

BULK MATERIAL HANDLING SYSTEMS AND EQUIPMENTS



▲ 1000 TPH Barge Loading System.



▲ Coal Handling System.



▲ 450 TPH Mobile Barge Loading System.



▲ Sand Washer

■ GENEROUS DESIGN ■ QUALITY INPUTS ■ EXCELLENT WORKMANSHIP ■ SYSTEM RELIABILITY

A BRIEF OVERVIEW



An engineering company started in late 70's to cater to the specific requirements of various industries. A humble beginning coupled with company's business ethics, precepts, quality consciousness, honesty, indigenuity made venture a success. The journey to this stage has never been smooth, it was full of challenges and good and bad times, but with each challenge company emerged more stronger. In terms of size it may be dwarfed by its more illustrious peers, but its sustained performance ever since it was founded is as striking as some of the big names in its field. The whole spectrum of capabilities have been funneled into providing complete systems and equipments at "AEGIS" a company which has enough inhouse functions to be very competitive in its field and bold for what it stands for.

Company's Activities

Activities of company can be broadly categorised as follow :

System Engineering :

Bulk Material Handling Systems

Mechanisation

Coal Handling and Processing Systems

Dust Collection Systems

- **Equipment Supply :** Supply of various conveyors, Mineral Processing & other specialised equipment.
- **Leasing of Sea port related Ship/Barge loading infrastructure.**
- **Consultancy for setting up bulk material handling facility.**

Since early 80's, AEGIS have taken a major step into various industries whereby our overall engineering skill, expertise in system design, automation, project innovation and practical awareness have successfully been used, whether it be **first chilled concrete dam project of Gujarat or 1500 meters long Antivibrational Suspension System for 1 meter diameter water pipeline suspended on one of the most heavily trafficed railway bridge in India, only one of its kind in the world or one of the largest Pneumatic Handling System in Asia or import substitute Pneumatic Concrete Buckets and its transportation system or be it Gear Reducers rated upto 400 HP for application in thermal power plants.** AEGIS'S capabilities to assume main contractor responsibilities with regard to full turnkey projects includes its inhouse ability to commission complete system right from conception, design, detail engineering, manufacturing, erection, trial running and offering performance to the satisfaction of the client.

People behind the Company

Backward integration from the present position of the company, lies the people behind it. Behind each job lies our dedication and sacrifice, teamwork, skill, expertise, and all that it requires to execute a job with technological soundness, cost-effectiveness and customer satisfaction. Our job signifies the special knowhow, technological broadmindedness and experience of our experts, our excellent workmanship, precise monitoring of production and quality control and strictness for maintaining delivery schedule.

