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Patriot Jr.[™]

Equipment Overview





Overview of the machine's capabilities and components

General instructions for operation, shutdown, maintenance, and prevention



PATRIOT JET Basic Functions

Able to dispense 2-part urethane low-rise adhesive





Intended to increase production compared to **Dual Cartridge, Dual Tanks, and PaceCart**





Customized cart holds Flexible FAST[™] 5-Gal Jugs and 15-Gal Drums without additional attachments or conversion kits

PJR cart is designed to carry Graco pump, a DeWalt air compressor, and a 3000w generator without the need for additional carts on the roof

Includes a lockable compartment to store additional parts

Handle and wheel design makes cart easy to maneuver

Built-in forklift slots make transporting and loading the cart even easier





The design for male/female fittings are mirrored for **Part A** and **Part B** to help avoid crossover





Each PJR comes with a set of reusable fittings to accommodate both packaging options – 5-Gal Jugs or 15-Gal Drums



Graco Pump

- Utilizes an OEM GRACO Reactor
- Stays mounted on the PJR cart

PJR Hoses

PJR Hose BundleWhip HoseThese are your primary hoses
that move material from pump to
gunThese are secondary hoses
used to help prevent damage
to primary hoses







Gun Options

Gun Options	Bead Application	Splatter Application	Air Purge Feature		
Vee Manifold	Х				
Vee Air	Х	Х	Х		



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PJR Setup

Brand New PJR Setup

If not already installed, mount the PJR Reactor onto the PJR Cart. MAKE SURE ALL CLIPS AND HOLD DOWNS ARE SECURE.



2

Connect fluid hoses to the pump and the gun. Ensure hoses are connected properly according to the PJR directions and videos.





Brand New PJR Setup



If using the Vee-Air gun, mount the air compressor onto the bottom rack of the PJR cart. MAKE SURE ALL CLIPS AND HOLD DOWNS ARE SECURE.





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Flexible FAST Drum Setup

Ensure the storage compartment located on the backside (or drum side) of the PJR is closed and in a **locked** position.





Material Temperature



Material temperature for Flexible FAST adhesive must be at least **70°F** for proper application to occur.



With the help of another person, carefully stand the PJR Cart in an upright position. **DO NOT ATTEMPT WITH ONLY ONE PERSON.**







Carefully open the Flexible FAST drums and connect the PJR fittings. USE WHITE LITHIUM GREASE AT EVERY CONNECTION BEFORE FITTINGS ARE INSTALLED.

- a. The large bung fitting connects to the desiccant dryer.
- b. The small bung fitting connects the drum to the machine.





Using the color-coded labels located on the backside (or drum side) of the PJR, place each drum in a vertical position next to the PJR cart. **Ensure each drum corresponds with the proper A- and B-side.**





Once all fittings have been installed and are absent of air/fluid leaks, you may then carefully place the drums onto the drum rack while it is in its vertical position.

NOTE: Once the A- and B-sides have been designated, DO NOT CROSS-CONTAMINATE WITH OPPOSITE CHEMICAL AT ANY TIME.





Secure drums firmly to the cart using the provided ratchet straps. Make sure drum straps are in the **locked position** before proceeding to the next step.





Connect corresponding cam lock fitting to A and B drums and ensure vent pipes remain capped.

- a. DOUBLE CHECK ALL FITTINGS AND CLIPS to ensure everything is secure and tightened.
- b. DOUBLE CHECK FLUID VALVES to ensure they are in the closed position.





With the help of another person, pull the PJR Cart down from the upright position.

Pull the PJR Cart all the way down so that the drums are parallel to the deck. Ensure both the wheels and rear legs are firmly on the deck.





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Changing Drums

Switching out Flexible FAST Drums

2

3

5



Ensure all fluid valves are **closed** and machine has been properly powered down.

Ensure Flexible FAST Drums are strapped to the cart and the storage compartment is **closed** and in a **locked position**.

With the help of another person, carefully stand the PJR cart in an upright position. **DO NOT ATTEMPT with only one person.**

Remove ratchet straps from the drums.

Remove the PJR fittings from the used drums and install bung caps into the bung holes.

To install new drums onto the PJR cart, refer to steps 4-8 from *Flexible FAST Drum Setup*.

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Startup and Dispensing







If using a generator, place the generator in the tray between the drums. Ensure it is properly fueled and oiled.

Plug the PJR cord into your power source. **DO NOT USE IDLE CONTROL** if using a generator.



