



# MARCH PUMPS

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## INSTRUCTIONS & REPAIR PARTS FOR MODEL TCP-25 CONDENSATE REMOVAL PUMP



### MODEL TCP-25 RATINGS AND SPECIFICATIONS

MOTOR SPECS				GALLONS PER HOUR					MAX. HEAD	MAX. P.S.I.	INLET HOLE	OUTLET TUBING	PACKED WEIGHT
R.P.M.	H.P.	WATTS	AMPS	1 FT.	6 FT.	12 FT.	18 FT.	24 FT.					
3000	1/20	170	2.1	200	50	30	15	5	26 Ft.	11.3	1"	¼" O.D.	9 LBS.

**LOCATION:** Model TCP-25 is designed to mount BELOW the evaporator pan. It is preferable to mount pump as close to drip pan as possible to minimize actual lift and to clear components usually found on floor of most A.C. units. Pump can be mounted on the floor.

**APPLICATION:** Used on all medium and larger tonnage A.C. and refrigeration equipment. Where drip pan space is not adequate for coil deluges, a sump pump overcomes this and increases effective available reservoir. The March OVER SIZE SUMP plus LONG OPERATING CYCLE, plus LARGE PUMP CAPACITY means you have more AVAILABLE SUMP SPACE. March AIR BLEED means we pump down lower, have a longer ON CYCLE and do not go into HIGH SAFETY, while the compressor is shut off and water level is lowered. Sump holds 2 gallons. The pump is also ideal for multiple coil hook-ups where two or more evaporators drain into a common sump. To use with multiple refrigerated display cases, drain all units into pump through a common line. March inlet is only 6 3/8" off the floor.

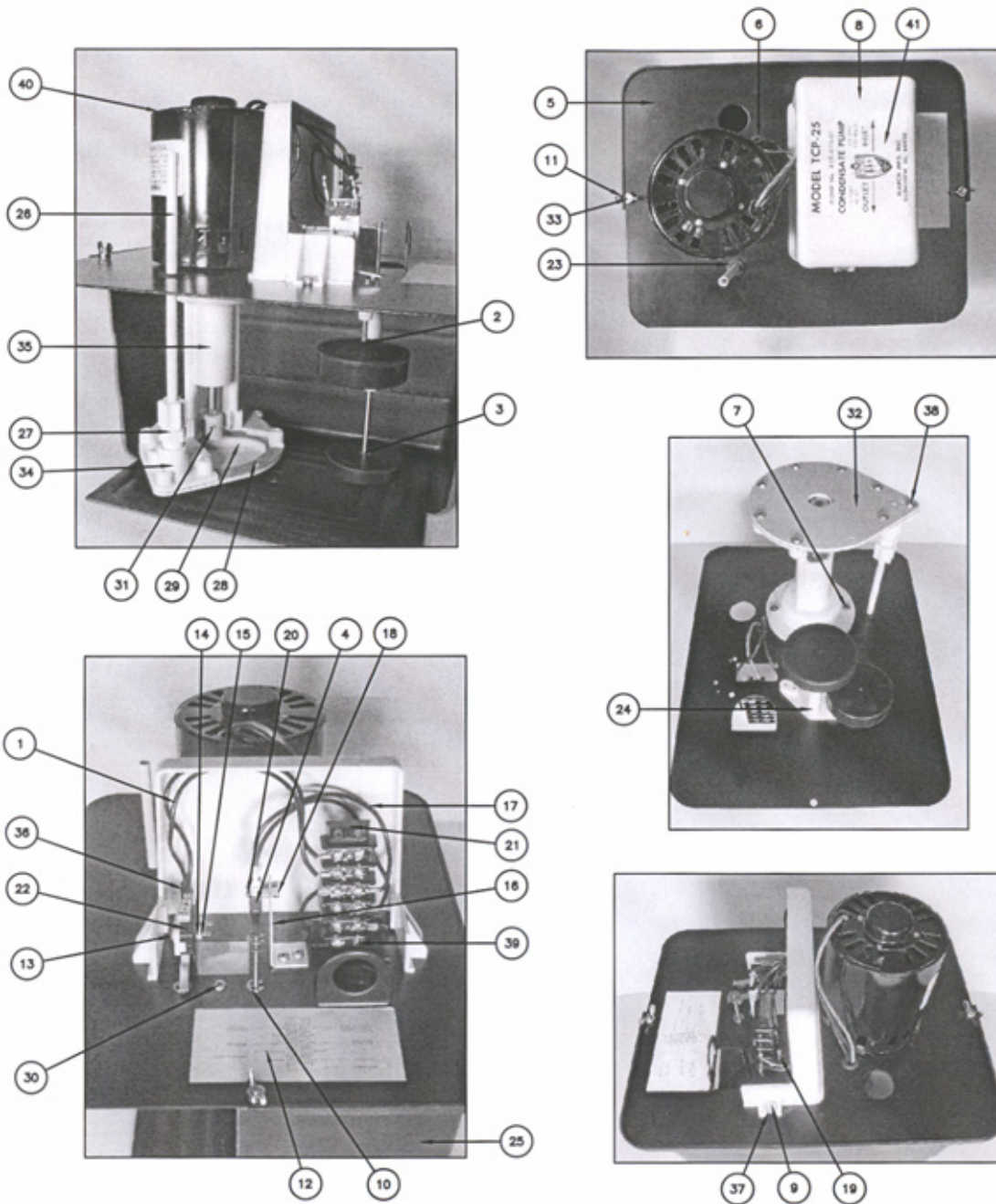
**Piping:** Model TCP-25 INLET is on top cover. INLET is a 1" diameter hole to facilitate gravity flow from drip pan to pump. Use at least ½" C.T. or larger for best result on INLET. On OUTLET, you get the benefit of pump pressure, so ¼" copper tubing discharge line is more than adequate for heaviest tonnages. To get full rated lift and capacity use only ¼" copper tubing or equivalent. Also ¼" tubing is more economical, handles better, is disguised more easily and runs along baseboard or molding, doorways, partitions, etc. and gives less line drain-back. It is important to go to your highest vertical point as closely above pump as possible and then install horizontal run lines. All horizontal lines should be slanted slightly downwards toward drain or disposal area in order to prevent line drain-back into pump after it goes "OFF." If impractical to do this, make an inverted "U" trap directly over pump to prevent back-syphoning. Slight amount of drain-back from vertical column is not enough with ¼" copper tubing to "short-cycle" the pump. MODEL TCP-25 MAXIMUM LIFT is 26 vertical feet measured from pump impeller. For capacities at given lift and run see Rating Chart.

