

# DEFENSE SOLUTIONS FROM



Specialized Handling  
Solutions for the  
Armed Forces,  
Defense  
Manufacturing,  
DRDO, Assembly  
lines; using cutting  
edge bespoke  
Technologies.

**Personalised Presentation For**



2024

[www.nandan.co.in](http://www.nandan.co.in)

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## CONTACTS



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## Capability Presentation of Nandan GSE

**Dear Sir,**

At the outset, we profoundly thank you for the opportunity given to Nandan GSE to present our capabilities. We are proud of the Armed Forces that defend us and uphold the integrity of our Motherland.

For the **past 33 years**, Nandan GSE has been at the forefront of elevating customer **performance, production, and safety** by providing **customized, bespoke, and specialized handling systems**. We are committed to contribute to **making Atmanirbhar Bharat, through Make in India**.

### **Customized solutions we offer:**

#### **Mechanical Systems:**

- Tailored solutions based on vehicle or standalone modes to meet specific operational needs.
- High-quality engineering ensuring robust performance in demanding conditions.

#### **Electro-Mechanical Systems:**

- Integration of advanced electrical and mechanical components to enhance functionality.
- Solutions designed for precision and reliability in critical applications.

#### **Electro-Hydraulic Systems:**

- Expertise in servo systems and other electro-hydraulic configurations.
- Focus on efficiency, durability, and low maintenance costs.

### **EV-Based Systems:**

- Development of electric vehicle-based systems for sustainable operations.
- Cutting-edge technology ensuring high performance and energy efficiency.

### **Defense Solutions:**

- Registered with the Three Services of the Armed Forces, numerous DRDO Labs and Defense PSUs.
- Proven track record of delivering high-quality, reliable, and innovative solutions tailored to the defense sector's needs.
- Collaborations with industry leaders like JCB India for safe height access solutions and Hydrolift for crane manufacturing for truck-mounted solutions.

### **Innovative Projects:**

- Conceptualizing, designing, and manufacturing a variety of equipment exclusively for the Defense Forces.
- Each project is a testament to our engineering prowess and commitment to excellence.
- Our comprehensive approach encompasses design, manufacture, integration, installation, and maintenance. With in-house Research & Development, Design, and Service Departments, Nandan GSE is a one-stop solution provider, recognized for our innovation and high standards.



### About Us:

Established in 1991 and based in Navi Mumbai, Nandan GSE is an MSME backed by technocrats with over 70 years of combined experience. Our commitment to quality is reflected in our certifications, including **AS 9001D, ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018**. We have a strong workforce of 250 skilled personnel, supported by experienced top and middle management.

Our strategic location in Navi Mumbai's industrial belt gives us access to high-quality, dependable facilities, enabling us to deliver reliable products in the shortest time frames. Our processes are certified by **DRDO SAMAR** (Quality Council of India) and **ZED** (Zero Defect Zero Effect) Ministry MSME.

We invite you to explore our website for **Nandan Defense Solutions** {<https://nandan.co.in/industry/defense/>} to learn more about our products, case studies, solutions, and accolades. Our detailed presentation can be viewed at <https://nandan.co.in/ppt-def>

Enclosed are details of our capabilities, certifications, client base, and manufacturing facilities.

We humbly request the opportunity to serve you and contribute to the "Make in India" and "Atmanirbhar Bharat" initiatives. We assure you of not just meeting, but exceeding your expectations, through our innovation and service.

**Thank you for your time and consideration,**  
**Yours sincerely,**

#### **Dr. Raghunandan Jagdish**

MD & CEO - Nandan GSE Pvt Ltd



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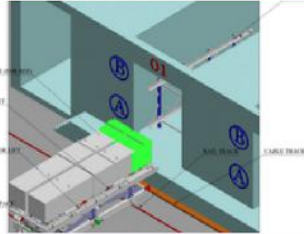


# Some Defense Projects Executed

These equipment were designed, manufactured and supplied by Nandan GSE. References given on request.

## BDL-ASRS

Store & retrieve articles of mixed capacity. Automated handling with minimum human interface. ATEX and Gas Gr IIC flame proof standards.



