SHEP Engineering Services LTD

SCREW CONVEYOR

SYSTEMS & COMPONENTS

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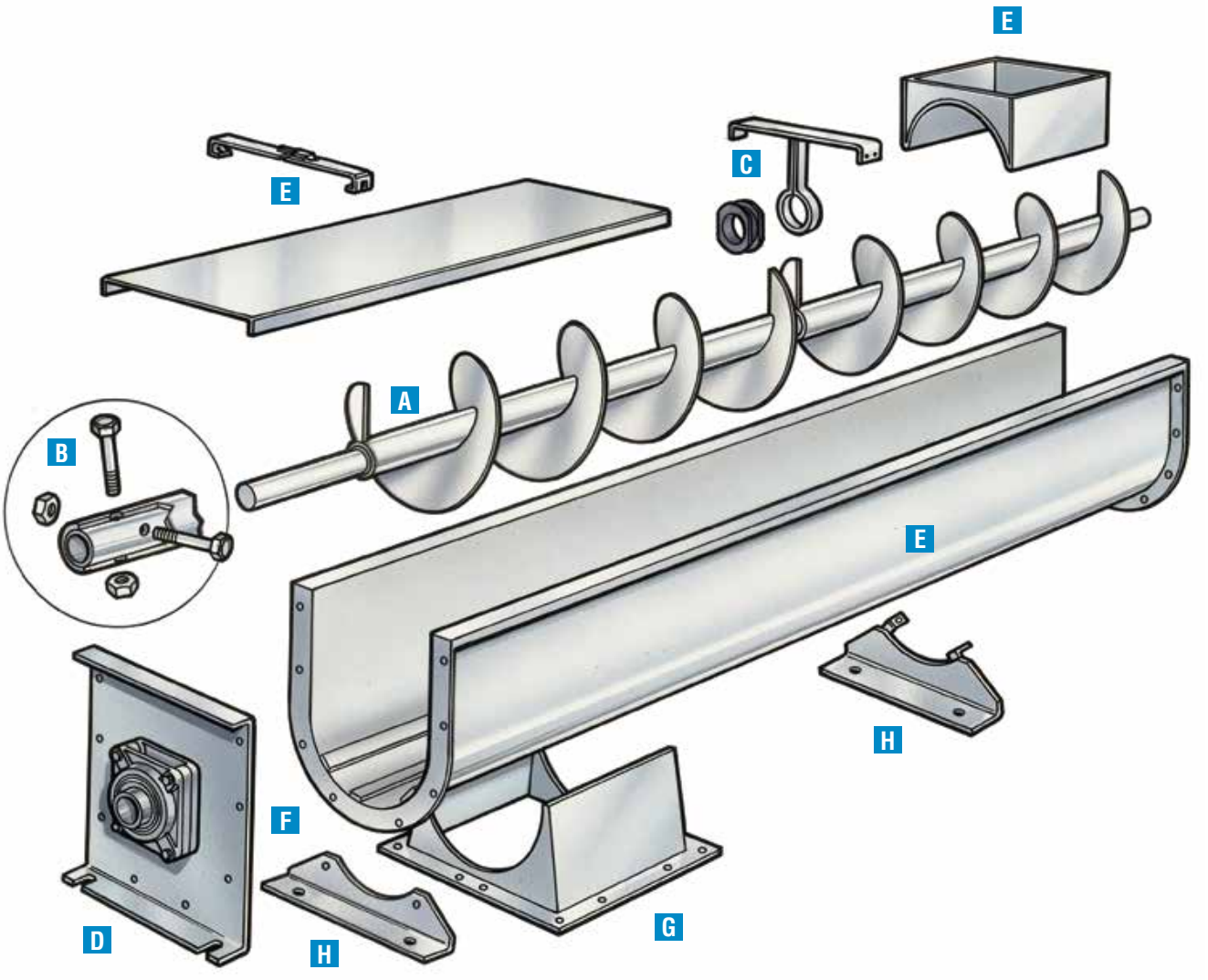


AVAILABLE IN A WIDE RANGE OF DESIGNS & MATERIALS

A WIDE CHOICE OF STANDARD PARTS

You get the system you need to solve your problem — yet keep cost at a minimum. Select the type of component from our standard line that fits your needs. For special flighting designs to solve a particular problem, please consult with one of our four sales offices.

