



# Proworks Engineering & Technical Services

*Inquire... Inspire... Innovate...*







**Proworks Engineering &  
Technical Services**

*Inquire... Inspire... Innovate...*

# WHO WE ARE

Proworks is one of the leading Design Engineering & Project Management Company based at Mumbai.

Proworks offers a range of services, from concept to commissioning across all the sectors such as Food Beverages & Cosmetics (FBC), R&D Centres and Labs, Hospitals & Healthcare, Industrial and Consumer Products.

- FOOD & BEVERAGES
- COSMETICS
- CHEMICALS & FINE ORGANICS
- HOSPITALITY
- HEALTHCARE



# LEADERSHIP



## R S Swaminathan (Chairman & Managing Director)

A Chemical Engineer with more than 40 years of experience in Facility Design & Project Management, Mr. Swaminathan established the Spectrum Group 25 years ago with a vision to provide Design & Engineering service to the Healthcare Industry.

## Ravindra Burse (Director)

An electrical engineer, has over 30 years of rich and versatile experience in Design Engineering and Projects Management. He has hands on experience in Designing facilities for various multinationals in FBC sector in India & abroad. He heads Proworks Engineering operations.





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# WHO WE ARE

## TEAM

**150+**

**Professionals**

**200+**

**Accomplished  
Projects**

**25**

**Years of  
Experience**

**24+**

**Countries  
Served**





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# PROJECT COVERAGE





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# ONE STOP SOLUTION

## Conceptual Design & Basis of Design Development

- Site Master Planning
- Conceptual Design Development
- GMP Risk Assessment
- EHS Risk Assessment
- General Planning & Engineering
- Equipment Study & Procurement
- Civil & Architecture



## Project & Construction Management

- Inter - Disciplinary Construction and Project Management
- Construction Supervision
- Procurement
- Time Cost Estimation
- Bill Certification



## Engineering

- Detailed Building Engineering including:
  - Architectural
  - Civil
  - Structural
  - Process
  - HVAC
  - Electrical
  - Mechanical & Piping
  - Instrumentation & Automation
  - Fire & Safety



## Qualification & Validation

- Validation Master Plan
- GMP Risk analysis
- Qualification Protocols for Process Equipments, PLC, HMI, SCADA, Camera System
- Computer system validation
- SOP's for Production, Warehouse, QC, Cleaning, etc.
- Supervision for onsite Validation & Compile reports



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# Compliance with Various Standards



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## Animal Feed Nutritional Supplement Facility at Near Mumbai

### Description:

- Nutritional supplement in powder form
- Spectrum did Feasibility studies, Site Master Planning till Detailed Engineering & Project Management during Execution.
- Animal Feed.
- Buhler Mixer for Composite Mixing.
- High Shear Mixing and Batching Plant.
- Pneumatic Conveying System, Silo System, Batching Hopper, Buhler Mixer, Discharge Assembly and Packaging.
- 10 Tons / day production capacity

### Scope:

- Site Selection Studies and Recommendation
- Conceptual Design
- Basic Engineering
- Detail Engineering
- Procurement Assistance
- Commissioning & Start Up.



### DSM Nutraceutical Products India Pvt. Ltd.

|               |                              |
|---------------|------------------------------|
| Location      | Ambernath, Nr. Mumbai, India |
| Built Up Area | 25,000 Sq.ft.                |
| Status        | Completed                    |





# Oral Solids & Liquid Facility at Colombo

## Description:

- Tablets, Capsules, Liquids (Multi-level manufacturing)
- The plant is designed for minimum human intervention to prevent human error and includes cutting edge equipment such as the fully automated liquid manufacturing and packing lines, fully-fledged chemical and microbiology labs, separate air handling units to control environment conditions
- Targeted approvals include WHO & EU GMP, PIC/s.
- Annual production capacity of 5 billion tablets and 10 million bottles.



## Scope:

- Conceptual Design
- Basic Engineering
- Detailed Engineering
- Master Planning
- Procurement Assistance & Construction Management
- Documentation & Validation Support.

