Taylor PVA Pump

Model - #128K

108 Parker Ave.
Poughkeepsie, NY 12601
Tel: (845)-452-3780
Fax: (845)-452-0764
E-mail: info@jamesltaylor.com
Web: http://www.jamesltaylor.com

Limited Warranty

(This supersedes all previous warranties)

James L. Taylor Manufacturing guarantees all products of its manufacture to be free of defects in workmanship or material when properly installed, serviced and maintained under normal conditions. **James L. Taylor Manufacturing's** obligation under this warranty is limited to repairing or replacing any part or parts thereof which shall within one (1) year after shipment to the original user, be returned to its factory, transportation charges prepaid, and which **James L. Taylor Manufacturing's** examination shall disclose to be defective.

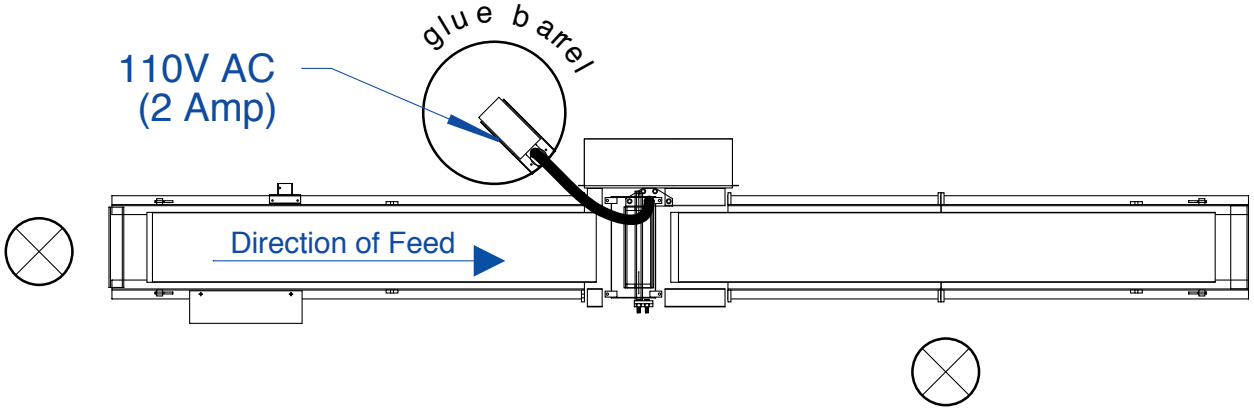
James L. Taylor Manufacturing assumes no liability for labor charges incidental to the adjustment, service, repairing, or removal or replacement of parts or other losses, or for expense of repairs made outside of its factory, except when made pursuant to **James L. Taylor Manufacturing's** PRIOR written consent.

James L. Taylor Manufacturing does not guarantee equipment furnished by us, but manufactured by others, such as belts, electric motors, starters, controls or other electrical equipment or accessories, as they are guaranteed separately by their respective manufacturers. **James L. Taylor Manufacturing** assumes no liability whatever for any of these parts claimed to be defective or for damages or delays caused by defects beyond making such repair or furnishing duplicate parts within the manufacturer's warranty, nor shall we be liable for any defective material repaired or replaced without our consent.

The foregoing shall constitute the fulfillment of all of our obligations under this warranty and there are no other warranties or guarantees, expressed or implied except as stated herein.

Introduction: PVA Pump

Thank you for choosing the Taylor PVA pump. This machine should provide you with years of reliable service.



RULES FOR SAFE OPERATION

Types of Warnings

This is the safety alert symbol. It is used to alert you to potential injury hazards.

Obey all safety messages that follow this symbol to avoid possible injury.

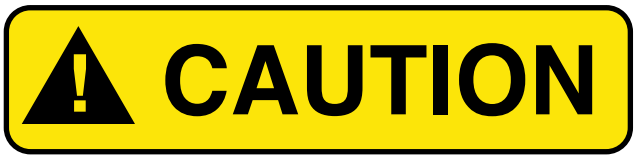
DANGER in white letters on a safety red background with a safety red exclamation point.

This indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

WARNING in black letters on a safety orange background with a safety orange exclamation point.

This indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

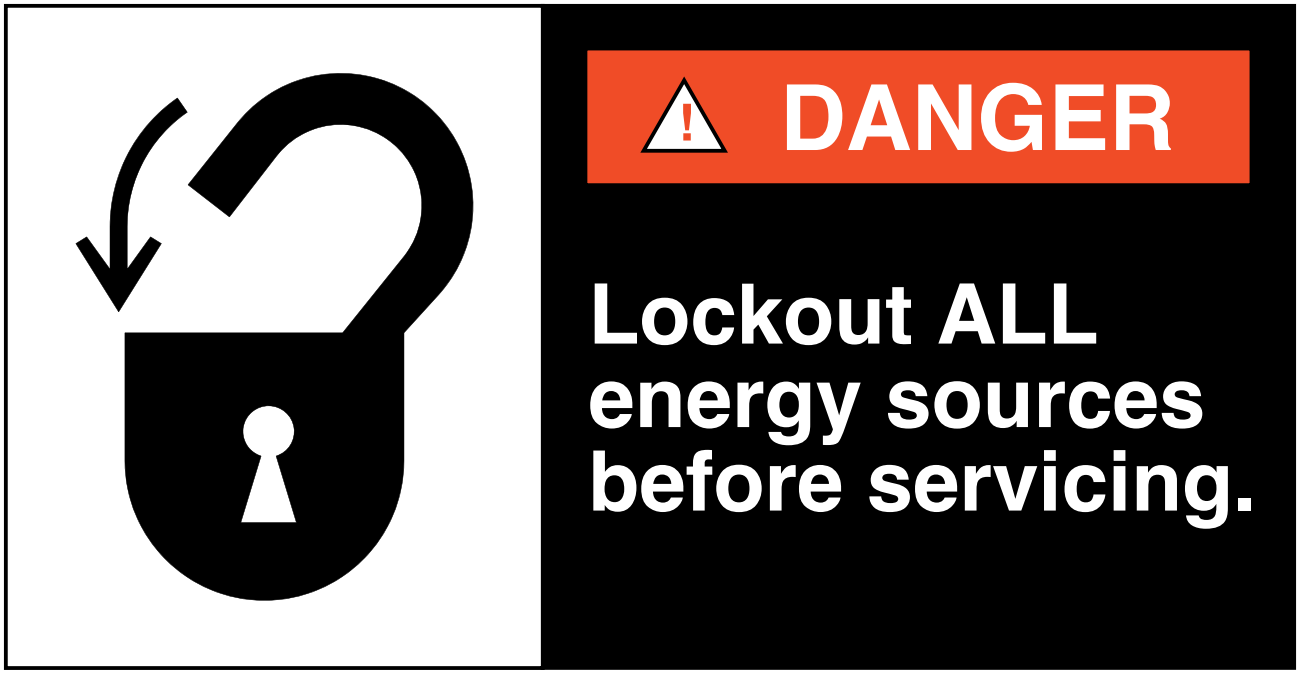
CAUTION in black letters on a safety yellow background with a safety yellow exclamation point.



