**SCOPE OF SUPPLY AND DETAIL TECHNICAL SPECIFICATION**

**FOR SHOCK MITIGATION SEATS**

1. **Requirement**: Requirement of marine grade light weight, minimum foot print & compact shock mitigation seats as specified at Sr No 5 below:

**Quantity**: 12 seats per boat, Total 132 seats

1. **Boat Specification**:
   1. Length Overall : 13.8 M
   2. Breath Max : 2.9 M
   3. Draft (M) : 0.80 M
   4. Max Speed (with max payload) : 35 Knots @ 85% MCR
   5. Cruising Speed : 25 knots
   6. Endurance @ Cruising Speed : 8 hours
   7. Complement : 12 Persons including crew
   8. Displacement : 12 Tons
   9. Material : FRP/GRP with Vacuum infusion process

(**Note**: Above particulars are preliminary and subject to change during detailed design)

1. **OPERATING CONDITION:**

The equipment and the machinery fitted on the Patrol Boats shall comply with marine operating standards and capable of satisfactory operation in Indian ambient environmental conditions as under: -

* 1. Operations at an altitude up to 15000 feet.
  2. Ambient Temperature:-

(a) Minimum Range

Minus 150C to Minus 50C.

(b)Maximum Range

Plus 400C to Plus 450C.

* 1. Compliant to IP 56 ingress of water.
  2. Wind speed up to 40 km/hr.
  3. Salinity up to 40000 ppm.
  4. Sea / Water worthiness.

(a) Maximum speed at sea state 2.

(b) Sea Worthy Sea State 3.

* 1. The firm needs to provide the specific compliance for the materials offered by them should be suitable for the climatic conditions specified above.

5. **Material Specification,** **Scope of Supply and Technical Compliance**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr No** | **Item description** | **Qty Required One boat** | **Reference** | **Compliance** |
| 1 | Heavy duty shock mitigation seats for helmsman & crew: The seats should be robust/heavy duty type to cater the requirement of High speed vessels. The seats to be made of light weight aluminium/alloy, SS 316 materials. Suitable suspension by means of gas spring or damping vlock with steel spring. The seats have UV & water resistant upholstery with anti slip finish. The seat to be supplied with GRP / light weight alloy base for fitment on FRP floor. Necessary fasteners to be included in the offer. Similarly in case of suspension of gas spring, the necessary pump to be included in the offer. The seats to be fitted with grab handles. The seats should have facility to adjust in forward & aft (horizontal) direction to meet the operational requirement. The seat cover should be of high standard leather / Fire resistant fabric and should withstand heat, marine salt water stains etc. The bottom base of seats should have storage space with suitable lid. Out of 12 seats of one boat, 6 seats should have storage at PORT and 6 seats should have storage at STBD side. Weight of the seat should not be more than 30 Kgs.  Limiting size for the seats: Length - 600mm +/- 60 MM  Width – 300 mm +/- 30 MM | 12 Nos |  |  |

**Note**:-

1. The technical details should be factual, comprehensive and include technical specification viz. Make, style/grade, packing details etc against broad requirements listed above.
2. The supplier should categorically confirm (in the Compliances column) the supply of items, suitability in operating conditions specified at Para 4 above, delivery etc. as given in each requirement above. Insufficient or incomplete details may lead to rejection of the offer. Mere indication of the compliance may be construed as incomplete information unless material’s specific technical details are available in the offer.
3. Deviations / alternate options if any offered by the Manufacturer /supplier in supply & delivery is to be clearly stated.

6. **Classification**: The boats will be built to comply with the high speed craft rules of IRS conforming to Swastika SUL, HSLC, RS2, Patrol, IY. The materials should be type approved by the classification society.

The supplier has to provide 3 sets each of manufacturer’s production / test and quality assurance certificates, shelf life certificate along with material of each batch.