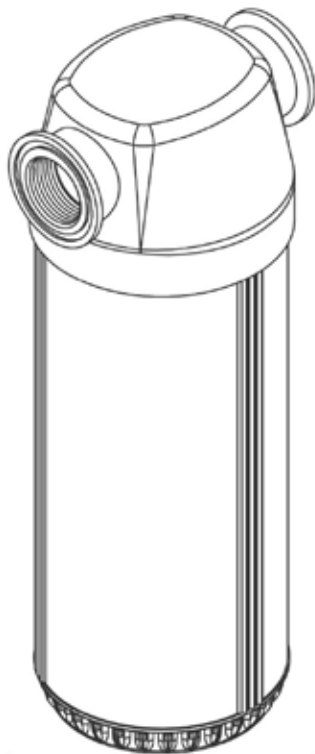




SPEEDAIRE



Condensate Separators

**Models 4GNL3 thru 4GNL9
and 53RG84 thru 53RG95**



SPEEDAIRE

**PLEASE READ AND SAVE
THESE INSTRUCTIONS.
READ CAREFULLY
BEFORE ATTEMPTING
TO ASSEMBLE, INSTALL,
OPERATE OR MAINTAIN THE
PRODUCT DESCRIBED.**

**PROTECT YOURSELF AND
OTHERS BY OBSERVING ALL
SAFETY INFORMATION. FAILURE
TO COMPLY WITH INSTRUCTIONS
COULD RESULT IN PERSONAL
INJURY AND/OR PROPERTY
DAMAGE! RETAIN INSTRUCTIONS
FOR FUTURE REFERENCE.**

**PLEASE REFER TO BACK COVER
FOR INFORMATION REGARDING
SPEEDAIRE'S WARRANTY AND
OTHER IMPORTANT INFORMATION.**

Model #: _____

Serial #: _____

Purch. Date: _____

DESCRIPTION

Speedaire Condensate Separators have been designed for the removal of bulk liquid water and particulate from compressed air and gases. Unique centrifugal action removes contaminants with low-pressure drop for energy savings. Speedaire Condensate Separators are available in 1/4" – 3" NPT pipe sizes for flows up to 1294 SCFM (2200 m³/hour). While highly efficient, condensate separators will not remove 100% of the oil from the air stream. Additional coalescing and particulate filters downstream are normally required to remove the final traces of oil, water and particles, which migrate through the separator.

UNPACKING



Inspect:

- Handle carefully. Check the packing list to account for all items. Visually inspect for shipping damage. If damaged, immediately file a claim with the carrier.

GENERAL SAFETY INSTRUCTIONS

IMPORTANT: Please read and save these instructions.

⚠ WARNING *Disconnect or depressurize compressed air line prior to any installation or maintenance activity. Eye protection goggles or safety glasses are always recommended during installation and maintenance.*

SPECIFICATIONS

Features

- Up to 235 psi (16 bar) – 1/4" to 3" NPT pipe sizes.
- Auto Float Drain (2 mm orifice) is standard for reliable removal of liquid contaminants.
- Durable epoxy powder-coat finish and a corrosion-resistant internal.

2 SPECIFICATIONS (CONTINUED)

Model No.	Description	Weight	Width	Height	Length	Seal/O-Ring Kit	CFP-Filter Brackets
4GNL3	Moisture Separator, 15CFM, 1/4" NPT	3 lbs	11	4	4	O-Ring Kit MSK-0015/60	35GM64 & 35GM59
53RG84	Moisture Separator, 15CFM, 3/8" NPT	3	11	4	4	O-Ring Kit MSK-0015/60	35GM64 & 35GM59
53RG85	Moisture Separator, 15CFM, 1/2" NPT	3	11	4	4	O-Ring Kit MSK-0015/60	35GM64 & 35GM59
53RG86	Moisture Separator, 60CFM, 3/8" NPT	3	11	4	4	O-Ring Kit MSK-0015/60	35GM64 & 35GM59
4GNL4	Moisture Separator, 60CFM, 1/2" NPT	3	11	4	4	O-Ring Kit MSK-0015/60	35GM64 & 35GM59
53RG87	Moisture Separator, 120CFM, 1/2" NPT	3	14	5	5	O-Ring Kit MSK-0120/175/350	35GM66 & 35GM61
4GNL5	Moisture Separator, 120CFM, 3/4" NPT	3	14	5	5	O-Ring Kit MSK-0120/175/350	35GM66 & 35GM61
53RG88	Moisture Separator, 120CFM, 1" NPT	3	14	5	5	O-Ring Kit MSK-0120/175/350	35GM66 & 35GM61
4GNL6	Moisture Separator, 175CFM, 1" NPT	3	14	5	5	O-Ring Kit MSK-0120/175/350	35GM66 & 35GM61
53RG89	Moisture Separator, 175CFM, 1-1/4" NPT	3	14	5	5	O-Ring Kit MSK-0120/175/350	35GM66 & 35GM61
53RG90	Moisture Separator, 175CFM, 1-1/2" NPT	3	14	5	5	O-Ring Kit MSK-0120/175/350	35GM66 & 35GM61
53RG91	Moisture Separator, 350CFM, 1" NPT	4	14	5	5	O-Ring Kit MSK-0120/175/350	35GM66 & 35GM61
53RG92	Moisture Separator, 350CFM, 1-1/4" NPT	4	14	5	5	O-Ring Kit MSK-0120/175/350	35GM66 & 35GM61
4GNL7	Moisture Separator, 350CFM, 1-1/2" NPT	4	14	5	5	O-Ring Kit MSK-0120/175/350	35GM66 & 35GM61
53RG93	Moisture Separator, 700CFM, 1-1/4" NPT	10	22	7	7	O-Ring Kit MSK-0700	35GM67 & 35GM62
53RG94	Moisture Separator, 700CFM, 1-1/2" NPT	10	22	7	7	O-Ring Kit MSK-0700	35GM67 & 35GM62
4GNL8	Moisture Separator, 700CFM, 2" NPT	10	22	7	7	O-Ring Kit MSK-0700	35GM67 & 35GM62
53RG95	Moisture Separator, 1300CFM, 2" NPT	10	23	8	8	O-Ring Kit MSK-1300	35GM68 & 35GM63
4GNL9	Moisture Separator, 1300CFM, 3" NPT	16	23	8	8	O-Ring Kit MSK-1300	35GM68 & 35GM63