This indicates a potentially hazardous situation which, if not avoided, COULD result in minor or moderate injury.

General Safety Rules

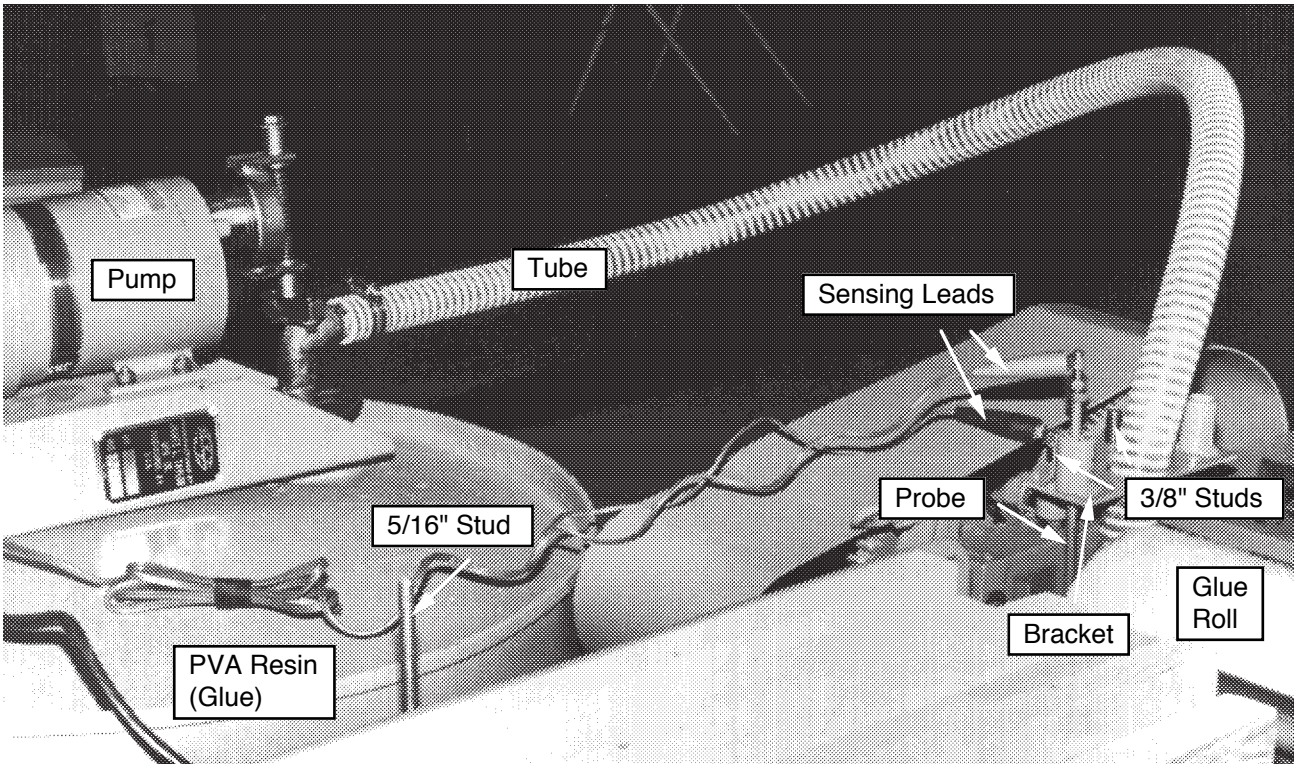
- Follow lockout procedure before servicing.
- Read and understand manual before operating machine.
- Wear eye protection.
- See the plant supervisor to determine what protective equipment each job requires.
- Follow electrical and fire codes.
- Do not wear loose clothing, jewelry or long hair around operating equipment.
- Keep guards in protective position when machine is operating.
- Keep clear of belts chains and moving parts.



