

2190 Dagenais Blvd. West Tel. : 514.337.4415
Laval (Quebec) Fax : 514.337.4029
Canada info@burcam.com
H7L 5X9 see us at www.burcam.com

MODEL **400416T** **400417T** GRINDER PUMP FOR SEWAGE

Your pump has been carefully packaged at the factory to prevent damage during shipping. However, occasional damage may occur due to rough handling. **Carefully inspect your pump** for damages that could cause failures. Report any damage to your carrier or your point of purchase.

Please read these instructions carefully. **Failure** to comply to instructions and **designed** operation of this system, may **void** the warranty.

INITIAL START UP PROCEDURES:

1. Inspect the pump and the sewage tank for any obvious condition that may necessitates cleaning, correction, adjustment or repair.
2. Assure that the pump is secure and vertical for proper operation.
3. Assure that there is adequate clearance from any combustible materials or structure. Stored materials must be kept away from the pump. Shelves or cabinet structures must not be in close proximity over the pump.
4. Assure that the motor is securely plugged into a proper 'GFCI' electrical outlet.
5. Test the 'GFCI' outlet by pressing its test switch. This should prove that the outlet is energized and will trip off to protect against a ground fault. Be sure to reset the 'GFCI' by pressing its reset switch. (Repeat this step monthly)
6. Lift the float to assure that the pump will start when required. (Step 7 below will test submersible pumps with enclosed floats).
7. Pour pails of water in the sewage tank to turn the pump on. Assure that any check valve present will permit the sewage to flow.
8. Observe that the plumbing can pump the sewage safely out of the residence. (Repeat this step monthly)

ILLUSTRATED
MODEL
400416T



SAFETY INSTRUCTIONS:

Before installation and operation, follow these procedures:

- A** Check with your local electrical and plumbing codes to ensure you comply with the regulations. These codes have been designed with your safety in mind. Be sure you comply with them.
- B** A separate circuit must be lead from the home electrical distribution panel properly protected with a fuse or a circuit breaker. We also required that a ground fault circuit be used as well as a 'GFCI' receptacle. Consult a licensed electrician for all wiring.
- C** The ground terminal on the three prong plugs should never be removed. They are supplied and designed for your protection.
- D** Never make adjustments to any electrical appliance or product with the power connected. Do not only unscrew the fuse or trip the breaker, remove the power plug from the receptacle.

ELECTRICAL CONNECTION:

For pumping systems using more than one pump, each pump needs to be connected to a separate dedicated circuit protected by a fuse or breaker. This way, the power supply of one pump will not stop operating if the fuse of one of the pumps burns or if the breaker of one of the pumps trips.

MATERIAL REQUIRED FOR SEWAGE PUMP APPLICATION:

- Desired length of ABS/DWV 2" pipe, to link up from pump discharge to waste or drain existing pipe.
- Required quantities of 2" ABS/DWV elbow (s) and/or other fitting (s) to run the discharge line.
- 1 only 2" male adaptor to 2" slip, to connect the discharge pipe to the pump.
- Desired length of ABS/DWV 3" pipe and required quantities of 3" ABS/DWV elbow (s) and/or other fitting (s) to run the vent line.
- 1 only 2" union check valve # 450457.
- 1 only 18" X 30" minimum size sewage basin like # 400420.
- Teflon tape and ABS cement.

TOOLS:

Screwdrivers, hacksaw to cut pipe, knife to assist in pipe cutting, round file to smooth pipe ends, pipe wrench, adjustable wrench, 1/4" drill bit and drill.

Ensure that you have a gas tight cover for your sewage basin and 3" ABS/DWV vent piping.

NOTICE

This unit have been designed to pump water only. This unit is not designed for applications involving salt water, brine or any other liquids including petroleum products. Use with salt, brine or any other liquids including petroleum products will void the warranty.

APPLICATIONS :

- ❑ This domestic submersible sewage pump is designed and suitable for raw sewage applications where the total head requirements do not exceed 25 or 40 feet, including pipe friction losses.

