

### AIR FILTER, REGULATOR & LUBRICATOR

#### Description

The filter/regulator/lubricator is a three part system. The filter is designed to remove most liquid and solid particles from the air supply. The self-relieving pressure regulator is used to adjust the outlet pressure. The lubricator provides oil to the air tool and increases the life of the tool.

#### Specifications

Max. Temperature: 60°C / 140°F  
Set Pressure: 7~150PSI / 0.4~10.3Bar  
Air Inlet/outlet: 1/4", 3/8", 1/2"  
Gauge Ports: 1/8"

#### Unpacking

After unpacking the unit, inspect carefully for any damage that may have occurred during transit. Make sure to tighten fittings, bolts, etc., before putting unit into service.

#### Safety Guidelines

This manual contains information that is very important to know and understand.  
This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information



#### DANGER

*Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.*



#### WARNING

*Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.*



#### CAUTION

*Caution indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.*

#### General Safety

#### Information

This product is a part of a high pressure system and the following safety precautions must be followed at all times along with any other existing safety rules.

Read this instruction manual before installing this device to the air supply system. Be thoroughly familiar with the controls and the proper use of the equipment.

1. Safety glasses must be worn during operation. Always work in a well ventilated area.
2. Do not exceed any pressure rating of any component in the system.
3. Protect air lines from damage and/or punctures.
4. Check air hoses for weak or worn condition before each use. Make sure all connections are secure.
5. Keep all nuts, bolts and screws tight and ensure equipment is in safe working condition.



#### DANGER

*This product is specifically designed for compressed air service ONLY. Use with any other material (liquid or gas) is a misapplication and not permitted. Use or injection of certain hazardous liquids or gases in the system (such as oxygen, alcohol or liquid petroleum gas) will harm the unit and result in a combustible condition or hazardous external leakage. misapplication will void all warranties and manufacturer's responsibilities.*



**DANGER**

***The relief flow capacity of regulators is limited. Install additional pressure relief devices to alleviate over pressurized conditions. Written approval must be obtained from manufacturer if this device is to be used for life support systems or other non-industrial applications.***

**Installation**

1. The assembly of all calibration shall meet the maximum flow requirement.
2. Direction air flow in the triangle "▷" on the primary unit.
3. Site as close to the unit to be protected as possible.
4. Place free of direct sun shine, hot area, and hazardous chemicals.
5. The water drainage shall be deployed beneath the water discharge for outlet of water into proper area.
6. Site as close to the unit to be lubricated as possible.
7. Direct installation of filter pressure regulator before the lubricator.
8. Add the lubricant into the oil cup.

**Operation / Maintenance****A. Filter**

1. Inspect and replace cracked, damaged or deteriorated seals. wipe bowls with a soft, dry cloth to clean.
2. Replace filter element moment: when filter element dirty bring flow and filter effect become less.
3. Drain bowls at least once per work shift. to avoid spray or splatter, cover bottom of filter with a cloth and turn the manual drain.
4. Before placing the unit in service, make sure the bowl is reinstalled and securely locked in place.
5. Drainage:  
*Semi-auto drain*
  - a. If no pneumatic pressure, water will discharge.
  - b. When there is pneumatic pressure coming, discharge will be stopped automatically. When water exceeds the level, please drain off the water manually by turning off the part 12 to "▽" then water will be discharged. After drainage is done, please turn of the part 12 to "△".
  - c. when the water level exceeds the maximum limit, please drain off the water to keep optimal dehumidification.

*Option: Manual drain*

Press up the bottom of brass drain body, then it will start to drain.

