

Model JC III Air Powered Dehider

EQUIPMENT SELECT	ION		TABLE OF CONTENTS Page			
JC III Blade Complete Set	Blade Diameter	Operating Pressure	Notice to Employer and Safety			
4034019 3023004	100 mm	90 PSI	Director			
4034020 3023011	110 mm	90 PSI	Notice to Operators, Maintenance			
4034021 3023004	100 mm	45 PSI	and Cleanup Personnel 3			
4034022 3023011	110 mm	45 PSI	Parts Diagram & List 4			
Air Hose (with connectors) 1059002 Suspension Bracket 1042028 Air Filter/Lubricator Regulator			 Specifications			



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NOTICE TO EMPLOYER AND SAFETY DIRECTOR AVOID INJURY

- 1. **Remove** and **repair** any tool which malfunctions. **All** personnel must be instructed to remove any malfunctioning equipment.
- **2.** Ensure that all employees who use this tool are trained in the proper use of this tool and are aware of the dangers that may arise if they do not follow these procedures.
- **3.** Enclosed are four (4) copies of "NOTICE TO OPERATORS, MAINTENANCE AND CLEANUP PERSONNEL." Post one copy on the employees' bulletin board; give one copy to the operator(s); give one copy to the maintenance foreman; and, give one copy to the sub-contract cleanup / internal cleanup foreman. *Additional copies will be provided upon request*.
- **4.** The tool is designed and intended to be powerful. This fact should be obvious to your employees, but you must emphasize it to them.
- 5. Never make modifications or alterations to the tool. *Replace any lost or illegible labels*.
- **6. Ensure** that proper procedures are established (in accordance with OSHA's lockout/tagout procedures 1910.147) to prevent accidental startup.
- **7. HAND** / **WRIST** / **ARM** injury could result from any repetitive work, motion or exposure to vibration. See OSHA's "Ergonomics Program Management Guidelines for Meatpacking Plants."
- 8. Follow our installation and maintenance instructions for proper installation and care the tool.
- 9. Avoid injury. Do not permit the tool to be misused.
- **10.** If you **resell** or **distribute** a Jarvis product, you must provide the purchaser with the appropriate safety sheets and tool brochure. *Additional copies of safety sheets and tool brochures will be provided upon request.*



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NOTICE TO OPERATORS, MAINTENANCE AND CLEANUP PERSONNEL REMOVE ANY MALFUNCTIONING TOOL FROM SERVICE REPORT ANY PROBLEMS TO YOUR SUPERVISOR

- **1. Disconnect** the air hose in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before making any blade changes.
- **2. Disconnect** the air hose in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before performing any repairs or maintenance.
- **3. Disconnect** the air hose or have the air hose disconnected in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before performing any cleanup.
- 4. **Disconnect** the air hose when the tool is not in use.
- 5. Never put fingers, hands or other parts of the body on the cutting edge or within the cutting path of the tool when it is connected to an air supply.
- 6. Always wear a cut–resistant glove on the hand that is not operating the tool.
- 7. Test the tool prior to use daily. **Depress** the trigger switch and the tool <u>should</u> activate. Release the trigger switch and the tool <u>should</u> deactivate. If the tool malfunctions, remove it from service and report or repair it immediately.
- 8. Never depress the lever switch unless you want to use or test the tool.
- 9. Never make modifications or alterations to the tool. Report or replace any lost or illegible labels.



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parts diagram & list page 4 of 12