❑ Capacity :

FRICION LOSS IN
PIPE NOT INCLUDED.

	400416T	400417T
5'	4200 US GPH	5700 US GPH
10'	3300 US GPH	4800 US GPH
15'	2400 US GPH	3900 US GPH
20'	1500 US GPH	3000 US GPH
25'	600 US GPH	2100 US GPH
30'		1100 US GPH
35'		400 US GPH

FEATURES :

- ❑ Rugged cast iron pump body.
- ❑ Stainless steel motor body.
- ❑ Stainless steel mechanical rotary type motor seal.
- ❑ 2" NPT pump discharge.
- ❑ Thermal and overload protection.
- ❑ 3/4HP, 115VAC, 60Hz, 9A, oil filled base.
- ❑ 1HP, 230VAC, 60Hz, 8A, oil filled base.

IMPORTANT NOTICE:

The following are minimum requirements in order to protect your residence from flooding. It is a small investment but it is your personal responsibility to protect your home, family and valuables. Failure to comply with the following requirements will also void your warranty:

- Two (2) pumps have to be installed in the sewage pit. The first pump as a primary pump and the second pump as the backup unit.
- An Alarm system model 450455 has to be installed to advise you of any malfunctions.

Pump selection, proper and adequate installation are a must to comply with local by-laws and need to be adhered to.

INSTALLATION STEPS :

See typical installation diagram in page 4

STEP 1

We recommend that you install your pump and basin in a clean location where there is adequate room for servicing at a later date. Protection from freezing temperatures and good ventilation should be considered as well, to provide the pump an environment for long life. Assuming that you have a sewage pit located in your basement floor... Your pit should be constructed from concrete, brick, tile or more recently a basin made from plastic and/or fiberglass. The minimum size of your sewage pit must be 18" in diameter and no less than 25" deep. When pit is ready, proceed to next step.

Friction losses in the discharge pipe must be taken into consideration when many elbows and fittings are installed in the discharge line. Each elbows and fittings must be considered as 1 feet of head.

Never run the pump dry. Damage to the seal may occur.

The run of the pipe from the check valve to the existing waste or drain line must never be sloping downward except when connecting to same.

STEP 2

For a new installation, install your sewage basin in the excavation you have provided in the basement floor of your home. Connect the necessary piping from your shower trap, toilet, etc., to the inlet of your sewage basin, with the proper pipe and fittings.
(See diagram)

STEP 3

Cut a length of 40" to 42" of 2" ABS/DWV pipe. Cement the 2" male adaptor to 2" slip to one end of this pipe.

SEWAGE PUMP APPLICATION :