## BDL-TMC

Truck Mounted crane with 5 ton capacity @ 8M indigenously developed to handle long sized Articles ergonomically.



## VMSL

40+ VMSL manufactured for DRDO which are used for loading AN-32 aircraft all around India.



## HAL VMSL WITH CRANE

Asia's largest scissor lift of 40,000 kg capacity is designed and developed for Samsung Constructions which is installed in Mumbai at the Jio World Center.

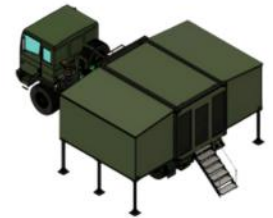
## WORKSHOP VAN

MIL Grade workshop van  
25 GVW Chassis/HMV  
MIL Grade Genset, AC unit UPS  
power backup  
Inbuilt with 300+ tools for field repairs



## SHELTER

Custom built shelters - stand alone or fixed on the chassis, multiutility, EMI/EMC proof Expandable/collapsible



## K LOADER

Nandan GSE's K Loaders (self-propelled cargo loaders) for the armed forces, available from 1000 kg to 40,000 kg. Built for durability and efficiency, they ensure precise control in challenging military environments.



## ARTICLE LOADER

Self-propelled Bomb Loader trolley for efficient movement. Height from 800 mm to 2000mm. Up & Down lifting movement done by hydraulic hand pump & valve. Adjustable saddles for placement of article of different sizes.

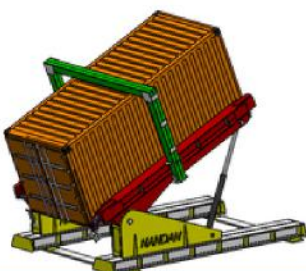
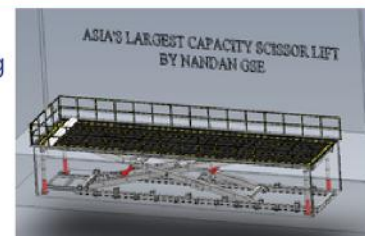
## HEAVY DUTY SCISSOR LIFT

20 ton scissor lift made for BARC from concept to delivery. Criticality was the "flame proof" environment as well as the height at 6m from ground. Executed in 4 months.



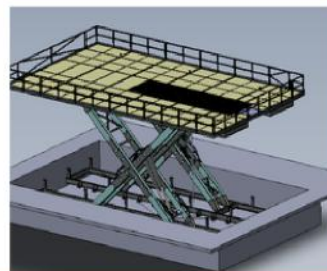
## SCISSOR PLATFORM

Asia's largest scissor lift of 40,000 kg capacity is designed and developed for Samsung Constructions which is installed in Mumbai at the Jio World Center.



## CONTAINER TILTER

Container Tilter for loading bulk cargo into a standard 20 foot container so that the packaging cost can be eliminated.



## ENGINE TEST PLATFORM

14m x 8m platform made for Cenco - Safran Group for testing aircraft engines in Nagpur. This was India's largest scissor for a long time and capable of carrying 8 tons in a flameproof environment.



# Some Defense Projects Executed

These equipment were designed, manufactured and supplied by Nandan GSE. References given on request.

## SPECIAL PURPOSE VEHICLE (BP)

Nandan GSE's Special Purpose Vehicle (SPV) ensures personnel safety during missions. In volatile environments, our Bullet Proof Vehicle offers unmatched security and reliability for armed forces operations.



## TOWABLE STEP LADDER

The towable step ladder is a game-changer for airlines and ground handlers looking to reduce handling costs for narrow body and regional flights.



## SELF PROPELLED BAGGAGE CONVEYOR

Nandan's Baggage Conveyor is the ultimate solution for efficient loading and off-loading of airfreight, bulk cargo, and baggage on all commercial aircrafts.



## ELECTRIC TOW TRACTOR

Nandan GSE's Electric Baggage Tow Tractor/Tug is a cutting-edge vehicle engineered for efficient, reliable, and eco-friendly baggage transportation, serving aviation, military, industrial, and transit customers.

