

**DEMAND NOTIFICATION****INVITATION FOR EXPRESSION OF INTEREST FOR  
DEVELOPMENT AND MANUFACTURE OF TRAVERSE TROLLEY**

BrahMos Aerospace, a joint venture between India's Defence Research and Development Organization (DRDO) and Russia's NPO Mashinostroyeniya, is a leading aerospace and defense corporation specializing in the design, development, and production of supersonic cruise missile systems.

BAPL invites Expressions of Interest (FOI) from prospective manufacturing industries for the procurement of Traverse Trolley.

**Name of Equipment:** TRAVERSE TROLLEY

**Scope of work:**

To Develop and Manufacture Traverse Trolley and qualify the same as per technical requirement which will be shared to shortlisted manufacturers.

**Brief Description:****I. INTRODUCTION**

(i) Traverse Trolley (TT) is intended to move the magazine trolley and cylinders to the storage bins in a storage shed.

(ii) This trolley will move on rails in the shed. It should be feasible to operate trolley manually as well as electrically.

(iii) It will have rails on the top to carry Magazine Trolley (MT) along with cylinders which are mounted on the MT.

(iv) To load the MT on Traverse trolley, the rails on the top of traverse trolley will be aligned with the rails of the storage bin. Thereafter, the MT (loaded with cylinders), will be driven on Traverse Trolley.

(v) Using traverse trolley, it should be feasible to safely load and move the MT loaded with cylinders in all configurations, as required by user, while maintaining stability.

**II. TECHNICAL SPECIFICATIONS / REQUIREMENTS AND SCOPE OF WORK**

The Traverse Trolley is to be developed to meet the technical specifications given below.

S. No.	Requirement	Specification
1.	Design	a) It should have sufficient stability under loaded condition.
2.	Operating conditions and environmental & Hazard Protection	a) Operating Temperature Range: -20 °C to + 55 °C. b) Storage Temperature Range: -40 °C to +55°C. c) Relative Humidity: 95 % RH. d) Altitude – up to 4000 MSL. e) Corrosion resistance for unpainted regions of trolley except



		<p>for moving surface of trolley wheels.</p> <p>f) Environmental &amp; Hazard protection for electrical components:</p> <ul style="list-style-type: none"> <li>i. Flame proof Protection.</li> <li>ii. Flame proof cables for connection wires on trolleys.</li> <li>iii. IP 54 – Dust and water proof protection class.</li> <li>iv. Over voltage / short circuit protection.</li> </ul>
3.	Wheels	<p>a) To be selected for use on 105 lbs. (Indian Rail std.).</p> <p>b) Number of wheels 4 / 8 combination.</p>
4.	Travel speed	<p>a) Provision for a range of speed for operating trolley.</p> <p>b) Ability to select the speed of movement of trolley using control panel.</p> <p>c) MT control panel will also be stationed on TT.</p>
5.	Mode of operation	<p>a) The system must have provision for both Electric mode and manual mode of operation.</p> <ul style="list-style-type: none"> <li>i. Electric Mode: Through a control panel on the trolley using push buttons and joysticks.</li> <li>ii. Manual Mode: Provision to operate trolley manually. Can be through cable drag chain arrangement.</li> </ul> <p>b) A tow arm to be provided at the front of traverse trolley to pull the trolley with tow truck/ tractor.</p>
6.	Latching and Locking	<p>a) Latching / lifting points for loading and unloading the trolley on trailer and latching during transportation.</p> <p>b) Provision for arresting the lateral and longitudinal motion of cylinders using the available hard points / latching points.</p>
7.	Brakes/ Stopper	<p>a) The trolley shall have provision of brakes / stopper to arrest movement of trolley while loading / unloading operation.</p>
8.	Ergonomics	<p>a) Provision to enable 2 personnel to stand/sit on the trolley. Sitting area to be positioned next to operator console.</p>
9.	Power connection	<p>a) Input Power: 415 V, 3 Phase, 50 HZ.</p> <p>b) Output Power to be given to Magazine trolley through a detachable 4 pin industrial connector.</p>
10.	Paint and plating	<p>a) Paint: Trolleys to be painted with dove grey color with 2 coats of primer and 2 coats of paint.</p> <p>b) Unpainted regions to be ZN-Ni plated.</p>
11.	Testing / Inspection	<p>a) Stage inspection</p> <p>b) Fitment tests</p> <p>c) Static and dynamic load tests</p> <p>d) Acceptance tests and Qualification tests</p>
12.	Deliverables	<p>a) Traverse Trolley as per BOM</p> <p>b) Tools and spares (List to be mutually finalised)</p> <p>c) Drawings, models and documents as per Para III.</p>

