# TABLE OF CONTENTS

1.01 GENERAL INFORMATION .................................................... 3
1.01 SAFETY RECOMMENDATIONS ........................................... 3
1.02 TYPICAL EQUIPMENT SAFETY LABELS ................................. 6
1.03 TO OUR VALUED CUSTOMERS ........................................... 8
1.04 OWNER’S RESPONSIBILITY ................................................ 11
1.05 WARRANTY ........................................................................ 12
1.06 SERVICE AVAILABLE ....................................................... 13

2.0 INSTALLATION ..................................................................... 14
2.01 INSTALLATION OF THE CONVEYOR HOUSING ..................... 14
2.02 INSTALLATION OF THE CONVEYOR BELT ......................... 15
2.03 TENSIONING THE CONVEYOR BELT ................................. 19
2.04 BELT ALIGNMENT ............................................................ 21
2.05 WASTE-PACK ENCLOSURES ............................................ 24
2.06 ZERO SPEED SWITCHES .................................................. 25
2.07 ROTARY BELT THUMPER ................................................ 26
2.08 THE CONVEYOR INLET ................................................... 27
2.09 THE CONVEYOR DISCHARGE ........................................... 28

3.0 OPERATING THE CAMFLEX CONVEYOR ............................... 29

4.0 MAINTENANCE AND LUBRICATION SCHEDULE .................... 33

5.0 TROUBLE-SHOOTING GUIDES .......................................... 34
5.01 CONVEYOR “JAM-UP” ..................................................... 34
5.02 BELT WEAR ................................................................. 38
5.03 BELT ALIGNMENT ......................................................... 39
5.04 LOW CAPACITY ............................................................ 40
5.05 GENERAL ................................................................. 41
1.0 GENERAL INFORMATION

1.01 SAFETY RECOMMENDATIONS

Safety informational symbols used in this manual include:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![DANGER]</td>
<td>DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.</td>
</tr>
<tr>
<td>![WARNING]</td>
<td>WARNING Indicates a hazardous situation which, if not avoided, could result in death or serious injury.</td>
</tr>
<tr>
<td>![CAUTION]</td>
<td>CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.</td>
</tr>
<tr>
<td>![INFORMATION]</td>
<td>Notice is used to address practices not related to personal injury.</td>
</tr>
</tbody>
</table>

Safety for operators and other personnel is a matter of prime concern. Always take necessary precautions to ensure the safety of others, as well as yourself. The first line of defense, in any safety situation, is the common sense and safety awareness of the individuals performing the work. It is important that access to equipment be allowed only to experienced and safety trained employees with good safety histories, who have demonstrated that they consistently follow approved safety procedures. To ensure safety, all equipment must be operated with care and concern. Operators and maintenance personnel must have a thorough knowledge of the equipment’s performance capabilities and operating characteristics, as well as be qualified to perform the work they are required to provide.

It is a common practice, and Cambelt International Corporation fully agrees, that it is necessary and good practice for owners and users of equipment to develop written safety procedures that are specific to the environment and equipment to which personnel will be exposed. This manual may not cover all the safety related concerns specific to your workplace. Owner and/or operators should carefully develop and enforce a safety program that fits their own specific conditions.

The following recommendations are offered as a general safety guide. Local rules and regulations will also apply.

1. **WARNING** Read all warning tag information and become familiar with all controls before operating the equipment.
2. **WARNING** Only qualified, authorized and trained personnel may operate and maintain the equipment.

3. **WARNING** Always use safety protective equipment and clothing such as safety glasses, safety shoes, hard hats, safety harness, etc.

4. **WARNING** Always use proper lock-out and other safety procedures before attempting to clean, oil or perform any maintenance on the equipment. Do not begin without following proper lockout and safety procedures.

5. **WARNING** Take appropriate precautions to protect personnel from falling objects.

6. **WARNING** Never stand or walk underneath the discharge end of the conveyor.

7. **WARNING** Always use proper lock-out / safety procedures before attempting to retrieve or place anything on a conveyor belt.

8. **WARNING** Never reach into, or place any objects into the flow of material as it enters or discharges from the conveyor.

9. **WARNING** Never touch, reach into, or reach over a moving conveyor belt.

10. **WARNING** Keep all loose clothing, hands, body parts and hair away from moving equipment, rotating shafts, belts, chains, etc...

11. **WARNING** Take appropriate precautions to ensure that hands, legs or other body parts do not come in contact with the conveyor belt, drive belt, drive chain, etc.

12. **WARNING** Local safety and health laws and regulations may require that entry into confined spaces be governed by regulations related to limited access / confined space(s). Always use proper safety procedures before entering a limited access / confined space to perform maintenance.

13. **WARNING** Access the equipment using only approved methods such as walkways, stairs, ladders, etc., each with its associated proper personal safety gear, harness, lanyard, etc.
14. **WARNING**  
Never use the conveyor or its housing as a walking or climbing surface.

15. **WARNING**  
Modifications to the conveyor enclosure and/or its supporting structure may effect the structural integrity of the equipment. Consult with Cambelt International before any modifications are made.

16. **WARNING**  
Make sure all guards and covers are properly in place before operating equipment.

17. **WARNING**  
Never operate the equipment with any damaged or missing components, covers, guards, shields, fasteners, etc.

18. **WARNING**  
Corrosion and/or excessive wear will compromise the structural integrity of the equipment. Make certain that the coating system and structural components are maintained in good condition.

19. **WARNING**  
Wash down of equipment -- Appropriate precaution(s) must be taken to ensure the compatibility and safe use of any liquids or chemicals used for cleaning, or any other purpose, with all equipment and other materials or substances in the work area.

20. **WARNING**  
Fire Hazard - The following can potentially generate excessive heat and/or may become a source of ignition of dust or other combustible materials.  
- Slipping V-Belts  
- Damaged Bearings  
- Chemical reactions  
- Static Electricity

1.02 TYPICAL EQUIPMENT
SAFETY LABELS
1.03 TO OUR VALUED CUSTOMERS

We at Cambelt International Corporation (CIC) are pleased that you have selected the CamFlex Conveyor to fill your bulk materials handling need. This manual has been prepared to assist you in making the best possible use of your equipment, and to adequately understand its operation. We have attempted to cover most of the relevant topics, and expect that our efforts are sufficient. If, however, you have any concerns or questions regarding the installation, operation or maintenance of the equipment that are not covered in this Manual, please contact CIC directly, or the Cambelt Representative in your area.

