



CASE ELEVATOR INSTALLATION AND SERVICE MANUAL

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NERCON PROPRIETARY STATEMENT

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Recipient of this manual acknowledges that they will abide by the instructions contained in this manual and in any optional training classes purchased from NERCON. Installation and startup supervision services are also available for purchase from NERCON. Recipient will not tolerate any operation that is contrary to these instructions. If the recipient observes equipment that presents a hazard, he will promptly inform NERCON so that a solution can be achieved.

Table of Contents

Section 1: Introduction	
How to Use This Manual	1-1
Integration.....	1-2
Operational Concepts	1-3
Section 2: Safety	
General Safety	2-1
Mechanical Safety Guidelines	2-2
Electrical Safety Guidelines	2-3
Electrical Code	2-3.1
Control Stations	2-3.2
Safety Devices	2-3.3
Emergency Stops and Restarts.....	2-3.4
Application Safety	2-4
Transfer, Loading and Discharge Points.....	2-5
Section 3: Installation	
Installation	3-1
Unloading	3-1.1
Standing Up.....	3-1.2
Completing Assembly.....	3-1.3
Wiring.....	3-1.4
System Sensors.....	3-1.5
Section 4: Initial Start-up Check List	4-1
Section 5: Description of Electrical and Pneumatic Devices	
Description of Standard Electrical and Pneumatic Devices	5-1
Description of Optional Electrical and Pneumatic Devices	5-2
Section 6: Basic Mechanical Operation and Adjustment	
Adjustment for Case Size	6-1
Section 7: Basic Electrical Operation	
Description of Operator Interface Pushbuttons	7-1
Description of Operation in Auto Mode.....	7-2
Description of Purge Mode.....	7-3
Manual Mode Operation	7-4
Section 8: Periodic Inspection Guide	
Introduction	8-1
Purpose	8-2
Periodic Inspection.....	8-3
Cleaning	8-4
Non-Washdown Elevators	8-4.1
Washdown Elevators.....	8-4.2
Section 9: Troubleshooting Guide	
Electrical and Pneumatic Troubleshooting.....	9-1
Mechanical Troubleshooting.....	9-2
Section 10: Support Drawings	
Case Elevator Nomenclature.....	10-1
Case Elevator Standing-Up Procedure	10-2
Case Elevator Electrical Components.....	10-3
Section 11: Spare Parts List	11-1
Section 12: Supplemental Manuals	
Intralox Belting.....	12-1

Demag Brakemotor	12-2
Dodge Reducer	12-3
Dodge Bearings	12-4
Guardian Coupling	12-5
Bimba Cylinders.....	12-6

Section: 1 - Introduction

1-1: How to Use this Manual

This manual is supplied to assist you in installing, maintaining, and servicing NERCON CASE ELEVATORS. It is essential for safe and efficient operation that the information and guidelines presented here are properly understood and implemented. Following is a brief description of the information contained in each section:

1. Introduction: Basic information about the manual and the system and trademarks/servicemarks (if any) used in the manual.

2. Safety: Safety precautions for Case Elevator operation and maintenance.

3. Installation: Mechanical and Electrical information about the installation of the Case Elevator.

4. Initial Start-up: Checklist of required items and settings needed for a Case Elevator start-up.

5. Basic Operation and Adjustment: How to make adjustments and what to look for when making adjustments.

6. Periodic Inspection Guide: One of the most important factors in the overall cost effectiveness of your Case Elevator is the periodic inspection; that is, eliminating the cause of potential trouble before the trouble occurs. This concept makes it possible to perform maintenance and repair operations on a predetermined schedule rather than according to chance. Implementing a periodic inspection program on your NERCON equipment serves to increase its dependability, longevity, and efficiency, all of which add up to lower operating costs.

7. Troubleshooting: Despite the best operating techniques and preventive maintenance program, machines do sometimes fail. This section contains suggested step-by-step methods to aid in detecting the cause or causes of these failures.

Observe the equipment when it is functioning properly in order to detect failure and/or to perform maintenance or adjustment on the equipment.

1-2: Integration

- The Case Elevator is designed to move cases from one conveyor to another at a higher elevation with little horizontal motion. This process allows for accumulation on the upstream end but not the downstream end. If the equipment directly

downstream of the elevator is no longer taking product away, the elevator must be stopped or paused.

- The elevator may come with a downstream and upstream conveyor, one of the two, or neither depending on the design.
- Whether or not a downstream conveyor is provided, Nercon will provide a photo eye to detect any backups on the discharge conveyor. If an infeed conveyor is not provided by Nercon then it is recommended that photo eyes be used to detect open flaps on cases before they enter the elevator.

Note: for more information on provided sensors see System Sensors: 3-1.5

1-3: Operational Concepts

- The elevator is powered by two (2) brake motors. Each motor drives one of the vertical conveyors which work together to lift the case. These conveyors do not run constant. Instead they index each time a new case enters the infeed end.
- The two vertical conveyors have belting with flights. A flight from each of these conveyors catches the case to simultaneously lift it upward.
- At the top of the elevator a large air cylinder pushes cases onto downstream equipment. The air cylinder activates shortly after each index.
- The Case elevator has a back stop which stops cases to allow them to be picked up by the flights. The elevator may have an automatically retractable back stop which allows select cases through. Nercon recommends that sensors be added upstream to ensure only desired cases get elevated.
- For different size cases, adjustments can be made using the hand wheel near the bottom of the elevator. Turning this wheel moves the two vertical conveyors closer together or further apart. Other adjustments can be made for case length and case height.
- The case elevator waits for a case to enter the infeed before it indexes. The case elevator has a purge aspect built into the program. After a predetermined amount of time passes without a new case at the infeed, the case elevator will discharge all cases within itself assuming the discharge conveyor is clear.

Section: 2 - Safety

2-1: General Safety

Note: The safety procedures/policies listed in this chapter are not intended to address fire-related considerations. Your system must comply with any applicable national, state, and local codes.

Follow safety precautions for industrial work at all times. With any piece of industrial equipment, conditions exist that might cause injury to you or your co-workers. Because it is not possible to describe each potentially hazardous situation that might develop, you must be alert at all times for unsafe conditions. To avoid injury, use maximum possible care and common sense and adhere to all safety standards.

Take special care while maintaining and inspecting electrical equipment and devices. All personnel working on or around the system should be aware of, and adhere to, all CAUTION, DANGER, and WARNING signs. These signs are posted to reduce the risk of injury to all personnel. Maintain signs in a legible condition. Contact your supervisor to post additional safety signs if you feel they are necessary.

Follow these general safety rules, as well as specific regulations and guidelines listed in this publication:

2-2: Mechanical Safety Guidelines

- Do not touch moving parts.
- Do not ride or climb the case elevator.
- Do not operate the case elevator with the protective guards removed or with personnel inside a customer defined safety perimeter.
- Keep jewelry, clothing, hair, etc., away from any and all moving parts.
- Know the location and function of all start/stop devices and keep those devices free from obstruction.
- Clear all personnel from the equipment before starting.
- Do not attempt to clear product jams while elevator is running.
- Do not attempt to make width, length, and height infeed adjustments while elevator is running (see Section 5-1).

- Allow only trained and authorized personnel to maintain or repair the elevator.
- Do not load the elevator beyond the specified design limits.
- Do not attempt to make repairs to the elevator while it is running
- Do not modify equipment without checking with the manufacturer.
- Do not operate or perform maintenance on the equipment when taking any type of drug or sedative, or when over fatigued or under the influence of alcohol.
- Do not operate the elevator if any part is damaged or improperly installed.
- Be sure that all replacement parts are interchangeable and of equal quality as original parts supplied.

When the elevator is stopped for maintenance or repair purposes, you must lock out or tag out the starting devices, prime movers, or powered accessories in accordance with a formalized procedure designed to protect everyone involved against an unexpected restart. Also, alert all personnel to the hazard of stored energy, which can exist after the power source is locked out. For additional information, refer to the latest issue of ANSI Z244.1-20--, American National Standard for Personnel Protection - *Lockout/Tagout of Energy Sources - Minimum Safety Requirements*. Also, OSHA 29CRF Part 1910.147 "*Control of Hazardous Energy sources (Lockout/Tagout)*", which includes requirements for release of stored energy.

2-3: Electrical Safety Guidelines

When an equipment problem occurs, the first priority is to ensure that power is disconnected from the affected area, as well as from the control panel where troubleshooting and repairs are performed.

Once you verify that power is locked out (LOTO), make sure you inform other personnel in the area of the situation so they do not unexpectedly restore power.

After you inform your co-workers, recheck the power supply to ensure that power is disconnected in the affected control panel. Remove fuses only with insulated fuse pullers and check terminal strips for current-carrying wires. Before you perform any repairs with an exposed conductor or terminal, use an

approved voltmeter to check for continuity to ground and continuity between other current-carrying conductors.

When you perform any kind of maintenance or repair involving electrical components, follow the guidelines listed below:

- **NEVER** reset a circuit breaker or replace an open fuse before determining and correcting the cause of the circuit interruption.
- **NEVER** bypass or use a jumper to replace any limit switch, fuse, circuit breaker, or other circuit protection or safety device.
- **NEVER** replace an open fuse with another that is not rated at the proper current and voltage. Always double check correct fuse specifications rather than replace the open fuse with one of the same current and voltage rating.
- **NEVER** rest tools on motors, transformers, terminal strips, or other control panel or electrical components. All tools used should be kept in a tool box or pouch.
- **NEVER** restore power or restart equipment before verifying that all tools, spare parts, etc., are removed from the work area and are safely stored.
- **NEVER** restore power or restart equipment before verifying that ALL personnel are aware of the condition and are safely clear of the equipment.
- **ALWAYS** replace any safety devices or guards removed during maintenance or repair before you restore power or restart equipment.
- **ALWAYS** use extreme caution and follow recommended safety procedures while you perform any electrical inspection or maintenance operations

2-3.1: Electrical Code

All electrical installations and wiring must conform to the National Electrical Code (Article 670 and other applicable articles) published by the National Fire Protection Association and approved by the American National Standards Institute, Inc.

2-3.2: Control Stations

Arrange control stations so that equipment operation is visible from the stations and clearly mark or label each station to indicate its function.

The emergency stop devices installed with your system are designed so that they cannot be overridden from other locations. Keep the area around your control station clear. Remove all miscellaneous equipment (such as inactive and unused actuators, controllers, and wiring) from control stations and panel boards, as well as obsolete diagrams, indicators, control labels, and other material that might confuse the operator.

2-3.3: Safety Devices

All safety devices, including wiring of electrical safety devices, are designed to operate in a "fail-safe" manner; that is, if power or the device fails, a hazardous condition will not result.

2-3.4: Emergency Stops and Restarts

In case of an emergency stop, first determine the cause of the stoppage and correct the situation that warranted the stop. To resume operation after a stoppage, manually reset or start at the location where the emergency stop occurred.

Note: Before you try to correct the situation, lock out or tag out the starting device, unless it must be operated to determine the cause or to safely remove the stoppage. For additional information, refer to the latest issue of ANSI Z244.1-20--, American National Standard for Personnel Protection Lockout/Tagout of Energy Sources - Minimum Safety Requirements.

2-4: Application Safety

The equipment used in your system is designed to convey specified commodities or materials within a certain rate and speed. It might not be possible to safely use the equipment outside of the intended capacities or speeds. Check with your supervisor if you have questions regarding the safe operation of the equipment.

2-5: Transfer, Loading, and Discharge Points

Prevent free-falling material that might result from flooding, ricocheting, or uncontrolled free-fall from occurring.

At transfer, loading, and discharge points, prevent unconfined and uncontrolled free-fall of material resulting from flooding, ricocheting, overloading, trajectory, leakage, or a combination thereof, if the material would create a hazard to personnel.

Warning

*Failure to follow these rules can
result in injury*

Note: The safety standards outlined in this section have NOT been exactly duplicated from the latest issue of the ANSI booklet, *Safety Standards for Conveyors and Related Equipment B20.1-20--*. We recommend that all

operators and maintenance personnel review this booklet, which you can obtain by contacting the American Society of Mechanical Engineers at the following address:

*American Society of Mechanical Engineers
United Engineering Center
345 East 47th Street
New York, NY 10017*

Section 3: Installation

Note: All equipment must be installed to conform to the National and Local Safety Codes. In the event that any caution or warning labels affixed to the equipment are damaged in shipping or obscured from vision because of the position of the equipment on site, you should order the appropriate replacement labels before operating the equipment.

3-1: Installation

Nercon pre-assembles and pre-tests all case elevators prior to shipment. This allows us to ship the unit nearly completely assembled. The units are laid down on their sides, resting on the support structure. Additional bracing is added to support any critical non-removable parts. To protect certain areas during shipping they will be removed and packaged separately. This often includes any infeed and discharge conveyor sections as well as any protruding guarding. These sections are clearly labeled when shipped and can be easily installed per the detail drawings provided.

3-1.1: Unloading

The case elevator will arrive on a single skid and it is recommended to be pushed or pulled with a fork truck. Each unit is custom and an estimated weight will be provided so that the installation contractor may plan for appropriate fork truck capacity. The detail drawings provided indicate acceptable points of connection for moving/or lifting the units (See section 8-2). Use straps to connect to these locations as well as the skid and move the unit as required.

Note: Case Elevator Nomenclature (8-1) and Case Elevator Stand up Procedure (8-2) may show a case elevator that appears different than what is shown in the project drawings. These drawings are for instructional purposes only and do represent actual design drawings. Any additional job specific instruction will be provided by Nercon.

3-1.2: Standing Up

Once the unit is located near its final position, and all cross bracing and tie down straps have been removed the unit can be stood up. The proper and most common method to stand these units up is shown in drawing of section 8-2.

Note: Adequate ceiling clearance is critical to allow the elevator to swing to an upright position. Typical nominal clearance required is 5 feet. Special care and

consideration should be taken when clearances are less than 5 feet.

3-1.3: Completing Assembly

Connect all remaining joints, carefully check infeed and discharge conveyors for correct elevation and level, and then tighten the fasteners to secure the section being installed. Once the elevator is positioned as required, the infeed and discharge elevations have been verified, the unit should be lagged to the floor and any other bracing added.

