



A Global Leader in Design, Manufacture and Supply of Complete Turnkey, Material Handling Solutions



Don Valley
Engineering

- SCREENS
- FEEDERS
- CENTRIFUGES
- BULK HANDLING
- MATERIAL HANDLING SOLUTIONS





- DESIGN & BUILD
- PROJECT MANAGEMENT
- CDM • PROJECT ENGINEERING



Don Valley

Engineering

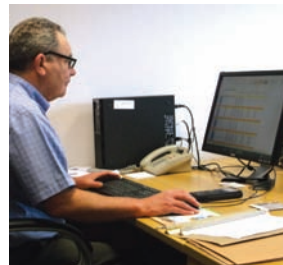
A Global Leader in Design and Manufacture of Screens, Feeders and Centrifuges Don Valley Engineering Ltd is a preferred supplier to major Quarrying, Mining and Minerals Processing Companies around the world and have earned their reputation through:

- 65 Years of Experience, Research & Development.
- Reliability in the most demanding situations
- A Total Commitment to serving our valued Customers.

Don Valley Engineering Company Limited (DVE) is a privately owned company whose share capital is still predominantly owned by the families of the initial investors and as such we enjoy the feel of a family based company with a long established tradition.

When the company was established in 1947, its initial market was for repair and general fabrications which, being located in the heart of the Yorkshire Coal Field, inevitably focused on the coal mining industry.

From our modest beginning we have expanded and evolved over the years, gathering a wealth of experience in all aspects of engineering, in particular the processing and handling of bulk materials and the building of specialist screening, centrifuging and maltings equipment, making us one of the leading U.K. suppliers in our chosen fields. We therefore enjoy the enviable position of being a supplier to all major producers and users of minerals, iron and steel, coal, sugar and potash etc.



The company today is predominantly staffed by design and contract management engineers who specialise in all aspects of our business to cater for our broad client base. Our size enables us to respond positively to changing market conditions whilst affording us the ability to maintain tight control of overheads and thus

produce economic and effective plant and equipment.

- Project Management
- Feasibility Studies
- Turnkey Projects
- Design & Build
- FEEDs
- Construction

Company Structure

Over the last two years the Company has been re-structuring itself and is now split into four divisions:

Engineering Division

Our traditional business is in full turnkey installations with Design and Manufacture of a diverse range of plant for the Quarrying, Mining, Maltings, Steel, Mineral Processing and Bulk Material Handling Industries.

Machinery Division

We can supply or supply and install our range of machinery which includes Screens, Centrifuges, Vibrating Feeders, Apron Feeders, Conveyors and Wedge Wire Products. We offer a full spares and servicing facility for all our machines and plant either in our works or on site.

Construction Division

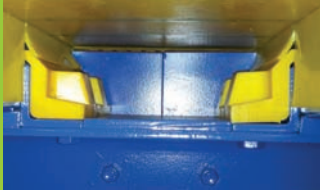
To include Installation, Commissioning and Servicing of our own or customers plant and equipment. We also offer to carry out Decommissioning, Relocation and Dismantling of plant and equipment. We have the facilities, flexibility and experience to undertake a wide range of works from the smallest maintenance job to the multi million pound contracts.

Cleeve Materials Handling

Our recent acquisition of Cleeve adds to our ability to be able to respond to our customers requirements in the materials handling sector. Cleeve Design, Manufacture and Install a range of Plant and Equipment which includes Conditioners, Screw Conveyors, Silos, Big Bag Handling Systems, Elevators, Bin Activators, Bulk Loading Chutes and Pneumatic Conveyors.



Quality - Cost Effective - Reliable



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Horizontal Linear Motion Screen

In the never ending drive to increase market share, quarries are constantly looking for ways to reduce production costs of minerals by building ever larger quarries. Higher tonnages require larger machines, but this is only part of the answer because any kind of stoppage then results in greater tonnage lost for every hour the plant is stood.