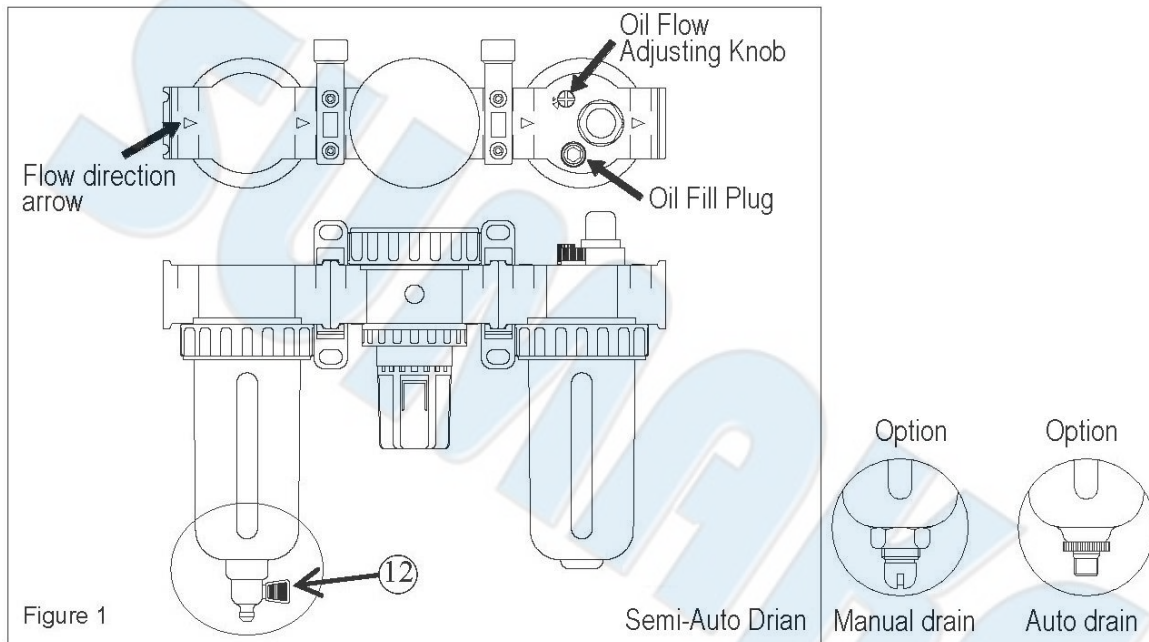
*Option: Auto drain***B. Regulator**

1. Before pressurizing system, make certain the bowl is securely locked in place by hand tightening the bowl ring until it is snug.
2. Unlock the regulator adjusting knob by pulling knob away from the regulator.
3. Turn the regulator adjusting knob counterclockwise until no load is on the regulating spring.
4. Turn on the air pressure supply and turn the adjusting knob clockwise until the desired outlet pressure is reached. Push the regulator adjusting knob toward the regulator to lock in desired pressure.

**C. Lubricator**

1. Before pressurizing system, make certain the bowl is securely locked in place by hand tightening the bowl ring until it is snug.
2. Fill the lubricator bowl with oil.
3. The oil flow is controlled by the narrow cylindrical adjustment screw (see Figure 1). Turn counterclockwise for more or clockwise for less oil delivery rate automatically adjust with changes in air flow.
4. The lubricator can be filled while the system is under pressure. Slowly remove the oil fill plug (see Figure 1) to allow relief of air pressure. After the oil fill plug has been removed. Pour oil into the lubricator and then replace it. Replace the oil fill plug before resuming operation. Alternatively, the bowl can be removed once the oil fill plug is removed. If the bowl is removed to replace the oil, be certain the bowl is back in place and bowl ring tight before replacing the oil fill plug.
5. Minimum Dripping Flow Rate: 1/4":30 / 3/8":40 / 1/2":50 (L/min(ANR))
  - The flow rate is 5 drops or greater/min under the following conditions: Inlet pressure of 0.5 MPa; Class 1 turbine oil (ISO VG32); Temperature at 20°C; Oil adjustment valve fully open.

- For a circuit that repeatedly turns ON and OFF on the outlet side, make the adjustment so that the average air consumption per minute becomes the minimum dripping flow rate or more.
- Lubrication cannot be properly performed if the operating flow rate is too low. Select an appropriately size lubricator by referring to the minimum dripping flow rate provided in the catalog.



