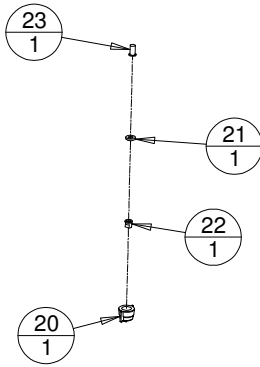
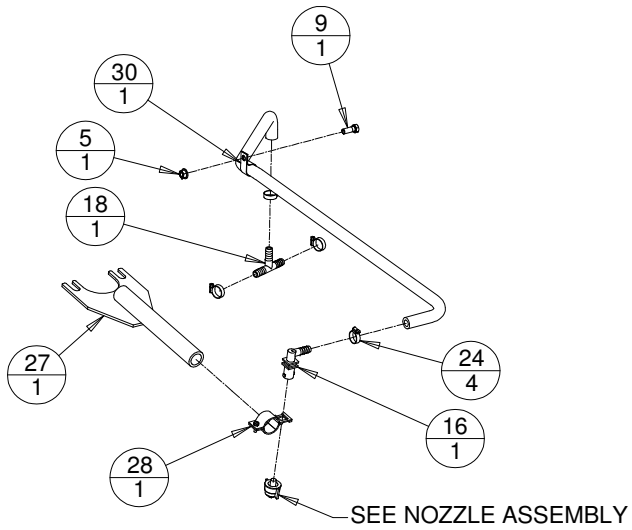


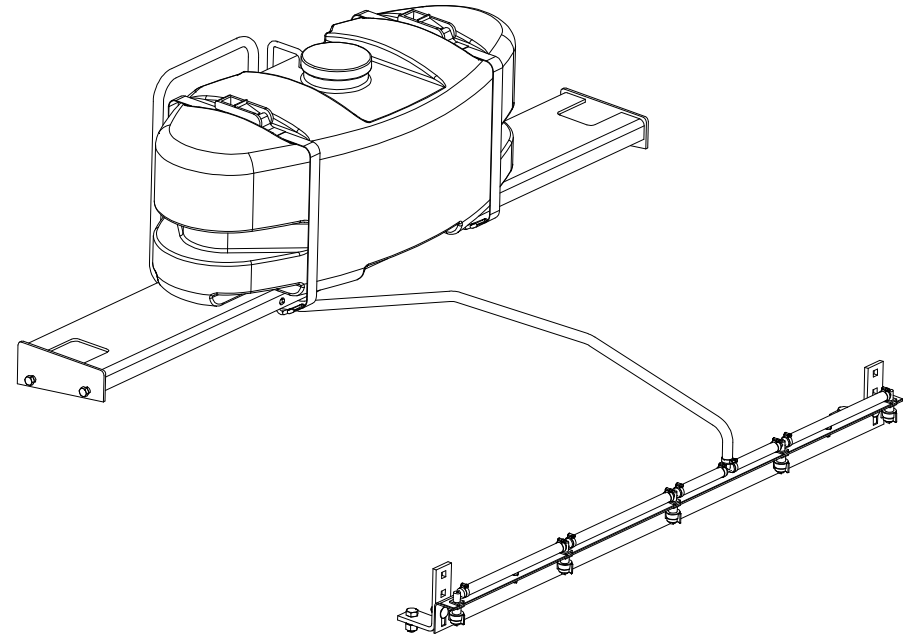
Nozzle Assembly



Gutter Brush Nozzle Assembly



Pick Up Broom Water Kit



Model Number WK .

Serial Number .

Phone: 320-393-7080

6/1/10
Revised 1/1/13

WK

Features of Virnig Mfg. Inc. Pick Up Broom Water Kit include:

- 30 gallon polyethylene tank.
- 12 volt pump with a maximum flow rate of 2.1 gpm.
- Pressure gauge with adjustable pressure settings.
- Easy installation on all Virnig Manufacturing Pick Up Brooms.
- Many common components available at Ag/Industrial supply stores.