**ELECTRICAL AND OPERATION:** Remove the 2 self tapping screws holding down the Top Cover and lift the Cover to the side. The Model TCP-25 Pump is equipped with a BX Bracket and a 5 station Terminal Board. The complete wiring diagram is attached to the galvanized Sump Cover in front of the BX Bracket. Attach rigid or flexible conduit and wire the 115 volt A.C. line as per the wiring diagram. The 115 volt line current will operate the Motor-Pump-Float combination.

The Safety Switch must be connected to a 24 volt A.C. power source as per the wiring diagram. The Safety Float will operate independently of the Motor-Pump-Float combination. If the Pump should fail to operate for any reason, the water will eventually trip the Safety Float and cause the Air Conditioning unit to shut off. This will prevent additional water from collecting and overflowing the container.

The motor is also available in 230 Volt, 1 Phase, 60 cycle. All motors are equipped with an automatic reset type thermal protector and the combination is U.L. listed.

**SERVICING:** The motor on Model TCP-25 is fan cooled and moisture proof. To clean the impeller cavity, especially after standing during "OFF-SEASON," remove top mounting plate studs, lift pump assembly out of sump and remove bottom impeller plate. Scrape clean, then visually check impeller clearances for free-turning. Float rods should be cleaned. Always replace cover on pump.



MODEL TCP-25 PARTS LIST			
ITEM	DESCRIPTION	QTY	PART NUMBER
1	Lead wire 18Ga (Black) 6"Lg	2	0415-0033-0100
2	Float & Rod Assy (used with Safety Switch)	1	0415-0029-0100
3	Float & Rod Assy (used with Micro Switch)	1	0415-0004-0100
4	Switch (High Voltage)	1	0618-0043-1100
5	Plate (Mtg)	1	0415-0010-1000
6	Grommet 9/32"ID x 19/32"OD	1	0410-0045-1000
7	Nut (Hex) #10-32	4	0802-0008-1000
8	Cover (Switch)	1	0415-0016-1000
9	Screw (Thd-Forming) #6-20 x 1/4"Lg	2	0620-0021-1000
10	Float E-Ring	3	0410-0007-1000
11	Nut (Wing) #10-32	2	0802-0009-1000
12	Label (Connection)	1	0415-0001-1000
13	Screw (Round Hd) #4-40 x 3/4"Lg	2	0618-0026-1000
14	Lockwasher (Int. Tooth) #4	2	0410-0034-1000
15	Nut (Hex) #4-40	2	0618-0024-1000
16	Bracket (Mtg) for Micro Switch	1	0415-0056-1000
17	Lead Wire 18Ga (Black) 4"Lg	2	0618-0052-0100
18	Spacer (3/16"Hex)	4	0618-0122-1000
19	Nut (Hex) #8-32	2	0410-0039-1000
20	Screw (Round Hd) #2-56 x 5/8"Lg	2	0618-0086-1000
21	Terminal Block (5 Pole)	1	0415-0012-1000
22	Switch (Safety)	1	0415-0026-1000
23	Grommet 1/4"ID x 5/8"OD	1	0415-0008-1000
24	Float Switch Guide	1	0415-0011-1000
25	Pump Reservoir	1	0415-0017-1000
26	Tube (Rigid Plastic)	1	0415-0003-0000
27	Tubing Connector	1	0415-0041-1000
28	Gasket (Pump Hsg)	1	0625-0007-1000
29	Impeller	1	0625-0001-1000
30	Screw (Thd-Forming) #8-18 x 1/2"Lg	3	0410-0078-1000
31	Screw (Skt Set) #10-32 x 3/16"Lg	1	0625-0006-1000
32	Cover (Pump Hsg)	1	0625-0013-1000
33	Screw (Round Hd) #10-32 x 3/8"Lg	2	0620-0002-1000
34	Pump Housing	1	0625-0002-1000
35	Bracket (Pump Connecting)	1	0625-0025-1000
36	Tubing (Shrinkable)	1	0618-0059-0000
37	Washer (Flat) #8	2	0858-0004-1000
38	Screw (Thd-Forming) #7-19 x 1/2" Lg	11	0410-0079-1000
39	Screw (Round Hd) #8-32 x 11/16"Lg	2	0618-0101-1000
40	Motor & Terminal Assy 115V	1	0415-0021-0100
41	Label (Pump)	1	0415-0005-1000

Contact Factory for other materials and/or parts not listed.

## LIMITED WARRANTY

March pumps are guaranteed only against defects in workmanship or materials for a period of one year from date of manufacture pumping water. See March limited warranty statement on card #0410-0104-1000 packed with this pump.

0415-0025-1000 R10