READ THESE INSTRUCTIONS CAREFULLY, and pass them on to any others who will be responsible for the installation, operation and maintenance of the CamFlex Conveyor. The safety of operators and other personnel is a matter of primary concern. Always take necessary precautions to ensure the safety of others, as well as yourself. The first line of defense, in any safety situation, is the common sense and safety awareness of the individuals performing the work. It is important that access to equipment be allowed only to experienced and safety trained employees with good safety histories, who have demonstrated that they consistently follow approved safety procedures. To ensure safety, all equipment must be operated with care and concern. Operators and maintenance personnel must have a thorough knowledge of the equipment’s performance capabilities and operating characteristics, as well as be qualified to perform the work they are required to provide.

Although the equipment is relatively simple, it nonetheless requires regular inspections and adjustments (if necessary) to keep the conveyor in top working condition. Remember, the successful operation of your CamFlex Conveyor depends on how well these instructions are followed.

This manual covers the standard style CamFlex Conveyor. It may not cover all custom designed details, modifications, or options.

While all CamFlex conveyors are similar in design and operation, each work site has its own unique environment and other specific application issues which this manual may not address. Any site specific requirements/procedures pertaining to your installation must be addressed by your operation, maintenance and safety personnel. We, at Cambelt, recommend that the owners and users of the Cambelt equipment develop written safety procedures which are specific to the environment and equipment to which operations or maintenance personnel will be exposed. You should carefully construct and enforce a safety program that fits your own specific workplace conditions.
IMPORTANT!!

Immediately upon receiving the conveyor(s), inspect for damage or indication of rough handling. Make certain that all shafts rotate freely and examine the conveyor enclosure and/or support structure for obstructions or sharp edges in the path of the belt.

**CAUTION** WEAR GLOVES! Sharp edges will cut.

Check for shortages by referring to the packing list or Bill of Materials for a record of items shipped. Report any damage or shortage claims immediately to the carrier, keeping a record of your report; then notify your Cambelt Conveyor representative or CIC. CIC is not obligated to replace, free of charge, items which show as having shipped, according to the Packing List. CIC must be notified within 10 days after receipt of equipment of any shortages and/or damage. Written notification to CIC does not relieve the carrier of its responsibility, but will provide CIC with information that could be needed in the event that CIC’s assistance is required in processing your claim with the carrier. Failure to notify CIC as herein specified will be interpreted to be notice that the equipment was received complete, and in good condition.
I M P O R T A N T!!

In the event problems are encountered in the assembly, installation or erection of your CamFlex Conveyor that could be considered beyond that which is normal and expected, it is required that your Cambelt engineer be notified prior to the affectation of a cure, if the intent is to file a claim against Cambelt as a result of the problem.

CAMBELT WILL NOT APPROVE OR ACCEPT BACKCHARGES FOR LABOR, MATERIALS OR OTHER COSTS INCURRED BY PURCHASER OR OTHERS IN MODIFICATION, ADJUSTMENT, SERVICE OR REPAIR OF CAMBELT-FURNISHED MATERIALS UNLESS SUCH BACKCHARGE HAS BEEN APPROVED, IN ADVANCE OF THE WORK, BY AN AUTHORIZED CAMBELT PRODUCT MANAGER, BY CAMBELT PURCHASE ORDER, OR WORK REQUISITION SIGNED BY CAMBELT.
1.04 **OWNER’S RESPONSIBILITY**

The following are not covered by the Warranty, and are the responsibility of the Owner/Purchaser.

1. Periodic lubrication and maintenance adjustments that become necessary due to use and operation of the conveyor.

2. Changing or adding oil in the Gear Reducer.

   **NOTICE** Conveyors are shipped without sufficient oil in the gear reducer to allow full operation of the drive equipment.

3. Electrical system, wiring, fuses and starters.

4. V-Belt drive adjustments.

5. Conveyor belt adjustments and alignment.

6. Proper feeding of material at designated rate.

7. Changes in physical properties or characteristics of the conveyed material(s).

8. Design of adjacent or auxiliary equipment, to insure unobstructed discharge of material from the conveyor.
1.05 WARRANTY

Cambelt equipment is backed by Cambelt’s reputation as a quality manufacturer, and by many years of proven equipment reliability. Equipment manufactured and sold by Cambelt International Corp. is backed by the following warranty:

Cambelt warrants all new equipment manufactured by Cambelt International Corporation, to be free from defects in material and workmanship, and will replace or repair, F.O.B at its factories or other location designated by Cambelt, any part or parts, which upon Cambelt’s inspection, have failed under normal use and service. Such repair or replacement shall be free of charge for all items, except those items such as conveyor belts, and the like, that are consumable and normally replaced during maintenance, which repair or replacement shall be subject to a pro-rata charge based on Cambelt’s estimate of the percentage of normal service realized from the part. Cambelt’s obligation under this warranty is conditioned upon its receiving notice of any claimed defects within a period of one (1) year from the startup date of the equipment, or eighteen (18) months from the date of shipment, whichever occurs first, and is limited to the repair or replacement, as aforesaid. This warranty is limited only to parts and equipment manufactured by Cambelt, and does not cover any parts, accessories, or components manufactured by others. This warranty shall not apply to any equipment or parts which have been altered or repaired without Cambelt’s knowledge and written consent, or by anyone other than a qualified Cambelt field technician. This warranty shall not apply to any part or equipment damaged by improper installation or application, or subjected to misuse, abuse, neglect or accident.

The sole and exclusive warranty of the Seller under this agreement is the above warranty against defects in material and workmanship. It is agreed herein that the Seller expressly disclaims any other warranties. There is no warranty of merchantability or fitness for a particular purpose, whether written, oral, expressed, implied or statutory. Cambelt neither assumes nor authorizes any other person to assume for it any other liabilities with respect to its equipment. Cambelt shall not be liable for normal wear and tear, or for any contingent, special, incidental or consequential damages, or any other expense, including lost profits, repair or replacement costs due to any partial or complete inoperability of its equipment, for any reason.
1.06 SERVICE AVAILABLE

The CamFlex Conveyor is designed to be installed and serviced by your authorized plant personnel. However, if factory service is desired, please contact your local Cambelt representative or CIC. A schedule of current field service rates will be forwarded to you, upon request. Normally, some advance notice of your need for field service is required, so, if possible, plan ahead. Whenever possible, an order for field service should be placed with your Cambelt representative at least one week in advance of the date on which you would like service to commence.
2.0 INSTALLATION

2.01 INSTALLATION OF THE CONVEYOR HOUSING

**WARNING**  *Installation of the equipment should only be performed by competent personnel familiar with all aspects of the installation including, but not limited to, Civil, Structural, Mechanical, Electrical and personnel safety.*

Normally, all conveyors are fabricated, assembled and shipped in pre-assembled component modules; i.e., Head Section, Tail Section, Turn Section(s), etc. Refer to your conveyor general arrangement drawing and locate the connection flange designations (hexagonal symbols). Connect the modules according to the corresponding match markings on the conveyor modules and the flange designations on the general arrangement drawing. Conveyor modules must be erected in the same order as indicated on the general arrangement drawing in order to ensure proper conveyor alignment.