Installation

- Pick Up Brooms with a Serial Number less than 65700 will need to make some modifications to the broom. Please contact Virnig Manufacturing for information regarding retrofit modifications. Otherwise continue as follows.
- Install tank (Item #15) to water tank mount weldment (Item #11) using the 5/16" x 3/4" bolts (Item #29) and 5/16" flat washers (Item #7). Do not overtighten as damage to tank may occur. Refer to Water Kit Main Assembly for correct orientation of tank on mount.
- Install tank and mount weldment to top of Pick Up Broom hood using the 1/2" x 1 1/4" bolts (Item #6) and 1/2" lock nuts (Item #1) provided.
- Secure tank with ratchet straps (Item #26). This is necessary to prevent the tank from shearing off when dumping the Pick Up Broom. The weight of the tank full of water is approximately 270 lb.
- Install spray bar mounting brackets (Item #12) at the front of the Pick Up Broom hood and mount with 5/8" x 1 1/2" bolts (Item #8) and 5/8" locknuts (Item #2) hardware provided. Do not completely tighten the mounting hardware at this time.
- Install the pre-assembled spray bar to the spray bar mounting brackets with the 1/2" x 1 1/4" carriage bolts (Item #10) and 1/2" flat washer and locknut (Items #4 and #1) in the lowest hole on the spray bar mounting brackets. There are 3 hole locations on the spray bar mounting bracket to provide spray nozzle height adjustments as the broom wafers wear. For the most efficient spraying pattern, the spray nozzle tips should be approximately 13" above the ground with the broom sitting on the ground. If the lower hole location is not high enough to have a running height of 13", move to the next higher hole until the correct run height is achieved.
- Once the spray bar has been installed on the spray bar mounting brackets, tighten the 5/8" hardware securing the spray bar mounting brackets.

Water Kit Main Assembly

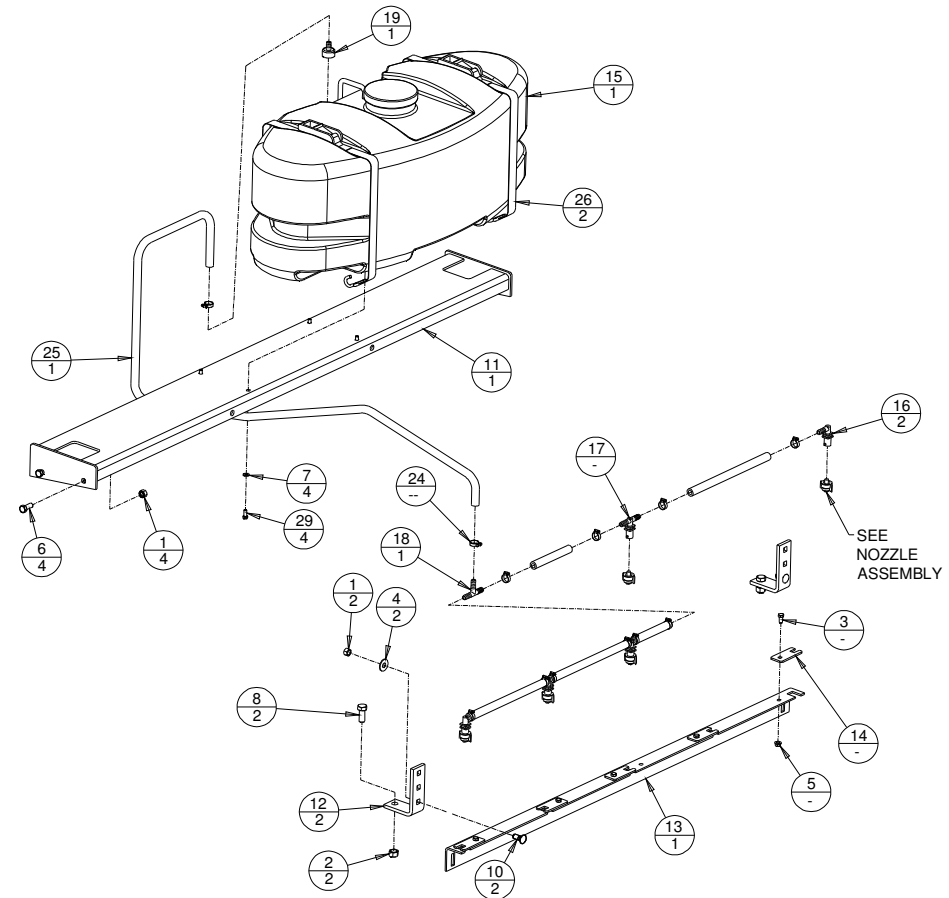


Table 1

MODEL	WK60	WK72	WK84
3/8" NC x 3/4" Lg HHCS	4	5	6
3/8" NC Top Lock Flange Nut	5	6	7
Water Tank Mount Weldment	8915VW	8886VW	8921VW
Nozzle Mounting Bar	8918VP	8890VP	8924VP
Water Kit Nozzle Retainer	4	5	6
Spray Nozzle Tee, 1/2" Barbed	2	3	4
Spray Nozzle Cap	5	6	7
Spray Nozzle Gasket	5	6	7
Spray Nozzle, 80° Even Flat Spray	5	6	7
Spray Nozzle Screen	5	6	7
Hose Clamp	14	16	18

Installation (cont.)

