DEPENDABLE TANKMASTERS SINCE 1948

ELEVATED TANK OR BOOSTER PUMP CONTROL

Tankmasters are pressure sensing controls with high and low set points for control of liquid level in elevated storage tanks, standpipes or other vessels. Tankmasters may also be used anywhere in a system to maintain local pressure. Time delays before operation assure surge and backspin protection. The control also assure staggered re-starting in case of line failure. Any Tankmaster can be used as a transmitter to control a remote pump.

FOR PRESSURE TAP ON PUMPING MAIN



CT1 One pump controller. Pressure switch model, with start and stop settings on calibrated pressure switch scales. Time delays before operation are adjustable. Start and stop "Call For" lights above each timer. Shown with $4 \frac{1}{2}$ " gauge, and shutoff and bleed option.

FOR PRESSURE TAP AT BASE OF ELEVATED TANK



ST2A Two pump static pressure control has 3 pressure switches. lead start, lag start and high common stop. Pumps automatically alternate. Adjustable time delays before each operation. Shown with 4 $\frac{1}{2}$ pressure gauge option.

DESCRIPTIVE SPECIFICATIONS



CT1 MODEL TANKMASTER

There shall be furnished and installed, as indicated in the plans, a pressure sensor assembly having two calibrated sensors, one for start and one for stop. The PSI scale on the start sensors shall be adjusted for correct pointer settings for falling pressure and stop pressure sensors calibrated for rising pressure. Field adjustable timers having a delay range of 0-300 seconds, will delay the action of the sensors. Full surge,

backspin, line failure protection, pumping friction compensation and staggered starting of multiple pumps shall be incorporated into the design. Provide a 4 1/2" pressure gauge visible through the front door, with a dual range of 0-100psi/230ft. The pressure gauge and pressure sensors shall be connected together and provide shutoff and bleed valves. The equipment shall be a Master Level Controls Co. model CT1-275-1 Tankmaster, NEMA 1 (or 3R) enclosure. Control voltage 120VAC (or 230VAC). Control shall have a pressure range of 0-100PSI (or 4, 9, 18, 36, 60, 200psi).



ST MODEL TANKMASTER

There shall be furnished and installed, as indicated in the pressure sensor plans, а assembly having three calibrated sensors, one for lead start, one for lag start, and one for common stop. The PSI scale on the start sensors shall be adjusted for correct pointer settings for falling pressure and

stop pressure sensors calibrated for rising pressure. Field adjustable timers having a delay range of 0-300 seconds, will delay the action of the sensors. Full surge, backspin, line failure protection, pumping friction compensation and staggered starting of multiple pumps shall be incorporated into the design. The ST2A Tankmaster shall provide for two pump alternation. A new lead pump is selected for the next pumping cycle. If the lead pump fails to meet demand, then the lag pump shall be switched on. Provide a 4 1/2" pressure gauge visible through the front door, with a dual range of 0-100psi/230ft. The equipment shall be a Master Level Controls Co. model ST2A-267-1 Tankmaster, NEMA 1 (or 3R) enclosure. Control voltage 120VAC (or 230VAC). Control shall have a pressure range of 0-100PSI (or 4, 9, 18, 36, 60, 200psi).

DESCRIPTIVE SPECIFICATIONS



CT2 MODEL TANKMASTER WITH A2 ALTERNATOR

There shall be furnished and installed, as indicated in the plans, a pressure sensor assembly to control two pumps. Provide start and stop calibrated pressure sensors for the lead pump and the lag pump. The PSI scale on the start sensors shall be adjusted for correct pointer settings for falling pressure and stop pressure sensors calibrated for rising pressure. Field adjustable timers having a delay range of 0-300 seconds, will delay the action of the sensors. Full surge, backspin, line failure protection, pumping friction compensation and staggered starting of multiple pumps shall be incorporated into the design. The A2 Alternator shall provide for two pump automatic alternation. A new lead pump shall be started for each pumping cycle. If the lead pump fails to meet demand, then the lag pump shall be switched on with the lag pressure assembly. The Alternator shall have a operator lead select override switch for 1-2, 2-1, ALT operation. Provide a 4 1/2" pressure gauge visible through the front door, with a dual range of 0-100psi/230ft. The pressure gauge and pressure sensors shall be connected together and provide shutoff and bleed valves. The equipment shall be a Master Level Controls Co. model CT2-275-1 Tankmaster with the A2 Alternator, NEMA 1 (or 3R) enclosure. Control voltage 120VAC (or 230VAC). Control shall have a pressure range of 0-100PSI (or 4, 9, 18, 36, 60, 200psi).

