



Air start capability

maintenance and general design. SRMAC has successfully accomplished the severest military test like cold chambre test, heat and humidity tests, vibration and shock tests. The unit can be truck, trailer or skid mounted . The system can also be delivered as a kit for any Ground Support manufacturer to install on their own cart.

**Quality and precision**

We use the latest powerful tools in computer design and calculation to spare no efforts in our unceasing quest for product perfection. Our three laboratories for multi - testing of systems employing Air, ammonia and freon respectively, are among the best equipped in the world.

**Air Start capability**

Due to the high internal system pressure in the SRMAC unit, air start capability is available as an option . By bleeding off high pressure air directly after the compressors enough air is provided to start all common fighter aircraft jet engines. And that to an fraction of the cost for a traditional air start unit.

**Performance**

The SRMAC system will outperform any other system on the market . Due to the high internal system pressure, high air delivery pressure can be achieved without any extra devices. In high ambient humidity the SRMAC system will have higher degree of efficiency than the traditional 2-phase system. Very low temperatures can be achieved from the system in order to reduce the total air flow demand. The system is very precise in keeping adjusted air flow, air pressure and temperature.

**Military approval**

SRMAC was originally designed for servicing military aircraft. This means that very special demands have been made with regard to capacity,

**Technical data ( Capacity range )**

Air flow capacity	500 – 3000 m³/h
Air pressure	5 – 85 kPa
Air discharge temperature	-5°C to +10°C
Air start capability (option )	100lbs/min at 42 psig
Heating mode	+20°C to +160°C
Operating ambient range	-40°C to +55°C
Refrigerant	Air
Refrigerant system	Air Cycle
Power	Electrical or Diesel powered



SVENSKA ROTOR AB  
Box 15085, SE-104 65 Stockholm, Sweden.



Kocoverk International AB  
Vikingavägen 21 B, SE-191 33 Sollentuna, Sweden.  
Phone: +46 8 35 26 60 • Fax: +46 8 35 34 63  
E-mail: kocoverk@swipnet.se

# AIR CONDITIONERS with Air Cycle Technology



K O C O V E R K / R O T O R



# Ground Support Cooling for aircraft with air cycle technology

## Flight line Air Conditioners

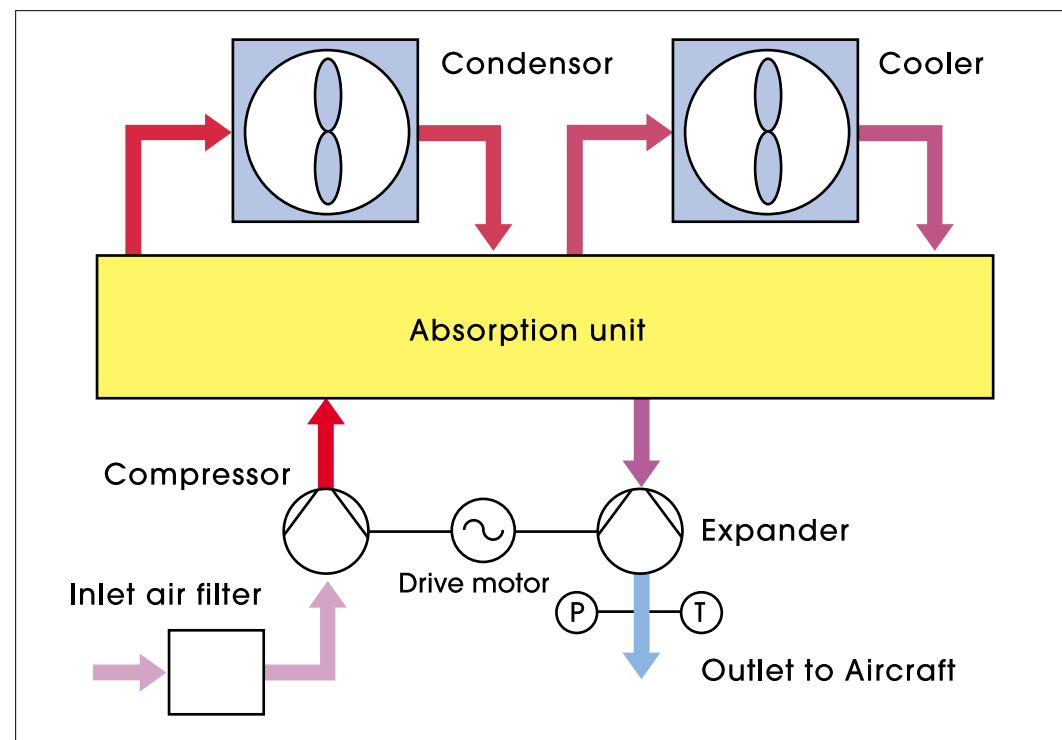
SRM / KOCOVRK Flight Line Air Conditioners are complete, Air-Conditioning systems, self contained and portable, driven by electric motors or by diesel engines. These units are made to operate in a wide range of ambient temperatures and they will satisfy the ground air conditioning requirements for all types of military fighter aircraft like JAS 39, F 15, F 16 F 18, Rafale, Mirage, EF 2000, Tornado, MIG, F- 4, etc.