STEP 7

Install check valve

STEP 6

Set gas tight cover, discharge and vent pipes

STEP 8

Connect to receptacle

STEP 10

Secure cover and make vent connection

STEP 2

Install sewage basin

STEP 4

Drill a 1/4" hole

STEP 3

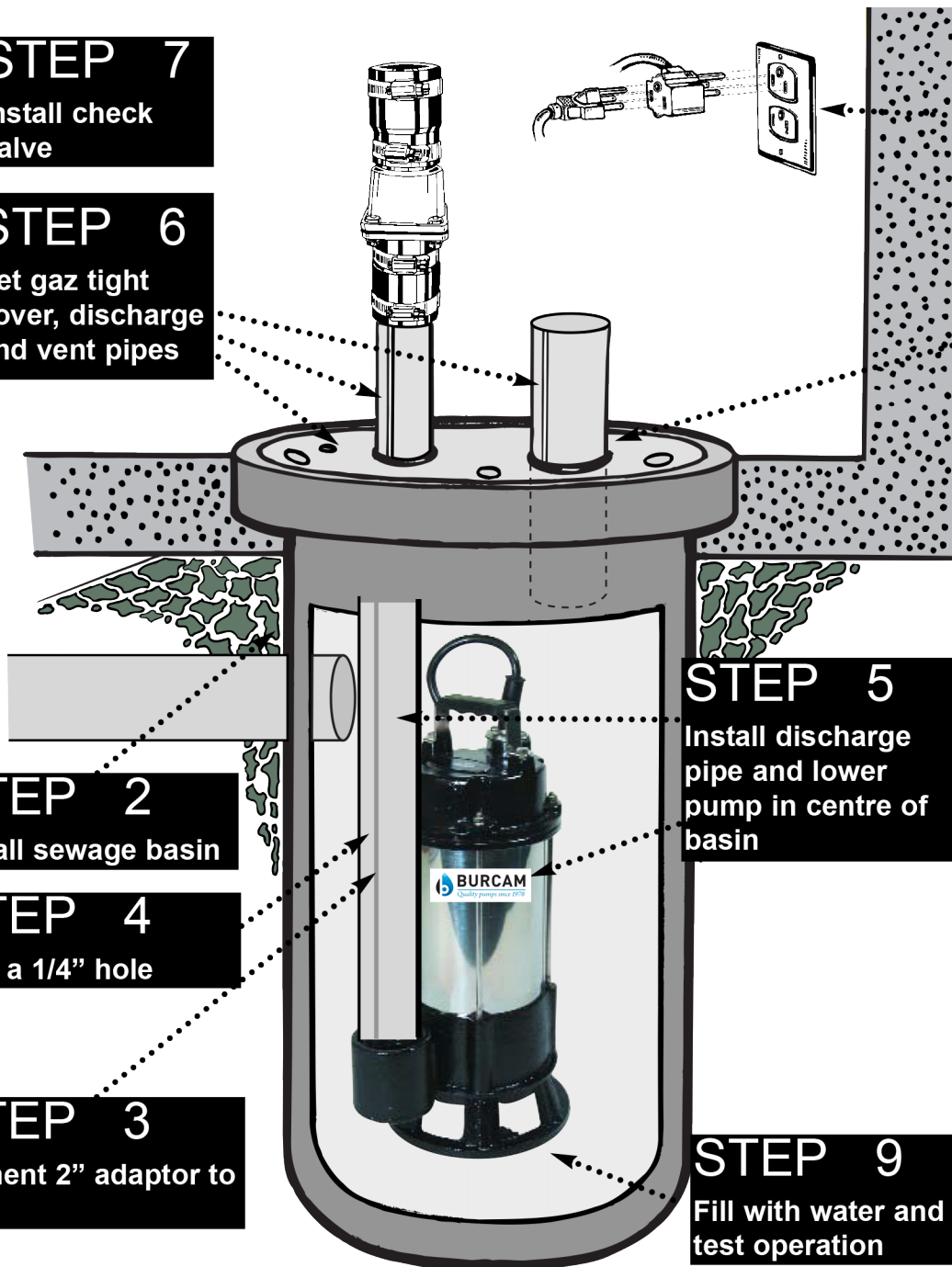
Cement 2" adaptor to pipe

STEP 5

Install discharge pipe and lower pump in centre of basin

STEP 9

Fill with water and test operation

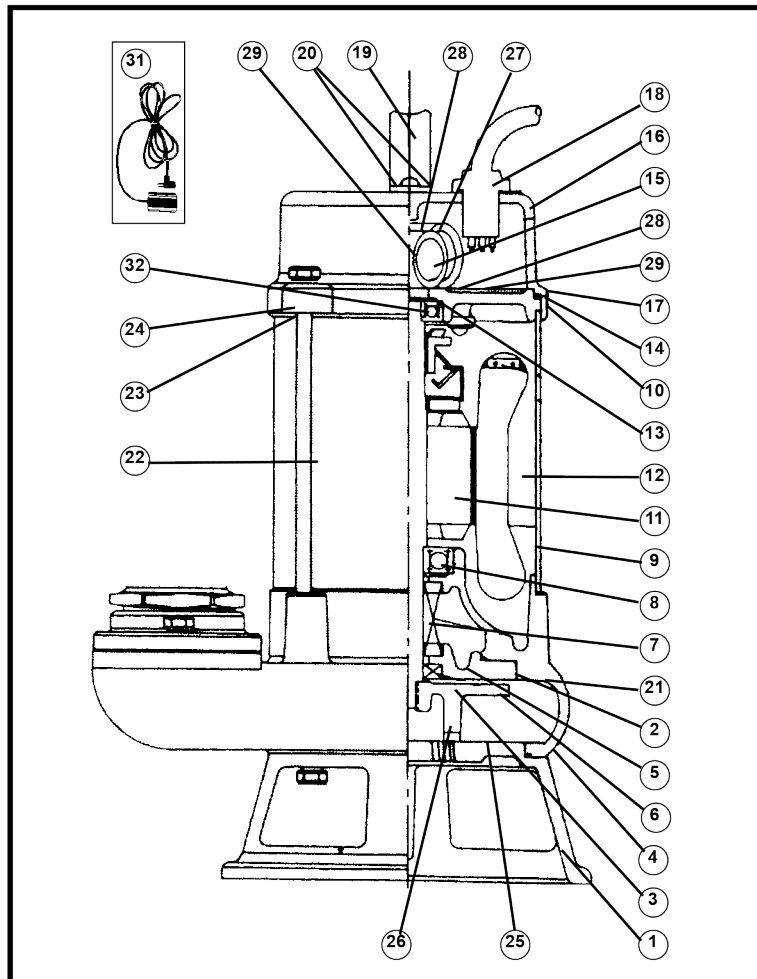


FOR INFORMATION | TEL : 514.337.4415 | FAX : 514.337.4029

REPAIR PARTS

MODEL 400416T

#	ITEM	DESCRIPTION	#	ITEM	DESCRIPTION
1	450331	Strainer	17	450341	Inside cover "O" ring
2	450332	Oil cover "O" ring	18	400446	Power cable
3	400447G	Impeller	19	300487	Handle
4	450333	Pump casing	20	310312	Handle bolts (2)
5	400450	Oil cover	21	450702	Screws (4)
6	400449	Oil seal	22	450020	Long bolts (4)
7	400448	Mechanical seal	23	450021	Head cover nuts (4)
8	506032	Lower bearing	24	450022	Head cover snap rings (4)
9	450335	Motor casing	25	450023	Impeller nut
10	450336	Motor housing "O" rings(2)	26	450026	Plate capacitor screws (2)
11	400453	Rotor shaft	27	450704	Capacitor clamp
12	400454	Stator	28	310310	Capacitor screw clamp
13	506031	Upper bearing	29	450025	Capacitor plate
14	450338	Inside cover	30	450024	Impeller snap ring
15	400451	Capacitor	31	450453	Mechanical switch
16	450340	Head cover	32	450706	Centrifugal switch

