

### Features of the Improved WATCHMAN

- Up to 30 psig discharge
- Same Low Inlet Height
- Compact Design, requires less floor space
- Choice of Inlet and Overflow Locations
- Easier to Install:
  - shorter pump manifolding on duplex units
  - simplified piping on all units
- Reliable and Proven Watchman Pump and Motors
- 20 Year Receiver Warranty against failure due to corrosion



**WC-6-20B**



**WCD-12-20B**



**WC-8-20B**



**WCD-30-30B**

# Hoffman Specialty® Watchman® Series WC™ Condensate Units

6,000, 8,000, 12,000, AND 30,000 SQ. FT. EDR,  
SIMPLEX AND DUPLEX DESIGNS

# Hoffman Specialty® WATCHMAN®

## THE Recognized Name in Condensate Pumps

### QUALITY FEATURES THAT MAKE THE HOFFMAN WATCHMAN THE STANDARD OF THE INDUSTRY

**Availability:** Factory and Local Stock

**Corrosion Resistance:** Cast Iron Receivers

**Ease of Installation:** Inlet, Vent and Overflow Openings  
Shorter pump manifolding with duplex units

**Ease of Service:**

Vertical Pull-out Pumps  
Carbon/Ceramic Mechanical Seals  
Drain Connection  
Flange Mounted Pumps

## WATCHMAN® FEATURES TO COMPARE

**Reliable Operation**

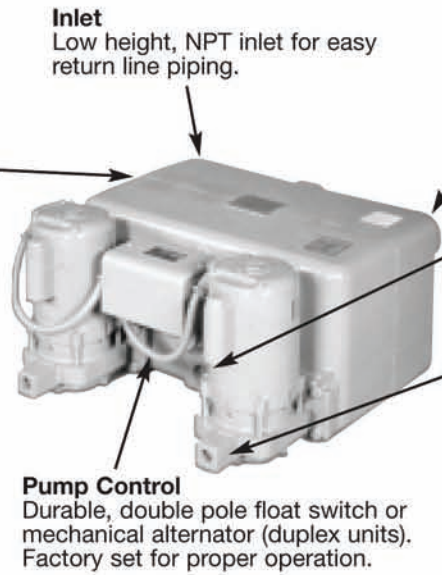
100% Factory wired and tested to assure reliable operation. Thousands installed and operating for years.

**Cast Iron Receivers**

Close grained, corrosion-resistant cast iron receivers warranted for 20 years from date of shipment against failure due to corrosion.

**Optional Features**

Inlet Basket Strainers or "Y" Strainers.  
Control Panels for wall mounting.  
(Order Separately)



**Inlet**  
Low height, NPT inlet for easy return line piping.

**Vent & Overflow**  
Separate NPT connection to provide a secondary vent ensuring safe operation.

**Drain Connection**  
NPT drain connection to allow removal of water when servicing.

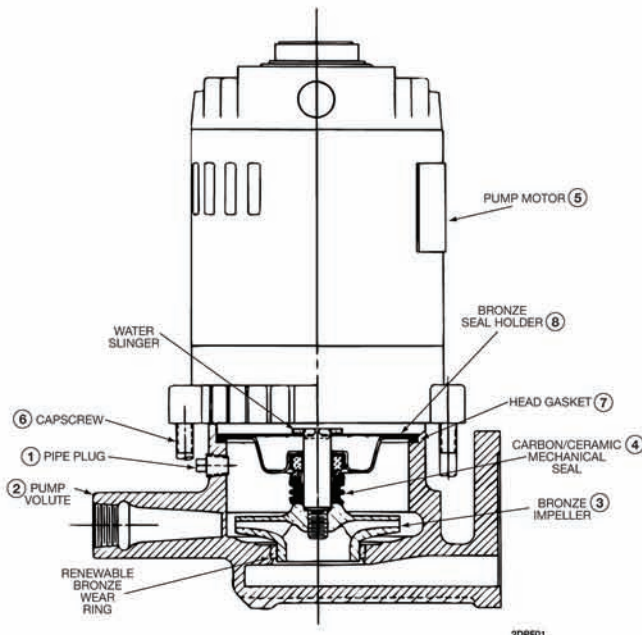
**Centrifugal Pumps**  
Built to handle high temperature 200°F condensate. Pumps use carbon/ceramic mechanical seals designed for 250°F temperatures for maximum life.

**Pump Control**  
Durable, double pole float switch or mechanical alternator (duplex units).  
Factory set for proper operation.

## Hoffman Specialty WATCHMAN Centrifugal Pumps

Hoffman Specialty centrifugal pumps are close coupled, vertical design equipped with enclosed bronze impellers, renewable bronze wear rings, stainless steel shafts and carbon/ceramic mechanical seals. Each pump is individually tested prior to factory shipment.

All pump internals can be fully serviced without disturbing the discharge piping. Motors are quiet, ball bearing type with a dual voltage rating and thermal overload protection.