			B (15) + (14)					C 2 2 2 2 2 3 2 3 3 4 4 4 4 4 4 4 4 4 4 4	
		(7					* Note:	Always face the bearing so as the diagram illustrates faces the cover).	eal (seal
				0	Ň [ITEM	PART NO.	PART NAME	QTY
			find Stol	Q	V	9	1029011	Spacer (Includes Item 10)	1
			and the second second	X		10	1010167	Roll Pin Debider Housing Cover	1
		(4)	<u>z</u> <u>}</u> <u></u>	7		12	1055617	Socket Head Cap Screw	2
	A (3		IL O JE			13	1021305	Ball Bearing	1
	(z)		S C C			14	1026162	Crown Gear	1
(\bigcirc					15	1020238	Eccentric Drive Shaft (Includes Item 2)	1
						16	1010279	Lever Pin Rearing Spacer	2
		$\left(\right)$				18	3028039	Lower Link Assembly	'
						10	0020000	(Includes Item 16)	
						19	3028038	Upper Link Assembly	
	\						4004000	(Includes Item 16)	
	C	S.				20	1004269	Infust Washer Bearing Bushing	1
	\rightarrow	Ð				22	1021311	Ball Bearing	
						23	1021304	Bearing Insert	1
	IIEM	PART NO.				24	3016182	Dehider Housing Assy.	1
	1	1054096	(Includes Item 2)	1				(Includes Items 2, 23, 27 and 28)	
	2	1038022	Grease Fitting	3		25	1035309	O-ring Seal	
	3	1004011	Spring Lock Washer	1		26	1036155	Alignment Bushing	1
	4	1002274	Blade Cover	1			101767	(Includes Item 25)	
	5	1010202	(Includes Item 5)	1		27	1017084 1055616	VVarning Label	
	1 0 1	1010203	Wave Spring	1		20	1021354	Needle Bearing	
	6	101410.7				-~	1021004		
	6 7	1036006	Blade Bushing	2			1017118	Max PSI Label (45 PSI	1
	6 7 8	1036006	Blade Bushing Blade Set (Includes Item 7)	2 1			1017118	Max PSI Label (45 PSI tool only, not shown)	1
	6 7 8	1036006 3023004	Blade Bushing Blade Set (Includes Item 7) 100 mm Diameter	2 1			1017118 3020038	Max PSI Label (45 PSI tool only, not shown) Drive Assy (includes items	1



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ITEM	PART NO.	PART NAME	QTY
30	1026141	Pinion Gear	1
31	1021306	Ball Bearing	1
32	1029267	Rotor Spacer	1
33	1032245	Air Motor Front Plate	1
34	1064025	Air Motor Rotor	1
35	1040011	Air Motor Vane	5
36	1009095	Air Motor Sleeve	1
37	1032246	Air Motor Rear Plate	1
		(Includes Item 42)	
38	1014095	Disk Spring	2
39	1021307	Ball Bearing	1
40	3061124	Manifold Assembly	1
		(Includes Item 41)	
41	1035173	O-ring Seal	1
42	1010111	Roll Pin	1
43	3008124	Air Motor Assembly	1
		(Includes Items 30-42)	
44	1032247	Air Motor Exhaust Plate	1
45	1013122	Internal Retaining Ring	1
46	1014104	Compression Spring	1
47	1011222	Air Gland (For 45 PSI Tool)	1
	1011253	Air Gland (For 90 PSI Tool)	1
48	1035218	O-ring Seal	1

ITEM	PART NO.	PART NAME	QTY
49	1054097	Air Valve Plug	1
		(Includes Item 50)	
50	1035064	O-ring Seal	1
51	1014069	Compression Spring	1
52	1039048	Plunger (Includes Item 53)	1
53	1035012	O-ring Seal	1
54		Valve Sub-assembly	1
		(Includes Items 46 and 47)	
	3022041	For 45 PSI Tool	1
	3022052	For 90 PSI Tool	1
55	1017095	Jarvis Label	1
56	1051013	Quick Connect Plug	1
57	1061404	Muffler	1
58	1055394	Socket Head Cap Screw	2
59	1010286	Dowel Pin	1
60	1018114	Trigger Lever	1
61	1519303	Drive Screw	8
62	1017203	JC III Label	1
		Valve Assembly (Includes Items 49, 51, 52, 54, 59 and 60)	
	3022042	For 45 PSI Tool	1
	3022051	For 90 PSI Tool	1



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SPECIFICATIONS

Model JC III

Motor Power	0	$55 \text{HP} \approx 410 \text{W}$
Operating Pressure	45 PSI	3.1 bar
	90 PSI	6.2 bar
Air Consumption	12 CFM	0.34 m ³ /min
Blade Speed (in oscillation	ns) 6	6500–7000/min
Control Handle	Single Pne	umatic Trigger
Blade Diameters	3.9 in	100 mm
	4.3 in	110 mm
Overall Length	13 in	330 mm
Weight	2.9 lbs	1.3 kg

INSTALLATION INSTRUCTIONS

- 1 Make the necessary air connection.
- 1.1 The required compressed air supply is 45-50 PSI, 12-14 CFM (3.1-3.4 bar, .34-.37 m³/min) or 90 PSI, 10 CFM (6.2 bar, 0.37 m³/min). See page 1 for proper operating pressure.
- 1.2 An air filter/regulator/lubricator (**JARVIS** part number 3022003) must be installed in the air supply line. *Keep the lubricator filled at all times.*

OPERATION INSTRUCTIONS

IMPORTANT: ALWAYS DISCONNECT THE COMPRESSED AIR SUPPLY IN ACCORDANCE WITH OSHA'S LOCKOUT/ TAGOUT PROCEDURES (29 CFR 1910.147) WHEN INSTALL-ING OR REMOVING THE BLADE.

