Design and Selection

Applications Beyond Scope Of Catalog Selection Procedures

Data Required for Selection

The selection procedures in this catalog were intended to cover the majority of conveyor, elevator and drive applications. However, some installations involve conditions or applications which require special consideration in the selection process. The items listed below will aid in obtaining selection assistance. The items on this page are basic considerations which are necessary, if known, to insure selection of components best suited to the application.

Drives

1. Horsepower: Maximum___; Percent of operating time at or above 75% Maximum Horsepower _____
2. RPM Driver_____Driven_____; Ratio _____ Permissible Variation + _____
3. Center Distance _____
   ☐ Fixed ☐ Adjustable Permissible Variation ± _____
4. Layout: Please provide sketch. Show Centers, Driver, Direction of Rotation and Relation to Horizontal.

Conveyor and Elevator Components

1. Type: ☐ Elevator ☐ Bulk Material Conveyor ☐ Unit Handling Conveyor
2. Chain Speed: _____Feet/Minute
3. Material Handled:

(a) If Bulk:
Characteristics: ☐ Dry ☐ Wet ☐ Sticky
Lump Size: _____Inches (Maximum)
Quantity: _____ Tons/Hour;
_____Cubic Feet/Hour
Density: _____Lbs./Cubic Foot
If material density is not known, refer to material properties table on pages 124-125.

(b) If Units:
Quantity: _____Units/Hour
Size: _____x_____ x_____

Spacing: ☐ Random ☐ Regular

Weight: _____Lbs. (each)_____Lbs. (per foot of conveyor)
Total weight on conveyor at one time: _____Lbs. (Max.)

4. Loading (in Cubic Feet/Hour or Units/Hour):
   Normal _____Peak _____Percent of Time at Peak_____
5. Layout: Sketch showing centers, inclines, distance between chains, special attachments.

General Information

1. Answer Required by (date): _____
2. Product: ☐ Chain ☐ Sprockets ☐ Other
3. Application: ☐ New Installation ☐ Replacement Component
4. Equipment Operating Time ___Hours/Day; ___ Days/Week

General

1. Desired Equipment Life: _____Hours/Years
2. Environment
(a) Temperature: Surrounding_____ °F
Component_____ °F
If Cycling, Time at Temperature_____
(b) Abrasion: Material_____
Particle Size_____Abrasiveness_____
(Refer to tables on pages 124-125).
(c) Corrosion: Material _____

Conveyor and Elevator

1. Sprockets (or Traction Wheels) – No. of Teeth (or Outside Diameter):
Head Tail
2. Shaft Size: Head_____Tail _____
3. Chain Attachments: Type_____Spacing_____
4. Weight of Flights or Slats _____ _____
5. Takeup Type: Screw Gravity – Weight _____
6. Elevator Buckets: Style ☐ _____
   Size _____x_____x_____

Drives

1. Shaft Diameters: Driver_____Driven _____
2. Application Description: _____
_____
_____
_____
_____
_____
_____
3. Peak Load Factor _____
Ratio of peak tension to mean tension while maximum horsepower is being transmitted.