NOTE: Moisture separators do not have an internal element. Principle of operation is cyclonic action.



INSTALLATION INSTRUCTIONS

1. To get optimum performance there must be a suitable connection that fits the inlet and outlet piping.
2. Cut the air supply and discharge remainder of air.
3. Adjust the condensate separator height with respect to other component parts of system.
4. The condensate separator must always be mounted in a vertical position.
5. Connect the housing to the system. Pay attention to the arrow direction, which indicates airflow outlet.
6. Check the condensate separator body making sure that it is connected properly.
7. Connect the system to the air supply and then check the condensate separator under pressure.

Typical installation setups

NOTE: See Common System Configurations as shown in Figure 1, page 4 of typical setups and filter applications. See “Repair Parts Lists” for replacement parts available.

Types of Compressed Air Filters

P – Pre-Filter / Particulate Filter

X – General Purpose Filter / Water Removal

Y – Coalescing Filter / Oil Removal

A – Activated Carbon Filter / Odor Removal

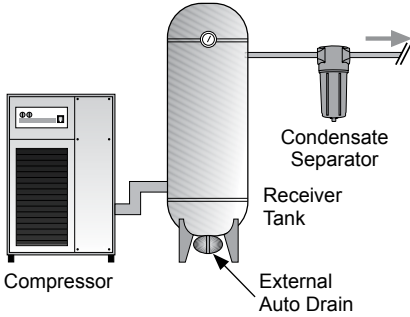
NOTE: F-R-L – Point of use Filtration, Regulation, and Lubrication as needed.

Applications

- Simple Application / ISO 8573.1 2001 Class 2.-.3
- General Purpose Application / ISO 8573.1 2001 Class 1.4.1
- Odorless Application / ISO 8573.1 2001 Class 1.4.1
- Critical Application / ISO 8573.1 2001 Class 1.2.1 (-40°F) -40°C, 1.1.1 (-94°F) -70°C

INSTALLATION (CONTINUED)

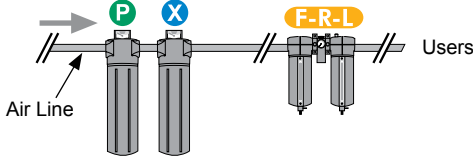
Common System Configurations (reference only):



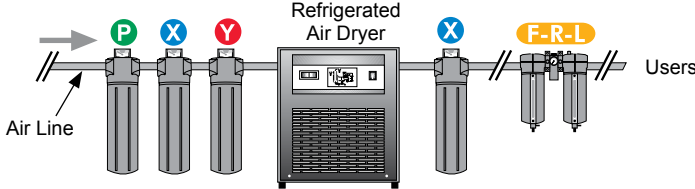
Types of Compressed Air Filters:

- P** Pre-Filter / Particulate Filter
- X** General Purpose Filter / Water Removal
- Y** Coalescing Filter / Oil Removal
- A** Activated Carbon Filter / Odor Removal
- F-R-L** Point of use Filtration, Regulation, and Lubrication as needed.

