A Complete Line Of Drain Valves To Fit Every Compressed Air Condensate Removal Application

Innovative Compressed Air Products

WILKERSON CORPORATION
Dimensions

XB3/X01 - Top View

Front View

Side View

Wilkerson
**Why Use Drain Valves**

One of the most problematic contaminants in your compressed air system is the condensate from your compressors, aftercoolers, receivers, filters, and dryers. Condensate consists of compressor oil, condensed water, dirt, and other contaminants that are being introduced into the inlet of the compressor. Condensate, if not properly removed from the system, can be detrimental to your process and result in downtime and equipment failure.

That is why Wilkerson has developed a comprehensive line of condensate drain valves to suit all your condensate removal applications. The following chart shows suggested uses for each type of valve.

<table>
<thead>
<tr>
<th>XB3/X01</th>
<th>WDV2</th>
<th>WDV3</th>
<th>WDV4</th>
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<tbody>
<tr>
<td><strong>Mechanical Drain</strong></td>
<td><strong>Demand Drain</strong></td>
<td><strong>Electric Timer Drain</strong></td>
<td><strong>Motorized Ball Valve Drain</strong></td>
</tr>
<tr>
<td>Receiver Tanks</td>
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<td>Receiver Tanks</td>
<td>Receiver Tanks</td>
</tr>
<tr>
<td>Separators</td>
<td>Separators</td>
<td>Separators</td>
<td>Deliquescent Dryers</td>
</tr>
<tr>
<td>Filters</td>
<td>Filters</td>
<td>Filters</td>
<td></td>
</tr>
<tr>
<td>Drip Legs</td>
<td>Refrigerated Dryers</td>
<td>Refrigerated Dryers</td>
<td>Drip Legs</td>
</tr>
<tr>
<td>Drip Legs</td>
<td></td>
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</tbody>
</table>

**Compressed air drying system**
- deliquescent dryer
- refrigeration dryer

**Why Use Drain Valves**

**Compressed air drying system**
- desiccant regenerating dryer
XB3/X01 Mechanical Drain

The XB3/X01 Mechanical Drains are designed to automatically remove liquid, oil, and water contaminants from compressed air system components.

Liquid contaminants collected in the bowl cause the float mechanism to rise. When the liquid reaches a specific level, the float actuates the pilot drain orifice which allows line pressure to open the valve and evacuate the liquid/particulate contaminants. As the liquid level falls, the float closes the pilot drain orifice prior to the loss of any air from the system.

A manual override is provided as an option which allows for drainage of the system on demand. To drain, simply push up on the attachment. Pull attachment back down when draining is complete. The manual override only adds 1.3” to the total length of the unit. (Available on the XB3 only.)

### Operating Conditions

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum operating pressure</td>
<td>200 psig (14 bar)</td>
</tr>
<tr>
<td>Maximum fluid temperature</td>
<td>175°F (79°C)</td>
</tr>
</tbody>
</table>

### Features

- No air loss
- Efficient bowl size with large quiet zone
- Manual override option
- Metal bowl
- Float type operation

### Benefits

- Energy efficient
- No re-entrainment of liquid back into the air stream
- Drain on demand
- Compatible with all compressor lubricants and high pressure 200 psig (14 bar)
- No electricity needed

### Ordering Information

**Standard Specifications: Mechanical Drain**

- Inlet Pipe Size: 1/2” NPT
- Drain Connections: 1/8” NPT
- Drain Orifice: 1/8”
- Bowl Capacity: 5 oz. and 32 oz.
- Maximum Drain Rate: 1.3 GPM and 2.5 GPM
- Bowl: Zinc
- Float: Plastic with Stainless Steel Internals
- Manual Override: Brass

**Options**

- XB3-04: Metal Bowl
- X01-04: Metal Bowl
  - G: Metal Bowl with Sight Gauge
WDV2 Demand Drain

The WDV2 Electronic Demand Drain Valves, with zero air loss, are suitable for all compressed air system applications from aftercoolers to filters to receivers to refrigerated dryers. This line of drain valves activate automatically and are both reliable and economical.

Condensate (water, oil, and dirt) collect in the sump while the diaphragm is held closed by system pressure. As soon as the top sensor detects liquid, the solenoid energizes. The chamber above the diaphragm deflates and the condensate is driven out by system pressure. A timer is activated which allows a specific amount of condensate out and closes before any air is lost. If the unit gets clogged with a slug of condensate and scale, it will pulse to push that slug out of the valve and allow it to continue working properly. If the slug cannot be removed after a set period of time, an alarm light and contact will signal a problem.

