### **SILENTAIRE** TECHNOLOGY

# so quiet you don't know 't's there







**General User and Maintenance Guide** 

#### **Congratulations!**

You have purchased the finest of specialty air compressor products in the world. The manufacturer is the world's largest in specialty, silent and portable air compressors. The factory ensures the longevity and trouble-free operation of its compressors by performing extensive tests on each machine.

Phone: (832) 327-9378

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#### **Silentaire Technology**

We are a full service organization offering over 50 different models of silent and oil-less compressors. **Silentaire** Compressors are used were compressed air is necessary but noise is undesirable.

#### **Examples of applications for Silentaire Compressors:**

- Laboratories
- Medical, Dental, Optical and Veterinary
- Electronic Plotters and Repair Centers
- Jewelry and Engraving
- Photo Dust Control and Film Processing
- Food and Beverage Dispensing
- Art Airbrushing
- Beauty, Nails and Cosmetics
- Exercise Equipment
- Modelism
- Automatic Doors and Safety Equipment
- Stapling and Framing
- Vending Machines
- Robotic and Pneumatic Control

This guide provides information on general machine setup, maintenance instructions, trouble shooting, safety tips, and equipment warnings. You will also find specific information on your compressor, including diagrams and parts list.

Inspect the unit for damage during transport. If any, report problem to carrier. SILENTAIRE IS NOT RESPONSIBLE FOR DAMAGE CAUSED DURING SHIPPING.

#### **SUPPLIES**

The shipping package should contain the following supplies:

#### 1 bottle of Special Synthetic Oil

# Silentaire Technology

Compressor Oil

A high quality synthetic oil for use in SIL-Air and Super Silent Compressors.

Read instruction manual before using.

1/4" NPT – Nipple (Male) installed at pressure regulator or requires installation

selected models



#### Air-Intake Filter



**Coalescent Filter** 

selected models

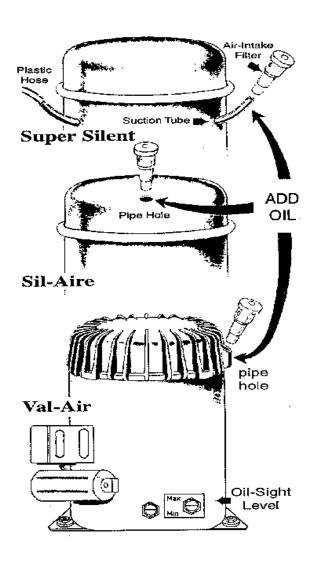


## The 5 Golden Rules for a long-lasting relationship with your air compressor:

- **1.** Read your manual and follow instructions.
- 2. Frequently maintain your unit and most importantly check the oil level, drain tank, and Air-Intake Filter (See Maintenance Section).
- **3.** Use proper compressor model for your application.
- **4.** Keep the unit's air consumption as low as possible by reducing pressure.
- **5.** Make sure you have no leaks in your installation. Use Teflon® tape on all threaded connections.

Warning: The compressor has no oil

This safety precaution is used during transportation to prevent oil from penetrating the compression chambers that would cause the unit to malfunction.



Note: The ON/OFF switch is situated on the cover of the pressure switch. when started, the compressor will pump air into the tank until the air pressure has reached 8 bars. The pressure

switch is set to stop the ocmpressor at a pressure of 8 bars and automatically restarts the unit if the pressure drops to 6 bars. If the pressure switch fails to operate (overpressure), a safety valve automatically operates until the pressure reaches 10 bars. Once the tank is under pressure, the regulator can be set to the required pressure valve.

#### **MACHINE SETUP**

- 1. Take the compressor out of the box.
- 2. Turn the compressor's switch to OFF position.
- Remove and store the rubber or clear plastic shipping caps from the Suction Tube or pipe hole of the compressor (depends on the model).
- 4. For SuperSilent model 20-A, 30-TC and 50-TC, add the oil through the suction tube mid-point level (check the Oil-Sight Level). For all other models, pour oil into open pipe hole (see figure) until it's at the mid-point level.
- 5. Store any remaining oil in the bottle for future use.

