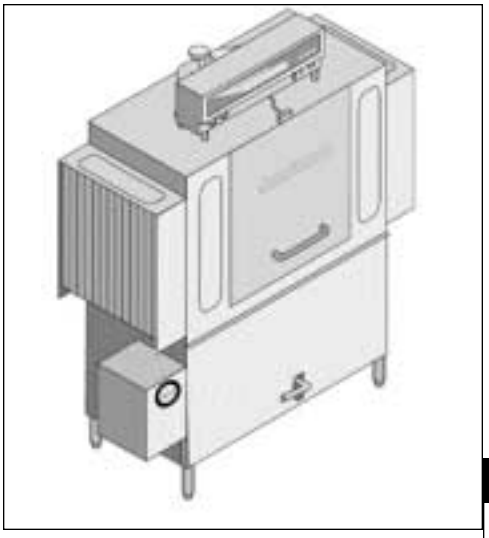
AJ-44 GP Conveyor

Single Tank Rack Conveyor Dishwasher



Jackson's new gas tank heat and booster dishmachines are conveyors designed for the twenty-first century. Unique features appeal not only to consultants and designers but to end-users as well. Standard features, which are options on competitive models, increase the versatility of the single tank rack conveyor. The higher hood with a 25" clearance allows the end-users to wash large utensils, trays, and bun pans. The Adjust-A-Peak (patent pending) feature controls the conveyor speed so that the end-user can choose between maximum capacity when required and slower speeds when soil loads are heavy (i.e. utensils, trays, and bun pans) and enhanced results are required. The gas booster heater, specifically designed for the VISION SERIES, allows hook-up to a 110°F water supply. Reduced water consumption without sacrificing total rack capacity makes Jackson's new conveyors prudent in terms of operating costs for the end-user. Utilizing less water per rack means lower total heating costs, less water, less chemical usage, and lower sewage costs, and therefore, as a side benefit, environmentally friendly.

Standard Features

- Highest NSF rated capacity: 248 racks per hour Hi-temp sanitizing rinse.
- Lowest NSF rated water consumption: 0.94 gallons per rack Hi-temp sanitizing rinse
- Only a minimum 110°F incoming water temperature is required.
- Single source heats Final Rinse Water & maintains wash tank temperature.
- Patented gas modulation technology
- Self diagnostics system built in.
- No standing pilot light required
- Exclusive Adjust-A-Peak feature (patent pending) allows the owner operator to manually adjust the speed of the conveyor system from 124 racks per hour all the way to maximum capacity of 248 racks per hour.
- Standard 25" clearance allows owner operators the ability to wash large utensils, trays, and bun pans.
- Totally electro-mechanical; no solid state controls uti lized.
- Fully automatic including auto-fill.
- Completely self-draining stainless steel wash pump.
- Exclusive "Energy Guard" controls system operates wash and rinse sections only when a rack is being washed or rinsed.
- Convenient, externally operated, lever drain.
- Stainless steel frame, legs, adjustable bullet feet, and front appearance panel are all standard.
- Standard 8" vent cowls/splash shields on both wash and rinse ends of the machine.
- Heavy gauge construction for extra ruggedness and durability.

TECHNICAL SPECIFICATIONS: AJ-44GP Conveyor

PERFORMANCE / CAPACITIES
Hi-temp sanitization NSF Rated

Operating Capacity	
Racks per hour	248
Dishes per hour:	6200
Glasses per hour:	6200
Power Connections	
Approximate Total Load:	**AMPS**
208V / 50 or 60HZ / 3PH	10.3
208V / 50 or 60HZ / 1PH	6.7
230V / 50 or 60HZ / 3PH	10.1
230V / 50 or 60HZ / 1PH	6.7
380V / 50 or 60HZ / 3PH	3.7
460V / 50 or 60HZ / 3PH	3.7
Water Requirements:	
Incoming Water Temperature	110 °F
Gallons per hour @ 100% capacity:	234
Gallons per rack @ 100% capacity:	0.94
Wash Tank Capacity (gallons)	15.4
Incoming Water Line Size (min.)	
Wash Tank Fill/Rinse	3/4" I.P.S.
Optimum Flow Pressure	15-25 P.S.I.
Flow Rate Minimum (GPM)	3.9
Drainline Size (min)	1 1/2" I.P.S.