## FOOD DELIVERY VEHICLE

Nandan GSE's Food Delivery Vehicle, designed for the Indian Armed Forces, guarantees hot food transport at 48°C, even in ambient temperatures of 6°C. It is built to endure harsh road and weather conditions.



## MOBILE ATC

Mobile Air Traffic Control (ATC) is a portable system for rapid deployment, ideal for emergencies and remote operations. With a smart towing mechanism, generator, and UPS; it ensures safe air traffic management.



## DOUBLE DRIVE VEHICLE

This vehicle features dual end driving for easy navigation in tight spaces. With controls at both ends, switching directions is simple, avoiding complex turns. It operates with zero emissions, offering quiet and eco-friendly transportation.

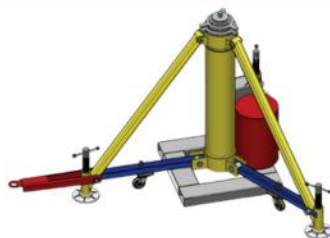


## TRUCK MOUNTED MANLIFT

Ideal for maintenance, construction, and elevated tasks, this mobile aerial platform is mounted on a sturdy truck, providing excellent accessibility and maneuverability in challenging environments.

## HYDRAULIC JACK PG45T

They are customized solutions made in accordance with the Make In India policy, showcasing capabilities in development, design, and prototyping.



## SELF PROPELLED SCISSOR LIFT

Ideal for high-range vertical movement in shops, factories, or stores, these lifts are available on custom or standard chassis and can be powered by batteries or diesel. They provide reliable and efficient operation for all lifting needs.



## JCB ARTICULATED BOOM LIFT

Articulated Boom for the armed forces. With a 16 ft working height and expanded reach, it ensures access to challenging heights. Boost efficiency and productivity with JCB's ultimate choice for elevated performance.



## ROTARY CAROUSEL STORAGE

Maximizes vertical space for efficient storage and retrieval of military equipment and supplies. Designed for high-density storage, it features rotating shelves controlled by a computerized system.



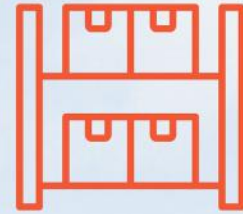
# Nandan GSE's Solutions For Armed Forces



**Safe Handling of  
Sensitive Articles**



**Vertical Space  
Optimization**



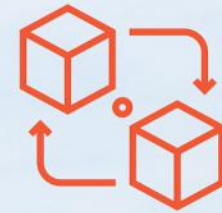
**Storage &  
Retrieval**



**Lifting  
Material**



**Shifting  
Material**



**Transferring  
Material**



**Access Heights  
Safely**



**Body  
Building**



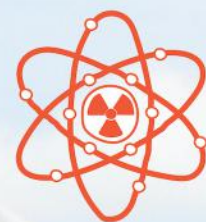
**Article  
Loading**



**Defense  
Robotics**



**Handling Hazardous  
Material**



**Handling Very  
Hazardous Material**



**Customised  
GSE**



**Customised  
Solutions**



**AMC & CMC  
For Defense**



# Some Defense Clients Whom We Served



LARSEN & TOUBRO



TRANSWEIGH  
(International) Private Limited



SAFRAN  
AEROSPACE · DEFENCE · SECURITY



AIRBUS





# About **NANDAN** GSE

## Background

We **design & manufacture** lifting and handling solutions, that include a range of Standard Products, Custom Products, Projects & Applications.