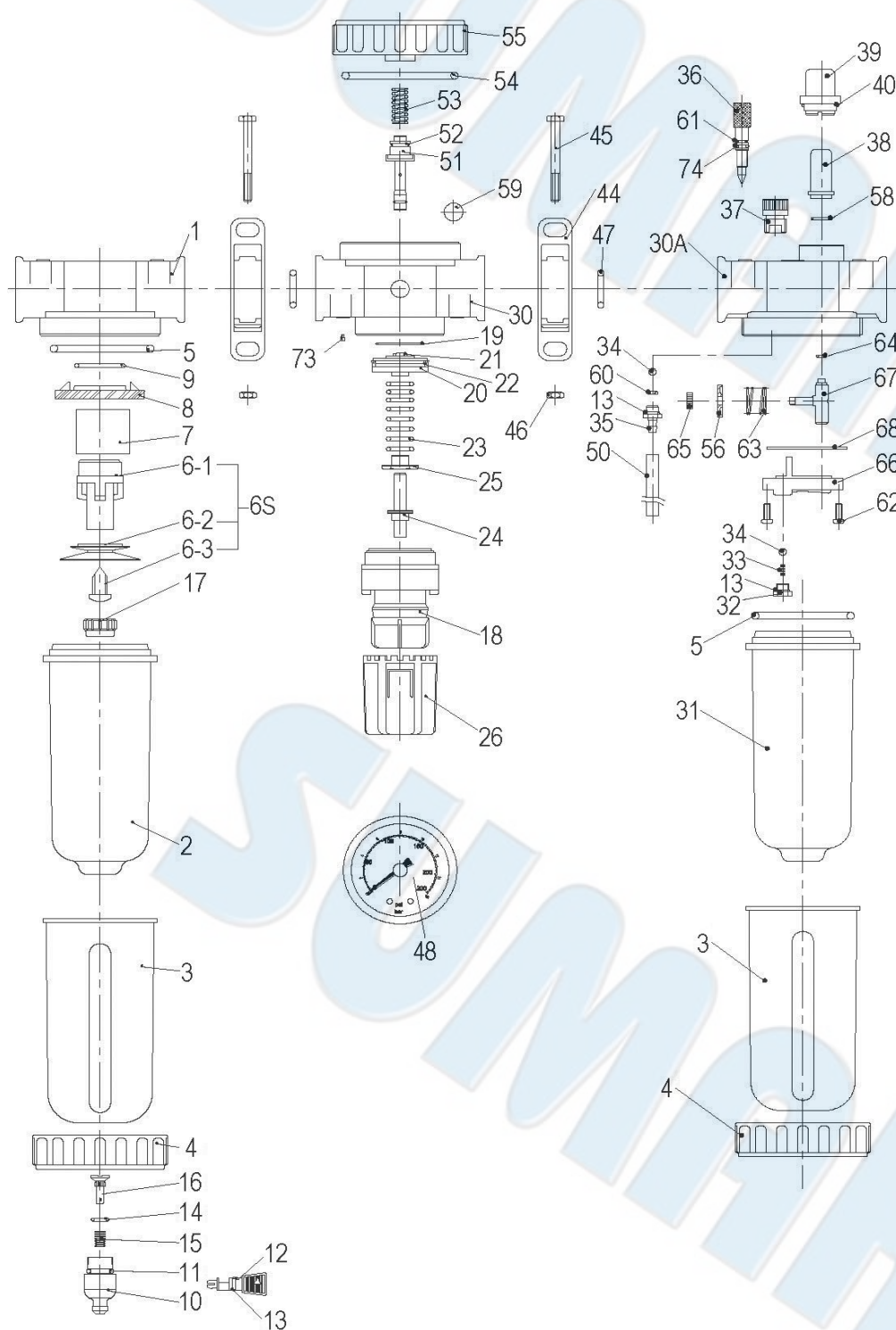
### Limited Warranty

1. DURATION: From the date of purchase by the original purchaser as follows: One Year.
2. WHAT IS COVERED UNDER THIS WARRANTY: Substantial defects in material and workmanship which occur within the duration of the warranty period.
3. WHAT IS NOT COVERED UNDER THIS WARRANTY:
  - A. Implied warranties, including those of merchantability and FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED FROM THE DATE OF ORIGINAL PURCHASE AS STATED IN THE DURATION. If this product is used for commercial, industrial or rental purposes, the warranty will apply for ninety (90) days from the date of purchase. Some States do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you.
  - B. ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF THE SUMAKE PRODUCT. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
  - C. Any failure that results from an accident, purchaser's abuse, neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) supplied with product. Accident, purchaser's abuse, neglect or failure to operate products in accordance with instructions shall also include the removal or alteration of any safety devices. If such safety devices are removed or altered, this warranty is void.
  - D. Normal adjustments which are explained in the owner's manual(s) provided with the product.
  - E. Items or service that are normally required to maintain the product, i.e. o-rings, springs, bumpers, debris shields, driver blades, fuses, batteries, gaskets, packings or seals, fluid nozzles, needles, sandblast nozzles, lubricants, material hoses, filter elements, motor vanes, abrasives, blades, cut-off wheels, chisels, chisel retainers, cutters, collets, chucks, rivet jaws, screw driver bits, sanding pads, back-up pads, impact mechanism, or any other expendable part not specifically listed. These items will only be covered for ninety (90) days from date of original purchase. Underlined items are warranted for defects in material and workmanship only.
4. RESPONSIBILITIES OF WARRANTOR UNDER THIS WARRANTY: Repair or replace, at Warrantor's option, products or components which are defective, have malfunctioned and/or failed to conform within duration of the warranty period.