3-1.4: Wiring

As noted above in section 2-5, be sure to follow all National Electrical Code and any local stated codes. Also be sure to follow all recommendations noted above in sections 2-3 through 2-8.

Nercon will provide local enclosures that will house the VFD's for the vertical conveyor drives. These will be mounted on the structure and both motors will be wired back to this enclosure. The customer will be responsible for connecting the power and control wiring at this location.

*Note: Brake Motors
Brake motors will be prewired and programmed accordingly to the Nercon supplied enclosure.*

The wiring, programming, and sequencing for all the drives in the case elevator system should be aligned with the recommendations noted above and all provided schematics. Failure to do so will lead to premature belt wear and possible product or equipment damage.

3-1.5: System Sensors

The case elevator unit has multiple sensors that monitor the unit's conditions and allow it to function properly while in operation. These sensors include retro reflective photo eyes, diffuse photo eyes, and inductive proximity sensors. These sensors are designed to monitor faults and to be used in the function of the unit. See Section 5: Description of Electrical and Pneumatic Devices for more information.

Section 4: Initial Start-up

4-1: Initial Start-up Check List

- Elevator is securely fastened to the floor and all supplied cross bracing and tie brackets are mounted.
- Check the entire belt path for any obstructions, snags, or tight spots that may have been created during shipping or installation.
- Be sure there is nothing on the belt before initial on-site start-up. (i.e. tools, computers, etc.)
- Make sure power is connected to the system.
- Make sure adequate air pressure is connected to the system (verify pressure using dump valve gauge).
- Check that the sensors are functioning properly.
- E-stop relay must be reset.
- All faults must be identified and cleared.

Section 5: Description of Electrical and Pneumatic devices

5-1: Description of Standard Electrical and Pneumatic Devices

<u>DESCRIPTION</u>	<u>FUNCTION</u>	<u>LOCATION</u>
PUSHER EXTEND SENSOR (Magnetically Actuated Cylinder Mounted Sensor)	Detects extended position of discharge pusher pneumatic cylinder.	Sensor mounted near the rod end of the cylinder.
PUSHER RETRACT SENSOR (Magnetically Actuated Cylinder Mounted Sensor)	Detects retracted position of discharge pusher pneumatic cylinder.	Sensor mounted near the cap end of the cylinder.
CASE AT STOP SENSOR (Photo-eye)	Detects when a case is at the back stop inside the elevator and in position for the elevator to index.	Located inside the back stop.
FLIGHT POSITION SENSOR (Photo-eye)	Detects the flight position of the elevators vertical conveyor. One sensor used for right side vertical conveyor, and one sensor for the left side vertical conveyor. Detects the flight on its return path to lift another case.	Located on the outside of the vertical conveyor.
OVERTRAVEL SENSOR (Photo-eye)	Detects when a case has been elevated past the discharge push position.	Located at the top of the case elevator. Positioned a short distance above the tallest case, when the case is in the position to be pushed out of the elevator.
CLEAR TO PUSH SENSOR (Photo-eye)	Used to detect/verify that the area on the discharge conveyor is clear to push a case onto.	Locate on the discharge conveyor. Positioned at an angle along the horizontal plane, as to detect a case when first pushed out of the elevator and maintain detection the case until the case has moved out of the zone required to push the next case into.
CASE DETECT SENSOR (Photo-eye)	Detects a case on the infeed conveyor before entering the elevator. Used to determine if a case is advancing to the case elevator entrance. Also may be used to detect a backlog of cases on the infeed conveyor.	Located on infeed conveyor. Typically positioned approximately four feet upstream of elevator vertical conveyor.
PUSHER SOLENOID VALVE	Extends and retracts the discharge pusher cylinder by directing air flow to either the cap end or rod end of the pneumatic cylinder.	Located near the pusher cylinder.
FILTER/REGULATOR W/SHUT OFF	The filter portion removes particles from the air supplied to the machine. The regulator is used to manually adjust the air pressure to the machine. The shut-off valve is used to manually shut-off and dump air flow to the machine. This valve is also lockable in the off position for the lockout/tagout procedure.	Assembly is located within reach at floor level.

5-2: Description of Optional Electrical and Pneumatic Devices

DEVICES PROVIDED AS PART OF PURCHASED OPTION		
<u>DESCRIPTION Of OPTION</u>	<u>FUNCTION</u>	<u>LOCATION</u>
OPEN FLAP DETECT SENSOR (Photo-eye)	Detects an open flap on the top the case.	Located on infeed conveyor.
SECOND CASE SENSOR (Photo-eye)	Detect/verify second case is in the elevator. For elevators designed to index two cases.	Located inside the elevator above the hold down plate.
SOLENOID OPERATED SAFETY AIR DUMP VALVE	When safety circuit is disrupted (e.g. Pressing E-Stop) the valve will close off the supply air and release all downstream air to atmosphere.	Located near the filter/regulator assembly.
BEACON STACK W/HORN	Annunciates machine status: Starting, Running, Stopped, Faulted, Downstream Not Ready.	Located on control enclosure.
END STOP CYLINDER RETRACTED SENSOR (Magnetically Actuated Cylinder Mounted Sensor)	Detects retracted position of end stop pneumatic cylinder.	Sensor mounted near the cap end of the cylinder.
END STOP CYLINDER EXTENDED SENSOR (Magnetically Actuated Cylinder Mounted Sensor)	Detects extended position of end stop pusher pneumatic cylinder.	Sensor mounted near the rod end of the cylinder.
END STOP CLEAR SENSOR (Photo-eye)	Used to detect/verify that the area is clear under the retractable end stop so that it can extend into position without crushing a case.	Located on the side opposite the end stop angled inward to ensure that the area under the end stop is clear as well as the area within the case elevator to ensure no cases are approaching the end stop.

Section 6: Basic Mechanical Operation and Adjustment

6-1: Adjustment for Case Size

- **Adjustment for Case Width:** Near the bottom of the case elevator there is a hand wheel (see section 8-1). This hand wheel will adjust the gap between the two vertical conveyors. The elevator is designed such that both vertical conveyors move together to keep the gap centered with the infeed and discharge conveyors. This width must be set so that the case can be elevated properly. The flights must be close enough to the infeed conveyor to pick up the case (see figure 5-1.1). The flights must also be close enough such that the case will not fall or become skewed if it shifts to one side or the other (see figure 5-1.2).

Warning: Do not attempt make width adjustments while elevator is running. Product damage or jams may occur.

Note: Components are in place to prevent mechanical interference due to width adjustment.

- **Adjustment for Case Length:** On the opposite side of the infeed, the back stop can be found (see section 8-1). The back stop inhibits the case's horizontal motion due to the infeed conveyor so that it can be elevated. Proper adjustment of the back stop is essential to prevent damage to cases. Adjust the back stop so that the side of the case opposite the stop is slightly outside of the flights (see figures 5-1.3 and 5-1.4). Since accumulation is possible this is necessary so that the case to be elevated strips away from the next case, otherwise case damage or jams may occur.

Warning: Do not attempt to adjust back stop while elevator is running. Product damage, jams, or serious injury may occur.

- **Adjustment for Conveyor Height:** On the infeed side of the elevator is the hold down (see section 8-1). The hold down prevents the next case from moving upward while the case in front of it is being stripped away (see figures 5-1.3 and 5-1.5). Adjust the hold down so that it is slightly above the case (about 1/8")

Warning: Do not attempt make height adjustments while elevator is running. Product damage or jams may occur.

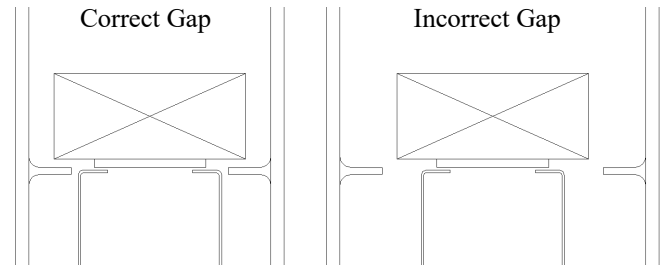


Figure 6-1.1: Width Adjustment

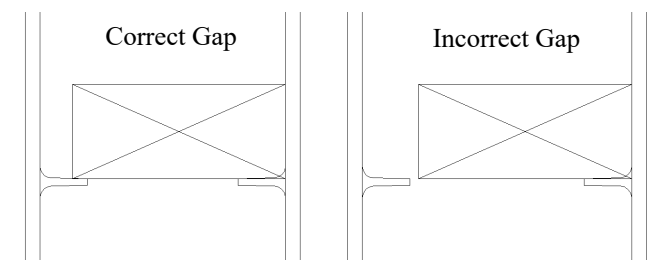


Figure 6-1.2: Width Adjustment

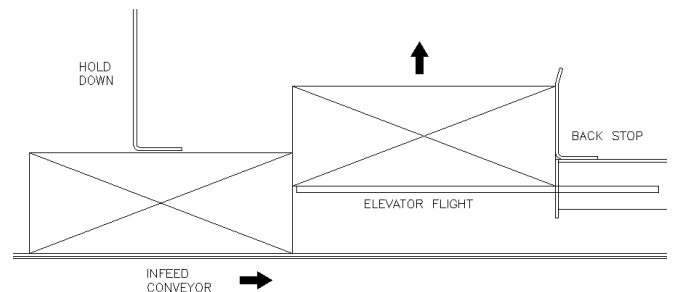


Figure 6-1.3: Correct Length and Height Adjustment

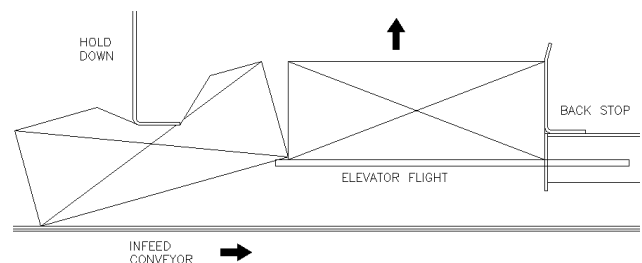


Figure 6-1.4: Incorrect Length Adjustment

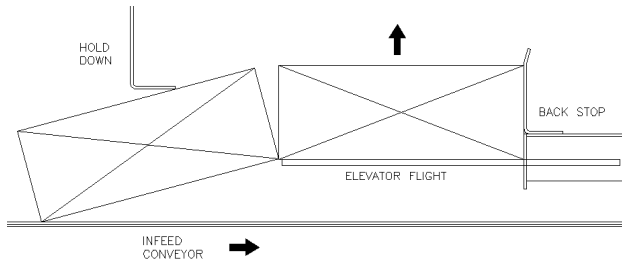


Figure 6-1.5: Incorrect Height Adjustment

Section 7: Basic Electrical Operation

7-1: Description of Operator Interface Pushbuttons

<u>PUSHBUTTON DESCRIPTION</u>	<u>PUSHBUTTON FUNCTION</u>
E-STOP (Red Illuminated)	Emergency stop: Press to remove hazardous motion and place machine into safe state.
RESET (Blue Illuminated)	Reset safety circuit: Press to reset. Pushbutton illuminates when safety circuit is reset. Reset Fault: Press to reset. Flashes when fault is present.
START (Green Illuminated)	Start machine: Press to start. Pushbutton flashes when initiating start and illuminates solid when running.
STOP (Red Non-Illuminated)	Stop machine: Press to cycle stop.
MANUAL/AUTO (Selector Switch)	Elevator control: Select “Manual” position to manually jog/index elevator flighted conveyor. Select “Auto” position to run machine in auto mode.
ELEVATOR LEFT/BOTH/RIGHT (Selector Switch)	Elevator control: Operational only when manual mode is selected. Select the side of the elevator to manually jog/index.
JOG (Black Non-Illuminated)	Elevator control: Operational only when manual mode is selected. Before pressing the jog pushbutton, verify the selector switch (Left/Both/Right) is in the desired position. Press to jog/index the elevator flights.
Retractable End Stop (Selector Switch Option)	Cylinder Control (Option): Select “Up” position to retract the end stop. Select “down” position to extend the end stop. Select “Auto” position to run in auto mode.

PUSHBUTTON LAYOUT	PUSHBUTTON DESCRIPTION
	1) RESET 2) START 3) STOP 4) MANUAL/AUTO 5) E-STOP 6) ELEVATOR, LEFT/BOTH/RIGHT 7) JOG

Selector Switch #8 Retractable End Stop may be added after #7 if a retractable end stop is present

7-2: Description of Operation in Auto Mode

- 1) Pull out E-Stop pushbutton and press Reset. Reset push button will illuminate when safety circuit is reset.
- 2) Verify “Manual/Auto” selector switch is in the “Auto” position.
- 3) Press and hold the Start pushbutton for 5 seconds. Start light flashes during the start delay.
 - a. **(Optional Device)** Green beacon will flash and the horn will sound during this sequence.
- 4) Conveyor starts running. The green light will remain on.
- 5) Case transfers from upstream equipment onto the infeed conveyor.
- 6) **(Optional Operation)** Open Flap Detection:
 - a. If open flap detected:
 - i. Creates faulted condition.
 - ii. Conveyor stops.
 - iii. Beacon
 - iv. Secure open flap or remove case.
 - v. Press Reset push button to remove fault condition
 - vi. Press Start to restart machine.
- 7) Case advances into elevator.
- 8) Case detected at the end stop.
 - a. **(Optional Operation)** Second case detected in elevator
- 9) Elevator indexes one flight.
- 10) Discharge pusher will extend then retract if downstream is clear and ready to receive.
 - a. Note: The pusher extends/retracts each time the elevator indexes.
 - b. The pusher will not push if :
 - i. Discharge conveyor or downstream equipment is not ready to receive.
 - ii. “Clear to push sensor” is blocked or out of alignment.
- 11) Purge mode automatically initiates if case or cases in elevator and no case is detected moving towards the elevator.
- 12) **(Optional Operation)** Case Pass Through
 - a. In auto mode the back stop will be raised when a specific issue arises downstream where cases need to pass through the system instead of being elevated

7-3: Explanation of Purge Mode

Purge mode will be activated if at least one case has entered into the case elevator, and a period of time has passed without another case being detected on the infeed conveyor. In purge mode the elevator will index and cycle the pusher for each set of flights. Purge mode will stop when all flights have cycled through, or a case moving towards the elevator has been detected on the infeed conveyor.