**Founded in 1991** & been growing steadily since then

**2 x AS 9100D ISO 9001:2015 certified** factories around Mumbai

**Team of 250+** to implement customized solutions drafted for our clients

**In-house R&D, Design team** with licensed Solidworks & Geomagic for 3D Modeling & Analysis

**Fully featured ERP-CRM** for data process management, & traceability

### We Help Clients Improve Their



Productivity



Performance



Safety

### We Help Clients Save



Time



Effort



Money

### We Guarantee



Quality



Reliability



After Sales Service





### **Dr. Raghunandan Jagdish**

MD & CEO – Nandan GSE

**M. Tech from TAMU, USA**  
**20+ years** of industry  
experience



### **J C Kumar**

Chairman – Nandan GSE

**50+ years** of industry  
experience

## **VISIONARY LEADERSHIP MOVTIVATED WORKFORCE**

### **Key Leadership**

- Col. KR Acharya | President – Defense Business
- Dr. Sangram Patil | Head – R&D
- Dhanesh Patil | Head – Design
- Yashwantha Nayak | Head – Production

### **Key Advisors**

- Maj Gen PM Mohandas, VSM (Retd.) (Ex-Chairman | BDL)
- Bharat Dhruv (Ex-Tata Motors)

250+ Strong Team | Loyal | Empowered |  
Emphasis On Learning & Development





# Our Capabilities

- ✔ 2 self-owned factories with a combined area of more than 1,00,000 sq.ft
- ✔ Working closely with Supply Chain Partners for outsourced processes
- ✔ State-of-the-art processes benchmarked with the best in the world
- ✔ Flexible layout to accommodate projects
- ✔ Integrated vertical factory setup
- ✔ MIG welding machines - inverter based 400A, 300A, 200A, 150A
- ✔ In-house designing facility using Solidworks and Autodesk Fusion<sup>3</sup>
- ✔ Laser and plasma cutting facility





# WORKS - TURBHE & KHOPOLI

**Unit 1** - Located in the heart of Maharashtra Industrial Area in Turbhe, District Thane

- Convenient access to rail and road infrastructure
- Fully owned by NGSE
- Facilities include: 60,000 sq. ft. area with a shed featuring a 11 m high roof and 6 m high mezzanine, and a 12" thick concrete floor. 4,000 sq. ft. office building with a conference room, staff rooms, Director's office, stores, design room, and an in-house pantry

**Unit 2** - Located in Khopoli

- Covers 40,000 sq. ft.
- Shed with a 8-meter high roof and an EOT crane





# SAFETY PROCESS



We pride ourselves on **safety**.

## Design Review

All equipment undergo a **Design Review** with the customer, who may also request third-party verification.

## Minimum FOS

We maintain Minimum **FOS of 3** in design process.

## FE Analysis

All designs are **validated through FE Analysis**, as per the actual working scenarios.

## Safety & Relief Valves.

Hydraulic Circuit is designed with **Safety & Relief valves**.

## NABL Accredited Testing

Before fabrication, materials is **tested in NABL Accredited laboratory**.

## Emergency Operation

**Hand pumps** are provided in all equipment for **Emergency Operation** of hydraulic system

# FUTURE WORK AREAS

Electric Vehicles	Composites
Electric Trucks	Gun Stabilising Systems
Automated Guided Vehicles	Logistics Loading Systems for Warships
High Density Parking Systems	Ammunition loading systems
Armoured Personnel Carriers	Unmanned Vehicles/ Robotics
Mass Transit Support Products	Graphene and Carbon Systems
Road/Rail Systems	Automatic Storage and Retrieval Systems
Weapon Handling Systems	



Why partner with Nandan GSE for a **"Make in India"** experience



### **Make In India**

Availing of benefits in "Make in India" scheme promoted by the Indian Govt.



### **Service Infrastructure**

Advantage to use ready, existing service infrastructure.



### **English-Speaking Workforce**

English-speaking workforce poses no language barrier.



### **Experienced & Stable Management**

Professional & ethical dealing by globally educated & experienced founders & top management.



### **Technology and Process Orientation**

We benchmark with the best in the world & thus seamless integration of tech & processes is possible.



### **Faster ROI**

Lower costs lead to faster ROI & better value for investments made.



### **IP Protection**

Stricter IP laws ensure your designs & data are protected, not replicated.



### **Location Advantage**

Our factories are located near Mumbai & close to one of the busiest shipping ports as well as airport in the world.



### **Existing Distribution Setup**

Tap into an existing distribution infrastructure; masterstroke advantage of manufacturing distribution offered by the same entity.