5. RESPONSIBILITIES OF PURCHASER UNDER THIS WARRANTY:
  - A. Provide dated proof of purchase and maintenance records.
  - B. Deliver or ship the SUMAKE product. Freight costs, if any, must be borne by the purchaser.
  - C. Use reasonable care in the operation and maintenance of the products as described in the owner's manual(s).



# SA-2312, SA-2313, SA-2314

## 1/4"(3/8")(1/2") AIR FILTER, REGULATOR & LUBRICATOR



### PARTS LIST

No.	Parts No.	Description
1	SA2312-01	Body 1/4" [SA-2312]
	SA2313-01	Body 3/8" [SA-2313]
	SA2314-01	Body 1/2" [SA-2314]
2	SA2312-02	Bowl
3	SA2312-03	Shatterguard
4	SA2312-04	Fixed Ring
5	SA2312-05	O Ring
6S	SA2312-06S	Bowl Baffle Set [Incl. 6-1, 6-2, 6-3]
6-1	SA2312-06-1	Bowl Baffle
6-2	SA2312-06-2	Bracket Base
6-3	SA2312-06-3	Screw
7	SA2312-07	Filter Element
8	SA2312-08	Interceptor
9	SA2312-09	O Ring
10	SA2312-10	Body
11	SA2312-11	O Ring
12	SA2312-12	Valve
13	SA2312-13	O Ring
14	SA2312-14	O Ring
15	SA2312-15	Spring
16	SA2312-16	Piston
17	SA2312-17	Nut
18	SA2312-18	Dome
19	SA2312-19	O Ring
20	SA2312-20	Piston
21	SA2312-21	O Ring
22	SA2312-22	V Ring
23	SA2312-23	Spring
24	SA2312-24	Adjusting Screw
25	SA2312-25	Nut
26	SA2312-26	Knob
30	SA2312-30	Body 1/4" [SA-2312]
	SA2313-30	Body 3/8" [SA-2313]
	SA2314-30	Body 1/2" [SA-2314]
30A	SA2312-30A	Body 1/4" [SA-2312]
	SA2313-30A	Body 3/8" [SA-2313]
	SA2314-30A	Body 1/2" [SA-2314]
31	SA2312-31	Bowl
32	SA2312-32	Nut
33	SA2312-33	Spring
34	SA2312-34	Ball
35	SA2312-35	Plug
36	SA2312-36	Adjusting Screw
37	SA2312-37	Fill Plug
38	SA2312-38	Inside Cup
39	SA2312-39	Outside Cup
40	SA2312-40	O Ring
44	SA2312-44	Joiner
45	SA2312-45	Screw
46	SA2312-46	Nut
47	SA2312-47	O Ring
48	SA2312-48	Gauge
50	SA2312-50	Tube
51	SA2312-51	Valve
52	SA2312-52	O Ring
53	SA2312-53	Spring
54	SA2312-54	O Ring
55	SA2312-55	Cap
56	SA2312-56	Adjusting Ring
58	SA2312-58	O Ring
59	SA2312-59	Nut
60	SA2312-60	O Ring
61	SA2312-61	O Ring
62	SA2312-62	Screw (M3x0.5Px12L)
63	SA2312-63	Spring
64	SA2312-64	O Ring
65	SA2312-65	Screw
66	SA2312-66	Mounting
67	SA2312-67	Frisket
68	SA2312-68	Gasket
71	SA2312-71	O Ring
73	SA2312-73	Throttle Plug
74	SA2312-74	O Ring