



Rising temperature is forcing OEMs to use more HVAC solutions in machines.

PRASHANT SHRAWAK

Business Unit Head, SIROCO HVAC India Pvt Ltd

What is the current market scenario of HVAC systems for construction and mining industry in India?

Construction and mining industry using HVAC in India is at nascent stage. Currently there may be 10-15% machines are with HVAC which are used domestically. Total C&M V market size is about 1.2 L per annum. OEMs are exporting machines and that is adding to numbers to HVAC cabins to 20,000 to 25,000. This penetration of using HVAC is expected to increase to 30% of domestic machines and hence demand will grow in next 3 to 5 years. Currently, two companies are manufacturing in India and 4-5 companies are importing HVAC to India.

What is the demand trend for HVAC systems in construction machines? How is the demand evolving?

In construction machines, increasing operator efficiency due to better working condition will drive growth for use of HVAC. Recently, old machine users are also asking for retrofit and it will open up huge market potential. If we take five years of machine life, then about 4-5 lakh machines are in potential market. Distribution, installation and accessories are major challenges. Another important aspect is OEMs have to recognize that HVAC requirement of automotive and C&M vehicles are completely different. Automotive HVAC may not be correct choice to use.

What are the latest environment-friendly features in HVAC?

Apart from refrigerant and relevant norms, SIROCO is looking for use of more recycled materials and natural fiber filters. Some experiments are going on, but there is limitation of size in adopting natural fibers in compact machines. Availability is also limited.

Another focus is localization. Parts for C&M HVAC are not easily available in India but SIROCO has achieved 50-60% localization. This will help to control cost and reduce carbon emission per product.

What are the other emerging technology trends in HVAC for C&M vehicles?

Electrical vehicles are in need of HVAC and BTMS driven by batteries. This technology has to go a long way in adopting electrical power for C&M vehicles. However, SIROCO has developed roof top mounted combined exterior unit which can be used with any of SIROCO interior unit. We have this system launched in Europe and SIROCO is selling prototypes in India. During H1 of FY 24, it will be in use in Indian market.

How are the changing weather conditions putting pressure on the HVAC systems? What kind of demands are you receiving from customers in this summer?

In case of construction and mining machines, need of re-circulation and clean air is important. Air filtration is increasing in demand. Rising temperature is forcing OEMs to use more HVAC solutions in machines, which increases operator's effective working hours. India-specific demand is on cooling units with high blow of air.

What is your market outlook on HVAC systems used in C&M vehicles?

Presently, 20,000-25,000 machines are with HVAC and are expected to reach 40,000-45,000 machines in the next three years. Presently, 70% of HVAC are imported that will change to 50% domestically made. SIROCO will be leading this trend.

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