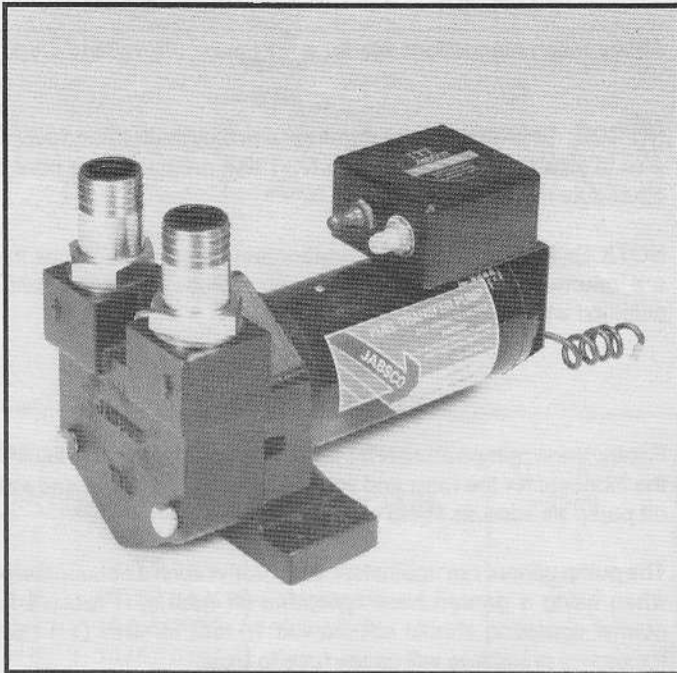


**JABSCO®**

# Model 23550-1300



## ROTARY VANE PUMP FEATURES

<b>Body:</b>	Cast Iron
<b>Ports:</b>	1-1/4" Hose Barb
<b>Vanes:</b>	Steel
<b>Rotor:</b>	Brass
<b>Shaft:</b>	Steel
<b>Bearings:</b>	Sealed Ball Bearings
<b>Seal:</b>	Lip (Nitrile)
<b>Motor End Bracket:</b>	Aluminum
<b>Motor:</b>	Permanent Magnet Intermittent Duty (40 min.)
<b>Height:</b>	7-1/8" (181mm)
<b>Length:</b>	9-3/4" (248mm)
<b>Width:</b>	5-3/4" (145mm)
<b>Weight:</b>	18 lbs (8 Kg) Approx.

Model 23550-1300

## MODEL AVAILABLE

23550-1300 24 Vdc

### ⚠ MOTOR WARNING

MOTOR CAN SPARK.  
EXPLOSION & DEATH  
CAN OCCUR.DO NOT USE WHERE  
FLAMMABLE VAPORS  
ARE PRESENT.**WARNING: DO NOT USE TO  
PUMP GASOLINE OR  
FLAMMABLE LIQUIDS.**

## APPLICATION

The JABSCO Rotary Vane pump is ideal for transferring diesel fuel. The rotor and vanes are not affected by petroleum products. It is self-priming with a suction lift up to ten feet and can pump against a discharge head of up to 20 feet.

**NOTICE:** Do not pump water or corrosive fluids. Do not pump oils with a viscosity greater than SAE 10W (400 SSU). 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 pumphead may also be mounted at 90 degree increments to the left or right on the bearing housing to allow plumbing connections as needed.

## PLUMBING CONNECTIONS

Pump's ports are tapped with BSP (British Std. Pipe) threads and fitted with 1-1/4" hose barb connectors. Use 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 pumped. ALL plumbing connections must be airtight to enable fast priming.

## PERFORMANCE

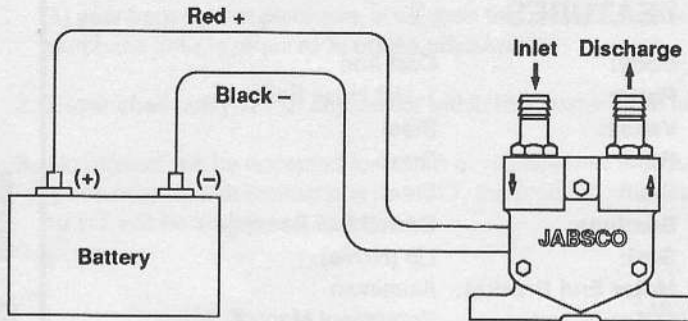
PSI	TOTAL HEAD		CAPACITY	
	FEET	METRES	GPM	l/MIN
2.0	5	1,5	25.4	96
4.0	10	3,0	24.6	93

Table shows approximate Head-Flow for new pump.  
Performance based on diesel fuel S.G. 0.85.

