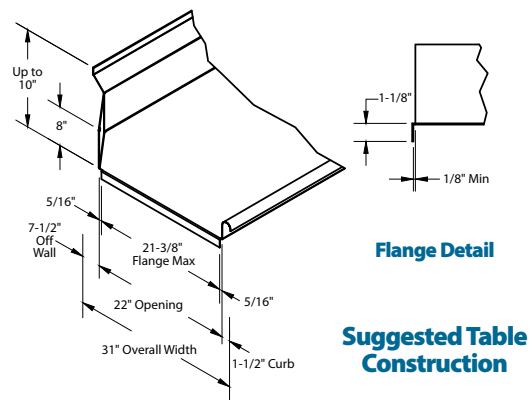
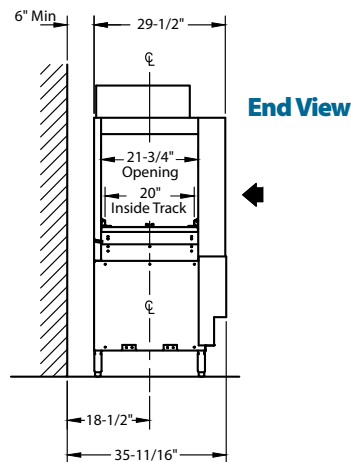
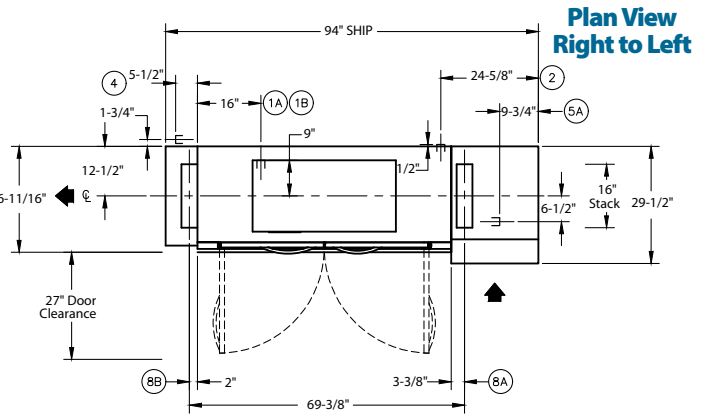
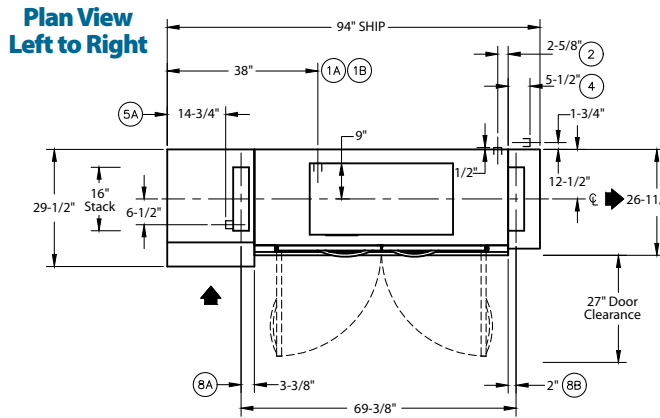
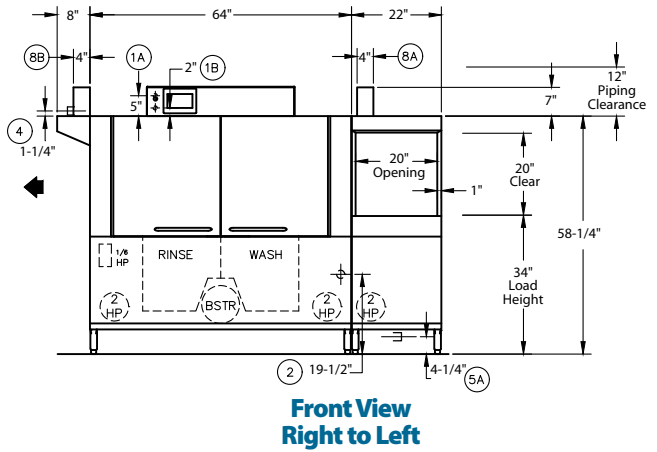
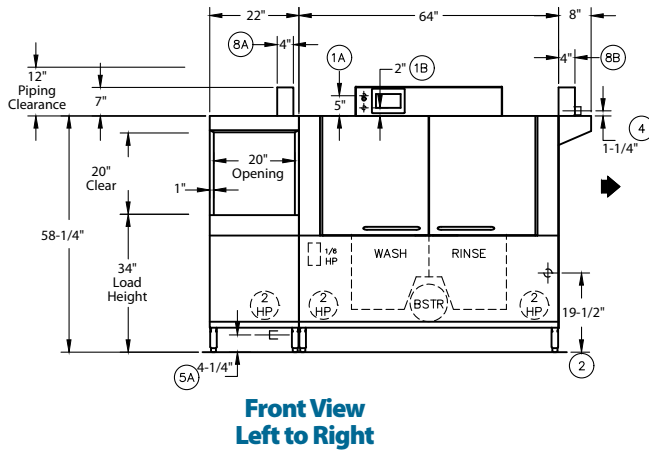
**86 PRO-FF Electric**  
High Temperature Rack Conveyor  
Dishwashing Machine