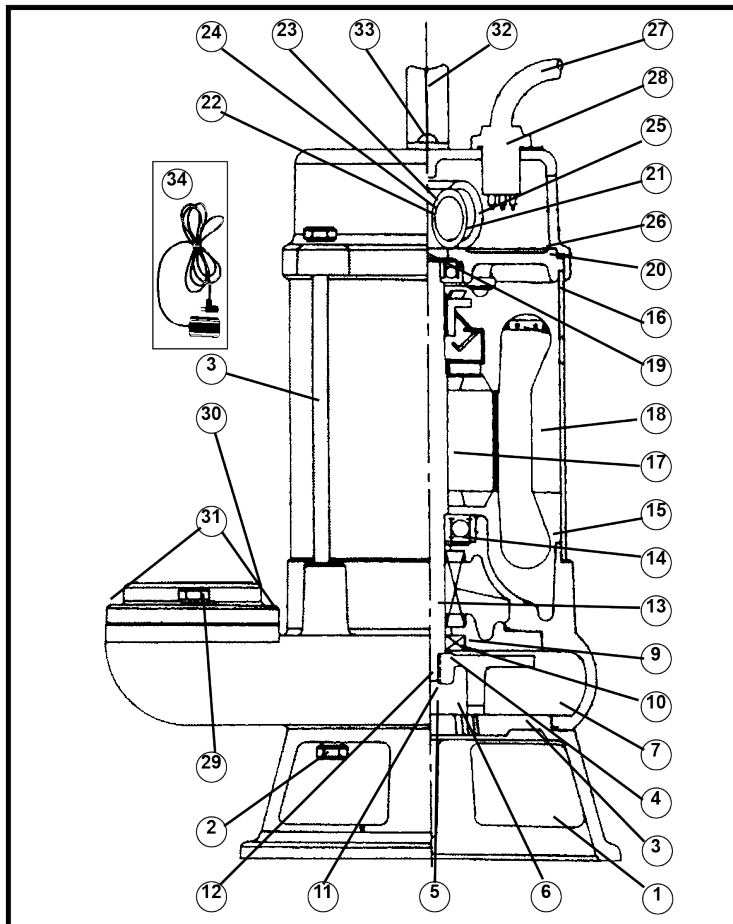


Repair parts may be ordered your authorized point of sale of from
BURCAM PUMPS

REPAIR PARTS

MODEL 400417T

#	ITEM	DESCRIPTION	#	ITEM	DESCRIPTION
1	450345	Strainer	18	400465	Stator
2	450712	Strainer bolts (4)	19	506032	Upper bearing
3	450346	Strainer packaging	20	450352	Inside cover
4	400457G	Impeller	21	400462	Capacitor
5	450709	Impeller nut	22	450707	Capacitor plate
6	450710	Impeller snap ring	23	310309	Capacitor clamp
7	450347	Pump casing	24	310310	Capacitor plate screws (3)
8	450708	Long bolts (4)	25	450353	Head cover
9	400461	Oil cover	26	450354	Head cover packaging
10	400459	Oil seal	27	400456	Power cable
11	450702	Screws (4)	28	450711	Power cable screws (2)
12	450332	Oil cover "O" ring	29	450713	Discharge clamp
13	400458	Mechanical seal	30	450714	Discharge gasket
14	450348	Lower bearing	31	450715	Discharge bolts (2)
15	450349	Motor casing	32	300487	Handle
16	450350	Motor casing "O" ring	33	310312	Handle bolts (2)
17	400464	Rotor shaft	34	450478	Mechanical switch 230V



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TROUBLE SHOOTING GUIDE CHECKLIST :

NEVER MAKE ADJUSTMENTS TO ANY ELECTRICAL APPLIANCE OR PRODUCT WITH THE POWER CONNECTED. DON'T JUST UNSCREW THE FUSE OR TRIP THE BREAKER, REMOVE THE POWER FROM THE RECEPTACLE.

TROUBLE:

PROBABLE CAUSE:

ACTION:

Motor does not run.

Switch is 'OFF' position
Blown fuse
Tripped breaker
Disconnected plug
Corroded plug
Float stuck
Defective switch
Defective motor

Turn switch to 'ON' position
Replace
Reset
Re-install
Clean
Check movement
Replace
Replace

Motor runs but no water is delivered.

Improper voltage
Pump may be airlocked
Pump discharge head too high
Clogged inlet/impeller

Check voltage
Check drilled hole in discharge pipe
Wrong pump selection (over 15')
Clean

Pump does not deliver to full capacity.

Improper voltage
Pump may be airlocked
Pump discharge head too high
Clogged inlet/impeller

Check voltage
Check drilled hole in discharge pipe
Wrong pump selection (over 15')
Clean

Pump does not shut off.

Defective switch
Missing check valve
Clogged check valve in open position
Float obstruction

Replace
Install valve
Clean debris

Check for movement

TO THE END CONSUMER

If you have any problems with the product, before advising the store, where you've purchased the pump, please contact us at **514 337-4415** , and ask for our sales department, and they will be pleased to help you with any questions you might have, concerning your installation.