Trailer mounted unit

## Air cycle technology

SRM / KOCOVRK offer the very latest in air cycle technology. The basic principle of this technology is based on the fact that when air is compressed the temperature rises and when it is expanded the temperature goes down. To reach a high capacity, high pressures have to be attained. In the SRMAC system this is made possible using high-tech twin screw compressor, a world patented design by SRM. Each air cycle system consists of : gearbox, compressor(s), expander, heat exchangers, fans, drier and flow control valves. The process air is compressed to a suitable system pressure. The heat exchanger extracts the heat from the air which leaves at a temperature slightly above ambient temperature. The air passes through an absorption material to reduce moisture, after which it is expanded to delivery pressure and thereby cooled to its desired temperature. If heating is required, the heat exchanger extract less heat from the air to provide heating mode.



SRMAC flow scheme

# Unbeatable performance and options with SRMAC Air Cycle system

## Environment friendly

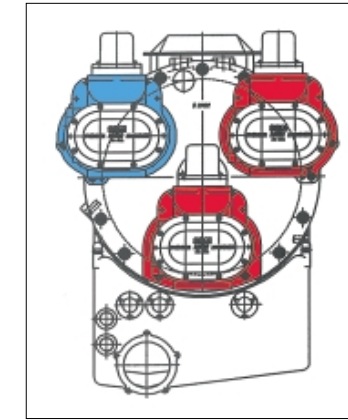
### - No refrigerants

The air cycle technology eliminates the use of hazardous refrigerants such as freon or ammonia. The cooling and heating medium is air and the power is electricity, Dieselenines or hydraulic motors. This makes the SRMAC unit not only environment friendly to run but also excludes the risk of leakage of freon or ammonia.

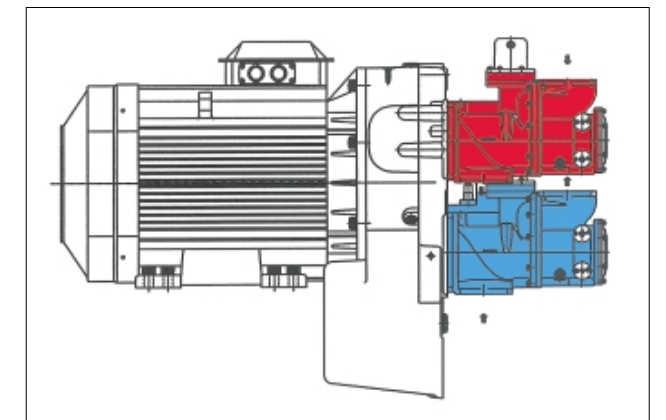
By using the the SRMAC for ventilating, filtering, cooling and heating aircraft parked at the flight line allows for the APU to be turned off while servicing the aircraft. Air pollution, high noise level and high maintenance cost are some of the disadvantages with the APU. SRMAC will overcome all this.



Electric version with heat exchanger and water separator ( Swedish Air Force model )



Core unit electric version : Electric motor, gearbox, compressor(s), expander



## Easy maintenance

SRMAC has very few moving parts which leads to considerable less wear and maintenance compared with traditional freon refrigerant systems. The interval between routine services will therefore be considerably extended and when maintenance is required, all components are easily accessible. Maintenance of the SRMAC is fairly simple and can be performed by unskilled personnel without any special tools. Thanks to the absence of freon, it does not even require the yearly inspections by personnel commissioned by the authorities.

## Options

The SRMAC system can be delivered as a kit to any Ground Support Equipment manufacturer. The kit consists of the following components for electrical motor or Dieselenine drive : gearbox, screw compressor(s), expander, heat exchanger, fans, oil pump, water separator, electric control, valves. The system will be designed according to customer specification for maximum performance and durability. Each system will be tested before delivery.