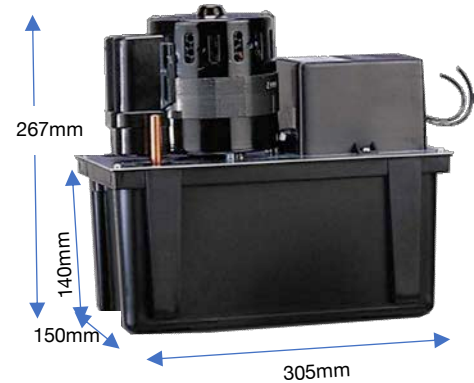




## VCL-45S 'Gravity Fed' Condensate Pump

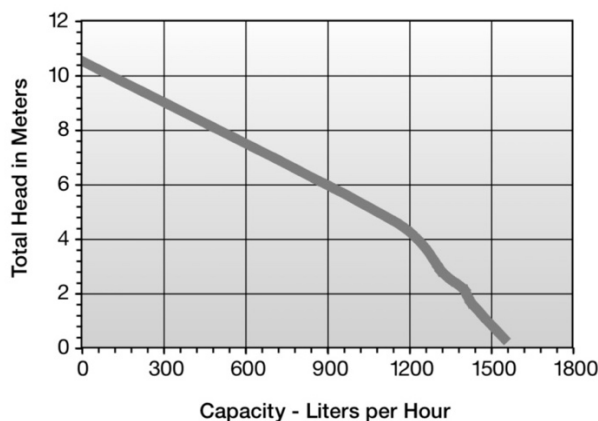
For removal of condensate from air conditioners, condensing boilers, refrigerated display cabinets, and dehumidifiers

- Fully automatic: start, stop, safety switch
- Operating point: 4 m: 1320 l/h
- Outlet: 9.5 mm, for 10 mm I.D. tubing
- 3.8 litre tank capacity
- Thermally protected motor
- IP 20
- Large reservoir and high capacity output for large scale applications
- 1/4 HP motor
- Galvanized steel tank cover
- ABS tank, volute and switch cover
- Stainless steel shaft
- Use ONLY 10mm I.D. reinforced Thick Wall Tube or Copper line
- A Check Valve is an optional extra
- Height: 267mm Length: 305mm Width: 150mm



<b>Capacity:</b>	1560 LPH @ Zero Lift
<b>Shut Off:</b>	10.5m
<b>Liquid Temp:</b>	50°C
<b>Discharge:</b>	10mm
<b>Electrical:</b>	230V, 50Hz, 0.8 amps, 170 watts
<b>Operation:</b>	Automatic
<b>MODEL:</b>	<b>553138</b>

Performance Curve VCL-45S 230V, 50Hz



**NOTE:** We suggest you use a Check Valve with this high-performance condensate pump. We stock the correct Check Valve

**THESE LITTLE GIANT 'PAN' PUMPS HAVE AN ENVIABLE REPUTATION...  
"THEY WILL LAST FOR YEARS"**

## INTRODUCTION

Your Little Giant condensate pump is designed as an automatic condensate removal pump for water dripping off an air conditioner evaporative coil. The pump is controlled by a float/switch mechanism which turns the pump on when approximately 3 1/2" of water collects in the tank, and automatically switches off when the tank drains to approximately 2".

The Little Giant unit you have purchased is of the highest quality workmanship and material. It has been engineered to give you long and trouble-free service. The Little Giant pumps are carefully packaged, inspected and tested to insure safe operation and delivery. When you receive your pump, examine it carefully to determine that there are no broken or damaged parts that may have occurred during shipment. If damage has occurred, make notation and notify the firm that you purchased the pump from. They will assist you in replacement or repair, if required.

READ INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THE LITTLE GIANT PUMP. KNOW THE PUMP APPLICATION, LIMITATIONS, AND POTENTIAL HAZARDS. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE! RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

### SAFETY GUIDELINES



DO NOT USE TO PUMP FLAMMABLE OR EXPLOSIVE FLUIDS SUCH AS GASOLINE, FUEL OIL, KEROSENE, ETC. DO NOT USE IN EXPLOSIVE ATMOSPHERES. PUMP SHOULD BE USED WITH LIQUIDS COMPATIBLE WITH PUMP COMPONENT MATERIALS.