If the case elevator has the optional design to lift two cases per index, the purge mode will initiate if one case is detected at the back stop and a period of time has passed without second case being detected on the infeed conveyor.

7-4: Manual Mode Operation

- 1) Move the Manual/Auto selector switch knob to the “Manual” position.
- 2) With the Left/Both/Right selector switch, choose the desired vertical conveyor of the elevator to manually index.
 - a. NOTE: Selecting the Left or Right position should only be for maintenance purposes, such as a product jam or machine maintenance. Jogging when the “Left or Right” position of the switch is selected with a case or cases in the elevator can jam the cases and cause damage to the cases or elevator.
- 3) Verify that the desired Left/Both/Right position is selected.
 - a. Next press the “Jog” pushbutton. The elevator will move only while the Jog pushbutton is pressed or the elevator has advanced to the next loading position.
 - b. To advance the elevator again, repeat the above step.
- 4) When finished jogging the elevator and to resume running in auto mode, move the Manual/Auto switch back to the “Auto” position.
- 5) **(Optional Operation)** Case Pass Through
 - a. In manual mode the back stop can be forced up or down to let select cases through

Section 8: Periodic Inspection Guide

8-1: Introduction

NERCON equipment is designed to operate with a minimum of maintenance. Downtime on any part of a system involves both time and money. Certainly not all breakdowns or failures can be detected before they occur; however, many can be prevented if you follow a regular periodic inspection program. When you install new equipment, you should establish a schedule of periodic inspection. The inspection procedures outlined in this manual provide an easy means of determining the operational status of the equipment. This will enable you to identify possible trouble areas, so that the suspect condition does not deteriorate to the point of equipment failure.

8-2: Purpose

The objective of the periodic inspection schedule is to ensure that the equipment performs at maximum efficiency over a long period of time. This helps to eliminate costly repairs. Do not assume that trouble will occur and, therefore, pass over inspection items. Standardized procedures ensure effective control over maintenance operations and enable you to compare equipment in order to evaluate the inspection program.

Note: Replace any faulty parts immediately upon discovery during scheduled inspections.

8-3: Periodic Inspection

In the course of elevator operation, periodic inspection of the system is required to detect problems and make repairs before serious damage occurs. The important thing is to set up a regular inspections and maintenance schedule.

Elevator Checklist: (Daily/Weekly/Monthly)

- D:** During operation monitor belt performance for any irregularities.
- D:** Check for any product spillage or build up that would affect belt performance.
- D:** Belt length / take-up position. (Daily for first 500 hours of operation only)
- W:** Belt length / take-up position. (Weekly after 500 hours of operation)
- W:** Inspect entire belt length for any damaged or missing belt modules.
- W:** Inspect entire belt for any damaged or missing flights.

- W:** Check for any foreign debris on or around the belt path.
- W:** Look for unusual wear patterns on the belt surface.
- W:** Examine sprockets for signs of dirt build-up in tooth pockets.
- M:** Examine drive sprockets for signs of excessive wear.
- M:** Check the carry way wearstrips and return way shoes for excessive wear.
- M:** Verify no buildup on cylinder shaft

8-4: Cleaning

In general, the elevator can be treated like most other conveyor in the plant. Some major differences apply based on the level of washdown you have purchased. This is directly related to the operational environment your case elevator will reside in.

8-4.1: Non-Washdown Elevators

- Non-washdown elevators are not intended to be completely sprayed down. However if absolutely required “spot” rinsing can be an effective way to clean isolated areas of contaminants. These areas should be dried immediately when cleaning is complete to prevent any unwanted corrosion.
- Non-washdown units are recommended to be wiped down with clean rags until clean.

8-4.2 Washdown Elevators

- In washdown environments it is advisable to clean the case elevator unit by means of a spraying system with a cleaning agent followed by a clean water rinse. This should be done while the unit is running to help the cleaning process. The unit should also be allowed adequate time to dry before returning to production.
- Follow belt manufacturer’s recommendations regarding appropriate cleaning compounds for the plastic belt. (Mild foaming agents recommended)
- While all electrical components used are rated for wash-down duty, it is not recommended to directly spray any photo eyes, proximity sensors, etc. with high pressure water.

Section 9: Troubleshooting

9-1: Electrical and Pneumatic Troubleshooting

Machine Faults:

When a machine fault occurs the blue Reset Button will be flashing. Press blue reset button after cause is corrected.
 Note: Optional beacon stack may be present, a red light will flash and a horn will sound in addition to the flashing reset button when a fault occurs.

<u>PROBABLE CAUSE OF FAULT</u>	<u>ITEMS TO CHECK</u>
1. A flight from one or both of the vertical conveyors has taken too long to move out of the position sensors field of detection	<ul style="list-style-type: none"> • Motor starter not energizing: <ul style="list-style-type: none"> ○ Refer to Probable Cause #7.
2. A flight from one or both of the vertical conveyors has taken too long to from one flight to the next flight	<ul style="list-style-type: none"> • Motor starter de-energized before the index cycle completed: <ul style="list-style-type: none"> ○ Refer to Probable Cause #7. • Flight detect sensor may be out of alignment and missed detecting the flight of the vertical conveyor during the index cycle. <ul style="list-style-type: none"> ○ One located on each vertical conveyor.
3. Discharge pusher: Not detected in extended or retracted position, or extend/retract cycle taking too long.	<ul style="list-style-type: none"> • Verify air supply turned on. • Check for adequate air pressure. • Not enough air volume being supplied. • Cylinder extend or retract detect sensor moved from proper position. • Cylinder extend or retract detect sensor failure. • (Optional Device) Solenoid operated safety air dump valve detected low pressure. <ul style="list-style-type: none"> ○ Refer to Probable Cause #10
4. Elevator infeed jam: Case is not detected by the “Case at stop sensor” and case have been backed up to the “Case detect sensor” for a period of time	<ul style="list-style-type: none"> • Case has jammed between the elevator hold down plate and the vertical conveyor flights. • If case is at the back stop and backed up to the “Case at stop sensor”: <ul style="list-style-type: none"> ○ The “Case at stop sensor” may not be detecting the case. • The “Second case sensor” (Optional Operation) may not be detecting the case.
5. Elevator overtravel condition	<ul style="list-style-type: none"> • Case has been raised to a point that the “Overtravel Sensor” has been blocked. • Overtravel sensor may be out of alignment. • Overtravel sensor may be set too low. • Elevator vertical conveyors discharge height may be set too high. <ul style="list-style-type: none"> ○ Flight detect sensors may require adjustment to lower the discharge height.
6. Safety contactor(s) not energizing	<ul style="list-style-type: none"> • Blown motor fuse(s).
7. Motor starter not energizing	<ul style="list-style-type: none"> • Blown motor fuse(s). • Tripped motor starter overload. <ul style="list-style-type: none"> ○ Verify overload setting is the same as motor full load amperage (FLA) specified on the motor nameplate. • (Optional Devices) Motor disconnect(s) turned off.

<u>PROBABLE CAUSE OF FAULT</u>	<u>ITEMS TO CHECK</u>
8. (Optional Operation) Open flap detected: Infeed conveyor stops with case in front of “Open flap detect sensor”	<ul style="list-style-type: none"> • Verify height of “Open flap detect sensor” is adjusted correctly. • Inspect case for a flap which has not sealed properly.
9. (Optional Device) Motor disconnect	<ul style="list-style-type: none"> • Motor disconnect(s) turned off.
10. (Optional Device) Solenoid operated safety air dump valve in lock-out condition	<ul style="list-style-type: none"> • Solenoid operated safety air dump valve: <ul style="list-style-type: none"> ○ Detected low pressure: <ul style="list-style-type: none"> ▪ If air supply was turned off or the air pressure was too low, the valve will have faulted. Reset the valve by resetting the safety circuit. ▪ Air pressure may be too low. Minimum of 30 psig is required. ▪ Inadequate air volume provided to valve may cause too much of a pressure drop in the valve. This may be due to an undersized air supply line at the valve inlet or a restriction in the supply line.
11. (Optional Device) Back Stop Cylinder: Not detected in extended or retracted position, or extend/retract cycle taking too long.	<ul style="list-style-type: none"> • Verify air supply turned on. • Check for adequate air pressure. • Not enough air volume being supplied. • Cylinder extend or retract detect sensor moved from proper position. • Cylinder extend or retract detect sensor failure. • (Optional Device) Solenoid operated safety air dump valve detected low pressure. • Refer to Probable Cause #10

Non-Fault Problems:

Below are situations which may occur when trying to start machine or machine start has been initiated and condition is not considered a fault.

<u>POSSIBLE SITUATION</u>	<u>POSSIBLE REASON FOR SITUATION</u>
1. Pressing “Start” and machine does not start.	<ul style="list-style-type: none"> • Verify E-Stop pushbutton(s) pulled out and safety circuit has been reset by pressing the Reset pushbutton. • Manual/Auto selector switch in “Manual” position: <ul style="list-style-type: none"> ○ Move switch to “Auto” position. • Discharge pusher not detected in retracted position: <ul style="list-style-type: none"> ○ Refer to Probable Cause #4. • Elevator flights not in home position: <ul style="list-style-type: none"> ○ Flight position sensor for left and right side vertical conveyors should be blocked by flight. ○ If flight(s) are out of position, manually jog flights to reposition the flight or flights.
2. Infeed conveyor not running	<ul style="list-style-type: none"> • Backup condition detected by the case detect sensor on the infeed conveyor. <ul style="list-style-type: none"> ○ Backup may be due to: <ul style="list-style-type: none"> ▪ Downstream equipment/conveyor not ready to receive cases. ▪ Discharge “Clear to push sensor” may be blocked or misaligned. ▪ “Case at stop sensor” may not be detecting the case. • Motor fuses have blown.

3. Case at stop inside elevator, but not indexing up.	<ul style="list-style-type: none"> • Downstream equipment/conveyor not ready to receive cases. • Discharge “Clear to push sensor” may be blocked or misaligned. • “Case at stop sensor” may not be detecting the case.
4. Case at discharge position in front of the pusher, but not being pushed out of elevator.	<ul style="list-style-type: none"> • Downstream equipment/conveyor not ready to receive cases. • Discharge “Clear to push sensor” may be blocked or misaligned.
5. (Optional operation) Elevator set to index two cases but indexes when one case is at the back stop.	<ul style="list-style-type: none"> • Elevator has initiated purge mode because second case was not present before set time elapsed. • Second case detect sensor is detecting back of the first case when the first case is at the back stop. Controller then assumes second case is present in the elevator. <ul style="list-style-type: none"> ○ Adjustment of “Second case sensor” may be needed.

9-2: Mechanical Troubleshooting

Problem	Possible Cause
Belt stops for a second, then snaps loose.	2
Belt, it takes a considerable force to pull the belt away from the drive more than a fraction of an inch.	6
Case not entering elevator	8, 9
Case being crushed or skewed at infeed	10, 11, 12
Case not being elevated/belt flights not moving	2, 7, 13
Belt skipping teeth	1

	Possible Cause	Corrective Action
1	Belt loose	A
2	Belt obstruction	C, E
3	Bearing Failure	D
4	High carry way friction	C, D
5	Belt Stretch/Elongation Limits	D
6	Belt too tight	B
7	Flights too far apart	F
8	Flights too close together	F
9	Hold down too low	G
10	Hold down too high	G
11	Backstop extended to far	H
12	Backstop not extended far enough	H
13	Broken coupling between Demag motor and Dodge reducer	D

