WEINMAN®

Series 900 & 910

Condensate Return Pumps

Condensate Return Units - Cast Iron & Fabricated Steel Types ACV, ADV, AEV and AFV

Cast Iron
up to 50,000 sq. ft. EDR
pressures to 100 PSI

Fabricated Steel
up to 100,000 sq. ft. EDR
pressures to 100 PSI

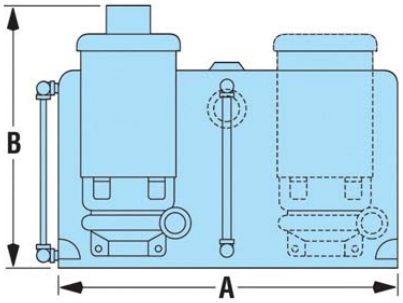
Weinman Condensate Return Units are designed for the automatic return of hot water condensation from radiators and heating coils and the delivery of those fluids to low and high pressure boilers.

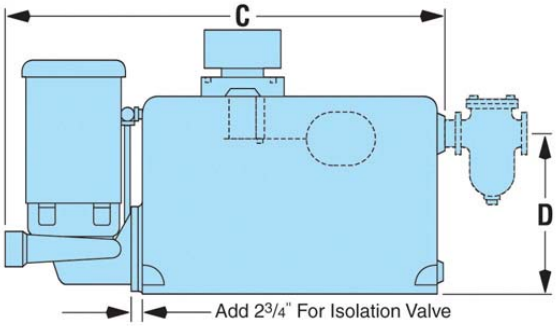
Cast Iron Duplex Unit

Fabricated Steel Duplex Unit

Weinman Condensate Return Pumps

Dimensions





Dimension in inches (mm)

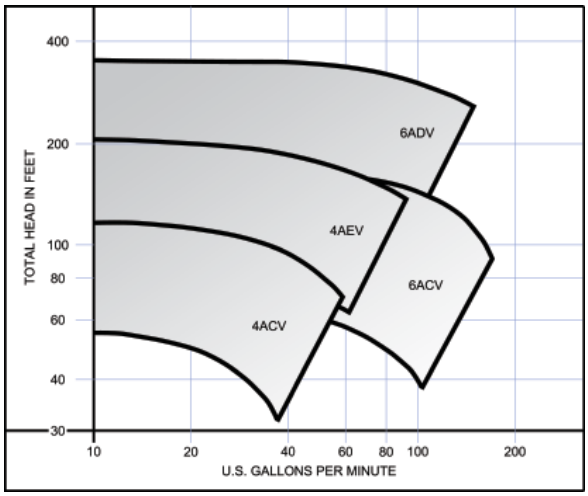
Receiver Size Gallons	4 ACV				4 AEV				6 ACV				6 ADV				6 AFV			
	A	B	C●	D	A	B	C●	D	A	B	C●	D	A	B	C●	D	A	B	C●	D
20C	24	19¼	27¼	10	24	23½	29	10	24	27	29	10	24	27	30¾	10	24*	28¾*	34*	10*
30C	24	19¼	36	10	24	23½	37¾	10	24	27	37¾	10	24	27	39½	10	24*	28¾*	42¾*	10*
45C	36	19¾	35½	10	36	23½	37¼	10	36	27	37¼	10	36	27	39	10	36	28¾	42¼	10
67C	36	19¾	46½	10	36	23½	48¼	10	36	27	48¼	10	36	27	50	10	36	23¾	53¼	10

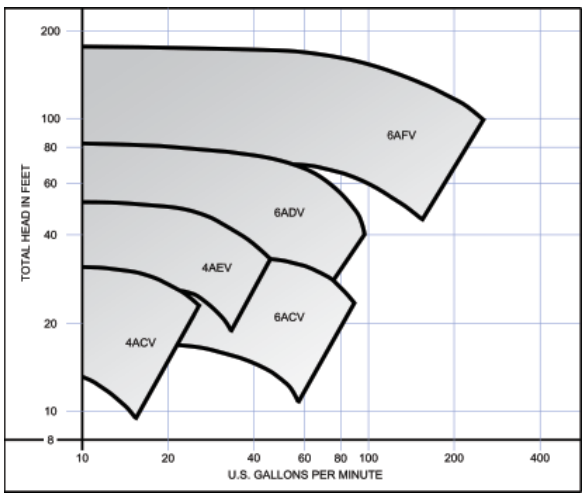
Dimensions approximate. Not for construction. *** Simplex units only in this size.** **● Without Isolation Valve**

