

## DRD-100 Dry-Run Detector



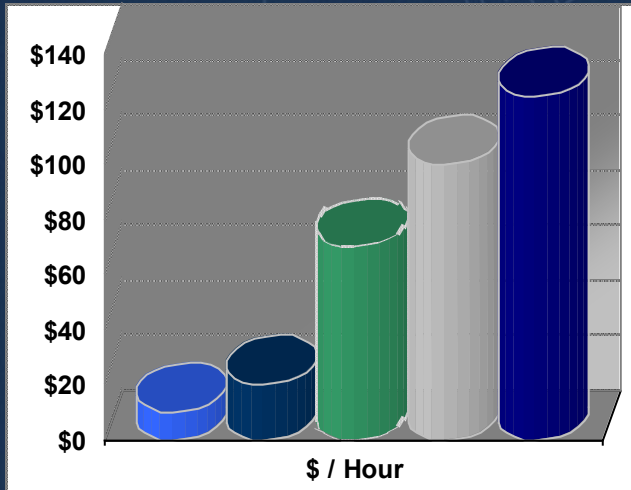
Yamada, the pioneer of innovation in the air-powered pump industry, is pleased to introduce the revolutionary Dry-Run Detector (DRD).

The operating principal behind the DRD is simple, yet very effective. This engineered product senses an increase in air volume, due to loss of prime or dry running, and automatically turns off the pump, preventing excessive cycling.

Benefits include:

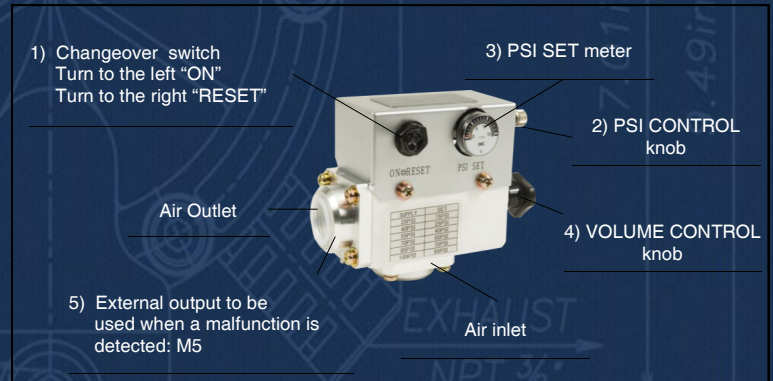
- Extended life of Diaphragm
- Eliminate Air Consumption in dry run applications
- Prevent air valve from premature failure
- Operates intrinsically safe
- Can be fitted with remote warning systems

### Air Consumption Cost Savings Analysis



- (3/4") NDP-20
- (1") NDP-25
- (1-1/2") NDP-40
- (2") NDP-50
- (3") NDP-80

Savings are based on 7.5¢ / per Kilowatt Hour, running dry at 100 PSI.



### Specifications:

- Working pressure range: 25 to 140 PSI
- Bore diameter to be connected: Air inlet NPT 3/4
- Air outlet NPT 3/4

### Installation:

- Install the DRD between the filter-regulator and the pump. The DRD must use the same regulated air as the pump.
- The DRD should be within 4 feet of the pump.




# The Proof's in the Pump

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### APPLICATION:

The DRD-100 is applicable to every device that is driven with compressed air. It detects an increase in airflow or decrease in air pressure, and shuts down the compressed air supply.

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**CHANGEOVER SWITCH**  
 “ON”; switch to “ON” to operate the DRD-100. This allows the unit to detect a surge in air volume.
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**“RESET”**; resets the pump after detecting a surge. Set the switch to this position to reset the pump and then return changeover switch to the “ON” position when ready to resume operation.
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**PSI CONTROL KNOB**  
 This is a knob that allows you to set the differential pressure according to the pressure of air supplied to the pump. (see chart below)

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**PSI SET METER**  
 The pressure controlled with the PSI CONTROL knob is shown.

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**VOLUME CONTROL KNOB**  
 This knob controls the airflow according to the operation status of the pump.

Reference value to be set	
Air Supply (to pump)	Differential Pressure Setting
25 psi	15 psi
40 psi	25 psi
55 psi	40 psi
70 psi	55 psi
85 psi	70 psi
100 psi	85 psi

### EXTERNAL OUTPUT DETECTOR

Using this connector will allow you to transmit a signal to an external device, when a surge is detected. The connecting port is an **M5 type**. Use a tube fitting to connect this connector to a control device. (When using a pneumatic-electro converter, you can convert the output from this connector into electrical signals.) The supplied air pressure remains unrestricted when the DRD is in normal operation. It is only when a surge in air volume is detected, that the DRD shuts off the supply air.

## TROUBLE SHOOTING

PROBLEM	RESOLUTION
The Dry Run Detector will not shut down the pump when it runs dry.	Adjust the PSI CONTROL by turning the knob clockwise until the pump stops.
The Dry Run Detector is too sensitive and shuts down with just a little bit of air in the suction line.	Adjust the PSI CONTROL by gradually turning the knob counterclockwise, until the pump starts to run again.

Your local distributor: