M&M Refrigeration/Sabroe has a long history of delivering high quality and reliable chiller packages for Ice Rinks. Working with M&M Refrigeration/Sabroe allows you to benefit from our extensive experience acquired from hundreds of installations in all type of conditions all over the world. We will be glad to assist you with frequently asked questions:

- What is the load?
- What temperature levels should be chosen?
- What primary and secondary refrigerant shall I choose?
- Rink floor construction:
  - pipe size
  - pipe spacing
  - pipe material
  - insulation
  - floor heating
  - material above pipes
- Configuration and sizing of headers
- Heat recovery for snow melt, floor heating and arena heating
- Condenser type and sizing

Ice rink chiller package with three SMC 108 compressors

M&M Refrigeration/Sabroe has launched a new series of packaged Ice Rink Chillers based on the well known M&M Refrigeration/Sabroe reciprocating compressors, highly efficient shell and tube evaporators with integrated surge drum, and the very reliable, user friendly and “state of the art” M&M Microprocessor Control System.

The wide range of standard basic Ice Rink Chillers consists of two-compressor units for single rinks and three-compressor units for double rinks.

As standard refrigerant combinations, ammonia/calcium chloride and R22/ethylene glycol have been chosen. Other refrigerant and compressor combinations can easily be offered on request.

For each of the two standard refrigerant combinations there are ten different sizes with nominal capacities from 66 TR to 282 TR.
Two reciprocating compressor units for Single Rink Packages
One brine pump, one stand-by brine pump for Single Rink Packages
Two brine pumps, one stand-by brine pump for Double Rink Packages
Snow melt and under floor
Mounting and piping of all equipment mentioned above on a common steel base
One flooded evaporator with carbon steel tubes for ammonia
Three reciprocating compressor units for Double Rink Packages
Liquid feed with high side float
Oil rectifier and automatic oil recovery system on R22 packages
Oil separators for reciprocating compressors
Capacity is based on 17°F inlet brine temperature and 14°F leaving brine temperature. Condensing temperature is 95°F with 5°F subcooling from condenser. Compressors and evaporator are balanced to an evaporating temperature between 5°F and 10°F. Calcium chloride concentration is 21% and ethylene glycol concentration is 40%. Pumps are based on 50 feet of total head in the piping system outside the chiller package. Packages running 1170 RPM are with direct drive compressor units; other RPM are with V-belt driven compressor units. All ratings are based on 60 Hz power supply.

The standard Ice Rink Package includes the following main components:
- Two reciprocating compressor units for Single Rink Packages
- Three reciprocating compressor units for Double Rink Packages
- One flooded evaporator with carbon steel tubes for ammonia and enhanced copper tubes for R22
- Liquid feed with high side float
- Oil separators for reciprocating compressors
- Oil pot for manual oil drain on ammonia packages
- Oil rectifier and automatic oil recovery system on R22 packages
- One brine pump, one stand-by brine pump for Single Rink Packages
- Two brine pumps, one stand-by brine pump for Double Rink Packages
- Microprocessor control system (wired)
- MCC for all the above mentioned equipment plus starter for jacket pump (if required), condenser pump, and condenser fans, all wired with a main breaker.
- Mounting and piping of all equipment mentioned above on a common steel base

The following optional equipment is available:
- Snow melt and under floor heat exchangers including pumps
- Heat exchanger for arena heating including pumps
- Condenser (evaporative, air cooled or water cooled)
- PC based control system with computer graphics for remote monitoring, controls, alarms etc.