A **Conveyor Screw:** Compact, manufactured straight and accurate in helicoid, sectional, ribbon and special designs to meet your requirements.

B **Job-Rated Components:** Selected to meet the performance required. Precisely worked to insure a longer lasting, truer running unit.

Jig-Drilled Couplings: Assures easy shaft alignment and assembly. Available with "Redi-Change" clamping key for quick disassembly of conveyor screw.

Tem-U-Lac Self-Locking Coupling Bolts: Guards against system damage and costly down-time caused by coupling bolts or nuts working loose.

C **Hangers and Bearings:** Various styles and bearing materials selected to meet your needs.

D **Trough Ends:** Several bearing and seal styles are available to match your needs.

E **Troughs, Covers, Clamps and Shrouds:** Ruggedly constructed standard "U" and other styles of troughs including tubular. Covers, clamps and shrouds available for all applications.

F **Nu-Weld® Flange:** Continuously welded steel flange holds trough in alignment.

G **Discharge Spouts:** All types available...located where you need them...with hand, electric, hydraulic or pneumatic powered gates.

H **Supporting Feet and Saddles:** Align and fasten the trough to the floor or existing structure.

A WIDE CHOICE OF MATERIALS

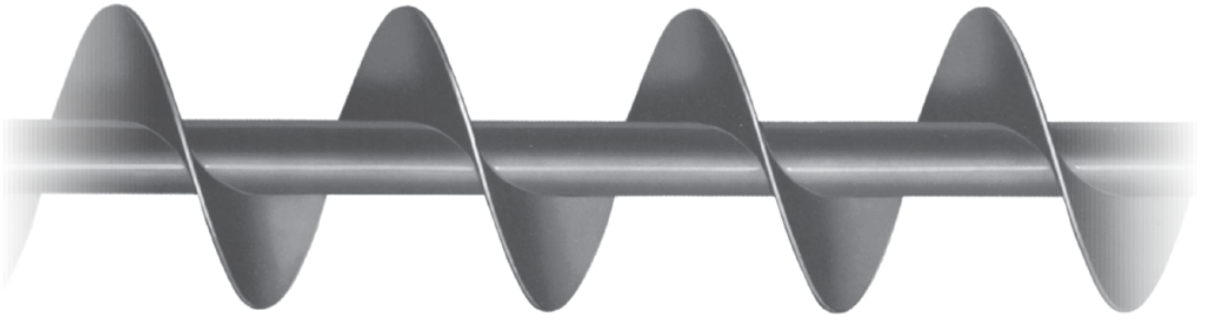
Screw Conveyor parts and assemblies are ideal in a countless number of industries. Their versatility remains a constant even in an era of alternative energy, countless new "bulk" material compounds, and the handling of various hazardous recycled materials. All of these new bulk materials have increased the use of 304 and 316 stainless steel materials, yet the galvanized materials for corrosion protection retain an important business niche. Use of more exotic coatings for shafting (such as tungsten carbide coatings) and ceramic zirconia hanger bearings have found a place in spite of their high cost. Screw conveyors remain a workhorse for the handling of bulk materials.

Wear Resistant Conveyor Components have become a workhorse for the modern industries one serves. Medium grade A/R steel has become common place with many applications demanding A/R 400 or 500 flight and trough materials. Heavy applications of coatings such as postalloy, stellite, etc. to the screw continues to accelerate to meet the demands of 24/7 operations, too.

CARBON STEEL, STAINLESS STEEL, AND GALVANIZED STEEL

CONVEYOR SCREWS / FLIGHTS / HANGERS / BEARINGS

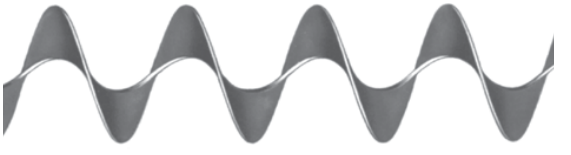
HELICOID CONVEYOR SCREWS UP THRU 20”



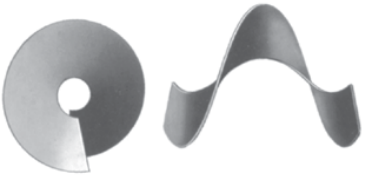
We have all the pieces to put together an answer to your bulk material conveying problem. Screw conveyors handle almost any bulk material efficiently and they do it economically compared to other methods. Compact, they fit into tight places, with moving parts enclosed. They’re easy to install and simple to maintain. You can run them horizontally, on an incline, and, with our Screw-Lift®, straight up.