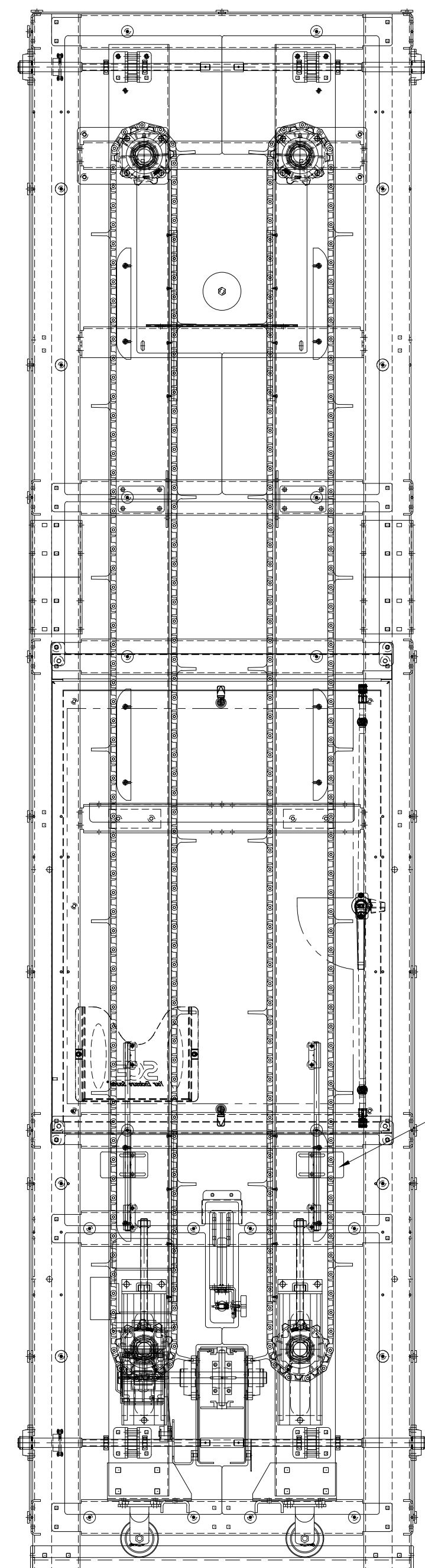
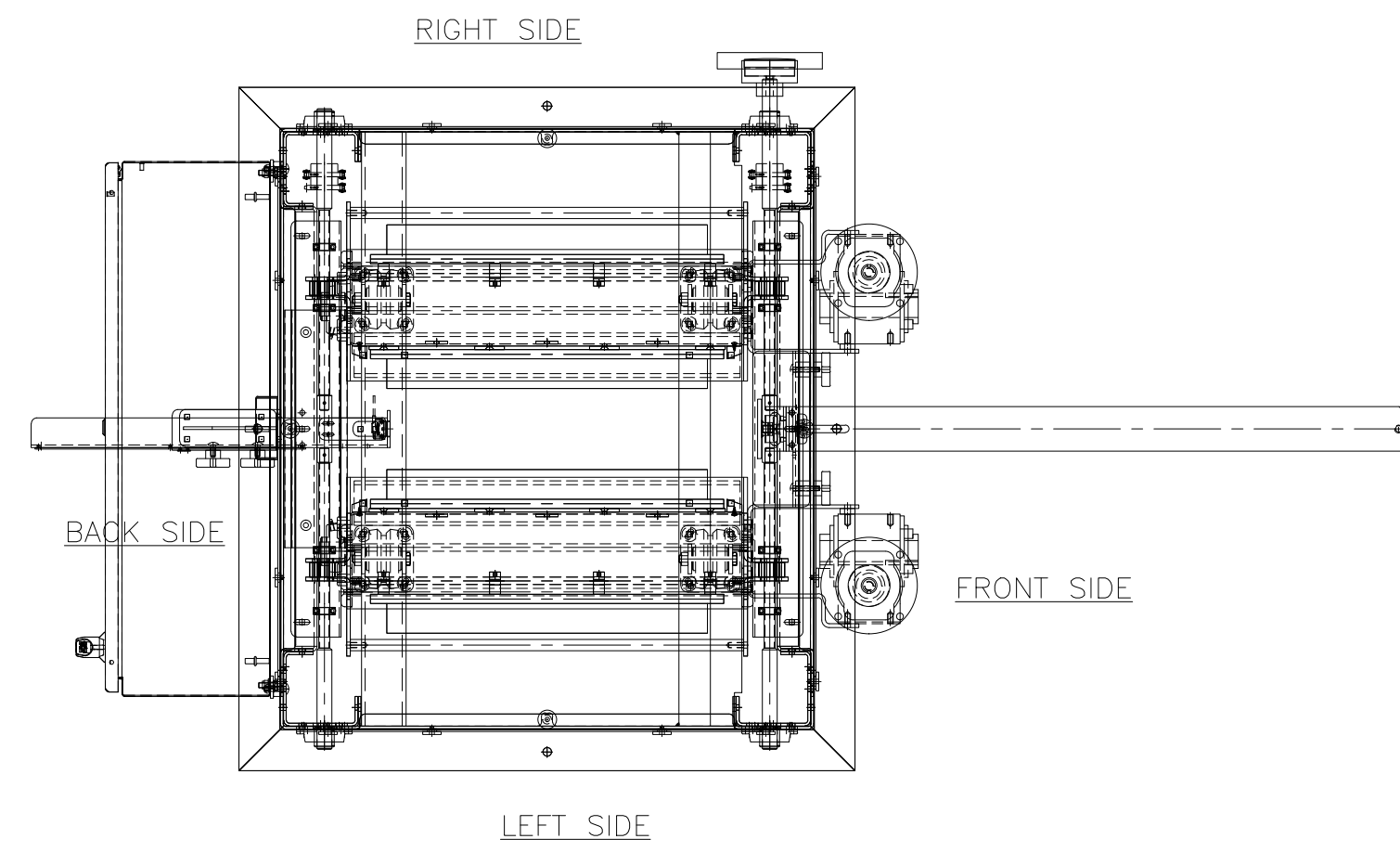
Corrective Actions:

- A Extend Take-up
- B Retract Take-up
- C Clean
- D Replace with proper design component
- E Correct cause condition
- F Adjust width using handwheel
- G Adjust hold down height
- H Adjust backstop

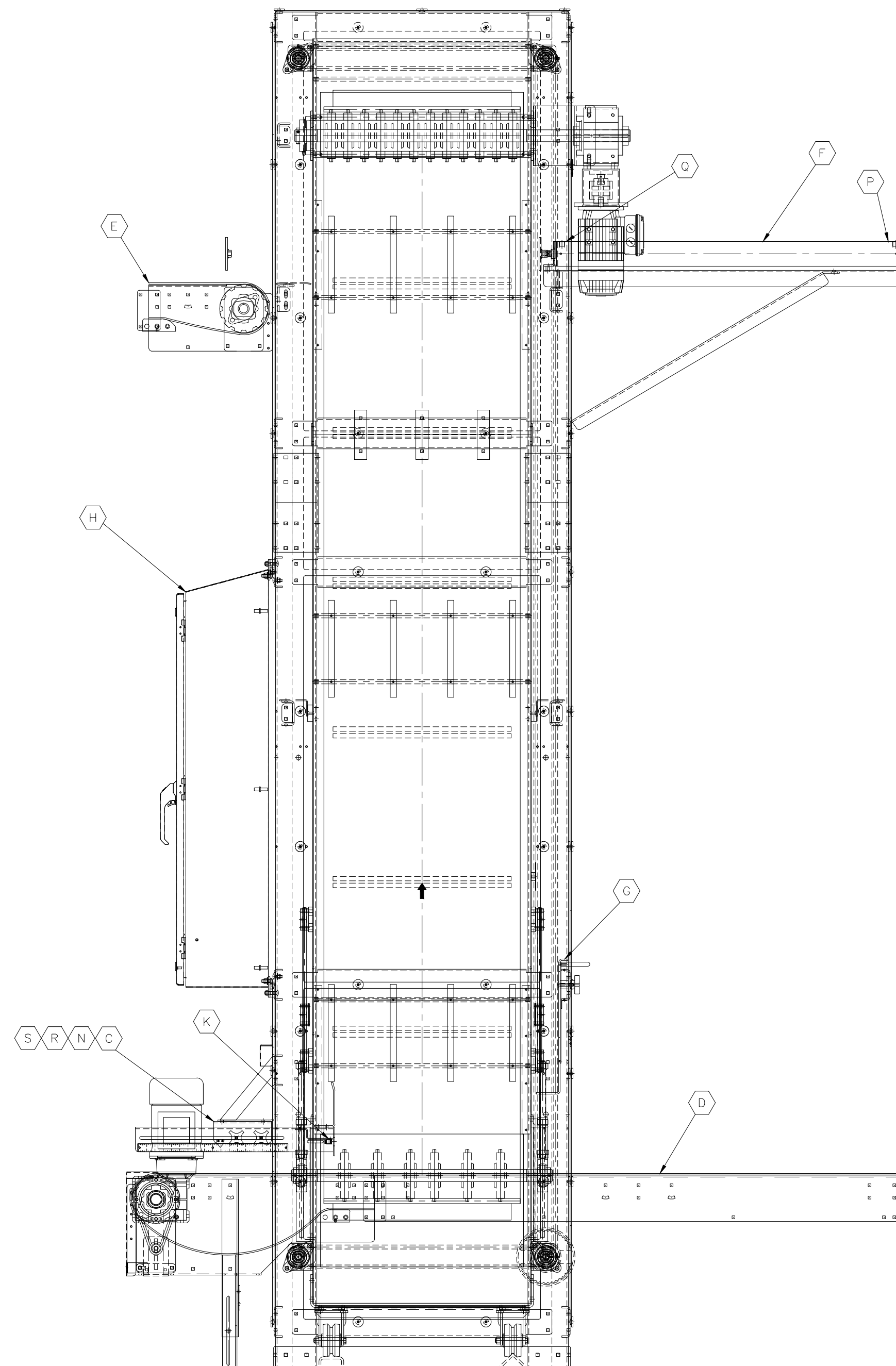
Section 10: Support Drawings

10-1: Case Elevator Nomenclature

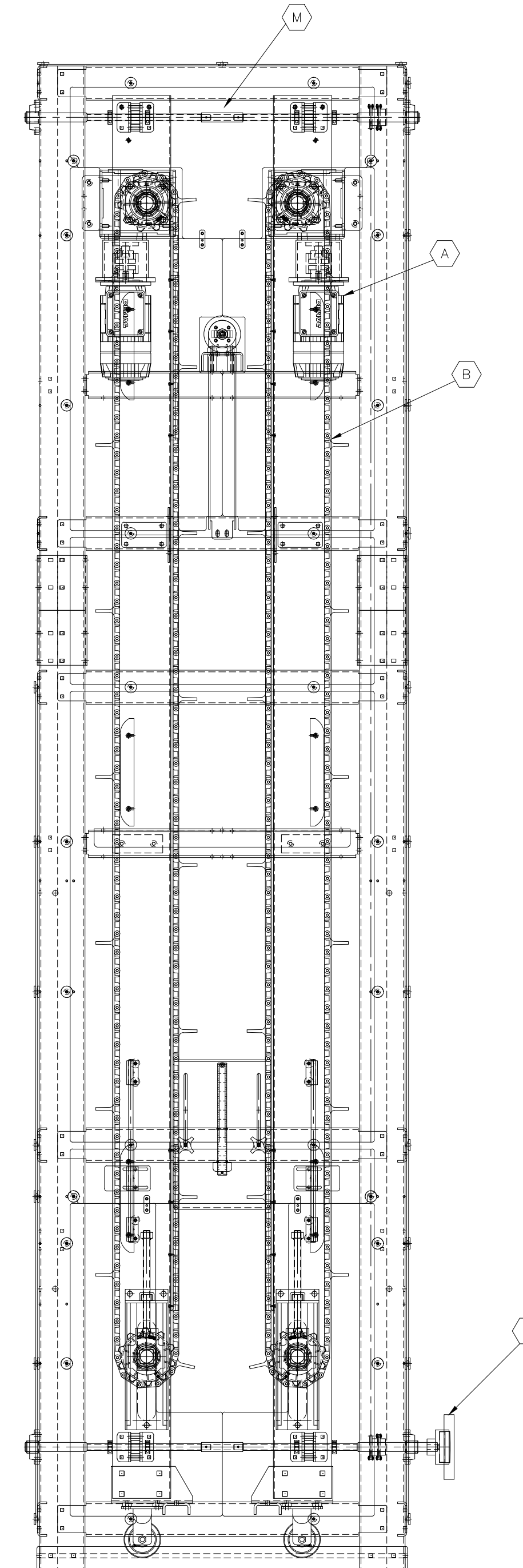
See diagram below



BACK VIEW



LEFT SIDE VIEW




FRONT VIEW

CASE ELEVATOR COMMON NOMENCLATURE

*ALWAYS REFERENCE YOUR SPECIFIC DETAIL DRAWINGS FOR AN ACCURATE CONFIGURATION OF YOUR MACHINE

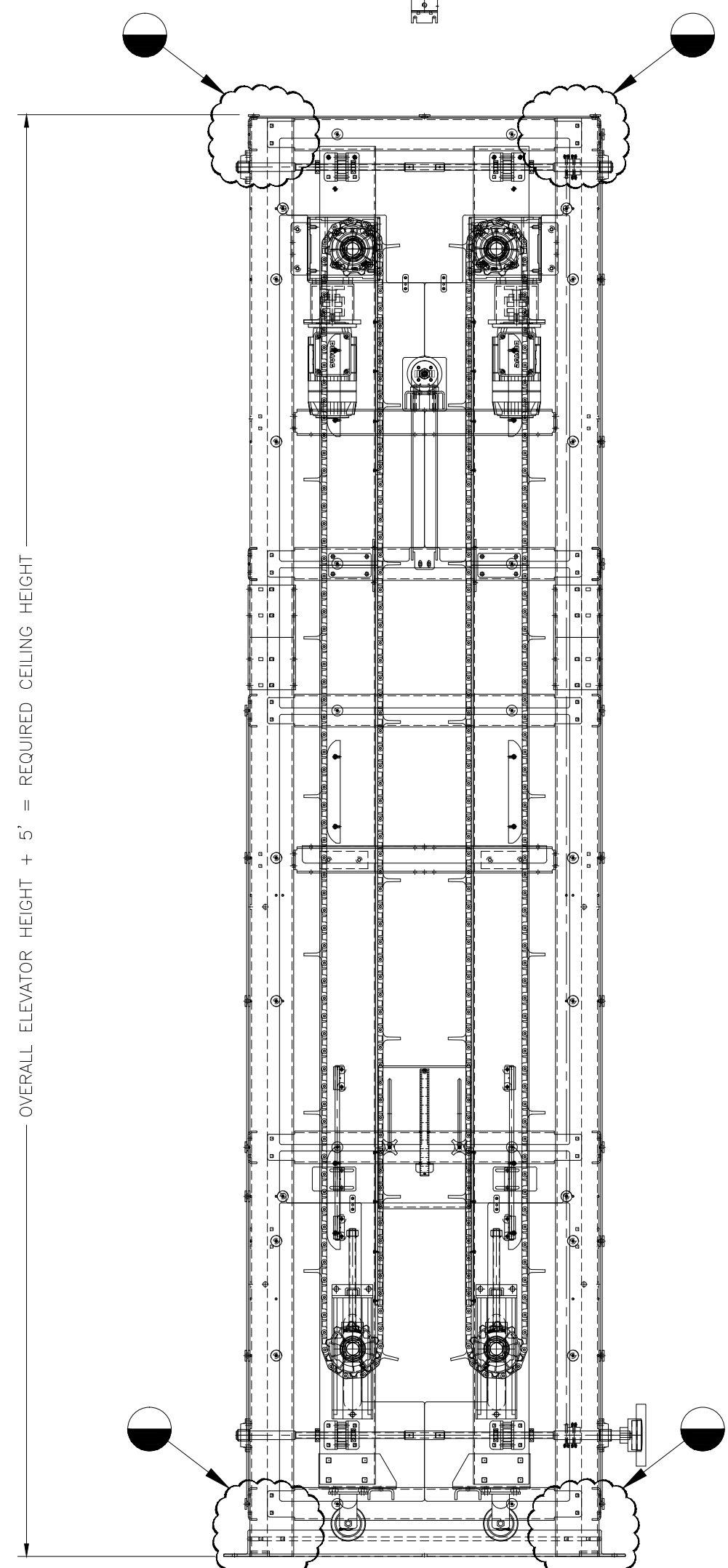
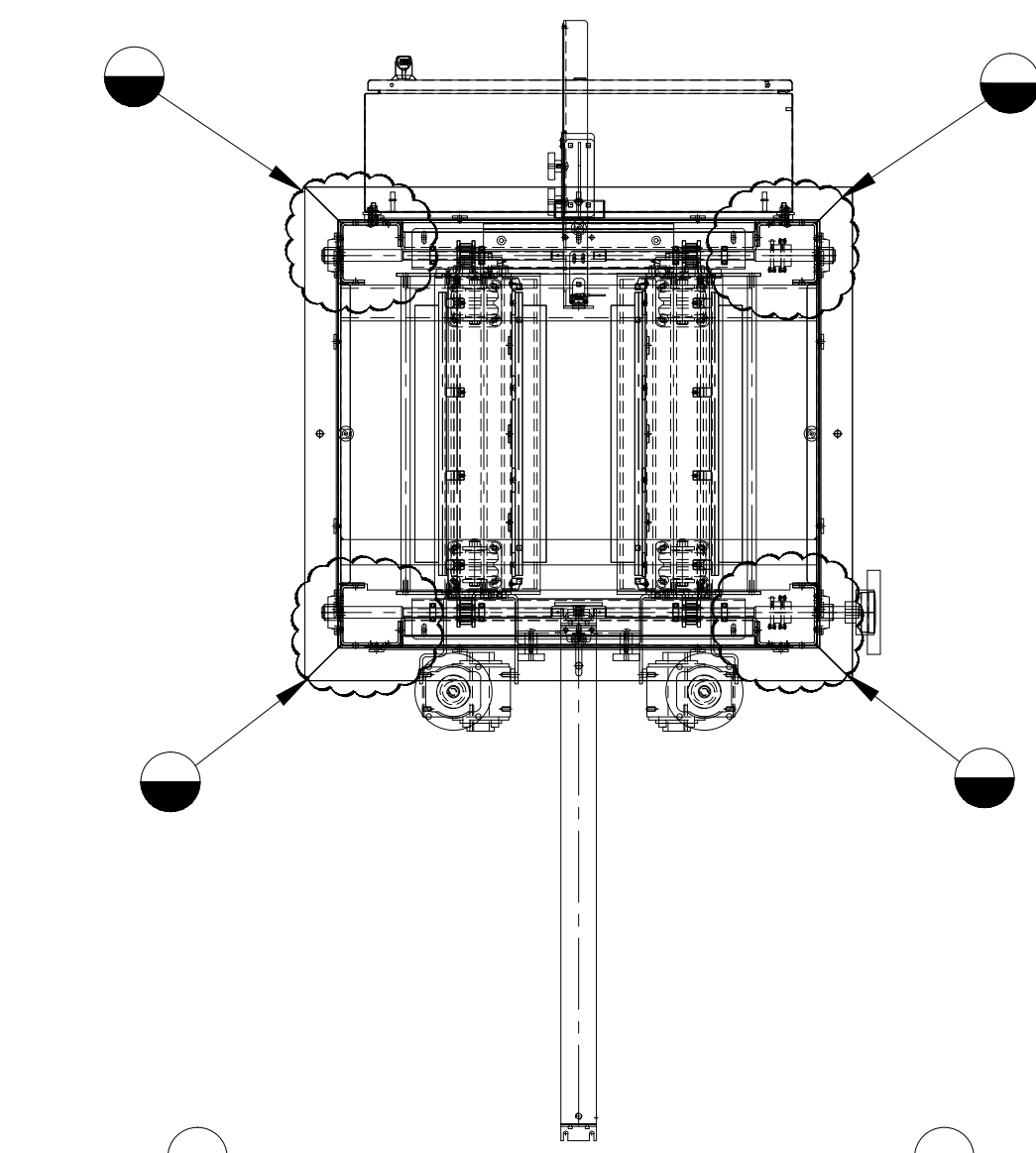
- A) VERTICAL CONVEYOR DRIVE (BRAKE MOTOR)
- B) VERTICAL CONVEYOR ASSEMBLY
- C) FIXED MANUALLY ADJUSTABLE BACK STOP ASSEMBLY (OPTIONAL), PNEUMATICALLY RETRACTABLE/ PNEUMATICALLY ADJUSTABLE END STOP (OPTIONAL)
- D) INFEEED CONVEYOR (OPTIONAL)
- E) DISCHARGE CONVEYOR (OPTIONAL)
- F) PUSHER CYLINDER ASSEMBLY
- G) HOLD DOWN ASSEMBLY
- H) ELECTRICAL PANEL
- J) HAND WHEEL ADJUSTMENT
- K) CASE PRESENT SENSOR
- L) FLIGHT DETECT SENSOR
- M) CASE OVER TRAVEL SENSOR
- N) END STOP CLEAR SENSOR (IF PNEUMATICALLY RETRACTABLE END STOP IS PRESENT)
- P) DISCHARGE PUSHER RETRACTED SENSOR
- Q) DISCHARGE PUSHER EXTENDED SENSOR
- R) END STOP CYLINDER EXTENDED POSITION SENSOR (IF PNEUMATICALLY RETRACTABLE END STOP IS PRESENT)
- S) END STOP CYLINDER RETRACTED POSITION SENSOR (IF PNEUMATICALLY RETRACTABLE END STOP IS PRESENT)

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DATE	---										
		NERCON CASE ELEVATOR									
		CASE ELEVATOR NOMENCLATURE									
REP	NERCON	TYPE	---	DWG NO.	NQM-1	SIZE	D	SHT	---	REV	---

Section 10: Support Drawings

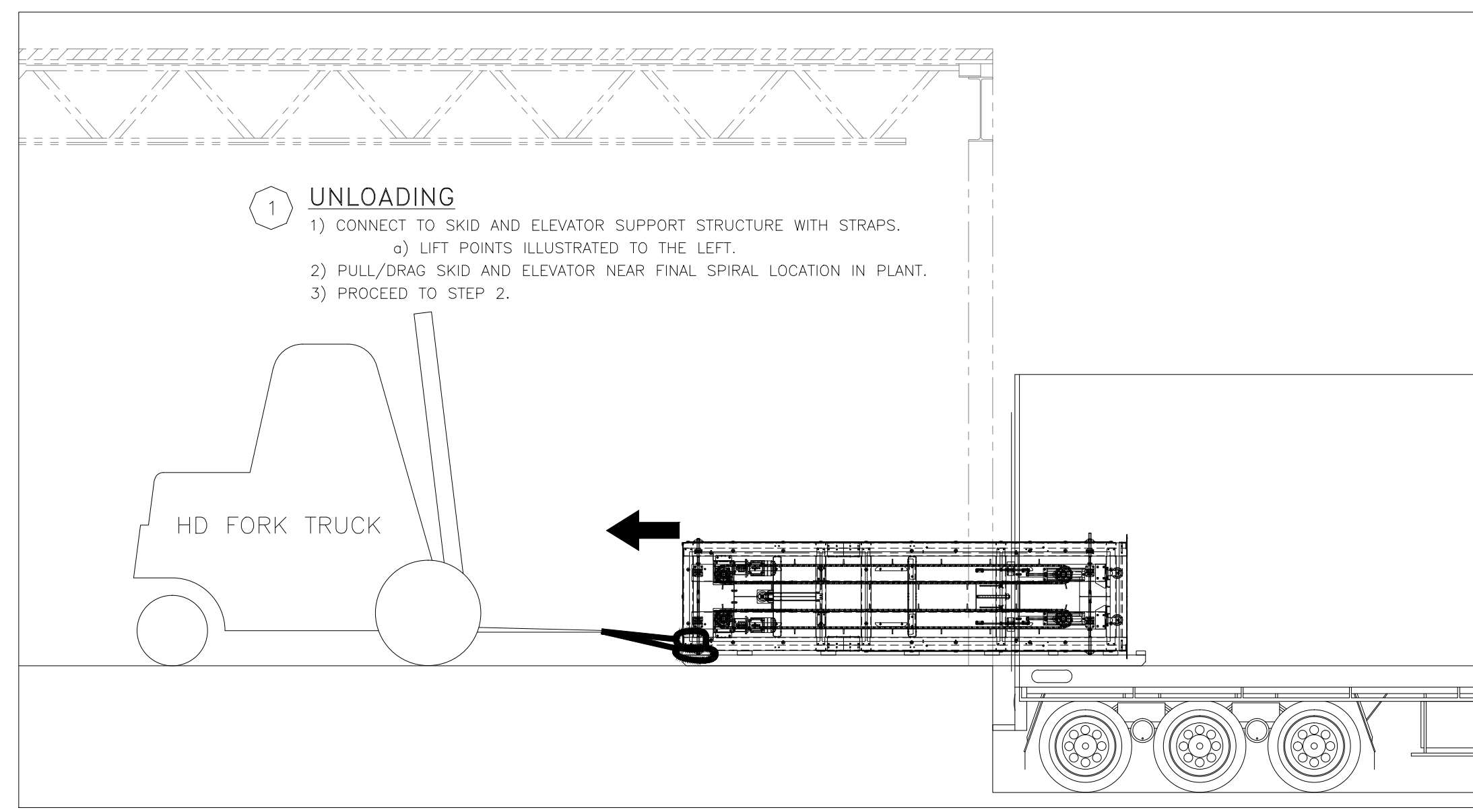
10-2: Case Elevator Standing-Up Procedure