Installation: PVA Pump

Installing the PVA Glue Pump:

1. Place a 55-gallon drum of PVA or aliphatic resin glue (white or carpenter's glue) close to the Glue Applicator, as shown in the photo below.
2. Remove the 2" bung from the top of the drum. Lift the PVA Glue Pump and guide the lift tube into the drum.
3. Insert the two 3/8" studs with nuts into the 3/8" tapped holes adjacent to the glue pan. Tighten the nuts. Slip the bracket over the two studs as shown in the photo below.
4. Insert the 5/16" stud into a 3/8" tapped hole (as shown) to hold the bracket when not in use.
5. Attach one end of the tube to the fitting on the Pump. Insert the other end into the bracket on the Glue Applicator.
6. Insert the probe, with the short length of rubber tubing acting as an insulator, into the bracket. Slide the tubing up or down the probe to adjust its height. The bottom of the probe will determine the level of glue in the glue pan.
7. Attach one of the sensing leads to the probe. Attach the other lead to one of the 3/8" studs installed in step #3. Plug the free end of the sensing lead cord into the receptacle on the back of the Pump.
8. Plug the PVA Glue Pump's power cord into a properly grounded and fused 110 volt, 1 phase electrical outlet.
9. Turn the Pump on with its toggle switch and fill the glue pan. Adjust the probe if necessary.



Operation:
PVA Pump

At the end of each day:

1. Turn off the PVA Glue Pump.
2. Remove the glue supply tube from the bracket on the Glue Applicator and plug the end of the tube with the plug supplied. Plugging the tube will prevent the glue from draining out and drying out in the pump and tubes.
3. Remove the glue level sensing probe and clean the end that contacted the glue.

At the beginning of each day:

1. Remove the plug from the end of the glue supply tube and insert the tube into the bracket on the Glue Applicator.
2. Insert the glue level sensing probe into the bracket on the Glue Applicator,
3. Start the Pump. The sensing circuit will automatically turn the Pump off and on as the probe contacts and breaks contact with the glue. Adjustment of the glue level in the pan may be made by sliding the rubber tubing up or down the probe, thus changing the height of the probe.

Troubleshooting: PVA Pump

Pump Will Not Run:

1. Check that the Pump is plugged in and that there is 110v, single phase power at the Pump.
2. Unplug the sensing lead cord from the Pump. If the Pump then runs, there is probably a short in the sensing circuit. Check for a short in the sensing leads.
3. Remove the electrical panel from the Pump and plug the motor directly into an extension cord. If the Pump then runs, there may be a faulty switch in the sensing unit.

Pump Runs but Does Not Deliver Glue:

1. The valves in the Pump are probably obstructed. Clean them by flushing the Pump's lift tube with a water hose. If this does not fix the problem, remove, clean, and replace the valves.

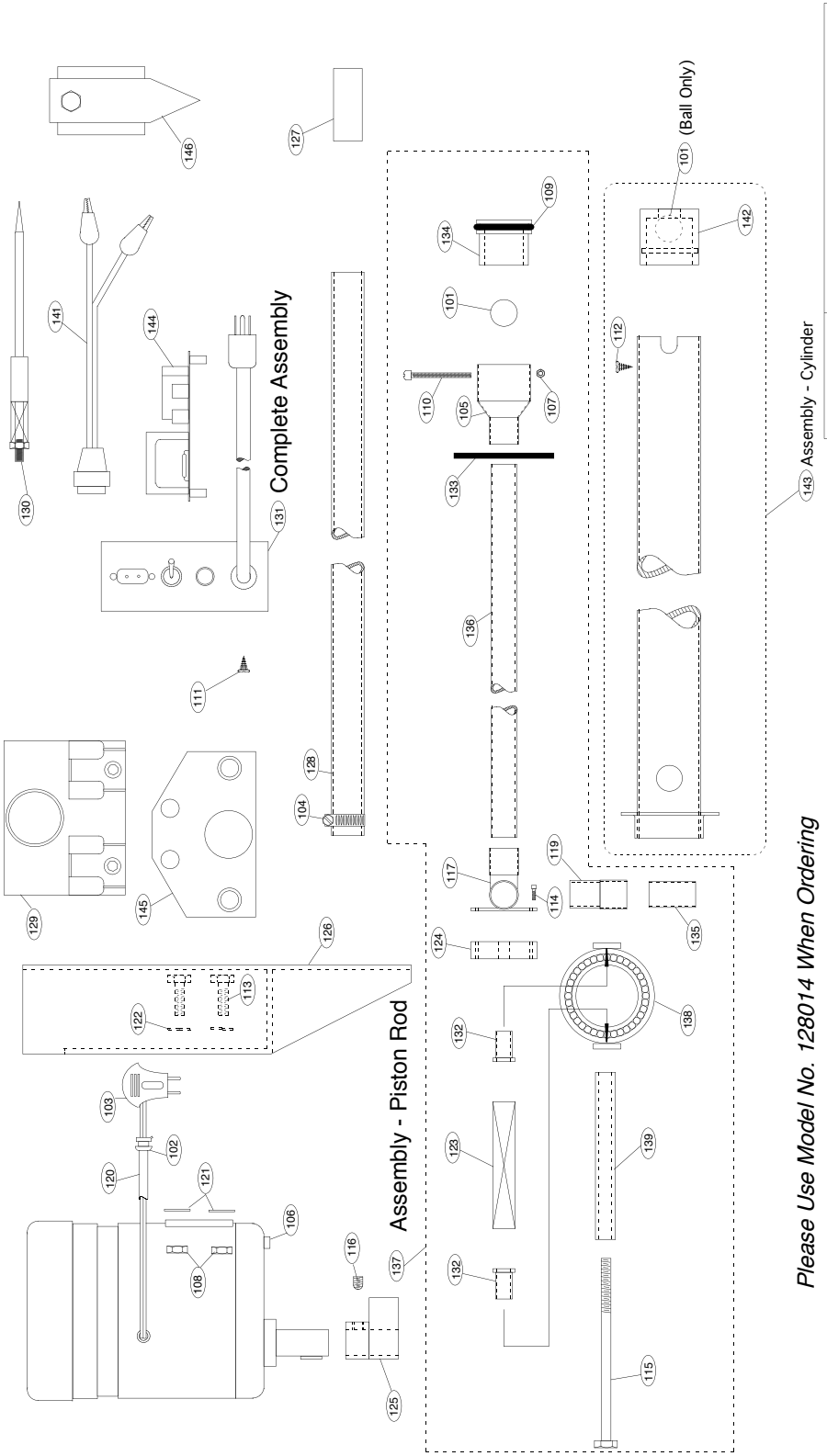
Pump Runs Continuously:

1. Check that there is good electrical contact between the sensing lead and the probe and between the other sensing lead and the glue pan. A build up of glue can sometimes inhibit good contact.
2. Unplug the sensing lead cord from the Pump. Wet a fingertip and bridge the terminal strip on the electrical panel. The motor should turn off and on as contact is made and broken. If not, the sensing unit may be faulty.

