

Dr.K.Srinivas Reddy
Professor



#204, Heat Transfer & Thermal Power Laboratory
Department of Mechanical Engineering
Indian Institute of Technology Madras
Chennai-600 036

Form for Inviting Quotations

Reference No. MEE/11-12/281/CSIR/KSRS /XXVII

Date: 21-04-2015

Subject: Supply of Solar Parabolic trough collector Mirror for Project No: MEE/11-12/281/CSIR/KSRS

Due Date: 12-05-2015

Dear Sir,

1. Quotations are invited in **duplicate** for the supply of **Specification of Solar Parabolic trough collector Mirror** and Specification of which are shown in overleaf.
2. The Quotations **duly sealed and super scribed on the envelope** with the reference No. and due date, should be addressed to the undersigned to reach him on or before the due date stipulated above.
3. The Quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
4. If the item is under DGS&D Rate Contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the Rate Contract price. If so, please send copy of the R. C. (Please note that we are not Direct Demanding Officers).
5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for should be submitted free of charges, and collected back at the supplier's expenses.
6. **Local Firms:** Quotations should be free delivery to this Institute, if Quotations are for Ex-Godown delivery charges should be indicated separately.
7. **Firms outside Madras:** Quotations should be F.O.B. Madras. If F.O.B. consignor station, freight charges by passenger train / lorry transport must be indicated.. If Ex-Godown, packing, forwarding and freight charges must be indicated. The following set of documents is required in all cases: a. complete set of Clean Bill of Lading / Airway Bill / Air or surface Parcel Receipt, showing that the goods have been shipped and freight prepaid. b. Insurance Policies / Certificates in duplicate covering Marine Insurance as per Institute Cargo Clauses (All risks) and perils as per Institute Strikes, Riots and Civil Commotion Clauses, War risks as per Institute, Clauses. Cover for CIF value plus 10 percent.
8. The rate of Sales / General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales / General Taxes will be admitted at any stage and on any ground whatsoever. **The taxes leviable should take into consideration that we are entitled to have Concessional Sales Tax applicable to non-Government Educational Institutions run with no profit motive for which a concessional. Sales Tax Certificate will be issued at the time of final settlement of the bill.**
9. Goods should be supplied carriage paid and insured.
10. Goods shall not be supplied without an official supply order.
11. **Payment:** Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later.

Quotation can be sent addressing:

**“Dr.K.Srinivas Reddy
Professor
#204, Heat Transfer and Thermal Power Laboratory
Department of Mechanical Engineering
Indian Institute of Technology, Madras- 600 036”**

Specification of Parabolic Trough Collector Mirror

Aperture of the mirror	: $5.77\text{m} \pm 0.1 \text{ m}$
Focal Length of the mirror	: $1.71 \text{ m} \pm 0.05 \text{ m}$
Thickness of the mirror	: $4 \text{ mm} \pm 0.01\text{mm}$
Mirror Type	: Parabolic curved mirror conforms to RP3 Specification

Mirror Size (Std RP-3)