Refer to the parts diagrams on pages 4-5 for referenced items.



1 *Each day*, before you begin operation, perform the following.

1.1 Make sure that the compressed air supply is at the proper pressure and that the lubricator oil is up to the full mark. (Use **JARVIS** Air Mist Lubricator Oil; if using a conventional air mist lubricator: set the feed rate at 5 drops per minute; if using *a micro fog* air mist lubricator*: set the feed rate at 100 drops per minute). **Almost all air mist lubricators are micro fog air mist lubricators*.

2 *Three times per shift*, perform the following.

- 2.1 Grease all three grease fittings using Jarvis Grease Gun (part no. 8038001) and Jarvis Grease (part no. 1062003 - Lubriplate FML-2).
 - 2.1.1 Grease fittings (items 2 "A" and 2 "C") with two (2) pumps of grease.
 - 2.1.2 Ensure that grease is getting into the eccentric shaft (item 15), grease fitting (item 2 "B") with four (4) pumps of grease.
 - 2.1.3 Jarvis 14 oz. cartridge-type Grease Gun (part no. 8038002) and Grease Cartridge (part no. 1062031) are also available.



Note on grease gun tips:

The illustrations above represent the type of grease gun tips that Jarvis recommends.

1038019 is a metal 52° nose (${}^{3}/_{32}$ " radius) grease tip (to be used with or without 1038021). Included with 8038001.

1038021 is a plastic nose to fit on 1038019. Included with 8038001.

3004003 is a metal round nose $(^{7}/_{64})$ radius) grease tip. Included with 8038002.

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- 3 Prior to use or daily, perform the following test.
- 3.1 Make sure the control trigger is working correctly. **Depress** the trigger and the tool <u>should</u> activate. **Release** the trigger and the tool <u>should</u> deactivate. *If the tool malfunctions, remove it from service and report the problem to your supervisor immediately.*
- 4 Making the cut.
- 4.1 Position the dehider in the area where the cutting is to be done.
- 4.2 Squeeze the trigger fully to start the air motor and make the cut.
- 4.3 When desired cut is finished, release the trigger. (This will stop the blades from oscillating.)
- 4.4 Withdraw the JC III from the carcass.

MAINTENANCE INSTRUCTIONS

IMPORTANT: ALWAYS DISCONNECT THE COMPRESSED AIR SUPPLY IN ACCORDANCE WITH OSHA'S LOCKOUT/ TAGOUT PROCEDURES (29 CFR 1910.147) WHEN INSTALL-ING OR REMOVING THE BLADE. ALWAYS DISCONNECT THE COMPRESSED AIR SUPPLY IN ACCORDANCE WITH OSHA'S LOCKOUT/TAGOUT PROCEDURES (29 CFR 1910.147) BEFORE PERFORMING ANY MAINTENANCE OR REPAIRS.

Refer to the parts diagrams on pages 4-5 for referenced items.

Refer to the fixture diagrams above and the assembly/disassembly diagrams within the text for referenced fixture items.

1 Three times per shift.

- 1.1 Grease all three grease fittings using Jarvis Grease Gun (part no. 8038001) and Jarvis Grease (part no. 1062003 - Lubriplate FML-2).
 - 1.1.1 Grease fittings (items 2 "A" and 2 "C") with two (2) pumps of grease.
 - 1.1.2 Ensure that grease is getting into the eccentric drive shaft (item 15), grease fitting (item 2 "B") with four (4) pumps of grease.



2 One time per shift.

2.1 Flush the air motor by squirting about 10 drops of Jarvis air mist oil directly into the air inlet and running the motor for about five seconds.

3 One time per day.

Wear cut protective gloves when handling blades.

