



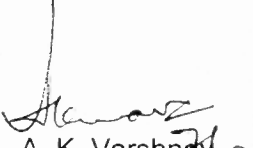
Technical Pre - qualifying criteria for "DE Ventilators"

The Pre-qualification criteria for "DE Ventilators" are as under-

1. Supplier should have experience of successfully manufacturing & supplying Aluminum ventilator for variable frequency driven traction application.
2. Supplier to accept & meet each clause of BHEL specification no. TM07375 rev.02 and all the requirements of BHEL drawing no. 24450203002 with the following additional requirements:
 - The supplier should hand over the die/pattern & its related components to BHEL.
 - Supplier should hand over all the related process documentation to BHEL before bulk manufacturing.
 - Supplier should provide the results of casting simulation for the DE ventilator.
 - The supplier should provide the details of the melting process like the hydrogen index, melt refinement, any preheating of ingots, melt temperature, mould temperature and casting pressure.
 - The supplier should provide the details of T6 heat treatment realization like temperatures, times, time between solutions anneal and artificial ageing.
 - The quality of radiography should be equivalent or better than class 2 for all thicknesses.
 - Balancing report should clearly indicate the final weights put in the balancing groove.
 - The supplier should provide riser of each casting with reference number for future testing.
 - The supplier should allow witnessing of the total manufacturing cycle of at least one lot of castings by BHEL engineer and the entire process should be transparent.
3. Supplier to furnish drawing and material specification of aluminum ventilators earlier manufactured by it for traction application.
4. Supplier to furnish names of customers for whom aluminum ventilators have been manufactured by it earlier.


Anurag Sharma
Sr. Engineer/TME


S. Mehrotra
DGM/TME


A. K. Varshney
AGM/TME