ROTARY SCREW COMPRESSOR MAINTENANCE

QUALITY & VALUE
CAS
SINCE 1980

ROTARY SCREW MAINTENANCE SCHEDULE

Air Filter

The air filter is the primary protection of the compressor from harmful dirt being ingested into the oil system. It needs to be looked at periodically for clogging or holes. The period for theses inspections is dependent on the environment the machine is in. For optimum life it is recommended that an air filter restriction indicator be used. Service simply based on hours is not recommended.

Oil Filter

The oil filter in the compressor system is a full flow replaceable canister type. Initially the filter should be replaced after 50 hours of operation. Then every 500 hours or sooner as indicated by a maintenance gauge. This element protects the compressor bearings from grit and dirt ingression throughout the system. A dirty filter will cause an oil flow restriction that can result in high oil temperature and a unit shutdown.

Air/Oil Separator

The air/oil separator should be changed every 2000 hours, or when there is excessive oil vapor in the discharge air.

LOCATION

Locate the compressor in an indoor area that is clean, dry, well lighted, and well ventilated, with sufficient space for safe and proper inspection and maintenance. Ambient temperatures should not exceed 104 degrees F or fall below 30 degrees unless an electric motor rated for a higher temperature is used. Inspection and maintenance checks are required daily, therefore, ample space is required around the compressor.

The compressor must not be installed closer than fifteen inches from a wall or from another compressor to allow ample circulation or air across the compressor cylinders and head, and through the coolers if they are part of the system. Additional safety can be achieved by locating the pulley guard next to the wall.

MOUNTING

We recommend the use of rubber pads or isolators between the tank legs and the floor. If a shim is required to level the unit, place it between the pad and floor. If you bolt the unit to the floor, use the bolts as guide pins and do not tighten the bolts. The rubber pads are used to absorb machine vibration and cannot work effectively if bolted tightly.

INDUCTION SYSTEM

Do not locate the compressor where it could ingest or ignite toxic, explosive or corrosive vapors, ambient air temperatures exceeding 104 degrees F, water or extremely dirty air. Ingestion of any of the above noted atmospheres by the compressor could jeopardize the performance of the equipment and all personnel exposed to the total compressed air system.

Depending on the size of the compressor and the size and construction of the compressor room it may be necessary to locate the air pickup point outside the room. Destructive pulsations can be induced by reciprocating compressors that will damage walls and break windows. Pulsation can be minimized by adding a pulsation dampener on the inlet side of the compressor.

Oil Filter Replacement

1. Switch off the unit and disconnect the power to prevent accidental starting.
2. Allow one minute after stopping for the system to settle and the pressure to be relieved.
3. Using a strap wrench, remove the old element and gasket.
4. Clean the gasket surface with a clean rag.
5. Apply a light film of oil to the new gasket.
6. Hand tighten the new element until the new gasket is seated in the gasket groove.
7. Continue tightening by hand an additional ½ to ¾ turn.
8. Reconnect power and restart the machine to check for leaks.

Air/Oil Separator

The air/oil separator should be changed every 2000 hours, or when there is excessive oil vapor in the discharge air.

Separator Element Replacement

1. Switch off the unit and disconnect the power to prevent accidental starting.
2. Allow one minute after stopping for the system to settle and the pressure to be relieved.
3. Using a strap wrench, remove the old element and gasket.
4. Clean the gasket surface with a clean rag.
5. Apply a light film of oil to the new gasket.
6. Hand tighten the new element until the new gasket is seated in the gasket groove.
7. Continue tightening by hand and additional ½ to ¾ turn.
8. Reconnect power and restart the machine to check for leaks

Lubricant

Your compressor has been filled and tested with CAS RS8000, a high quality compressor lubricant. It is a PAO with the advantage of extended service life, high temperature operation, easy start-up when cold, reduced sludge and lacquer buildup, and is completely compatible with all seals, gaskets and other compressor materials.

Lubricant Specifications

If you choose not to use CAS RS8000, for optimum life and warranty service your lubricant must meet the following specification:

Grade ISO	46
Viscosity@100oF,cST	46
Viscosity@210oF,cST	7.93
Viscosity Index	100 or more
Pour Point, F	-20 or less
Flash Point, F	400 or more
Fire Point, F	450 or more
Rust Test ASTM-FG-665 A&B	Pass
Oxidation Test, ASTM0-D943	1500
Emulsion Test, ASTM-D1401	10 Min.
Foam Test, ASTM	Pass

Hot oil under pressure will cause severe injury, death, or property damage.
Be sure the compressor is shutdown and pressure relieved before attempting to remove the oil filter, separator, oil fill, or change the oil.

Warning: To avoid personal injury, always shut OFF the main power supply and disconnects to the compressor, relive all air pressure from the system, and check electrical system with electrical probe before starting any service or maintenance on the compressor.

Daily:
Drain the Receiver- condensation will accumulate in the tank daily, and should be drained at least once a day. This is done to reduce corrosions of the tank from the inside. Always wear protective eyewear when draining the tank.

Check Airend Oil Level- remove oil fill cap and check for proper level. Oil should be half way up the at the bottom or half way up the threads on the oil fill

Check Oil Cooler: check cooler for proper air flow to keep unit cool clean if necessary

Check unit for any unusual noise or vibrations

Weekly:
Clean air filter: this will ensure that no dirt or heavy particulate makes its way into the compressors valve assemblies

Clean external parts of compressor and electric motor: this helps to ensure proper cooling and prevents rust and corrosion on critical parts

Check safety Valves: this is don't to ensure they are not stuck in place and operating properly

Monthly:
Inspect complete air system for leaks: this is done to make sure the compressor does not get out of its duty cycle due to air leak in the system

Inspect Oil for Contamination: this is done to ensure that harmful deposits do not build up in the oil

Check belt tension: this is done to ensure the belt do not fail pre-maturely, tighten them as needed to ensure they do not slip

Every 3 months (every 500hrs):
Change oil filter: this is done to ensure that the compressor has proper oil level and that the oil in the machine does not deteriorate past factory specifications

Yearly (every 2000 hrs)
Change oil: change with only CAS RS 8000

Clean Oil Cooler: this is done to ensure adequate cooling for the compressor air end.

Storage of Compressor: before storing the compressor for a prolonged period of time, use a blow gun to clean all debris from compressor. Shut OFF main power and turn OFF disconnect. Drain tank pressure, clean air filter, drain old oil and replace with new oil. Cover the unit to prevent dust and moisture from collecting on the unit.