# eading Edge Technology

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



Air Products

Compressed

Innovative

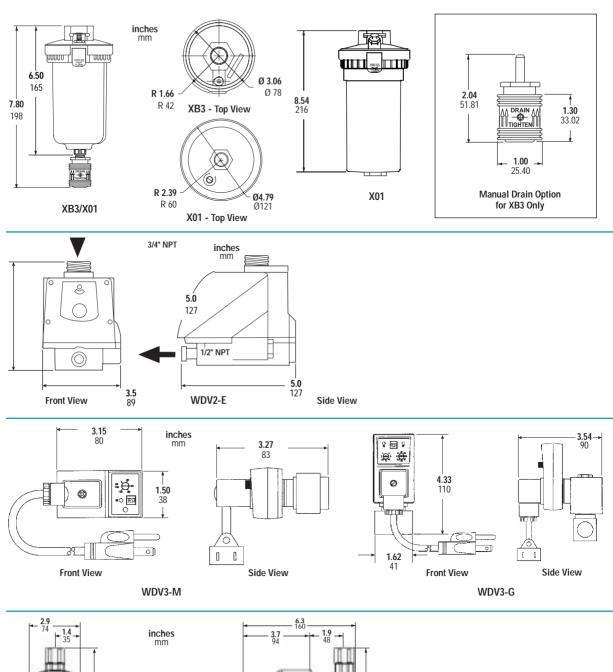


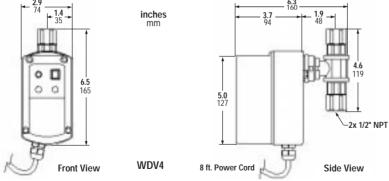






# **Dimensions**



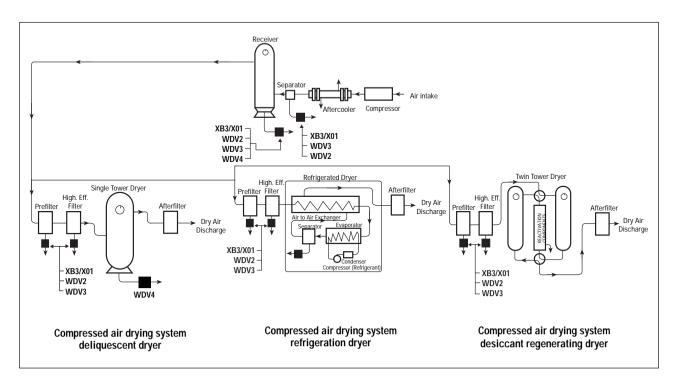


# Why Use Drain Valves

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.

XB3/X01	WDV2	WDV3	WDV4
Mechanical Drain	Demand Drain	Electric Timer Drain	Motorized Ball Valve Drain
Receiver Tanks	Receiver Tanks	Receiver Tanks	Receiver Tanks
Separators	Separators	Separators	Deliquescent Dryers
Filters	Filters	Filters	
Drip Legs	Refrigerated Dryers	Refrigerated Dryers	
	Drip Legs	Drip Legs	



# 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.)

0		Features Benefits	
Operating Conditions		No air loss	Energy efficient
Maximum operating pressure 200 psig (14 ba		Efficient bowl size with large quiet zone	No re-entrainment of liquid back into the air stream
Maximum fluid		Manual override option	Drain on demand
temperature	175°F (79°C)	Metal bowl	Compatible with all compressor lubricants and high pressure 200 psig (14 bar)
		Float type operation	No electricity needed

## **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

Manual Override for XB3 only

Bowl Zinc

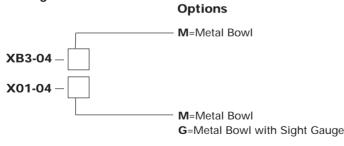
Float Plastic with Stainless Steel Internals

Manual Override Brass





**Ordering Information** 



# 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 Condit	ions	Features	Benefits
Maximum operating		No air loss	Energy efficient
pressure	230 psig (16 bar)	Automatically self-adjusting for voltages from 24-230V AC/DC	World wide applications
Fluid temperature Ambient temperature	33-140°F (0-60°C) 33-140°F (0-60°C)	Sensor device with no moving parts	Long Life
		Sophisticated electronic controls	High Reliability
		Alarm with remote contacts	Versatility, early warning
		Large inlet port to eliminate clogging	Low maintenance
		Manual push-to-test button	On demand operation
		Automatically clears slugs	Maintenance free

# Standard Specifications: WDV2-E

Voltage 24-240V AC/DC, 50/60 Hz Drain Volume 0.01 gallons/cycle



# **Ordering Information**

Voltage

-1=120V (standard cord)
-2=240V (cord without plug)
-4=24V (cord without plug)

# WDV3 Electric Timed Drain

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.