## ELECTRICAL CONNECTIONS

Connect black wire to negative (-) terminal of battery. The red wire should run 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



## RECOMMENDED MINIMUM WIRE SIZES

CONNECTION LENGTH BETWEEN BATTERY AND MOTOR	24 V
1-10 ft. (3m)	#10
11-20 ft. (6m)	#8
21-30 ft. (9m)	#6
(up to 5m)	4mm <sup>2</sup> )

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.

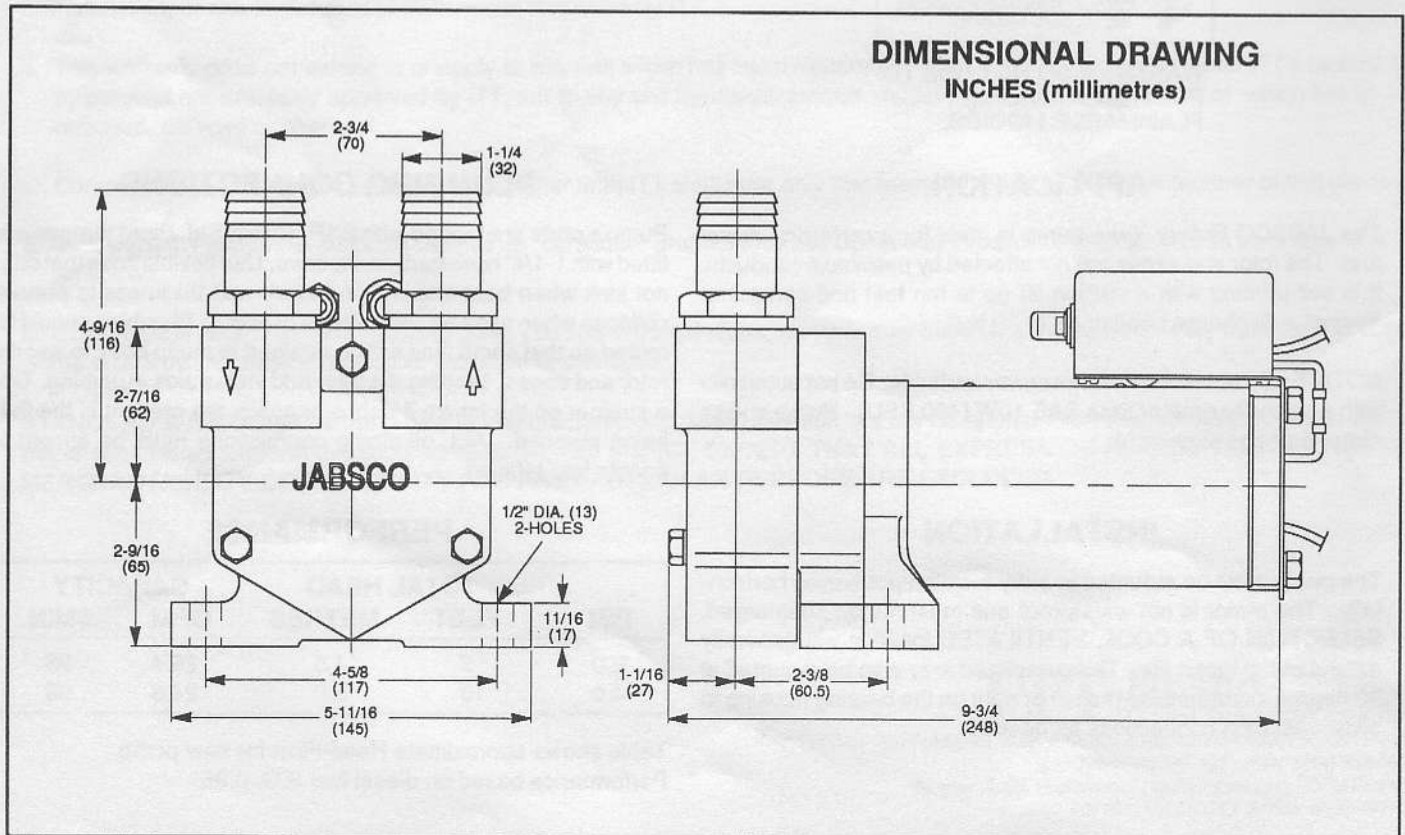
Ambient operating temperature: -22° to +86°F (-30° to +30°C). Higher temperature will reduce motor run time. Diesel flash point approx. 150°F (66°C).