Operating Specifications:	
Wash Tank Temperature (min.):	160°F
Rinse Temperature (min.):	180°F
Wash:	
Wash Pump Motor Horsepower	2.0
Wash Pump Capacity (GPM)	270
Conveyor:	
Conveyor Motor Horsepower	1/4
Conveyor Speed (feet/minute)	6.9
Dimensions (inches):	
Length between dishtables	44
Machine width	25
Wall Clearance (minimum)	4.5
Cavity/dish clearance (maximum)	25
Shipping Information:	
Weight	890 lbs
Dimensions (L x D x H)	76" x 40" x 78"
Volume	170 cubic feet

Flue/Inlet Gas Pressures:	**Inches Water Column**
Natural	10.5 Maximum, 7.0 Minmum
LP/Propane	14.0 Maximum, 11.0 Minmum

Venting Requirements @ 100% capacity (CFM):	
Input end	200
Output end	400
Total CFM	600

Fluing:
Closed combustion-Combustion air enters & flue gases are power vented out through a 4" (10 cm) vent pipe adapter.

Note: All specifications are subject to change without notice.

THE AJ-44 GP CONVEYOR

SPECIFICATIONS

NOTE: The AJ-44 GP conveyor dishmachine is listed by the National Sanitation Foundation (NSF), Underwriters Laboratories Inc. (UL), and by the Canadian Standards Association (CSA). They also meet the requirements of A.S.S.E. Standard No. 1004.

PERFORMANCE: Fully automatic, single tank, rack conveyor dishwasher with a recirculating prewash designed to wash, rinse, and sanitize tableware and utensils commonly associated with the preparation and consumption of food items in a commercial foodservice operation. Sanitization is accomplished through hi-temp sanitization utilizing 180-195°F fresh water rinse. The unit conveys standard 20" x 20" dishracks through a detergent laden wash section where 270 gallons per minute of 160°F wash water is pumped over the dishrack to remove the food soil. Finally, the rack is then conveyor driven into a final rinse section where a fresh water final rinse spray system removes residual detergent and sanitizes. The unit must be installed to a potable water line capable of supplying 234 gallons per hour between 110-120°F at 20 PSI flow pressure for maximum hourly rack capacity of 248 racks per hour.

CONSTRUCTION: All stainless steel components are 18-8 304 series stainless steel. No 400 series stainless steel and/or plastics are utilized. Frame is constructed of 2" diameter stainless steel tubing formed and completely saddle welded for superior strength. The wash tank and rinse chamber are formed and heliarc welded 16 gauge #2B finish. Hood is 16 gauge #3 finish. Stainless steel feet are adjustable ±1/2".

WASH PUMP: Internal wash pump located inside the wash tub is totally stainless steel as is the impeller. The wash pump itself is integral with the motor and self-draining. Wash water is recirculated from the wash tank through the manifolds and wash arm system at the rate of 270 GPM.

WASH PUMP MOTOR: A 2 HP totally enclosed, fan cooled type motor drives the wash pump and arms. Single-phase motors are capacitor start, induction run with internal thermal overload protection. Three-phase motors are induction run with external overload protection. Motor shaft is supported by permanently lubricated grease packed ball bearings.

CONVEYOR SYSTEM: Racks are conveyed through the machine by a center-mounted, heavy-duty stainless steel pawl bar with stainless steel cast, counter-weighted, wide surface pawls. The pawl bar is designed to not interfere with spray patterns in the prewash, wash, and rinse section. The pawl bar is driven by a 1/4 HP motor and worm drive gear reduction unit. The conveyor motor itself is totally enclosed, non-ventilated. Single-phase motors are capacitor start, induction run with internal thermal overload protection. Three-phase motors are induction run with external overload protection. Pawl bar conveyor drive unit is mounted on the left hand side of the machine and is enclosed with a removable stainless steel cover. Maximum conveyor speed is 6.9 feet per minute. The patent pending **ADJUST-A-PEAK** feature is a mechanical feature located on the pawl bar drive unit itself and allows the end-user to slow down the speed of the conveyor drive unit when enhanced results are required (i.e. baked-on food soil) or increase the speed of the conveyor drive unit when maximum capacity is required. By slowing down the conveyor, a rack of ware remains in the wash and rinse sections for longer periods of time. When soil loads are heavy (i.e. pots and pans, trays, and bun pans), adjusting the conveyor to slower speeds means outstanding results.

CHAMBER: The chamber has a standard clearance of 25" which is the highest clearance in the industry---even higher than competitive higher hood options. This adds to the versatility of the machine since you can easily accommodate larger utensils such as sheet pans and 60 quart mixing bowls. The combination of a higher hood in conjunction with manually slowing down the conveyor utilizing the Adjust-A-Peak feature produces superior results as well as adding to the versatility of the machine.

