

# Models 23540-9000 23540-9100



# **ROTARY VANE PUMP FEATURES**

Body:

Cast Iron

Ports:

3/4" IPT

Vanes:

Rotor:

Bronze

Shaft:

Brass Steel

Bearings:

Sealed Ball Bearings

Seal:

Lip (Nitrile)

Motor End Bracket:

Aluminum

Motor:

Permanent Magnet Intermittent Duty (30 min.)

Height:

57/8" (147mm)

Length:

815/32" (215mm)

Width:

5"(127mm)

Weight:

11 lbs. (5 kg)



WARNING: DO NOT USE TO PUMP GASOLINE OR FLAMMABLE LIQUIDS.

# MODELS AVAILABLE

23540-9000

12 Vdc

23540-9100

24 Vdc

#### **APPLICATION**

The Jabsco Rotary Vane pump is ideal for transferring diesel fuel. The brass rotor and bronze vanes are not affected by petroleum products. It is self-priming with a suction lift of up to ten feet and can pump against a discharge head of up to ten feet.

NOTICE: Do not pump water or corrosive fluids. Do not pump oils with a viscosity greater than SAE 10W. Pump and/or motor damage may result.

## INSTALLATION

The pump must be mounted in a dry location positioned horizontally - the motor is not waterproof and must not be submerged. SELECTION OF A COOL, VENTILATED location will generally extend pump motor life. The pump may be mounted at 60 degree increments on the bearing house to allow plumbing connections as needed.

#### PLUMBING CONNECTIONS

Pumps ports are tapped with 3/4" NPT threads. Use rigid plumbing or flexible hose that does not kink when bent and with sufficient wall thickness to prevent collapse when used on suction side of pump. Plumbing should be routed so that some fluid will be retained in pump body to wet the rotor and vanes. Wetting the rotor and vanes aids in priming. Use a strainer on the intake if debris or solids are present in the fluid being pumps. ALL plumbing connections must be airtight to enable fast priming.

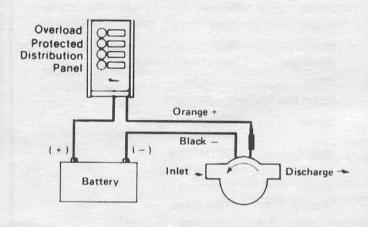
|     | TOTAL HEAD |        | CAPACITY |       |
|-----|------------|--------|----------|-------|
| PSI | FEET       | METRES | GPM      | I/MIN |
| 2,0 | 5          | 1,5    | 12.2     | 46    |
| 4,0 | 10         | 3,0    | 11.9     | 45    |

Table shows approximate Head-Flow for new pump. Performance based on diesel fuel S.G. .85.

#### **ELECTRICAL CONNECTIONS**

Connect black wire to negative (–) terminal of battery. The red wire should run to an overload protected switch or circuit breaker, with a wire from switch or breaker to positive (+) terminal of battery. Motor rotation is counter clockwise looking at shaft end of motor. Use proper wire size as determined by wire table elsewhere on this sheet. Should fuse blow or breaker trip, replace with same size fuse or reset breaker after determining reason for blown fuse or breaker trip.

### WIRING DIAGRAM



| MODELS     | VOLTAGE | AMP<br>DRAW | RECOMMENDED<br>FUSE SIZE |
|------------|---------|-------------|--------------------------|
| 23540-9000 | 12 Vdc  | 15          | 20 Amp                   |
| 23540-9100 | 24 Vdc  | 7.0         | 10 Amp                   |

# RECOMMENDED MINIMUM WIRE SIZES

| CONNECTION LENGTH<br>BETWEEN BATTERY<br>AND MOTOR | 12V | 24V |
|---|-----|-----|
| 1-10 ft. (3m)                                     | #10 | #16 |
| 11-20 ft. (6m)                                    | #6  | #12 |
| 21-30 ft. (9m)                                    | #6  | #10 |

Above recommendations are for a maximum 3% voltage drop.

NOTICE: To prevent motor damage, use only multi-strand copper wire in size recommended. DO NOT use ordinary lamp cord or other substitutes.

NOTICE: No warranty consideration will be given to pumps that are returned without the properly sized fuse and fuse holder supplied with the pump.

#### **OPERATION**

Rotary Vane pumps must NOT be run dry, as the pumped liquid is the lubricant for the rotor and vanes. Observe the outlet and shut off pump as soon as liquid stops flowing.

The pump cannot run against a closed outlet such as encountered when using a garden hose type shut-off nozzle. Pressure for normal operation should not exceed 10 feet of head (4.3 PSI). Excessive pressures will cause fuse to blow.

Temperature of pumped liquid may be in the range of –22° - 86°F (–30° - 30°C). Higher temperature will reduce motor run time. Diesel flash point approx. 150°F (66°C).

DO NOT OPERATE PUMP ABOVE THIS TEMPERATURE.

