



A Contour Precision Group Company

# Preventive Maintenance Checklist

## WJ WATER JET SYSTEM (WJ-155, WJ-156)

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Customer: \_\_\_\_\_ Work Order No. \_\_\_\_\_

Model No. \_\_\_\_\_ Date \_\_\_\_\_

(Form –PM AWJ 2011 Rev. 2 05-13)





**1. High Pressure Pump**

Inspect for water & oil leaks around unit \_\_\_\_\_

Inspect all high pressure lines and fittings \_\_\_\_\_

Tube Connection	Tube Nut Hex	Torque
1/4"	5/8"	25 ft/lbs
3/8"	13/16"	50 ft/lbs

**Intensifier: Lubricate electric motor**

Before Startup:

Inspect for leaks \_\_\_\_\_

Inspect oil site gauge \_\_\_\_\_

After Startup:

Listen for normal operating sound \_\_\_\_\_

Check for water & hydraulic leaks \_\_\_\_\_

Check oil filter indicator \_\_\_\_\_

**2. Inspect way covers for wear and damage and clean with soft cloth while axis is in +OT and -OT.**

X-Axis \_\_\_\_\_

Y-Axis \_\_\_\_\_

Z-Axis \_\_\_\_\_

**3. Inspect ball screws and linear rail sets for wear, water, and damage. Clean with a soft dry cloth.**

\*Ensure lubrication is being applied to the ball screw and bearing packs

X-Axis \_\_\_\_\_

Y-Axis \_\_\_\_\_

Z-Axis \_\_\_\_\_

**4. Inspect lubrication lines, fittings, and the delivery system. Verify and record timers.**

PSI at Reservoir (30 psi)

T0 \_\_\_\_\_

T2 \_\_\_\_\_

T4 \_\_\_\_\_

**5. Replace Axes timing belts & inspect pulleys for wear and damage.**

Check pulley screws and alignment \_\_\_\_\_ Tension: \_\_\_\_\_

X-Axis \_\_\_\_\_ A-Axis \_\_\_\_\_

Y-Axis \_\_\_\_\_ B-Axis \_\_\_\_\_

Z-Axis \_\_\_\_\_ C-Axis \_\_\_\_\_



**6. Inspect Drive Motors, Connectors, Couplings, and Connectors. Clean with a clean dry cloth.**

X-Axis	_____	A-Axis	_____
Y-Axis	_____	B-Axis	_____
Z-Axis	_____	C-Axis	_____

**7. Measure Linear Axis Backlash & Record Results.**

Tolerance  $\leq 0.0002"$

X-Axis error	_____	U-Axis error	_____	Notes:	_____
Y-Axis error	_____	V-Axis error	_____		_____
Z-Axis error	_____				_____

**8. Measure & Adjust Rotary Axis Backlash & Record Results.**

Tolerance  $\leq 0.0002"$

A-Axis error	_____	@	_____	inches from c/l	Notes:	_____
B-Axis error	_____	@	_____	inches from c/l		_____
C-Axis error	_____	@	_____	inches from c/l		_____

**9. Inspect oil level and quality in rotary axes. Oil should be visible in 1/2 of the site glass.**

\_\_\_\_\_

\_\_\_\_\_

**10. Record Current draw percentage (%) of axes drives.**

Direction:	Positive (+)	Negative (-)	Positive (+)	Negative(-)
X-Axis	_____ %	_____ %	V-Axis	_____ %
Y-Axis	_____ %	_____ %	A-Axis	_____ %
Z-Axis	_____ %	_____ %	B-Axis	_____ %
U-Axis	_____ %	_____ %	C-Axis	_____ %

**11. Check voltage levels on Line, 24v. PWR Supply and Distribution transformers.**

\*Main Voltage should be  $\pm 10%$  of spec. \* B/t phases should be  $\pm 5%$  of highest value

Bus L1,L2	_____	Bus L1,Gnd	_____	Notes:	_____
Bus L3,L2	_____	Bus L2,Gnd	_____		_____
Bus L1,L3	_____	Bus L3,Gnd	_____		_____
24v PS	_____	Trans. Dist.	_____		_____

**12. Inspect all wiring for chaffing, corrosion, and hardening in the Electrical cabinet, the machine, and the peripheral equipment. Inspect wire track carrier.**

\_\_\_\_\_

\_\_\_\_\_

**13. Inspect & test function of door switches and/or interlocks and two-handed control. Inspect door operation and clean door rails and hinges.**

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\_\_\_\_\_



14. Inspect & test work lights, stack lights, and operator panel lamps.

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15. Inspect A/C and Heat exchanger.

Set temp: \_\_\_\_\_ Cabinet operating temp. \_\_\_\_\_  
Clean filter: \_\_\_\_\_ Inspect & clean coils \_\_\_\_\_

16. Inspect Abrasive lines for wear and pin holes especially near the bends.

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17. Inspect and clean Pneumatic regulators & filters.

Clean filter with soap & warm water. Blow out filter to dry. Lubricate O-rings, inspect filter, fittings, and filter bowl

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18. Inspect probe. Clean front probe seal. Inspect o-rings, cables, connections, slack, and corrosion.

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19. Inspect reclamation filters and motor.

Inlet=approx :35 psi \_\_\_\_\_  
Outlet=approx: 25 psi \_\_\_\_\_  
Differential/Operation = approx: 4-12 psi \_\_\_\_\_

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20. Inspect exhaust system. Clean and/or replace filters as needed.

Inspect: Measurement tubes, filter elements, siphon, ionizer  
Inspect: 2 electrostatic filters. 1 in the front & 1 HEPA in the back.

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21. Inspect and verify all E-stops, pushbuttons, and control knobs are operational.

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22. Change the battery in the Flood Alert monitor for A-Axis.

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**23. Calibrate & Record Offsets.**

X-Axis: Old	_____	New	_____	V-Axis: Old	_____	New	_____
Y-Axis: Old	_____	New	_____	A-Axis: Old	_____	New	_____
Z-Axis: Old	_____	New	_____	B-Axis: Old	_____	New	_____
U-Axis: Old	_____	New	_____	C-Axis: Old	_____	New	_____

**24. Ensure proper operation of home & limit switches. Adjust if necessary & record.**

Overtravel:	Positive (+)	Negative (-)		Positive (+)	Negative(-)
<b>X</b>	_____	_____	<b>V</b>	_____	_____
<b>Y</b>	_____	_____	<b>A</b>	_____	_____
<b>Z</b>	_____	_____	<b>B</b>	_____	_____
<b>U</b>	_____	_____	<b>C</b>	_____	_____

\_\_\_\_\_  
Huffman Rep.

\_\_\_\_\_  
Customer Rep.

Comments: \_\_\_\_\_  
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\_\_\_\_\_  
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