Over the years Don Valley Engineering has been meeting the requirements of an ever changing minerals industry by designing and building ever larger screening machines to cater for the ever increasing tonnages being produced. We have supplied the front line machines to virtually all of high capacity plants built in recent years. In doing so, we have created an unequalled range of bespoke machines for all manner of applications, gaining a wealth of experience in the design of bunker tops that we believe should be considered for all future installations.

- Bespoke design to suit customer requirements
- Single deck
- Twin Deck
- Triple Deck
- High grade boiler steel side plates
- Huck bolt construction
- Exciter unit linear motion
- Over 20 years operational lifespan
- A 'Best Value' investment

Heavy Duty Screens for heavy duty applications. Designed for all screening applications. Single or multi deck configurations available.

SCREEN DATA

Effective Width	-	1200 to 4000 mm
Effective Length	-	3000 to 10500 mm
Screen Area	-	4m ² to 44 m ²
Vibratory Motion	-	Linear
Amplitude	-	Up to 15 mm
Frequency / Speed	-	850 to 950 cycles / min
Angle of Throw	-	To suit application
Inclination	-	Minus 5° to Plus 20°
Flow Speed	-	0.3 to 0.5 m/s
Capacity	-	Up to 3000tph

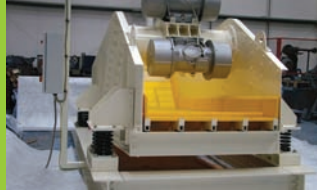
From the following data our applications engineers will give you a fully detailed specification of the screen you require:

1. Size analysis of feed material
2. Feed rate (tph)
3. Type of material
4. Separation sizes
5. Moisture content



- Solutions





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VS Dewatering Screen

DVE Dewatering Screens come in a range of six sizes, designed specifically for the removal of free moisture.

The screens comprise of a 45° sloping back section with aperture slots across the direction of flow.

The incoming saturated material is uniformly fed across this area to give primary drainage. The main deck of the screen can have a variable angle to suit the dewatering requirement and again has aperture slots across the direction of the flow. The screen can be fitted with either polyurethane or stainless steel wedge wire panels. The screens are excited by means of two vibrating motors operating at either 980 or 1460rpm which induce linear motion into the screen bed.

Our Dewatering Screens are robustly designed and constructed to withstand the day to day rigours of site use. They offer the ideal solution for sand washing and mineral processing industries.

Ease of maintenance has been designed into the screen to give maximum operating time.

THE MAIN FEATURES INCLUDE:

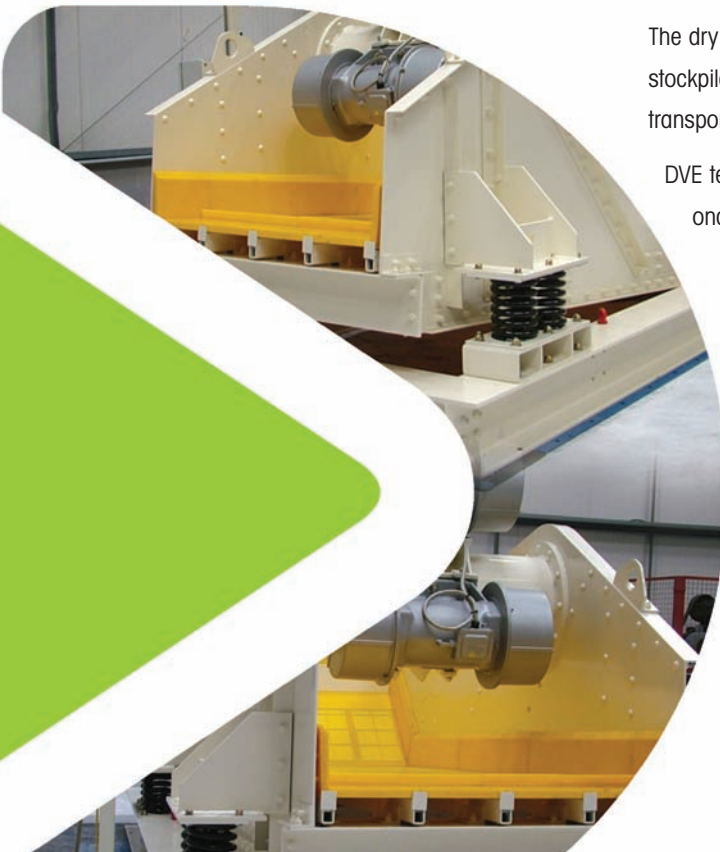
- Quick and easy alteration of the screen deck angle which allows fine tuning to be carried out to maximise output and efficiency.
- The amplitude of the screen can be easily adjusted to ensure the optimal efficiency is achieved.
- The VS screen benefits from the use of a polyurethane deck system which is extremely secure whilst in use, but easily changed to suit varying conditions.
- The screen frame and body are all connected using a huck bolt system to minimise the need for welding.

