

# AMS

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## AMS SUPER SILENT COMPRESSOR USER & MAINTENANCE GUIDE

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### *Congratulations!*

You have purchased the finest specialty air compressor product in the world! It is manufactured by the world's largest producer of specialty, silent and portable air compressors. The compressor undergoes extensive factory-testing to ensure longevity and trouble-free operation.

### *AMS Service & Technology*

We are a full service organization offering different models of silent compressors. AMS Compressors are used where compressed air power is necessary but noise is undesirable.

Examples of applications for AMS Compressors:

- ◆ Computerized Mat Cutters
- ◆ Joining Equipment
- ◆ Pneumatic Staplers
- ◆ Pneumatic Flexi Point Tools
- ◆ Pneumatic Presses
- ◆ Underpinning Equipment

This guide provides information on machine setup, general maintenance instructions, troubleshooting, safety tips, and equipment warnings. You will also find specific information on your compressor including a parts lists and schematic diagrams.

*Please inspect the unit for damage during transport. Immediately report any damage to transporting carrier. **AMS IS NOT RESPONSIBLE FOR DAMAGE CAUSED DURING SHIPPING.***

***WARNING: The compressor is shipped without oil! You must first fill the compressor with oil before using. This safety precaution is used during transport to prevent oil from penetrating the compression chamber which will cause the unit to malfunction.***

**For sales, service and spare parts**



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## **PARTS & SUPPLIES**

The shipping package contains the following parts & supplies in addition to your compressor:

- ◆ 2 Bottles of Special Synthetic Oil (User-installed)
- ◆ 1 Air-Intake Filter (User-installed)
- ◆ 1 Female Quick Disconnect (Pre-installed)
- ◆ 1 Coalescent Filter at Pressure Regulator (Pre-installed)

Compressor Oil



A high quality synthetic oil for use in AMS Compressors.

Read instruction manual before using.

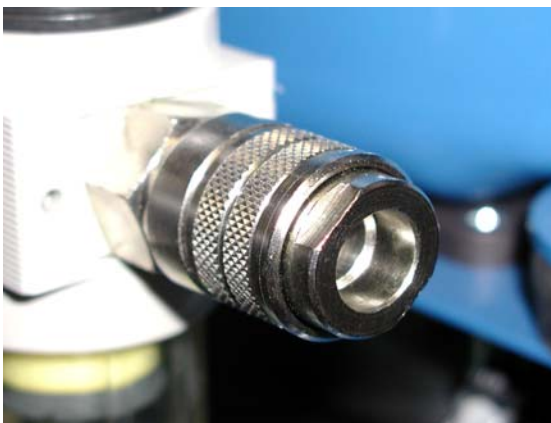
Air-Intake Filter



Coalescent Filter



Female Quick Connect



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## **The 5 Golden Rules for a Long-Lasting Relationship with your Air Compressor:**

1. Read your manual carefully and follow the instructions.
2. Frequently maintain your unit and, most importantly, check the oil level, drain tank, and change 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.

**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 115 lbs (8 bars). The pressure switch is set to stop the compressor at a pressure of 115 lbs (8 bars) and automatically restarts the unit if the pressure drops to 85 lbs (6 bars). If the pressure switch fails to operate (overpressure), a safety valve automatically operates until the pressure reaches 140 lbs. (10 bars). Once the tank is under pressure, the regulator can be set to the required pressure valve.



## **SAFETY WARNINGS:**

1. Only use a properly grounded outlet that will accept 3-prong plugs. Do not operate the compressor with a damaged cord.
2. NEVER attempt to service the compressor while it is plugged into an electrical outlet.
3. 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 wet areas.
5. Do not direct the air stream towards your body and/or facial areas.
6. Only use the compressor in a well ventilated area. Danger of fire or explosion can occur in a closed room.