# Champion®

The Dishwashing Machine Specialists

**MODEL 86 PRO** Shipping weight crated: 1,200lbs

Dimensions shown in inches [mm]



# PRO SERIES

## 86 PRO-FF Electric

High Temperature Rack Conveyor  
Dishwashing Machine

# Champion®

The Dishwashing Machine Specialists

Utilities	
<b>1</b>	<b>Electrical Connection – Two point, standard</b> A Machine electrical connection and booster electrical connection
<b>2</b>	<b>Hot Water</b> Machine with built-in booster Main connection 3/4" NPT
<b>3</b>	<b>Cold Water</b> Connection 1/2" NPT
<b>4</b>	<b>Hot Water</b> Machine with no booster Main water connection 3/4" NPT
<b>5</b>	<b>Drain</b> Connection 1-1/4" NPT
<b>8</b>	<b>Vents</b> A Stack connection - Load end 150 CFM @ 1/4" static pressure B Stack connection - Unload end 400 CFM @ 1/4" static pressure

**Warning:** Plumbing and electrical connections should be made by qualified personnel who will observe all the applicable plumbing, sanitary, safety codes and the National Electrical Code.

**Note:** Water Hammer Arrestor (meeting ASSE-1010 standard or equivalent) to be supplied (by others) in common water supply line at service connection.

**Plumbing Notes:** Because of the variation in house-supplied steam and water pressures, steam and water pressure regulating valves (PRVs) may be needed. (Water PRV is standard on machines with booster.) The PRVs can either be purchased from Champion or obtained locally.

**Venting Notes:** Fabricated duct size: 3-7/8" x 15-7/8" (Outside dimensions)

**Optional Drain Tempering:** 1/2" NPT cold water connection required. 1/2" NPT drain connection from back flow preventer to house drain. (FIELD INSTALLED and PLUMBED).

### Two Tank PRO Rack Machine and Booster Ratings

The tables below give the ratings for each model. The ratings include the requirements of the 12 and 21 kW booster heaters when they are use.

#### Machines with a dual point electrical connection:

86 PRO-FF Electric, 21 kW Booster Only			
Electrical Specifications	Rated Amps	Minimum Supply Circuit Ampacity	Maximum Overcurrent Protective Device
208/60/3	59	80	80
240/60/3	51	70	70
480/60/3	26	35	35
575/60/3	22	30	30

86 PRO-FF Electric, 12 kW Booster Only			
Electrical Specifications	Rated Amps	Minimum Supply Circuit Ampacity	Maximum Overcurrent Protective Device
208/60/3	34	45	45
240/60/3	29	40	40
480/60/3	15	20	20
575/60/3	12	15	15

86 PRO Machine Connection, Electric Tank Heat, No Booster			
Electrical Specifications	Rated Amps	Minimum Supply Circuit Ampacity	Maximum Overcurrent Protective Device
208/60/3	98	125	125
240/60/3	85	110	110
480/60/3	42	60	60
575/60/3	33	45	45

**Note:** Single phase options available, contact factory for details.

## SPECIFICATIONS

### Capacity

Racks per hr. (NSF rated)	348
Wash tank (US gal.)	17
Power Rinse tank.	17
Conveyor speed (ft/min.)	9.55
Conveyor speed Pot/Pan Mode (ft/min.)	4.6
(only one rack at a time in Pot/Pan Mode)	

