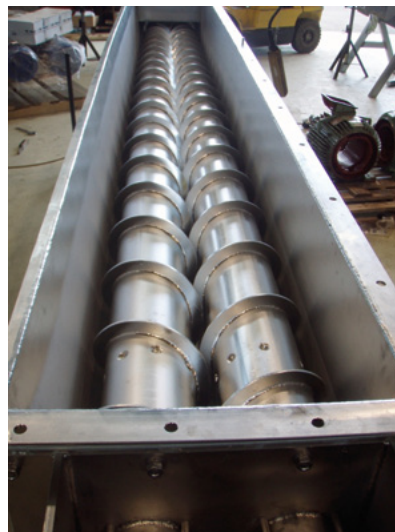


Screw Conveyors & Screw Dischargers

IBS designs and supplies a complete range of Screw Conveyors. These types include:

- Conveying and transfer conveyors:
- Inclined conveyor
- Horizontal conveyors
- Storage Hopper Discharging & Live Bottom Bin Discharging systems
- Hopper Discharge
- Dosing and metering screw dischargers
- Mixing screws single or twin units
- Dewatering and compacting screw conveyors
- Batch metering screw feeders with self emptying storage hoppers.
- Compression screws for regulating constant material flow

IBS has extensive experience in the correct selection and design of screw conveyors, screw dischargers, hopper unloading and screw metering systems. The above list is typical of the type of equipment we have supplied to a variety of industries for varying applications. Whether your process and application requires mixing during conveying, dewatering, batch metering interlocked to weigh system or conventional transfer conveying we have the experience and standard equipment to ensure you have a reliable trouble free installation.



▶ *Twin Screw
Discharge Conveyor*

IBS have specialised screw conveying systems installed in chemical, mineral as well as the food and beverage industries. Our designs cater for stainless steel, mild steel with liners and special steel for abrasive materials, through to fully polished, sanitary clean down applications requiring full clean out and knock down construction. Materials handled can be micro powder to granular and lumps. The selection and type of conveyor recommended is critically dependant on the material to be conveyed.

Screw Conveyors & Screw Dischargers

Conveying and Transfer Conveyors:

IBS manufacture a standard range of screw conveyors incorporating intermediate centre bearings or centre less screw conveying for difficult sticky materials. Length of conveyors and size of conveyor depends on capacity and material characteristics.

Inclined and vertical conveying:

IBS have designed and installed both vertical and inclined screw conveyor systems. It is recommended to design all incline conveyors without using an intermediate bearing, if possible and to keep incline to less than 75deg for optimum efficiency. Whether your application requires a tubular inclined conveyor or trough conveyor, IBS will select the most suitable conveyor for your application that is suited to the material characteristics, environment, length conveyed and your specific needs such as clean down and residue.

Efficiency of vertical conveyors can be as little as 10% and generally require specific design considerations; specifically the nature of material and feed method. IBS engineers can assist with the best and most suited conveyor for your needs.



Tubular Screw Conveyor



Incline conveyor feeding cross conveyor

Horizontal transfer conveyors

A single conveyor can incorporate several hanger bearings over length in excess of 100m. However length is very much dependant on the nature and characteristics of the material and the conveying capacity. Some materials cannot be successfully conveyed using any hanger bearings, whilst other materials will accommodate several hanger bearings trouble free. IBS has a general rule of maximum conveyor percentage full by volume be no more than 40% when using hanger bearings with no more than 1mm/m deflection of centre pipe. This ensures long life trouble free performance of our conveyors.

IBS design all conveyors for full load start up with much consideration given to conveyor speed to eliminate excessive wear. All IBS conveyors are designed with gland seal packing to protect spherical bearings that can be either flange mounted or for some materials, high temperature, highly abrasive materials, outrigger plummer block bearings are used.

IBS



Compacting Screw

Hopper and Live Bottom Bin dischargers

IBS hopper and Bin dischargers are used when non free flowing materials need to be discharged from hoppers or storage bins. Size and quantity of screws depend on the hopper configuration and the material characteristics. Using multiple screw dischargers can increase volume of hoppers whilst ensuring a positive discharge of material at a controlled out feed. Each screw can be independently powered or interlocked with one or two drive assemblies depending on loading and capacity of the system.

Generally installed with slow speed counter rotating screw flights that can be over locked for maximum discharging capabilities they are variable pitch or variable flight diameters to ensure even material discharge across hopper.

Compaction and Dewatering Screws

The pitch on a screw can be varied so as to cause the material being conveyed to compact along the length of the screw. Suitable as a Dewatering application or to compact material to more constant bulk density.

Heating and Cooling Jackets

All IBS Screw Conveyors can be fitted with heating and cooling jackets utilizing steam, thermal liquids, refrigerant, water or brine. Heating or cooling can be designed by our process engineers who will recommend the most suitable size and type of conveyor for your production and needs.

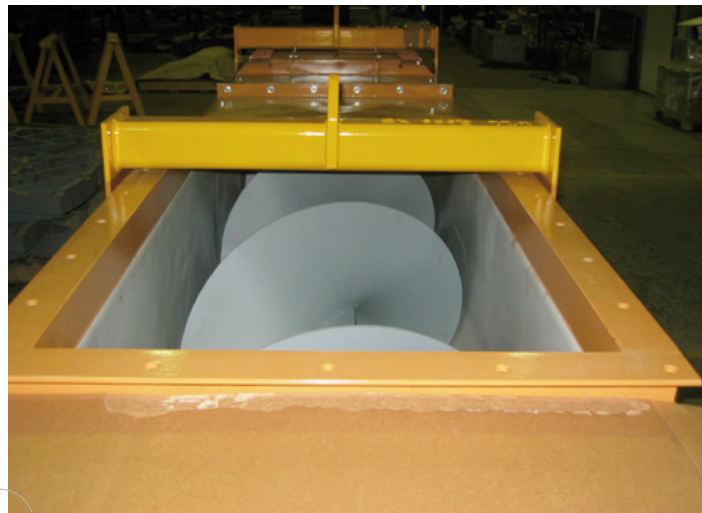


Screw Conveyor feeding a Bucket Elevator

Screw Conveyors & Screw Dischargers

Clean Design

IBS are familiar with the specific needs of the food and beverage industries. All IBS Screw Conveyors can be fitted with CIP spray balls and manifolds, with quick knockdown in mind to ensure complete clean-down where required. Screw Conveyors can be constructed from mild steel, 304 or 316 stainless steel, depending on the material being conveyed. Surface finish will be provided to suit specific requirements. All components such as IP ratings of electric motors and switches are selected with these specific requirements in mind to ensure compatibility with your operating procedures.



Trough Screw Conveyor

After sales support

IBS can provide a customised service contract using experienced technicians with many years experience in servicing and troubleshooting Screw Conveyors in all states. This service ensures your equipment is functioning to its optimum capabilities and reduces down time due to parts replacement and potential damage. Our technicians have standard customer maintenance, checking and reporting procedures.



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