See diagram below

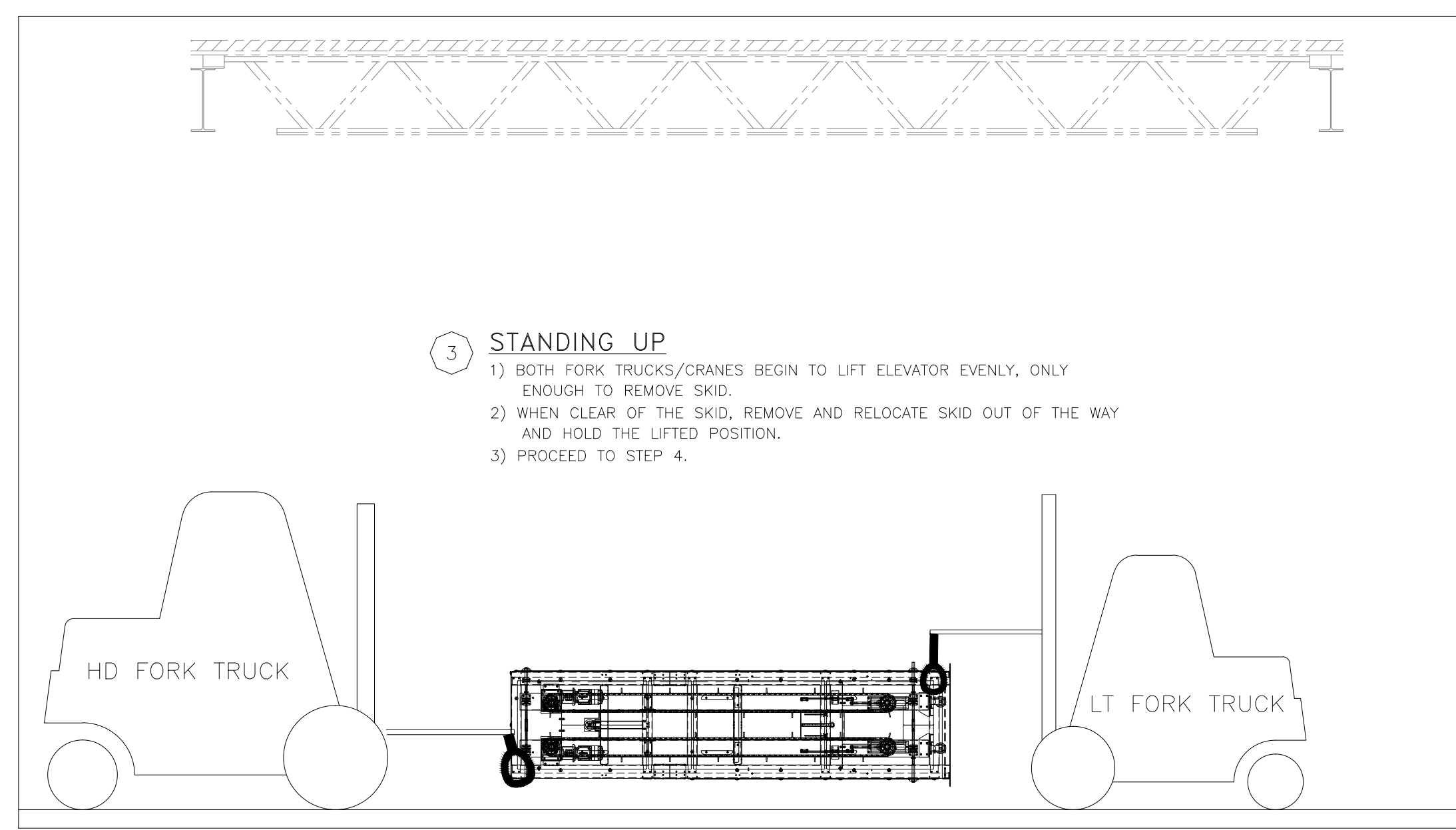


OVERALL ELEVATOR HEIGHT + 5' = REQUIRED CEILING HEIGHT

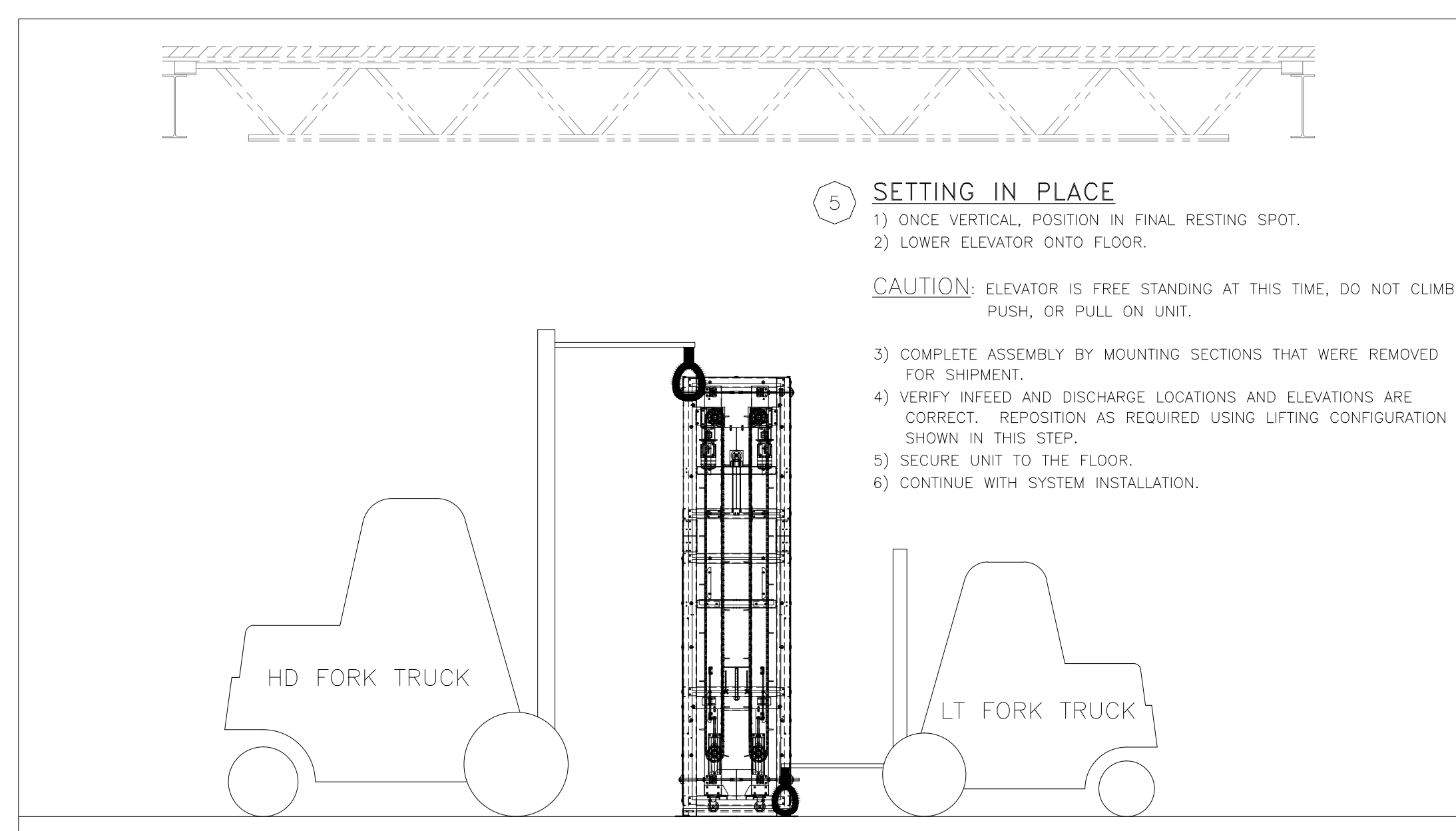
LIFTING POINT LOCATIONS
SHOWN AS TYPICALLY SHIPPED (INFEED/DISCHARGE REMOVED)



- 1 UNLOADING**
- 1) CONNECT TO SKID AND ELEVATOR SUPPORT STRUCTURE WITH STRAPS.
 - a) LIFT POINTS ILLUSTRATED TO THE LEFT.
 - 2) PULL/DRAW SKID AND ELEVATOR NEAR FINAL SPIRAL LOCATION IN PLANT.
 - 3) PROCEED TO STEP 2.



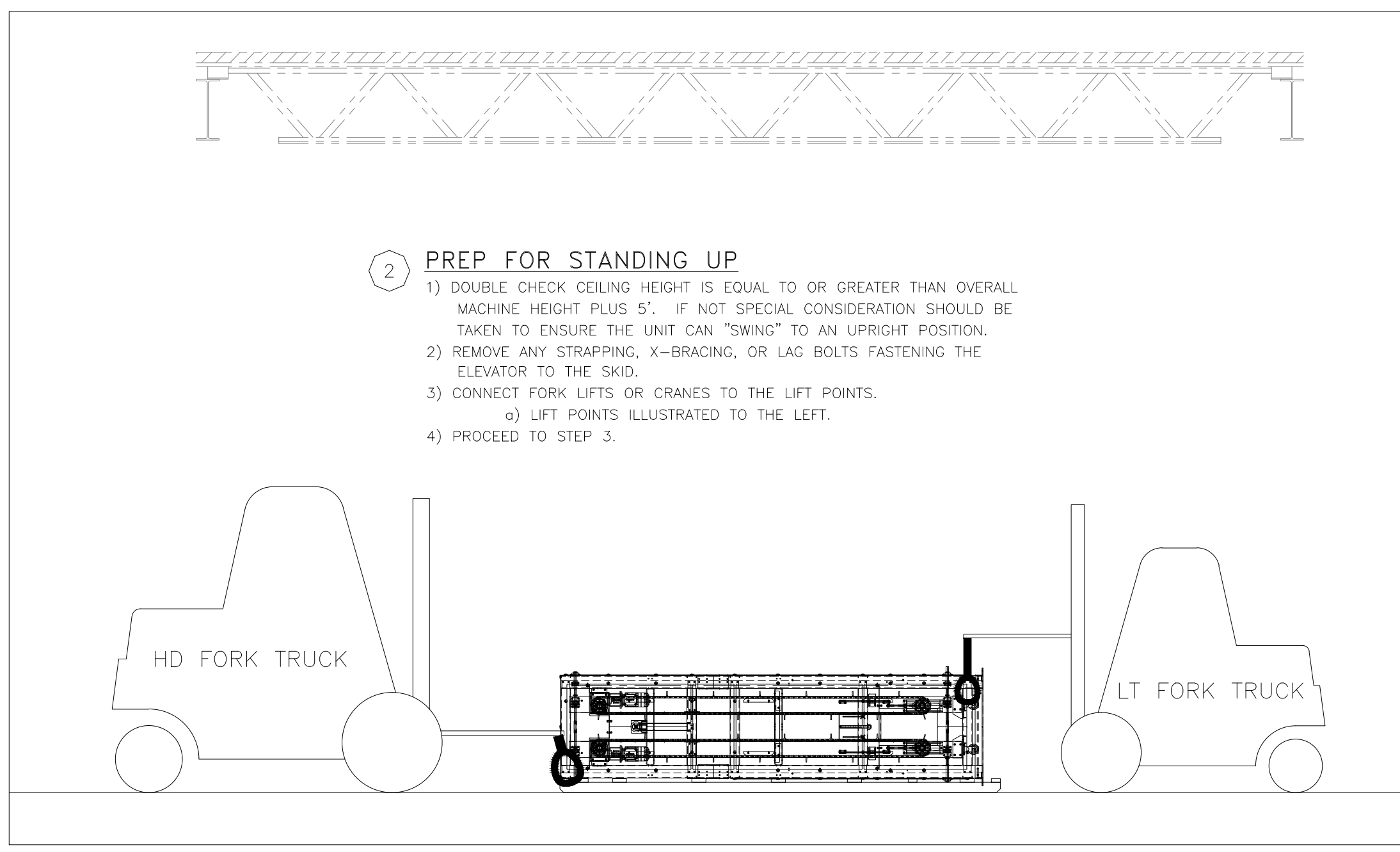
- 3 STANDING UP**
- 1) BOTH FORK TRUCKS/CRANES BEGIN TO LIFT ELEVATOR EVENLY, ONLY ENOUGH TO REMOVE SKID.
 - 2) WHEN CLEAR OF THE SKID, REMOVE AND RELOCATE SKID OUT OF THE WAY AND HOLD THE LIFTED POSITION.
 - 3) PROCEED TO STEP 4.



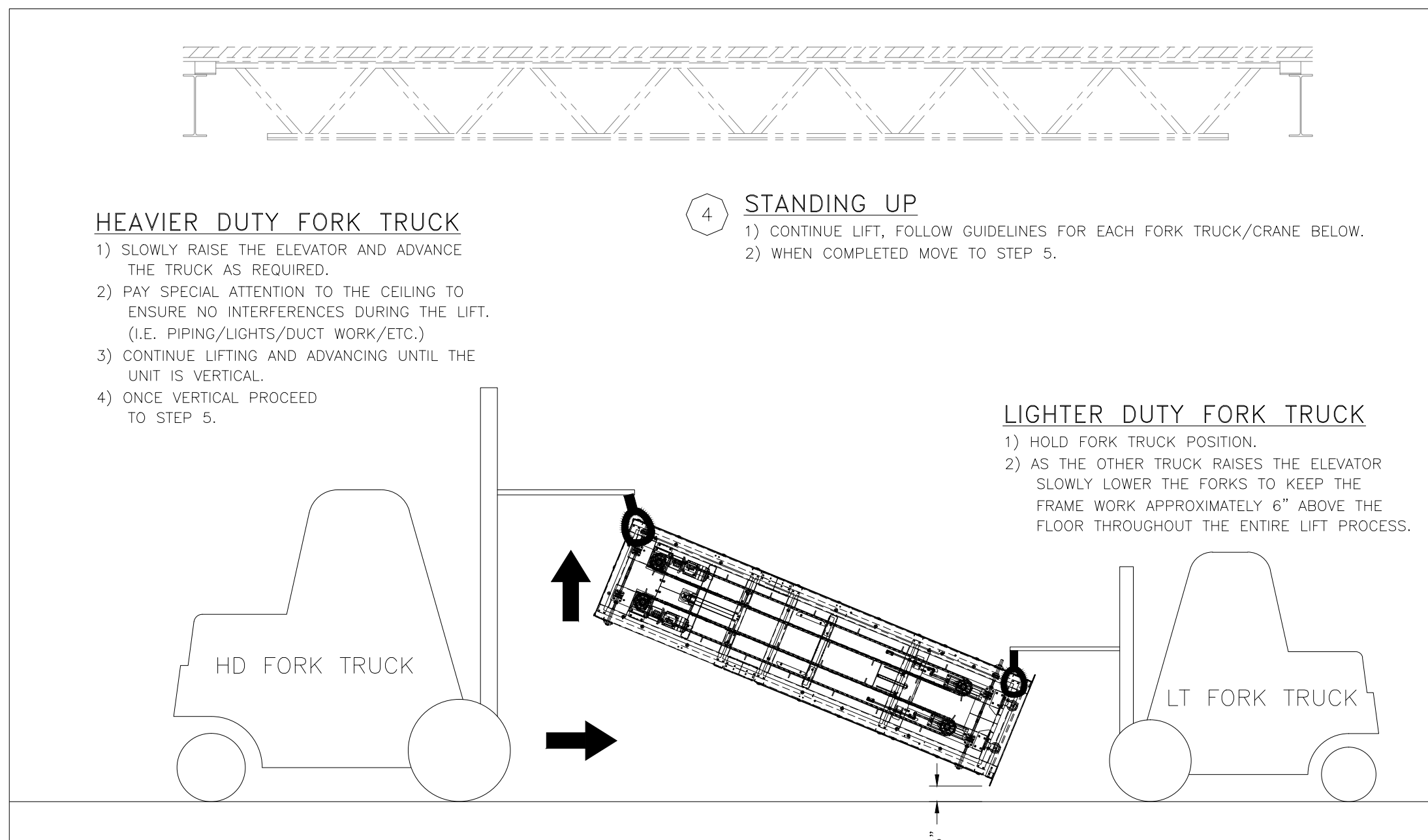
- 5 SETTING IN PLACE**
- 1) ONCE VERTICAL, POSITION IN FINAL RESTING SPOT.
 - 2) LOWER ELEVATOR ONTO FLOOR.

CAUTION: ELEVATOR IS FREE STANDING AT THIS TIME, DO NOT CLIMB, PUSH, OR PULL ON UNIT.

- 3) COMPLETE ASSEMBLY BY MOUNTING SECTIONS THAT WERE REMOVED FOR SHIPMENT.
- 4) VERIFY INFEED AND DISCHARGE LOCATIONS AND ELEVATIONS ARE CORRECT. REPOSITION AS REQUIRED USING LIFTING CONFIGURATION SHOWN IN THIS STEP.
- 5) SECURE UNIT TO THE FLOOR.
- 6) CONTINUE WITH SYSTEM INSTALLATION.



- 2 PREP FOR STANDING UP**
- 1) DOUBLE CHECK CEILING HEIGHT IS EQUAL TO OR GREATER THAN OVERALL MACHINE HEIGHT PLUS 5'. IF NOT SPECIAL CONSIDERATION SHOULD BE TAKEN TO ENSURE THE UNIT CAN "SWING" TO AN UPRIGHT POSITION.
 - 2) REMOVE ANY STRAPPING, X-BRACING, OR LAG BOLTS FASTENING THE ELEVATOR TO THE SKID.
 - 3) CONNECT FORK LIFTS OR CRANES TO THE LIFT POINTS.
 - a) LIFT POINTS ILLUSTRATED TO THE LEFT.
 - 4) PROCEED TO STEP 3.



HEAVIER DUTY FORK TRUCK

- 1) SLOWLY RAISE THE ELEVATOR AND ADVANCE THE TRUCK AS REQUIRED.
- 2) PAY SPECIAL ATTENTION TO THE CEILING TO ENSURE NO INTERFERENCES DURING THE LIFT. (I.E. PIPING/LIGHTS/DUCT WORK/ETC.)
- 3) CONTINUE LIFTING AND ADVANCING UNTIL THE UNIT IS VERTICAL.
- 4) ONCE VERTICAL PROCEED TO STEP 5.

- 4 STANDING UP**
- 1) CONTINUE LIFT, FOLLOW GUIDELINES FOR EACH FORK TRUCK/Crane BELOW.
 - 2) WHEN COMPLETED MOVE TO STEP 5.

LIGHTER DUTY FORK TRUCK

- 1) HOLD FORK TRUCK POSITION.
- 2) AS THE OTHER TRUCK RAISES THE ELEVATOR SLOWLY LOWER THE FORKS TO KEEP THE FRAME WORK APPROXIMATELY 6" ABOVE THE FLOOR THROUGHOUT THE ENTIRE LIFT PROCESS.

