

TYPE  
.....  
**VCL**

**CONDENSATION RETURN UNITS**



Condensate return units. 1/4 to 1 1/2HP.  
10, 15, and 30 gallon cast iron receivers.

**HIGHLIGHTS**

-  Cast Iron or Steel Receivers
-  3450 or 1750 RPM Operation
-  To 20,000 sq. ft. E.D.R.
-  To 50 psi Discharge Pressure
-  Completely Assembled
-  Controls Mounted & Wired

## FEATURES

**RECEIVER:** Low inlet type receivers are of heavy, close grained cast iron construction. No foundation bolts are required. May be installed in shallow pits or on floor level.

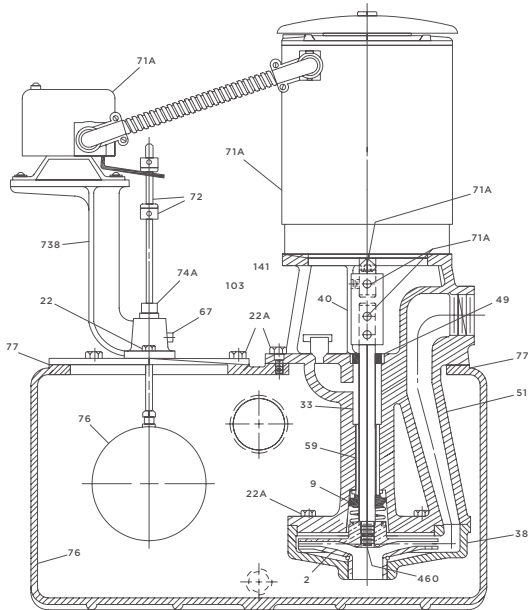
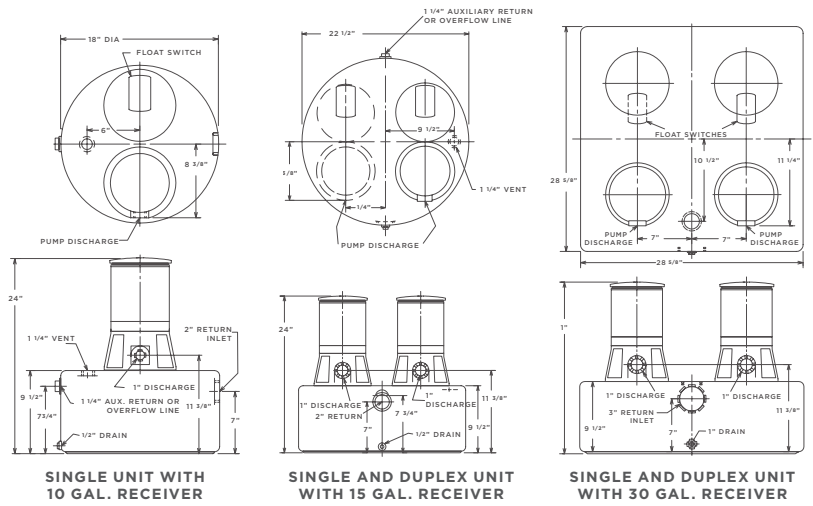
**MOTORS:** Single phase, 3450 RPM, 115/230v. capacitor type motors have built-in overload protection. Three phase, 208-230/460v. motors are furnished with magnetic starters (mounted and wired on unit), with overload relays for motor protection.

**FLOAT SWITCH:** Enclosed, automatic float switches with adjustable float travel and seamless copper float furnished for each motor.

**PUMP:** Bronze fitted centrifugal pump design assures long operating life without parts replacement or loss of pumping efficiency, by eliminating close clearance moving parts. Stainless steel shafts, bronze guide bearing protected by mechanical shaft seal, and single piece construction insures vibrationless operation.

**Single Unit** consists of one receiver, one pump and motor unit and one float switch (plus one magnetic starter for three phase units).