We can meet your application needs in helicoid and sectional flight types with adaptations including ribbon, special pitches and tapered – in various gauges of steel, stainless steel and other alloys, including hardened flight surfaces.

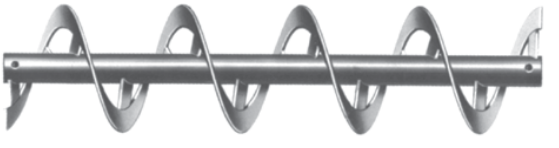
Whether your need is for components or a complete system, you can rely on our years of experience in the engineering and manufacturing of screw conveyors. Consult our experienced personnel without obligation.



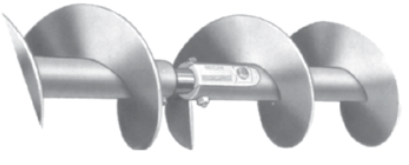
FLIGHTING FOR HELICOID CONVEYOR SCREWS



FLIGHTS FOR SECTIONAL CONVEYOR SCREWS UP THRU 30”

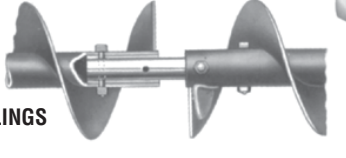


RIBBON CONVEYOR SCREWS



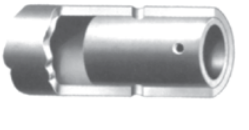
REDI-CHANGE QUICK DISCONNECT CONVEYOR SCREWS

The Redi-Change feature allows you to perform conveyor screw changes and repairs without dismantling the entire conveyor. This feature is available on all types of conveyor screws (not available in 1” shafts).



COUPLINGS

TEM-U-LAC® COUPLING BOLTS



PIPE BUSHINGS

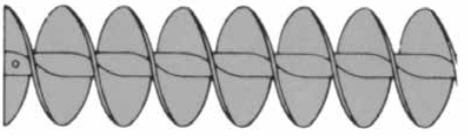
END LUGS

FORMED STEEL LUG FOR DISCHARGE END

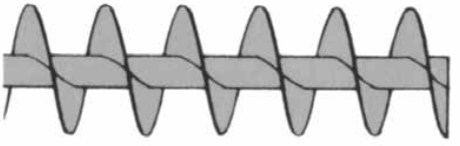
FORMED STEEL LUG FOR FEED END

SPECIAL CONVEYOR SCREW DESIGNS

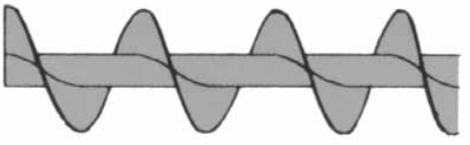
DOUBLE FLIGHT



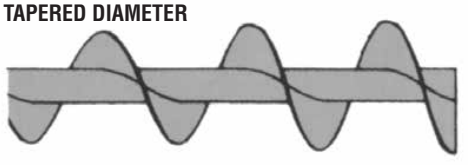
SHORT PITCH



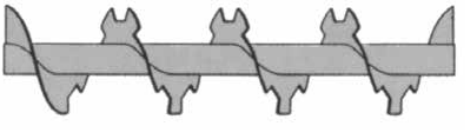
VARIABLE PITCH



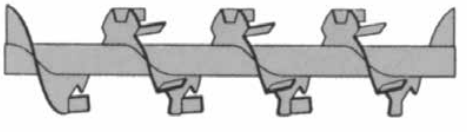
TAPERED DIAMETER



CUT FLIGHTS



CUT AND FOLDED



HANGERS AND REPLACEMENT HANGER BEARINGS

The style 226-Hanger is the most popular since it mounts completely inside the trough and is more suitable for use with dust tight or weather tight covers.

The style 226-Hanger bearings come in Wood, Nylon, Nylatron, Hard Iron, Manganese, Bronze, Gatke, Stellite Bushed, Ceramic Zirconia, and many others.