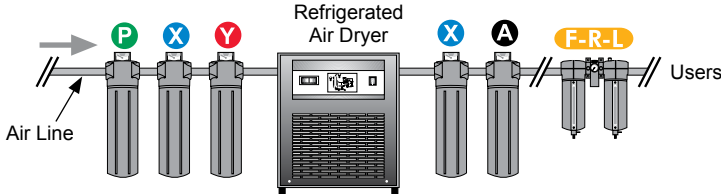
Simple Application / ISO 8573.1 2001 Class 2.-3



General Purpose / ISO 8573.1 2001 Class 1.4.1



Odorless / ISO 8573.1 2001 Class 1.4.1



Critical / ISO 8573.1 2001 Class 1.2.1 -40°F (-40°C), 1.1.1 -94°F (-70°C)

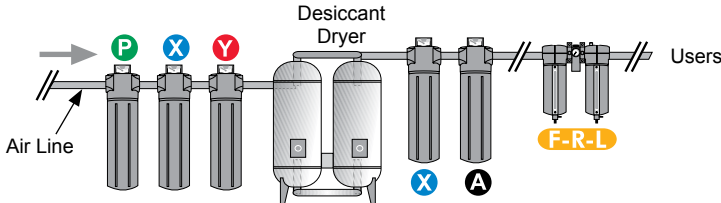


Figure 1 – Typical Setups

TROUBLESHOOTING GUIDE

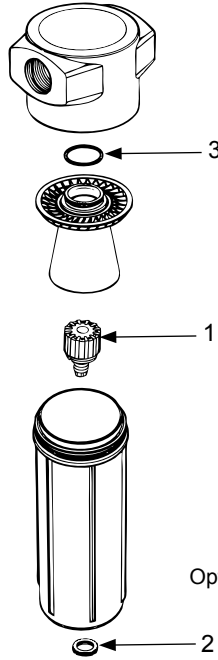
Symptom	Possible Cause(s)	Corrective Action
Float Drain is leaking air	Auto-drain defective	Replace auto-drain
Leak from head/bowl connection	Seal defective	Replace seal

MAINTENANCE INSTRUCTIONS

Except for occasional replacement of float drain the condensate separator is maintenance free.

Replacement of Float Drain

1. Cut the air supply and discharge pressure to the condensate separator.
2. Pull the body off of the head by turning body counterclockwise.
3. Check the O-ring in the head of housing. Replace if necessary.
4. Remove old float drain and replace float drain by loosening external nut at bottom of bowl. Remove old float drain. Insert new float and resecure with the new external nut.
5. Clean and lubricate the threads of the body before reconnecting head.
6. Connect the system to the air supply to check for any leakages.

**REPAIR PARTS ILLUSTRATION FOR 4GNL3 THRU 4GNL9
AND 53RG84 THRU 53RG95**

Option: TDA-25 Timer Drain Adaptor

**REPAIR PARTS LIST FOR 4GNL3 THRU 4GNL9 AND
53RG84 THRU 53RG95**

Ref. No.	Description	Part Number:	Qty.
1, 2	Auto Float Drain and Nut*	4GNN2	1
3	Seal/O-Ring Kit	See Specifications	

(*) Not sold separately.

**For Repair Parts, call 1-800-Grainger
24 hours a day – 365 days a year**

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

SPEEDAIRE ONE-YEAR LIMITED WARRANTY

SPEEDAIRE ONE-YEAR LIMITED WARRANTY. All Speedaire® product models covered in this manual are warranted by Dayton Electric Mfg. Co. ("Dayton") to the original user against defects in workmanship or materials under normal use for one year after date of purchase. If the Speedaire Product is part of a set, only the portion that is defective is subject to this warranty. Any product or part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton or Dayton's designee designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced with a new or reconditioned product or part of equal utility or a full refund given, at Dayton's or Dayton's designee's option, at no charge. For limited warranty claim procedures, see "Warranty Service" below. This warranty is void if there is evidence of misuse, mis-repair, mis-installation, abuse or alteration. This warranty does not cover normal wear and tear of Speedaire Products or portions of them, or products or portions of them which are consumable in normal use. This limited warranty gives purchasers specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

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THIS LIMITED WARRANTY ONLY APPLIES TO SPEEDAIRE PRODUCTS PURCHASED BY UNITED STATES PURCHASERS FOR DELIVERY IN THE UNITED STATES.

WARRANTY SERVICE

To obtain warranty service if you purchased the covered product directly from W.W. Grainger, Inc. ("Grainger"), (i) write or call or visit the local Grainger branch from which the product was purchased or another Grainger branch near you (see www.grainger.com for a listing of Grainger branches); or (ii) contact Grainger by going to www.grainger.com and clicking on the "Contact Us" link at the top of the page, then clicking on the "Email us" link; or (iii) call Customer Care (toll free) at 1-888-361-8649. To obtain warranty service if you purchased the covered product from another distributor or retailer, (i) go to www.grainger.com for Warranty Service; (ii) write or call or visit a Grainger branch near you; or (iii) call Customer Care (toll free) at 1-888-361-8649. In any case, you will need to provide, to the extent available, the purchase date, the original invoice number, the stock number, a description of the defect and anything else specified in this Speedaire One-Year Limited Warranty. You may be required to send the product in for inspection at your cost. You can follow up on the progress of inspections and corrections in the same ways. Title and risk of loss pass to buyer on delivery to common carrier, so if product was damaged in transit to you, file claim with carrier, not the retailer, Grainger or Dayton. For warranty information for purchasers and/or delivery outside the United States, please contact:

**Dayton Electric Mfg. Co.,
100 Grainger Parkway, Lake Forest, IL 60045 U.S.A.
or call +1-888-361-8649**