**DO NOT OPERATE PUMP ABOVE THIS TEMPERATURE.**

MODEL	VOLTAGE	AMP DRAW
23550-1300	24 Vdc	15

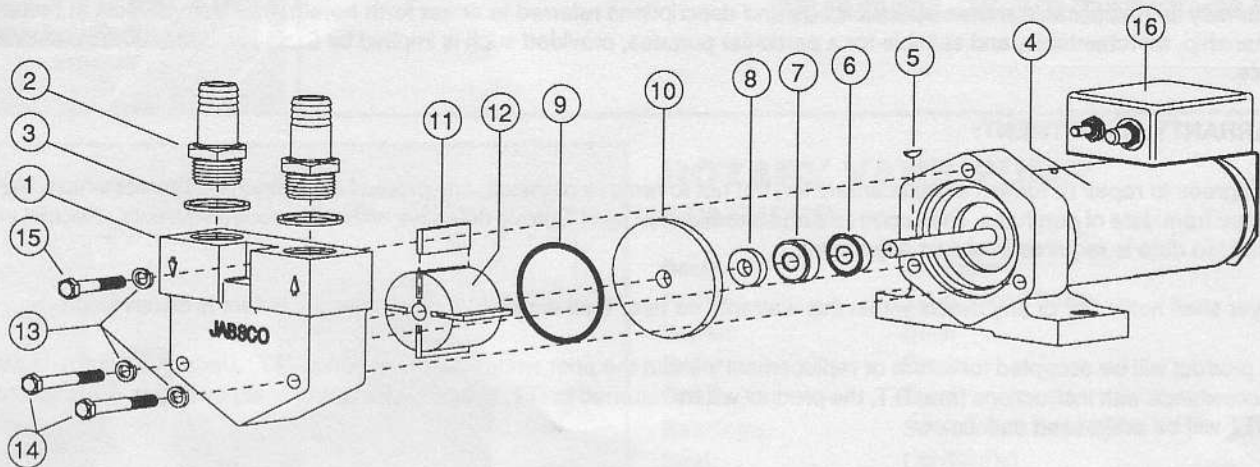
## DIMENSIONAL DRAWING

INCHES (millimetres)





## EXPLODED VIEW



KEY	PART NUMBER	DESCRIPTION	QTY. REQ. -1300
1	18753-0415	Body	1
2	18753-0422	Hose Barb Kit	1
3	18753-0424	Washer Kit	1
4	18753-0420	Motor 24V	1
5	18753-0407	Key	1
6	18753-0419	Spacer	1
7*	18753-0417	Seal	1
8*	18753-0418	Mating Ring	1
9*	18753-0416	O-Ring	1
10	18753-0425	Wearplate	1
11*	18753-0414	Vane Kit	1
12	18753-0413	Rotor	1
13	18753-0412	Lock Washer Kit	1
14	18753-0411	Bolt Kit	1
15	18753-0423	Bolt	1
16	18753-0421	Switch 24V	1
	90397-0000	Service Kit	

\* Parts contained in Service Kit.

## MAINTENANCE

Check wires and connections to be sure corrosion is not applying additional resistance to the motor circuit and causing a low voltage condition at the motor. Full voltage should be available to prevent motor damage.

## DISASSEMBLY

1. Disconnect pump from electrical supply.
2. Remove hose from pump and pump unit from its mounting.
3. Remove the 3 hexagon screws and lock washers holding the body to seal housing.
4. Partially withdraw body then push vanes into rotor, hold in position and remove body and O-ring.
5. Mark the ends of the vanes and end of rotor to ensure that the vanes will be returned to their respective slots in the rotor.
6. Vanes must be replaced when width has reduced to 19/32" (15.0mm). Width of vane when new is 21/32" (16.7mm).
7. Withdraw rotor from shaft remove woodruff key.
8. Remove wearplate from motor end bell to expose the seal. The seal can now be removed from the motor shaft and the mating ring from the wearplate.  
**CAUTION:** Care must be taken not to mark or damage mating surfaces of the seal or mating ring or the pump will leak.

