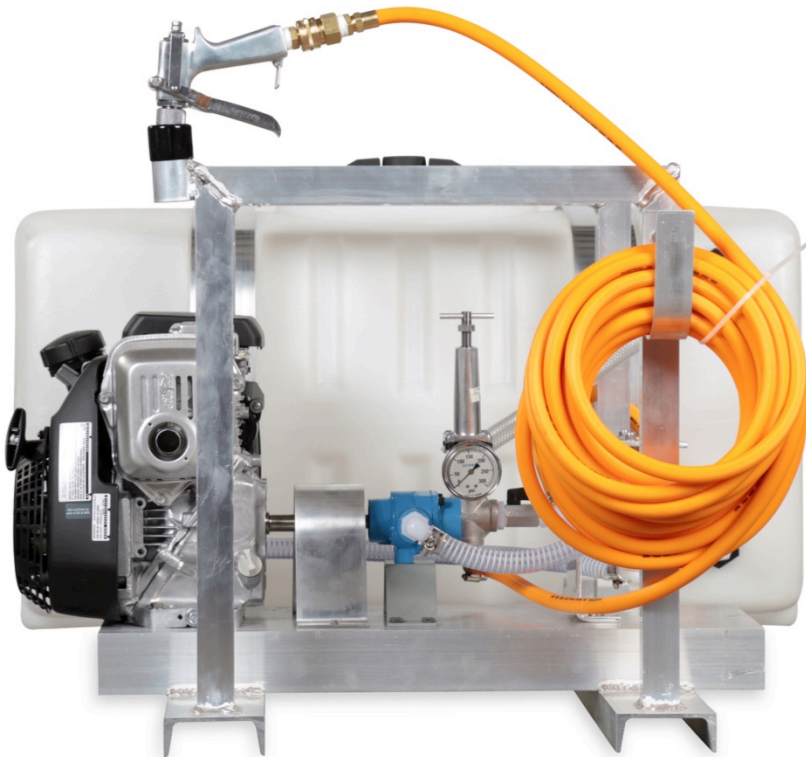


# Kings<sup>®</sup> Sprayers

50 Gallon  
Skid Sprayer  
Model #: KS50P5

## User Manual

Read this manual for complete instructions



**Need help?** Call Kings Sprayers if you have any questions with this product.  
Technical service hours: Monday – Friday, 8:00 a.m. – 5:00 p.m. ET  
1-800-228-0905 | [info@kingsprayers.com](mailto:info@kingsprayers.com)

**Model #: KS50P5**

## **Table of Contents**

<b>Warranty.....</b>	<b>3</b>
<b>General Safety Information .....</b>	<b>3</b>
<b>Hazardous Substance Alert .....</b>	<b>4</b>
<b>Sprayer Components.....</b>	<b>5</b>
<b>Getting Started .....</b>	<b>7</b>
<b>Starting Your Skid Sprayer for the First Time.....</b>	<b>7</b>
<b>Shutting Down Your Skid Sprayer .....</b>	<b>7</b>
<b>Engaging / Disengaging the Regulator.....</b>	<b>7</b>
<b>Troubleshooting Your Sprayer .....</b>	<b>8</b>

## Warranty

5 year frame / 5 year tank / 1 year parts and labor (limited to manufacturer defects) / 1 year pump (limited to manufacturer defects) / 90 days gas engine (limited to manufacturer defects and void if engine used commercially).

The warranty will not apply to products that were improperly installed, misapplied, damaged, altered or incompatible with fluids or components. Kings Sprayers obligation under this warranty is limited to the repair or replacement of the product. All returns will be tested per factory criteria. Products found not defective (under the terms of this warranty) are subject to charges paid by the returnee for testing and packing of "tested good" non-warranty returns.

No credit or labor allowances will be given for products returned as defective. Warranty replacement will be shipped at Kings Sprayers discretion. Kings Sprayers reserves the right to choose the method of transportation.

Contact Kings Sprayers at 800-228-0905 to receive a Return Merchandise Authorization (RMA#) before returning any products. The RMA number should be clearly marked on the outside of the package. Kings Sprayers shall not be liable for freight damage incurred during shipping. All products returned for warranty work should be sent shipping charges prepaid.

## General Safety Information

Roller pumps are intended for creating or booting dynamic pressure and depending on the type of body, rotor and rollers used, will work with a variety of fluids. These pumps will work in a variety of environments but they should never be used to pump liquids above 140°F (60°C) or below 34°F (1°C), or when ambient air temperature is above 140°F (60°C). Any uses outside of those specified in the pump manual are considered misuses and are prohibited. Only use approved chemicals in your pump. Contact Kings Sprayers with any questions regarding specific acceptable uses.

The following chemicals should never be put through any pump:

- Gasoline (Petrol)
- Kerosene/Kerosine (Paraffin)
- Diesel Fuel
- Ceramic Slurries
- Sewage
- Potable Water
- Abrasive Fluids

Roller pumps are designed to operate effectively within the specified speed, pressure and environmental ranges. Going outside of these ranges will void the warranty and could cause damage to property, serious injury or death.

DO NOT run the pump faster than the maximum recommended speed

DO NOT run the pump higher than the maximum recommended pressure

DO NOT run pumps when the liquid, or ambient air, has exceeded the maximum or minimum temperature limit

DO NOT pump non-approved liquids (See Below)

DO NOT pump water or other liquids for human consumption

DO NOT operate any roller pump under the influence of drugs or alcohol

DO NOT run the pump dry

DO NOT pump abrasive fluids

DO NOT perform service or maintenance to the pump or attached components until the pumping unit is below 109°F

Only authorized operators having the knowledge and skill necessary to safely use the pump, or any equipment the pump is connected to, may run the pump.

When running roller pumps, it is essential that operators use hearing protection as the sound levels reach levels of 80 decibels.

When handling pumps, wear steel-toed shoes and protective gloves in order to protect the feet in the event the pump is dropped and protect the hands from chemicals or any sharp surfaces on the pump.

When spraying manually, chemical-resistant facemasks and clothing should be worn to prevent any chemicals from coming into contact with the skin or being inhaled.

When spraying manually, always spray downwind from yourself as long as the sprayed chemical will not drift into the vicinity of other people.

When installing, adjusting or removing a roller pump, ensure that there are no objects which can fall on the installer, and make certain that all machinery to which the pump is to be attached is turned off.

Never operate a roller pump outside while there is a chance of getting struck by lightning.

Never leave wires or plumbing components where they can be a tripping hazard or become entangled in a moving component.

Roller pumps should not be used if the ambient light is below 200lux.

All maintenance should be done when machinery is stationary and has been isolated from its energy sources. It is dangerous to perform maintenance while machinery is still connected to its power source. Machinery should be isolated from its electrical, hydraulic, shaft driven or gas engine power source.

Be sure to release all pressure from the system before performing any sort of maintenance on a roller pump.

## **Hazardous Substance Alert**

Any hazardous liquids should be disposed of in a manner that complies with local and national regulations. Never dump fluids onto the ground.

Always drain and flush pump before servicing or disassembling for any reason.

Always drain and flush pump prior to returning unit for repair.

Never store pumps containing hazardous chemicals.

Before returning pump for service/repair, drain out all liquids and flush unit with neutralizing liquid. Then, drain the pump. Attach tag or include written notice certifying that this has been done. Please note that it is illegal to ship or transport any hazardous chemicals without United States Environmental Protection Agency Licensing.

## Sprayer Components

Quick disconnect spray gun



Figure 1: Front View



Regulator – screw in/out to adjust pressure (“in” increase, “out” decrease)