Remove the tape on the top and bottom sides of each desiccant drier. Install a desiccant drier into the vent fittings on each drum.







Before turning on the PJR machine, ensure that both recirculation valves are completely closed.





Completely open both fluid valves leading from the drums.

You should see A- and B-side materials fill up the clear tubing prior to the next step.

Fluid Valve (closed position)





Turn the orange power switch to "on".



Without a mixing tip, open valves on the gun and set the flow dial to **1 or 2**. This will start pulling material throughout the pump, hose, and gun.





Check for two equal streams of A- and B- chemical to visibly flow from the gun.

Once fluids are flowing evenly with no air pockets, close the fluid valves on the gun and turn the safety to "on". Apply white lithium grease to the threads on a NEW static mixing tip and install mixing tip on the gun.



Bead Application

When beads or ribbons are specified at 4", 6", or 12" on-center.





With gun valves closed, turn the flow dial to **3-5**.





a

Release the safety and open fluid valves on the gun to begin applying adhesive.



Ensure the adhesive is dispensed at a minimum ¹/₂"- ³/₄" wet bead and proper spacing is followed.



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C

Wet Bead



Foam Bead with String Time





Splatter Application

The following equipment and settings listed **MUST** be followed for approved splatter application.



(12)











Fluid valves on gun: 100% open

NOTE: Pressure may need to be adjusted depending on the temperature of the material.



Initial Splatter



PATRIOT JE

Splatter with String Time



When you have reached a stopping point, ensure the gun is pointed in a safe direction and close any open fluid or air valves on the gun.

Once valves are closed, discard the static mixing tip and replace with a new one.



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Short-Term Shutdown

Short-Term Shutdown Checklist

(overnight/lunch break)

Ensure you have reached a proper stopping point and the gun valves are closed.

Turn down the fluid dial to its "off" position, turn off the power switch, and unplug the power cord on the PJR.





Short-Term Shutdown Checklist

(overnight/lunch break)







Short-Term Shutdown Checklist

(overnight/lunch break)

4

Close both fluid valves leading from the drums to the pump.

5

Remove desiccant driers from the drums. Apply tape to the top of each drier and cover with a plastic bag as needed.



Add caps back on the vent tube top. Remember to use white lithium grease on all fittings.





Short-Term Shutdown Checklist

(overnight/lunch break)

Apply a small amount of pump lube to each piston.

Wrap up hose and gun and protect all equipment with the provided green PJR cover. Secure as needed.



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Long-Term Shutdown

3

5

(2 weeks or longer)

Ensure the gun valves are closed and the machine has been shut down properly.

Close both fluid valves leading from the drums to the pump.

Remove desiccant driers from the drums. Apply tape to the top of each drier and cover with a plastic bag as needed.

Add caps and plugs back on the vent tube top. Remember to use white lithium grease on all fittings.

With the help of another person, carefully stand the PJR Cart in an upright position. **DO NOT ATTEMPT with only one person.**



Long-Term Shutdown Checklist (2 weeks or longer)

Disconnect inlet hoses from the drums. Ensure fittings on the drums have been properly plugged/capped.



Side A

Side B

I DIMAN



(2 weeks or longer)

Using the open end of the additional set of connect hoses provided, connect the appropriate A- and B-side inlet cam locks.





(2 weeks or longer)

Place A-side hose in a container of ISO Flush.

Place B-side hose into a container of ISO Flush.



8



Long-Term Shutdown Checklist (2 weeks or longer)

Using an empty trash receptacle, open both fluid valves from the drums and both fluid valves on the gun.

Turn on power and set flow dial to "circulate" and allow flush to run through pump, hose, and gun until clear fluid is observed.





(2 weeks or longer)





(2 weeks or longer)

Once clear lube is observed, close fluid valves on the gun and from the drums.

Turn the fluid dial to its "off" position, turn off the power switch, and unplug the power cord on the PJR.





17

(2 weeks or longer)



20

Apply a new static mixing tip and apply grease through the grease fittings on the gun. Fill mixing tip with about 2"-3" of grease.

Disconnect additional connector hoses and install plugs/caps on cam locks.





(2 weeks or longer)



Wrap up hose and gun and protect all equipment with the provided green PJR cover. Secure as needed.





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Prevention and Troubleshooting

Prevention



Use white lithium grease for all fittings, securements, plugs/caps, and mixing tips. This helps prevent material buildup and seals all possible passages for air and moisture.