### **III. DRAWINGS / DOCUMENTS TO BE SUBMITTED**

Following drawings, models and documents are to be generated by the supplier and shared with BAPL for review and approval.



S. No.	Drawing / Document
1	Manufacturing drawings (AutoCAD format) and Bill of Materials.
2	Detailed 3D model, Design report and FEA report.
3	User manual with Illustrated Spare Part List (ISPL).
4	Maintenance Manual
5	Manufacturer Recommended List of Spares (MRLS).
6	Components Catalogue for bought out items.
7	Draft Quality Assurance Plan (QAP) and Acceptance Test Plan (ATP) will be prepared and submitted by BAPL. Based on draft QAP and ATP, final QAP and ATP will be prepared by vendor. QAP to cover raw material checks, heat treatments checks, welding checks, surface treatment checks, painting checks, visual and dimensional checks, functionality checks, Load tests, Pre-delivery inspection.
8	Test reports as per QAP (Raw material test reports, WPS/WPQ/PQR, stage wise inspection reports, DP reports, certificates of conformance, dimensional inspection reports, Paint reports, Torque application report, Acceptance test / Qualification test report).
9	CoC and data sheet to be submitted against make and model for all electrical items. CoC of FLP panels and Motors to be submitted as part of documents.

The eligibility criteria and instruction for submission of EOI are available at our website [www.brahmos.com](http://www.brahmos.com). Only eligible vendors meeting the requirements specified in EOI document "BAPL/EOI/TP-EQPT/01" shall only be applied.

Eligible manufacturing industries may furnish their Expression of Interest in the prescribed format (Annexure A of EOI document BAPL/EOI/TP-EQPT/01 in Sealed Envelope quoting our Reference No. BAPL/DN/TT/001\_R1 with all essential information and supporting documents shall reach on or before **01/02/2026 [16:00 Hrs]** to the following address:

**BrahMos Aerospace Private Limited**  
16, Cariappa Marg, Kirby Place  
Delhi Cantt, New Delhi -110010  
Tel: +91-11-42285101

**Note: BAPL reserves the right to accept or reject any or all responses. Mere compliance to the EOI terms does not guarantee further consideration for qualification in the procurement process.**



BAPL/EOI/TP-EQPT/01

Rev. 00

Date: 26.05.2025

# Expression of Interest (EOI)

GROUND HANDLING/ SUPPORT EQUIPMENT

May 26, 2025



1	<b>Introduction</b>	2
2	<b>Objective</b>	2
3	<b>Eligibility Criteria</b>	2
4	<b>EOI Submission</b>	3
5	<b>Evaluation Criteria</b>	3
6	<b>Confidentiality</b>	4
7	<b>Disclaimer</b>	4
8	<b>Contact Information</b>	4



## 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. BrahMos missile, a versatile weapon deployable from multiple platforms, 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 Ground Handling/ Support Equipment for BAPL's critical defence system Responses should demonstrate adherence to relevant military standards (MIL-STD), 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 Ground Handling/Support Equipment.

## 2 Objective

The EOI aims to develop new vendors qualifying to the technical requirements of equipment 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:

1. 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.
2. In-house expertise in 3D modelling, FE Analysis, generation of Auto-Cad drawings and associated sub-assemblies. The industry should have latest version of software and should share the CAD model/FE Model with assembly/manufacturing drawings with BAPL.
3. Vendor should share the details of sub-vendors on whom subsequent orders of component/assembly will be placed.
4. IPR for drawings/ model should rest solely with BAPL.
5. Static load testing:





Qualification testing (QT): 2X 30 ton

Acceptance testing (AT): 1.5X 30ton

Dynamic load testing:

24-ton dummy load movement on rails during manufacturing stage.

