

DEFENCE & AEROSPACE

TURNKEY PROJECTS

EQUIPMENT & MACHINERY



# FUTURE IN THE MAKING...



# INTRODUCTION

Spruce Engineering Co. (SECo.) is proud to introduce as a company at the forefront in providing multidisciplinary solutions in the field of Electrical, Electronics, Mechanical, Construction and Procurement for the Marine, Defence and Aerospace Industry. SECo. also represents a number of world class manufacturers by bringing the best quality products, equipments and services to the vast client base across India. The company is certified by ISO 9001, ISO 14001 & OHSAS 18001 and prides itself in providing tailor made solutions and executing turn key projects for highly distinguished customers.

SECo. offers a multidisciplinary array of products and services along with in house capability to indigenously develop and service Electrical, Electronics, Radars, Communication, Warfare Systems and carry out Mechanical & Engineering works of varied nature including Heavy Fabrication and Precision Machining works. The primary focus is to offer a package solution suiting the tailor needs and requirements of distinguished clients. SECo has a well experienced and qualified team with specific domain experts as well as procurement specialists to advise and strategize each opportunity.

# WHAT WE DO

Since inception, SECo. has ventured into knowledge based engineering support to the customers, in the following areas:



Execution of turnkey projects involving multidisciplinary engineering activities like Electrical, Electronics, Radars, Communication, Warfare, Mechanical and Specialised Fabrication works.



Manufacturing and Fabrication of various marine structures, piping, refits and repairs of ships, submarines and ground support facilities.



Procurement and Sourcing of Equipments for Defence Forces, Aerospace Industry and Scientific Research Laboratories.



Annual Maintenance Contracts and Rate Contracts for Support Activities.



Skilled Manpower Supply.

# ABOUT US



With over 30 years of combined experience of the directors in the marine and defence sectors, Spruce Engineering Co, is well positioned as an Indigenization, Design, Engineering, Procurement and Construction company to various Government Organizations and Defence establishments.



The company offers a plethora of products through a vast network of partnerships with Manufacturers of Indian and Foreign origin. The company also holds exclusive representation rights of many highly reputed Manufacturers with significant international standing in respective verticals. SECo. has a specialized unit to undertake all mechanical, piping, machining and fabrication works located at Visakhapatnam that caters to all engineering works and value addition to project specific requirements.

**We have the requisite expertise, facilities, associations and manpower to handle various classifications of equipments and works such as:**

- Test, Measuring & Laboratory Equipments
- Engineering Machinery, Storage/Racking Systems & Material Handling Equipments
- Fire Detection/Suppression and Safety Equipments
- Security & Surveillance Systems for Marine and Land Application
- Marine & Metrological Equipment
- Simulators/Emulators
- Power & Energy Systems
- Communication & Weapon Systems
- Electrical and Electronic Systems/Sub systems
- Mechanical, Hydraulic & Pnuematic Systems & Equipments
- Fabrication, Machining, Casting and other specialised Steel Jobs
- Technical Manpower for specialised works & Annual Maintenance Contracts in the above listed segments.



# RANGE OF PRODUCTS

## FIRE, SAFETY, SURVEILLANCE & SECURITY EQUIPMENTS

As this is the most critical area of application and handling these products and services require high domain expertise and capability, SECo. has ensured that the products being dealt by our company meet the national and international standards in quality and safety and that Manufacturers and Engineers handling these products have thorough and comprehensive knowledge for these specific applications. We aspire to provide products to various organizations where Safety and Security is of prime importance.



## RUBBER, FRP & METAL PRODUCTS

SECo. has long been supplying and involved in development of marine rubber products such as Tubing, Seals, Gaskets, Washers, Impellers, Hoses, Fenders, Buoys, Life Rafts and various other rubber moulded products with its end fittings for specific Defence application. Metal products of varied nature and applications such as pipes, tubes, valves, cylinders, end fittings and heavy fabrication & machining works are all carried out with exceptional quality with the in house infrastructure and capabilities.



## TESTING AND MEASURING EQUIPMENTS

SECo. specializes in providing a range of consumables, instruments, equipments and specifically designed Laboratory furniture through a wide base of dealership network of well known Indian and Foreign OEM's.