Clientele

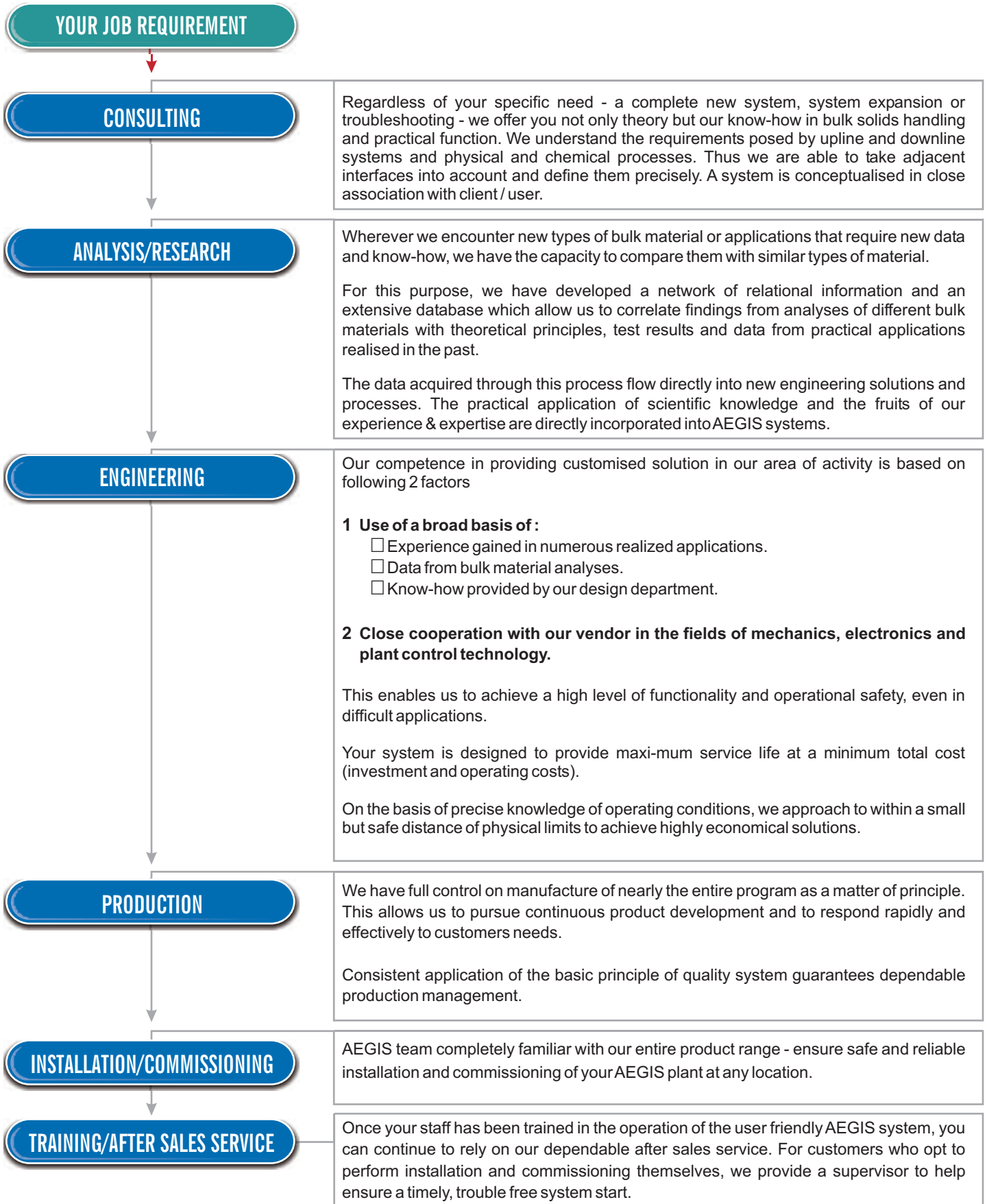
Our constant endeavour to provide technically sound, cost effective and reliable solutions for bulk handling requirement of clients have enabled us to get repeat orders from several clients. There are several companies with whom we are associated since last 20 years in course of execution of their expansion / diversification projects. Some of our clients to name a few are :

M/s. GMB	M/s. Birla VXL Ltd.	M/s. IPCL
M/s. Parle Products P. Ltd.	M/s. Gokul Refoils & Solvents Ltd.	M/s. GNFC Ltd.
M/s. NDDB	M/s. Gujarat Ambuja Cement Ltd.	M/s. Mahindra Ugine Steel Co. Ltd.
M/s. Jaiprakash Inds. Ltd.	M/s. HCC Ltd.	M/s. Continental Construction Ltd.
M/s. H. & R. Johnson (I) Ltd.	M/s. Claris Lifescience Ltd.	M/s. GSCC Ltd.
M/s. Jaypee Rewa Cement.	M/s. Indian Sugar & General Engg. Ltd.	M/s. Meghmani Energy Ltd.
M/s. Ahmedabad Electricity Co. Ltd.	M/s. GEB	M/s. Sintex Industries Ltd. <i>and many more.</i>

We are also registered with some of the most reputed project consultants like

M/s. Tata Consulting Engineers	M/s. Linde (Multinational)	M/s. L & T Ltd.
M/s. M. N. Dastur & Co.	M/s. Multimedia Consultants Ltd.	M/s. Humphreys & Glasgow Consultants Pvt. Ltd.
M/s. Udhe India Ltd.	M/s. Western Railway	M/s. Gherzi Eastern Ltd.
M/s. SMPS Consultants	and many more not so big but competent in their field of activities.	

PROJECT MANAGEMENT



SYSTEM ENGINEERING

With more than thirty years of plant design and manufacture behind it, AEGIS has a wide range of experience to call upon. Turnkey contracting for bulk material handling requirement - single source servicing - is one of the company's specialities. Capabilities range from techno-economic feasibility studies, through the provision of expert engineering skills that incorporate the specifying of all equipment and selecting state-of-the-art technologies, to efficient contract execution and management as well as final commissioning by widely experienced specialists who will also provide training for operating personnel. AEGIS will undertake every aspect of a contract from concept to completion.