Warning: Never use oil different from that recommended by the manufacturer, as this will void all warranties. Overturning or excessively tilting compressor will cause the oil to spill out of machine.

 After adding the oil, remove the Air Intake filter from the plastic bag and use normal hand pressure to insert the filter into the Suction Tube or pipe hole (depends on the model).



#### PRESSURE REGULATOR

7. Connect your equipment to the outgoing part of the Pressure

Regulator which is equipped with ¼" male NPT thread.

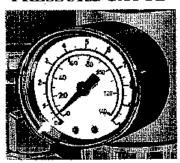
Always use Teflon® tape on pressure thread connectors.

MACHINE SETUP CONT.

9. Turn the compressor's switch to the ON position.

**Warning:** Never remove or repair the ON/Off switch. The power supply voltage must be 110/60hz.

#### PRESSURE GAUGE



- Watch the Pressure Gauge on the tank to see when the unit is pressurized.
- 11. Set the pressure to the minimum standard for your equipment by lifting up the knob of the pressure regulator. Turn it clockwise to increase the pressure or counter clockwise to reduce the pressure.

**Warning:** Do not completely open the knob or you may damage your machine.

- After successfully using your compressor, turn the unit off and perform maintenance as needed.
- If moisture or oil is visible in glass bowl, drain it slowly turning and pushing up the valve (located at bottom of Pressure Regulator).
- 14. Replace filter element in the Pressure Regulator if it is discolored.
- 15. Let the machine sit overnight. If on the next day, the pressure gauge on the tank is within 60p.s.i. your installation is reasonably sealed. If pressure is less than 60 p.s.i., check for possible leaks at all

connections (i.e. drain valve, hoses and air guns).

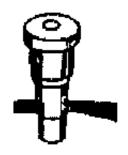
#### **WARNINGS**

- Use only a properly grounded outlet that will accept 3-prong plugs. Do not operate the compressor with a damaged cord.
- Never attempt to service the compressor while it is plugged into an electrical outlet.
- Any attempt to use an oil not specified by manufacturer will result in compressor breakdown and will void stated warranty.
- 4. To prevent electrical shock, do not use compressor in the rain.
- Do not direct the air stream towards your body.
- 6. Only use the compressor in a well ventilated area. Danger of fire or explosion can occur in a closed room.

#### SAFETY TIPS

- 1. Always operate the compressor on a level surface.
- 2. Use only factory authorized parts.
- 3. Do not mix or substitute the oil in your compressor with other available brands.
- Carefully inspect hoses, fittings and overall appearance of the compressor before using.
- 5. Keep the compressor free from dust, dirt and paint to prevent clogging the air filter.
- 6. Wear safety mask when spraying flammable liquids or using synthetic paints or thinners.
- 7. Always store the compressor in a clean dry place when not in use.
- 8. Make sure all air pressure has been released from the system.
- 9. Avoid direct contact with pump while operating the compressor (temperatures up to 220° F).
- 10. Adjust pressure regulator to the minimum pressure your equipment requires.

#### **AIR-INTAKE FILTER**



## OIL LEVEL SIGHT GLASS COMPRESSOR SPECIFICATIONS



#### **COMPRESSOR OIL**

A high quality synthetic oil for use in SIL-Air and Super Silent Compressors.

Read instruction manual before using.

#### PRESSURE TANK



#### **MAINTENANCE**

#### AIR-INTAKE FILTER

- 1. Unplug power cord.
- 2. Pull out Air-Intake Filter and Remove.
- 3. If dirty, wash or replace filter element.
- 4. Push filter back into position and tighten.

#### **OIL LEVEL SIGHT GLASS**

(For oil compressors only)

- Oil level should be at the MID level when compressor is not running and at the lower level when the machine is on.
- Change oil if it is discolored or used more than 150 hours.