Receiver Size Gallons	4 ACV				4 AEV				6 ACV				6 ADV				6 AFV			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
6S	16⅞	14 9/16	22½	-	16⅞	14 9/16	24¼	-	16⅞	14 9/16	24¼	-	16⅞	14 9/16	26	-	16⅞	14 9/16	29¼	-
10S	24¾	14⅝	22⅛	-	24¾	14⅝	23⅞	-	24¾	14⅝	23⅞	-	24¾	14⅝	25⅝	-	24¾	14⅝	28⅞	-
20S	27	18¼	26⅜	10	27	23⅝	28⅛	10	27	23⅝	28⅛	10	27	27⅛	29⅞	10	27	28⅞	33⅛	10
30S	27	18¼	34½	10	27	23⅝	36¼	10	27	23⅝	36¼	10	27	27⅛	38	10	27	28⅞	41¼	10
45S	33	18¼	40⅝	10	33	23⅝	43⅜	10	33	23⅝	42⅜	10	33	27⅛	44⅛	10	33	28⅞	47⅜	10
60S	39	18¼	43⅝	10	39	23⅝	45⅜	10	39	23⅝	45⅜	10	39	27⅛	47⅛	10	39	28⅞	50⅜	10
80S	39	21½	46⅞	12½	39	23⅝	48⅝	12½	39	23⅝	48⅝	12½	39	27⅛	50⅜	12½	39	28⅞	53⅝	12½
100S	39	21½	52⅞	13½	39	23⅝	54⅝	13½	39	23⅝	54⅝	13½	39	27⅛	56⅜	13½	39	28⅞	59⅝	13½
125S	39	26½	52⅞	17½	39	26½	54⅝	17½	39	26½	54⅝	17½	39	27⅛	56⅜	17½	39	28⅞	59⅝	17½
150S	39	26½	58⅞	17½	39	26½	60⅝	17½	39	26½	60⅝	17½	39	27⅛	62⅜	17½	39	28⅞	65⅝	17½
200S	45	30	59⅛	20½	45	30	60⅞	20½	45	30	60⅞	20½	45	30	62⅝	20½	45	30	65⅞	20½

Dimensions approximate. Not for construction. Isolation valves between receiver and pump flange are available.

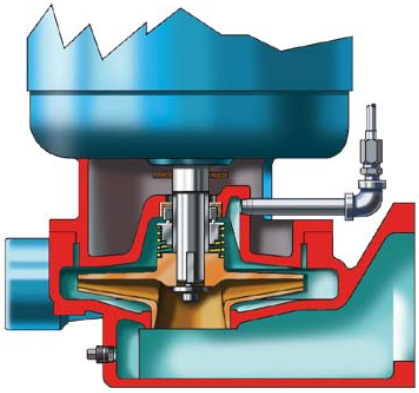
Performance Curves



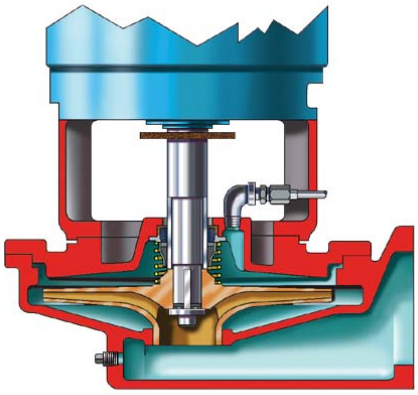


Descriptions

Type ACV and AEV Pump
(Type 4AEV and 6ACV Pump with 3 HP and larger motors)



Type ADV and AFV Pump
(Type 6ADV and 6AFV Pump, All Motor Sizes)



Pump can be removed from casing without disturbing piping connections

Mounting: Whether used as condensate return or boiler feed units, types ACV, ADV, AEV and AFV pumps are mounted vertically for two reasons.