Bulk Material Handling system at a mine site

Bulk Material Handling

Bulk material handling and processing system for handling of any material right from river rubbles to acrylic fibres applicable to wide range of industries. The experience gained over the course of more than three decades is incorporated into each of our projects. AEGIS provides its customers with cost effective bulk material handling plants and machinery designed to suit their specific requirements.



1000 TPH Barge loading infrastructure at Bedi Port, Jamnagar.

Mechanisation

There are several areas in various industries where there is multiple and inefficient handling of material and hence good scope for improvisation.

We study the present modality of handling material and accordingly conceptualise and install suitable means whereby handling of material is made more efficient / streamlined by incorporating tailor made system resulting in following advantages.

- Drastic reduction in per ton cost of handling material
- Maximum utilisation of resources like storage godown.
- Clean and streamlined operation.
- No. dependence on labourers.
- No. spillage / wastage.



Mobile barge loading system with capacity of 450 TPH at Ruchi Soya jetty, Jamnagar.

Mechanised godown distribution and reclamation system and bulk export cargo receiving and barge / ship loading system with interim storage are couple of the examples of application of our expertise and innovative approach in handling bulk material, effectively and efficiently.



15 TPH coal/lignite processing & handling system with pre-screening arrangement at Gokul Overseas Gandhidham.

Coal Processing and Handling

AEGIS installs Coal / lignite Processing and Handling system on turnkey basis, which is used for preparation of coal / lignite to be used as a fuel in FBC boiler, hot air generator and other fossil fuel fired system where coal / lignite of specific size is required.

A separate catalogue available on request.

Dust Collection System

AEGIS manufactures complete dust collection system for controlling / checking air pollution in a plant / manufacturing unit. Dust collection system can be integral part of our own Bulk Material Handling System or can be installed on existing system creating dusting and polluting the atmosphere. A typical dust collection system consists of following components.



Ducting of dust collection system incorporated with coal handling system to make system totally dust free.

- Set of various suction hoods, designed based on dust generation points.
- Set of ducting, bends and dampers.
- Exhauster.
- Cyclone separator.
- Bag filter (for dry separation) or scrubber (for wet separation)

AEGIS collectors can be classified into two principal groups:

Fabric Filters : The dust is captured on woven or felted fabric as the air passes through. Fabric filters can accept heavy dust burdens, have the highest collection efficiency and are now by far the most important group in industry.

Wet Dedusters : These use centrifugal force, irrigated surfaces and intense self- induced spray zones to catch the dust. They are applied where dust burdens are fairly light, humidity is high or the dust is inflammable or explosive.



Pulse jet type bag filter

EQUIPMENT SUPPLY

Apart from turnkey systems, AEGIS also supplies individual equipments for handling wide range of material and for variety of applications.

Conveyor



Belt Conveyor with travelling tripper.

Belt Conveyor

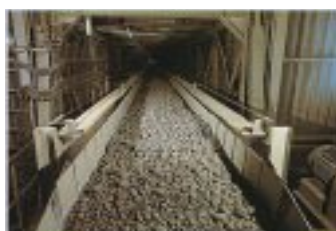
Belt conveyor is an ideal equipment for handling wide range of bulk material over a long distance. It is available in standard belt width upto 2500mm and upto 700 FPM speed. Angle of inclination is limited but can be made high angle by using special type of belt.



Screw Conveyors.

Screw Conveyor

For grain, coal and other fine – lump materials where the action of the screw is not objectionable. Capacities up to 200 TPH.



Chain type Pan conveyor.

Pan Conveyor

Manganese Steel Pan Feeders – For extremely heavy duty service. Pans, chain, rollers, etc. are made of manganese steel for resisting shock and abrasion from heavy ore and stone.



Drag Chain conveyor

Drag Flight Conveyor

Flight conveyors – Made in several styles and sizes for conveying such materials as coal and sawmill refuse horizontally and up inclines. Size, length of conveyor and capacities to suit individual requirement.



