

OIL-FREE COMPRESSORS

MONTHLY MAINTENANCE

Monthly maintenance must be carried out by specially instructed surgery staff



- Always refer to the operator's handbook before carrying out any work
- Manuals are available on the website www.cattani.it
- Prior to carrying out any servicing operation make sure to wear disposable gloves, goggles, a mask and overalls
- Disconnect the appliance from the power
- Keep the plant room free from flammable and corrosive mixtures



MONTHLY CHECKS

CLEAN KEY PARTS OF THE COMPRESSOR SYSTEM

If the compressor is installed in an environment whereby it is subject to large amounts of dust and other debris, the cooling fans of the compressor pump (1), the electric motor (2) and the air-to-air heat exchanger (3) should be cleaned frequently by blowing out with clean compressed air.

REPLACE THE AIR INTAKE FILTERS

The compressor air intake filters will need to be replaced more frequently in such an environment as above.

CHECK THE COOLING FANS ARE FUNCTIONING CORRECTLY

Every 12 months, the efficiency and effectiveness of the cooling fans should be checked as the compressor cannot withstand extended periods of time with inadequate ventilation.

CHECK FOR MOISTURE

Periodically open the tap (4) located under the compressor tank and check if any moisture is present. If so, contact a service technician for further advice.

CHECK THE ROOM TEMPERATURE

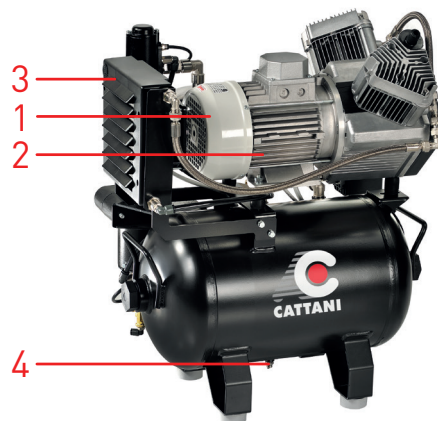
Keep in mind that the effectiveness of the air drying system is reduced with temperatures in excess of 35°C. If no air is being consumed, the compressor should not activate. If this happens, check the system and any instruments connected to the system for air leaks. The charging time is approximately 45 – 55 seconds, whilst the down time (to regenerate the drying column and allow for cooling) should be approximately 1/3 of the charging time. Careful monitoring of the system prolongs the life of the machine as small problems can be realised and rectified before they become large or catastrophic problems.

LISTEN FOR ABNORMAL SOUNDS OR VIBRATIONS

If the machine starts to make abnormal sounds or vibrations, it can mean something is loose or worn. In this case, contact a service technician. The operator may decide to increase or reduce the frequency of maintenance operations based on the work load and the environment in which the compressor is installed.

COMPRESSOR DRYER DRAIN BOTTLE

Please ensure the drain bottle is emptied on a monthly basis or more frequently if required. If you find any white sediment in the bottle then the compressor is in need of a service, please contact your service technician.



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View on your phone or tablet



HOW IS IT WE LEAD IN OUR FIELD, WHEN WE COST LESS THAN THE ALTERNATIVES? THIS IS HOW:

Constant research: this enables us to apply the latest technology to all of our products and solutions.

We enhance performance: electronic and information technology enable us to enhance the performance and reliability of our products.

We reduce costs: less maintenance and lower energy costs mean that we are always the most economical on a cost-benefit analysis.

We reduce environmental impact: we save 50% on raw materials, so that you can save between 30% and 50% on electrical consumption.

OIL-FREE COMPRESSORS ANNUAL MAINTENANCE

Annual maintenance must be carried out by a trained engineer in possession of original spare parts



- Always refer to the operator's handbook before carrying out any work
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- Disconnect the appliance from the power
- Keep the plant room free from flammable and corrosive mixtures



BEFORE CARRYING OUT MAINTENANCE

For surgeries working an average of 8 hours a day, 5 days a week, maintenance checks every 6-12 months is sufficient provided that the compressor is also monitored and maintained by a trained member of the staff (see Monthly Maintenance).

The service technician must only use genuine Cattani spare parts, must not alter the operation nor modify the machine or in particular, the safety devices. Most importantly, any weld or alteration to the compressor tank is strictly forbidden.

Before attempting any maintenance on the compressor, isolate the power to the

machine by unplugging it from the electrical supply socket and ensure nobody and restore the power without informing the person in charge of the maintenance. If the isolation point is not able to be monitored visually, then an appropriate lockout device shall be installed.

Release enough pressure to start a cycle. Ensure that with each charge the compressor reaches the maximum pressure value, that the charge time is within the range of 45 – 55 seconds and the down time (to regenerate the drying column and allow for cooling) is approximately 1/3 of the charging time.