1. For proper motor elevation to eliminate danger of submergence if floor or pit is flooded.
2. To provide a low level suction inlet so that the impeller is sufficiently submerged even with minimum water level in the receiver - an important requirement in the handling of hot water.

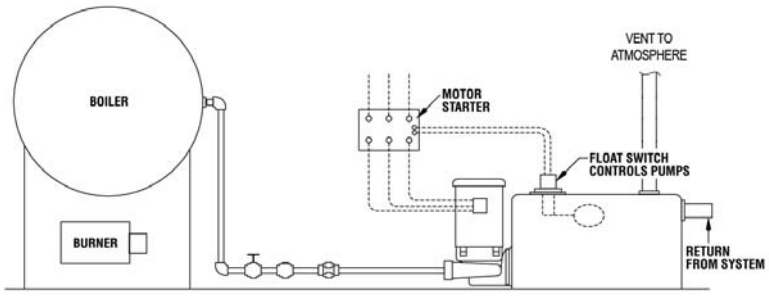
Pump: Sized for three times the normal required capacity in order to handle the abnormal rate of condensation resulting from starting a cold system. They have bronze impellers and are equipped with a mechanical shaft seal.

Strainer: Can be supplied when specified. Units use basket-type strainers also mounted on the receiver inlet connection. The basket can be removed for cleaning without taking the whole unit out of service.

Operation of Condensate Return and Boiler Feed Units

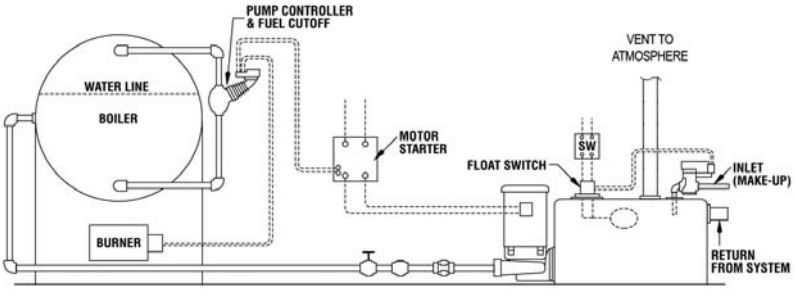
Condensate Return Units

Operation:
The condensate pump is operated by a float switch in the condensate tank. As water is returned from the system, it is pumped to the boiler by the condensate pump.



Boiler Feed Units

Operation:
Circuit I. McDonnell Miller No. 150 Boiler Level Controller operates the pump feeding water to the boiler as required by the boiler.
Circuit II. Float Switch mounted in the condensate tank operates a solenoid in the solenoid valve (McDonnell Miller No. 101) adding water to the condensate tank as required.



WEINMAN®
Series 900 & 910

Features

Weinman Types ACV, ADV, AEV and AFV Simplex and Duplex style Condensate Return Units are designed for automatic return of hot water condensation from radiators, coils, etc., to low and high pressure boilers, or for return of water and other liquids to the overhead tanks of industrial gravity circulating systems.