NOTE:

- 1) IT IS RECOMMENDED TO HIRE A FULLY INSURED PROFESSIONAL RIGGING CONTRACTOR TO PERFORMING THIS OPERATION.
- 2) BE SURE TO SECURE AND/OR ROPE OFF THE LIFT SITE SO THAT NO PERSONS MAY UNINTENTIONALLY ENTER A DANGEROUS AREA.
- 3) THESE STEPS DO NOT TAKE INTO ACCOUNT ANY LOCAL STATE OR FEDERAL SAFETY CODES THAT MAY APPLY. BE SURE TO TAKE APPROPRIATE MEASURES TO FOLLOW ALL SAFETY REQUIREMENTS FOR YOUR FACILITY AND STATE.
- 4) ESTIMATED ELEVATOR WEIGHT WILL BE PROVIDED WHEN RELEASED TO FABRICATION. IT IS THE RESPONSIBILITY OF THE RIGGING CREW TO SUPPLY FORK TRUCKS OR CRANES WITH ADEQUATE LOAD CAPACITY AND HEIGHT RANGE FOR THE ELEVATOR UNIT.

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DRN BY	EFS	CASE ELEVATOR NOMENCLATURE		
DATE	9/23/2013	REP	NERCON	TYPE
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DATE	---			REV

Section 10: Support Drawings

10-3: Case Elevator Electrical Components Drawing

See diagram below

Section 11: Spare Parts List

(ADD SPARE PARTS LIST ASSOCIATE WITH PROJECT NO.)

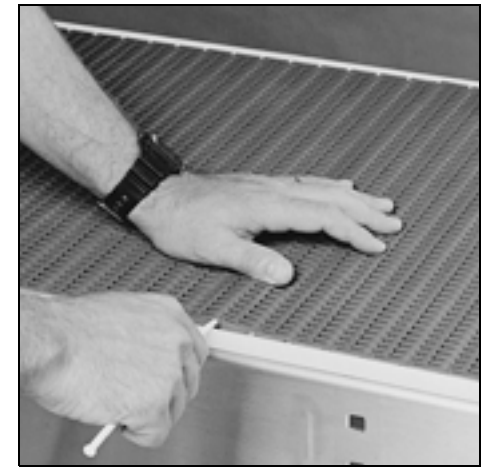
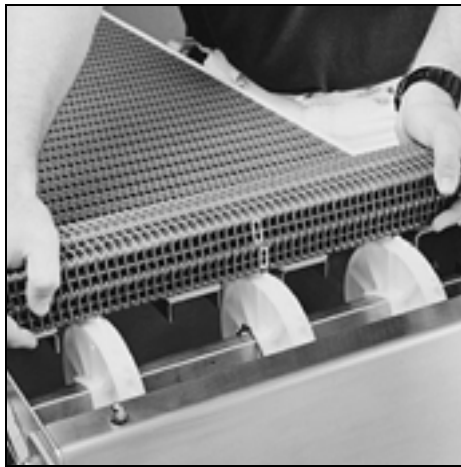
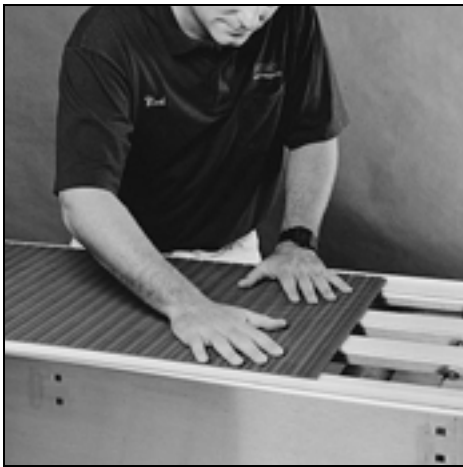
Section 12: Supplemental Manuals

12-1: Intralox Belting

See diagram below

Intralox

Modular Plastic Conveyor Belts



**Conveyor Belting Installation,
Maintenance & Trouble Shooting**

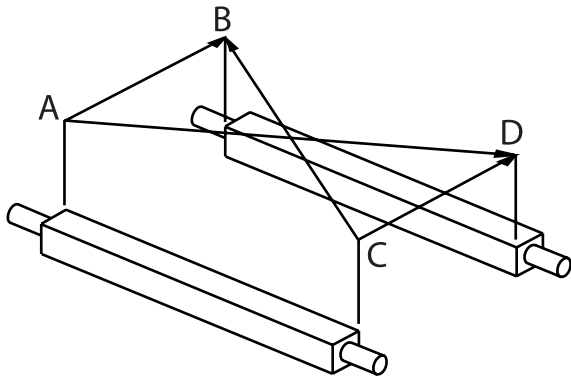
Basic Installation Instructions			
Shaft and Sprocket Installation	2		
Shaft installation and squareness	2		
Aligning Sprockets	2		
Sprocket Positions on the Shaft	2		
Locked Sprocket position on the shaft	3		
Sprocket Position on Mold To Width Belts	4		
Series 900 MTW and Series 1400 MTW	4		
Scroll Idler Installation	4		
The Carryway	4		
Configuration	4		
Installation of Intralox wearstrips	4		
Flat Finger-Joint Wearstrips	4		
Flat and Angle Wearstrips	5		
Belt Installation on Carryway	5		
Preparation	5		
Basic Procedures	5		
Belt Installation on Carryway	6		
Checking the installation	6		
Catenary Sag	7		
Break in	7		
Finger Transfer Plates Installation	7		
Dead Plates with Gap	10		
Dead Plates without Gap	11		
Belt Pullers	11		
Wide belts	11		
Abrasion Resistant Rod Installation	12		
Series 100, 400, 800 and 900	12		
Series 400 (SLIDELOX®), 1000, 1100, 1400, 1600, 1700, 1800, 2200 and 2400	12		
Series 200	12		
Individual Belt Series Instructions: Straight Running			
SERIES 100	13		
Inserting the Rod	13		
Snap-Lock Edge	13		
Removing the Rod	13		
Abrasion Resistant Rod Installation	13		
Section Replacement	13		
Splicing New and Old Edges	13		
SERIES 200	15		
Inserting the Rod	15		
Removing the Rod	15		
Abrasion Resistant Rod Installation	15		
Sprocket Installation (Direction of Rotation)	16		
Linking Belt Joints	16		
SERIES 400	17		
Inserting the Rod	17		
Snap-Lock Edge	17		
Thermally Formed Rod Head	17		
SLIDELOX®	17		
Removing the Rod	18		
SLIDELOX®	18		
Abrasion Resistant Rod Installation	18		
Snap-Lock Edge	18		
SLIDELOX®	18		
Section Replacement	18		
Splicing with SLIDELOX®	18		
Splicing into a Belt Section that has Single/Double-Headed Rods	18		
Splicing into Existing Belt Selection which Contains Blue Rod-Lox™	19		
Splicing Flush and Original Edges	19		
Special Instructions for Series 400 Angled Roller™	20		
Inserting the Rod - Headless Rod	20		
Removing the Rod - Headless Rod	20		
SERIES 800	22		
Inserting the Rod	22		
Snap-Lock Edge	22		
Removing the Rod	22		
Abrasion Resistant Rod Installation	22		
Special Instructions for Series 800 Open Hinge Flat Top	22		
Inserting the Rod - Headless Rod	22		
Removing the Rod - Headless Rod	23		
Special Instructions for Series 800 Perforated Flat Top Medium Slot (PFT MS) and Raised Rib (RR)	23		
Inserting the Rod - Headless Rod	23		
Removing the Rod - Headless Rod	24		
Special Instructions for Series 800 SeamFree™ Open Hinge belts	24		
Inserting the Rod	24		
Removing the Rod	25		
Special Splicing Instructions for New Series 800 Open Hinge Flush Edge (A) with Old Flush Edge (B)	25		
SERIES 850	27		
Inserting the Rod	27		
Removing the Rod	27		
SERIES 900	28		
Inserting the Rod	28		
Snap-Lock Edge	28		
Removing the Rod	28		
Abrasion Resistant Rod Installation	28		
Friction Top belts	28		
Returnway Requirements	28		
SERIES 1000	29		
Inserting the Rod	29		
Removing the Rod	29		
SERIES 1100	30		
Inserting the Rod	30		
Headless Rod for Flush Grid, Flat Top, Perforated Flat Top, and Flush Grid Friction Top	30		
Removing the Rod	30		
Flush Grid, Friction Top and One Piece Live Transfer Flush Grid Styles	30		
Flat Top and Perforated Flat Top Styles	30		
Abrasion Resistant Rod Installation	31		
Section Replacement	31		
Splicing Original Edge (Version 1) with New Edge (Version 3)	31		
Splicing Old Edge (Version 2) with New Edge (Version 3)	32		
SERIES 1200	33		
Inserting the Rod	33		
SLIDELOX®	33		
Removing the Rod	33		
SLIDELOX®	33		
Locked Sprocket Location	34		
SERIES 1400	35		
Inserting the Rod	35		
SLIDELOX®	35		
Abrasion Resistant Rod Installation	35		
Removing the Rod	35		
SLIDELOX®	35		
Locked Sprocket Location	36		
SERIES 1500	38		
Inserting the Rod	38		
Headless Rod	38		
Removing the Rod	38		
Locked Sprocket Location Chart	39		
SERIES 1600	42		
Inserting the Rod	42		
Removing the Rod	42		
SERIES 1650	43		
Inserting the Rod	43		
Removing the Rod	43		
SERIES 1700	44		
Inserting the Rod	44		
SLIDELOX®	44		
Removing the Rod	44		
SLIDELOX®	44		
Special Instructions for Series 1700 Transverse Roller Top belt	44		
Removing the Rod	45		
Inserting the Rod	45		
Conveyor Checks	45		
SERIES 1800	47		
Inserting the Rod	47		
Headless Rod	47		
Removing the Rod	47		
Headless Rod	47		
SERIES 1900	48		
Inserting the Rod	48		
Removing the Rod	48		
Locked Sprocket Location	48		
SERIES 7000	50		
Inserting the Rod	50		
Removing the Rod	50		
SERIES 9000	51		
Inserting the Rod	51		
Removing the Rod	51		
Individual Belt Series Instructions: Radius			
SERIES 2200	52		
Inserting the Rod	52		
Headless Rod	52		
Removing the Rod	52		
Headless Rod	52		
Series 2200 with Insert Rollers	53		
Belt Installation and Replacement	53		
SERIES 2400	54		
Inserting the Rod	54		
Headless Rod	54		
Removing the Rod	54		
Headless Rod	54		
Section Replacement Instructions for Splicing New Flush Edge (A) with Old Flush Edge (B)	54		
Series 2400 with Insert Rollers	56		
Belt Installation and Replacement	56		
Stainless Steel Turn Rail for Series 2400 Flush Grid in High Speed Intralon™	56		
Temperature:	56		
Construction:	56		
Wearstrips:	56		
SERIES 2600 & 2700 Spiralox®	58		
Inserting the Rod	58		
Headless Rod	58		
Removing the Rod	59		
Headless Rod	59		
Spiralox® Travel Direction	61		
SERIES 2800 Spiralox® G-Tech	62		
Inserting the Rod	62		
Removing the Rod	62		
Headless Rod	62		
SERIES 3000	64		
Inserting the Pin	64		
Removing the Pin	64		
Section Replacement	64		
SERIES 4000	65		
Inserting the Pin	65		
Removing the Pin	65		
Section Replacement	65		
Preventive Maintenance and Trouble Shooting			
Straight Running Belts	67		
Radius Belts	77		
Radius Belt Data Sheet	80		

Basic Installation Instructions

Shaft and Sprocket Installation

Shaft installation and squareness

Correct shaft alignment allows the belting and related components to achieve maximum efficiency and life expectancy. The diagram below shows the triangulation method for checking alignment of shafts. The use of this method insures that shafts are parallel with each other, even when the conveyor frame is out of square.



If **AD** and **BC** are equal, and **AB** and **CD** are equal, then the shafts are square to each other.

Side-to-side placement of the shafts in the conveyor frame is important when considering

the locked center sprocket on each shaft. The locked sprockets track the belt down the length of the conveyor. They align in the same relative position down the length of the conveyor. If the shafts are not placed in the correct relation to each other, belt mistracking can occur.

Aligning Sprockets

Sprockets must be installed on the shafts so that the teeth are properly aligned. On sprockets having square bores and a number of teeth evenly divisible by four, the teeth will be aligned properly no matter how the sprockets are placed on the square shaft (i.e., $16 \div 4 = 4$).

However, when the number of teeth on a sprocket cannot be evenly divided by four, special care must be taken to insure all sprockets are “timed” alike. With the exception of Series 2600 and Series 2700, there is a pilot hole manufactured in each sprocket. When the sprockets are installed, all of these holes must be placed on the same side of the shaft. For additional instructions regarding Series 200 and Sprocket Installation (Direction of Rotation) see

page 16. For sprocket alignment guidelines on Series 2600 and Series 2700, see page 60.

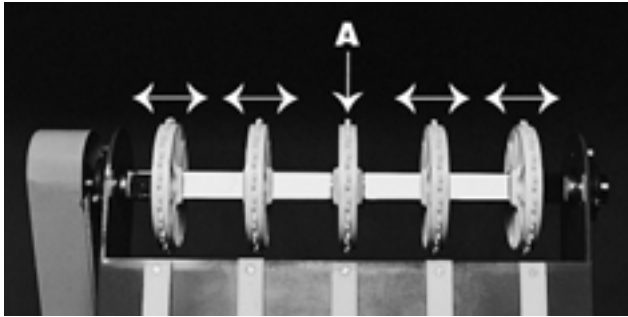


Sprocket Positions on the Shaft

Note: This does not apply to Series 2600 or Series 2700, see page 60 for more information.

Intralox recommends that only one sprocket be “locked” on each of the drive and idle shafts. These sprockets, normally in, or close to the center, provide positive lateral tracking and keep

the belt running properly between the side frames.