The screen receives a high percentage of water saturated fine material; which due to the linear action of the drive and the inclination of the screen forms a pool at the in-feed end. Material is then driven forward forming a compact cake which acts as a filtration bed further dewatering the material and minimising losses to the filtrate liquid.

The dry cake can then be discharged onto a conveyor and stockpiled without any further run off or water pools providing a transportable product that can be sold in a short period of time.

DVE technical staff can assist you with your selection of screen once the following data has been received

- **Type of material to be screened.**
- **Specific gravity of material, t/m.**
- **Dry tph, or m³/hr. of slurry**
- **Feed slurry RD or w/w solids.**
- **Bulk density of the material to be screened.**
- **Size analysis of the feed stock.**



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Banana Linear Motion Screen

Don Valley Engineering Banana Screens employ the latest technology in multi angle machines which are capable of achieving exceptional throughputs for relatively small screening areas. The screens include a number of different screening angles with a wide variety of deck types and apertures to meet the particular process requirements.

The screens are designed to accept most types of deck system including polyurethane, punched steel plate and wedge wire.

Screens vary in size from 1.6m wide up to 3.4m wide with masses up to 28 tonne. The most common size is 3m wide x 6.3m long.

Benefits of Multi Angle Screening are:-

- Improved efficiency in sizing material due to formation of a thin bed depth.
- Lower water consumption, with wet screening.
- Lower energy requirement, for an equivalent throughput, than with a conventional flat deck screen.
- Higher feed rates for an equivalent deck area.

FEATURES:

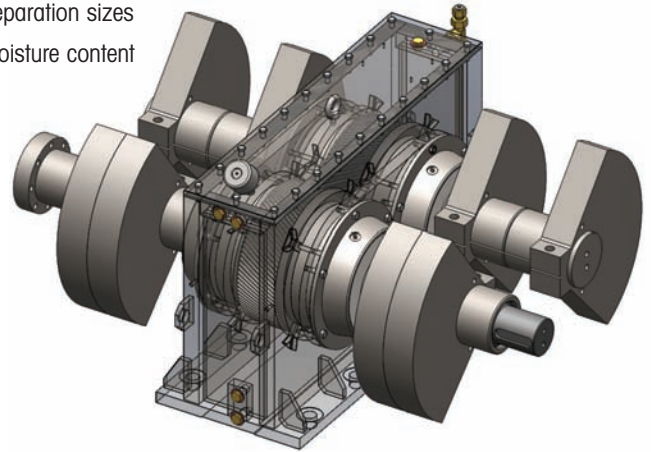
- Bespoke design to suit customer requirements
- Single deck
- Twin Deck
- Triple Deck
- High grade boiler steel side plates
- Huck bolt construction
- Exciter unit linear motion
- Over 20 years operational lifespan
- A 'Best Value' investment

SCREEN DATA

Effective Width	-	1600 to 4000 mm
Effective Length	-	3800 to 10500 mm
Screen Area	-	6 to 32 m ²
Vibratory Motion	-	Linear
Amplitude	-	Up to 15 mm
Frequency/Speed	-	850 to 950 cycles / min
Angle of Throw	-	To suit application
Inclination	-	To suit application, typically 30°, 20° & 5°
Flow Speed	-	2.5m/s to 0.5 m/s
Capacity	-	Depending on material and aperture size up to 4000 tph

