

Pneumatic Division
Richland, Michigan 49083
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Installation & Service Instructions
IS-602D-2

**SA602D, SA603D, SA602MD,
SA605MD, SAF105MD, & SA702MD**
Automatic Drains

ISSUED: February, 2005
Supersedes: January, 2004

Doc. #IS602D2, ECN #050142, Rev. 2

 **WARNING**

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

 **WARNING**

The cellular Buna "N" material, used to manufacture the floats on the auto drains, may be attacked by certain chemicals. Do not use these auto drains in systems with air supplied by a compressor lubricated with synthetic oils or oils containing phosphate esters or chlorinated hydrocarbons. These oils can carry over into the air lines and chemically attack and possibly rupture the floats. Also, do not expose the float to materials such as carbon tetrachloride, trichlorethylene, acetone, paint thinner, cleaning fluids, or other harmful materials which will attack the float. For use in environments where any of these chemicals may be present, consult factory

Introduction

Follow these instructions when installing, operating, or servicing the product.

Application Limits

These products are intended for use in general purpose compressed air systems only.

Installation

To perform at maximum efficiency, the filter with the automatic drain should be located as far as possible from the compressor and as near the equipment as possible. Be sure filter is mounted in pipe line vertically. Suitable means should be provided for the disposal of ejected scavenged material such as an open container or scavenger bucket.

For SA602D, SA603D (External Auto Drains)

1. Depressurize Filter and remove Bowl.
2. Unscrew Drain Cock (turn counterclockwise) and discard.
3. Thread Stem of Auto Drain Assembly through Drain Cock opening in the bowl.
4. Drop Float over Stem inside Bowl.
5. Reassemble the Bowl with Auto Drain Assembly to Filter Body.

For SA602MD, SA605MD, SAF105MD, & SA702MD (Internal Auto Drains)

1. Depressurize Filter and remove Bowl.
2. Unscrew Drain Cock (turn counterclockwise) and discard.
3. Insert the entire Auto Drain in place of removed Drain Cock and tighten by hand.
5. Reassemble the Bowl with Auto Drain assembly to Filter Body.

Auto Drain	Operating Temperature Range	Operating Pressure Range
SA602D	40° F to 120° F	30 PSI to 250 PSI
SA603D	40° F to 120° F	30 PSI to 300 PSI
SA602MD	40° F to 120° F	30 PSI to 175 PSI
SA605MD	40° F to 120° F	30 PSI to 175 PSI
SAF105MD	40° F to 120° F	30 PSI to 175 PSI
SA702MD	40° F to 120° F	30 PSI to 250 PSI