BEARING FOR STYLE 220, 226, 326 HANGERS

BEARING FOR STYLE 216, 230 HANGERS

BEARING FOR STYLE 260, 270 HANGERS

TROUGHS & TROUGH ENDS

Troughs are available in sizes up to 30" and in gauges up to 3/8" thick. They can be formed of stainless steel or other alloys. Nu-Weld® end flanges are continuously jig-welded on each end to assure alignment and tight connecting joints. If supporting feet are needed, they are spaced at the flange joints. Trough saddles are also available.

DOUBLE FLANGED TROUGH

ANGLE TROUGH

SINGLE FLANGED TROUGH

SPECIAL TROUGH DESIGNS

FLARED TROUGH

CHANNEL TROUGH

JACKETED TROUGH

TUBULAR TROUGH

DROP BOTTOM TROUGH

Troughs may be furnished in a variety of materials including stainless steel, galvanized, monel or other alloys. Covers are usually bolted on or furnished with screw or spring clamps and may be flat for interior or hip roof for exterior installations. Piano hinges are also available.

TROUGH END DESIGNS

STYLE NO. 100

STYLE NO. 101

DISCHARGE TROUGH END
STYLE NO. 104 AND 107

FLARED TROUGH END
STYLE NO. 114 AND 115

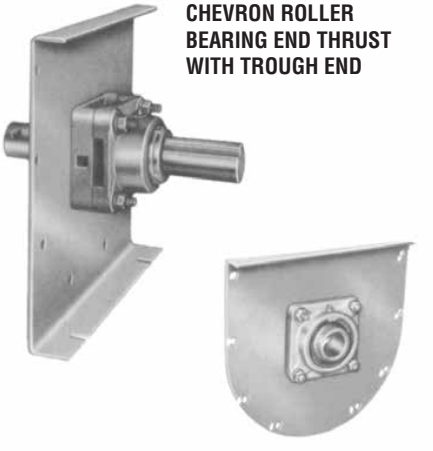
BOLT ON SHELF
(Bolts to existing trough ends)

NU-WELD® END FLANGE

Nu-Weld® end flanges are made of heavy-gauge steel to assure close accurate fit with the conveyor trough and the trough ends of the following end flange. Bolt holes are jig-punched to assure accurate alignment.

SADDLES AND FEET

TROUGH END DUST SEALS



CHEVRON ROLLER
BEARING END THRUST
WITH TROUGH END

ANTI-FRICTION STYLE NO. 103
PICTURED WITH PACKING SEAL

TROUGH COVERS / SHROUDS

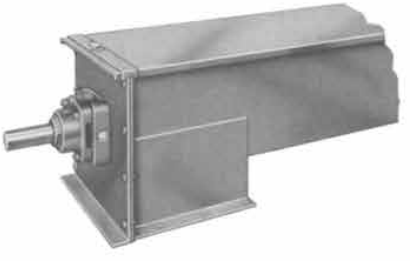
NOTE: Standard designs are not intended to be weather, rain, air, or pressure tight.