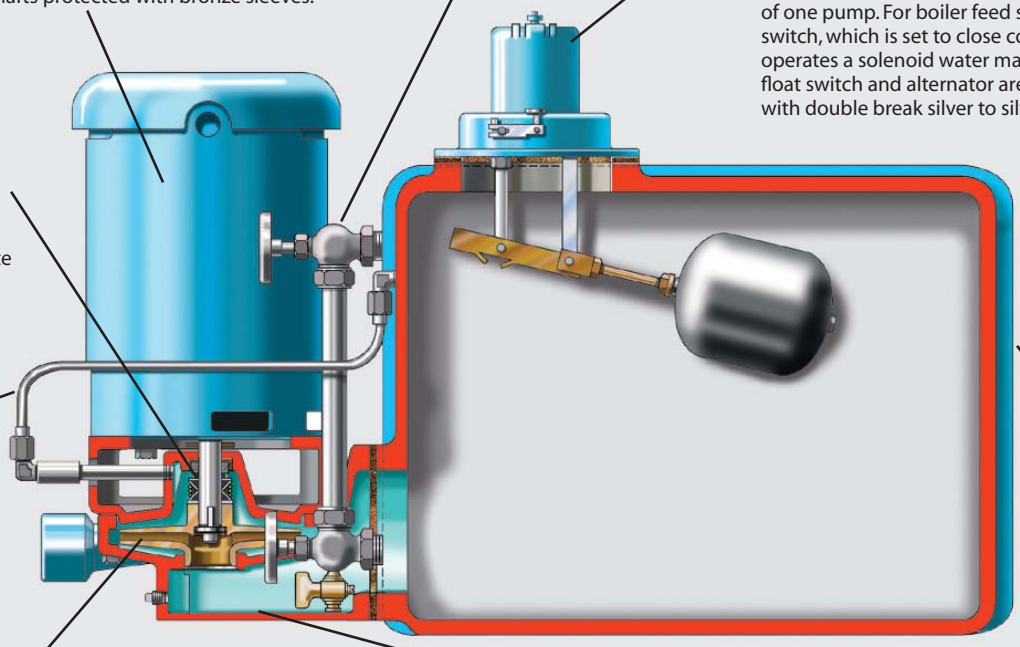
All units are shipped complete, ready for fast, easy installation into any system and they are precision engineered for heavy, continuous service in handling water up to 200°F.

The Duplex Unit is designed for systems having extra heavy loads of condensate or other liquid return, or where a stand-by-pump is required.

Both Simplex and Duplex Units can be converted into a boiler feed unit by the addition of a solenoid operated make-up valve.

Isolation valves between receiver and pump flange are available.

Types ACV & AEV and Types 4ACV, 4AEV & 6ACV with 2 HP and Smaller motors



Motors are drip proof construction with canopy cover and are available for either single or three phase current. Smaller motors have stainless steel shafts while larger motors have alloy steel shafts protected with bronze sleeves.

Water Gauge is a standard feature.

Float Switch - Simplex units have a float switch to start the pump on high level and stop it on low level. Duplex units have mechanical alternator for alternating the pumps and to start second pump if first one fails or when flow rate exceeds capability of one pump. For boiler feed service the float switch, which is set to close contacts at low level, operates a solenoid water make-up valve. Both the float switch and alternator are two pole devices with double break silver to silver contacts.

Mechanical Seal, which is designed especially for this service, provides leak less operation through the full range of condensate temperatures and pump pressures.

Seal Piping insures continuous venting of and positive water circulation through the seal cavity.

Receiver is cast iron with low return inlet to provide adequate drainage of radiators with low elevation. Through 30-gallon size the receivers have ⅜" wall while the 45-gallon units have ½" wall.

Impeller is a one-piece bronze casting made by the shell mold process, which produces extremely smooth water passages and resulting optimum performance. It is keyed to the shaft and held in place with stainless steel washer and self locking impeller screw.

Casing is of cast iron with top pull-out feature permitting servicing of pump without disturbing pipe connections. It provides the lowest possible location of the impeller insuring against air or vapor binding of the pump, even with the lowest water level in the receiver.

CRANE®
PUMPS & SYSTEMS
A Crane Co. Company

Crane Pumps & Systems
420 Third Street
Piqua, Ohio 45356
(937) 778-8947
Fax (937) 773-7157
www.cranepumps.com

Crane Pumps & Systems Canada
83 West Drive
Brampton, Ont. Canada L6T 2J6
(905) 457-6223
Fax (905) 457-2650

Member of Hydraulic Institute

W900-910BRO - 1/11
Crane Pumps & Systems®
Printed in U.S.A.