Over the years, SECo. has developed expertise and is well positioned to handle sales, installation, training, calibration, maintenance and repairs of highly technical and complex instrumentation. Our skilled technical team can help identify, source, assemble, operate and maintain instrumentation of electrical, mechanical, electromechanical, metrological and geophysical applications. We have successfully supplied and installed various types of Test and Measuring instruments to Indian Defence Forces, Aerospace Industry, Research Laboratories and other establishments of high national importance.

## WEATHER, DIVING AND MARINE EQUIPMENTS

SECo. prides itself in being one of the most reputed dealers, distributors & stockists of Weather and diving equipments suiting to Defence Application. Defence specific Marine Equipments such as Boats, Engines, Spares, Recovery Bags and many other Marine accessories are also catered by the company





## RADAR, COMMUNICATION & WARFARE SYSTEMS

Specialized marine and military grade equipment including communication and radar systems for various application onboard vessels have been a field that is being nurtured by SECo. The company possesses a skilled team and expertise to carry out in depth research, evaluation and execution for specialized works and is looking to strengthen its place as a key player in this domain.



## ELECTRICAL & ENGINEERING MACHINERY, SYSTEMS AND SUB-SYSTEMS

Cabling, Connectorisation, Integration and Automation of Machines and Equipments is an area of expertise for SECo. Providing requirement specific solutions for new and installed Machinery along with its automation and integration of systems and sub-systems has been a forte of the company.



# TURNKEY PROJECTS

A list of few of our projects and indigenization efforts during the execution of major works undertaken are as follows:

- Setting up of HP Shot Blasting Facility at Indian Navy (Visakhapatnam) for High Pressure Cylinder Shot Blasting and Internal Cleaning. The activity involved design, development and commissioning of the Shot Blasting Machine to cater to blasting of HP Air Cylinders used in Ships and Submarines.
- Supply, Installation, Testing & Commissioning of Onboard Test Equipments for Indian Naval Ships and Submarines. The instruments range from basic handheld testing and measuring equipments to Master Calibrators and high end equipment of strategic and tactical importance.
- Setting up of Calibration Laboratory for Indian Navy (Visakhapatnam) for testing and calibrating equipments of various types all under one roof.
- Indigenization of Pressure, Temperature and Differential Pressure instruments and gauges. The Russian products were studied and re-designed and engineered indigenously, in close collaboration with M/s Wika, Germany and M/s HGuru and M/s Zoom Instruments as our Manufacturing and Component Partners. The equipments are well proven and withstanding the further test of time and are in use today on various vessels.
- Design, Fabrication and Installation of Mobile De-slushing Plant for Flushing the internal Pipelines of Ships and underwater vessels. The entire plant was conceptualized by our technical team while understanding and catering to the users requirements.
- Turnkey Project for Installation & Commissioning of 9 new Mobile Chilled Air Handling Units and overhauling of old system and other HVAC systems.
- Design, Manufacturing and Installation of Floating Canopies, Pontoon and Tugs under various orders for Indian Navy and associated PSU's (1100 Tons)
- Design, supply, fabrication, installation and commissioning of HP Air and Condensate pipelines for test and trial of systems onboard underwater vessels.
- Augmentation, Design, Development and Automation of Heavy Metal Storage facility for storage of 270 Tons of Pipes including structural fabrication, electrification and civil works.
- Refit and Repair of various Indian Navy class ships with more than 700 tonnage of steel renewal work, de-gutting, fitment, and pressure testing.
- Rewinding of Motors and Motor Starters on IN vessels for Eastern Naval Command
- Rate Contract for Dock Blocks Preparation, Docking and Undocking of Naval Vessels of all class of Ships and Submarines of Eastern Command.
- Design, Manufacturing and Erection of PEB Structures for Ship Berthing at HSL of more than 1500 Tons.
- Design, Manufacturing , Supply, Testing, Commissioning and Installation of Surface Plate Cast Iron Grade – I and Cast iron T-slotted Bed Plate of Nominal Sizes along with complete standard accessories for Augmentation of Shore Support Facilities.
- Manufacture, Supply, Design, Testing and Commissioning of 2 Nos. brows (Gangways) for IN SHIPS in Eastern Command (Visakhapatnam).