Replacement parts may be identified and ordered from the parts sheets at the back of this manual.

Maintenance: PVA Pump

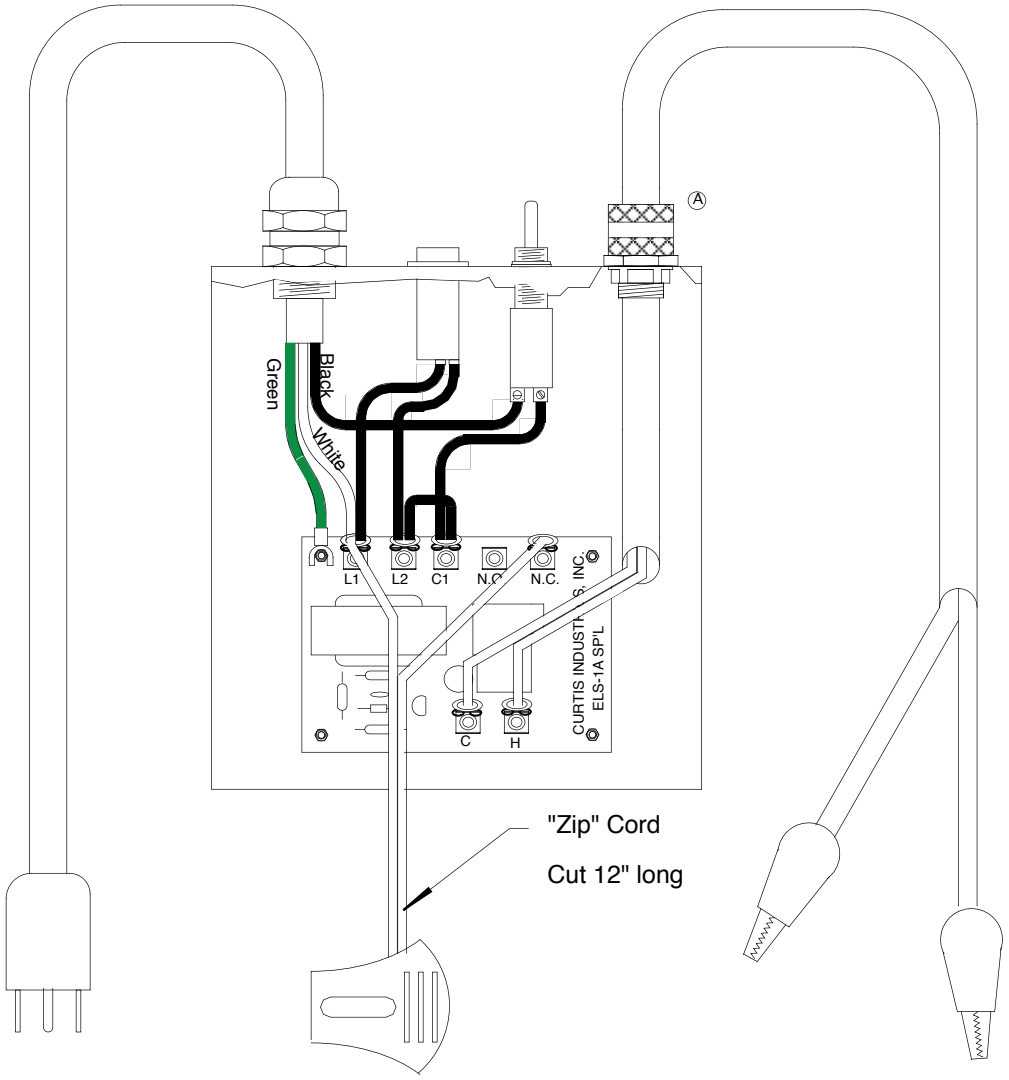
Other than routine cleaning of the pump and glue level sensing probe, no maintenance is required for the PVA Glue Pump.


Complete Assembly
Assembly - Piston Rod
(Ball Only)
Assembly - Cylinder
Please Use Model No. 128014 When Ordering
Scale:
Material:
James L. Taylor Mfg. Co.
Poughkeepsie, N.Y., U.S.A.
11-1-89
G.D.F.
Model
128014

