



LME:012: C

LOCOMOTIVE ENGINEERING DEPTT.

PURCHASE SPECIFICATION

LME/PUR/326
ISSUE DT: 25.09.2015
REV.NO.-00
REV DT:
1 of 4

SUBJECT:
PURCHASE SPECIFICATION FOR PORTABLE FOOD CHILLER CUM WARMER
FOR DESL LOCOMOTIVE

Enclosures:

Rev	Date	Prepared	Rev	Date	Prepared	Rev	Date	Prepared
		Approved			Approved			Approved
Rev	Date	Prepared	Rev	Date	Prepared	Rev	Date	Prepared
		Approved			Approved			Approved

Pradyumn Kumar
Prepared by :

[Signature]
Checked by :

[Signature]
Approved by :

Distribution: LMM. (001) LMP (002) Loco QC (003) Tech. (004) CQX (005) LME (DV) Master folder (006) (Original)

(M. K. Singh)
Sr. Dy. General Manager (LME)
B.H.E.L., JHANSI



LME:012: C

LOCOMOTIVE ENGINEERING DEPTT.

CONTINUATION SHEET

LME/PUR/326

REV.NO.:00

2 of 4

I. GENERAL:

In order to make BHEL Jhansi built DESL locomotives more appealing it has been decided to add some comfort features for the crew in driver's cabin. One of the identified feature is installation of a food chiller cum warmer arrangement in cabin. This single equipment shall be able to cool as well as warm the food or drinks stored. It will be add to the comfort of crew during long operational schedule.

This specification covers the basic specification, standard and supplier's responsibilities regarding the product.

II. SERVICE CONDITIONS

Equipment shall be able to perform satisfactorily in following working conditions.

1. Ambient temperature inside locomotive cabin -
Minimum 0 °C to maximum 50 °C
2. Humidity
Maximum – 90%
3. Vibration condition in locomotive –
During normal working condition of the locomotive the equipment shall be subjected to vibration as indicated below
Vertical acceleration – 1.0g maximum
Lateral acceleration – 0.5g maximum
Longitudinal acceleration – 3.0g maximum

III. TECHNICAL REQUIREMENTS:

1. Maximum Size – Approx 300 mm X 300 mm X 450 mm
2. Capacity – minimum 10 liters.
3. Temperature achieved

For cooling – about 30 to 35 °C below ambient
For Heating – Up to 65 °C
4. Power supply :
Voltage – 24 V DC supply
Power consumption – 65 to 80 Watt.
5. Equipment should be CFC free.

Prepared by :

Checked by :

Approved by :



LME:012: C

LOCOMOTIVE ENGINEERING DEPTT.

CONTINUATION SHEET

LME/PUR/326

REV.NO.:00

3 of 4

6. Equipment should have proper provisions for electrical protection and temperature monitoring & control

IV. STANDARD AND CERTIFICATION

1. Equipment should have CE or equivalent certification
2. Supplier should be ISO 9001 certified.

V. DOCUMENTATION TO BE SUPPLIED ALONG WITH OFFER

Supplier has to submit following information along with the offer

1. Technical details, specification sheet and salient features of the product.
2. Details of physical dimension (L X B X H), weight and capacity.
3. Brief description of working principle and system design.
4. Bill of material

VI. DOCUMENTATION TO BE SUPPLIED ALONG WITH PRODUCT:

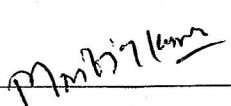
1. Operation and Maintenance manual
2. Warranty certificate
3. List of service centers.

VII. PACKAGING:

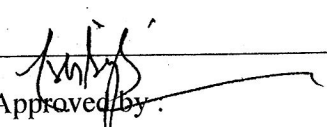
Each unit shall consists of

1. Portable food warmer cum chiller
2. Shoulder strap
3. Electric cord.

Proper packaging should be provided so that any damage during transportation could be prevented.

Prepared by : 

Checked by : 

Approved by : 



LME:012: C

LOCOMOTIVE ENGINEERING DEPTT.

CONTINUATION SHEET

LME/PUR/312

REV.NO.:00

4 of 4

VIII. WARRANTY:

Party should provide replacement warranty for 24 months from date of supply or 18 months from date of installation, whichever is earlier. In case defect, damage or underperformance experienced during warranty period, equipment shall be replaced or repaired at our works. In case of equipment to be transported to any service center or supplier's site, it will be carried free of cost by supplier.

M. Srinivasan

Prepared by :

[Signature]

Checked by :

[Signature]

Approved by :

**QUALIFYING CRITERIA FOR THE SUPPLIERS OF PORTABLE FOOD
CHILLER CUM WARMER FOR DESL LOCOMOTIVE**

For purchase of portable food warmer cum chiller (for specification refer purchase spec: LME/PUR/326), suppliers should qualify following criteria -

1. Suppliers should have been manufacturing such items for minimum past 2 years, from date of issue of tender enquiry.
2. Supplier must have supplied such equipment for automobile or railways application in minimum past two years starting from date of issue of tender enquiry. Relevant documents (copy of purchase order etc) should be provided by the supplier.
3. Supplier should be ISO : 9001 certified.

M. K. Singh

Prepared By :

[Signature]

Checked By :

[Signature]

Approved By :

(M. K. SINGH)
Sr. Dy. General Manager (LME)
B.H.E.L., JHANSI