Features

		i catares	Delicitis
		Reliable operation	No down time
		Solid state timer—surface mount technology vs. failure prone pin soldering	High reliability, no board shorting
<b>Operating Condit</b>	ions	Nema 4	Indoor/outdoor application
Maximum operating		Manual push-to-test button (true micro-switch)	Reliable test on demand
pressure	230 psig (16 bar)	Class H coil insulation	Higher temperatures longer lasting
•	1200 psig (80 bar)	Can be mounted in any position	Versatility in Installation
	(general only)	UL, CSA, and CE certified vs. non-certified	World wide applications
	Direct acting valves More	More positive closure - no clogging	
Fluid temperature Ambient temperature	33-190°F (0-87°C) 33-130°F (0-54°C)	Dual surge protectors in timer vs. one or none in competitor's units.	Continues to work even in adverse electrical conditions
		Indicating lights of valve open and closed	Visual indication of operation
		Plug prongs fastened to steel backing plate  vs. glued to electronic board, causing board failure  High Reliability	High Reliability

## Standard Specifications: Mini

Cycle time 1 to 120 minutes
Open time 2 seconds fixed
Power cord w/plug 6 ft. heavy duty
Seals Viton
Enclosure ABS plastic
Valve body Brass
Power rating 4MA maximum

Voltage 24-240V AC/DC, 50/60 Hz

WDV3-G



## WDV3-M

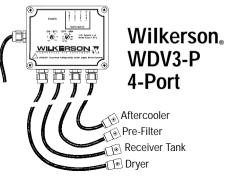


## Standard Specifications: General

Cycle time 30 seconds to 45 minutes
Open time 1/2 to 10 seconds
Power cord w/plug 6 ft. heavy duty
Seals Viton
Enclosure ABS plastic

Valve body Brass/Stainless Steel
Power rating 4MA maximum

Voltage 24-240V AC/DC, 50/60Hz



Renefits

The Wilkerson "4-Port" automatically controls up to four independent solenoid drains. Wilkerson realizes the need to have Electric Timed Drain Valves operate at various intervals, therefore, the four connections are designed to operate independently with separate "open" (0-15 seconds) and "dwell" (1-50 minutes) control dials. The controller will not allow more than one drain to open at a time, thus it will not deplete the system of air pressure, or allow back flow due to differential pressure. (Check price sheet for availability of solenoid valves.)

#### **Ordering Information** WDV3 **M**=Mini **Options** Valve G=General -Blank=No Insolation Voltage\* Port Size<sup>†</sup> Material **Pressure** P=4-Port Valve/Strainer 1=120V 1=1/8" NPT (mini) B=Brass **L**=230 psig (16 bar) P=Insolation Valve/ S=Stainless Steel 2=240V -H=1200 psig 2=1/4" NPT (general) Strainer 4=24V DC (general only) (80 bar) (Only available 3=3/8" NPT (general) (High pressure only on the general 3/8", \*Other voltages available upon request. 4=1/2" NPT (general) available in WDV3-G †BSP threaded ports are available upon request. low pressure models) Valves are certified to UL and CSA standards by an Accredited Laboratory. 1/4" NPT port size) (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.

# **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)

Features	Benefits
Designed for heavy duty applications	Reliable-Long life
High pressure capabilities	Versatile applications
Microprocessor Based Electronics	High reliability
Weatherproof enclosure	Indoor/outdoor operation
Battery back up protection against power failure (not available on competitors units)	Continuous operation
Double o-ring seal on valve shaft vs. competitors with only one o-ring seal	No leak of condensate into electronics
Corrosion resistant valve coating	Can be used in harsh environments like deliquescent dryers
10 programmable settings from 4 minutes to 24 hours vs. competitors dip switch selections from 6 to 10 hours	Versatility
Manual test button	On demand operation
Valve open and program indicator	Visual indication of operation
Anti-blockage system to protect motor	Motor will not burnout even under adverse conditions

# **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

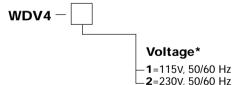
Voltage 115/230V AC 50/60 Hz

(Consult factory for other available voltages)

Enclosure Non-corrosive plastic



# Ordering Information



<sup>\*</sup>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.



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# Isolation Valve/Strainer



**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



## **WRD**

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.



## **WDH**

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.



### FRI

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







CERTIFICATE NO. A2192



Certificate No.....



9 CW- YB-241 2/98 P r i n t e c BUY FROM YOUR LOCAL DISTRIBUTOR