### **World-Class Quality**

World-class quality standards & manufacturing processes.

Tell us your **requirement** - We will find a **solution** for you



# Certificates



## DRDO - SAMAR



## AS9100D



## ZED Gold



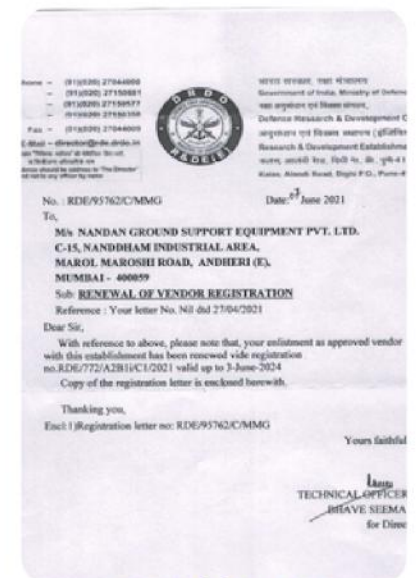
## ISO - 9001



## ISO - 14001



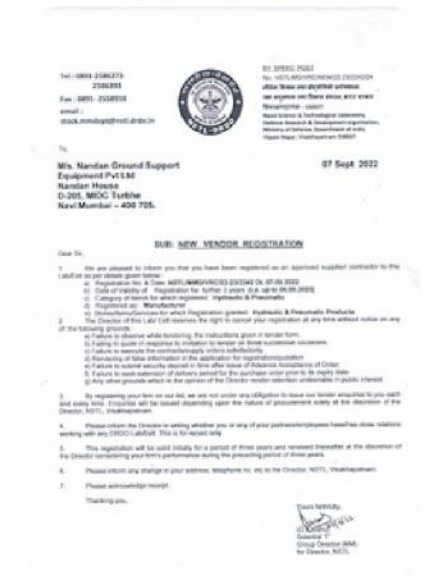
## ISO - 45001



## R & DE(E) DRDO



## RCI DRDO



## NSTL-DRDO



# Accolades



**RATAN TATA**  
CHAIRMAN - TATA GROUP

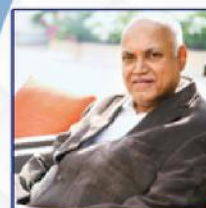
“

I am happy with the service provided by Nandan GSE for the Car Lifts in my house. They were responsive to my requirements especially the safety of my dogs and cars

”



## I for India Ride at Adlabs Imagica



"Nandan has supported Adlabs Imagica by the designing & installing the I for India ride.

I was impressed with their technical abilities, flawless execution and they have supplied an entertaining ride for Adlabs Imagica that is working very well & enjoyed by the park visitors. I highly recommend them to anyone looking to resolve complex engineering projects."

**Manmohan Shetty**  
CMD / Adlabs Imagica **17**

<b>Nandan Ground Support Equipment Pvt Ltd</b>	
<b>Type of Company</b>	Private Limited Company
<b>Registered Office</b>	Nandan House, D – 205 MIDC Turbhe, Navi Mumbai 400705 India Ph No: +91-22-27635508/09
<b>Works Unit 1</b>	D – 205 MIDC Turbhe, Navi Mumbai 400705 India Ph No: +91-22-27635508/09 Fax: +91-22-27635510
<b>Works Unit 2</b>	196, Dekhu Village, Near Fibre Foils, Khopoli, District Raigad, Maharashtra, India
<b>Website</b>	www.nandan.co.in
<b>Email</b>	sales@nandan.co.in , defense@nandan.co.in
<b>Incorporation Certificate</b>	U 29200 MH 2002 PTC 137255 (Annexure 2)
<b>PAN No</b>	AABCN6540Q
<b>Authorised Signatory</b>	Dr. Raghunandan Jagdish, Managing Director & CEO
<b>Contact Details</b>	Landline : 022-6814-4141 Mobile: +91-86910-30319 Email: sales@nandan.co.in
<b>GST Regn</b>	27AABCN6540Q1ZY
<b>PPF Registration No</b>	116587/158 dt 01-01-2006
<b>ESIC Registration No</b>	34000021540000699
<b>NSIC Registration No</b>	NSIC/MUM/GP/RS/N-227/MH, Valid from 29/4/2023 till 28/4/2025
<b>Integrated Management System</b>	ISO 9001:2018 ISO 14001:2015 ISO 45001:2018 AS 9100D : 1223-1226-CN AS 143 ZED Gold