Apply pump lube before and after each use to both pistons.

Letter-label or color-code fittings, desiccant driers, plugs/caps, and containers. This helps ensure that fittings and accessories stay on their designated A- or B-side.

Ensure all openings have been plugged unless being vented properly. *Replace desiccant driers when needed. Blue = good Pink = needs replaced

When in doubt, flush it out. Flushing your machine regularly and often will significantly increase the operating life of your PJR and reduce downtime on the jobsite.

Troubleshooting Tips

Proper storage of material is essential. Ensure the material temperature of Flexible FAST is 70°F at all times.

Ensure both passages in the gun are clear by using a 1/4" drill bit.

2

Ensure both check valves from the drums are open completely.

Ensure both ends of the desiccant driers are completely open.

Ensure the Y-screens are clear and free of debris or crystals. Replace if needed.

Ensure hose assemblies from the drums are clear of debris or crystals. Replace if needed.



6

Ensure all fittings are completely secure and tightened with no air leaks.

8

Ensure hoses are free of all kinks and twists.



Ensure a new static mixing tip is being used after stopping for 30 seconds or longer.



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Adhesive Cost Savings with the Patriot Jr.

					Manual P	rice Entry	
		Customer Input			Dual Cartridge	\$224.40	
	Roo	f Square Footage	100,000		5 Gal Jug	\$510.00	
	Labor Rate (\$'s)		\$50.00		Dual Tank	\$1,020.00	
	Inches On-Center		6		15 Gal Drum	\$1,122.00	
	Flexible FAST		Flex FAST		50 Gal Drum	\$3,431.28	
			Dual Cartridge	5 Gal Jug	Dual Tank	15 Gal Drum	50 Gal Drum
ADHESIVES		Adhesive Count Needed*	334	80	59	27	8
		Price per Sq. Ft.	\$0.748	\$0.408	\$0.600	\$0.299	\$0.275
		Total Adhesive Price \$	\$74,950	\$40,800	\$60,180	\$30,294	\$27,450
LABOR ESTIMATES		Dual Cart	\$1,485				
		PaceCart		\$1,061		\$1,061	
		Dual Tank			\$907		
		EZY Loader		\$617		\$617	
		Patriot Jr		\$617		\$617	

					Manual P	rice Entry	
		Customer Input			Dual Cartridge	\$224.40	
	Roo	f Square Footage	500,000		5 Gal Jug	\$510.00	
	Labor Rate (\$'s)		\$30.00		Dual Tank	\$1,020.00	
	Inches On-Center		12	*	15 Gal Drum	\$1,122.00	
	Flexible FAST		Flex FAST		50 Gal Drum	50 Gal Drum \$3,431.28	
			Dual Cartridge	5 Gal Jug	Dual Tank	15 Gal Drum	50 Gal Drum
ADHESIVES		Adhesive Count Needed*	834	200	157	67	20
		Price per Sq. Ft.	\$0.374	\$0.204	\$0.319	\$0.150	\$0.137
		Total Adhesive Price \$	\$187,150	\$102,000	\$160,140	\$75,174	\$68,626
		Dual Cart	\$2,228				
		PaceCart		\$1,591		\$1,591	
		Dual Tank			\$1,360		
		EZY Loader		\$926		\$926	
LABOR E	STIMATES	Patriot Jr		\$926		\$926	
		-					

					Manual D	des Fatas	
	Custom or locut				Ivianual P	rice Entry	
	Customer Input				Dual Cartridge	\$224.40	
	Roo	f Square Footage	50,000		5 Gal Jug	\$510.00	
	L	Labor Rate (\$'s)			Dual Tank	\$1,020.00	
	Inches On-Center Flexible FAST		4		15 Gal Drum \$1,122.00	\$1,122.00	
			Flex FAST		50 Gal Drum	50 Gal Drum \$3,431.28	
			Dual Cartridge	5 Gal Jug	Dual Tank	15 Gal Drum	50 Gal Drum
		Adhesive Count Needed*	250	56	42	19	6
ADHESIVES							
		Price per Sq. Ft.	\$1.122	\$0.567	\$0.850	\$0.416	\$0.381
		Total Adhesive Price \$	\$56,100	\$28,560	\$42,840	\$21,318	\$20,588
		Dual Cart	\$891				
		PaceCart		\$637		\$637	
		Dual Tank			\$544		
		EZY Loader		\$370		\$370	
LABOR ESTIMATES		Patriot Jr		\$370		\$370	