 **WARNING**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.

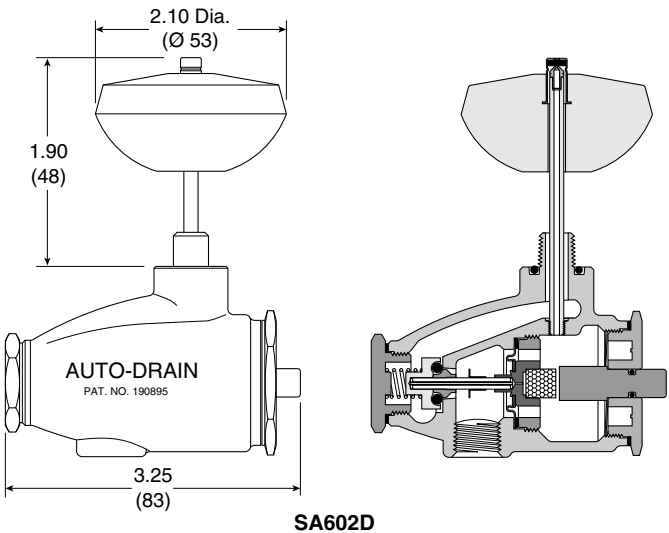
Maintenance

Cleaning SA602D, SA603D

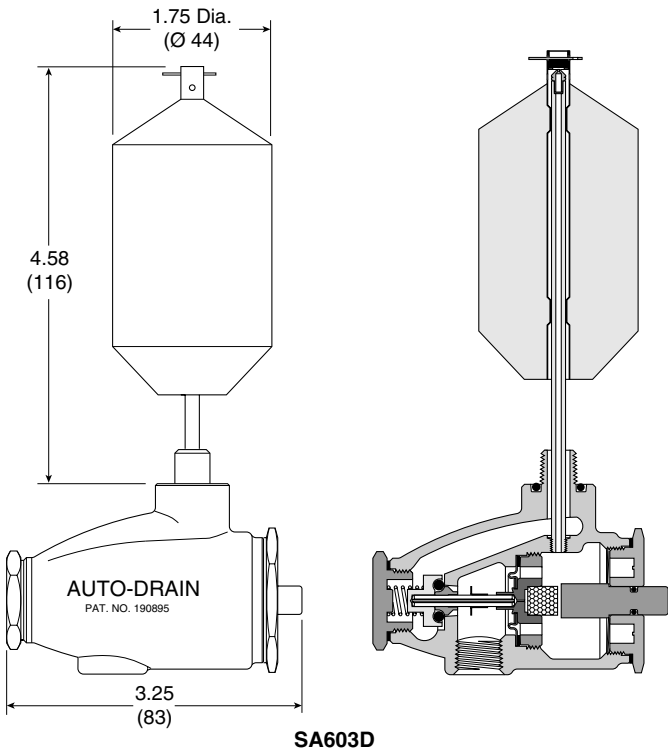
The Auto Drain may be flushed out manually by pressing the Push Button. If additional cleaning is indicated, depressurize and remove Auto Drain assembly from Filter Bowl. Remove Hex Nut at opposite Push Button and shake out Spring and Disc. Clean Disc and blow out Body with compressed air. When using compressed air to blow dry, be sure to wear appropriate eye protection. Replace parts, positioning them as shown making sure small end of Disc sets into brass shoulder of Diaphragm Assembly. (This can be checked through the 1/4" drain opening).

Kits For SA602D & SA603D

Kit Number	Drain Number	Parts Included
RK602D	SA602D	Float Assembly, O-ring, Gasket, O-ring
RK603D	SA603D	Diaphragm Assembly, Disc Assembly
		Spring, Gasket



SA602D



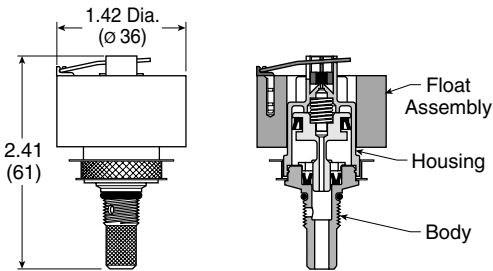
SA603D

Cleaning SA602MD, SA605MD, SAF105MD, & SA702MD

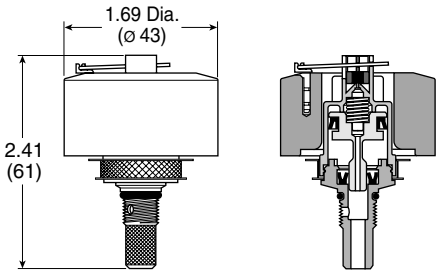
The Auto Drain may be flushed out manually by rotating the Drain Cock clockwise. If additional cleaning is required, remove the Auto Drain Assembly from the Filter Bowl and clean Screen. Disassemble the Lever actuation mechanism by snapping Lever out of the plastic Retainer on Float and remove Pin. Remove Disc Assembly and the large Float. Carefully break away the interface fit between the black Plastic Housing and Brass Body. Remove the Piston and Spring. Clean all component parts thoroughly with soapy water or alcohol and clean or replace all seals as necessary. Insure that the small orifices in the Housing and Piston are not clogged. Lubricate "V" seals and then carefully reassemble all parts, positioning them as shown.

Kits For SA602MD, SA605MD, SAF105MD, & SA702MD

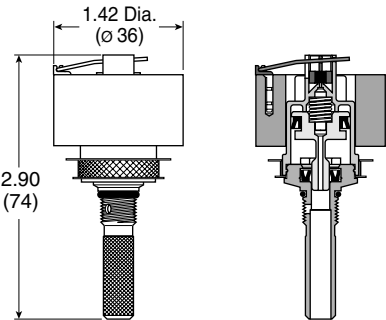
Kit Number	Auto Drain Number	Parts Included
RK602MD	SA602MD	Lever Pin, Disc Assembly, Float Assembly, Retaining Ring, Piston Assembly, Strainer, Retaining Ring, Vee Seal, Body O-ring
	SA605MD	
	SAF105MD	
RK702MD	SA702MD	



SA602MD / SA605MD



SA702MD



SAF105MD