

Yellow Jacket 77930

Yellow Jacket 77930 Max-Flow Deluxe Oil Pump User Manual

Model: 77930

1. INTRODUCTION

This manual provides comprehensive instructions for the safe and effective operation and maintenance of the Yellow Jacket 77930 Max-Flow Deluxe Oil Pump. This hand-operated pump is designed for transferring various types of refrigeration oils, including Alkyl-Benzene, Ester-Based, Polyol Ester, Mineral, and Synthetic Oils, into refrigeration and air conditioning systems.

Please read this manual thoroughly before using the pump to ensure proper function and to prevent damage to the equipment or injury to the operator.

2. SAFETY INFORMATION

Always observe the following safety precautions when operating the Yellow Jacket 77930 Max-Flow Deluxe Oil Pump:

- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves, when handling refrigeration oils.
- Ensure the work area is well-ventilated.
- Do not exceed the maximum pressure rating of 250 PSI for the pump or the system being serviced.
- Keep the pump clean and free from contaminants to prevent system contamination.
- Store the pump in a clean, dry place when not in use.
- Refer to the safety data sheets (SDS) for the specific refrigeration oil being used.

3. COMPONENTS

The Yellow Jacket 77930 Max-Flow Deluxe Oil Pump consists of the following main components:

- **Pump Handle:** Used to operate the pump piston.
- **Pump Cylinder:** Houses the piston and oil.
- **Base:** Provides stability for the pump.

- **Inlet Port:** Connects to the oil source (typically 1/2" flare).
- **Outlet Port:** Connects to the system being serviced (typically 3/8" flare).
- **U-shaped Copper Tube:** An accessory for drawing oil from open containers.



Figure 1: Yellow Jacket 77930 Max-Flow Deluxe Oil Pump. This image displays the complete oil pump assembly, featuring a chrome-plated pump body with a black handle at the top, a sturdy black base, and a U-shaped copper tube accessory designed for drawing oil from containers. The inlet and outlet fittings are visible near the base.

4. SETUP

1. **Prepare the Work Area:** Ensure a clean, stable, and well-ventilated environment.
2. **Connect to Oil Source:**
 - For open oil containers: Attach the U-shaped copper tube to the inlet port (1/2" flare) and place the other end into the oil container.
 - For sealed oil containers or specific applications: Connect appropriate tubing or adapters to the inlet port.
3. **Connect to System:** Attach a suitable refrigeration hose from the pump's outlet port (3/8" flare) to the system's service port. Adapters (e.g., 3/8" to 1/4" flare) may be required depending on the

system's port size. Ensure all connections are tight to prevent leaks.

4. **Prime the Pump (if necessary):** Before connecting to the system, a few strokes may be needed to draw oil into the pump cylinder if it's empty.

5. OPERATING INSTRUCTIONS

5.1. Adding Oil to a System

1. Ensure the pump is properly set up and connected as described in Section 4.
2. Open the valve on the system's service port to allow oil to enter.
3. Operate the pump handle with smooth, steady strokes. Each full stroke delivers approximately 3.8 oz (112.38 ml) of oil.
4. Monitor the amount of oil being added to ensure the correct charge is achieved.
5. Once the desired amount of oil has been transferred, close the system's service port valve.
6. Disconnect the refrigeration hose from the system and then from the pump.

5.2. Removing Oil from a System (Reverse Suction)

The pump can also be used to remove oil from a compressor or system, though this method may not fully drain all oil.

1. Connect the pump's outlet port to the system's oil drain or service port.
2. Connect a waste oil container to the pump's inlet port.
3. Operate the pump handle. The pump's design allows for a degree of reverse suction to pull oil from the system into the waste container.
4. Dispose of waste oil according to local regulations.

6. MAINTENANCE

- **Cleaning:** After each use, wipe down the exterior of the pump with a clean cloth. If different types of oil are used, it is recommended to flush the pump with a compatible cleaning agent or the new oil type to prevent cross-contamination.
- **Storage:** Store the pump in a clean, dry, and dust-free environment. Ensure all ports are capped or covered to prevent contaminants from entering.
- **Fittings:** Periodically inspect all fittings and connections for wear or damage. Replace any worn O-rings or seals as needed to maintain a leak-free operation.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Pump not drawing oil.	Inlet port not submerged in oil; air leak in inlet connection; pump not primed.	Ensure inlet tube is fully in oil; check and tighten all inlet connections; prime the pump by cycling the handle a few times.