### Motor Horsepower

Drive	1/6
Pre-wash	2
Wash	2
Rinse	2

### Water Consumption

US Gal. per hr. (max. use)	100
US Gal. per rack	0.29

### Heating

Tank Heat, electric (kW)	25
Electric booster (built-in) (kW supplied for 40°F rise)	12
Electric booster (built-in) (kW supplied for 70°F rise)	21
<i>Booster heaters completely inter plumbed, controls are interwired</i>	

### Venting

Load end (minimum CFM)	150
Unload end (minimum CFM)	400

### Standard 20" x 20" rack complement

Peg	1
Flat	1

### Machines with a field converted single point electrical connection:

86 PRO-FF Electric Tank Heat, 21 kW Booster			
Electrical Specifications	Rated Amps	Minimum Supply Circuit Ampacity	Maximum Overcurrent Protective Device
208/60/3	n/a	n/a	n/a
240/60/3	136	175	175
480/60/3	68	90	90
575/60/3	55	70	70

86 PRO-FF Electric Tank Heat, 12 kW Booster			
Electrical Specifications	Rated Amps	Minimum Supply Circuit Ampacity	Maximum Overcurrent Protective Device
208/60/3	n/a	n/a	n/a
240/60/3	114	150	150
480/60/3	57	80	80
575/60/3	45	60	60

Due to an ongoing value analysis program at Champion, specifications contained in this catalog are subject to change without notice.

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# PRO-FF SERIES

PRO-FF SERIES RACK CONVEYOR

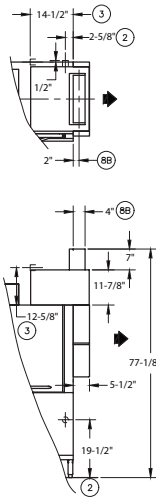
## 86 PRO-FF Electric

High Temperature Rack Conveyor  
Dishwashing Machine

### OPTIONS & ACCESSORIES

- 33" Blower Dryer – steam or electric
- Booster Heaters (completely interplumbed, controls are interwired)
  - Steam: 40°F or 70°F rise (see spec sheet)
  - Electric: 40-70°F rise (built-in only)
- Racks: Peg (specify qty \_\_\_\_\_)
- Racks: Flat (specify qty \_\_\_\_\_)
- Table limit switch (recommended on all rack conveyor installations) (unmounted)
  - Button style
  - Whisker style
- Vent cowls, stainless steel with 7" stack and locking damper
- Extended vent cowls
- Water pressure regulating valve (unmounted) (standard with booster)
- Water hammer kit (unmounted)
- Drain tempering kit (unmounted)
- Model PRO 90 (90° corner conveyor table)
- Model RCT 86 or RCT 84 roller conveyor Table (Contact factory for custom length)
- Splash shields
- ION scale prevention device (unmounted)
- Stainless steel rear enclosure panels
- Detergent and rinse-aid pump kit (factory mounted)
- Heat Recovery

<b>2</b>	<b>Hot Water</b> 110°F 3/4" NPT initial fill; 30 psi minimum feed
<b>3</b>	<b>Cold Water</b> (min. 55°F) 1/2" NPT Water Consumption 100 GPH at 20 psi; 30 psi minimum feed
<b>4</b>	<b>Vent</b> (4"x16" inside) Unload end: 200CFM at 1/4" S.P. Direct venting not required if canopy venting is in use.



# Champion®

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**NEW PRO-90**  
90° Corner Conveyor  
Table (shown)  
Unloader only



**Model RCT 64  
or RCT 84**  
Roller  
Conveyor Table

# Champion®

The Dishwashing Machine Specialists

Project \_\_\_\_\_  
Item No. \_\_\_\_\_  
Quantity \_\_\_\_\_

## STANDARD FEATURES

- **NEW Auto Delime Function**
- PROgressive drive system, with intuitive jam alert, and drive protection
- Proportional rinse, delivering unmatched total ware coverage, utilizing digital pattern cloning, stainless steel nozzles
- 348 racks per hour
- 100 GPH with energy sentinel (idle pump shut-off)
- Prodigy series HMI display, intuitive condition alerts, with user friendly cleaning and operation visual guidance, multi-lingual, touch control
- Proactive maintenance interface, self-diagnostics, problem recognition, with repair recommendation, from HMI touch screen
- Programmable machine dwell with automatic rack alignment into the optimal wash zone
- **Automatic drain valve *Exclusive!***
- Single-piece hood design
- Single-piece stainless steel upper and lower wash arm manifolds
- Single point electrical connection, machine and external booster heater
- Full 180° opening leak proof insulated hinged access doors
- Stainless steel heavy gauge construction including base, legs and feet
- Enclosure panels (front and sides)
- 2 HP pump motors, with stainless steel impeller
- Factory Authorized Start-up
- Vent fan control
- **ENERGY STAR® Qualified**
- **Made in America**