Be certain that the conveyor is installed plumb and level, and is not bent, crooked, twisted, or skewed. Care must be taken to install the conveyor properly, so as to avoid belt alignment problems which are almost a certainty if the conveyor is not properly aligned.

If conveyor supporting structures are supplied by Cambelt, assemble them as indicated on the appropriate assembly drawings, and connect them to the conveyor enclosure or structure, as indicated on the general arrangement drawing(s).

**NOTICE**  *If welded supports are used, never weld on the conveyor housing after the belt has been installed, unless special precautions are taken to prevent burning of or damage to the belt.*

If conveyor supporting structures are supplied by others, please consult with a Cambelt engineer to determine specific support requirements. Too much support is wasteful, but too little support can meet with disastrous results!

Mount the motor and speed reducer on the conveyor Head Section. Be certain the Head Section is supported adequately to accept the additional weight of the drive equipment.

**WARNING**  *Be certain the Head Section is supported adequately to accept the additional weight of the drive equipment.*
2.02 INSTALLATION OF THE CONVEYOR BELT

The following steps will assist in quickly and easily installing a new CamFlex Conveyor belt.

1. Prepare one end of the new CamFlex Conveyor belting in accordance with instructions detailed in the publication entitled:

   **BELT SPLICE INSTRUCTIONS**
   for
   **CAMFLEX CONVEYOR BELTS (CF) using**
   **FLEXCO 550J FASTENERS**

   Refer specifically to paragraphs 1 thru 3 in said instructions, and follow them exactly. Initially, however, perform all steps necessary to completely install the mechanical belt fasteners on one end of the belt only. After the new belt is in place in your CamFlex Conveyor, go back and complete all the steps necessary to complete the belt splice.

2. Prior to threading the belt, all pulleys should be checked for possible damage or misalignment. Pulleys are checked by rotating them in their bearings. Check to make certain of free rotation, and that the pulleys are centered within the conveyor enclosure(s). If any pulley is not centered, the set screws on the bearing locking collars and the pulley’s hubs and bushings must be checked so the pulley can be re-centered. This may require that the collars and/or bushings be loosened, to permit the pulley to slide back to center on the shaft; then securely re-tightened to prevent further shifting of the pulley on the shaft, or possible movement of the shaft itself.

   If you are unsure of exactly what to do, please call your Cambelt engineer for assistance.

3. With the conveyor enclosure fully erected, remove/open quick-opening access panels, or any cover that will aid in the installation of the belt.

   **NOTICE:** Removal of too many bolt-on covers can result in difficulties related to belt alignment, as enclosure may lose its rigidity. After belt is installed in conveyor, replace bolt-on covers prior to commencing belt alignment procedures.

4. The conveyor belt take-up must be adjusted and positioned to place the tail pulley in its forward-most position, nearest the inlet.
5. Pre-threading a heavy rope or steel cable through the conveyor along the anticipated belt path will aid greatly in the actual threading of the belt. The end of the rope or cable can be attached to the leading end of the conveyor belting and then pulled into the conveyor, leading the belt along the correct belt path.

6. Many belts may be long enough and/or heavy enough that they may require mechanical assistance, by means of a winch or similar device, in order to pull the belt into place. At times, a pickup truck, forklift, or crane may be used to accomplish this, but only while exercising extreme caution. The belt may be easily damaged if proper care is not taken.

   ![WARNING]
   
   **When using mechanical assistance, pickup truck, forklift, etc... to pull the belt, extreme care must be taken to ensure that the rope/cable or the leading edge of the belt does not “catch” or get “hung up” resulting in damage to the equipment or potentially causing injury.**

   ![WARNING]
   
   **Care must be taken to ensure that the rope/cable is of adequate strength and the connections at both ends of the rope/cable to the belt and the pulling device are secure enough that there is no risk of the rope/cable or the connections failing under stress, potentially causing injury.**

   ![WARNING]
   
   **Care must be taken to keep loose clothing, fingers, hands, arms or other body parts clear of the belt as it is being pulled into and through the conveyor.**

Note: Threading of the belt and pulling it into the conveyor is made easier if the conveyor drive pulley is allowed to coast or “float”. Removal of the chain or V-belts from the drive equipment will permit the drive pulley to coast, as needed.

7. It is often recommend that a steel plate be bolted to the leading end of the belt, to assist in drawing the belt through the conveyor. The steel plate should have a hole in it through which the rope or steel cable (see step no. 5 above) is threaded and attached. This plate will prevent the corners on the leading end of the belt from curling downward, which would inhibit easy entry of the belt into and through the conveyor.

   ![WARNING]
   
   **Care must be taken to ensure that the connection from the rope or cable to the belt end is secure enough that**
8. The roll, pallet, or crate of belt, as received from Cambelt, should be lined up with the conveyor so as to allow for free and easy insertion of the belt into the conveyor. Misalignment may result in considerable difficulty in threading the belt into the conveyor.

9. Pulling the belt into the conveyor can be a stop-and-go process. Care should be taken to **slowly** pull the belt while watching carefully to ensure that the leading edge of the belt does not “catch” or “hang-up” while pulling the rope or the old belt.

10. In some cases it is easier to thread the belt into the “return” side of the conveyor first; then up over the conveyor head pulley, and back down the top or “carrying” side of the conveyor.

11. Bring the two ends of the belt together at an easily accessed point, where the belt splice may be performed. Refer again to the belt splicing instructions noted in step no. 1 above, and complete the belt splice.

Specific belt splicing instructions are included in the splice kit that is shipped with your conveyor. The splice kit will normally be located in the wooden shipping crate that also contains the conveyor drive motor, speed reducer, and other conveyor accessories.

**FOLLOW THE INSTRUCTIONS** included with the splice kit!

12. With the belt splice completed, replace/close all quick-opening access panels, or any bolt-on cover that was removed or opened.

13. After the belt has been installed, and prior to running the belt, check the belt covers for dings and dents which may have been incurred during shipping or erection. All dents must be removed so the belt will not make contact with any of the belt covers.