**Duplex Unit** consists of one receiver, two pump and motor units and two float switches (plus two magnetic starters for three phase units). An automatic alternating float switch can be furnished on Duplex Units in place of the two standard float switches.



### Parts List

Part No.	Part Name	Part Req'd	Material
2	Impeller	1	Bronze
9	Mechanical Shaft Seal	1	Various
22	Cap Screw	2	Steel
22a	Cap Screw	10	Steel
22d	Cap Screw	2	Steel
33	Shaft	1	St. St.
38	Suction Plate	1	Cast Iron
40	Coupling	1	Steel
46b	Set Screw	4	Steel
46d	Impeller Set Screw	1	Steel
49	Shaft Seal	1	Various
51	Casing Assembly	1	Cast Iron
59	Lower Bearing	1	Bronze
67	Set Screw	1	Steel
71a	Float Switch	1	Various
72	Float Rod And Stops	Set	St. St.
73b	Float Switch Pedestal	1	Cast Iron
74a	Stuffing Box & Guide Pipe	Set	Various
75	Float	1	St. St.
76	Receiver	1	C.I. Or St.
77	Gasket	2	Rubber
103	Cover	1	Cast Iron
110	Motor	1	Various
141	Oil Cup	1	Steel

Selection Table								
Unit No.	Max. Sq. Ft. Direct Radiation	Equiv. Boiler H.P.	Radiation will Condense G.P.M.	Pump Capacity G.P.M.	Disch. Press. at Pump Psi	Motor H.P. 3450 R.P.M.	Receiver Gal. Single	Receiver Gal. Duplex
VCL-110					10	0.33		
VCL-120					20	0.33		
VCL-130	1000	7.2	0.5	1.5	30	0.75	10	15
VCL-140					40	1		
VCL-150					50	1.5		
VCL-210					10	0.33		
VCL-220					20	0.33		
VCL-230	2000	14.5	1	3	30	0.75	10	15
VCL-240					40	1		
VCL-250					50	1.5		
VCL-410					10	0.33		
VCL-420					20	0.33		
VCL-430	4000	29	2	6	30	0.75	10	15
VCL-440					40	1		
VCL-450					50	1.5		
VCL-610					10	0.33		
VCL-620					20	0.33		
VCL-630	6000	43	3	9	30	0.75		15
VCL-640					40	1		
VCL-650					50	1.5		
VCL-810					10	0.33		
VCL-820					20	0.33		
VCL-830	8000	58	4	12	30	0.75		15
VCL-840					40	1		
VCL-850					50	1.5		
VCL-1010					10	0.33		
VCL-1020					20	0.33		
VCL-1030	10000	72	5	15	30	0.75		15
VCL-1040					40	1		
VCL-1050					50	1.5		
VCL-1510					10	0.33		
VCL-1520	15000	108	7.5	22.5	20	0.5		30
VCL-1530					30	0.75		
VCL-1540					40	1		
VCL-2010					10	0.33		
VCL-2020	20000	144	10	30	20	0.75		30
VCL-2030					30	1		
VCL-2040					40	1.5		

## MODIFICATIONS LIST

**COMBINATION STARTERS** with non-fusible or fusible disconnect switches or with circuit breakers; other special starters.

**A MECHANICAL ALTERNATING FLOAT SWITCH** instead of standard float switches for duplex units to automatically alternate cycles of operation as well as starting the second pump for extra capacity under peak load conditions.

**AUTOMATIC ELECTRICAL ALTERNATOR**, which performs the same function as the mechanical alternator.

Type VCL condensation return unit can be furnished as a type VCL-BF AUTOMATIC BOILER FEED UNIT by substituting cold water make-up valve assembly for float switch and actuating pump motor by a boiler water level controller.

Motors, switches, starters and interconnecting wiring for locations requiring WATERTIGHT, EXPLOSION-PROOF or other special equipment.



ADDRESS: 1144 Utica Avenue, Brooklyn, NY 11203 TEL: (718) 451-2000 URL: federalpumps.com