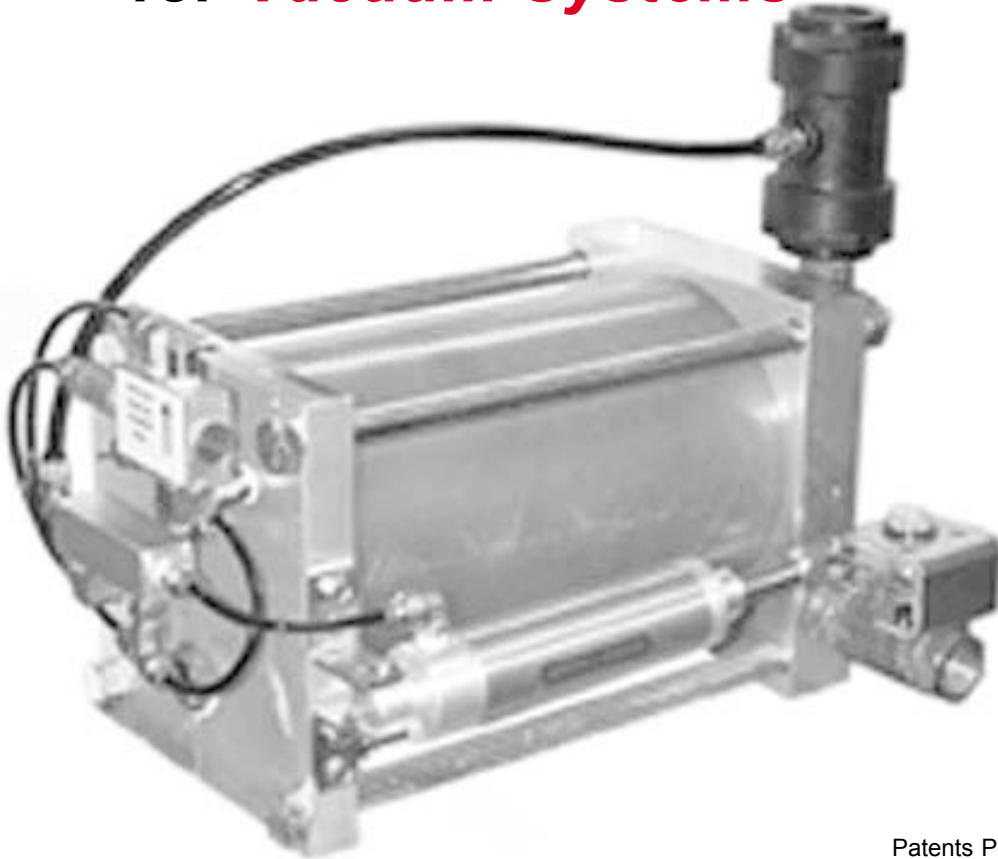


# **ROBO** **DRAIN**

## ***Pneumatically Powered Condensate Removal System for Vacuum Systems***



Patents Pending

### ***Features....***

- ◆ See-Through Vessel
- ◆ Fully Pneumatic
- ◆ No Wasted Vacuum
- ◆ Low Profile
- ◆ Made in U.S.A.
- ◆ Ball Valve Stem Support System
- ◆ Vacuum to 26" Hg
- ◆ Non-Clogging Ball Valve
- ◆ No Strainers to Clean
- ◆ Operates On Demand