CHECK AND REPLACE EVERY 12 MONTHS

CHECK THE CURRENT ABSORPTION

Check the current absorption throughout the charge cycle and ensure it does not exceed the full load current value stated on the nameplate. At the end of each charge cycle, the volume of air held in the small tank on the drying column escapes through the solenoid at the base of the drying column (to regenerate the silica gel) and carries absorbed fluid into the collection bottle. This process also unloads the pressure in the cylinders. If this does not occur, check the solenoid and clean or replace as necessary.

CHECK FOR AIR LEAKS

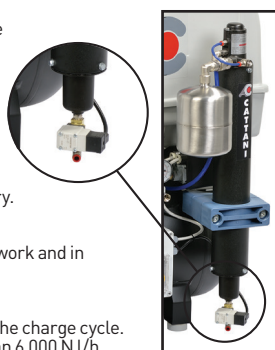
Check for any air leaks on the compressor, the pipe work and in the chair connections.

CHECK THE AIR FLOW OF EACH CYLINDER

Check the air flow of each cylinder inlet throughout the charge cycle. The air drawn into the cylinder should be greater than 6,000 N l/h.

REPLACE ELECTRICAL COMPONENTS

Replace any burnt out lamps within the control panel and replace any relay or contactors that arc excessively or have badly worn contacts. Do not modify any of the electrical or mechanical safety protection.



LISTEN FOR ABNORMAL OPERATING SOUNDS

Changes in operating sound may be a sign of excessive wear. To avoid possible malfunction or component breakages, investigate the origin of any abnormal sounds.

CHECK TEMPERATURE OF THE PLANT ROOM

Check the temperature of the plant room. Temperatures in excess of +35°C will reduce the effectiveness of the drying column and will shorten the life of the compressor. Open the tap located under the compressor tank and check if any moisture is present. If so, possible causes are related to aforementioned checks: effectiveness of the air-to-air heat exchanger cooling fan, plant room temperature, cycle charge time and down time and drying column drain solenoid operation.

REPLACE THE HEPA FILTER CARTRIDGES

HEPA H14 replacement filter cartridges are provided with fitting instructions that should be followed. In an environment with relatively clean air, it is sufficient to replace filters every 12 months. To service this filter, firstly electrically isolate the compressor, close the compressed air outlet tap and drain the tank by opening the drain valve (8) located under the tank. Replacement cartridges are available (for replacement follow the instructions enclosed to the filter).



**Annual maintenance must be carried out by a trained engineer in possession of original spare parts
EVERY 3 YEARS THE DRYING COLUMN MUST BE REPLACED**

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OIL-FREE COMPRESSORS SERVICING REQUIREMENTS

Annual and 3 Year servicing must be carried out by a trained engineer in possession of original spare parts



STANDARD SERVICE KITS

AC100 (1 Cylinder) - Annual Kit

SERV-AIR1-A

1 x 168563	Filter for compressor air intake
1 x 189115	Capacitor 20mfd 450vwwg

AC100 (1 Cylinder) - 3 Year Kit

SERV-AIR1-B

1 x 070705	Drying column kit 1 cylinder compressor
1 x 168563	Filter for compressor air intake
1 x 189115	Capacitor 20mfd 450vwwg

AC200 (2 Cylinder) - Annual Kit

SERV-AIR2-A

2 x 168563	Filter for compressor air intake
1 x 189116	Capacitor 40mfd 450vwwg

AC200 (2 Cylinder) - 3 Year Kit

SERV-AIR2-B

1 x 070700	Drying column kit 2 cylinder compressor
2 x 168563	Filter for compressor air intake
1 x 189116	Capacitor 40mfd 450vwwg

AC300 (3 Cylinder) - Annual Kit

SERV-AIR3-A

3 x 168563	Filter for compressor air intake
1 x 189148	Capacitor 55mfd 450vwwg

AC300 (3 Cylinder) - 3 Year Kit

SERV-AIR3-B

1 x 070750	Drying column kit 3 cylinder compressor
3 x 168563	Filter for compressor air intake
1 x 189148	Capacitor 55mfd 450vwwg

AC400 (4 Cylinder) - Annual Kit - Single Phase Only

SERV-AIR4-A

4 x 168563	Filter for compressor air intake
2 x 189116	Capacitor 40mfd 450vwwg

AC400 (4 Cylinder) - 3 Year Kit - Single Phase Only

SERV-AIR4-B

2 x 070700	Drying column kit 2 cylinder compressor
4 x 168563	Filter for compressor air intake
2 x 189116	Capacitor 40mfd 450vwwg

AC600 (6 Cylinder) - Annual Kit - Single Phase Only

SERV-AIR6-A

6 x 168563	Filter for compressor air intake
2 x 189148	Capacitor 55mfd 450vwwg

AC600 (6 Cylinder) - 3 Year Kit - Single Phase Only

SERV-AIR6-B

2 x 070750	Drying column kit 3 cylinder compressor
6 x 168563	Filter for compressor air intake
2 x 189148	Capacitor 55mfd 450vwwg

AC900 (9 Cylinder) - Annual Kit - 3 Phase Only

SERV-AIR9-A

9 x 168563	Filter for compressor air intake
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AC900 (9 Cylinder) - 3 Year Kit - 3 Phase Only