DO NOT HANDLE THE PUMP WITH WET HANDS OR WHEN STANDING ON A WET OR DAMP SURFACE OR IN WATER. THIS PUMP IS SUPPLIED WITH A GROUNDING CONDUCTOR AND/OR GROUNDING TYPE ATTACHMENT PLUG. TO REDUCE THE RISK OF ELECTRICAL SHOCK, BE CERTAIN THAT IT IS CONNECTED TO A PROPERLY GROUNDED GROUNDING TYPE RECEPTACLE.

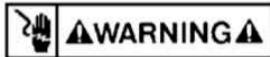
IN ANY INSTALLATIONS WHERE PROPERTY DAMAGE AND/OR PERSONAL INJURY MIGHT RESULT FROM AN INOPERATIVE OR LEAKING PUMP DUE TO POWER OUTAGES, DISCHARGE LINE BLOCKAGE, OR ANY OTHER REASON, A BACKUP SYSTEM(S) AND/OR ALARM SHOULD BE USED.

SUPPORT PUMP AND PIPING WHEN ASSEMBLING AND WHEN INSTALLED. FAILURE TO DO SO MAY CAUSE PIPING TO BREAK, PUMP TO FAIL, MOTOR BEARING FAILURES ETC.

### INSTALLATION

- Carefully unpack the pump. Remove the cover assembly from the tank and remove all packing from around floats. Check each float assembly for free movement. Place cover assembly on tank (Fig. 1).
- Mount the pump. There are two vertical mounting surfaces (as shown in Fig. 1) on one side of the tank to mount on side of air conditioning unit, or nearby wall. Mounting holes can be drilled in this surface, but should not exceed one inch from the top of the tank to prevent possible spillage of water.

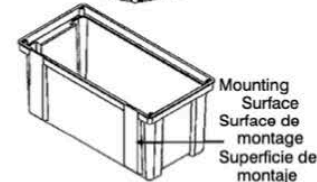
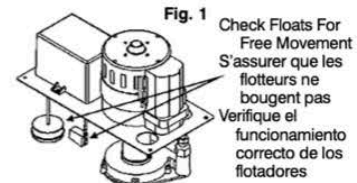
### ELECTRICAL CONNECTIONS



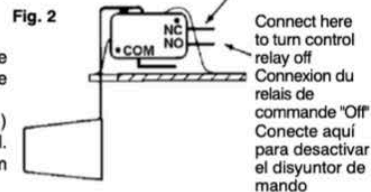
- Shut off electrical power at fuse box before making any connections. All wiring must comply with local codes.
- Line voltage-connect the power cord to line voltage specified on motor and nameplate. Power cord must be connected to a constant source of power (not a fan or other device that runs intermittently). If power cord does not have a plug, wiring is as follows: green (or green/yellow) - ground. Black (or brown) - line. White (or blue) - neutral.
- Safety Switch-the safety overflow switch should be connected to a Class II low voltage circuit. Typical hook-up of 'NC' circuits would be (Fig. 2): N.O. When water rises, circuit opens to turn off heating or cooling equipment. N.C. When water rises, circuit closes to activate a bell or alarm.
- If fused type plug is used on 230v units, a 3.0 amp fuse is recommended.

### PIPING

- Run flexible tubing or pipe from evaporator drain into pump inlet. Be sure inlet piping is sloped downward to allow gravity flow.
- The outlet piping should be flexible tubing or pipe (3/8" I.D. maximum to prevent excessive flow back to unit). From condensate unit, extend discharge piping straight up as high as necessary (Fig. 3). Do not extend this line above the head/GPH of the particular model being installed. From this high point, slope discharge line down slightly to a point above drain area; then turn down and extend to a point below or approximately level with the bottom of the condensate unit. This will give a syphoning effect which will improve efficiency of the condensate unit and will, in most cases, eliminate the need for a check valve. If it is not possible to slope discharge line down, make an inverted "U" trap directly above the pump at the highest point.



Connect here to turn control relay on.  
Connexion de relais de commande "On".  
Conecte aquí para activar el disyuntor de mando.