## OUR PRESENCE



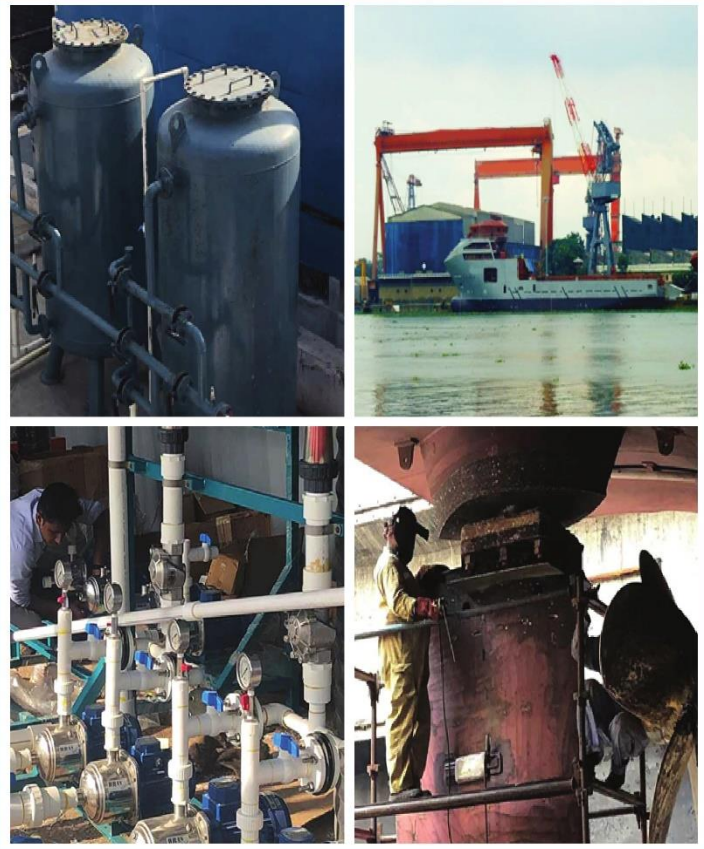


# SERVICE AND SUPPORT

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We Strongly believe that the end of a sale marks the beginning of a commitment. Our Service and Support to our customers is provided by us, at all times, through a mobile team of highly experienced and capable engineers, who are at the beck and call of our valued clients. We strive hard to ensure minimal downtime to any product or project handled by us.

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## OUR STRENGTH

OUR TEAM & INFRASTRUCTURE

# LIST OF IN HOUSE MACHINERY AND EQUIPMENT

1.	10 TON TRUCK MOUNTED CRANE	1 NO
2.	15 TON HYDRA CRANE	1 NO.
3.	THYROSTER WELDING MACHINE	2 NOS.
4.	AG5 GRINDING MACHINES	8 NOS.
5.	AG4 GRINDING MACHINES	4 NOS.
6.	AG7 GRINDING MACHINES	2 NOS.
7.	PORTABLE DRILLING MACHINE	6 NOS.
8.	MAGNETIC DRILLING MACHINE	1 NO.
9.	PUG CUTTING MACHINE	1 NO.
10.	HIGH PRESSURE WATER JET MACHINES	2 NOS.
11.	SHEARING MACHINE	1 NO.
12.	PLATE BENDING MACHINE	1 NO.
13.	AIR COMPRESSOR	1 NO.
14.	AIRLESS SPRAY MACHINE	1 NO.
15.	GAS CUTTING TORCHES	8 NOS.
16.	WELDING MACHINES (400 AMPS)	6 NOS.
17.	BOSCH TOOLS KITS	5 NOS.
18.	MILLING MACHINE	1NO.
19.	LATHE MACHINES	4 NOS.
20.	THREAD CUTTING MACHINE	1 NO.
21.	SHEET GROOVING MACHINE	1 NO.
22.	PIPE BENDING MACHINE	1 NO.
23.	BENCH TAPPING MACHINE	1 NO.



# TRANSFORMING REALITY FOR A BETTER FUTURE






## SPRUCE ENGINEERING Co.

Door No: 6-22-3, East Point Colony,  
Visakhapatnam – 530 017

 Andhra Pradesh (INDIA)  
Phone : (+91) 891 2729120  
Fax : (+91) 891 2731481

 enquiry@sprucegroup.in  
spruce\_e@yahoo.com

 [www.sprucegroup.in](http://www.sprucegroup.in)