6. EOT crane/ Hydra and other load lifting equipment availability at vendor premises.
7. Availability of load cell and display unit with proper calibration certificate for conducting static/dynamic load test.
8. Packing and delivery of equipment with Def. standard.
9. Vendors with past experience in manufacturing and implementing rail/ track load bearing arrangements should be preferred.
10. Vendor should have following ISO certification, preferably:
  - ISO 3834: Certification for welding quality system.
  - ISO 9001: Quality management systems- requirements
  - ISO 14001: Environmental management systems
  - ISO 45001: Occupational health and safety management system.
  - ISO 27001: Information security management.
11. Vendors should follow NABL accredited labs verified reports as per QA plan.
12. Vendors should have sufficient space for assembly/ testing and storage of Magazine Trolley.
13. Expertise and technical tie up with renowned organization for assembling and integrating the hydraulic, electronic systems with the geared systems for trolley.
14. Higher indigenous content is preferable.

#### 4 EOI Submission

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

#### 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 of the subsystems mentioned in Demand Notification.

## **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





**Annexure A**  
**Expression of Interest**

Demand Notification Ref.: \_\_\_\_\_

Demand Notification Date: \_\_\_\_\_

S.No.	Particulars	Details to be filled up by FIRM	Supporting Document
a.	Name Of the Firm & Address		Company Registration Document with State/Central Government
b.	Firm's Contact Person & Details		
c.	Category of Industry (Raw Material /Conversion/Standard Items/Ready to use Components/Other) *		
d.	Nature of the Company (Pvt. Ltd. / Ltd./PSU/DPSU etc.)		
e.	Organizational structure		Self-attested document
f.	The average annual turnover of previous three (3) financial year.		Annual Financial Statements
g.	What is the core competence of the company?		-
h.	What are principal products(s)?		-
i.	How long has company been in business as presently organized?		-
j.	List of principal Subcontractors, along with processes subcontracted		-
k.	List of principal customers to whom the vendor supplied stores in the past two (2) years.		-
l.	List of principal companies and /or Government agencies which have surveyed and approved the firm with scope of approval.		Copy of attestation document
m.	Contract /S.O. No. from Defence/Missile complex Labs along with status of order. (Completed/Ongoing/Short closed)		-
n.	Certification - Quality (ISO/AS/SAMAR)		Copy of latest certificate



S.No.	Particulars	Details to be filled up by FIRM	Supporting Document
<b>o.</b>	Employee Strength (Design, Quality, Production, (Skilled / Semi- Skilled/Casual) Other)		-
<b>p.</b>	Certification of skilled manpower (IPC 610/620 Class-3)		Copy of latest certificate
<b>q.</b>	Attrition rate of employee		-
<b>r.</b>	Failure incidence reported by customer in last three years in PPM and percentage		-
<b>s.</b>	Average import percentage in products manufactured and delivered in last financial year		-
<b>t.</b>	Security compliance certification (If any). Shall specify the road map and certification plan if not existing.		Copy of latest certificate/ Road Map
<b>u.</b>	List of available equipment and machinery (e.g., SMT placement machines, CNC (Computer Numerical Control) machines, environmental test chambers and other test facilities.		
<b>v.</b>	Maximum PCB size and complexity handled		
<b>w.</b>	Production capacity - Lead time for prototype and production runs		
<b>x.</b>	Inventory Management System		
<b>y.</b>	Controlled Storage Facility		
<b>z.</b>	Cybersecurity and data security practices		Compliance Certificate/Self certification



*Category of firm	Definition
<b>Connector and Cable Manufacturer</b>	Firms having facilities for manufacturing of MIL grade connectors and manufacturing of cable harness.
<b>Only Cable Harness Manufacturer</b>	Firms having facilities for manufacturing of cable harness but no in-house facility to manufacture MIL grade connector
<b>Electronic Package Manufacturer</b>	Firms having manufacturing facilities for making electronic and electro-mechanical systems.
<b>Other</b>	Firms not falling in any of the previous types, shall specify in the form.

**Note : The firm shall enclose supporting documents as applicable**

Declaration: The details provided above are true and it is understood that BAPL reserves the right to accept or reject the EOI filed herein.