Clearance must also be checked between the belt top and the cover plate around the inlet hopper. Hopper weight, material weight, or other loads transferred to, or imposed upon the inlet area top cover may cause the top plate to deflect or sag into the belt path. If this occurs, add supports to the inlet hopper, thus relieving the conveyor enclosure of any weight or load from the inlet hopper. In unusual cases, the top cover may be shimmed, to provide additional required clearance.
14. Tension (see section 2.03) and align the belt (see section 2.04).

WARNING

When running the belt for initial testing, for alignment and maintenance procedures, or for operation with any covers open, keep all loose clothing, hands, legs, body parts, hair and tools away from the openings and any moving parts.

Never reach into the opening.

The moving belt or associated moving parts may cause death or serious injury.
2.03 TENSIONING THE CONVEYOR BELT

A CamFlex Conveyor utilizes a manual screw-type belt take-up for removing the slack from the belt.

No specific formula exists to determine the amount of tension that should be applied to a belt. Some simple rules to follow, however, are that the belt should only be tensioned to a point that:

1. When the belt is first started, no slipping of the belt at the drive pulley is detected.
2. Enough tension has been applied to allow for good control of belt alignment at the conveyor pulleys.
3. Open the cover at the end of the Tail Section. Using a lamp or flashlight, observe the amount of belt sag between idler rolls on the carrying side (upper) of the conveyor belt. It is best to observe the sag between idler rolls that are spaced at least 3'-0" apart from each other. Idler rolls located directly beneath the inlet chute are spaced only 12" apart from each other, and will not provide a fair assessment of belt sag. Between idler rolls spaced at least 3'-0" apart from each other, if the observed belt sag is more than approx. 3/4", the belt is likely too loose; if no sag is observed, the belt is likely too tight.
4. Never attempt to tighten the belt so much that the return side belt (lower) is suspended above the bottom cover of the conveyor enclosure (if the conveyor is enclosed). If such a condition is observed, the belt is too tight, which will likely result in eventual belt splice failure and/or extreme difficulty in achieving proper belt alignment.

A new conveyor belt will experience most of the expected stretch in a relatively short period of time. A new belt normally stretches approximately 1.5% of its length. In other words, a 100 foot long loop of belt will experience belt stretch of approximately 1.5 feet (18 inches) or 9 inches of travel in the belt take-up. Again, the major part of this stretch will occur in the first several weeks of operation, and once that initial stretch is gone, belt tensioning maintenance may be done on a less frequent basis. Initially, however, frequent attention must be paid to belt tension in order to avoid damaging a belt by allowing it to run too loose, while the belt is stretching. If the belt is loose and the take-up pulley has no travel adjustment left, the belt may be shortened and respliced.

As a belt is tensioned, care should be taken to prevent misalignment of the belt at the pulleys. A belt that is too loose will not align properly. A belt that is too tight will also not align properly. The belt must have sufficient tension to prevent it from slipping on the head (drive) pulley when
under maximum load.

**NOTICE**  *Over-tensioning the conveyor belt may result in belt damage.*

Observe the conveyor carefully during the first several days of operation, as this is when most belt stretch will occur. Re-tensioning will likely be necessary during this period.

If misalignment occurs, correct it immediately! (See section 2.04)
2.04 BELT ALIGNMENT

In order to realize maximum life from your conveyor belting, keeping the belt in proper alignment is a matter of the **highest priority**. Improper alignment may result in damage and deterioration of the edges(s) of the belt, as well as the corrugated sidewalls, and will likely result in spillage of the conveyed material at the conveyor inlet.

Primarily, belt alignment corrections are accomplished by adjusting the alignment of the conveyor pulleys. Once the belt has been installed, the conveyor should be run while empty, and the belt checked for proper alignment. A properly aligned conveyor has the belt running evenly in the center of the conveyor and at all conveyor pulleys, and therefore prevents damage to the belt edges resulting from contact with supporting structures or other objects. It is common, with most belts, to see some “wandering” of the belt from side to side on the conveyor. As long as the wander is not severe, simply make the appropriate belt alignment adjustments such that the belt averages out pretty well in the center. If a misalignment problem recurs, realign the belt by readjusting the head, tail, turn pulleys, as well the belt idlers rolls, if necessary.

If alignment problems persist, it would be well to check the conveyor structure alignment. Structural misalignment can make a belt almost impossible to track.

If one section of a belt runs true and another section runs out of line, then generally the belt ends were not properly squared when the splice was installed.

If the belt runs out of line consistently at one point in one of the conveyor straight runs, or if adjustment of the pulleys will not correct misalignment at a pulley terminal, the condition may be attributed to misaligned idler rollers. Usually the idlers that require adjustment will be located upstream of the point at which the belt runs out of line. Proper alignment is achieved by loosening the bolts at the idler brackets on several idlers on the upstream side, and skewing them slightly. When one side of an idler is shifted ahead of the other, the belt shifts to the side which is behind. Re-tighten the mounting bolts before completing belt alignment adjustments.

The following steps will assist in aligning the belt.

1. Remove inspection covers nearest each pulley, for observation.

   **WARNING**  
   *When running the belt with any covers open keep all loose clothing, hands, legs, body parts, hair and tools away from the openings and any moving parts.*

   *Never reach into the opening.*

   *The moving belt or associated moving equipment may cause death or serious injury.*
2. **WARNING** Prior to starting the conveyor, be sure the conveyor is clear of all tools and foreign objects.

3. Adjust belt alignment at each pulley with the conveyor running. It is common, with most belts, to see some “wandering” of the belt from side to side on the conveyor. As long as the wander is not severe, simply set the belt alignment such that it averages out pretty well in the center. The belt will drift to the slack side of the pulley at the Head and Tail Sections of the conveyor, but will normally run to the high (tight) side of the pulley at lower pulley in a Turn Section.

**NOTICE** Belt alignment just ahead of or prior to the flanged pulley in the conveyor turn section(s) is critical, and is of major importance, if your conveyor is of an “L” or “Z” configuration. Misalignment in this area will cause the belt to enter the flanged pulley in such a way that the corrugated sidewall will scrub against the interior side of the flange, causing severe abrasion to the sidewall of the belt. The existence of this condition will be clearly evident if you observe that the smooth, round edges of the corrugations of the sidewall are being “squared off”. **THIS IS A COMMON OCCURRENCE, SO LOOK FOR IT!** It is also possible that the sidewall of the belt may completely climb over or “jump” the flange of the pulley if misalignment is severe enough. When this condition occurs, adjust the idlers leading up to the flanged pulley (see step 4 below).