- 3.1 Make sure that the compressed air supply is at the proper pressure and that the lubricator oil is up to the full mark. (Use **JARVIS** Air Mist Lubricator Oil; if using a conventional air mist lubricator: set the feed rate at 5 drops per minute; if using *a micro fog* air mist lubricator*: set the feed rate at 100 drops per minute). **Almost all air mist lubricators.*
- 3.2 Remove cover screw (item 1).
- 3.3 Remove items (3-8) by pulling up on and turning the blade set (item 8).
- 3.4 Push bushing (item 26) in towards housing (item 24) to remove spacer (item 9).
- 3.5 Remove bushing (item 26).
- 3.6 Clean the dehider housing cover (item 11). *Do not remove the cover, merely clean the accessible part of the cover.*
- 3.7 Clean the blades with soap and water.
- 3.8 Sharpen the blades if necessary.
- 3.9 Spray or dip the dehider blades in USDA approved oil.
- 3.10 Grease the eccentric drive shaft (item 15) through grease fitting (item 2 "B") until grease appears through the dehider housing cover (item 11).
- 3.11 Grease the housing (item 24) through grease fitting (item 2 "C"). Two (2) pumps of grease should be sufficient.
- 3.12 Run the dehider without the blades for approximately one minute.
- 3.13 Insert bushing (item 26) into housing (item 24).
- 3.14 Place spacer (item 9) into dehider housing cover (item 11).

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- 3.15 Place blade set (item 8) over spacer (item 9).
- 3.16 Place wave spring (item 6) into blade cover (item 4).
- 3.17 Place the cover and spring over the bushing.
- 3.18 Place lock washer (item 3) into blade cover.
- 3.19 Screw in cover screw (item 1) and tighten.

4 Gear and shaft disassembly.

- 4.1 Remove cover screw (item 1).
- 4.2 Remove items 2-8 by pulling up on and turning the blade set (item 8).
- 4.3 Push bushing (item 26) in towards housing (item 24) to remove spacer (item 9).
- 4.4 Remove bushing (item 26).



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JARVIS Model JC III

- 4.5 Remove screws (item 12).
- 4.6 Tap front of housing (item 24) with a rubber mallet to remove dehider housing cover (item 11).
- 4.7 Remove gear and shaft assembly (items 13-22, 29).
- 4.8 Place fixture "3" on the arbor press.
- 4.9 Slide gear and shaft assembly into cavity in fixture "3".
 - 4.9.1 The gear (item 14) should be in the cavity.
 - 4.9.2 The spacer (item 17) should be resting on the top of fixture "3". (*Turn the gear and shaft assembly until the spacer has as much surface area as possible on the top of fixture "3"*).



- 4.10 Position the small diameter end of fixture "2" on the center of eccentric shaft (item 15) and press.
- 4.11 Items 17-22 and 29 should all slide apart now.
- 4.12 Place remaining gear and shaft assembly (items 13-15) into cavity in fixture "3".
 - 4.12.1 The gear (item 14) should be resting on the top of fixture "3".
 - 4.12.2 The eccentric shaft (item 15) should be in the cavity of fixture "3".



- 4.13 Position the small diameter end of fixture "1" on the center of eccentric shaft (item 15) and press.
- 4.14 Items 13-15 should all slide apart now.
- 4.15 Place bearing and bushing (items 21 and 22) in the counter-bore of fixture "3".



- 4.16 Place the small diameter end of fixture "2" through bushing (item 21) and press.
- 4.17 All of the gear and shaft assembly should be apart now.
- 4.18 Inspect for worn parts and replace if necessary.

5 Gear and shaft assembly.

- 5.1 Place fixture "8" on the arbor.
- 5.2 Place gear (item 14) onto the base of fixture "8 being careful to nest the wide part of the gear in the cut–out (gear teeth facing up).
- 5.3 Slide the top plate onto the two posts on the fixture base.

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- 5.4 Insert the small end of the eccentric shaft into the bottom side of the top plate.
 - 5.4.1 Rotate the eccentric shaft as you lower the top plate until the upper journal on the eccentric shaft enters the hole on the bottom side of the top plate.
- 5.5 Use the arbor press to push the eccentric journal into the gear.
- 5.6 Place gear (item 14) onto fixture "3" with teeth facing down.
- 5.7 Place bearing (item 13) on the large journal of the eccentric shaft.
 - 5.7.1 The seal on the bearing should face up.



5.8 Lightly tap the bearing with the arbor press to orient it correctly.

- 5.9 Position the hollow end of fixture "1" over the small end of the eccentric shaft and press the bearing fully onto the eccentric shaft.
- 5.10 Place bearing (item 22) onto fixture "3".
- 5.11 Slide bushing (item 21) into the center of the bearing and, if necessary, press using fixture "1".