## Morison PLC

|               |                   |
|---------------|-------------------|
| Location      | Colombo, Srilanka |
| Built Up Area | 1,80,000 Sq.ft.   |
| Status        | Completed         |



## Ophthalmic & Liquid Injectables Formulation at Srilanka

### Description:

- Ophthalmic Formulation (Eye Drop)
- Prefilled Syringe)
- In Sterile Injectables (Ampoules, Vials, has existing building of 2 floors. Size of building is 67meter Length X 25meter Width.
- First floor Height is 3meter & second Floor has roof above it with maximum height of 5 meter & minimum height is 3meter.
- PEB Structure
- Spectrum has proposed expansion of building of 19meter length X 25meter width. It has total G+2 floor.

### Scope:

- Conceptual Designs
- Basic Engineering
- Detailed Engineering
- Procurement Assistance
- Commissioning Assistance
- Documentation & Validation Support



### Synergy Pharmaceuticals

|                      |                    |
|----------------------|--------------------|
| <b>Location</b>      | Colombo, Sri Lanka |
| <b>Built Up Area</b> | 50,000 Sq.ft.      |
| <b>Status</b>        | Ongoing            |





## Oncology: Injectables & Oral Solids at Srilanka

### Description:

- Planned Lines –
  - Injectables liquid – 3 million Vials/annum
  - Tablets – 36 million/annum
  - Capsules – 14 million/annum
- The facility has been set up in accordance with regulatory guidelines of US FDA and other local statutory norms for safety and building construction regulation

### Scope:

- Conceptual Designs
- Basic Engineering
- Detailed Engineering
- Procurement Assistance
- Commissioning Assistance
- Documentation & Validation Support



### RN Vision Biopharma

|               |                    |
|---------------|--------------------|
| Location      | Colombo, Sri Lanka |
| Built Up Area | 1,00,000 Sq.ft.    |
| Status        | Ongoing            |



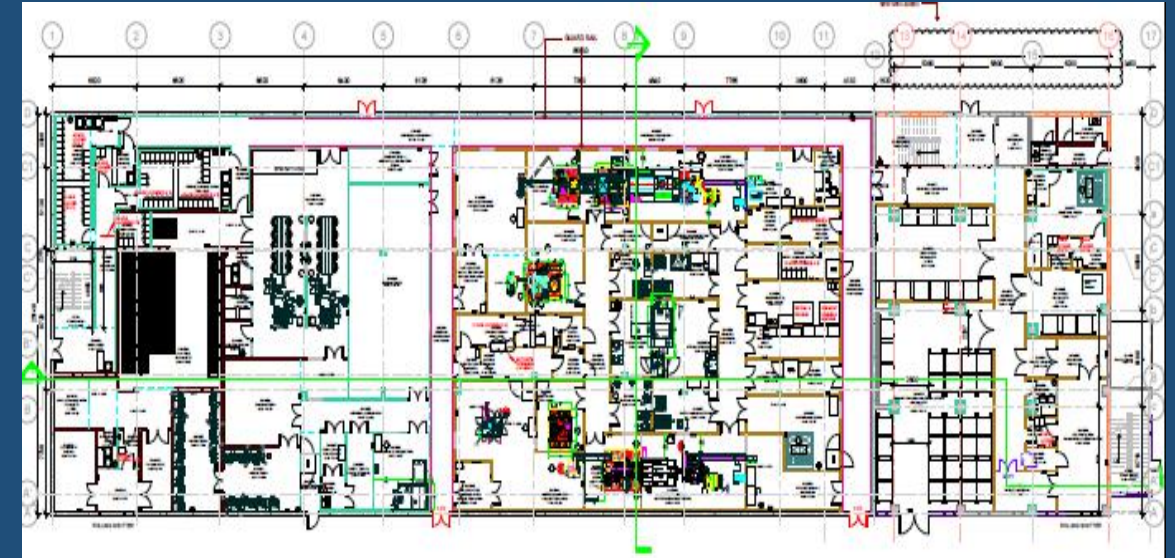
## Ophthalmic and Injectables Facility at Sri Lanka

### Description:

- Ophthalmic Formulation (Eye Drop)
- Sterile Injectables (Ampoules, Vials, Prefilled Syringe)
- It has existing building of 2 floors. Size of building is 67meter Length X 25meter Width.
- First floor Height is 3meter & second Floor has roof above it with maximum height of 5 meter & minimum height is 3meter.
- PEB Structure
- Spectrum has proposed expansion of building of 19meter length X 25meter width. It has total G+2 floor. Ground floor height is 10.2-meter, first floor 5meter, second floor 4meter.
- Spectrum has proposed mezzanine floor on 2nd floor from grid 4 to grid 17 for technical area.