## ASSEMBLY

1. Install new seal on shaft and push back to spacer.
2. Install mating ring into wearplate.  
**CAUTION:** Do not touch mating surfaces or pump will leak.
3. Clean both faces of wearplate and reassemble to motor end bell. Seal spring pressure may push wearplate partially out.
4. Place woodruff key in shaft, clean rotor and install with chamfered end of bore against wearplate.
5. Replace vanes into their respective slots, worn edges, or radiused if new vanes, must be facing outwards.
6. Clean face, O-ring groove and bore of body. Install O-ring and assemble over rotor. Secure with hex bolts and lock washers.

## One Year Limited Warranty

**A. LIMITED WARRANTY:** ITT warrants that at the time of shipment, the products manufactured by ITT and sold hereunder shall be in conformity with applicable written specifications and descriptions referred to or set forth herein, free from defects in material and workmanship, merchantable, and suitable for a particular purpose, provided such is implied by State law under the circumstances of this sale.

### **B. WARRANTY ADJUSTMENT:**

1. ITT agrees to repair or furnish a replacement for, but not to remove or install, any product or component thereof which, within one (1) year from date of purchase, shall upon test and examination by ITT prove defective within the above warranty. Receipt verifying purchase date is required to obtain adjustment.
2. Buyer shall notify ITT of any defect within this warranty no later than ninety (90) days after the defect is discovered.
3. No product will be accepted for return or replacement without the prior written authorization of ITT. Upon such authorization, and in accordance with instructions from ITT, the product will be returned to ITT, shipping charges prepaid by Buyer. Products returned to ITT will be addressed as follows:

**ITT JABSCO  
1485 Dale Way**

**Costa Mesa, California 92626-3998**

Or to such alternate locations as may be designated on the product, its container, or this sheet.  
Repair or replacement made under this warranty will be shipped prepaid to Buyer.

### **C. EXCLUSIONS FROM WARRANTY AND LIMITATION OF LIABILITY:**

1. The foregoing warranty is limited solely as set forth herein and applies only for the period designated above.
2. ITT SHALL NOT BE LIABLE FOR ANY LOSS, DAMAGE, SPECIAL OR CONSEQUENTIAL DAMAGE OF ANY KIND, WHETHER BASED UPON WARRANTY, CONTRACT, NEGLIGENCE, OR STRICT LIABILITY ARISING IN CONNECTION WITH THE SALE, USE, OR REPAIR OF THE PRODUCT.
3. THE MAXIMUM LIABILITY OF ITT IN CONNECTION WITH THIS WARRANTY SHALL NOT IN ANY CASE EXCEED THE CONTRACT PRICE FOR THE PRODUCT CLAIMED TO BE DEFECTIVE OR UNSUITABLE.
4. This warranty does not extend to any product manufactured by ITT which has been subjected to misuse, neglect, accident, improper installation, or use in violation of instructions furnished by ITT.
5. This warranty does not extend to or apply to any unit which has been repaired or altered at any place other than ITT's factory, or by persons not expressly approved by ITT, nor to any unit the serial number, model number, or identification of which has been removed, defaced or changed.
6. Components manufactured by any supplier other than ITT shall bear only that warranty made by the manufacturer of that product.
7. This warranty applies to products defined as "consumer products" by the Consumer Product Warranties Act as from time to time amended.

**D. CONSUMER RIGHTS:** This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow exclusion or limitation of damages.

**STANDARD WARRANTY:** If the products manufactured and sold hereunder are not Consumer Products, the warranty extended to Buyer shall be as set forth in subparagraphs (A), (B), and (C), **EXCEPT THAT ALL EXPRESS OR IMPLIED WARRANTIES OR MERCHANTABILITY OR SUITABILITY FOR ANY PARTICULAR PURPOSE ARE EXCLUDED.**

**ITT Jabsco**

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