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## **MACHINE SETUP**

1. Take the compressor out of the box.
2. Turn the compressor's switch to OFF position.
3. Remove and store the rubber or clear plastic shipping caps from pipe hole of the compressor.
4. For models CM50 and CM99 remove nut on top of compressor pump and pour oil into opening. Fill oil until it's at the mid-point level (check the Oil-Sight 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 oil to spill out of machine.*

6. After adding the oil, remove the Air Intake filter from the plastic bag and use normal hand pressure to insert the filter into pipe hole.
7. Connect your equipment to the outgoing part of the Pressure Regulator, which is equipped with Female Quick disconnect.
8. Always use Teflon® tape on pressure thread connectors.
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 110V/60Hz.*

10. 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.*

12. After successfully using your compressor, turn the unit off and perform maintenance as needed.
13. 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 60 psi your installation is reasonably sealed. If pressure is less than 60 psi, check for possible leaks at all connections (i.e. drain valve, hoses and air guns).

## **SAFETY TIPS:**

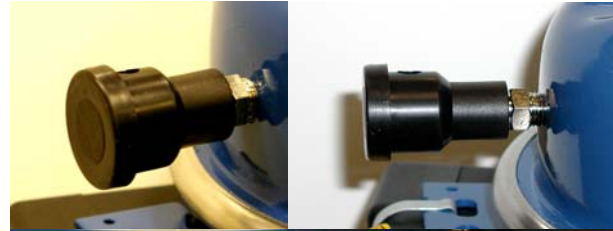
1. Always operate the compressor on a level surface.
2. Use only factory authorized parts.
3. Do not mix or substitute the oil in your compressor with other available brands.
4. Carefully inspect hoses, fittings and overall appearance of the compressor before using.
5. Keep the compressor free from dust, 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.

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## MAINTENANCE

### AIR-INTAKE FILTER

1. Unplug power cord.
2. Unscrew/Pull-Off Air-Intake Filter and remove.
3. If dirty, replace filter.
4. Screw/Push filter back into position and tighten.



### OIL LEVEL SIGHT GLASS

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



### OIL CHANGE

1. Remove the Air-Intake Filter and open Pressure Tank drain valve.
2. Tilt compressor and drain all oil into a container.
3. Return unit to upright position.
4. Fill oil into opening on top of pump after nut is removed, once finished replace nut.
5. Reinstall the Air-Intake Filter and close drain valve.
6. Verify that the oil level is at MID level mark.



**Warning:** Never use oil different from that recommended by the manufacturer, as this will void all warranties and damage the compressor.

### 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.
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.
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. 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

MODEL	FILL TIME
CM50	3 min. 40 sec.
CM99	1 min. 55 sec.

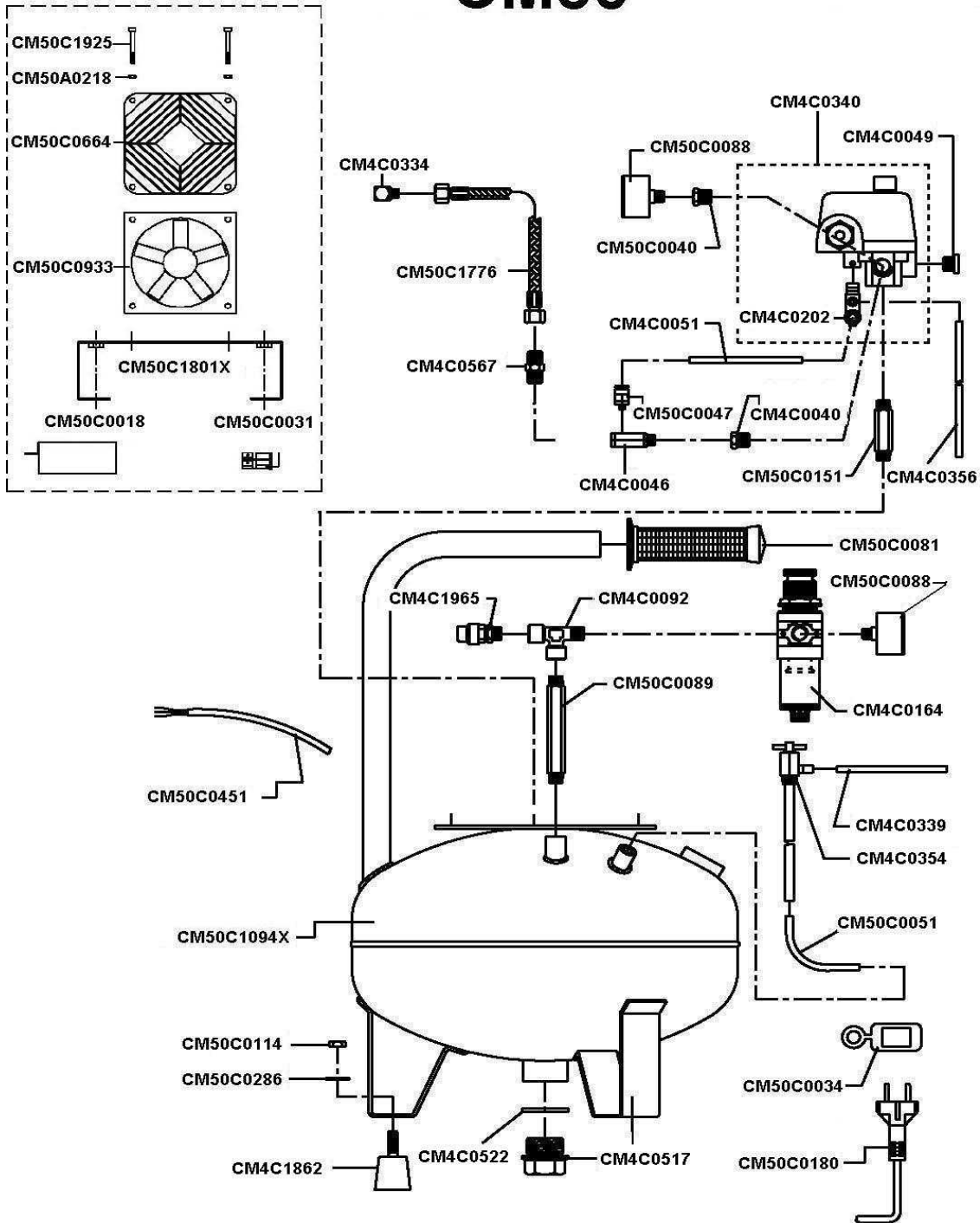
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## TROUBLE SHOOTING CHART