- 5.12 Slide spacer (item 17) over the eccentric shaft.
- 5.12.1 The bore on the spacer should face up.
- 5.13 Slide bearing (item 29) over the eccentric shaft and into the bore of the spacer.
- 5.14 Slide upper link assembly (item 19) over the bearing.
- 5.15 Slide the lower link assembly (item18) over the bearing.
 - 5.15.1 The pin on the lower link assembly should face down.



5.16 Slide thrust washer (item 20) over the eccentric shaft.

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- 5.17 Place the eccentric shaft and link assembly (items 14-20) onto fixture "3".
- 5.18 Place bearing (item 22) over the eccentric shaft.
- 5.19 Lightly tap the bearing with the arbor press to orient it correctly, then press the bearing onto the eccentric shaft as far as possible.
- 5.20 Position the hollow end of fixture "1" over the shaft of the eccentric shaft and press the bearing onto the eccentric shaft fully.
- 5.21 The gear and shaft assembly should be complete now.



6 JC III Assembly.

- 6.1 Place the gear and shaft assembly into housing (item 24).
 - 6.1.1 Links (items 18 and 19) should be in their proper slots in housing (item 24).
- 6.2 Place bushing (item 26) through housing (item 24).

- 6.3 Place dehider housing cover (item 11) over bushing (item 26) and into housing (item 24).
- 6.4 Install screws (item 12).
- 6.5 Place spacer (item 9) into dehider housing cover (item 11).
- 6.6 Place blade set (item 8) over spacer (item 9).
- 6.7 Place wave spring (item 6) into blade cover (item 4).
- 6.8 Place the cover and spring over the bushing.
- 6.9 Place lock washer (item 3) into blade cover.
- 6.10 Screw in cover screw (item 1) and tighten.

7 Air motor disassembly.

- 7.1 Remove two screws (item 58).
- 7.2 Pull apart valve sub-assembly (item 54) from housing assembly (item 24).
 - 7.2.1 Items 46-48 should come off along with the valve sub-assembly.
- 7.3 Remove retaining ring (item 45) from housing assembly (item 24).
- 7.4 Remove exhaust plate (item 44).
- 7.5 Tap on the end of the housing assembly (item 24) with a rubber mallet to dislodge the air motor (item 43).
- 7.6 Remove the air motor.
- 7.7 Place fixture "6" into vise. *Do not over tighten*.
- 7.8 Place fixture "4" onto fixture "6".
- 7.9 Slide air motor assembly (item 43) into fixture "6", *manifold end down*.



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- 7.10 Tighten the screw located in fixture "4" so as to lock the manifold (item 40) in place.
- 7.11 Pull on sleeve (item 36) section of air motor assembly (item 43) to remove manifold (item 40). *Do not score the air motor assembly.*



- 7.12 Place fixture "7" on the arbor press.
- 7.13 Place air motor assembly (item 43) less the manifold onto fixture "7".
- 7.13.1 The lip on the sleeve (item 36) should hold the assembly in the fixture.



- 7.14 Position the small diameter end of fixture "2" on the center of rotor shaft (item 34) and press.
- 7.15 Ball bearing (item 39) should now be separated from rotor (item 34).
- 7.16 Remove disk springs (item 38).
- 7.17 Remove rear plate (item 37).

- 7.18 Remove sleeve (item 36).
- 7.19 Remove vanes (item 35).
- 7.20 Place fixture "6" into vise. *Do not over tighten*.



Fixture "6"

- 7.20.1 Place rotor (item 34) and pinion assembly (item 30) into fixture "6," *rotor end down*.
- 7.20.2 Slip fixture "5" into the vane slot in rotor (item 34).
- 7.20.3 Place wrench on pinion gear (item 30) and unscrew it from rotor (item 34).
- 7.21 Remove spacer (item 32)
- 7.22 Remove front plate (item 33).
- 7.23 Remove ball bearing (item 31) from the pinion gear.
- 7.24 Check for worn parts and replace if necessary.

8 Air motor assembly.

- 8.1 Reverse procedures and steps outlined in steps 4.1-4.23. See notes below.
 - 8.1.1 Pack bearings (item 31 and 39) with Jarvis Grease (part no. 1062003 - Lubriplate FML-2) prior to installation.
 - 8.1.2 Be sure to install bearings (items 31 and 39) correctly: the seals must face the rotor (item 34).
 - 8.1.3 With pinion gear (item 30) facing down, press bearing (item 39) onto rotor shaft (item 34) until it is flush with the end of the shaft.



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