ITEM	QTY.	DESCRIPTION	PART NO.
1	1	Plug	P39040
2	1	Volute & WR ASM Watchman	DP1665
3	1	Impeller 3 <sup>11</sup> / <sub>16</sub> Dia.	DP0321
4	1	Seal and Gasket Kit	180013
5	1	Motor	DM0005
6	4	Capscrew	DJ0083
7	1	Gasket	DG0092
8	1	Seal Holder	DP1966

# Selection Tables

Model Number	System Sq. Ft. EDR	Number of Pumps	Disch. Pres. (psig)	Pump Capacity (GPM)	Receiver Capacity (Gal.)	Motor HP	Accessories
WC6-20B	6,000	Single	22	9	6	1/3	Float switch
WC8-20B	8,000	Single	21	12	9	1/3	Float switch
WC12-20B	12,000	Single	20	18	14	1/3	Float switch
WCD12-20B-MA	12,000	Duplex	20	18	14	1/3	Mechanical alternator
WCD30-30B-MA	30,000	Duplex	30	30	23	1	Mechanical alternator

Watchman condensate units are factory wired for 115 volts and may be field converted to 230 volts 1 phase.

## SIMPLEX UNIT FEATURES

- **Cast Iron Receiver**
  - Low Inlet Height with alternate location.
  - Vent and Overflow Openings to meet local code requirements for a secondary vent.
  - 20 Year Warranty against failure due to corrosion.
  - Model WC12-20B allows for the addition of a second pump at a later date.
- **One Pump and Motor Assembly**
  - Close Coupled, Bronze Fitted Pump for low maintenance.
  - Renewable Bronze Wear Ring to maintain efficiency.
  - Stainless Steel Motor Shaft to prevent corrosion in aggressive condensate.
  - Carbon/Ceramic Seal Faces for Longer Life.
  - Serviceable without disturbing piping.
- **Double Pole Float Switch**
  - Stainless Steel Float and Rod to prevent corrosion in aggressive condensate.
  - Factory preset or externally adjustable.
  - Proven durability in pump control.
  - (1) Starts and Stops the pump on demand.

## DUPLEX UNIT FEATURES

- **Cast Iron Receiver**
  - Low Inlet Height with alternate location.
  - Vent and Overflow Openings to meet local code requirements for a secondary vent.
  - 20 Year Warranty against failure due to corrosion.
- **Two Pump and Motor Assemblies**
  - Close Coupled, Bronze Fitted Pump for low maintenance.
  - Renewable Bronze Wear Ring to maintain efficiency.
  - Stainless Steel Motor Shaft to prevent corrosion in aggressive condensate.
  - Carbon/Ceramic Seal Face for Longer Life.
  - Shorter Pump discharge manifold to installation time.
  - Serviceable without disturbing piping.
- **Double Pole Mechanical Alternator**
  - Stainless Steel Float and Rod to prevent corrosion in aggressive condensate.
  - Factory preset or externally adjustable.
  - Proven durability in pump control.
  - (1) Automatically alternates operation of the two pumps for even wear.
  - (2) Provides simultaneous operation of both pumps to deliver double capacity under peak conditions.
  - (3) Automatically operates the second pump should the first pump fail.

### Part 1 – General

#### 1.1 SECTION INCLUDES

- A. Unit shall be a Hoffman Specialty Watchman Series WC Simplex or Duplex condensate pumping unit manufactured by Bell & Gossett and shall consist of:
  1. One (1) cast iron receiver
  2. One (1) or two (2) water pump(s)
  3. Float actuated pump switch as hereafter specified.
  4. Each unit shall be factory tested.

### Part 2 – PRODUCTS

#### 2.1 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with these specifications, the following manufacturers shall be acceptable:
  1. Bell & Gossett Hoffman Specialty Watchman

#### 2.2 COMPONENTS

##### A. CAST IRON RECEIVER

1. The condensate receiver shall be closed grain cast iron construction warranted for 20 years from date of shipment against failure due to corrosion.
2. Receiver shall be equipped with:
  - a. 2 NPT Inlet
  - b. 2 NPT Vent
  - c. Receiver shall be sized for 1-minute net storage based upon system return rate.
  - d. Receiver shall have:
    - e. Overflow opening to provide a means of secondary venting all on a common side of the receiver.
  - f. Pump control
    1. Simplex Unit - (1) Externally adjustable 2-pole float switch.
    2. Duplex Unit - (1) Externally adjustable mechanical alternator to automatically alternate operation of the two pumps and provide simultaneous operation of both pumps to deliver double capacity under peak conditions.

