

INGERSOLL-RAND®

AIR COMPRESSORS

Supplement

Small Compressor Division

Ingersoll-Rand Company

Campbellsville, KY 42718

This form provides supplemental information for: Automatic Drain Valves Part Numbers 32296238 & 32310690

32296238 Used On the Following Models:

2340 Simplex
2475 Simplex
OL Simplex & Duplex

32310690 Used On the Following Models:

2545 Simplex & Duplex
7100 Simplex & Duplex
3000 Simplex & Duplex
15T Simplex & Duplex
2340 Duplex
2475 Duplex

start-stop mode of compressor delivers this intermittent pressure.

INSTALLATION

On compressors that have been in service without an automatic drain valve, all debris at the bottom of the tank should be cleaned and blown out. If the debris is not removed, or if the compressor is more than two years old, we recommend installing a y-type strainer ahead of the drain valve.

MAINTENANCE

PURPOSE

This supplement applies only to units equipped with an optional automatic drain valve (part numbers 32296238 and 32310690). It contains information which is not included in the product literature provided with your unit. Keep this supplement with your product literature for future reference.

DESCRIPTION

The automatic drain valve removes condensed water and oil from compressed air systems. This device will not restrict air flow, create a pressure drop or open the system to the atmosphere. Its unique design maintains systems pressure and volume during operation, and increases productivity.

OPERATION

The automatic drain valve functions on the principle of piston movement which is achieved by intermittent pressure provided at the pilot port. The forward motion of the piston due to pressure at the pilot port allows condensate from the receiver to flow into the valve reservoir. When the pressure at the pilot port drops the piston comes back to its original position and the condensate is expelled from the condensate outlet. The constant speed control or automatic

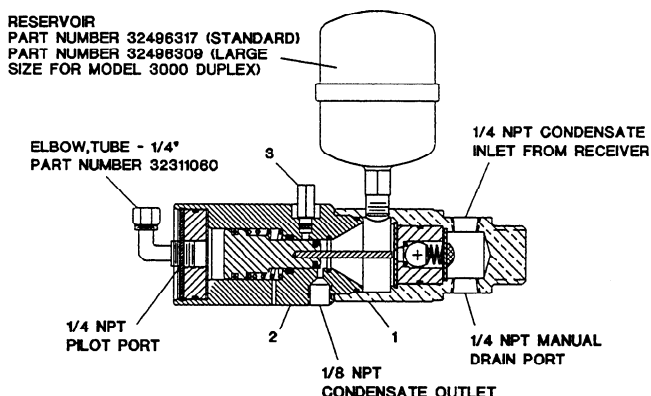


Figure 1. Typical Automatic Drain Valve Cutaway View. (32296238 Automatic Drain Valve Illustrated).

Ref. Nbr.	Kit Part Number	Description
1-1	32310971	Kit, Water Cap Assembly
1-2	32314924	Kit, Body/Piston Assembly (For 32296238)
1-2	32310989	Kit, Body/Piston Assembly (For 32310690)
1-3	32310997	Kit, One Way Valve

Troubleshooting Guide

TROUBLE	POSSIBLE CAUSE	CORRECTIVE ACTION
Drain valve will not discharge when compressor stops.	Strainer screen dirty or blockage in drain tube between bottom of tank and drain valve.	Open manual drain valve at bottom of drain and blow out debris. Clean out drain tube and bottom of tank.
	Compressor does not shut off long enough in automatic start and stop mode or in constant speed mode does not run unloaded long enough to remove pilot signal.	Adjust pressure switch to allow for more time between cycles.
	Pilot signal stays on when compressor shuts off and does not allow piston to return allowing discharge. (Crack open compression fitting on intermittent air end of valve and see if valve will discharge).	Check unloading pressure switch, centrifugal unloader and tank check valve for proper operation.
Constant leak of air present at discharge port after compressor is shut off.	Internal seal on the check valve is worn.	Replace water cap assembly (Part Number 32310971).
Air continuously leaks from drain port while compressor is running.	Seals on piston are worn.	Replace body/piston assembly (Part Number 32314924 or 32310989, depending on automatic drain valve used. See table of kits).

NOTICE

Considering normal operation of the duplex in which both compressors are operating and cycling with each other, the automatic drain valve has been piped to one compressor only (the one closer to the service valve). Therefore, the automatic drain valve will function as long as this compressor is operating. If this compressor is shut off for long periods of time, then manual draining of the receiver must be performed.

The automatic drain valve requires very little operator intervention. However, it will be necessary to periodically clean the screen inside the valve to keep it functioning at maximum capacity. Blowing out the receiver will clean out the strainer screen in the valve. Note there may be a small amount of water between the bottom of the receiver and the drain valve. (In harsh conditions, removal of the manual drain prior to exhaust may be required for complete cleaning). Reinstall manual drain valve. Follow the daily

NOTICE

In Model 3000 duplex compressors, a larger reservoir (Part Number 32496309) is used. This must be noted when ordering replacements.

NOTICE

The automatic drain valve functions only if the unit is running in a start-stop mode or constant speed control mode. If the unit is running in continuous duty mode, then draining the receiver with the manual drain valve is recommended.

maintenance procedures outlined in your product literature.

Most of the individual components of the valve are not sold separately. The only parts sold separately are those in the service kits available from Ingersoll-Rand. If replacement parts are necessary, order from the list of available kits.