Problem	Possible Cause	Solution
Oil leaking from connections.	Loose connections; damaged O-rings or seals; incorrect fitting type.	Tighten all connections; inspect and replace damaged O-rings/seals; ensure correct flare fittings are used.
Difficulty pumping.	High system pressure; clogged lines; internal pump issue.	Ensure system pressure is within pump's operating limits (max 250 PSI); check for obstructions in lines; if problem persists, contact Yellow Jacket support.

8. SPECIFICATIONS

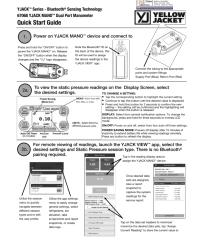
Feature	Detail
Model Number	77930
Brand	Yellow Jacket (Ritchie Engineering Co., Inc.)
Pump Type	Hand Operated
Compatible Oils	Alkyl-Benzene, Ester-Based, Polyol Ester, Mineral, Synthetic Oils
Capacity per Stroke	Approximately 3.8 oz (112.38 ml)
Maximum Pressure	250 PSI
Inlet Port Connection	1/2" Flare
Outlet Port Connection	3/8" Flare
Product Dimensions	18.25 x 18.25 x 6.75 inches
Item Weight	2.13 Pounds
Country of Origin	United States

9. WARRANTY AND SUPPORT

The Yellow Jacket 77930 Max-Flow Deluxe Oil Pump is manufactured by Ritchie Engineering Co., Inc. For specific warranty information, please refer to the documentation included with your purchase or visit the official Yellow Jacket website.

For technical support, replacement parts, or service inquiries, please contact Yellow Jacket customer service directly. Contact information can typically be found on the manufacturer's website or product packaging.

Related Documents - 77930

	<p>Yellow Jacket P51-870 TITAN Digital Manifold Quick Start Guide</p> <p>A quick start guide for the Yellow Jacket P51-870 TITAN Digital Manifold, covering operation modes, settings, and data management.</p>
	<p>Yellow Jacket Omni Digital Vacuum Gauge Operating Instructions</p> <p>Comprehensive guide to operating the Yellow Jacket Omni Digital Vacuum Gauge (model 69020), detailing setup, button functions, display readings, and setting adjustments for accurate vacuum measurement.</p>
	<p>YJACK MANO™ Dual Port Manometer Quick Start Guide YELLOW JACKET 67068</p> <p>Quick start guide for the YELLOW JACKET YJACK MANO™ Dual Port Manometer (Model 67068), featuring Bluetooth® sensing technology. Learn how to power on, connect, view static pressure readings, use the YJACK VIEW™ app, and understand measurement ranges for HVAC applications.</p>
	<p>YELLOW JACKET TITANMAX™ User Manual</p> <p>Comprehensive user manual for the YELLOW JACKET TITANMAX™ digital manifold, detailing its features, operation, settings, maintenance, and troubleshooting for HVAC professionals. Includes model numbers P/N 40880, 40881, 40885, 40887.</p>
	<p>Yellow Jacket TitanMax Digital Manifold - Features and Specifications</p> <p>Explore the Yellow Jacket TitanMax Digital Manifold, a 4-valve system offering fast and accurate measurements for refrigeration and A/C systems. Features include a high-resolution touchscreen, wireless connectivity via Bluetooth to YJACK VIEW® and measureQuick® apps, on-board data logging, and compatibility with A2L refrigerants.</p>
	<p>Yellow Jacket TITANMAX™ Digital Manifold Quick Start Guide</p> <p>Quick start guide for the Yellow Jacket TITANMAX™ Digital Manifold, covering setup, connections, main features, and settings for HVAC technicians. Learn how to power on, connect probes, navigate menus, and configure settings for pressure, temperature, vacuum, and psychrometric measurements.</p>