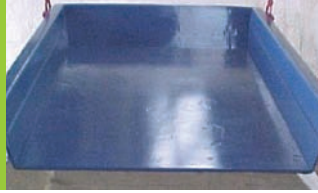
From the following data our applications engineers will give you a fully detailed specification of the screen you require:-

1. Size analysis of feed material
2. Feed rate (tph)
3. Type of material
4. Separation sizes
5. Moisture content



The Banana Screen benefits from utilising linear motion combined with high vibration amplitude and high acceleration over the screen deck making the Banana Screen suitable for a variety of applications, these combined features also reduce the possibility of blinding and pegging.





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Vibrating Feeders

Don Valley can supply range of Vibrating Feeders, capacities ranging from 100 tph to 2500 tph. Vibrating feeders can be used for transferring bulk materials from hoppers, bins, crushers, etc. in a variety of applications including chemical, mining, foundry, quarrying and iron and steel industries.

They can either be floor mounted or suspended from cables with steel or rubber isolation springs, to suit layout and access requirements.

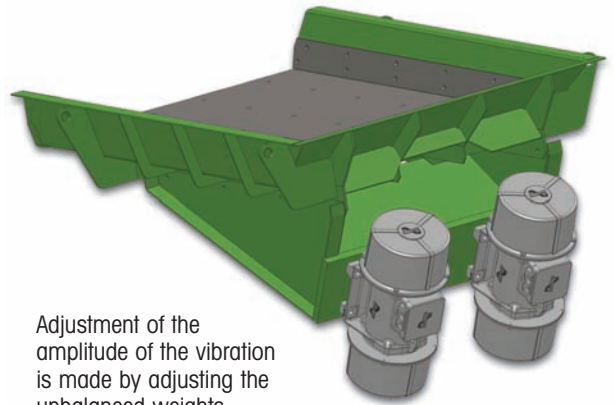
Features of Vibratory Feeders:

- Smooth vibration
- Long service life
- Low power consumption
- Simple structure
- Simple maintenance
- Reliable operation
- Low noise
- Easy to adjust
- Easy to install

High capacity feeders for controlling flow of bulk materials from storage piles, bunkers and bins rated at up to 2500 tons per hour. Due to the fact that the two vibrator motors rotate in opposite directions they create a mono directional vibrating motion which is transmitted directly to the trough at a carefully calculated working angle.

The electromechanical feeder comprises of :-

- A channel shaped carcass assembly fixed onto a support, designed to withstand the stress caused by the vibration motion.
- A suspension system.
- Two vibrator motors fixed to the chute, each with drive shafts that have adjustable unbalanced weights.
- Rotation speed 960 rpm or 1450 rpm
- Capacity to suit customer requirements.



Adjustment of the amplitude of the vibration is made by adjusting the unbalanced weights.

The feeders require very little maintenance and are capable of operating under difficult or arduous environmental conditions.

BENEFITS OF DVE FEEDERS:

- Rugged construction for long life.
- Minimum moving parts giving low maintenance.
- Maximises the use of constants for complete reliability.
- Softer vibration for minimal noise.
- IP 65 standard motors.
- Supported by Don Valley Engineering guarantee.

FEATURES:

- A standard range and bespoke to suit customer requirements.
- Size and duty as required.
- Choice of protective and noise reducing liners.
- Designed and built for continuous operation.
- Tens of millions of tons per annum on large machines.
- Ultra durable to withstand the most demanding environments.
- Ultra reliable, providing decades of operational peace of mind.
- Excellent payback on investment.

APPLICATIONS

- Sand & gravel
- Aggregate
- Coal
- Stone
- Steel
- Castings
- Glass
- Wood
- Food
- Animal Feeds

As well as the standard range of feeders our design team can offer special bespoke units or provide specialist advice on equipment selection.

Standard troughs can be changed to tube feeders ensuring dust free, safe handling of materials.



Quality - Cost Effective - Reliable



Apron Feeders

Don Valley Apron Feeders are used for volumetric feeding of material from bunkers, bins or stockpiles. They can either fixed or variable speed to suit the application.