<b>PROBLEM</b>	<b>CAUSE</b>	<b>REMEDY</b>
<b>Compressor will not run</b>	<p>No Power</p> <p>Bad cord connection or incorrect extension cord</p> <p>Holding tank is fully pressurized</p> <p>Thermal overload protection has tripped</p>	<p>Check outlet voltage, fuse and circuit breakers</p> <p>Check cord connection for visible damage- if using an extension cord, make sure it is UL approved, and it's heavy duty and grounded</p> <p>Use your equipment to lower pressure in tank</p> <p>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 pres-</p>
<b>Compressor runs but will not supply air</b>	<p>Air pressure regulator not set properly</p> <p>Air-Intake Filter clogged or not installed</p> <p>Extensive leak</p>	<p>Reset Air-Regulator to pressure required by your equipment</p> <p>Clean Air-Intake Filter or replace</p> <p>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</p>
<b>Rattling noise during operation</b>	<p>Compressor motor touching shell</p>	<p>Operate on level surface – check oil level and adjust if it's necessary</p>
<b>Milky oil in Compressor</b>	<p>Oil has been contaminated with moisture or other foreign matter</p>	<p>Change oil – Oil needs to be changed every 150 hours; use only original oil from AMS</p>
<b>Air-Tank not holding pressure when compressor is not running</b>	<p>Faulty Check Valve</p>	<p>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</p>
<b>No air pressure shown on regulator gauge</b>	<p>No equipment connected to compressor</p> <p>Regulator has not been adjusted</p>	<p>Connect equipment</p> <p>Lift knob and turn clockwise until gauge shows required pressure – Gauge should be set at minimum</p>
<b>Compressor operates very hot</b>	<p>Oil level is incorrect</p> <p>Non-Ventilated Area</p> <p>Undersized model</p> <p>Leaks in installation</p>	<p>Fill unit with oil until its at MID level</p> <p>Make sure compressor is well ventilated area</p> <p>Duty cycle of compressor should not exceed 50% - if pump is on for 1 minute it should stay off 1 minute</p> <p>Make sure no leaks are present. The setting on the pressure regulator must be at your equipment mini-</p>