CONTROLS: Controls are located in a stainless steel control box mounted on top of the machine for ease of access and increased reliability. Power "ON/OFF" switch is the only manual switch required. "ENERGY GUARD" fully automates the machine and utilizes switching logic to operate wash, and rinse sections only when a rack is in place as well as turning the conveyor off when a rack exits the machine and there are no other racks in the machine. Regardless of machine voltage, all control circuitry will be operated from a 110 volt control circuit transformer. Again, the Adjust-A-Peak feature eliminates the need for manual controls since you have the ability to slow down the conveyor for extended prewash, wash, and rinse contact time. The unit is completely wired with 105°C, 600V thermoplastic insulated wire and routed through UL approved conduit. The control circuit itself is protected by a manual reset 1 AMP overload protector located on the front of the control box.

FILL: Initial fill of the wash tank is automatic when machine is initially energized. The fill line is pre-plumbed and connected to the booster heater through flexible lines shipped loose. The fill line is controlled by its own standard solenoid valve and vacuum breaker assembly. The wash tank fill line is connected to a 180°F minimum incoming potable water line which is supplied by the external gas booster heater

The fill solenoid for the tank is activated by stainless steel float systems located in the tank for maintaining the required water level.

RECIRCULATING WASH: The wash tank has a 15.4 gallon capacity and maintains that level with a skimming type overflow that flows excess wash water into the prewash tank. Washing action is accomplished by recirculating detergent laden wash water in the wash tank through upper and lower wash arms. Make-up water comes from the power rinse section and is controlled at approximately 2 GPM. The arms themselves are extended and create a longer wash section than competitive models. Wash section is automatically activated by racks as they pass through. Wash arms, upper and lower, contain 43 separate stripping nozzles for superior performance. Both wash arms are easily removable and along with removable wash arm end caps, are easily cleanable without the use of tools. Large stainless steel strainer pans as well as a pump intake strainer for secondary protection are readily accessible and removable for cleaning purposes. Knockouts and connections are provided to allow easy installation of detergent concentration sensor and dispenser tubing by others.

CONVEYORS FOR THE TWENTY-FIRST CENTURY

FINAL RINSE: Pressurized potable rinse water enters the machine through a standard "Y" strainer, solenoid valve, and approved vacuum breaker assembly and is plumbed to upper and lower final rinse arms located at the output end of the machine. Single rows of fan jet nozzles are located on both rinse arms. A connection point is provided for rinse agent injection into the final rinse line by others. Total final rinse flow rate is3.9 GPM.

DRAIN, OVERFLOW, AND MAKE-UP: The machine is designed to maintain appropriate prewash and wash tank water levels at all times even at low pressures. The overflow system is designed to automatically skim the surface of both tanks. Make-up water from the final rinse system not only replenishes the wash water but also helps maintain appropriate water levels as well as appropriate wash tank temperatures. Large levers located on the front panel of the machine operate drain valves and drains the prewash and wash tanks completely

WASH TANK HEAT: Stainless steel tubular coils are mounted inside the wash tank below the optimum water level. Hot water (above 180°F) is pumped through the coils from the gas booster heater. This will maintain the wash tank water at a minimum of 160°F.

GAS BOOSTER HEATER: This externally mounted device will provide 180°F minmum final rinse water plus maintain the wash tank water at the proper temperature.
The booster shall have the capacity to heat 274 gph from 110°F to 180°F and shall be rated at 199,000 Btu, fired by either natural gas, LP or propane. It shall be controlled from the conveyor's control circuit (115 volts, single phase). The booster shall be equipped with the temperature control system.
The heater shall have microprocessor controls and an electronic on-board self-diagnostic system. All serviceable components shall be front accessible and electronic boards shall be in a slide out drawer.
The heater shall include all internal plumbing, including 3/4" flexible hose from inlet and outlet to the approiate dishwasher connections. All controls shall be built-in and carry safety approval in accordance with ANSI 21.10.3. Sanitary approval shall be in accordance with NSF Standard 5.
The gas fired heating system shall be controlled by quick reacting temperature sensors in the heat exchanger. The booster shall be protected with an electronic temperature sensor and a high temperature limit switch (ECO).
The heater shall consist of an all stainless steel cabinetwith standard 6" legs. It will include a pressure relief valve and high temperature limit.

ADDITIONAL STANDARD EQUIPMENT:

- Vent cowls/splash shields.
- Flexible NSF approved strip curtains provided at the ends of the vent cowls as well as at the ends of the machine and separating the wash and final rinse departments.
- Extra large inspection door located on front of machine for easy access and cleanability
- Safety door switch shuts down machine should door be opened during operation.
- Stainless steel front appearance panel.
- Positive low level water protection for wash tank heat.
- Sealed dial type thermometers for the wash and final rinse temperatures.

