

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

Type of Ship- FAC / Navy: 30 TR AC plant (with one running , another standby condensing unit), 2 x ATU , 2 nos supply and 1 no exhaust ventilation fan for each of forward and aft engine room, other ventilation system. Plant working on R134A refrigerant. AC Compressor can be open type screw/ semi hermetic reciprocation/ open type reciprocating. AC, Ventilation system designed as per NES 102 or ISO 7547, electrical as per EEDQ071R3. Material schedule as per Naval requirement. Complete plant is Non shock graded type. Scope of supply shall also include supply of 2 nos seawater cooling pump for AC plant and refrigerant system

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with “cost”, “included” or “not applicable”.

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

Type of ship- IPV / Coast guard : AC Plant capacity 25-30 TR (with one running , another standby condensing unit), 1 X ATU and FCU. 2 nos supply and 1 no exhaust ventilation fan for each of forward and aft engine room, other ventilation system. Plant working on R404A refrigerant. All equipment meeting ABS/IRS or similar Classification society only. AC, Ventilation plant to meet SOLAS and Load Line requirement. AC plant to design as per ISO 7547, motor as per marine standard. Material schedule as per standard marine application. scope include 2 nos cooling sea water pump and refrigerant system

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with “cost”, “included” or “not applicable”.

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

Type of Ship- Survey Vessel- Catamaran type / Navy: 40 TR AC plant (with one running, another standby condensing unit), 2 X ATU. All ventilation system with all ventilation systems and fans . Plant working on R134A refrigerant. AC Compressors are open type screw. AC, Ventilation system designed as per NES 102 or ISO 7547 , electrical as per EEDQ071R3 . Material schedule as per naval requirement. Complete plant is Non shock graded type. scope of supply also include supply of 2 nos seawater cooling pump for AC plant and refrigerant system.

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with “cost”, “included” or “not applicable”.

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

Type of Ship-Naval OPV-3 x 60-70 TR Chilled water plant (2 running, one stdby)- 3 X ATUs, FCUs, Heat Exchangers. All ventilation system with all ventilation systems and fans .2 x2.5- 4TR Provision cooling plants for cold and cool rooms. Only AC chilling units and Refrigeration Plant condensing units are shock grade II type supported with shock calculation. Plants working on R134A refrigerant. AC Compressors are open type screw . AC, Ventilation system designed as per NES 102 or ISO 7547 , electrical as per EEDQ071R3 . Material schedule as per naval requirement. .scope of supply include supply of 2 nos seawater cooling pump (common for AC, Ref plant) and 2 no Chilled water pumps for AC plant and refrigerant system.

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with “cost”, “included” or “not applicable”.

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

Type of Ship-Coast Guard OPV- 2 x 90 TR Chilled water plant (1 running, one stdby)- 3 X ATUs, FCUs, Heat Exchangers. All ventilation system with all ventilation systems and fans .2 x2 TR Provision cooling plants for cold and cool rooms. All the design and equipment are non shock graded type as per marine standard. Plants working on R404A refrigerant. AC Compressors are semihermatic screw . AC, Ventilation system designed as per ISO 7547 , Material and electrical as per Marine standard . scope of supply include supply of 2 nos seawater cooling pump (common for AC, Ref plant) and 2 no Chilled water pumps for AC plant .

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with “cost”, “included” or “not applicable”.

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

HVAC & Refrigeration system for Passenger ships of 700 capacity

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with "cost", "included" or "not applicable".

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

HVAC & Refrigeration system for Passenger ships of 1200 capacity

(Approx. 15,000DWT)

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with "cost", "included" or "not applicable".

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

HVAC & Refrigeration system for 30,000 dwt bulkers

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with "cost", "included" or "not applicable".

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

HVAC & Refrigeration system for 53,000 dwt bulkers

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with "cost", "included" or "not applicable".

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

HVAC & Refrigeration system for Technology Demonstration vessel for DRDO – approx. complement 150. (Approx.30,000 DWT)

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with “cost”, “included” or “not applicable”.

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.

PRICE BID FORMAT FOR HVAC AND REFRIGERATION PLANT WORKS

HVAC & Refrigeration system for Coast Guard / Navy Training vessel – Approx. Complement 265.

Material Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of equipment	Lump sum	
2	Class/manufacturer recommended tools	Lump sum	
3	On board spares	Lump sum	
4	B & D spares	Lump sum	
5	Sales tax	Indicate percentage	
6	Excise duty	Indicate percentage	
7	Customs duty	Indicate percentage	
8	Total		

Note: 1. All the material required for completion of the system shall be supplied in a maximum of 5 lots only.

2. Excise duty & Customs duty are to be indicated. However the same will not be considered in case HSL provides duty exemption certificates issued by competent authority.

3. Cost breakup details of equipment/ material supply to be indicated separately in case staggered delivery is opted in order to facilitate stage payment.

4. No column is to be left blank. Either it shall be filled with “cost”, “included” or “not applicable”.

Work Component:

Sl.No.	Description	Unit of measurement	Cost in Rs.
1	Cost of design, installation, testing, commissioning and trials	Lump sum	
2	Cost of maintenance of the HVAC & refrigeration system on board from sea trial to delivery of the vessel to her owners. (Quote should also include cost of consumables like ref. gas, oils required if any)	Lump sum	
3	Cost of training of owners personnel at OEM works for 3 weeks	Lump sum	
4	Cost of training of owners personnel on board for 6 weeks	Lump sum	
5	Service tax (if applicable)	percentage	
6	Total		

Note: The proposed stage payments for item at Sl.No. 1 are as indicated below:

- 25% - On installation of major equipment like condensers, compressors, chillers, AHUs, SW pumps, ventilation fans etc.,
- 45% - completion of 80% of trunking, piping and fixing of other fittings.
- 15% - Completion of all other works and commissioning
- 5% - On successful completion of HATs & SATs.
- 10% - After completion of guarantee period or against submission of Performance Bank Guarantee to cover the guarantee period.