4. Adjust belt alignment using idler rollers, if necessary. If the belt runs out of line consistently at one point in one of the conveyor straight runs, or if adjustment of the pulleys alone will not correct misalignment at a pulley terminal, the condition may be attributed to misaligned idler rollers. Usually the idler rollers that require adjustment will be located upstream of the point at which the belt runs out of line. Proper alignment is achieved by loosening the mounting bolts on several idlers on the upstream side and skewing them slightly. When one side of an idler is shifted ahead of the other, the belt shifts to the side which is behind. Re-tighten the mounting bolts before restarting the conveyor.

**WARNING** *The belt MUST BE STOPPED AND NOT RUNNING when adjusting idler alignment.* *Never reach into any opening with a moving belt or equipment. The moving belt or associated equipment may cause death or serious injury.*

**NOTICE** Re-tighten the mounting bolts before restarting the conveyor.

**NOTICE** Do not shift idlers on a reversing belt as this will detrain the belt when the belt travel direction is reversed.
5. Once a consistent central belt alignment has been achieved on the carrying and return runs with an empty belt, belt alignment should again be checked while the conveyor is carrying a full load.

It is not unusual to have to readjust the belt alignment while the belt is loaded, even though the empty pre-aligned belt was running straight.
2.05 WASTE-PACK ENCLOSURES

Many enclosed CamFlex Conveyors are equipped with waste-pack boxes that encase the take-up bearings on the conveyor’s tail pulley. Absent of these boxes, the bearings would be constantly exposed to dust and spilled or carried-back material(s) that accumulate in the take-up frames surrounding the bearings.

The waste-pack boxes come from Cambelt’s factory completely and tightly stuffed with new, clean cotton string material. The tightly packed string acts as a filter through which contaminants would have to first pass before coming into contact with the bearing and its own factory manufactured seal system. Under normal operating conditions, unless highly unusual conditions exist, the string provided should be adequate and not require replacement or re-charging during the lifetime of the take-up bearing.

If the string wraps around and interferes with the rotation of the take-up screws, this condition may be remedied by injecting a lubricating oil into the waste-pack enclosure and saturating the string with oil.

When take-up bearing replacement occurs, previously used string packing may be re-used if it is clean. Soiled or contaminated string should be replaced. The key issue here is: pack the box full and tight!
2.06 ZERO SPEED SWITCHES

1. Application.

Conveyors that are left unattended during operation should be equipped with a Zero Speed Switch that is mechanically connected to a rotating shaft on one of the conveyor pulleys. In the event that the conveyor becomes jammed and/or the belt speed drops below a preset percentage, the Zero Speed Switch is designed to send a signal to the conveyor controls system. Without this type of protective device, the drive equipment on an unattended conveyor that has become jammed could continue to operate, causing serious damage to the conveyor belt, the motor, and other component parts.

2. Principle.

As the conveyor belt runs, the pulleys and shafts should be rotating with it. One of these shafts is mechanically coupled to the Zero Speed Switch shaft. Should the conveyor belt speed drop below a preset percentage, the switch will send a signal to the conveyor controls system. What the controls system does with that signal is left up to the discretion of the owner of the conveyor. Very often, the signal initiates immediate disruption of power to the conveyor drive motor, preventing damage to the conveyor belt. Alternatively, the signal may activate an audible alarm, alerting operations personnel to an immediate potential problem, allowing the operator to take immediate precautionary action(s).

3. Mounting Location.

A Zero Speed Switch may be mounted at any non-driver pulley on a conveyor. The selected pulley should be one where belt-to-pulley contact is consistently good. The switch is mounted at the conveyor assembly plant at the pre-selected pulley shaft location; then it is disassembled and packed into the wooden shipping crate, along with the conveyor drive equipment, to prevent damage to the switch during shipment.

4. Wiring.

The Zero Speed Switch comes complete with a variety of wiring diagrams for connecting the switch to the controls circuit best suited to the individual requirements of the conveyor user.
2.07 ROTARY BELT THUMPER

A Rotary Belt Thumper is a belt cleaning device that is used on a belt that does not have a smooth belt surface, thus preventing the use of a belt scraper. The thumper creates a beating action on the backside of the belt very near the point where the belt leaves the conveyor head pulley contact area. Its purpose is to shake loose material which may have stuck to the belt at the discharge point.

It is most unusual for a CamFlex Conveyor to be equipped with a Rotary Belt Thumper. If, however, your conveyor has been equipped with a belt thumper, there are several items which should be checked periodically.

1. When installing the belt thumper, be sure that the rotation of the thumper is running counter to the belt’s direction of travel. If the rotation is incorrect, change polarity on the motor wiring to correct the direction of rotation.

2. Slotted holes and adjusting screws have been provided as a means of adjusting the belt thumper upward and downward to provide a means of adjusting for proper amplitude of the thumping action against the belt. Make sure good, solid contact is made with the bottom of the conveyor belt. The belt thumper should not be permitted to beat the belt with so much force as to cause excessive or premature wear of the bottom cover of the belt.

3. The externally mounted flange bearings of the belt thumper should be checked and lubricated as needed.

4. The oil level in the right-angle gearbox of the thumper drive should be checked as a part of your routine maintenance.

5. Visually inspect all four (4) thumper rollers and the thumper roller bearings on a regular basis.

6. If your thumper is equipped with chain drive, visually inspect and oil the chain as necessary.
2.08 THE CONVEYOR INLET

History has proven that a high percentage of problems experienced with belt conveyors result from conditions relating to, or originating at the conveyor inlet. Improper feeding of the belt may result in material spilling over the edge(s) of the belt and in overfilling the belt with material beyond what the belt is capable of taking away and elevating up the inclined portion of the conveyor.

Generally speaking, the use of skirtboards is impractical with a corrugated sidewall conveyor belt. We rely upon the sidewall themselves to stop the flow of material from escaping or flooding over the edges of the CamFlex belt. It is vital, therefore, that, as much as possible, the flow of material into the conveyor inlet be directed toward the center of the belt and away from the sidewalls. If your CamFlex Conveyor has been supplied with a set of orifice plates and slide gate at the conveyor inlet, **DO NOT DISCARD THEM!** They will aid greatly in directing the flow of material onto the belt, thereby minimizing spillage and overfilling, while at the same time allowing full use of the pocket width and height of the sidewalls and cleats of the belt in order to achieve required throughput rates.