Model 128014 PVA Glue Pump **Parts List**

Key #	Part Name	Description	Quantity
101.	BALLSS14	7/8" Dia Stainless Steel Ball	2
102.	BUSHS.1	Bushing - Strain Relief 6N3-4	1
103.	CLAQU.20	GE-1710 Male Quick Clamp	1
104.	CLAHO.20	Clamp - 5220	1
105.	COUCO2412	1 1/2" x 3/4" Copper Reduce Coupling	1
106.	MOTGR.127	3M127 Dayton Gear Motor	1
	MOTGR.128	Gearmotor - 3M128,30 RPM, 115 Volt	1
107.	NUTHX.0632SS	Nut - 6-32 Hex Stainless	1
108.	NUTHX04.20	1/4-20 Hex Nut	4
109.	RINGO622729	#622729 "O" Ring	1
110.	SCRRH.063232	Screw - 6-32 x 2 R.H. Stainless	1
111.	SCRPH.1008A	Screw - #10 x 1/2 Type A Self Tapping	2
112.	SCRPH.1006AS	Screw - #10 x 3/8 Type A Stainless	1
113.	SCRHH0412	1/4" x 3/4" Hex Head Cap Screw	6
114.	SCRSH.103210	Screw - 10-32 x 5/8" Socket Head Cap	2
115.	SCRHH0580	5/16" x 5" Hex Head Cap Screw	1
116.	SCRSS0505	5/16" x 5/16" Socket Set Screw	1
117.	128-116	3/4" Copper Drop Ear Elbow	1
118.	SCRSH0408	Screw 1/4 x 3/8 Socket Head Cap	2
119.	COUCO12	Coupling 3/4" Sweat Copper	1
120.	TUBERU06.1	Tubing - 1/4 Rubber	Specify Length
121.	WASHFL04	Washer - 1/4" Flat	4
122.	WASHLO04	Washer - 1/4" Lock	4
123.	SPG12.094.2	Spring - 3/4 x 4 x .094 Compression	1
124.	128-84	Bar - Elbow Mounting	1
125.	128-89	Cam	1
126.	128-7	Assembly - Base	1
127.	128-32	Plug - Glue Feed	1
128.	128-62-Length	Assembly - Glue Feed Tube (State Length)	1
129.	128-101	Assembly - Bracket - Glue Feed Tube	1
130.	128-12	Probe - Sensing	1
131.	128-98	Assembly Sensing Unit	1
132.	128-85	Bushing	2
133.	128-70	Seal - Cylinder	1
134.	128-51	Piston	1
135.	128-71	Tube - Output	1
136.	128-83	Tube - Piston Rod	1
137.	128-88	Assembly - Pistion Rod	1
138.	128-86	Assembly - Bearing	1
139.	128-87	Tube - Spring Guide	1
140.			
141.	128-33	Cord - Sensing	1
142.	128-45	Body - Foot Valve	1
143.	128-57	Assembly - Cylinder	1
144.	CONTRELS.1AR	ELS W/Relay 1 Level Liquid Control	1
145.	128-35	Assembly - Bracket - Glue Feed Tube	1
146.	128-38	Probe Sensing	1
147.	128-56	Assembly - Valve	1

128-98



Sensing Unit - Assembly

Scale: None	**James L. Taylor Mfg. Co.** Poughkeepsie, N.Y., U.S.A.		
Material: See Picklist		9-11-90 G.D.F.	128-98

Ⓐ Added 128-138 Sensing Cord. 1/17/00 JJC

PARTS & SERVICE

Please provide the following information:
-Model number
-Serial number (if any)
-Part description and number as shown in parts list

Address parts correspondence to:
Grainger Parts
P.O. Box 3074
1657 Shermer Road
Northbrook, IL 60065-3074 U.S.A.