**NOTE:** All wiring to be done by qualified service technician. Refer to local codes in your area.

**Remarque:** la pose de tous les fils doit être faite par un technicien agréé. Se référer au Code local.

**NOTA:** Todos los calbes deben colocarse por un técnico apacitado en reparaciones. Remítase a las leyes locales de su área.

### Discharge Line Installation Installation de la ligne d'écoulement Instalación de la tubería de descarga

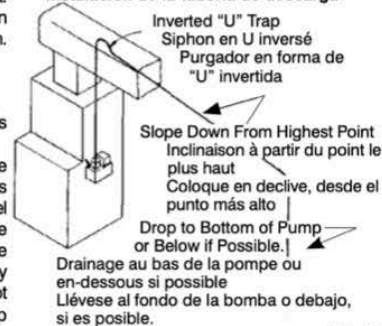
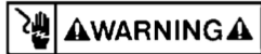


Fig. 3

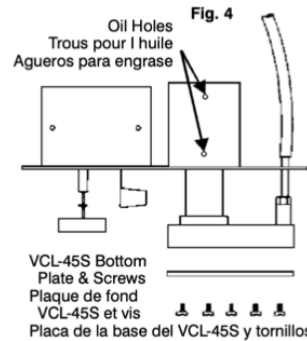
## SERVICE INSTRUCTIONS



1. Make certain the unit is disconnected from the power source before attempting to service or remove any component!
2. Oil the motor (Fig. 4) at the start of each air conditioning season. Use SAE number 10 or 20 non-detergent oil. Do not over oil.
3. Be sure the floats move freely. Clean as necessary (Fig 1.).
4. Remove the volute and check for obstructions. Clean as necessary.
5. Clean the tank with warm water and mild soap.
6. Check inlet and outlet piping. Clean as necessary. Be sure there are no kinks in the line that would inhibit flow.

## TESTING

1. Turn on power.
2. Remove motor/tank cover assembly and hold level.
3. Test motor switch by raising motor switch float with finger (Fig. 5). Motor should turn on just before circlip on stem contacts stem guide.
4. Test safety switch by raising safety switch float with finger. Safety switch should activate before float contacts cover.
5. Replace motor/tank cover assembly on tank.



Safety Switch Float  
Commutateur de sécurité de flotteur  
Flotador del interruptor de seguridad

ITEM	P/N	DESCRIPTION	QTY.	VCL-45 553240	VCL-45 553245	VCL-45 55138
1	977451	Motor, 115V	1	*		
1	977439	Motor, 230V	1		*	*
2	901412	Screw, machine, 8-32 x 1/2	2	*	*	*
3	153225	Tank cover	1	*	*	*
4	938108	Nipple, copper tubing	1	*	*	*
5	941014	Adapter, tubing, brass	1	*	*	*
6	153516	Stand/Volute Assembly	1	*	*	*
7	153520	Impeller	1	*	*	*
8	928025	Seal Ring, Nitrile	1	*	*	*
9	153519	Base Plate	1	*	*	*
10	902431	Screw	6	*	*	*
11	153502	Tank	1	*	*	*
12	921002	Lock Washer, #10	4	*	*	*
13	920008	Nut, Hex, 10-32	4	*	*	*
14	921001	Lock Washer, #8	6	*	*	*
15	920006	Nut, Hex, 8-32	2	*	*	*
16	153120	Switch Cover	1	*	*	*
17	902436	Screw	10	*	*	*
18	154713	Safety Switch Assembly	1	*	*	*
18	154721	Safety Switch Assembly	1	*	*	*
19	951992	Lead Wire Assembly	1	*	*	*
20	950897	Strain Relief, Lead Wires	1	*	*	*
21	950997	Strain Relief, Power Cord	1	*	*	*
21	950957	Strain Relief, Power Cord	1	*	*	*
22	153210	Strain Relief Bracket	1	*	*	*
23	153537	Float/Switch Assembly	1	*	*	*
23	153546	Float/Switch Assembly	1	*	*	*
24	951556	Power Cord	1	*	*	*
24	951222	Power Cord	1	*	*	*
24	951836	Power Cord	1	*	*	*
*25	950403	Closed End Connector	1	*	*	*
*26	902421	Screw, Tapping, 8-32 x 1/2	1	*	*	*

\*Not Shown

