



**CENTRE OF PROPULSION TECHNOLOGY (CoPT)
INDIAN INSTITUTE OF TECHNOLOGY MADRAS
CHENNAI – 600036, INDIA**

Proj. No. ASE/1819/156/MUAY/SRCH

Date: 19.09.2019

Item name: **Supply of High Pressure Valves and Pressure
Regulating Valves - 13 Nos.**

Due Date: 12.10.2019

Limited Tender Ref No: **ASE/MUAY/156/SRCH/029**

1. Quotations are invited in Two -bid system for the item described overleaf (in Annexure I). The offer /bid should contain detail of the compliance to the technical specifications terms and the commercial part should indicate item-wise price for each item and it should contain all commercial Terms and Conditions including Taxes, transportation, packing & forwarding, installation, guarantee, payment terms, pricing terms etc. The words "Tender for supply of Flanges" should be written on the left side of the cover and sealed.
2. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
3. The total cost of the equipment in terms of CIP Chennai should be clearly mentioned .
4. Cost breakup for all modules included in the scope of supply is mandatory
5. Terms of warranty and guarantee should be explicitly mentioned.
6. Warranty service must be provided on-site at IIT, Madras for duration of warranty period.
7. Packing and delivery charges, customs and clearance duty should be clearly stated.
8. Goods shall not be supplied without an official supply order.
9. Local firms : Quotations should be for free delivery to this institute. If quotations are for ex-godown, delivery charges should be indicated separately.
10. Firms outside Chennai: Quotations should be for F.O.R. Chennai. If F.O.R. consignor station, freight charges by passenger train / lorry transport must be indicated. If ex-godown, packing, forwarding and freight charges must be indicated.
11. If the required good is to be imported, delivery with CIP upto Chennai airport must be made. All relevant documents for customs clearance and other import formalities have to be provided well in advance.
12. IIT Madras is eligible for concessional rate of GST 5%(for purchase of equipments, parts and consumables used in research). Concessional GST certificate will be issued after issue of purchase order.
13. 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.
14. Payment: Payment is after delivery of goods. Every attempt will be made to make payment within 30 days from the date of receipt of bill / acceptance of goods, whichever is later. Advance payment will be considered only in special cases.
15. IIT Madras is eligible for concessional rate of customs duty. Necessary certificate will be issued on demand.
16. Optional: Quote to be provided for 1 year and 2 year extended warranty
17. IIT Madras has the right to accept the whole or any part of the tender or portion of the quantity offered or reject it in full without assigning any reason.

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Handwritten signature
Prof. S.R. CHAKRAVARTHY
Project Coordinator
Department of Aerospace Engineering
IIT Madras, Chennai - 600 036.



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The sealed quotation may be sent to
The Purchase Manager,
CoPT OFFICE, NCCRD Building
Behind Aerospace Engineering Dept., IIT Madras,
Chennai – 600036, Ph. (O) +91-44-22579863

ANNEXURE-1

Valves and PRV

Requirement

Valves and PRVs are required with following specifications.

Specifications for High temperature and High Pressure valves Type - 1

<u>S.No.</u>	<u>Description</u>	
1.	Standard	API600/ISO 10434 ASME B16.34
2.	Type of Valve	Ball Valve
3.	Fluid type	Steam and flue gas mixture
4.	Temperature range	0-700 Deg C
5.	Pressure range	0-14 Bar
6.	Mass flow rate	0-3 Kg/s
7.	Size and Rating	2 inch and 600 class
8.	Pipe Size	2 inch
9.	Material	SS 316
10.	Quantity	1
11.	Make(preferably)	Emerson/L&T/Sankey controls
12.	End connection	Flange type



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Specifications for High temperature and High Pressure valves Type - 2