Nut to lock pressure setting

Unobstructed bypass line

Pressure gauge to calibrate when spraying

On/Off Ball valve for agitation

Figure 2: Detailed View



Figure 3: Side View

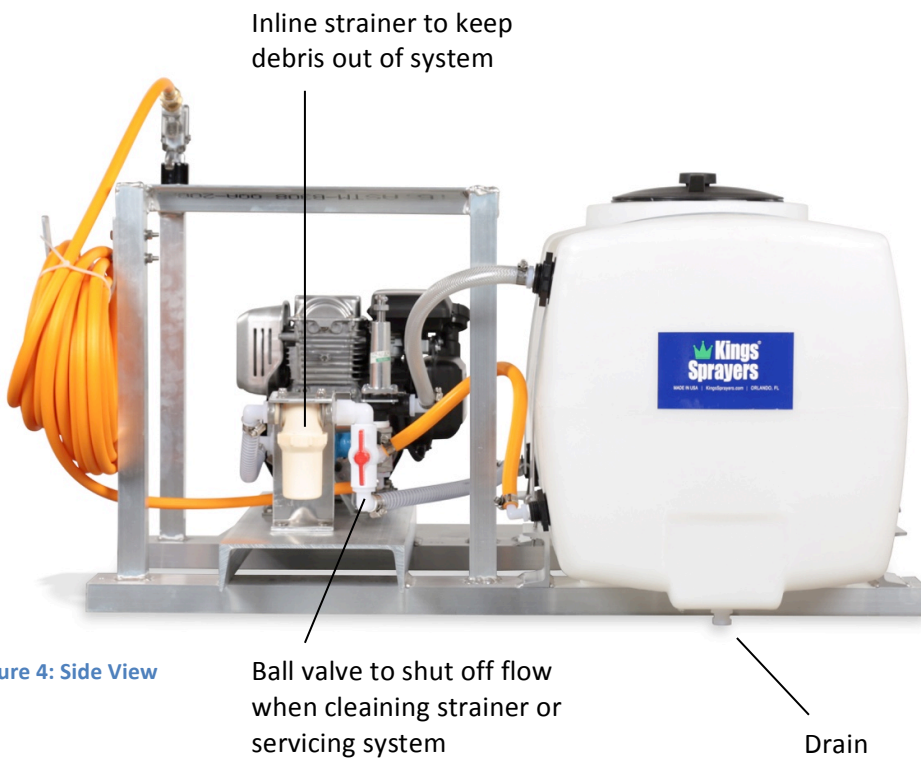


Figure 4: Side View

## Getting Started

### Starting Your Skid Sprayer for the First Time

1. Ensure all unnecessary personnel are clear of the area.
2. For initial testing, it is recommended to start with clean water instead of chemicals to confirm the system and plumbing components are leak free.
3. Ensure there is fluid in the tank and supply line. DO NOT run dry.
4. Check line strainer for debris or clogs and remove if any found.
5. Check all plumbing connections to ensure tightness.
6. Ensure all valves and regulators are set to the desired setting and working properly.
7. Ensure all hoses are positioned properly and undamaged.
8. Follow the next steps on starting the engine. Note there is no ON/OFF switch on this model.
9. For a cold start, pull out the choke to FULL.
10. Set the throttle slightly above off.
11. Pull start the engine.
12. Then, release the choke by pushing it in fully.
13. Raise the throttle to FULL.
14. Pressure should be adjusted to approximately 150 psi. Note that there will be a drop in pressure when the agitator is turned ON.
15. Adjust the spray gun and you're ready to spray.

### Shutting Down Your Skid Sprayer

1. Shut sprayer down using the outlined steps.
2. Slowly lower the throttle to SLOW.
3. If the pump will not be used for several hours flush your system to prolong the life of the components.

For a step-by-step video guide, visit the Sprayer Depot YouTube Channel to watch instructional videos on a variety of topics. Tune in by visiting <http://YouTube.com/SprayerDepot>.

### Engaging / Disengaging the Regulator

1. To create pressure, screw the "T" handle clockwise to compress the spring until you reach the desired PSI setting on the gauge.
2. Lock in the pressure rating by tightening the nut on the "T" handle.
3. To lower the pressure rating, unscrew the "T" handle counterclockwise.
4. To prolong the life of the regulator's internal components back the pressure off before shutting down your sprayer.

## Troubleshooting Your Sprayer

<b>Symptom</b>	<b>Possible Reason</b>	<b>Correction</b>
Pump does not prime	Leak in suction line	Check hose and fittings for leaks and correct
	Obstruction in suction line	Inspect hose for obstructions such as debris or loose inner liner and remove from the line
	Suction hose sucked to bottom or side of tank Rollers stuck in pump	Cut a notch or "V" in end of suction hose Disassemble pump and inspect rollers
	Pump seals leaking air Pump turning in wrong direction	Replace seals Correct rotation of pump
Loss of pressure	Clogged suction strainer	Check strainer and clean regularly
	Kinked or blocked suction hose	Inspect suction hose and repair as necessary
	Air leak in inlet side plumbing	Check hose and connections for leaks. Use pipe joint sealant and retighten connection
	Relief valve setting too low or weakened spring	Check relief valve and correct setting or replace spring
	Faulty gauge	Replace gauge
	Pump seals leak air Nozzle orifices worn Pump worn	Replace seals Replace nozzles Repair pump (See Repair Instructions)
Pump will not turn	Corrosion (rust), scale or residue	Replace pump
	Solid object lodged in pump	Disassemble pump and remove objects