OPERATION AND SELECTION

For proper operation the controller should be located on the tank side of the distribution system. Location is most important when the pressure connection is used to keep an elevated tank full. The Tankmaster is a pressure operated control, therefore the point where the control is connected to the main must reflect true elevation of the tank. The Tankmaster can be any distance away from the elevated tank but only if there are no draw offs between the control and the tank. Varying draw off between the control and the tank would make it impossible to set the high shutoff and the tank will overflow at unpredictable times.

CONTROL LOCATION ON THE TANK SIDE OF ALL DISTRIBUTION



DISTRIBUTION BETWEEN PUMP HOUSE AND TANK



The control at this pump house will not always be reading true elevation of the tank. If draw off on the main occurred while the pump was operating the tank would overflow. There are 2 possible remedies: Install the control at the tank and run a phone or private pair of wires to the pump house. At the pump house use a remote control receiver to start and stop the pump. If a wired system is not practical then use an altitude valve at the base of the tank, and place the Tankmaster in the pump house.

OPERATION AND SELECTION

With multiple well pumps the control at the tank site would sense tank elevation and keep the tank full. Controls located at remote pump sites would then supply local pressure needs with the excess going to the tank. When controlling multiple pumps and alternation is required, then locate a Tankmaster at the tank site, and a remote control receiver at each pump site. If the pumping friction varies between the local pump and any of the remote pumps, then locate the Tankmaster on the tank riser.

MULTIPLE WELL PUMP SITES



LOCATION OF PRESSURE TAP

The location of the sensor connection on the water main must measure the elevation of the water above the control. It is very important for proper operation of the control system and so it deserves careful study of your piping layout. Use special caution if there are any pressure tap in or draw off between the Tankmaster control and the base of the tank.

BOOSTER PUMPS WITH COMMON DISCHARGE

Several Pumps close together with a common discharge cannot be controlled with a single pump Tankmaster control. Two booster pumps must have a (2) pump Tankmaster, three pumps must have a (3) pump Tankmaster. The pumping friction varies with the number of pumps operating and multiple pump Tankmasters automatically compensate for this varying pumping friction.

CONTROL ELEVATED TANK OR GROUND STORAGE TANK LEVEL

Level in any reservoir, storage tank or standpipe can be controlled by pressure if the level to be measured is above the control. The level sensors are available in a wide range of pressures, from 4psi up to 200psi.

TANKMASTER CONTROLS

PRESSURE SWITCH MODELS

Pressure Switch Range 4, 9, 18, 36, 60, 100, 200 PSI.

MODEL NO.	DESCRIPTION	VOLTAGE	PRICE
CT1-275-1	Tankmaster Control for 1 Pump, Nema 1 Enclosure, 120v/230v Starter Coil, Specify Pressure Range.	120V	
CT1-275-2	Tankmaster Control for 1 Pump, Nema 1 Enclosure, 120v/230v Starter Coil, Specify Pressure Range.	230V	
CT2-275-1	Tankmaster Control for 2 Pumps, Nema 1 Enclosure, 120v/230v Starter Coil, Specify Pressure Range.	120V	
CT2-275-2	Tankmaster Control for 2 Pumps, Nema 1 Enclosure, 120v/230v Starter Coil, Specify Pressure Range.	230V	
ST2-266-1	Tankmaster Control for 2 Pumps, with Common Stop, 120v/230v Starter Coil, Specify Pressure Range.	120V	
ST2A-267-1	Tankmaster Control for 2 Pumps, with Alternator, Common Stop, 120v/230v Starter Coil, Specify Pressure Range.	120V r	
ST3-268-1	Tankmaster Control for 3 Pumps, Nema 1	120V	
ACCESSORIES MOST USED			
CB-LP PA-503 SBV SNUB R-123 A2 HS-100 INSUL Nema 3R Nema 3R Nema Win	Control Breaker and Lightning Protection 4 ¹ / ₂ " Pressure Gauge, 0-100PSI/230FT, Visible Thru Door Shutoff and Bleed Valves Pressure Snubber Phone Line Arrester 2 Pump Alternator, with Override Switch Heater and Stat, 100 Watt with Adjustable Stat 200 Watt Heater and Adj. Stat, Insulated with ³ / ₄ " Beadboard Nema 3R Enclosure for CT1, 14" x 16" Nema 3R Enclosure for CT2, ST2, ST2A, 20" x 20" Nema Rated Window Kit with 4 ¹ / ₂ " Pressure Gauge		

All Prices Subject To Change Without Notice

F.O.B. Rogers, MN

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