<u>S.No.</u>	<u>Description</u>	
1.	Standard	API600/ISO 10434 ASME B16.34
2.	Type of Valve	Ball Valve
3.	Fluid type	Steam and Air mixture
4.	Temperature range	0-700 Deg C
5.	Pressure range	0-14 Bar
6.	Mass flow rate	0-3 Kg/s
7.	Size and Rating	10 inch and 600 class
8.	Pipe Size	10 inch
9.	Material	SS 316
10.	Control Type	Electro pneumatic
11.	Control voltage	220V
12.	Quantity	1
13.	Make(preferably)	Emerson/L&T/Sankey controls
14.	End connection	Flange type

Specifications for Low temperature and High Pressure valves Type - 3

<u>S.No.</u>	<u>Description</u>	
1.	Standard	API600/ISO 10434 ASME B16.34
2.	Type of Valve	Ball Valve
3.	Fluid type	Steam and Air mixture
4.	Temperature range	0-350 Deg C
5.	Pressure range	0-14 Bar

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6.	Mass Flow Rate	0-3 Kg/s
7.	Size and Rating	4 inch and 300 class
8.	Pipe Size	4 inch
9.	Material	SS 316
10.	Control Type	Electro pneumatic
11.	Control voltage	220V
12.	Quantity	7
13.	Make(preferably)	Emerson/L&T/Sankey controls
14.	End connection	Flange type

Specifications for Low temperature and High Pressure valves Type - 4

<u>S.No.</u>	<u>Description</u>	
1.	Standard	API600/ISO 10434 ASME B16.34
2.	Type of Valve	Ball Valve
3.	Fluid type	Steam and Air mixture
4.	Temperature range	0-350 Deg C
5.	Pressure range	0-14 Bar
6.	Mass flow rate	0-3 Kg/s
7.	Size and Rating	2 inch and 300 class
8.	Pipe Size	2 inch
9.	Material	SS 316
10.	Control Type	Electro pneumatic
11.	Control voltage	220V
12.	Quantity	1
13.	Make (preferably)	Emerson/L&T/Sankey controls
14.	End connection	Flange type

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Specifications for Pressure Regulating Valve Type - 1

<u>S.No.</u>	<u>Description</u>	
1.	Standard	API600/ISO 10434 ASME B16.34
2.	Type of Valve	PRV
3.	Fluid type	Steam and Air mixture
4.	Temperature range	0-100Deg C
5.	Pressure range	0-14 Bar
6.	Mass flow rate	0-3 Kg/s
7.	Size and Rating	2 inch and 300 class
8.	Pipe Size	2 inch
9.	Material	WCB/MS
10.	Make (preferably)	Emerson/L&T/Sankey controls
11.	Quantity	1

Specifications for Pressure Regulating Valve Type - 2

<u>S.No.</u>	<u>Description</u>	
1.	Standard	API600/ISO 10434 ASME B16.34
2.	Type of Valve	PRV
3.	Fluid type	Steam and Air mixture
4.	Temperature range	0-100 Deg C
5.	Pressure range	0-14 Bar

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6.	Mass flow rate	0-3 Kg/s
7.	Size and Rating	4 inch and 300 class
8.	Pipe Size	4 inch
9.	Material	WCB/MS
10.	Make (preferably)	Emerson/L&T/Sankey controls
11.	Quantity	1

Specifications for Pressure Regulating Valve Type - 3

<u>S.No.</u>	<u>Description</u>	
1.	Standard	API600/ISO 10434 ASME B16.34
2.	Type of Valve	PRV
3.	Fluid type	Steam and Air mixture
4.	Temperature range	0-100 Deg C
5.	Pressure range	40-14 Bar
6.	Mass flow rate	0-3 Kg/s
7.	Size and Rating	4 inch and 300 class
8.	Pipe Size	4 inch
9.	Material	WCB/MS
10.	Make (preferably)	Emerson/L&T/Sankey controls
11.	Quantity	1



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Other Requirements

S.No.	Description
1.	Supplier shall give material certificate of entire body
2.	Should be delivered at IIT Madras
3.	Conformity to the standards API600/ISO 10434 ASME B16.34 should be explicitly mentioned in the quotation.

Contact person for technical clarifications:

Dr.K.P.Shanmugadas

E-mail address: shanmugadaskp8@gmail.com