Inner Mirror size (L1, R1) : 1700 x1641

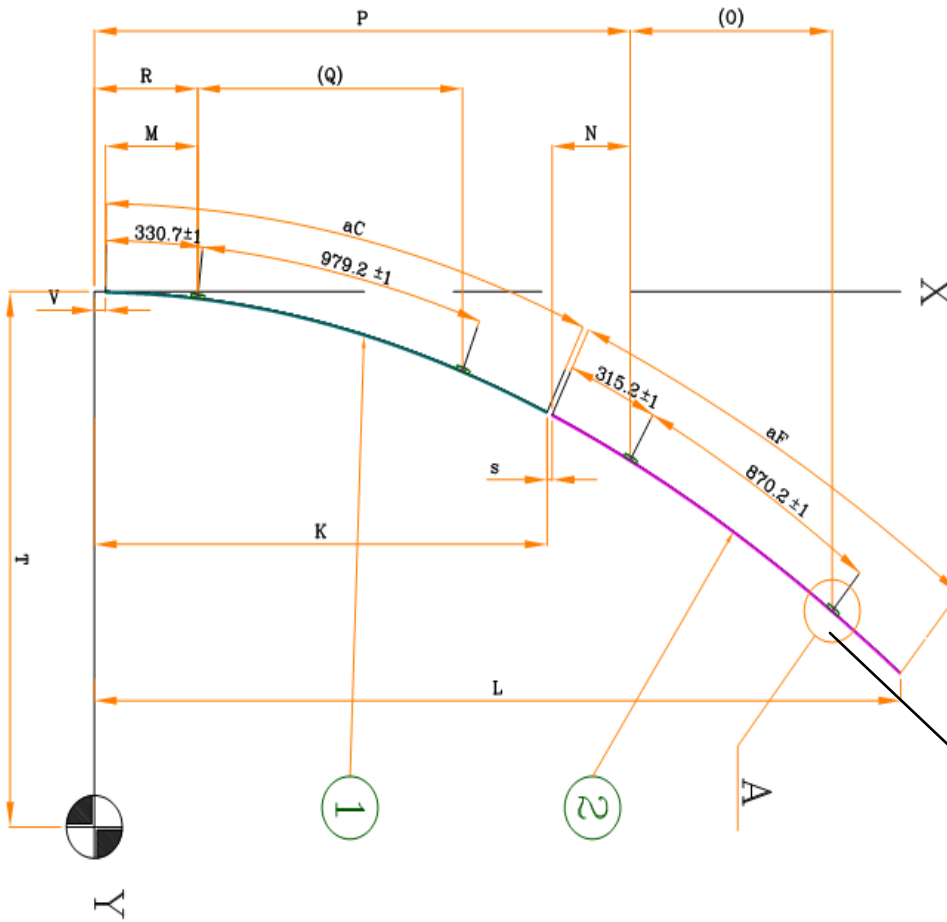
Outer Mirror size (L2,R2) : 1700 x 1501

No of Mirror sets	: 4
1 set of Mirror	: L1,R1,R2,L2
Reflectivity	: $\geq 94\%$

Durability : Degradation in reflectivity should not go below 90 % after 15 years (Ci65and WOM testing)

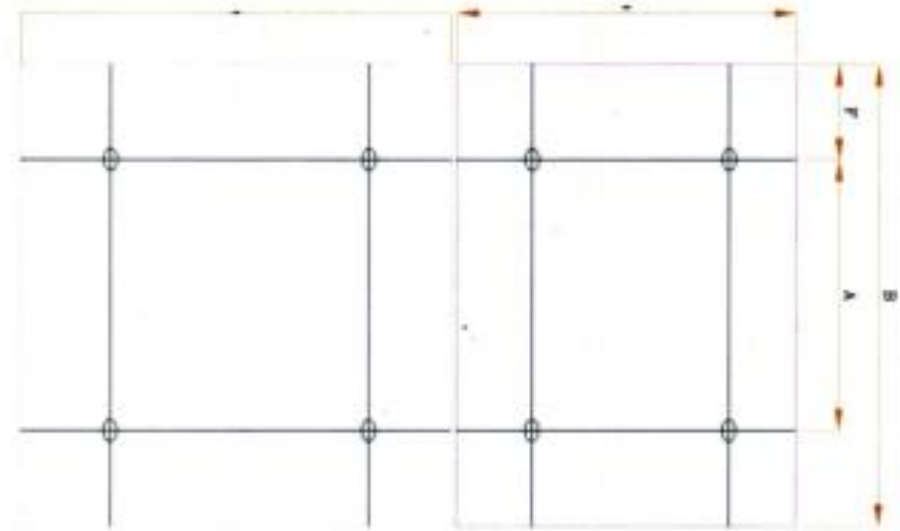
Fixing Method	: Ceramic pad set (Refer Drawing)
Quantity (Minimum)	: 8 Mirror sets (8- inner mirror & 8- outer mirror)

Parabolic trough Mirror Drawing



Glass Thickness: 4mm

A	996 ± 1
B	1700 ± 1
C	12.4 ± 0.3
D	30 ± 2
E	M6
F	352 ± 1
G	
H	
I	
J	
K	1622
L	2887
M	330 ± 1
N	279.5 ± 1
O	723.5 ± 1
P	1918 ± 1
Q	948 ± 1
R	370 ± 1
S	16.5
T	1710
U	
V	40
W	
X	
Y	
Z	4 ± 0.2
aF	1500 ± 1
aC	1640 ± 1



Ceramic Pad