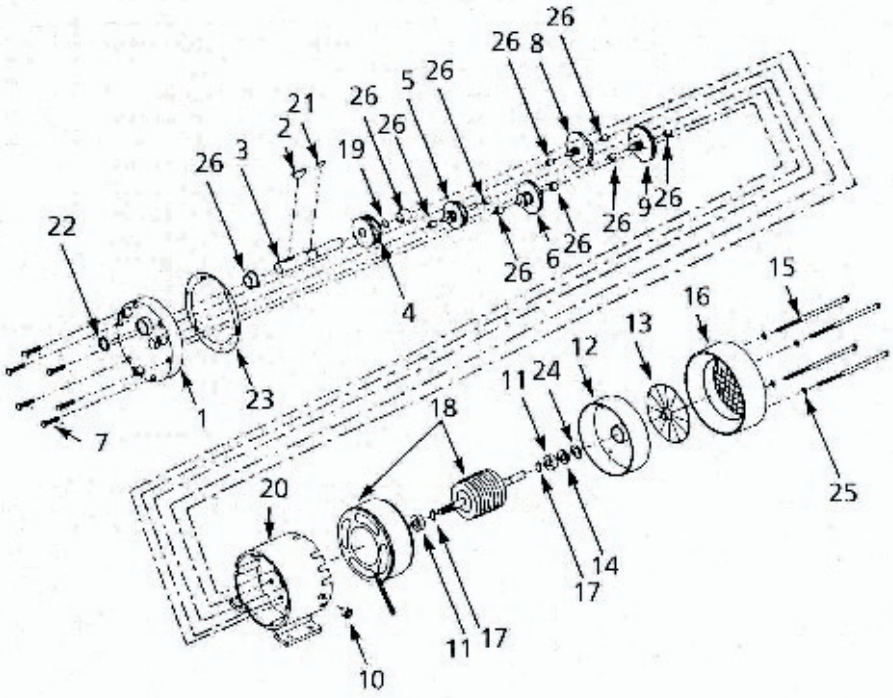


Figure 2 – Repair Parts Illustration

Repair Parts List

Ref. No.	Description	Part Numbers For Models: 3M125B	3M126B	3M127B	3M128B	Quantity
1	Cover Assembly	D00615-0010	D00615-0011	D00615-0011	D00615-0012	1
2	Woodruff Key #605	P00464-0001	P00464-0001	P00464-0001	P00464-0001	1
3	Output Shaft	J00625-0037	J00625-0037	J00625-0037	J00625-0037	1
4	Output Gear	H00555-0001	H00555-0001	H00555-0001	H00555-0001	1
5	Inter. Low Speed Gear	A00559-0002	A00563-0002	A00553-0002	N/A	1
6	Inter. Gear Assy.	A00556-0002	A00560-0002	A00718-0001	A00553-0001	1
7	Screws #10-24	R12022-0011	R12022-0011	R12022-0011	R12022-0011	6
8	Inter. High Speed Gear	A00547-0001	N/A	N/A	N/A	1
9	High Speed Gear Assy.	A04042-0001	A04042-0002	A04043-0001	A04045-0001	1
	Optional Steel Assy.	A04042-0004	A04042-0003	A04043-0004	A04045-0002	1
10	Snap Bushing	P01206-0003	P01206-0003	P01206-0003	P01206-0003	1
11	Ball Bearing	L00647-0002	L00647-0002	L00647-0002	L00647-0002	2
12	Endbell	D13065-0001	D13065-0001	D13065-0001	D13065-0001	1
13	Fan	E13286-0004	E13286-0003	E13286-0003	E13286-0004	1
14	Spring	K02208-0003	K02208-0003	K02208-0003	K02208-0003	1
15	Screws #10	R00F10S408Z	R00F10S408Z	R00F10S408Z	R00F10S408Z	4
16	Fan Shroud	G03150-0002	G03150-0002	G03150-0002	G03150-0002	1
17	Retaining Ring	R02074-0001	R02074-0001	R02074-0001	R02074-0001	2
18	Rotor-Stator Assembly	V00212APAJ	V00212ARAJ	V00212ARAJ	V00212ASAJ	1
19	Retaining Ring	R00627-0001	R00627-0001	R00627-0001	R00627-0001	1
20	Gear Case Assembly	D00791-0024	D00791-0025	D00791-0025	D00791-0027	1
21	Woodruff Key #404	P00423-0001	P00423-0001	P00423-0001	P00423-00011	
22	Grease Seal	P01694-0026	P01694-0026	P01694-0026	P01694-0026	1
23	Gear Case Gasket	P11141-0001	P11141-0001	P11141-0001	P11141-0001	1
24	Washer	K04656-0001	K04656-0001	K04656-0001	K04656-0001	6
25	Lockwasher	R00655-0001	R00655-0001	R00655-0001	R00655-0001	4
26	Bearing Kit	D12522-0004	D12522-0009	D12522-0009	D12522-0010	1
Δ	Grease Tube (6 oz.)	E13418-0001	E13418-0001	E13418-0001	E13418-0001	1

(Δ) Not Shown.

Read the Gearmotor Installation and Maintenance Information Manual included with this product before installing or performing maintenance. Read this document carefully before attempting to disassemble, reassemble, operate or maintain the product described. 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 references.

Initial Inspection and Handling

- After opening carton, look for concealed damage. If concealed damage is found, immediately file claim with carrier.
- Check the nameplate to verify that data conforms to specifications of gearmotor ordered.

Storage

- Gearmotor should be stored in a clean, dry location.

General Safety Information

⚠ DANGER ***High voltage and moving parts around gearmotor, and gearmotor driven equipment can cause serious or fatal injuries. Always disconnect power source before working on a gearmotor or its connected load. Installation must conform to all OSHA requirements, the National Electrical Code (NEC) in the United States and all local codes.***

⚠WARNING ***Do not use this gearmotor in a location where fire or explosion hazards may exist as defined by Article 500, Hazardous Locations, of the National Electric Code (NEC) in the United States.***

Gearmotor must not be used in any combustible atmosphere or near any combustible material.

Gearmotors not equipped with a thermal protector are not suitable for installation in remote, unattended applications. Overload or locked shaft condition could result in winding burnout and/or fire and electrical shock.

⚠ CAUTION ***When an installation involves a holding or over-hauling application (such as a hoist or conveyer), a separate brake or other locking device should be used. Do not depend on gear friction to hold the load.***

Load movement may occur in the event of a gear failure. Gear failures can be a result of loads that produce shock or exceed the rated output torque specified. Over time gear wear could affect the strength of the gears leading to gear failure.

Do not use automatic reset devices (such as an auto reset protector) where unexpected gearmotor starting could be hazardous to personnel or equipment.

Installation, maintenance, troubleshooting, or service to be performed by only qualified personnel.

ELECTRICAL SAFETY

⚠WARNING ***Disconnect power before installing or servicing.***

Make certain that the power source conforms to the requirements of the gearmotor.
Gearmotor must be securely and adequately grounded by wiring with a grounded metallic conduit, or other grounding method approved by the NEC and local codes. Refer to NEC Article 250 (Grounding) for additional information.
Insulate all connections carefully to prevent grounding or short circuits. Reinstall all conduit and terminal box covers. Do not force connections into the conduit box.
On permanent split capacitor gearmotors, make sure the capacitor rating matches the capacitor rating on gearmotor nameplate. Use proper capacitor ratings (MFD and Voltage). **Always discharge capacitors when working on gearmotor.**

ENGLISH

MECHANICAL SAFETY
Remove the output shaft key before running the gearmotor without a connected load.

Guard all moving parts.

Be careful when touching the exterior surface of an operating gearmotor! Gearmotor surface may be hot enough to be painful or cause injury. This condition is normal for most gearmotors when operated at rated load and voltage.

Do not permit the load to exceed the gearmotor torque rating.

Do not exceed gearmotor's overhung load and/or axial load ratings.

Do not modify gearmotor unless otherwise specified by instructions.

When making repairs only use Dayton authorized replacement parts.

THERMAL PROTECTION
Use thermally protected gearmotors or a motor starter incorporating thermal overload protection wherever required by safety regulations; including (NEC), local codes or Underwriters Laboratory (UL) Standards; or where overloading, jamming or other abnormal operating conditions may occur. Under low temperature conditions, manual reset protectors may reset automatically, causing gearmotor to start unexpectedly.