## CM50

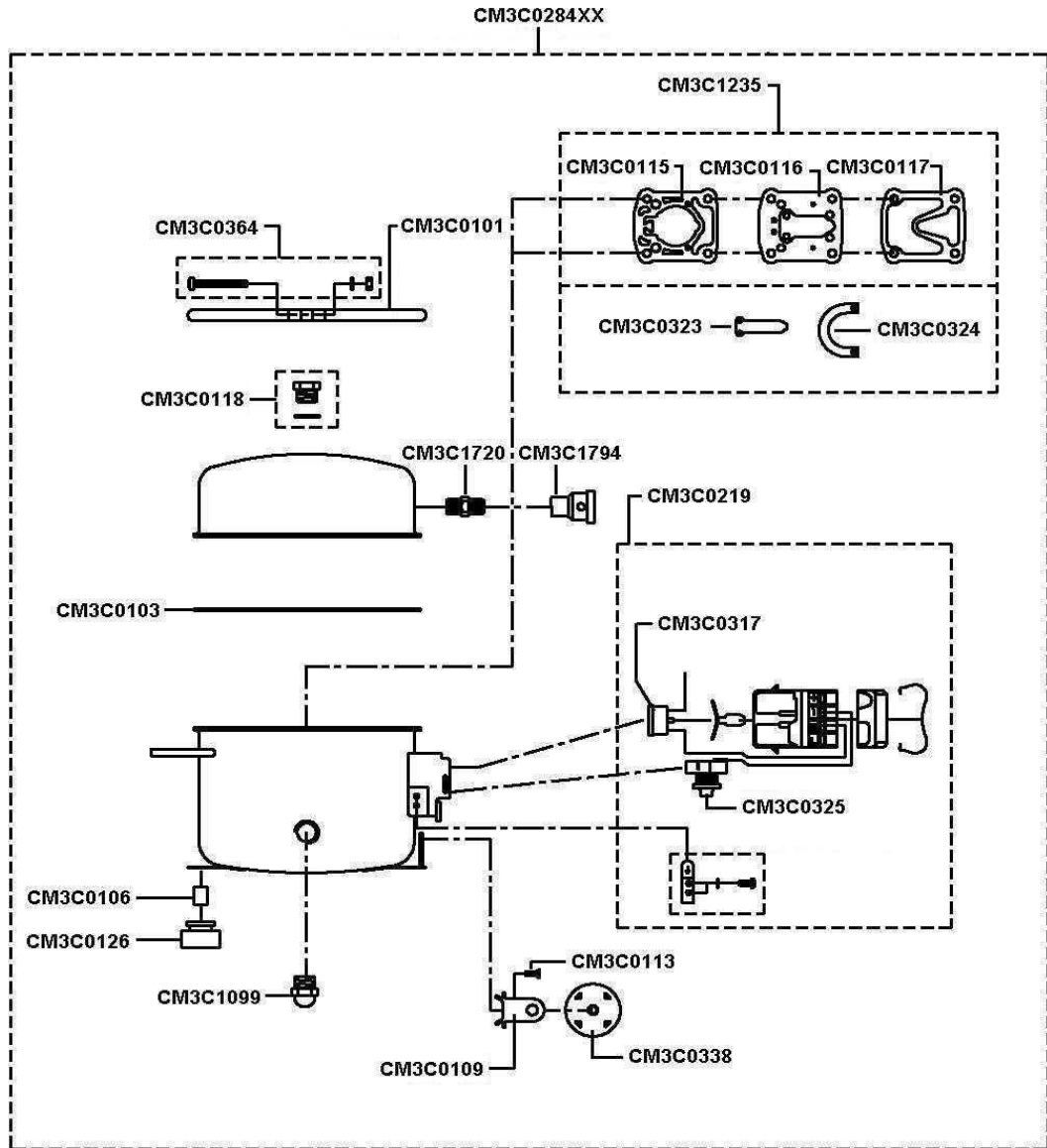


CM50T2134A





## CM3



CM3T2134A

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<b>AMS PART</b>	<b>DESCRIPTION</b>
CM3C0101	HOLDING BAND T2134A
CM3C0103	PVC GASKET HOSE
CM3C0106	SPACER T21
CM3C0109	CAPACYTOR BRACKET
CM3C0113	SCREW
CM3C0115	CYLINDER GASKET
CM3C0116	VALVE PLATE T21 WITH VALVE
CM3C0117	HEAD GASKET
CM3C0118	OIL PLUG 3/8+O'RING
CM3C0126	RUBBER GROMMET T21
CM3C0219	KIT TERMINAL BOX T2134A (115V)
CM3C0284XX	MOTOR T2134A (115V)
CM3C0317	OVERLOAD PROTECTOR T21 ( 115V )
CM3C0323	INTAKE VALVE
CM3C0324	EXHAUST VALVE
CM3C0325	START RELAY T21 ( 115V )
CM3C0338	CAPACITOR 145÷174 µF T21 ( 115V )
CM3C0364	HOLDING BAND FIXING KIT
CM3C1099	OIL LEVEL GLASS 1/2"INCH
CM3C1235	KIT VALVE PLATE+GASKET T2134A
CM3C1720	NIPPLE M 1/8 CH12
CM3C1790	COMPRESSOR OIL
CM3C1794	KIT INTAKE FILTER
CM4C0040	REDUCTION M-F 1/4 X 1/9
CM4C0046	NON RETURN VALVE M-F 1/8"
CM4C0049	PLUG M1/4
CM4C0051	RILSAN HOSE D.6X4
CM4C0092	"T" CONNECTION F-F-M 1/4"
CM4C0164	FILTER REGULATOR FR BIT 1/4"
CM4C0202	EXHAUST VALVE 90°
CM4C0334	DISTRIBUTION FRAME "L" M-F 1/8 CH13
CM4C0339	RILSAN HOSE D.8X6 L=100
CM4C0340	FOUR WAYS PRESSURE SWITCH CSA - UL
CM4C0354	DRAINCOCK M 1/4 90
CM4C0356	ELASTOLAN HOSE 6X4 L=170
CM4C0517	PLUG M1"
CM4C0522	ALUMINIUM WASHER 1"