SERV-AIR9-B

3 x 070750	Drying column kit 3 cylinder compressor
9 x 168563	Filter for compressor air intake

AC1200 (12 Cylinder) - Annual Kit - 3 Phase Only

SERV-AIR12-A

12 x 168563	Filter for compressor air intake
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AC1200 (12 Cylinder) - 3 Year Kit - 3 Phase Only

SERV-AIR12-B

4 x 070750	Drying column kit 3 cylinder compressor
12 x 168563	Filter for compressor air intake

AC1800 (18 Cylinder) - Annual Kit - 3 Phase Only

SERV-AIR18-A

18 x 168563	Filter for compressor air intake
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AC1800 (18 Cylinder) - 3 Year Kit - 3 Phase Only

SERV-AIR18-B

6 x 070750	Drying column kit 3 cylinder compressor
18 x 168563	Filter for compressor air intake

168563



189115



189116



189148



070705



070700



070750



Servicing must be carried out by a trained engineer in possession of original spare parts

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OIL-FREE COMPRESSORS SERVICING REQUIREMENTS

Annual and 3 Year servicing must be carried out by a trained engineer in possession of original spare parts



SERVICE KITS with HEPA H14 FILTERS

AC100 (1 Cylinder) - Annual Kit

SERV-AIR1-AH

1 x 168429	HEPA H14 Filter for compressor air intake
1 x 189115	Capacitor 20mfd 450vwwg

AC100 (1 Cylinder) - 3 Year Kit

SERV-AIR1-BH

1 x 070705	Drying column kit 1 cylinder compressor
1 x 168429	HEPA H14 Filter for compressor air intake
1 x 189115	Capacitor 20mfd 450vwwg

AC200 (2 Cylinder) - Annual Kit

SERV-AIR2-AH

2 x 168429	HEPA H14 Filter for compressor air intake
1 x 189116	Capacitor 40mfd 450vwwg

AC200 (2 Cylinder) - 3 Year Kit

SERV-AIR2-BH

1 x 070700	Drying column kit 2 cylinder compressor
2 x 168429	HEPA H14 Filter for compressor air intake
1 x 189116	Capacitor 40mfd 450vwwg

AC300 (3 Cylinder) - Annual Kit

SERV-AIR3-AH

3 x 168429	HEPA H14 Filter for compressor air intake
1 x 189148	Capacitor 55mfd 450vwwg

AC300 (3 Cylinder) - 3 Year Kit

SERV-AIR3-BH

1 x 070750	Drying column kit 3 cylinder compressor
3 x 168429	HEPA H14 Filter for compressor air intake
1 x 189148	Capacitor 55mfd 450vwwg

AC400 (4 Cylinder) - Annual Kit - Single Phase Only

SERV-AIR4-AH

4 x 168429	HEPA H14 Filter for compressor air intake
2 x 189116	Capacitor 40mfd 450vwwg

AC400 (4 Cylinder) - 3 Year Kit - Single Phase Only

SERV-AIR4-BH

2 x 070700	Drying column kit 2 cylinder compressor
4 x 168429	HEPA H14 Filter for compressor air intake
2 x 189116	Capacitor 40mfd 450vwwg

AC600 (6 Cylinder) - Annual Kit - Single Phase Only

SERV-AIR6-AH

6 x 168429	HEPA H14 Filter for compressor air intake
2 x 189148	Capacitor 55mfd 450vwwg

AC600 (6 Cylinder) - 3 Year Kit - Single Phase Only

SERV-AIR6-BH

2 x 070750	Drying column kit 3 cylinder compressor
6 x 168429	HEPA H14 Filter for compressor air intake
2 x 189148	Capacitor 55mfd 450vwwg

AC900 (9 Cylinder) - Annual Kit - 3 Phase Only

SERV-AIR9-AH

9 x 168429	HEPA H14 Filter for compressor air intake
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AC900 (9 Cylinder) - 3 Year Kit - 3 Phase Only

SERV-AIR9-BH

3 x 070750	Drying column kit 3 cylinder compressor
9 x 168429	HEPA H14 Filter for compressor air intake

AC1200 (12 Cylinder) - Annual Kit - 3 Phase Only

SERV-AIR12-AH

12 x 168429	HEPA H14 Filter for compressor air intake
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AC1200 (12 Cylinder) - 3 Year Kit - 3 Phase Only

SERV-AIR12-BH

4 x 070750	Drying column kit 3 cylinder compressor
12 x 168429	HEPA H14 Filter for compressor air intake

AC1800 (18 Cylinder) - Annual Kit - 3 Phase Only

SERV-AIR18-AH

18 x 168429	HEPA H14 Filter for compressor air intake
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AC1800 (18 Cylinder) - 3 Year Kit - 3 Phase Only

SERV-AIR18-BH

6 x 070750	Drying column kit 3 cylinder compressor
18 x 168429	HEPA H14 Filter for compressor air intake

168429



189115



189116



189148



070705



070700



070750



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