FEED & DISCHARGE SPOUTS

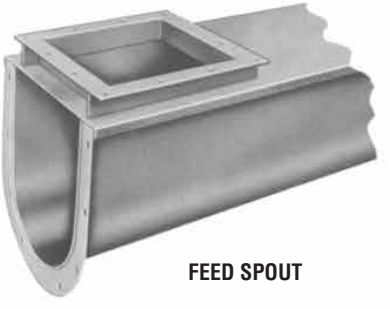
PLAIN FEED OPENING

DISCHARGE WITH
FLAT-HAND SLIDE

PLAIN DISCHARGE



FLUSH END DISCHARGE

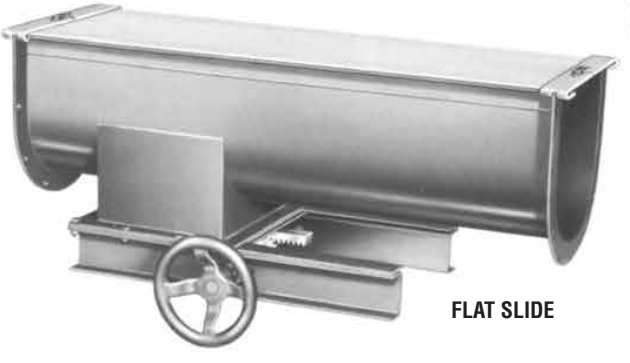


FEED SPOUT

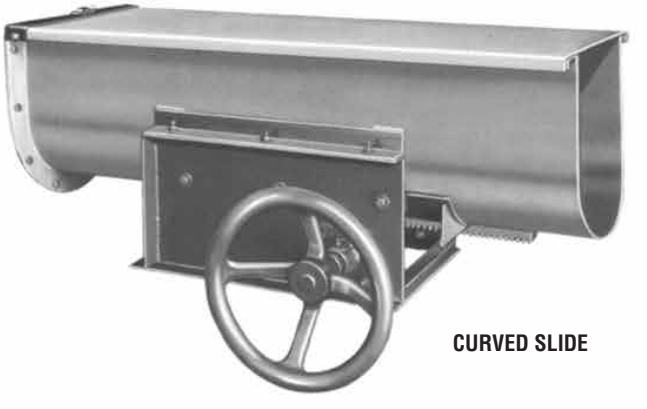
DISCHARGE WITHOUT SLIDE

RACK AND PINION GATES

Rack and pinion gates have cut tooth racks welded to the slide plate. This engages a cut tooth pinion mounted on a pinion shaft. Gate may be operated by hand wheel, chain wheel or power operated by electric motors, air or hydraulic cylinders.

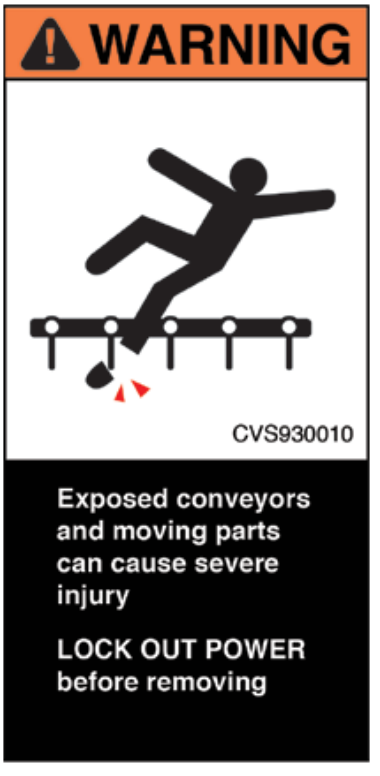


FLAT SLIDE



CURVED SLIDE

Screw Conveyor Safety Practices



Most accidents involving property damage or personal injury are the result of someone's carelessness or negligence. In order to avoid such accidents, one of the many things that must be done is to make machinery that eliminates in so far as possible an unsafe or hazardous condition. Drag conveyors must be installed, maintained and operated with the following minimum provisions:

1. Screw conveyors shall not be operated unless the conveyor housing completely encloses the moving elements and all power transmission guards are in place. The following warning signs (see CEMA Safety Label Sheet SC-1) are attached to all conveyor housings in locations as specified. Signs should not be removed from housings or be painted over! Replacements can be ordered from the Conveyor Equipment Manufacturer's Association (CEMA).

2. Do not overload the conveyor or use it for anything but its intended use.

3. Feed openings for shovel or other manual or mechanical equipment shall be constructed in such a way that the conveyor rotating and moving parts are enclosed and restricts access to conveyor.

4. Always lock-out power before doing maintenance.

SCC does not perform electrical design services and therefore does not supply electrical devices unless specifically instructed to do so by the purchaser.

SCC will try to assist, to the best of our ability, in the selection of the devices or equipment that will aid the owner and installer in preparing a safe installation and a safe working place. Zero speed switches and other electrical devices can sense conveyor operation so that operations can be interrupted and/or alarms can be actuated.

There are many kinds of electrical interlocking devices for conveyors, elevators and conveyor systems such that if one conveyor in a system or process is stopped, other equipment feeding it or following it can also be automatically stopped and thus prevent overloading at transfer points. For the safety of those that will come into the area where this equipment will be operating we recommend that you contact an electrical designer and/or supplier. Provide them with information on your operating conditions so they can best recommend and supply the appropriate devices.