### Operating Conditions
- Maximum operating pressure: 230 psig (16 bar)
- Fluid temperature: 33-140°F (0-60°C)
- Ambient temperature: 33-140°F (0-60°C)

### Features
- No air loss
- Automatically self-adjusting for voltages from 24-230V AC/DC
- Sensor device with no moving parts
- Sophisticated electronic controls
- Alarm with remote contacts
- Large inlet port to eliminate clogging
- Manual push-to-test button
- Automatically clears slugs

### Benefits
- Energy efficient
- World wide applications
- Long Life
- High Reliability
- Versatility, early warning
- Low maintenance
- On demand operation
- Maintenance free

### Standard Specifications: WDV2-E
- Voltage: 24-240V AC/DC, 50/60 Hz
- Drain Volume: 0.01 gallons/cycle

### Ordering Information

- **WDV2 – E**
- **Voltage**
  - 1 = 120V (standard cord)
  - 2 = 240V (cord without plug)
  - 4 = 24V (cord without plug)
Wilkerson has developed two electrical timed drains: the mini and the general. The mini is ideal for smaller filters. The general is more suited for larger filters, refrigerated dryers, receiver tanks, and other general purpose applications.

Both drain valves feature state of the art electronic timers and brass valve body as standard. The general is also available in corrosion free stainless steel and high pressure.

### Operating Conditions

<table>
<thead>
<tr>
<th></th>
<th>Mini</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum operating pressure</td>
<td>230 psig (16 bar)</td>
<td>1200 psig (80 bar) (general only)</td>
</tr>
<tr>
<td>Fluid temperature</td>
<td>33-190°F (0-87°C)</td>
<td>33-130°F (0-54°C)</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Standard Specifications: Mini

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle time</td>
<td>1 to 120 minutes</td>
</tr>
<tr>
<td>Open time</td>
<td>2 seconds fixed</td>
</tr>
<tr>
<td>Power cord w/plug</td>
<td>6 ft. heavy duty</td>
</tr>
<tr>
<td>Seals</td>
<td>Viton</td>
</tr>
<tr>
<td>Enclosure</td>
<td>ABS plastic</td>
</tr>
<tr>
<td>Valve body</td>
<td>Brass</td>
</tr>
<tr>
<td>Power rating</td>
<td>4MA maximum</td>
</tr>
<tr>
<td>Voltage</td>
<td>24-240V AC/DC, 50/60 Hz</td>
</tr>
</tbody>
</table>

### Standard Specifications: General

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle time</td>
<td>30 seconds to 45 minutes</td>
</tr>
<tr>
<td>Open time</td>
<td>1/2 to 10 seconds</td>
</tr>
<tr>
<td>Power cord w/plug</td>
<td>6 ft. heavy duty</td>
</tr>
<tr>
<td>Seals</td>
<td>Viton</td>
</tr>
<tr>
<td>Enclosure</td>
<td>ABS plastic</td>
</tr>
<tr>
<td>Valve body</td>
<td>Brass/Stainless Steel</td>
</tr>
<tr>
<td>Power rating</td>
<td>4MA maximum</td>
</tr>
<tr>
<td>Voltage</td>
<td>24-240V AC/DC, 50/60Hz</td>
</tr>
</tbody>
</table>

### Features

- Reliable operation
- Solid state timer—surface mount technology vs. failure prone pin soldering
- Nema 4
- Manual push-to-test button (true micro-switch)
- Class H coil insulation
- Can be mounted in any position
- UL, CSA, and CE certified vs. non-certified
- Direct acting valves
- Dual surge protectors in timer vs. one or none in competitor’s units
- Indicating lights of valve open and closed
- Plug prongs fastened to steel backing plate vs. glued to electronic board, causing board failure

### Benefits

- No down time
- High reliability, no board shorting
- Indoor/outdoor application
- Reliable test on demand
- Higher temperatures longer lasting
- Versatility in Installation
- World wide applications
- More positive closure - no clogging
- Continues to work even in adverse electrical conditions
- Visual indication of operation
- High Reliability