# MANUFACTURING CAPABILITIES



<b>Capabilities</b>	<ul style="list-style-type: none"> <li>• All kinds of fabrication</li> <li>• Designing and execution</li> <li>• PUF and FRP in house</li> <li>• Special purpose machine conceptualization and delivery</li> <li>• SolidWorks for Modelling &amp; Simulation</li> </ul>	
<b>Design Capabilities</b>	<ul style="list-style-type: none"> <li>• Adequate licenses owned for SolidWorks for 3D modelling and analysis</li> <li>• AutoCAD</li> <li>• Fusion 360, SolidEdge</li> <li>• Ability to open files from all designing software</li> </ul>	
<b>Machinery Used</b>	<ul style="list-style-type: none"> <li>• Magnet Drill Machines 20mm</li> <li>• Hand Drill Machines 6mm, 10mm, 13mm, 16mm, 19mm</li> <li>• Angle Grinder 125mm, 175mm</li> <li>• Hydraulic Power Packs for testing up to 6000 psi</li> <li>• Pug Machines for straight cuts</li> <li>• Jib Cranes</li> <li>• Crane pulleys for site jobs</li> <li>• Hydraulic Floor Crane</li> <li>• Vertical Access equipment on wheels up to 10m</li> <li>• Stackers for loading/ unloading</li> <li>• Painting systems for polyurethane, enamel, rust proof paints</li> <li>• Fiber Glass up to 6mm thick and size of 7.1mx3m</li> <li>• Stainless Steel work including buffing and polishing upto pharmaceutical grade</li> <li>• Shot blasting facility</li> </ul>	<ul style="list-style-type: none"> <li>• EOT Crane (5 ton + 2 ton below mezzanine)</li> <li>• Profile cutting machine (80mm thick capacity with 2000mm dia)</li> <li>• Lathe up to 4' for machined components</li> <li>• Hydraulic Hacksaw machine</li> <li>• Part-off saw for pipes</li> <li>• MIG welding machines</li> <li>• TIG welding machines</li> <li>• Arc Welding Machines Inverter based 400A, 300A, 200A, 150A</li> <li>• Sheet Metal Press for 4mmx2500mm capacity</li> <li>• Hydraulic Press 200, 150, 100, 80 ton capacity</li> <li>• Radial Drill Machines 50mm, 38mm</li> <li>• Pedestal Drill Machines 38mm</li> </ul>
<b>Access to third party processes</b>	<ul style="list-style-type: none"> <li>• Sheet metal bending up to 12mmx 6300mm single stroke</li> <li>• Lathe for long shafts, screws and rounds upto 600mm dia and 3m long</li> <li>• Hot-dipped Galvanizing</li> <li>• Powder Coating</li> <li>• Hard Chrome Plating</li> <li>• Center-less grinding, shaping, slotting, etc.</li> <li>• Wheel Cranes up to 11-20 tons for loading/ unloading</li> <li>• Specialized tackles for site assembly</li> </ul>	
<b>Material working capabilities</b>	<ul style="list-style-type: none"> <li>• MS (Flats, Tubes, Channels, Angles)</li> <li>• Armor Steel like Armox, Domex, Weldox</li> <li>• High strength alloy upto 1500 Mpa and hardness of upto 500 BHN</li> <li>• Aluminum (sheets, chequered plates, tubes, sections, etc)</li> <li>• Stainless Steel 304/ 316 (sheets, flats, sections, grills)</li> <li>• GRP and PUF</li> <li>• Carbon Composite materials</li> <li>• Gunmetal, Brass and Ceramic composites (bushes)</li> </ul>	





# NANDAN

GSE



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