A CamFlex Conveyor **must not** be overfilled at the inlet! An ancillary feeder is often required with a CamFlex Conveyor. Commonly used feed methods include variable frequency vibrating pan feeders, screw conveyors, rotary valves, etc.; but again, the orifice plates and slide gate mentioned above are your best prevention against belt overfill.
2.09 THE CONVEYOR DISCHARGE

Always be certain that the conveyor discharge chute or transition is kept free from build-up or obstruction. The results of a partially or fully plugged chute can be disastrous, as the conveyor housing will quickly fill full of the material that should have gone down the discharge chute, resulting in a jam of the entire conveyor system. Regular inspection of the discharge chute, or installation of a plugged chute switch may go a long way toward eliminating such an undesirable event.
3.0 OPERATING THE 
CAMFLEX CONVEYOR

Good conveyor system engineering practice requires that a conveyor be started prior to the introduction of product onto a belt and, conversely, the feed source be stopped prior to shut down of a conveyor belt. Whenever possible, adherence to this rule is very important. If your system includes a mechanical feed device just upstream of the belt conveyor, your system control logic should provide for a sequential start-up which will start the belt conveyor approximately 5 to 10 seconds prior to the start-up of the feed device, and then shut down the feed device, allowing adequate time for the product on the conveyor belt to be discharged prior to stopping the conveyor belt.

Your conveyor has been supplied with a drive package that has sufficient horsepower to start the belt with a full design capacity load on the belt. This does not necessarily mean, however, that the belt will start under all conditions. Conditions such as an overloaded and packed conveyor housing, overloaded belt at the conveyor inlet point, extremely cold temperatures, loose V-belts, etc., may cause failure of the conveyor to start.

Prior to 1st time use, check the oil level in the Gear Reducer. Verify that the Gear Reducer has been filled with oil (refer to lubrication instructions on Gear Reducer nameplate and manufacturer’s instruction manual). The Conveyor’s gearbox/reducer is shipped with only a small amount of oil in it. Additional oil must be added before use.

Prior to 1st time use Grease all pulley bearings. The Conveyor’s bearings have only a small amount of grease in them when shipped from the factory. Be sure to add more grease.

Make certain bearings and drive equipment have been serviced according to their respective manufacturer’s instructions, and the operation and adjustments of the drive equipment are thoroughly understood. Special attention to the V-belt drive is necessary during initial start-up and operation, as new V-belts will tend to stretch. 3V section belts, which are commonly used, must operate under greater tension than that required with other grades or sizes of V-belts.

The following steps should be followed when starting and stopping the conveyor.

**Starting the conveyor**

1. Start the conveyor belt without load, and allow 5 to 10 seconds for it to accelerate to full
operating speed before initiating material feed into the conveyor.

2. Start feeding material into the conveyor.

3. Adjust/verify the correct orifice plate and slide gate combination settings, to insure proper belt fill and conveyor capacity.

The CamFlex Conveyor is normally equipped with an adjustable shut-off gate and interchangeable orifice inlet plates for the inlet to the conveyor (see Section 2.08 of this manual for additional information).

The inlet is designed to control the flow of material onto the belt. If the material being conveyed is allowed to enter the inlet with no attempt at control, it is possible for the belt to accept more material than it can elevate. If this occurs, the excess material may spill over the sidewalls, eventually filling the Tail Section, which could jam and break the conveyor belting.

Three (3) different size orifice plates are supplied as standard equipment with each CamFlex Conveyor. They are normally packed inside the shipping crate, along with the conveyor’s drive equipment. Care should be taken that they are not misplaced or lost during installation of the conveyor, as they will be needed in order to control material flow into the inlet of the conveyor.

The proper combination of the length of the inlet opening (controlled by the adjustable slide gate) and the width of the inlet opening (depending on the size orifice plate used) will generally give adequate control of the material entering the conveyor. Some experimentation may be necessary to determine the correct combination of length and width of the opening for any given material. It is always good practice to begin using the orifice plate with the narrowest slot, and then adjust the length of the inlet opening with the adjustable slide gate. The inlet opening width can be increased by replacing the narrowest slot orifice plate with an orifice plate that has a wider slot, to allow for appropriate material flow.

The conveying capacity of the CamFlex Conveyor is measured by volume, i.e., cubic feet per hour; not weight per hour. Never feed more material to the belt than the conveyor was designed to handle. If in doubt as to how much material you are feeding to the belt, remove an inspection cover, just past the feed area, and observe the belt while it is running.

**WARNING**

> When running the belt with any covers open keep all loose clothing, hands, legs, body parts, hair and tools away from the openings and any moving parts.
Never reach into the opening.

The moving belt or associated moving equipment may cause death or serious injury.

Normally, the belt should be less than about 60% full. An amperage check should be taken while the belt is operating at its determined capacity. If the amperage reading is greater than that stamped on the motor nameplate, you may be over-feeding, and thus over-filling the belt. Amperage should not pulsate excessively; such a condition could also indicate an overloaded belt condition.

Stopping the conveyor

1. Stop feeding product into the conveyor and allow the material on the conveyor belt to be completely discharged before stopping the conveyor. The use of a short time delay between the cut-off of material being fed to the conveyor and stopping the conveyor drive motor will normally allow the belt to clear.

As a generally accepted practice, it is not advisable to stop the conveyor while the belt is loaded. Whenever possible, all material in the belt should be discharged before stopping the conveyor. If the conveyor is stopped while loaded, the material in the belt will generally (depending on the flowability, particle size, and weight of the material) run to the low point of the conveyor. The low point(s) will be either a Turn Section or a Tail Section (or both), and may cause an overload condition when the belt is restarted. Should this occur, it may be necessary to remove the covers at the low points, and clear the excess material from the housing before the conveyor can be restarted.

2. Stop the conveyor belt.

In the event that the belt must be shut down with the belt fully loaded, due to an emergency situation, re-starting the belt may prove difficult. Prior to attempting to restart the belt, close any open slide gate(s) at the conveyor inlet. Attempt to re-start the belt. If it will not re-start, start the conveyor in the REVERSE direction (if the drive gearbox is not equipped with an internal backstop) for a few seconds, then return the belt to the FORWARD direction, repeating this procedure, until the jammed belt will freely continue to move in the FORWARD direction. Allow the belt to fully discharge, then re-open the
slide gate(s) to resume conveying product.