## **AIR SYSTEM PRODUCTS, INC.**

51 Beach Ave. • Lancaster, NY 14086 • (716)683-0435 FAX (716) 683-7128 • [www.airsyspro.com](http://www.airsyspro.com)

*"The Best in Condensate Drain Technology"*

Bulletin RDVAC 401

## DESIGN

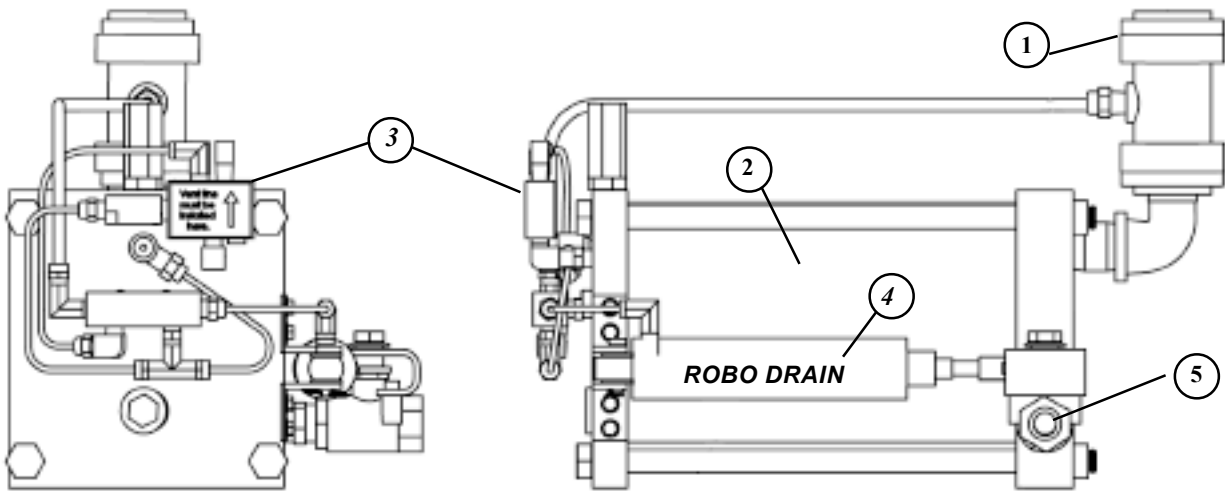
The **ROBO DRAIN** is the ultimate demand operated drain for vacuum systems. The unit is fully automatic, no electricity is required. The drain only requires compressed air to operate its patented valve mechanism. The valve mechanism design uses a magnetic force to ensure both a positive opening and closing that will prevent any loss of vacuum. The magnetic force is cleverly positioned away from the condensation level to prevent any attraction of metal particulate. An innovative ball valve support and positioning system prevents the side-loading problem which otherwise would cause premature sealing failure around the valve stem. Straight through inlet and discharge valve ports ensure that scale and rust will not hinder the operation of the drain. When draining, the vacuum system is totally isolated preventing any vacuum loss. A test button is supplied as standard for manual draining of the reservoir when desired.

A see-through reservoir provides a constant view of the operation of the drain.

The **ROBO DRAIN** will not clog ---- no strainer required.

## OPERATION

Condensation enters through a non-clogging air valve (1). The see-through vessel (2) allows visual inspection of the condensation as it rises. An internal stainless steel float rises with the level of condensation and positions a magnetic force over the valve housing. When the liquid reaches the desired level, the magnet in the valve housing snaps upward and allows air to pass through a stainless steel seat. The exiting air is used to close the inlet valve and shift a multi-port valve (3). The air is also used to extend a non-lubricated air cylinder (4) which opens the ball valve (5). When the multi-port valve shifts, it also shuts off the vacuum vent port and allows compressed air to enter the reservoir. The compressed air is used to rapidly push out the accumulated condensate, scale and rust particles. As the level of condensate falls, the float falls and reverses the operation causing the air supply to stop. A powerful spring returns the air cylinder to its normal position and rotates the positive closing ball valve back to its normally closed position. The multi-port valve shifts back and the inlet valve opens. The drain is again ready to receive condensate from the vacuum system.



## SPECIFICATIONS

**Inlets:** 3/4" NPT  
**Outlet:** 1/2" NPT  
**Height:** 10.5"  
**Length:** 15"  
**Depth:** 9"  
**Power:** Clean, Dry Compressed Air 80 to 120 PSI  
**Housing Pressure:** Vacuum to 250 PSI  
**Operating Temperature:** 32° to 180° F.  
**Weight:** 16 lbs.  
**Discharge:** 24 Ounces per cycle.

## MATERIALS

**Reservoir:** Aluminum and Composite  
**Valve:** Bronze w/S.S. Ball and Stem  
**Float:** Stainless Steel  
**Seat:** Stainless Steel  
**Seal:** Viton ®\*

**MODEL NO. :** RD11-VAC

**OPTIONS** - Consult factory

All design specifications are subject to change without notice.  
\* Viton is a Registered Trademark of Dupont Dow Elastomers

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