### Ordering Information

- **WDV3** Electric Timed Drain
- **M** = Mini
- **G** = General
- **P** = 4-Port

### Voltage

- 1 = 120V
- 2 = 240V
- 4 = 24V DC

### Port Size

- 1 = 1/8" NPT (mini)
- 2 = 1/4" NPT (general)
- 3 = 3/8" NPT (general)
- 4 = 1/2" NPT (general)

### Valve Material

- B = Brass
- S = Stainless Steel

### Pressure

- L = 230 psig (16 bar)
- H = 1200 psig (80 bar)

**Options**

- **Blank** = No Insulation Valve/Strainer
- **P** = Insulation Valve/Strainer

*Other voltages available upon request. 1/8" NPT threaded ports are available upon request. Valves are certified to UL and CSA standards by an Accredited Laboratory. (120V and 240V units are fully UL listed.)
**WDV4 Motorized Ball Valve Drain**

When pipe scale, contaminants from deliquescent dryers or other large particles present in your condensate keep plugging or holding open your common drain valve, it's time for the WDV4 motorized ball drain valve from Wilkerson. This valve is designed to handle all types of contaminants without clogging or sticking open. It consists of a 1/2" full-flow ball valve with an electric timer/motor. The internal timer is adjustable from 4 minutes to 24 hours, and the valve will perform one full rotation in 7.5 seconds. Battery backup will provide continued operation in the event of a power failure.

### Features
- Designed for heavy duty applications
- High pressure capabilities
- Microprocessor Based Electronics
- Weatherproof enclosure
- Battery back up protection against power failure (not available on competitors units)
- Double o-ring seal on valve shaft vs. competitors with only one o-ring seal
- Corrosion resistant valve coating
- 10 programmable settings from 4 minutes to 24 hours vs. competitors dip switch selections from 6 to 10 hours
- Manual test button
- Valve open and program indicator
- Anti-blockage system to protect motor

### Benefits
- Reliable-Long life
- Versatile applications
- High reliability
- Indoor/outdoor operation
- Continuous operation
- No leak of condensate into electronics
- Can be used in harsh environments like deliquescent dryers
- Versatility
- On demand operation
- Visual indication of operation
- Motor will not burnout even under adverse conditions

### Operating Conditions
- **Maximum operating pressure**
  - 300 psig (20 bar) @ 190°F (87°C)
  - 500 psig (35 bar) @ 130°F (54°C)
  - 600 psig (40 bar) @ 75°F (24°C)
- **Maximum fluid temperature**
  - 33-190°F (0-87°C)
- **Maximum ambient temperature**
  - 33-122°F (0-50°C)

### Standard Specifications
- **Cycle time**
  - 4 minutes - 24 hours
- **On time**
  - 7.5 seconds
- **Programmed settings**
  - 10
- **Valve**
  - Nickel Plated Brass with Stainless Steel Ball
- **Connections**
  - 1/2" NPT (Other sizes available upon request)
- **Valve sealing**
  - Viton o-rings with teflon seal
- **Voltage**
  - 115/230V AC 50/60 Hz
- **Enclosure**
  - Non-corrosive plastic

### Ordering Information
**WDV4**

**Voltage**
- 1 = 115V, 50/60 Hz
- 2 = 230V, 50/60 Hz

*Other voltages available upon request.*
Distributed Worldwide
Wilkerson Corporation offers a complete line of innovative fluid power products with features and operating characteristics that meet customer expectations of quality, performance, reliability and value. Wilkerson representatives are located in most major cities throughout the world with additional manufacturing and sales affiliates in North and South America, Europe, Africa, Asia and the Pacific Rim Basin.

Isolation Valve/Strainer
Eliminates valve clogging. Includes a ball valve and strainer in one with a 1/2" NPT inlet port and a 3/8" NPT outlet port. Allows customer to block flow to drain valve and clean strainer without disconnecting from system. (Other outlet connections available upon request.)

Other Innovative Wilkerson Products

Refrigerated Dryers
A full line of high quality refrigerated dryers with features and benefits unmatched by the competition. Designed to produce dew points as low as 35°F in compressed air.

Desiccant Dryers
A complete line of desiccant dryers for the removal of water vapor in compressed air to dew points as low as -100°F.

Filters
A full range of filters including; coalescing, particulate and activated charcoal for the removal of water, oil and particulates from compressed air.

Buy from your Local Distributor