## PRO-FF Series

86 PRO-FF Steam

High Temperature 2-Tank Rack Conveyor  
Front Feeding Dishwashing Machine



66PRO-FF-HR with optional blower-dryer shown for representation purposes only.



Photo is for general visual representation only. Please refer to specifications for the latest detailed product information.

## SPECIFIER STATEMENT

Specified unit will be Champion Model 86 PRO-FF Series high temperature Front Feeding 2-tank rack conveyor dishwashing machine. Features top mounted Prodigy HMI user interface controls with proactive maintenance software, proportional rinse, using only 100 GPH, , progressive anti-jam drive system, energy sentinel (idle pump shut-off), 348 racks per hour, single-piece hood design, single-piece stainless steel upper & lower wash arms manifolds, full 180° opening leak proof insulated hinged access doors.

1 year parts and labor warranty.

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PRO-FF SERIES 2-TANK RACK CONVEYOR

# PRO-FF SERIES

## 86 PRO-FF Steam

High Temperature Rack Conveyor  
Front Feeding Dishwashing Machine

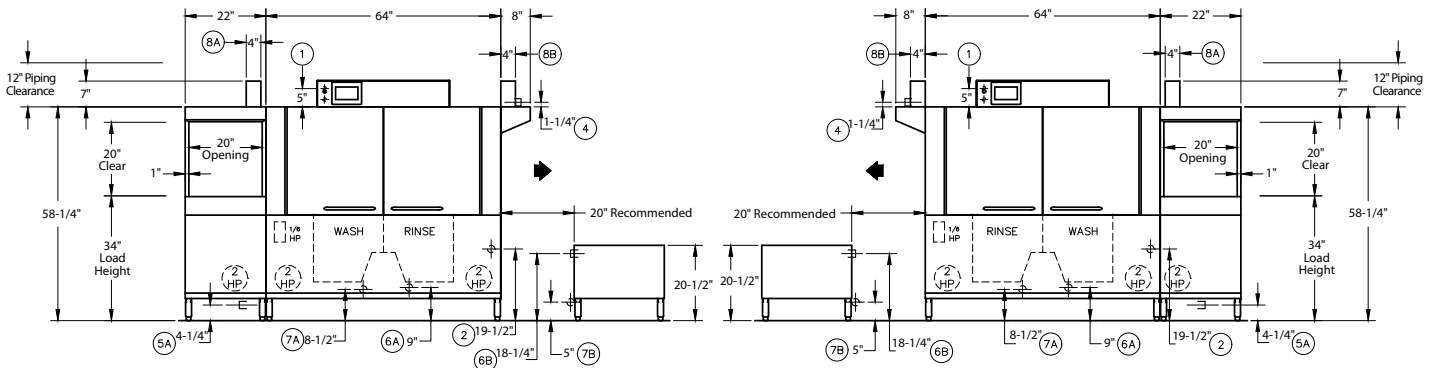
# Champion®

The Dishwashing Machine Specialists

### MODEL 86 PRO-FF

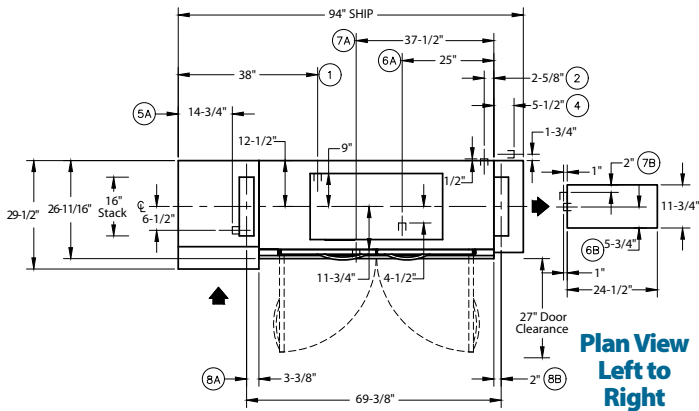
Shipping weight crated: 1,200 lbs

Dimensions shown in inches [mm]

