

Products for the Chemical & Mineral Industries

Screw Conveyors

An essential part of many powder and granular material conveying and storage systems.

Simple - robust - easily maintained - low cost - versatile.

In general most free flowing materials and many with poor flow characteristics can be successfully handled. The standard specification is also easily tailored to suit abrasive, damp, wet, sticky, oily, fluidised, hot, cold and other aggressive environments.

- Capacities from less than 0.5m³/hr to more than 2000m³/hr.
- Wide range of standard machines with options to suit most applications.
- 'U' trough and tubular designs.
- Special designs for unusual applications.
- Modular design allows easy configuration and assembly.



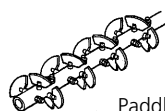
Conveyor Size		150	200	250	300	350	400	450	500	600	800	1000
Capacity	m ³ /hr	11	26	47	79	116	153	222	277	440	790	1250
45% box loading	rpm	170	160	150	140	130	115	115	105	100	75	60
Capacity	m ³ /hr	5	12	21	34	45	67	96	114	190	350	550
30% box loading	rpm	120	110	100	90	75	75	75	65	65	50	40
Capacity	m ³ /hr	1.6	3.8	7	11	13	20	26	31	44	88	170
15% box loading	rpm	75	70	65	60	45	45	40	35	30	25	25

Capacity is dependent on many factors such as product flow characteristics, conveying gradient and selected box loading and speed. The figures in this table are indicative only.

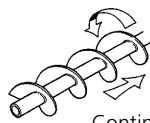
Flight Options



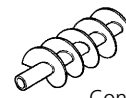
Ribbon Flighting - used with sticky materials and those with poor flow characteristics.



Paddle blades - applied where a mixing action is required, the angle of incidence can be varied.



Continuous flighting, full pitch, right hand - the standard configuration.



Continuous flight, reduced pitch - used in flood feed conditions.



Cut & Folded flighting - applied where a light mixing/aerating action is required.



Options

- Intermediate inlets/outlets
- Special bearing arrangements
- Packing gland seals
- Wear strips
- Intermediate support bearings
- Jacketed casing and tubes
- Rotation sensor
- High or low temperature designs
- Galvanised or stainless steels
- Outlet slide valves, manual or power operation

Chain and Flight Conveyors



An essential part of many bulk material processing, conveying and storage systems.

Simple - robust - easily maintained - good capacity/cost ratio

Most powders, granules, flakes and pellets can be conveyed including products with a wide range of particle sizes. The standard specification is also easily tailored to suit abrasive, damp, wet, oily, fluidised, hot, cold and other aggressive environments.

- Capacities from less than 500kg/hr to more than 1500 tones/hr.
- Lengths from less than 2m to more than 100m.
- Wide range of standard machines with options to suit most applications.
- Special designs for unusual applications.
- Modular design allows easy configuration and assembly.

Conveyor configuration & availability

Conveyor Size	200	250	300	400	500	600	800	1000
Single Strand	✓	✓	✓	✓	✓			
Twin Strand				✓	✓	✓	✓	✓
Soft Flight	✓	✓	✓	✓				

Machines up to 2000mm wide are available for specialist applications.

Chain conveyors can be configured in many different ways, using a variety of different flight types and styles with chain speeds from 0.1m/s to 1m/s and box loading from 10% to 100% dependent on such factors as product flow characteristics, abrasive qualities and conveying gradient.

We do not quote typical capacities for the chemicals and minerals industries as each machine is tailored around our standard designs to suit customers' precise requirements.

Typical materials handled include:

Cement • sand • glass cullet • flyash • limestone • ores • coal • fertilizers • miscellaneous powders • flakes • granules and pellets.

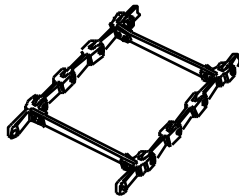


Single strand chain

Steel chain with integral flight bars.

Applications

General purpose use.

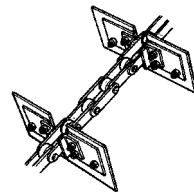


Twin strand chain

Pair of steel chains with interconnecting flight bars. Can also be configured as a pair of single strand chains running side-by-side.

Applications

For most materials, medium & heavy duty.



Soft flight chain

Single strand steel chain with bolted polyethylene flights.

Applications

Friable, easily damaged, non-abrasive, sticky and wet materials. Medium inclines.