OPTIONAL FEATURES AND ACCESSORIES

TABLE LIMIT SWITCH: Factory wired to machine and mounted to the backsplash of the table in the field. Prevents damage to conveyor drive system, racks, and dishes due to racks backing up on the output end of the machine. Highly recommended for clean dishtables less than 10 feet in length.

VENT COWL COLLARS: Factory installed 4" x 16" x 7" high collars located on the vent cowls to allow easy connection to an external exhaust system including a standard "pant-leg" type exhaust duct. Includes adjustable and lockable damper flap for fine tuning exhaust system to remove appropriate CFM requirements.

50 CYCLE (HERTZ) ELECTRICAL CHARACTERISTICS: Units are available in 50 HZ in the following voltages: 208V/1 or 3PH, 230V/1 or 3PH, 380V/3PH, and 460V/3PH. Units operating at 50 HZ are not submitted for UL Listing.

PRESSURE REDUCING VALVE: Factory installed on incoming plumbing line to control water pressure. Highly recommended when flow pressure exceeds 25 PSI for both performance and operational savings.

INCOMING WATER PRESSURE REGULATING KIT: Factory installed package consisting of a pressure reducing valve with a built-in line strainer and a water hammer arrestor.

SIDELOADER: Factory installed option on input end of conveyor machine. This feature allows the machine to be installed close to a corner and maximize dishroom space. The sideloader option is available in both the hooded and unhooded versions. See separate spec sheets for details.

EXHAUST VENT FAN CONTROL:
Automatically turns exhaust vent fan on when rack enters the machine. Delay timer also turns off the exhaust vent fan 5-10 seconds after rack exits machine when no other racks are being conveyed through the machine.

FLANGED FEET: Available for installations where permanent mounting to the floor is required. Fully adjustable for required height.

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AJ-44 GP Conveyor

Single Tank Rack Conveyor Dishwasher

SPECIFICATIONS: Note: Check and/or copy all that apply.

AJ-44 GP Rack Conveyor Dishwasher ------ Item No. _____

Shall be a Jackson AJ-44 GP single tank rack conveyor dishwasher. Sanitization shall be accomplished by using hi-temp (180°F minimum) rinse

Electrical characteristics shall be:

_____ 208V/60HZ/3PH _____ 208V/60HZ/1PH _____ 208V/50HZ/3PH
_____ 230V/60HZ/3PH _____ 230V/60HZ/1PH _____ 208V/50HZ/1PH
_____ 460V/60HZ/3PH _____ 380V/50HZ/3PH _____ 230V/50HZ/3PH
_____ 230V/50HZ/1PH

Wash tank heating shall be a minimum of 160°F for hi-temp applications and accomplished by recirculating water from the Gas Booster Heater through Stainless Steel Coils.

Direction of rack flow shall be (when standing in front of machine):

_____ Right-to-Left _____ Left-to-Right

Unit shall have the following features:

- NSF rated capacity of 248 racks per hour utilizing 0.94 gallons of water per rack for hi-temp sanitizing rinse.
- Adjust-A-Peak conveyor drive system to manually adjust rack capacity of the machine.
- Minimum 25" clearance throughout machine.
- Energy Guard controls system which washes, rinses, and conveys a rack through the machine only when a rack is in place.
- Completely electro-mechanical with microprocessor control system for the booster heater.
- Fully automatic operation including auto-fill.
- Stainless steel wash pump and impeller and completely self-draining.
- Convenient, externally operated, lever drain.
- Vent cowls/splash shields with extra curtains on both wash and rinse ends of the machine.
- Stainless steel frame, legs, adjustable bullet feet, and front appearance panel.
- All 18-8 304 series stainless steel construction; no 400 series stainless steel and no plastics utilized.

Unit shall have the following features as optional extras:

- _____ Table limit switch completely prewired and extending 10 feet from the output end of the machine.
- _____ Installed 4" x 16" x 7" high vent cowl collars for easy connection to an external exhaust system and including adjustable and lockable damper flaps.
  _____ output end only _____ input end only _____ both ends
- _____ Pressure reducing valve factory installed on machine.
- _____ Incoming water pressure regulating kit including pressure reducing valve and water hammer arrestor completely installed.
- _____ Sideloader installed on input end of machine.
  _____ unhooded sideloader _____ hooded sideloader
- _____ Exhaust fan control controls external exhaust fan power and duration time.
- _____ Flanged feet for permanent in-place mounting to the floor.