### Scope:

- Conceptual Design
- Basic Engineering
- Detail Engineering



### Yaden Laboratories Pvt Ltd

|               |                       |
|---------------|-----------------------|
| Location      | Katunayake, Sri Lanka |
| Built Up Area | 50,000 Sq.ft.         |
| Status        | Ongoing               |





## Yeast Manufacturing Facility at Chiplun

### Description:

- Brownfield expansion project for yeast manufacturing.
- Seed Fermenter was added, process sustainability project in terms of capacity enhancement
- The facility is FSSAI certified
- ZLD plant, with ETP the major process wherein new aeration tank was built and stand by evaporator.
- The client intends to expand extra block to add packaging line, filter press, cold room etc.
- Third largest yeast manufacturers in the world, Chiplun is the biggest yeast manufacturing facility in India.

### Scope:

- Conceptual planning
- Basic Engineering
- Detailed Engineering
- Procurement Assistance
- Project & Construction Management
- Commissioning & Start up .



### AB Mauri India Pvt. Ltd.

|               |                      |
|---------------|----------------------|
| Location      | Chiplun, Maharashtra |
| Built Up Area | 50,000 Sq.ft.        |
| Status        | Completed            |



## Milk Powder & Yogurt Mix Formulation Facility at Delhi

### Description:

- Design and Engineering of Delhi Facility.
- Baby care milk powder products
- Yogurt Mix formulation
- Facility Design, Utility and Clean room design as per GMP, FSSAI and HACCP norms

### Scope:

- Conceptual planning
- Basic Engineering
- Detailed Engineering
- Procurement Assistance
- Commissioning & Start Up
- Documentation and Validation.



**DANONE**  
ONE PLANET. ONE HEALTH

### Danone International

|               |               |
|---------------|---------------|
| Location      | Delhi         |
| Built Up Area | 20,000 Sq.ft. |
| Status        | Completed     |





## Baby Food Facility at Chandigarh

### Description:

- Facility for Food Samples (Baby Nutrition)
- Facility was designed and being Executed as per Danone guidelines.
- Part of already operational plant. Designed and executed complete utilities specifically dedicated for this project.
- Cold Room and Incubation chambers.

### Scope:

- Conceptual Design
- Basic Engineering
- Detail Engineering
- Procurement Assistance
- Commissioning & Start Up
- Documentation & Validation Support



### Nutrícia International

|               |                   |
|---------------|-------------------|
| Location      | Chandigarh, India |
| Built Up Area | 18,000 Sq.ft.     |
| Status        | Completed         |



## Vegan Milk A2 Protein R&D and Lab at Bangalore, India

### Description:

- Vegan Milk A2 Protein R&D and Pilot Scale Facility
- Lab Fermentation, Biological Lab and Analytical Lab were designed separately with separate AHU's, which avoids the cross contamination.
- It is design and build turnkey contract in existing building.
- As it is planned in existing building, utility and Lab area was designed considering the existing height, space availability considering the GLP norms.
- One of its kind products to be marketed in India, US based MNC firm.



### Scope: (Design and Built)

- Conceptual planning
- Basic Engineering
- Detailed Engineering
- Procurement, Supply & Installation
- Installation & Commissioning

### Perfect Day India Pvt. Ltd.

|               |                  |
|---------------|------------------|
| Location      | Bangalore, India |
| Built Up Area | 3,000 Sq.ft.     |
| Status        | Completed        |





## Nutraceutical Facility at Gujarat, India

### Description:

- Project in IT SEZ.
- Liquid-Liquid extractor and WFE technology.
- Zero Liquid Discharge ETP
- Wax Fired Boiler
- Maximum utilisation of plot.
- Marigold Extraction Plant