The machines are designed to operate continuously in arduous conditions with high impact loads and coarse and abrasive materials.

As well as our standard Apron Feeder designs, 1000mm to 2500mm wide, Don Valley produce a range of bespoke design Apron Feeders to suit special applications and installations. Don Valley Apron Feeders can be either positively or negatively inclined.

Our Apron Feeders consist of two-strand heavy duty chain fitted into cast steel pans. The chain is supported on standard chain carrying rollers and full face plain rollers on the feeders return side. The feeders are designed for continuous operation, with side frames fabricated in rolled steel sections, built to withstand high-impact loads.

Applications include the following:

Coal, coke, iron ore, stone, limestone, sand and gravel - We have been serving customers since 1947 our name is respected throughout the industry.

Don Valley Engineering Co Ltd is committed to the supply of quality products and services to the mineral processing and mechanical handling industries.

Our extensive experience enables us through design, manufacture and service to competently undertake a wide range of projects from part projects to full turnkey.

Don Valley Engineering machinery and technology can be found worldwide wherever quality and reliability are of prime importance.

As well as standard Apron Feeder units our design team will produce individually designed Apron Feeders that will suit special applications and installation criteria.

Every effort is made to understand the particular requirements of a client, and provide an optimum solution.

All enquiries are carefully studied; recommendations are based upon our considerable knowledge and expertise of the mineral processing and mechanical handling industries.

INCLUDED APPLICATIONS:-

- Coal
- Iron Ore
- Limestone
- Biofuels
- Coke
- Stone
- Sand and Gravel



FEATURES:

- Volumetric Feeding from Bunkers, Bins and Stockpiles.
- Standard and bespoke designs.
- Fixed or variable speed.
- Optionally fitted with fines collection conveyor.
- Size and duty as required.
- Continuous operation.
- Designed to take high impact loads and abrasive materials.
- Positive or negative inclination.





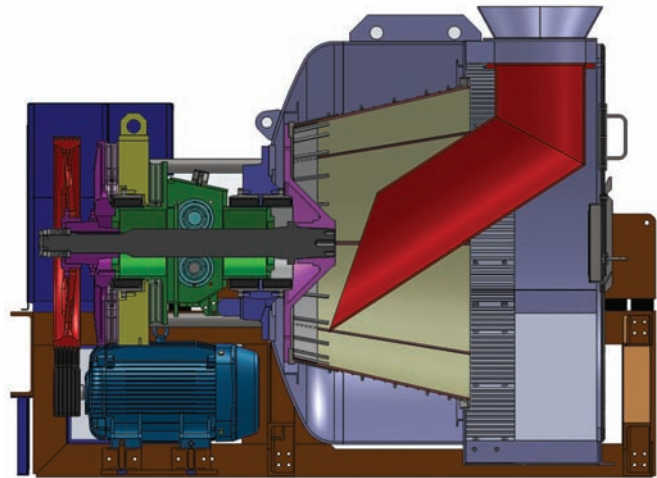
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Vibrating Centrifuge

- Continuous separation of solids from liquids
- Proven dewatering ability
- Full dynamic balancing
- Overload protected self-cleaning system
- Design and Installation
- Capacities up to 300tph
- Arranged for easy access and maintenance
- Lubrication failure cut out
- Full service and support

Description of Operation

Wet solids are presented continuously to the small diameter of a tapered wedge wire basket via the feed inlet. Solids are retained in the rotating basket and horizontal vibrations assist in transporting them to the large diameter open end. Liquid passes through the basket due to centrifugal forces typically up to 100G.



Recent developments of our machines have shown economic savings in the reduction of moisture of a variety of minerals.

Fully self-contained units requiring only support structures and feed and discharge chute work, all of which can be included in a "leave it all to us" installation and commissioning.