Close-up view of trolley of overhead conveyor

Overhead Conveyor

For conveying unit load above ground in any path with capability to have horizontal and vertical movement along the path of travel.



Apron Feeder

For applications where heavy bulk material is to be handled. It consists of heavy overlapping steel pans which can withstand impact of big lumps and convey large volume of heavy material.



High capacity Apron Feeder.

Chain Conveyor

It is available with wide range of attachments to handle different material and having diverse applications.



Taper Screw Feeder for pneumatic conveying system for ground nut husk.

Pneumatic Conveying

For conveying of light weight free flowing bulk material using vacuum or pressurised air. Pneumatic conveying can be either vacuum system, pressure system or combination of vacuum and pressure system depending on configuration and layout of conveying line.



Redler conveyor

Redler Conveyor

Feeds itself and handles fine or small-lump materials in a solid column through totally enclosed steel casings. Versatile Redlers are compact, safe, sanitary and efficient.



Roller conveyors.

Roller Conveyor

It can be free or powered roller type for handling boxes and cartons.

Feeder



Blow-Through type Rotary Air lock valve

Rotary Feeder

Rotary feeder consists of star type rotor and casing. It is widely used for feeding material into pneumatic conveying line and periodical discharge of material from hopper.



Electro magnetic vibrating feeder

Vibratory Feeder

Vibratory feeder consists of vibrating trough by use of electromagnet or vibrating motor.

Bucket Elevator



Belt type Bucket Elevator handling agro product at port site.

Bucket Elevator

For coal, grain, gravel or any bulk material that can be loaded into and discharged from buckets. Heights to 150 feet. Buckets on belt or chain, single or double row. Bucket speeds from 150 to 750 FPM and capacities up to 1000 TPH.



Bucket Elevator handling coal.

Crusher



Spiked roll of crusher

Roll Crusher - Single roll

Single roll crusher for special purposes – This machine is of very heavy construction and used for large capacities of run-of-mine coal. It is of the floating roll release type and will pass large pieces of foreign material without injuring the machine. Position of single roll can easily be regulated to produce desired size of product.



Close-up view of compensating gear train mechanism

Roll Crusher - Double roll – Single stage

Double roll crusher – Built in roll sizes up to 24" X 24" and in capacities up to 98 TPH of coal. It can be furnished with chilled cast iron or cast steel rolls also cast iron rolls with forged teeth inserted. The rolls are built of ring sections.

Special corrugated rolls can be furnished for fine crushing. It is of the direct spring release type.



Four roll crusher for coal / lignite.

Roll Crusher – Four roll – Two stage

Four roll crusher (two stage) is used for higher size reduction. First stage rolls consist of spiked rolls while second stage rolls consist of corrugated or plain roll for very fine product size. One roll is fixed other is floating with self-compensating gear train mechanism.

Hammer Crusher - Double rotor

Knittel Crusher with double rotor – crushes damp sticky coal without danger of plugging or decrease of capacity. Reduces large-lump materials to 6 to 8 mm. size in one operation. Double rotors, 18" to 36" in diameter, rotate toward each other, to permit reduction of larger lumps, with smaller diameter rotors, lower headroom, elimination of plugging and all of the usual advantages of the Knittel crusher. Furnished with or without tramp iron release fingers for the removal of uncrushable materials.



Knittle type hammer crusher.

Hammer Crusher - Single rotor

Knittel Crusher with single rotor – For crushing run-of-mine coal, stone, ore, cullet and other difficult materials. This machine reduces from lumps to fine sizes (6 to 8 mm) in one operation. It can be furnished with or without a metal trap for the removal of tramp iron or uncrushable lumps.

Stacker



Mobile Stacker Conveyor with adjustable boom.

It is employed for mechanising bag stacking operation. Bags can be conveniently stacked up to height of 15-18 feet, which is not possible if done manually. Storage capacity of godown can be increased and stacking time and cost can be

reduced substantially. Stacker along with set of mobile conveyors can be employed for mechanising total bag handling.

Vibratory Screen



Totally enclosed Double Deck Vibratory Screen.

Many types.. For screening, scalping and washing.. For crushed stone, gravel, ore, coal and other materials, in which various lumps are to be separated into specified sizes. AEGIS have had years of field and development experience and are experts at solving screening problems.