CM4C0567	NIPPLE 1/8"
CM4C1862	RUBBER SUPPORT
CM4C1965	VALVE

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<b>AMS PART</b>	<b>DESCRIPTION</b>
CM50A0218	NUT M4
CM50C0018	SUPPORT
CM50C0031	SWITCH 22X29 VER 10A
CM50C0034	CABLE RELIEF
CM50C0047	QUICK COUPLING M5XØ6
CM50C0068	ELECTRIC CABLE H05VVF 3X0,75 L2000 EU PLUG
CM50C0081	HANDLE D 25-27 TYPE 1004/BP
CM50C0088	P. GAUGE Ø40 1/8 10 BAR
CM50C0089	NIPPLE 1/4" L=95
CM50C0114	NUT M8 UNI 5589
CM50C0151	NIPPLE 1/4"X1/4"X60
CM50C0180	ELECTRIC CABLE 3X1.6 AWG USA PLUG
CM50C0286	WASHER Ø8,5X15 UNI 3703
CM50C0451	ELECTRIC CABLE MM 600
CM50C0664	FAN PROTECTION 120X120
CM50C0933	BOX FAN 120X120 115/60 HZ
CM50C1081X	FAN CAGE
CM50C1094X	TANK
CM50C1776	FLEX PIPE
CM50C1925	SCREW TS 90°CR M4X60 UNI7688 ZB
CM99C0026	R. GAUGE D.40 1/8" 0-10 BAR
CM99C0038	NIPPLE 1/4" X 35
CM99C0078	CABLE H05VVF 3X1,5 L2000 SP EU
CM99C0153	NON-RETURN VALVE M-M 3/8"C
CM99C0160	WHEEL D200
CM99C0188	BLOCK RING Ø20
CM99C0209	ELECTRIC CABLE 3X1.5 MM700
CM99C0210	ELECTRIC CABLE
CM99C0292	AIR PIPE MM 260 1/8FX1/8F ROTABLE
CM99C0335	AIR PIPE MM 140 1/8FX1/8F ROTABLE
CM99C0388	WHEEL AXLE
CM99C0390	COUPLING F-F 1/4X3/8 NI
CM99C0392	PLUG M 1/8
CM99C0516	REDUCTION M-F 3/8"-1/4"
CM99C0583	RUBBER FOOT Ø25
CM99C0626	REDUCER M-F 3/8X3/8 NI
CM99C1723X	TANK 100/24 CE