- Connect the end of the hose with the swivel hose adapter (Item #19) to the tank manifold and route the hose below the tank mount, through the center hose guide on the hood and connect to the tee (Item #18) on the spray bar and secure with the hose clamp (Item #24) provided.
- If the Pick Up Broom is equipped with a Gutter Brush, there is a spray nozzle that can be mounted to it, if desired. The hose between the last 2 nozzles on the spray bar nearest the gutter brush will have to be cut and the provided tee (Item #18) installed and secured with hose clamps. The gutter brush spray nozzle mount weldment (Item #27) needs to be installed on the bottom side of the gutter brush motor mount. To do this, loosen the 1/2" hardware securing the gutter brush motor, slide the nozzle mount into position and retighten hardware. Secure the hose to the hole in the gutter brush arm with the 7/8" hose clip (Item #30) and 3/8" x 1" bolt and 3/8" locknut (Items #9 and #5) provided.
- The wiring harness comes in 2 pieces. Connect the short wiring harness to the terminals on the pump and route the wires along with the hydraulic lines to the loader. Secure with zip ties. The terminal ends of the longer wiring harness should be located near the machines couplers, routed along the boom arm, securing where possible, making sure it will not be pinched when in operation and into the cab. The switch end needs to be located inside the cab and plugged into the 12 volt accessory outlet.

Operation

- Refer to the tank Owners Manual for pump operation.
- Before operating, make sure the ratchet straps holding the tank are secure.
- Always fill the tank with the desired amount of water before turning pump "on". A full tank (30 gallons) of water will last approximately 20 minutes of continuous spraying depending on conditions and settings.
- Before turning pump on, make sure the switch on the pump is in the "on" position and that the shutoff valve between the pump and tank outlet is open. To allow full flow to the spray bar, make sure the tank bypass is closed.
- Flow rate and pressure can be adjusted by partially opening the bypass valve to achieve desired flow.
- Make a test pass with the Pick Up Broom to verify that the spray pattern is providing complete coverage. If not, move the spray bar up, providing a wider spray pattern and make another test pass.
- As the Pick Up Broom wafers wear, the height of the spray bar may need to be adjusted to maintain complete spray coverage. This can be done by loosening the nut on the 1/2" carriage bolt and sliding the spray bar up in the slots on the spray bar or by moving the spray bar up to the next available hole in the spray bar mounting bracket. Retighten hardware after completing adjustments.

Maintenance

- If spray nozzles become clogged, remove the nozzle screen by removing the nozzle cap and clean. An old toothbrush works well for cleaning the screens. After cleaning, reassemble.
- The tank is equipped with a strainer located between the tank outlet and the pump inlet. This strainer should be checked and cleaned after every 10 hours or less of operation based on operating conditions.
- If the tank is not going to be used for an extended period of time, completely drain the entire system.
- In areas prone to freezing, make sure the tank is drained and the system winterized to prevent damage from freezing. See tank Owners Manual for more information.

Water Kit Parts List

ITEM	PART NO.	QTY	DESCRIPTION	
	1	1003PP	6	1/2" NC C-Lock Nut
	2	1008PP	2	5/8" NC Top Lock Hex Nut
A	3	1116PP	-	3/8" NC x 3/4" Lg HHCS
	4	5148PP	2	1/2" Flat Washer
A	5	6140PP	-	3/8" NC Top Lock Flange Nut
	6	7487PP	4	1/2" NC x 1 1/4" Lg HHCS
	7	7671PP	4	5/16" Flat Washer
	8	7778PP	2	5/8" NC x 1 1/2" Lg HHCS
	9	7849PP	1	3/8" NC x 1" Lg HHCS
	10	7964PP	2	1/2" NC x 1 1/4" Lg Carriage Bolt
A	11	-----	1	Water Tank Mount Weldment
	12	8889VP	2	Spray Bar Mounting Bracket
A	13	-----	1	Nozzle Mounting Bar
A	14	9370VP	-	Water Kit Nozzle Retainer
	15	8893PP	1	30 Gallon Tank with 12 Volt Pump
	16	8894PP	3	Spray Nozzle Elbow, 1/2" Barbed
A	17	8895PP	-	Spray Nozzle Tee, 1/2" Barbed
	18	8896PP	2	Tee, 1/2" Barbed
	19	8897PP	1	Swivel Hose Adapter, 1/2" Barbed
A	20	8899PP	-	Spray Nozzle Cap
A	21	8900PP	-	Spray Nozzle Gasket
A	22	8901PP	-	Spray Nozzle, 80° Even Flat Spray
A	23	8902PP	-	Spray Nozzle Screen
A	24	8903PP	-	Hose Clamp
B	25	8904PP	1	1/2" ID Hose, 20'
	26	8905PP	2	Ratchet Strap
	27	8907VW	1	Gutter Brush Spray Nozzle Mount Weldment
	28	8910PP	1	Gutter Brush Spray Nozzle Clamp
	29	8911PP	4	5/16" NC x 3/4" Lg HHCS
	30	8913PP	1	7/8" Hose Clip
	31	8950PP	1	Wiring Harness, Water Kit (Not Shown)

A - See Table 1.

B - Total length of hose used.