



Ready to meet new challenges

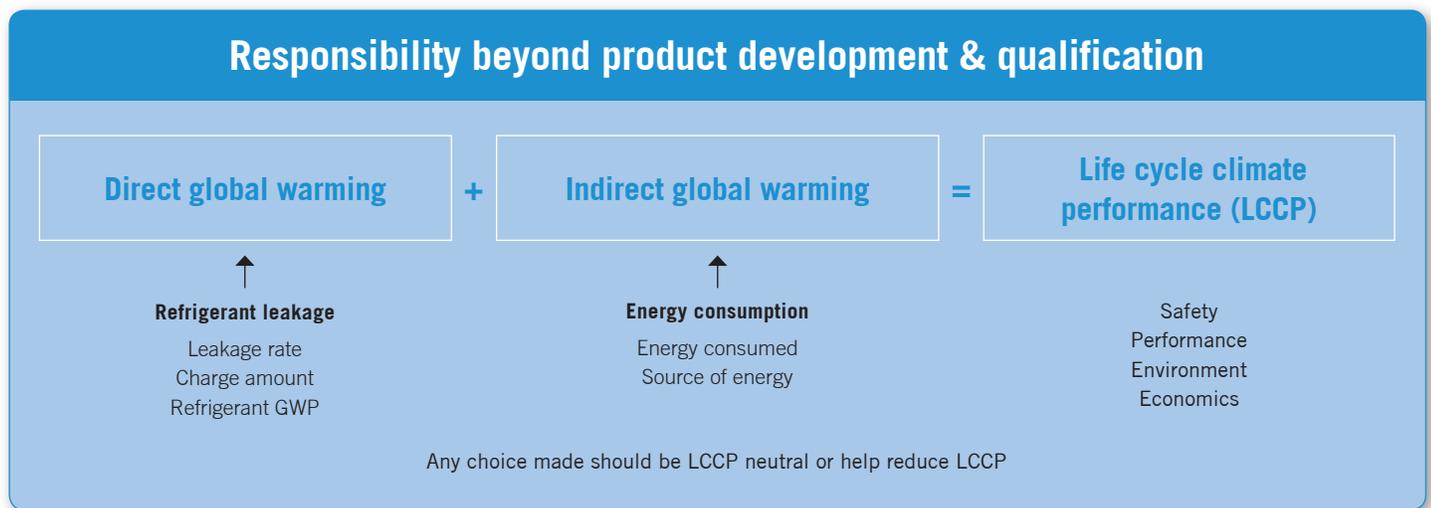
Future climate demands

Ready for tomorrow's demands

Worldwide, all major economies are addressing global climate change and oil consumption. In China, in Europe and in USA new greenhouse gas targets are announced and new standards are being set.

By choosing the right HVAC system today you can easily meet tomorrow's increasing demands on greenhouse gas emissions. With MCC's reciprocating compressors using R134a and MCC control units and software you will be able to meet tomorrow's requirements.

MCC is paving the way for reduced emissions, reduced fuel consumption and reduced global warming potential (GWP). Be ready for change along with MCC.



What are the new CO₂ standards?

- Increased miles per gallon
- Reduced grams of CO₂ per mile
- Benefits for new refrigerants, lower leaks, or improving efficiency

What will this mean for vehicle manufacturers?

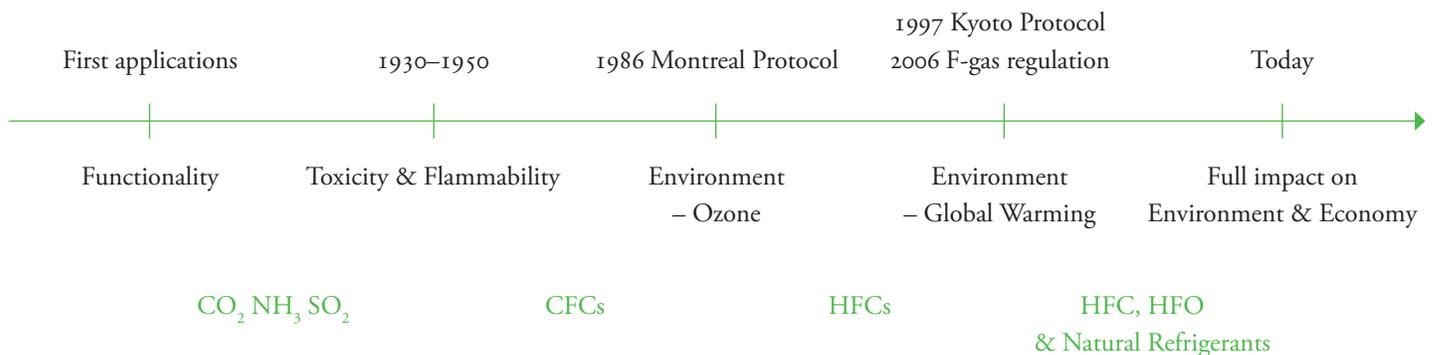
- By 2014, the US Environmental Protection Agency (EPA) hopes to have a performance-based test in place to determine whether a vehicle's air conditioning system qualifies for credits.

How do I choose the right HVAC system for easy transition?

Make sure you can meet the future standards, lower your emissions and gain fuel savings by improving HVAC efficiency through choosing MCCs reciprocating compressor and R134a. See below how MCC beats the competitors using screw compressor and R407C.

EPA Technology description	Estimated reduction in AC CO ₂ emissions	MCC	Competition
Reduced reheat, with externally-controlled, variable-displacement compressor	30%	Yes	No, screw only with unloader
Reduced reheat, with externally-controlled, fixed-displacement or pneumatic variable-displacement compressor	20%	Option	No
Default to recirculated air with closed-loop control of the air supply (sensor feedback to control interior air quality) whenever the outside ambient temperature is greater than 75° F or higher (although deviations from this temperature are allowed if accompanied by an engineering analysis)	30%	Yes	No
Default to recirculated air with open-loop control of the air supply (no sensor feedback) whenever the outside ambient temperature is greater than 75° F or higher (although deviations from this temperature are allowed if accompanied by an engineering analysis)	20%	–	–
Blower motor control which limits wasted electrical energy (e.g. pulsewidth modulated power controller)	15%	Option	Option
Internal heat exchanger (or suction line heat exchanger)	20%	Option	No
Improved evaporators and condensers (with engineering analysis on each component indicating a COP improvement greater than 10%, when compared to previous design)	20%	Yes	No
Oil Separator (internal or external to compressor)	10%	Option	Option

From focus on function to a greater environmental insight



Reduce gas emissions and improve fuel economy

Another step on the road towards a better climate

We know and understand that our business – to provide exceptional performance in mobile climate comfort by supplying custom engineered and manufactured HVAC solutions – impacts the environment. With the aim to manage this impact at processing and at use of our products we actively strive to minimize the usage of resources and other negative environmental impact in the entire supply chain and to optimize their performance and energy consumption when used in our customer's end products.

Our environmental work is based on our employees having an open mind and assuming ownership of the actual situation.



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