Options

- Ultra heavy duty designs.
- Trench or mechanical intake.
- Self cleaning drive and return ends.
- Special bearings and seals.
- Wear resistant liners.
- Automatic spring tensioning.
- Galvanised or stainless steel.
- Outlet slide valves, manual or powered.
- Drive arrangements available to suit application

Chain options

- Steel roller, bolted or pressed flights.
- Drop forged, welded flights.
- Stainless steel.
- Malleable iron.
- Round pin.

Hiload Bucket Elevators

One of the most cost effective systems for elevating bulk materials between levels or charging storage hoppers and silos. Their inherent simplicity leads to

- Ease of installation
- Low maintenance requirements
- Low noise levels
- Dust free operation

Continuous development in bucket design and head/boot profiles results in the highly efficient **Hiload** range able to handle most free flowing products and many with poor flow characteristics, typically:

- *Fragile or friable materials.*
- *Oily materials and derivatives.*
- *Fluidised materials.*
- *Abrasive materials.*
- *Hot, cold or wet environments.*

The **Hiload** range comprises 7 sizes of standard machine with capacities up to 1500tph.



Typical capacities in tonnes/hr

Elevator Size	140HL	200HL	300HL	370HL	450HL	450x2HL	450x3HL
Hydrated lime @ 0.6 T/m ³	12	26	60	95	112	285	430
Fertilizer @ 0.8 T/m ³	18	38	90	140	166	424	635
Cement @ 1.10 T/m ³	22	48	112	173	205	525	786
Sand @ 1.60 T/m ³	27	58	136	210	250	635	950

Capacity varies with material flow characteristics, the above figures are illustrative only. Technical advice must be sought before specifying.

Bucket options

- Carbon steel pressed.
- Stainless steel pressed.
- Reinforced wear plated.
- Bottomless.
- Special purpose
- Twin and triple row bucket systems.

Buckets are selected to suit the product handled and working environment.

Belt options

- General purpose
- Oil & fat resistant
- Heat resistant
- Pharmaceutical/food quality

Chain options

- Round link chain
- Drop forged chain
- Steel roller chain



Optional access platform & ladder-way



Options

- Chain & bucket systems.
- Wearplates in head & boot.
- Low level downleg inlet.
- Special bearings & seals.
- Sensors for bearing temp, rotation & belt alignment.
- Explosion relief panels.
- Maintenance platforms.
- Geared motor & chain drive.
- Galvanised or stainless steel.

Slide and Diverter Valves

Guttridge slide and diverter valves are often used in conjunction with screw conveyors and chain conveyors. They are also suitable for use in many other applications within the chemical and mineral processing industries -

- Chain conveyor inlet/outlet points
- Screw conveyor inlet/outlet points
- Hopper/silo outlets
- Chute control/isolation
- Rotary valve isolation

Guttridge valves are simple, easily maintained, low cost and versatile.

Slide Valves

- **Application** - For use with most powder and granular materials in hot, cold, wet and other aggressive environments.
- **Materials** - Carbon steel - Galvanised - Stainless steel.
- **Abrasive Products** - Wear plates, strips and wear resistant blade.
- **Blade support** - Track or rollers dependent on duty.
- **Seals** - Suitable for the application.
- **Operation** - Choice of
Manual with handwheel or chainwheel.
Electro-pneumatic.
Electromechanical.
- **Options** - Limit switches - Position indicator switches, special purpose valves.



Diverter Valves

- **Application** - For use with most powder and granular materials in hot, cold, wet and other aggressive environments.
- **Materials** - Carbon steel - Galvanised - Stainless steel.
- **Abrasive Products** - Wear plates, strips and wear resistant blade.
- **Seals** - Suitable for the application.
- **Operation** - Choice of
Manual with handwheel or chainwheel.
Pneumatic using plant supply.
Electro-pneumatic.
Electromechanical.
- **Options** - Limit switches - Position indicator switches, bucket type and other special purpose valves.

Specialist Manufacturers of Bulk Materials Handling Equipment

We serve a wide range of industry sectors with our comprehensive range of materials handling and ancillary machinery. Please contact us for further information on any of the following:

Easyflo Mobile screw elevator

Sieveflo Mobile screw elevator with check sieve

Bulkflo Mobile loading hopper with integral screw elevator

Multiflo & Augaflo Screw conveyor systems

Belt Conveyors

Hopper Dischargers

Straw Grinding & Handling Equipment

Chemicals

Pharmaceuticals

Minerals

Feeds & Cereals

Energy

Plastics & Rubber

most other bulk materials processors

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