BAPL/EOI/CAN/TS/01
Rev. 00
Date: 23.06.2025

Expression of Interest (EOI)

SUPPLY OF COMPOSITE CANISTER ASSEMBLY

1 Introduction

BrahMos Aerospace Private Limited, a joint venture between India's Defence Research and Development Organization (DRDO) and Russia's NPO Mashinostroyeniya, is a leading aerospace and defense corporation specialized in Design, Development and Production of supersonic cruise missile systems. The company plays a critical role in enhancing India's defense capabilities and is actively pursuing advancements in missile technologies, solidifying its position as a key player in the global defense sector.

BAPL invites Expressions of Interest (EOI) from qualified manufacturers for supply of Composite Canister for BAPL's critical defense systems. Responses should demonstrate adherence to relevant military standards (GOST/OST), robust quality control procedures, and a proven track record in delivering reliable solutions for demanding defense applications.

Intending Manufacturing Industries[s] are advised to read the EOI document, Terms and Conditions and other details carefully relating to the work contemplated in the procurement of Composite Canister Assembly.

2 Objective

The EOI aims to develop new vendors qualifying to the technical requirements of Canister assembly under consideration. The information collected will be used to identify suitable partners for subsequent phases of vendor development activity.

3 Eligibility Criteria

Interested Manufacturing Industries must meet the following minimum criterion in order to apply for EOI:

a) The Manufacturing Industries must be an Indian Registered Partnership / LLP / Company with a majority stake of the company held by a Resident and Citizen of India.
b) The average annual turnover of the interested partner during the last three years shall be at least INR 100 Cr. Audited Annual Financial Statements in support of the same shall be furnished. The long-term credit rating by ICRA/CRISIL or equivalent as on date of submission of EOI shall be “A” or above.
c) QMS Certifications AS9100D is mandatory, and the valid Certification shall be submitted along with EOI.
d) SAMAR Level 3 Certification / CIS/ equivalent Certification is mandatory, and the valid Certification shall be submitted along with EOI.
e) The firm shall have the following minimum infrastructure/ machinery
    i. Filament winding machine with capacity of 10 Tons and Size ø 800mm x 11 m
    ii. Oven of large size (Min size 1.2 x 1.2 x 11m) for curing temperature of 230^{o} C (min).
    iii. CNC lathe suitable for machining of large composite tubes of size ø 0.8m x 11 m.

iv. Ultrasonic test equipment for defect identification in composite parts.
v. Availability of Helium leak detectors (in-house is preferable).
vi. Availability of proof pressure test setup for pressure upto 50kgf/cm^2. Required pressurization rate is 0.18 to 0.25 kgf/cm^2 per second.
vii. Availability of prepreg and towpreg facility (In-house is preferred).
viii. Cold storage for storage of resins, prepreg and towpregs.

f) The firm shall have experience in
   i. Sourcing of import raw materials like high strength glass fabrics, rovings & yarn and Benzoxazine resin (Import license preferred).
   ii. Design of forming dies for plates.
   iii. Procurement of different grades of commercial/ aerospace grade resins from Indian manufacturers.
   iv. Manufacturing of filament wound composite parts and assembly of composite parts with metallic assemblies.
   v. Design of testing of physical and chemical properties of composite parts like Resin content, Density, Degree of cure, etc.
   vi. Machining & Inspection of metallic parts as per the required geometrical tolerances.
   vii. Understanding requirements and carrying out heat treatment as per required mechanical properties.
   viii. Carrying out surface treatments as per requirement of drawing and normative documents.
   ix. Assembly of composite part with metallics meeting all critical dimensions & tolerances as per drawing.
   x. Leak testing using Helium leak detectors.
   xi. Hydraulic Proof Pressure testing.
   xii. Compilation of all test reports, dimensional inspection reports and all necessary documents required for manufacturing.

g) Experience in design of tooling like mandrels, jigs & fixtures required for manufacturing of composite parts, assembly, metal forming.
h) Experienced in technical manpower availability – skilled manpower for manufacture and testing of prepreg, towpreg, filament & tape winding, composite properties testing, inspection of metallic components, ASNT/ ISNT Level-II operator for ultrasonic testing and approval by ASNT/ISNT- Level-III personnel.
i) Capability to carry out comprehensive testing (Inhouse/ NABL labs) for part and assembly level testing, calibration of test and measuring equipment.
j) Experience on working with inspection agencies viz., MSQAA, R&QA, RCMA etc. is mandatory.
k) Data and Cyber Security Certification is mandatory.

l) Minimum experience of 10 years in manufacturing and Supply of composite products like Pressure vessels, rocket motor casings, Fuel tanks for Defense/Aerospace industry. Shall be supported with contract references.
m) Shall have access to well established facilities such as machine shop with CNC machines including VMCs, heat treatment, welding shop (TIG) and surface treatment. In case if any of the process is sub-contracted, requirements of this EOI shall apply and responsibility to ensure them lies with Tier-1 Manufacturing Industries. Subcontracted process shall be accessible to BAPL for audit/assessment.
n) Clean environments / dust free enclosure shall be maintained for winding of composite shells.
o) Obsolescence Management: Shall have a documented procedure to monitor and manage obsolescence of components/sub-systems.
p) Counterfeit Detection: Shall procure raw materials only from OEM or OEM Authorized traders. For purchase of reinforcements from non-authorized dealer Manufacturing Industries shall conduct rigorous testing to detect counterfeit components and ensure quality of inward good.
q) The manufacturer shall ensure minimum service life of 20 years (min) for assemblies manufactured for BAPL.
r) Failure rate of last three financial year shall be declared; zero rejection is preferred.
s) Availability of In-house research & development facility and reverse engineering capability is preferred.

4 EOI Submission

Interested Manufacturing Industries are requested to submit their response as per Format enclosed in **Annexure-A.**

5 Evaluation Criteria

The evaluation of responses will be based on the Evaluation of BAPL w.r.t the following criteria:

- Technical capabilities and experience in defence applications.
- Production capacity and lead time for high-reliability products.
- Quality management system and compliance with defence/military standards.
- Financial stability and references in the defense sector.
- Infrastructure/Facility evaluation.
- Security Certifications and its compliance.

The shortlisted Industries will be called up for further processing.

6 Confidentiality

All information provided in response to this EOI will be treated as confidential and may be subject to non-disclosure agreements.

7 Disclaimer

This EOI does not constitute a commitment for placement of contract/P.O and BAPL reserves the right to accept or reject any or all the responses.

8 Contact Information

For any inquiries, please contact: Refer demand notification