#### **OIL CHANGE**

(For oil compressors only)

- Remove the plastic hose and the Air-Intake Filter and plug from suction tubes and open Pressure Tank drain valve (location depends on model).
- 2. Tilt compressor and drain all oil into a container.
- 3. Return unit to upright position.
- 4. Fill oil into pipe hole or suction tube.
- 5. Reinstall the Air-Intake Filter and hoses, and close drain valve.
- 6. Verify that the oil level is at MID level mark.

#### PRESSURE TANK

(Daily Maintenance)

- 1. Drain the Pressure Tank daily to release the air and water by slowly turning drain valve.
- 2. Close the Pressure Regulator by turning it counter clockwise and by removing the Air-Intake Filter and plastic hoses (if applicable).
- 3. Tilt unit towards the hole to let the water drain.

- 4. Once tank is empty, close the drain valve and re-install the Air-Intake Filter and plastic hoses.
- 5. Note the time of day.

6. Store compressor upright and in a clean, dry place.

To find out if your compressor is functioning properly, turn the machine off and perform the Pressure Tank maintenance (see instructions on opposite page). Once completed, turn the machine on and measure the time it takes to fill up the tank to full pressure. Refer to Time Chart below for your model's fill time. Your compressor is running perfectly if it runs within 10% of the time listed.

#### TIME CHART

Super Silent		Sil-Air		Val-Air	
20-A	33 sec.	50-15	2 min 30 sec	50-15	2 min 30 sec
30TC	1 min 4 sec	50-24	3 min 40 sec	50-24AL	3 min 40 sec
50TC	35 sec	100-24	1 min 55 sec	100-24	1 min 55 sec
50-6	1 min	100-50	3 min	150-50	3 min
50-9D	1 min 20 sec				
<b>50-10S</b>	1 min 30 sec				

#### TROUBLE SHOOTING CHART

	TROUBLE SI			
TROUBLE	CAUSE	REMEDY		
	No Power  Bad cord connection for incorrect extension cord	Check outlet voltage, fuse and circuit breakers  Check cord connection for visible damage- if using an extension cord, make sure it is UL approved, and it's heavy duty and grounded		
Compressor will not run	Holding tank is fully pressurized	Use your equipment to lower pressure in tank		
	Thermal overload protection has tripped	Wait 15 minutes and try starting again – if this was the cause; make sure compressor is in well ventilated area: check installation leaks; set the regulator's pressure minimum required for your equipment		
	Air pressure regulator not set properly	Reset Air-Regulator to pressure required by your equipment		
Compressor runs but	Air-Intake Filter clogged or not installed	Clean Air-Intake Filter or replace		
will not supply air	Extensive leak	Install Air-Intake Filter on suction tube or hole (see machine set-up); check all fittings, connections and equipment, close your pressure regulator all the way (counterclockwise) – if pressure in tank builds up, leak is in your installation		
Rattling noise during operation	Compressor motor touching shell	Operate on level surface – check oil level and adjust if it's necessary		
Milky oil in compressor	Oil has been contaminated with moisture or other foreign matter	Change oil – Oil needs to be changed every 150 hours; use only original oil from <i>Silentaire Technology</i>		
Air-Tank not holding pressure when compressor is not running	Faulty Check Valve	Disconnect pressure hose at pump and check for leaking back into pump – Clean or replace the check valve – Spray all connections and manifold with soap solution and reseal or replace leaking parts		
No air pressure shown	No equipment connected to compressor	Connect equipment		
on regulator gauge	Regulator has not been adjusted	Lift knob and turn clockwise until gauge shows required pressure – Gauge should be set at minimum level required by your equipment		
Compressor operates very hot	Oil level is incorrect	Fill unit with oil unit MID level. Make sure compressor is well ventilated area.		
	Non-Ventilated Area			

		Duty cycle of compressor should not exceed 50% - if pump is on for 1 minute it should stay off 1 minute	
Leaks in installation		Make sure no leaks are present. The setting on the pressure regulator must be at your equipment minimum level.	