**WARNING**  
*Do not attempt to reverse direction of the conveyor belt too quickly. Damage to mechanical components could result causing personal injury. Allow a couple of seconds between directional changes.*

**WARNING**  
*When clearing a jammed conveyor belt **ALWAYS** use proper lock-out and other safety procedures before attempting to clear or remove any excess material from the belt. **NEVER** reach into or place any objects on the conveyor belt without performing **ALL** proper lock-out and other safety procedures which will prevent the conveyor belt from starting and causing personal injury.*

**NOTICE**  
*When working with a jammed conveyor belt, **NEVER** allow the head pulley to spin beneath the conveyor belt; doing so will result in damage to the back side of the belt.*
4.0 **MAINTENANCE AND LUBRICATION SCHEDULE**

**WARNING** Only qualified, authorized and trained personnel may operate and maintain the equipment.

**WARNING** Always use proper lock-out and other safety procedures before attempting to clean, oil or perform any maintenance on the equipment. Do not begin without following proper lockout and safety procedures.

**WARNING** Always use safety protective equipment and clothing such as safety glasses, safety shoes, hard hats, safety harness, etc.

**WARNING** Keep all loose clothing, hands, body parts and hair away from moving equipment, rotating shaft, belts, chains, etc...

**WARNING** Take appropriate precautions to ensure that hands, legs or other body parts do not come in contact with the conveyor belt, drive belt, drive chain, etc.

<table>
<thead>
<tr>
<th>Maintenance Task</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10 Hours, or Every Day</td>
</tr>
<tr>
<td></td>
<td>Every 50 Hours</td>
</tr>
<tr>
<td></td>
<td>Every 100 Hours</td>
</tr>
<tr>
<td></td>
<td>Every 150 Hours</td>
</tr>
<tr>
<td></td>
<td>Every 300 Hours</td>
</tr>
<tr>
<td></td>
<td>Every 2500 Hours (6 months)</td>
</tr>
<tr>
<td>Check Bearings: grease if needed</td>
<td>X</td>
</tr>
<tr>
<td>Gear Reducers - Inspect for oil leaks</td>
<td>X</td>
</tr>
<tr>
<td>Gear Reducers - Check Oil Level</td>
<td>X</td>
</tr>
<tr>
<td>Gear Reducers - Change Oil</td>
<td>X</td>
</tr>
<tr>
<td>Check Drive Belt or Chain tension</td>
<td>X</td>
</tr>
<tr>
<td>Check Conveyor Belt tension</td>
<td>X</td>
</tr>
<tr>
<td>Check Conveyor Belt alignment</td>
<td>X</td>
</tr>
<tr>
<td>Check Conveyor Belt wear</td>
<td>X</td>
</tr>
<tr>
<td>Check Belt Splice for wear, fatigue or damage</td>
<td>X</td>
</tr>
</tbody>
</table>
5.0 TROUBLE-SHOOTING GUIDES

**WARNING**  Use proper lock out procedures to prevent the conveyor from starting while personnel are cleaning out or maintaining the equipment.

5.01 CONVEYOR “JAM-UP”

When the conveyor belt stops while in operation due to a “jam-up,” one of the following conditions will commonly occur, simultaneously.

1. Conveyor belt slippage on the head pulley.

2. V-belt slippage on the motor drive sheaves.


In order to take the proper corrective action, check the following possible causes for the jam-up.

1. Conveyor belt Tension. Inadequate conveyor belt tension can cause slippage of the belt at the head pulley, with a resulting jam-up. For conveyors equipped with a manual screw-type take-up, slippage will commonly occur as a result of normal and expected belt stretch. Belt tension can be increased and corrected by turning the take-up adjusting screws on either or both sides of the Tail Section. Care should be taken to see that proper belt alignment is maintained during re-tensioning of the belt (see section 2.04).

2. Overloading. Wherever possible, the CamFlex Conveyor should have a controlled feed. If the material being conveyed is allowed to enter the inlet with no attempt at control, it is possible for the belt to receive more material than it can elevate. When this happens, the excess material will eventually accumulate in the lower portions of the conveyor, and could cause it to jam up. Two generally accepted methods of control are as follows.

   A. The CamFlex Conveyor is normally equipped with an adjustable slide gate and replaceable orifice inlet plates for the inlet to the conveyor. Three (3) sizes of orifice plates are furnished as standard equipment. The proper combination of the length of the inlet opening (controlled by the adjustable slide gate) and the width of the inlet opening (depending on the width of the slot in the orifice plate being used) will generally provide adequate control of the material entering the conveyor. Some trial-and-error experimentation will be necessary to determine the correct combination of length and width of the opening for a given material. It is always good practice to start by using the orifice plate with the narrowest slot, and then
adjust the length of the inlet opening using the adjustable slide gate, or the width of the opening by changing to an orifice plate with a wider slot, until you have determined the proper combination for the amount of material to be conveyed, in keeping with design capabilities. A change in the flow characteristics of the material due to moisture content, particle size, etc., may require a change in the size of the inlet opening. Some material accumulation in the Turn and Tail Sections is normal, and will not affect the operation of the conveyor, as this material is normally re-entrained onto the belt after the accumulated pile of material has reached its angle of repose. If an accumulated material pile hardens due to moisture, pressure, etc., it will interfere with the free travel of the belt, and cause unnecessary and excessive belt wear. Remove material build-up, as required.

B. When space is available, a feeder can be used to control the flow of material to the inlet of the CamFlex Conveyor.

3. Restricted Discharge. An unrestricted discharge is necessary to insure proper operation of the CamFlex Conveyor. Any build-up of material at the discharge could cause the material to back-leg down the return housing of the CamFlex Conveyor, with resultant jam-up. Common causes of back-legging are as follows.

A. Overfilling of the bin, hopper or vessel being filled by the CamFlex Conveyor.

B. Inability of auxiliary equipment (elevators, conveyors, mixers, etc.) receiving material from the CamFlex Conveyor to take the material away as quickly as it is being received.

C. Improper discharge chute design. The angle of decline in discharge chutes should rarely be less than 50 degrees, in order to insure proper flow of material away from the CamFlex Conveyor.

4. Material Build-Up. In normal operation of the CamFlex Conveyor, some accumulation of loose material will occur in the lower portions of the conveyor. A hardening of this material due to moisture content, pressure, chemical reaction, etc., could cause excessive drag on the belt, with resultant belt wear and possible drive equipment overload. An inspection of the belt may reveal unusual wear, and give indications of where this build-up is occurring.

WARNING

When running the belt with any covers open keep all loose clothing, hands, legs, body parts, hair and tools away from the openings and any moving parts.
Never reach into the opening.

The moving belt or associated moving equipment may cause death or serious injury.

5. Belt Alignment. Improper belt alignment can contribute to conveyor malfunction by causing excessive drag on the belt, which could show up in either belt slippage or overloading the drive motor. See section 2.04 of this manual for instruction on how to align belt.