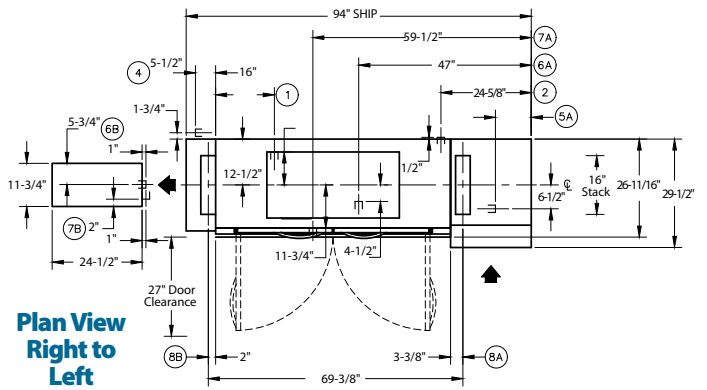


**Front View  
Left to Right**

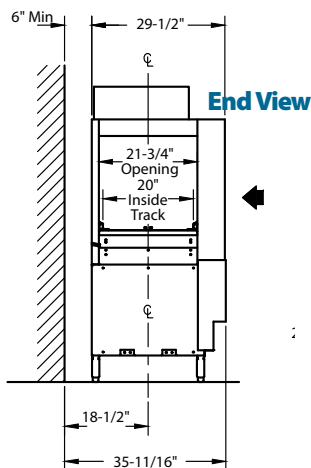
**Front View  
Right to Left**



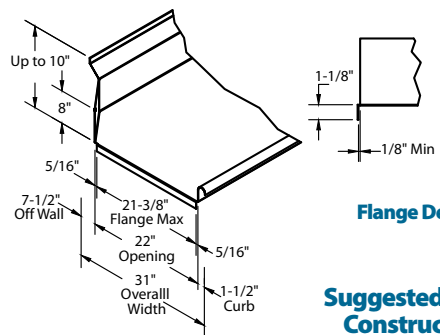
**Plan View  
Left to Right**



**Plan View  
Right to Left**



**End View**



**Flange Detail**

**Suggested Table  
Construction**

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# PRO-FF SERIES

## 86 PRO-FF Steam

High Temperature Rack Conveyor  
Front Feeding Dishwashing Machine

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Utilities	
<b>1</b>	<b>Electrical Connection –</b> Machine requirements 5.17Hp (See electrical chart for amp loads) (Stepdown transformer provides 120V cont.)
<b>2</b>	<b>Hot Water</b> 110°F 3/4" NPT Connection with external booster water consumption 100 gph at 20 psi
<b>3</b>	<b>Cold Water</b> 50°F - 70°F (optional) 1/2" NPT drain water tempering kit PRV to be supplied by others if pressure exceeds 60 psi
<b>4</b>	<b>Hot Water</b> 180°F 3/4" NPT water consumption 100 gph at 20 psi PRV by others if pressure is higher (water connection without supplied booster)
<b>5</b>	<b>Drain</b> Connection 1-1/4" NPT
<b>6</b>	<b>Steam Flow Press</b> (10-30 psi) <b>A</b> 1" NPT tank heat; 125 lb/hr consumption <b>B</b> 3/4" NPT booster; 110 lb/hr consumption
<b>7</b>	<b>Condensate No Back Pressure</b> <b>A</b> 3/4" NPT machine return to boiler <b>B</b> 1/2" NPT machine return to boiler
<b>8</b>	<b>Vents</b> 4" x 16" Inside <b>A</b> Load end: 150 CFM at 1/4" SP <b>B</b> Unload end: 400 CFM at 1/4" SP

**Warning:** Plumbing and electrical connections should be made by qualified personnel who will observe all the applicable plumbing, sanitary, safety codes and the National Electrical Code.

**Note:** Water Hammer Arrestor (meeting ASSE-1010 standard or equivalent) to be supplied (by others) in common water supply line at service connection.