Our applications engineers will be able to provide a fully detailed specification on receipt of the following information:-

1. Size analysis of feed material
2. Feed rate (tph)
3. Separation size
4. Moisture content of feed material
5. Position of effluent feed
6. Required moisture content of product

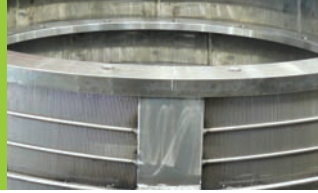
Don Valley Centrifuges are capable of accepting a feed up to 50 mm top size and in order to obtain best dewatering may require additional water to feed material prior to entry to the centrifuge chamber.

FEATURES:

- An effective way to remove free moisture from minerals.
- A global standard with a proven track record.
- High efficiency, high capacity output.
- Tough, compact and self-contained, requiring a minimum of maintenance.
- Environmentally beneficial.



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Centrifuge Baskets

Don Valley Centrifuge Baskets are manufactured to suit horizontal and vertical centrifuges of both vibrating and scroll types.

Centrifuges utilise rotational and / or axial forces to achieve a high degree of moisture removal and throughput with minimal space requirements.

The unique construction features of the Don Valley Centrifuge Baskets ensure that large open areas for maximum dewatering capacity are maintained while providing long life. Unrestricted passage of liquid, with the minimum of blinding or clogging, is maintained throughout the life of the basket by using screen panels of welded wedge wire. This enables any process fluids and undersize material particles to pass freely through.



DON VALLEY CENTRIFUGE BASKETS:-

- Are manufactured from **Welded Wedge Wire**
- Give **Efficient Dewatering**
- Are capable of handling **High Capacities**
- Are available for most makes of **Centrifuges**
- Are competitively **Priced**

Product Range

Don Valley baskets are available to suit most types of centrifuges. A large range of baskets are available from stock.

Don Valley maintains facilities to manufacture centrifuge baskets to any design.

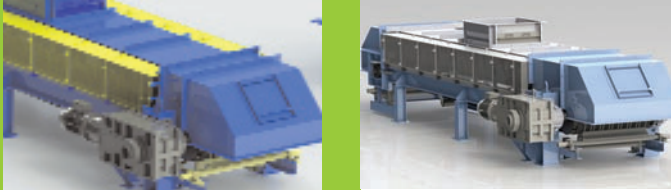
Construction Materials

Standard construction consists of grade 304 stainless steel wedge wire screen panels with carbon steel flanges. All stainless steel construction can be accommodated on request and special alloy materials can be utilised for severely corrosive environments.

After Sales Service

- Installation
- Maintenance
- Breakdown
- Spares
- Repairs





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Belt Feeders

The DVE Belt Feeder is a versatile and diverse conveyor which can be adapted to a multitude of applications.

The main features are:-

- Low cost
- Modular drive and tension sections
- Modular intermediate sections to suit the installation
- Wide range of belt widths and types
- Choice of weather covers
- Suitable for a variety of products

The basis of the conveyor is that the drive frame and tail frame are standard units in a range of belt widths to suit the tonnage and material to be conveyed. The conveyor length is made by utilising standard stringer sections. The conveyor can be supplied with a range of covers to suit each customers individual requirements from full steel covers to netting covers to simple wind boards.

The steel covers can be either fixed or hinged; the netting wind covers are stretched over the frame and secured on the fixing bar. Wind boards can be any height or material and fixed in slots or with bolt fasteners. The conveyor is equipped with a belt cleaning system to suit the material being conveyed as we know different materials require different types of cleaner from tangential to secondary to brushes in materials from tungsten to polyurethane we use both our own and the customers experience to select the most effective solution for belt cleaning.



The conveyor is driven by a shaft mounted geared motor. The drive drum is rubber lagged to ensure a positive drive to the conveyor belt which ensures positive and consistent transfer of the product. The conveyor is capable of being used horizontal as well as positive or negative inclines for transportation of materials. The range of products which can be conveyed range from seeds, grain, malt, sand, aggregates, powders and many similar products.

FEATURES:

- Bespoke design to suit customer requirements.
- Size and duty as required.
- Over 20 years operational life expectancy.
- High quality components.
- Electrical or optional hydraulic drive systems.
- Full safety guarding.
- Optional rotation sensors and other safety/control devices.