Installation

⚠WARNING ***Do not install or operate this gearmotor in an explosive atmosphere.***

LOCATION
Open, Dripproof Gearmotor - Clean dry locations with access to an adequate supply of cooling air.

Totally Enclosed Gearmotors - Harsher environments where damp and dirty conditions may exist. Totally enclosed gearmotors are not water-proof.

Temperature around the gearmotor should not exceed 104°F(40°C). Minimum temperature must be considered in the application of the gearmotor. Temperatures less than 0°F (-18°C) may result in reduced output or no-start.

If installation is outdoors, make certain that the gearmotor is protected from the environment.

POWER SOURCE
Voltage, frequency and phase of the power supply must correspond to that shown on the gearmotor nameplate. Low voltage can reduce performance and cause overheating.

A 208 volt system requires a gearmotor rated at 200 or 208 volts.

MOTOR CONTROL DEVICES
Power supply lines must have short circuit protection for the gearmotor and controller.

PARTS & SERVICE

Any switching device used to control gearmotor must have a horsepower rating equal to or greater than the motor.

Do not use an electronic adjustable speed control device with this gearmotor.

GEARMOTOR MOUNTING

Mount gearmotor to a rigid surface, preferably metallic, using high-quality bolts of the largest possible diameter that will fit mounting holes. Gearmotor must be securely fastened to mounting surface.

COUPLING GEARMOTOR TO LOAD

- For operating conditions, other than a normal 8 hour day and shock-free operation, multiply the rated output torque of the gearmotor by the applicable load factor listed in the LOAD FACTOR TABLE. **Shock loads must be avoided.**

LOAD FACTOR TABLE

Nature of Load	Intermittent	Operating Time Normal 8-hr. day	Continuous 24 hrs.
Uniform	1.0	1.0	0.9
Mod. Shock	1.0	0.9	0.8

- Direct-coupled installations require a careful check of shaft and coupling alignment. Shim gearmotor mounting as necessary. Do not depend on a flexible coupling to compensate for misalignment.
- Avoid excessive side load (e.g., over tightened chain or belt). Overhung load must not exceed unit's OVERHUNG LOAD rating (listed in catalog) at the mid-span point on output shaft.

DETAILED OVERHUNG LOAD CALCULATIONS

Sideward (radial) force on an output shaft is called overhung load. Driving a load through a sprocket, pulley, or gear which is mounted on the output shaft causes overhung load on the shaft. Too much overhung load can break the shaft or cause the bearings to fail prematurely. Locate the center line of the sprocket, pulley, or gear as close to the oil seal as practical to minimize overhung load and increase bearing life.

Calculate the amount of overhung load in your installation as follows:

$$\text{Overhung Load (lbs.)} = \frac{(2) \times (T) \times (D) \times (L)}{(P)}$$

The terms of the above formula are defined as follows:

(T)=Full load torque of gearbox, in in/lbs, from specifications and performance

(D)=Drive factor from following chart, accounting for type of drive

(P)=Pitch diameter, in inches, of drive being mounted on gearbox output shaft

(L)=Leverage factor from following chart, accounting for position of drive along length of gearbox output shaft.

DRIVE FACTORS

Type	Factor
Sprocket	1.00
Pulley	1.50
Gear	1.25
Flat belt pulley	2.50

LEVERAGE FACTORS

Coupling Location	Factor
End of shaft extension	1.20
Center of shaft extension	1.00
Next to shaft extension shoulder	0.80

ENGLISH

After calculating the amount of overhung load expected in your installation, compare it to the overhung load rating (limit) listed in catalog. If the expected amount of overhung load is higher than the specified limit, you must change a component or the location of a component in your installation to bring the overhung load within the limit. To increase the operating life of the gearbox bearings, design your installation to reduce overhung load as much as possible.

CONNECTING POWER TO GEARMOTOR

To connect gearmotor for proper voltage and rotation, refer to the connection diagram on the nameplate or inside the terminal/conduit box.

Motor HP	25 Feet		50 Feet		100 Feet		150 Feet		200 Feet	
	115V	230V	115V	230V	115V	230V	115V	230V	115V	230V
up to 1/25	14	14	14	14	14	14	14	14	14	14
1/20	14	14	14	14	14	14	14	14	12	14
1/15	14	14	14	14	14	14	12	14	12	14
1/10	14	14	14	14	12	14	12	14	10	14
1/8	14	14	14	14	12	14	10	14	10	14
1/6	14	14	14	14	12	14	10	14	10	14
1/4	14	14	14	14	12	14	10	14	8	14

NOTE:

- Above wire sizes based on approximate 5% voltage drop during starting; copper conductors. For aluminum wire, increase two wire size steps minimum. See NEC Article 310 for ampacities of aluminum conductors.

⚠WARNING ***Determine direction of rotation before connecting driven equipment to prevent damage.***

If the gearmotor is exposed to excessive moisture (e.g., flooded, submerged, sprayed), have the gearmotor serviced by a qualified motor repair shop before operating.

On PSC gearmotors, make sure the gearmotor run capacitor rating matches the capacitor rating on the gearmotor nameplate. When replacing an existing gearmotor, the capacitor should also be replaced.

Operating Gearmotor

Connect gearmotor to load and run briefly. Check for unusual noises and vibration (see Troubleshooting). Check gearmotor current; it should not exceed nameplate value.

Visually re-inspect the installation. Make sure that the guards and all other protective devices are securely in place. All covers and gaskets must be re-installed to minimize the entry of dirt and moisture.

During continual operation, the surface temperature of the gearmotor may become hot. For most gearmotors when operated at rated load and voltage, this condition is usually normal. To verify if condition is normal, check gearmotor current and voltage; they should be close to the ratings specified on the nameplate.