### Scope:

- Conceptual Master Planning
- Design & Basic Engineering
- Detailed Engineering
- Procurement Assistance
- Validation Documents
- Construction Management

### Omniactive Health Technologies Ltd

|               |               |
|---------------|---------------|
| Location      | Pune, India   |
| Built Up Area | 25,000 Sq.ft. |
| Status        | Completed     |



## Organic Products Facility at Bangalore

### Description:

- Set up Plant for Herbal Product Range
- Cosmetic - Skin care and Hair care
- Phase wise project comprising total of 20 acres land, 1st phase is 50,000 sq. ft project.
- Design, Engineering and Project management of the entire facility.
- Standards need to maintained are GMP, FSSAI, FDA, HACCP.

### Scope:

- Conceptual planning
- Basic Engineering
- Detailed Engineering
- Procurement Assistance
- Commissioning & Start Up
- Documentation and Validation.



### The Himalaya Drug Company

|               |               |
|---------------|---------------|
| Location      | Bangalore     |
| Built Up Area | 50,000 Sq.ft. |
| Status        | Completed     |



## Herbal Extraction & Formulation Facility at Masat

### Description:

- This was an old Zandu facility acquired by Emami & was to be upgraded to meet GMP requirements as well as to enhance the production capacity.
- Herbal Extraction of Plants
- Herbal Oral Solids
- Herbal Cosmetics – Powders
- Herbal Cosmetics – Oils
- Fermentation
- Liquid Manufacturing
- Filling & Packaging Lines
- Utilities

### Scope:

- Conceptual Planning
- Basic Engineering
- Detailed Engineering
- Procurement Assistance
- Process Automation
- Qualification and Validation



### Emami Ltd.

|               |                 |
|---------------|-----------------|
| Location      | Masat, Gujarat  |
| Built Up Area | 1,10,000 Sq.ft. |
| Status        | Completed       |





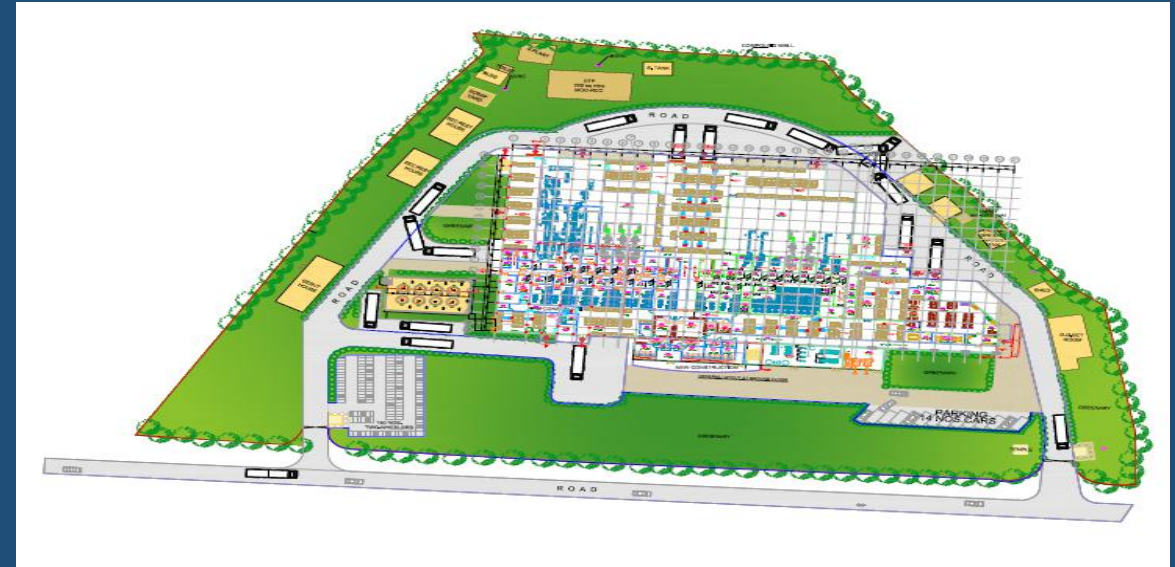
## Herbal Extraction & Formulation Facility at Dongri

### Description:

- 7 Ayurvedic manufacturing suits & 6 packing lines.
- 5 Cosmetic manufacturing suits & 7 packing lines.
- Manufacturing facility for cream & lotion.
- WHO GMP compliance Ayurvedic section & cosmetic section upgradable to WHO GMP.
- Centralized warehouse at basement & QC lab on first floor.
- Effective CIP System & Process Automation
- Specially Designed Storage System for Raw Material with Temperature & Humidity Control.
- Bulk Material Handling System Automation
- Effective Dust Extraction System for Herb Pulverization Area.