6. Pulley Alignment. If pulleys become misaligned, they can rub against the side of the conveyor housing, causing wear, as well as excessive overloading of the drive motor and belt misalignment, all of which can contribute to conveyor malfunction. Pulley and bearing adjustment devices are located at most bearing locations. Where adjustment devices are not provided, pulleys at those locations do not require alignment adjustment.

7. V-Belt Slippage. The CamFlex Conveyor drive is commonly equipped with 3V-section drive belts. 3V-section belts generally require more tension than 5V, 8V, A, B, C or D section belts. Proper V-belt tension is maintained by adjusting the motor mount in a direction away from the driven pulley.

WARNING

Never operate equipment without belt guards in place.

WARNING

When equipment is running with any covers/guards removed, keep all loose clothing, hands, hair and tools away from the openings and any moving parts.

Never reach into the opening.

The moving belt or associated moving equipment may cause death or serious injury.

WARNING

Fire Hazard - Slipping V-Belts generate excessive heat and may become an ignition source of dust or other combustible materials.

NOTICE

Drive belts should always be adjusted prior to start-up, and frequently during the first few days of operation.
8. Obstructions and Sharp Edges. During assembly of the CamBelt Conveyor, extra care should be taken to insure that there are no obstructions or sharp edges in the path of the belt.

![CAUTION] *WEAR GLOVES! Sharp edges will cut.*

Damage which might occur during shipping and handling, if not corrected prior to assembly, can cause belt damage and/or excessive drag on the belt, with resultant wear, and also contribute to conveyor malfunction. Most common areas where this can occur are at flanged connections where Intermediate Sections are bolted together, or to Turn, Head or Tail Sections, and to the belt covers, where dents or bends can cause a restriction to the belt. If the belt shows excessive wear, a check should be made to determine the reasons, and locate any obstruction. Foreign objects left in the conveyor during erection, or introduced into the conveyor along with the material to be conveyed, could cause serious damage to the conveyor.
5.02 BELT WEAR

1. Check to see if there is damage or abnormal wear on the belt, which might be caused by a mechanical problem in the conveyor, or a foreign object in the conveyor.

2. An incorrectly spliced belt can cause belt wear or damage. Check to see that the ends of the belt are cut squarely, and that there are no edges that protrude beyond the body of the belt.

3. A material being conveyed, which has a high oil content, can cause the belt to soften and/or swell. Other materials may cause the belt to abrade or may attack the belt fabric.

4. All pulleys must rotate freely. Check for damaged or faulty bearings that may cause a pulley to lock or inhibit free rotation of the pulley.

5. If a belt is threaded through the conveyor housing improperly, severe belt wear or damage will occur.

6. Normal wear may result in small quantities of rubber being present in the material being conveyed. Generally, there is not enough to be visible; but if excessive amounts of rubber are observed, review and check items 1 thru 5, listed above.

7. An accumulation of hardened material at any point in the conveyor, where it interferes with free passage of the belt, will cause unnecessary belt wear. Promptly remove any such accumulations of hardened material.
5.03  BELT ALIGNMENT

1. Misalignment of the belt is often caused by a pulley which is out of alignment. Adjust the bearings on the problem pulley shaft by loosening them and moving them in their slots, using the bearing adjustment device(s). If the belt does not become aligned by moving the bearings in one direction, try the opposite direction. You would normally move the bearings, on opposing sides of the conveyor housing, in opposite directions.

2. Build-up of material on pulley faces can cause a belt to mis-align.

3. A crooked belt splice, causing a “dog-leg” in the belt, can cause a misalignment.

4. Deterioration of the belt, through chemical or mechanical means, can cause the belt to be difficult to align.
5.04 LOW CAPACITY

If the conveyor has operated for a period of time adequate to ascertain an accurate volumetric delivery rate, and the delivery rate is less than that for which the conveyor was designed, possible causes may include:

1. A restriction at the inlet to the conveyor.

2. Bridging of the material above the inlet is a common cause of low capacity. An agitator device or lump breaker above the conveyor inlet may resolve this problem.

3. If material does not flow into the belt, even when the inlet opening is at its largest, unusual characteristics of the material may require an even larger inlet opening. Contact your Cambelt representative or CIC.

4. Changes in the physical characteristics or flowability of the material, or erroneous design information being provided to CIC may have resulted in the implementation of an inappropriate belt speed. Since the ability of a given material to enter the belt properly, as well as the ability of the conveyor to deliver the desired capacity, is directly affected by belt speed, it is very important that the correct belt speed be employed. Contact CIC or your Cambelt representative if the conveyor’s optimum belt speed is in question.

5. As indicated in paragraph 4 above, changes in the characteristics of the material being conveyed can affect the operation of the CamFlex Conveyor. An increase in particle size, density, or moisture content will generally decrease the capacity of the conveyor, as a result of the changed flow characteristics of the material.
5.05 GENERAL

1. CamFlex belts in conveyors of high incline configurations, and with short horizontal sections, should coast some distance when power to the drive is terminated. If the belt does not coast, it could indicate a condition that is causing excess drag on the belt. A check should be made to see that the belt is properly aligned, or that there are no obstructions to the belt, or build-up of material which might interfere with belt travel. Conveyors with long horizontal sections often will not coast.

2. Many times, operational problems are people problems, rather than mechanical ones. Make sure that your operations and maintenance people understand those operational features that are peculiar to the CamFlex Conveyor. If they do, the CamFlex Conveyor will provide years of dependable service. Contact CIC or your Cambelt representative for assistance in understanding any phase of its operation or maintenance, should the need arise.

3. Bearing Lubrication. Bearings have been factory pre-lubricated, by the bearing manufacturer, with high quality grease. For normal conditions of service, no further lubrication of bearings is required until your plant’s normal maintenance lubrication interval(s). Normal service is considered to be operation in a clean, dry atmosphere at temperatures between 20°F and 180°F, and at surface speeds up to 2100 ft. per minute. This corresponds to a 1” shaft at 8,000 RPM; a 2” shaft at 4,000 RPM; or a 3” shaft at 2,700 RPM.

   **NOTICE**

   Bearings should be inspected once a month, and lubricated as required. Do not over-lubricate, as seal rupture may occur. See the manufacturer’s specification sheets enclosed.

   **NOTICE**

   Gear boxes are shipped WITHOUT OIL. Gear boxes must be filled with the proper oil before operating the conveyor. See the manufacturer’s specification sheets enclosed.

4. For operational information on motors provided, see the manufacturer’s specification sheets provided in the CamFlex Conveyor manual.