**Plumbing Notes:** Because of the variation in house-supplied steam and water pressures, steam and water pressure regulating valves (PRVs) may be needed. (Water PRV is standard on machines with booster.) The PRVs can either be purchased from Champion or obtained locally.

**Venting Notes:** Fabricated duct size: 3-7/8" x 15-7/8" (Outside dimensions)

**Optional Drain Tempering:** 1/2" NPT cold water connection required. 1/2" NPT drain connection from back flow preventer to house drain. (FIELD INSTALLED and PLUMBED).

## Two Tank PRO Rack Machine and Booster Ratings

The table below gives the ratings for each model.

### Machines with a single point electrical connection:

86 PRO-FF Steam			
Electrical Specifications	Rated Amps	Minimum Supply Circuit Ampacity	Maximum Overcurrent Protective Device
208/60/3	20	25	25
240/60/3	17	25	25
480/60/3	9	15	15
575/60/3	7	15	15

## SPECIFICATIONS

### Capacity

Racks per hr. (NSF rated) . . . . .	348
Wash tank (US gal.) . . . . .	17
Power Rinse tank. . . . .	17
Conveyor speed (ft/min.) . . . . .	9.55
Conveyor speed Pot/Pan Mode (ft/min.) . . . . .	4.6
(only one rack at a time in Pot/Pan Mode)	

### Motor Horsepower

Drive . . . . .	1/6
Pre-wash . . . . .	1
Wash . . . . .	2
Rinse . . . . .	2

### Water Consumption

US Gal. per hr. (max. use) . . . . .	100
US Gal. per rack . . . . .	0.29

### Heating (10-30 psi flow pressure)

Tank heat, steam (lbs./hr. required) . . . . .	125
Steam booster (lbs./hr. required for 70°F rise) . . . . .	110
<i>Booster heaters completely inter plumbed, controls are intertwined</i>	

### Venting

Load end (minimum CFM) . . . . .	150
Unload end (minimum CFM). . . . .	400

### Standard 20" x 20" rack complement

Peg . . . . .	1
Flat . . . . .	1

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# PRO-FF SERIES

PRO-FF SERIES RACK CONVEYOR

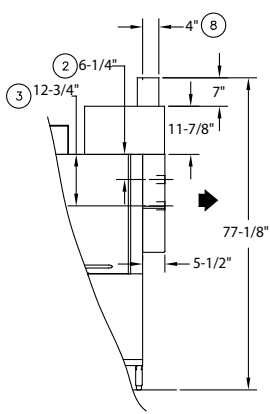
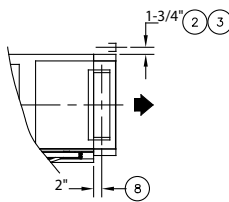
## 86 PRO-FF Steam

High Temperature Rack Conveyor  
Front Feeding Dishwashing Machine

### OPTIONS & ACCESSORIES

- Tank heat: choice of steam coil
- 33" Blower-dryer – steam or electric
- Booster Heaters (completely interplumbed, controls are interwired)
  - Steam: 40°F or 70°F rise
- Racks: Peg (specify qty \_\_\_\_\_)
- Racks: Flat (specify qty \_\_\_\_\_)
- Table limit switch (recommended on all rack conveyor installations) (unmounted)
  - Button style
  - Whisker style
- Vent cowls, stainless steel with 7" stack and locking damper
- Extended Vent Cowls
- Water pressure regulating valve (unmounted) (standard with booster)
- Water hammer kit (unmounted)
- Drain tempering kit (unmounted)
- Model PRO 90 Unloader (90° Corner Conveyor Table)
- Model RCT 86 or RCT 84 Roller Conveyor Table (Contact factory for custom length)
- Splash shields
- ION scale prevention device (unmounted)
- Heat Recovery

<b>2</b>	<b>Hot Water</b> 110°F 3/4" NPT initial fill; 30 psi minimum feed
<b>3</b>	<b>Cold Water</b> (min. 55°F) 1/2" NPT Water Consumption 100 GPH at 20 psi; 30 psi minimum feed
<b>4</b>	<b>Vent</b> (4"x16" inside) Unload end: 200CFM at 1/4" S.P. Direct venting not required if canopy venting is in use.



# Champion®

The Dishwashing Machine Specialists



**NEW PRO-90**  
90° Corner Conveyor Table (shown)  
*Unloader only*



**Model RCT 64 or RCT 84**  
Roller Conveyor Table

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