### Scope:

- Conceptual Planning
- Basic Engineering
- Detailed Engineering
- Procurement Assistance
- Process Automation
- Qualification and Validation



### Emami Ltd.

|               |                     |
|---------------|---------------------|
| Location      | Dongri, Maharashtra |
| Built Up Area | 1,00,000 Sq.ft.     |
| Status        | Completed           |



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## Nutraceutical & Probiotics Facility at Ahmedabad

### Description:

- Nutraceutical products facility for Sachet, Capsule and Tablet.
- The facility was set up in accordance with regulatory guidelines of US FDA and other local statutory norms for safety and building construction regulation.



### Scope:

- Conceptual planning
- Basic Engineering
- Detailed Engineering
- Procurement Assistance
- Commissioning & Start Up
- Documentation and Validation.

### Sundyota Numandis

|               |                  |
|---------------|------------------|
| Location      | Ahmedabad, India |
| Built Up Area | 85000 Sq.ft.     |
| Status        | Completed        |



## Laboratories and R&D

### Description:

- Facility Sections: Formulation Development Lab, Analytical Development lab, Wet Chemistry Lab, Packaging R&D Lab, Pilot Plant for Tablet & Capsules. Ancillary Areas like, Offices, Cafeteria, Reading Room, Training Room, Recreation Room, Utilities Etc.
- Site was an under construction multi-storied building which was customised to suit clients requirements for floor loading, increased heights for clean room floors and cut-outs for some of double height equipment.

### Scope:

- Site Selection & Feasibility Study
- Conceptual Design & Preliminary Design
- Detailed Design
- Procurement Assistance & Construction Administration
- Facility Commissioning
- Qualification & Validation



### Abbott Healthcare Pvt. Ltd

|               |   |
|---------------|---|
| Location      | Mumbai , India                              |
| Built Up Area | 125000 Sq.ft.                               |
| Status        | Target Project Completion in November 2018. |





## R&D Center at Mumbai

### Description:

- Set up by renovating a 30 year old building.
- Main sections built were Analytical Lab, Wet Chemistry Lab, PBOEL 4 Sampling Facility, Stability Chambers section, Offices for Chemists & Scientists and Utility area.
- Laboratory equipped with 60 HPLCs and 4 Stability Chambers.
- Planned to accommodate 40 Scientists.
- Floor height was only 3.6 m and it was a challenge to accommodate HVAC and other services.
- Built as per specific EHS and Quality guidelines of J&J.

### Scope:

- Basic Engineering
- Detailed Engineering
- Procurement Assistance.



### Janssen Cilag Pharmaceuticals

|               |               |
|---------------|---------------|
| Location      | Mumbai, India |
| Built Up Area | 18000 Sq.ft.  |
| Status        | Completed     |



# Hi-Potent Pilot Plant at Mumbai

## Description:

- Green Field Pilot Plant for Development, Pre-Formulation & Pilot Scale Manufacturing.
- PBOEL Category 3B Containment
- Solids, Liquids & Semisolid Formulations.
- Isolators, Tyvek Suits for employee safety.
- Close Transfers
- Reverse Laminar Air Flow
- Effluent De-contamination



## Scope: Turnkey Basis

- Conceptual Design
- Basic Engineering
- Detailed Engineering
- Procurement, Supply & Commissioning
- Construction Management

## Janssen Cilag Pharmaceuticals

|               |               |
|---------------|---------------|
| Location      | Mumbai, India |
| Built Up Area | 25000 Sq.ft.  |
| Status        | Completed     |



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## Key Clients







**Proworks Engineering &  
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## Why Us?





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## CONTACT US



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Thank you!