##### B. PUMP(S)

1. The centrifugal pumps shall be flanged mounted on the receivers.
2. Pump(s) shall be so constructed to permit access to the impeller and other interior parts without break in the discharge pipe connections.
3. Pumps shall be:
  - a. close coupled vertical design
  - b. bronze fitted
  - c. permanently aligned
  - d. stainless steel shaft
  - e. enclosed bronze impeller
  - f. renewable bronze wear ring
  - g. carbon/ceramic mechanical shaft seal shall be rated for 250°F (121°C)

##### C. MOTOR(S)

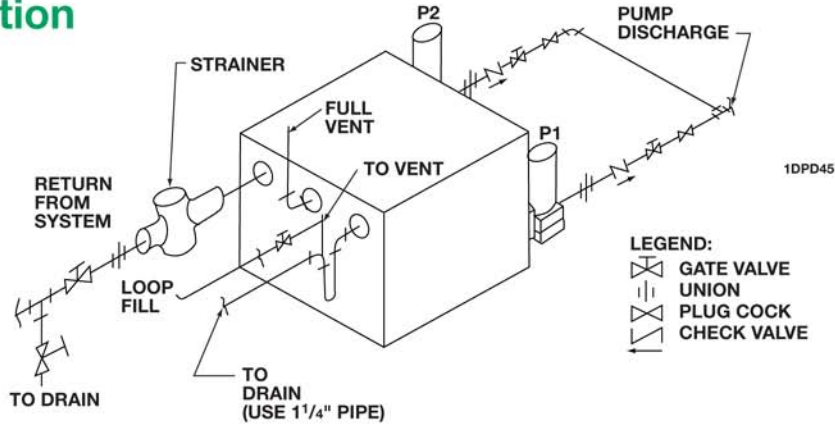
1. Each pump shall be closed coupled to a vertical drip proof motor.
2. Motor(s) shall be:
  - a. 3500 RPM single phase
  - b. 115/230 volt
  - c. factory wired for 115 volts
  - d. field convertible to 230 volts
  - e. Motor shall have internal thermal overload protection

### Part 3 – EXECUTION

Manufacturer shall furnish complete elementary piping diagrams and installation and operation instructions. Unit shall be a Hoffman Specialty Series WC, WCD as manufactured by Bell & Gossett, Morton Grove, IL.

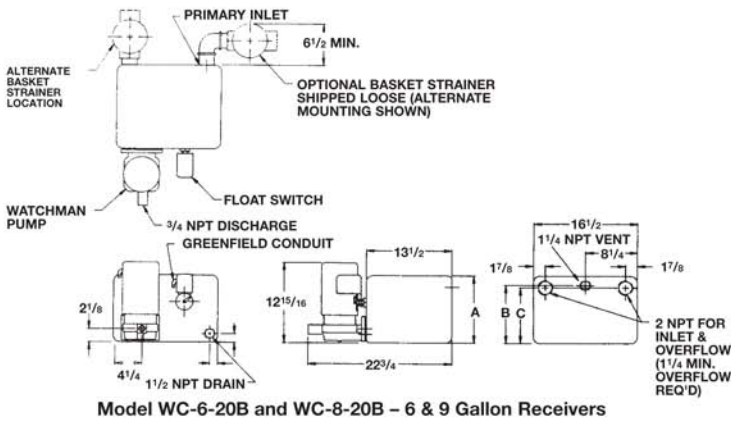
# Typical Installation

NOTE – ENTIRE MAIN RETURN MUST HAVE A GRADUAL PITCH DOWN TOWARDS THE PUMP

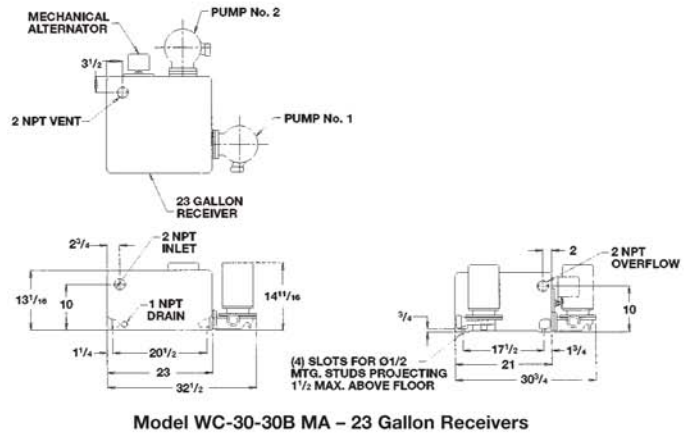
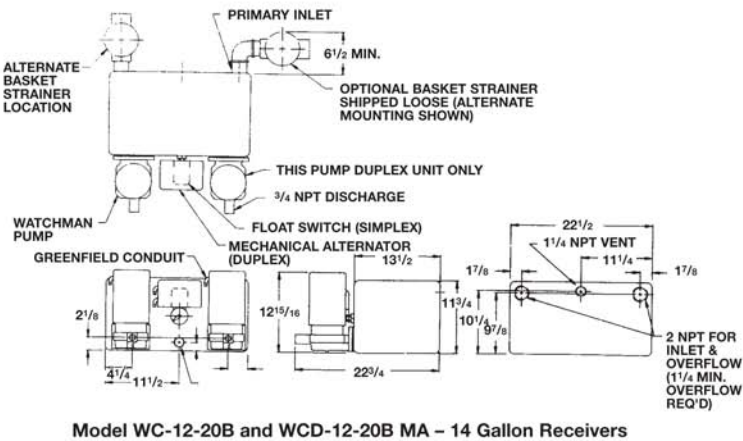


# Roughing-in Dimensions

All dimensions in inches.



GAL.	A	B	C
6	8 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	6 <sup>11</sup> / <sub>16</sub>
9	10 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	9



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