TECHNICAL DATA

Standard Construction:-

Distance between supporting trough rollers approx. - 1mt.

Distance between return rollers approx. - 3mt.

Drive drum diamond pattern rubber lagged.

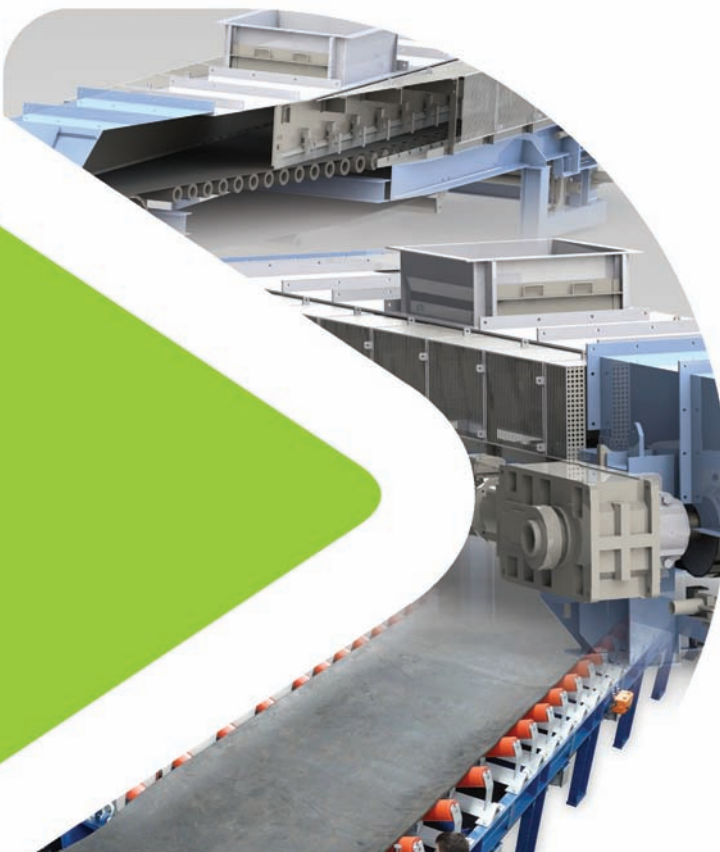
Product inlet skirt plates, skirt rubbers and additional support rollers.

Optional additions:-

Inlet and discharge chute work.

Specialist belting: oil resistant, chevron etc.

Walkways, hand railing and supporting structure.



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Belt Conveyors

Don Valley can provide a wide range of modular and bespoke belt conveyor systems, to suit from light to very heavy duties and applications, and the range covers the requirements of virtually every industrial sector.

Our belt conveyors are noted for their robustness, reliability and high performance, and as a result of their proven performance they are installed in major quarries, mines and process plants around the world.

We can also provide the full Gantry and Trestle arrangements as required, and to add to our in-house capabilities we can install and commission everything for you.



FEATURES:

- Modular and Bespoke systems.
- Fixed or Mobile.
- Full range of duties to suit all applications.
- Wide choice of proprietary components.
- Wide range of belt widths and types.
- Choice of protective finishes.
- Suitable for a very wide variety of products.
- Choice of weather/protective covers.
- Fully Enclosed Options.
- Gantry and Trestles to suit.
- Full installation available.



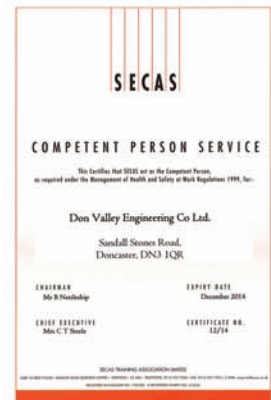
- Solutions





Project Management
 Conceptual Design & Feasibility Studies
 FEEDs, EPC
 Design and Build
 Risk Management

CDM
 Site Management
 Site Supervision
 Principle Contractor
 Health and Safety



Site Construction
 Dismantling
 Risk Assessment
 Mechanical Erection of Plant
 Steelwork Erection



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