Telescopic Conveyor



Used for loading/unloading of boxes and cartons in / from trucks, containers and godown. Available in various configuration. It consists of fixed portion and sliding portion for telescopic action. Projection can be in single, double or three stages depending on requirement. This conveyor can be made mobile and inclination of conveyor can be varied hydraulically

Special Purpose Equipments

AEGIS also manufactures special purpose/import substitute equipments for wide range of application. Following are some of the examples :



Caterpillar Machine for haulage of high voltage power cable.

Caterpillar

It consists of pneumatically actuated high voltage cable gripping arrangement and pair of rubber belt loop for hauling it from cable insulating extrusion line.



Telescopic Chute.

Telescopic Chute

Used for dust free loading / discharging bulk material into tanker, ship barge, truck etc. Projection of chute can be adjusted as per requirement.



Pneumatically operated concrete buckets used in dam construction project.

Pneumatic Concrete Buckets

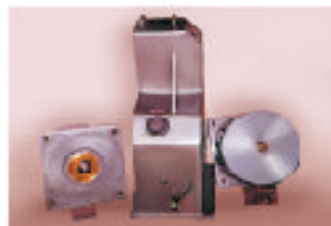
Used in dam construction projects for pouring concrete premix. Opening and closing operation of bottom radial gates is pneumatically actuated. High-pressure air required for operation of pneumatic cylinders is provided by pre-charged storage cylinders.



Screw lined with manganese steel liners for 150 TPH capacity Sand Washer / Classifier for Dam Construction Project.

Sand Washer

Used for washing of sand used in irrigation projects. It consists of trough with manganese steel lined screw which in course of conveying, rinse & wash the sand and de-waters it before discharging. It comes with single screw or double screw design for larger capacity. It can also be used for washing/classifying/dewatering other materials.



Import substitute, set of planetary and differential gear boxes for drive of Caterpillar Machine.

Planetary & Differential Gear Reducers

AEGIS manufactures this special purpose, tailor made, import substitute gear reducers for OEM clients.



Dinky car for transportation of pneumatic concrete buckets for dam construction project.

Dinky Car

It is used for transportation of pneumatic concrete bucket from actual dam site to concrete batching plant. It plies on track laid between dam site and concrete batching plant.



Chain and flight type classifier for milk-of-lime (MOL).

Chain type flight classifier

It is used for recovery of lime from milk-of-lime in soda ash plant. It can be also used for other application where material is required to be washed and then dewatered.



Mobile barge loading system with capacity of 450 TPH at Ruchi Soya jetty, Jamnagar installed on build, own and operate (BOO) basis.

LEASING

Based on our expertise, technical broadmindedness and experience, we also mechanise import / export terminal for seaport on Build, Own & Operate (BOO) basis, where in we install suitable system for handling cargo depending on clients requirement, operate it and maintain it. After installing the system which can be fixed or mobile we maintain team of engineer & supervisor at port site for operation and maintenance of the system, so that system is available for use without any problem through out the year.

RANGE OF ACTIVITIES

System Engineering

- Bulk Material Handling
- Mechanisation
- Coal Processing and Handling.
- Dust Collection System.

Leasing of port related ship/barge loading infrastructure

Consultancy

AEgis provides technical services for setting of bulk material handling facilities right from conception, selection of equipments/system, preparation of tender documents, scrutiny of offers of bidders, award of contract, keeping track of project upto commissioning and final handover.

Equipments Supply

Conveyors

- Belt Conveyor
- Screw Conveyor
- Redler Conveyor
- Pan Conveyor
- Drag Flight Conveyor
- Overhead Conveyor
- Chain Conveyor
- Pneumatic Conveyor
- Roller Conveyor

Vibratory Screen

Stacker

Telescopic Conveyor

Special Purpose Equipments

Feeders

- Screw Feeder
- Apron Feeder
- Rotary Feeder
- Vibratory Feeder

Bucket Elevator

- Belt Type
- Chain Type

Crusher

- Roll Crusher-Single roll
- Roll Crusher-Double roll-single stage
- Roll Crusher-four roll-two stage
- Hammer Crusher-Single rotor
- Hammer Crusher-Double rotor

This brochure can only briefly touch upon the company's wide range of capabilities. Get in touch with AEGIS when planning your bulk handling requirement.



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