PSC Type Gearmotors are not designed for instantaneous reversing. The gearmotor must come to a complete stop before reversing rotation.

PARTS & SERVICE

Recommended Maintenance

Remove dirt accumulations in and around gearmotor, specifically around motor vent openings, by vacuuming. **Dirt accumulations can cause motor heating and a fire hazard.** Enclosed motors can be cleaned with an air jet; wear eye protection.

Periodically inspect the installation. Check for dirt accumulations; unusual noises or vibration; overheating; worn or loose couplings, sheaves and belts or sprockets and chain; high motor current; poor wiring or overheated connections; voltage; loose mounting bolts or guards; and worn motor starter contacts.

Exercise caution with solvents; some solvents may attack motor insulation, finish or bearing lubricants; some are highly flammable. If solvents are used, make sure area is well vented.

Dayton gearmotor bearings (ball and/or sleeve) are pre-lubricated at the factory and do not require relubrication.

Ordering Replacement Parts

⚠ CAUTION ***Use only Dayton authorized replacement parts when repairing gearmotor.***

IMPORTANT: For replacement parts information, refer to the enclosed Product Specific Information Manual furnished seperately.

Order Replacement Parts By Calling Toll Free 1-800-323-0620
24 hours a day - 365 days a year

Please provide following information:

- Model Number
- Serial Number (if any)
- Part Number as shown in Product Specific Information Manual

Address parts correspondence to:
Grainger Parts Operations
P.O. Box 3074
1657 Shermer Road
Northbrook, IL 60065-3074 U.S.A.

Troubleshooting

This chart suggests common answers to gearmotor problems. The information is not all-inclusive and does not necessarily apply in all cases. When unusual operating conditions, repetitive failures, or other problems occur, obtain technical assistance.

Symptom	Possible Cause(s)	Corrective Action
Unit fails to operate	1. No power	1. Consult local power company
	2. Blown fuse or open circuit breaker	2. Replace fuse or reset circuit breaker. Check for grounded motor winding
	3. Voltage too low at motor terminals due to line drop	3. Consult local power company. Check for poor connections. Increase wire size (refer to Minimum Wire Size Table)
Unit fails to operate (Continued)	4. Improper line connections	4. Check connections against diagram supplied with unit
	5. Defective motor	5. Repair or replace
	6. Defective control switch or starter	6. Repair or replace
	7. If permanent split capacitor unit, capacitor may be defective	7. Replace. Refer to unit's nameplate for correct value
	8. Gearmotor may be overloaded	8. Reduce load or increase gearmotor size. Check load and alignment of coupling
	9. Tight motor shaft on open C-frame type Shaded Pole gearmotors	9. Occasionally during shipment the motor sleeve bearing may misalign causing the motor shaft not to rotate freely. Tap slightly on side of the motor with a plastic mallet to align the bearings. Do not tap on motor bobbin coil or bearing bracket.
Unit stalls during operation	1. Overload	1. Determine cause of overload. Reduce load or increase gearmotor size
	2. Low voltage	2. Verify that nameplate voltage is maintained
Unit operational but no output	1. Defective gear(s)	1. Check and replace if necessary
	2. Gear loose on shaft	2. Check and replace if necessary
	3. Loose coupling, sheave or sprocket	3. Check and tighten if necessary
	4. Sheared key on output shaft	4. Replace key and inspect keyway for damage

PARTS & SERVICE

Symptom	Possible Cause(s)	Corrective Action
Intermittent rotation of output shaft	Damaged intermediate gear caused by shock load	Replace and, if possible, avoid shock load
Excessive noise	1. Bearing worn or damaged	1. Replace
	2. Belt or chain too tight	2. Adjust tension
	3. Overhung-load exceeds rating and causes bearing wear	3. Correct load and/or replace bearing
	4. Defective gear(s)	4. Replace
	5. Output shaft misaligned	5. Realign
	6. Loose sheave or sprocket or misaligned coupling	6. Tighten Set Screw(s). Realign coupling
	7. Defective motor winding	7. Replace
Unit overheats while running under load	1. Overloaded	1. Reduce load, increase gearmotor size; belts or chain too tight
	2. High or low voltage	2. Check voltage at motor connections, should not be more than 10% above or below
	3. Faulty connection	3. Check and tighten if necessary
	4. Dirt blocking ventilation openings	4. Clean motor
	5. Defective motor	5. Repair or replace
Unit does not come up to speed or takes too long to accelerate	1. Voltage too low at motor terminals	1. Check for poor connections. Increase wire size (refer to Minimum Wire Size Table)

Symptom	Possible Cause(s)	Corrective Action
Unit does not come up to speed or takes too long to accelerate (Continued)	2. Starting load too high	2. Unit may be under size to start load. Increase unit size. Load contains a bound condition. Clear condition
	3. Excessive loading; tight belts or chain	3. Reduce load; increase unit size. Adjust belt or chain tension
	4. Defective gearmotor	4. Repair or replace
	5. Inadequate starting torque. High inertia load	5. Replace with larger unit

Limited Warranty

Dayton Two-Year Limited Warranty. *Dayton® Shaded Pole and Permanent Split Capacitor Type Gearmotors are warranted by Dayton Electric Mfg. Co. (Dayton) to the original user against defects in workmanship or materials under normal use for two years after date of purchase. Any part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at Dayton's option. For limited warranty claim procedures, see PROMPT DISPOSITION below. This limited warranty gives purchasers specific legal rights which vary from jurisdiction to jurisdiction.*

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Prompt Disposition. *Dayton will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom the product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Dayton at address below, giving dealer's name, address, date, and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.*

Manufactured for Dayton Electric Mfg. Co., 5959 W. Howard St., Niles, Illinois 60714 U.S.A.