**Authorized Signature with Name & Company Stamp.**



EOI: BAPL/EOI/TP-EQPT/01 Rev.00 dated 26 May 2025

Demand Notification: BAPL/DN/UMT/001\_R1 dated 23 Jan 2026

Demand Notification: BAPL/DN/TT/001\_R1 dated 23 Jan 2026

S. No.	Requirements	Details to be furnished	Sample reply
1	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.	Company incorporation certificate to be provided.	
2	In-house expertise in 3D modelling, FE Analysis, generation of Auto-Cad drawings and associated sub-assemblies. The industry should have latest version of software and should share the CAD model/FE Model with assembly/manufacturing drawings with BAPL.	1. Manpower with knowledge of softwares 2. List of licensed softwares available with the firm. 3. Agree to share the soft copies of CAD drawings, CAD model, FE model and analysis files	1. Hydraulic design engineers - 14 nos. Mechanical design engineers - 39 nos. Electrical design engineers - 7 nos. 2. Softwares: AutoCAD, SolidWorks, Inventor, SolidEdge, Ansys, NISA, DDM-Pro, E-Plan (for electrical circuits) and PLC software. 3. Accepted
3	Vendor should share the details of sub-vendors on whom subsequent orders of component/assembly will be placed.	List of sub-vendors for Raw materials, Hydraulic systems, Electric systems	MS/SS plates - SAIL, JINDAL, TATA, ESSAR, Imported Forging - Kisaan Steel, Alka forging, C.D. Industries, GoodLuck Fasteners - TVS / LPS / Unbrako Welding consumables - Modi / Esav / D&H / Honaver / Adore / Maruti
4	IPR for drawings/ model should rest solely with BAPL.	Accepted / Not accepted.	Accepted.
5	Static load testing: Qualification testing (QT): 2X 30 ton Acceptance testing (AT):1.5X 30ton	Accepted / Not accepted.	Accepted.
	Dynamic load testing: 24-ton dummy load movement on rails during manufacturing stage.	Accepted / Not accepted.	Accepted.
6	EOT crane/ Hydra and other load lifting equipment availability at vendor premises.	Capacity and qty. of in-house EOT cranes.	Available - up to 300T
7	Availability of load cell and display unit with proper calibration certificate for conducting static/dynamic load test.	List of load cells, display units available with the firm to be provided	Available load cells: 250T - 4 nos. 500T - 4 nos. 1000T - 4 nos.
8	Packing and delivery of equipment with Def. standard.	Accepted / Not accepted.	Accepted.
9	Vendors with past experience in manufacturing and implementing rail/ track load bearing arrangements should be preferred.	List of products with photos and supply orders to be provided.	1. Supplied 75T capacity two track pit traverse system to Indian Railways (photos attached) 2. Hot metal ladle transfer system used to transfer hot metal from blast furnace (photos attached)
10	Vendor should have following ISO certification, preferably:		
	(i) ISO 3834: Certification for welding quality system.	Certificate to be submitted	Not available
	(ii) ISO 9001: Quality management systems- requirements	Certificate to be submitted	Available (copy attached)
	(iii) ISO 14001: Environmental management systems	Certificate to be submitted	Available (copy attached)
	(iv) ISO 45001: Occupational health and safety management system.	Certificate to be submitted	Available (copy attached)
	(v) ISO 27001: Information security management.	Certificate to be submitted	Not available

11	Vendors should follow NABL accredited labs verified reports as per QA plan.	Accepted / Not accepted.	Accepted (Own in-house testing facility is already accredited by NABL).
12	Vendors should have sufficient space for assembly/ testing and storage of Magazine Trolley.	Mention the total area of the firm and the covered area available with the firm for fabrication, assembly, testing and storage of trolleys at their premises at single location.	Total area: 1,00,000 sqmt. Covered area: 50,000 sqmt.
13	Expertise and technical tie up with renowned organization for assembling and integrating the hydraulic, electronic systems with the geared systems for trolley.	List of firms with which tie-ups exist and MoU certificates, if available, to be provided.	Tie-ups with 4 different MNCs (MoU copies attached).
14	Higher indigenous content is preferable.	Indigenous content (%) for major existing products.	1. ABC - 95% 2. XYZ - 98% 3. PQR - 60%