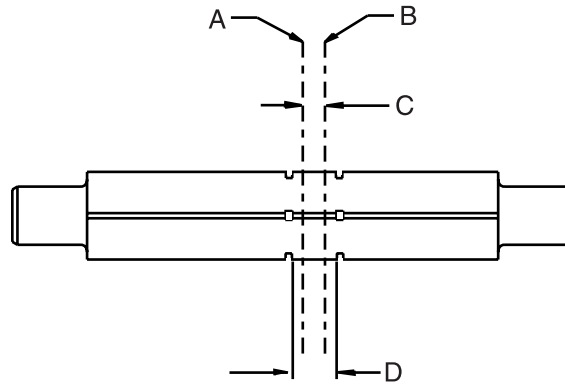


A - Locked Sprocket

The locked sprocket on the drive shaft must be in the same lateral position as the locked sprocket on the idle shaft. All other sprockets must be laterally free on the shaft to follow the thermal elongation/contraction of the belt. Where there are only two sprockets per shaft, lock the sprockets on the drive journal side.

For additional instructions on the required Center Sprocket Offset and maximum sprocket spacing see the following chart.

Locked Sprocket position on the shaft



A - Centerline of Belt
B - Centerline of Sprocket
C - Offset
D - Sprocket width

Center Sprocket Offset					
Series	Number of Links	Offset		Max. Sprocket Spacing	
		in.	mm	in.	mm
100	even	0	0	6	152
	odd	0.12	3	6	152
200	even/odd	0	0	7.5	191
200RR	even/odd	0.09	2.3	7.5	191
400	even	0	0	6	152
	odd	0.16	4	6	152
800	even/odd	0	0	6	152
850	even/odd	0	0	6	152
900	even	0	0	4	102
	odd	0.16	4	4	102
1000	even	0.25	6.4	6	152
	odd	0	0	6	152
1100	even	0	0	4	102
	odd	0.5	12.7	4	102

Center Sprocket Offset					
Series	Number of Links	Offset		Max. Sprocket Spacing	
		in.	mm	in.	mm
1100 FG Sprockets	even	0.19	4.8	4	102
	odd	0.31	7.9	4	102
1200	See chart in Series 1200 section.			6	152
1400	even	0	0	6	152
	odd	0.5	12.7	6	152
1400 FG	See chart in Series 1400 section.			6	152
1500	See chart in Series 1500 section.			6	152
1600	even/odd	0	0	4	102
1650	even/odd	0	0	4	102
1700	even	0.5	12.7	5	127
	odd	0	0	5	127
1800	even/odd	0	0	6	152
1900	See chart in Series 1900 section.			6	152
2200	even	0.25 to the left	6.4 to the left	4	102
	odd	0.25 to the right	6.4 to the right	4	102
2400 ¹	even	0.125 to the left	3.2 to the left	6	152
	odd	0.125 to the right	3.2 to the right	6	152
2600 & 2700 Spiralex® ²	even/odd	0	0	8	203
2800 Spiralex® ²	even/odd	0.5	12.7	6	152
9000	even/odd	0.5	12.7	6	152

1. For Series 2400 Tight Turning Radius Flush Grid (1.7), looking in the direction of flat turning travel, the minimum sprocket indent from the right side belt edge with tight turning modules is 2.875 in. (73 mm). Minimum sprocket indent from the left side belt edge with tight turning modules is 2.625 in. (67 mm).

2. Assuming belt is running in preferred direction.

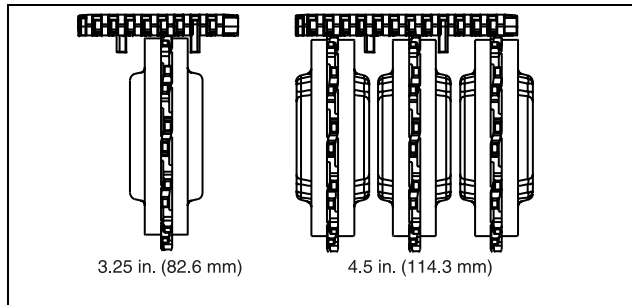
Center Sprocket Offset for Roller Belts					
Series	Number of Rollers	Offset		Max. Sprocket Spacing	
		in.	mm	in.	mm
400	even	0	0	6	152
	odd	1	25.4	6	152
7000 ¹	Divisible by 4	1	25.4	6	152
	Not divisible by 4	0	0	6	152

1. Number of rollers = belt width in inches - 1 (belt width in mm/25.4 - 1)

Sprocket Position on Mold To Width Belts

Series 900 MTW and Series 1400 MTW

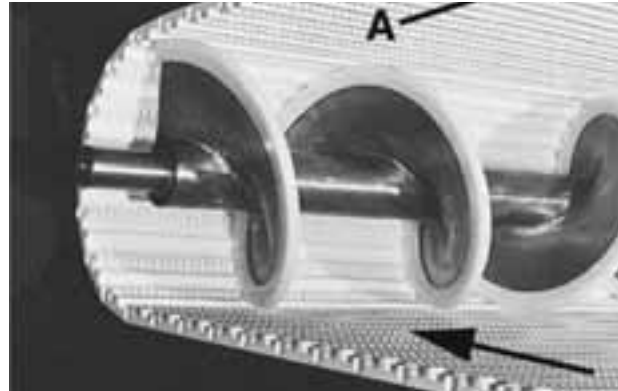
Tracking tabs on the Mold To Width belts have been designed to provide positive lateral tracking. These tabs run in tracks by spacing wearstrip 1.75 in. (44.5 mm) apart.



In the event that the tabs are not used to track the belt, Intralox recommends to fix the center sprocket in the center of the belt.

For Series 900 MTW 3.25" (83 mm) and 4.5" (114.3 mm) the center sprocket is 0.16" (4 mm) off center!

Scroll Idler Installation



A-Belt Travel

1. Position the scroll idler assembly in the conveyor frame so the "V" at the center of the scroll (where the left and right flights meet) points in the direction of belt travel.
2. Adjust the shaft take-up, if there is one, to have even tension on both sides.

Note: Scroll idlers have no built-in tracking mechanism (sprocket teeth). UHMW wearstrips may be mounted on the carryway to restrict side-to-side movement.

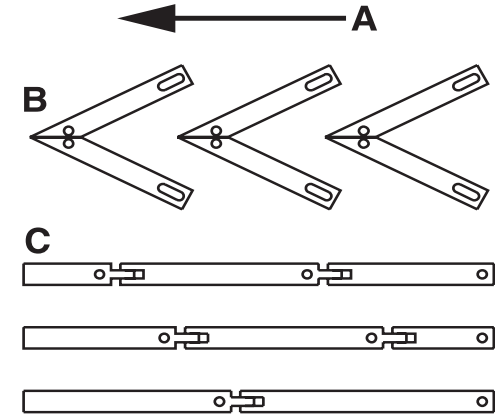
The Carryway Configuration

Intralox belting may be supported in the load-bearing part of its travel by several different types of carryways.

1. Carryway belt contact surfaces may be metal, usually cold-rolled finished carbon or

stainless steel, or one of the commonly used wearstrip plastics available from Intralox (HDPE, UHMW).

2. Carryways must be level and symmetrical. High spots or catch points can force the belt to "track" (shift to one side or the other).



A - Belt Travel
B - Chevron Array

C - Parallel Array

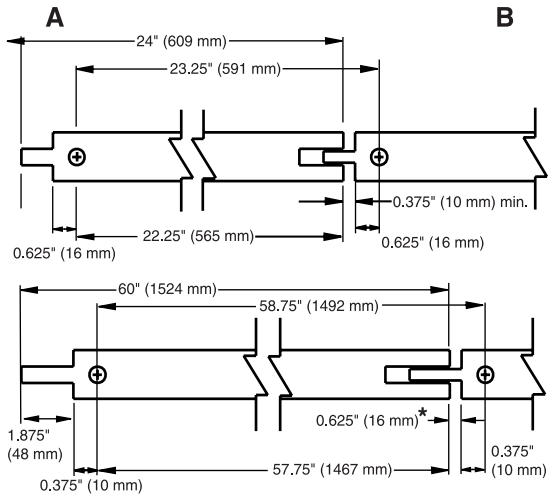
Installation of Intralox wearstrips

Installation of Plastic wearstrips should allow for thermal expansion and contraction.

Flat Finger-Joint Wearstrips

1. Start at the idle end of the conveyor. Cut the tongues off the first strips and bevel the leading edges.
2. Place each strip in position, drill a 1/4 in. (6 mm) hole in the frame and fasten with the plastic bolt and nut. Be sure to leave proper clearances between the tongues and grooves. Make sure all tongues are pointing in the direction of the idler end.

- Cut off the remnants at the drive end and fasten down.



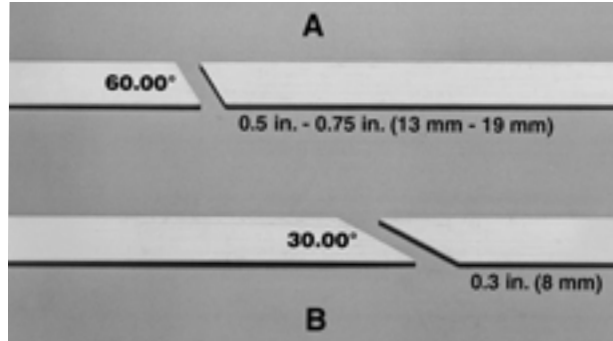
A - Idle End
B - Drive End

*Minimum

Flat and Angle Wearstrips

- In most cases, it is sufficient to bevel cut the opposing ends of the strips at an angle of 30° with the horizontal and provide a clearance gap of 0.30 in. (8 mm). In extreme conditions, the angle of the cut should be 60° . The clearance must be determined from thermal expansion calculations. Stagger the wearstrip joint locations for smooth belt operation.
- Start at the idle end of the conveyor. Drill the wearstrip and frame for a 1/4 in. (6 mm) bolt. All other holes should be slotted, on 2 ft. (0.61 m) to 5 ft. (1.52 m) centerlines.

- Cut off the remnants at the drive end and fasten down.



A-Operating temp. of 100 °F (37 °C) or more.
B-Operating temp. of 100 °F (37 °C) or less.

Belt Installation on Carryway

Preparation

This manual sets forth basic recommendations and instructions for installing Intralox belting. Realize that not all conveyors are alike. Each conveyor frame and each application may have special considerations. Whether installing a new belt or replacing an existing one, it is important to review the following items.

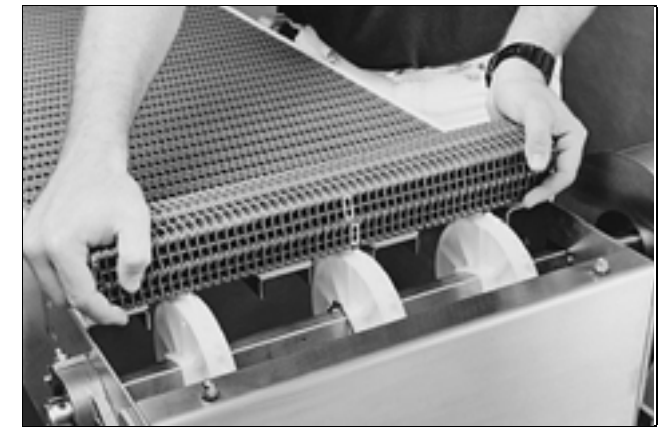
- In most retrofit cases, Intralox belting will run directly on the same carryways as the replaced belt. They should be clean, in good condition, not grooved from belt wear, and free from foreign matter.
- Check the compatibility of the wearstrip material used with that of the new belt.
- Replace wearstrips as required.

Basic Procedures

- If there is a shaft take-up, move the adjustment to the “relaxed” or “loose-belt” position.
- Feed the belt down the carryway from the drive end of the conveyor.

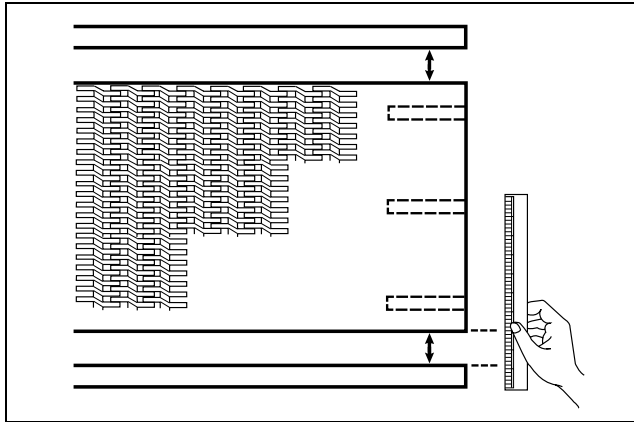


- Wrap the belt around the idle sprockets, making sure the sprockets remain in position. The two outboard sprockets must engage 1.5 in. (38 mm) to 2 in. (51 mm) from the outer edges of the belt.



Note: For Series 1100 the two out-board sprockets must engage 1 in. (25.4 mm) in from the outboard edges.

- Center the belt in the conveyor frame. Note the location of the locked sprocket. Allow adequate clearance between the belt edges and the conveyor frame to accommodate belt expansion. This is especially important for applications with elevated temperatures.

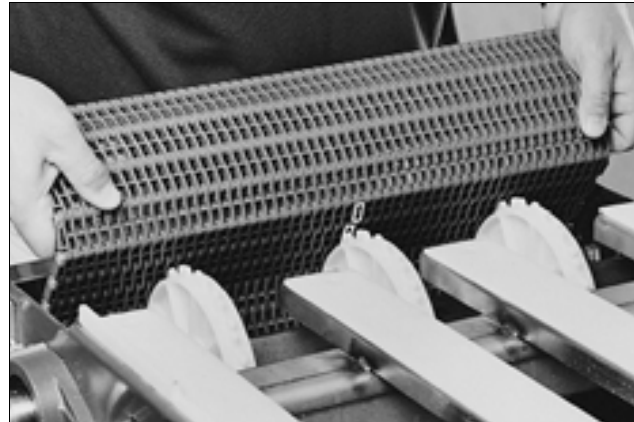


Belt Installation on Carryway

- Begin feeding the belt through the returnway until it reaches the drive sprockets.



- Wrap the belt around the drive sprockets, keeping the locked sprockets in position with each other. Make sure that the belt engages the locked sprocket on the drive end in the same position as it was engaged at the idle end. Failure to do this will result in the belt mistracking.

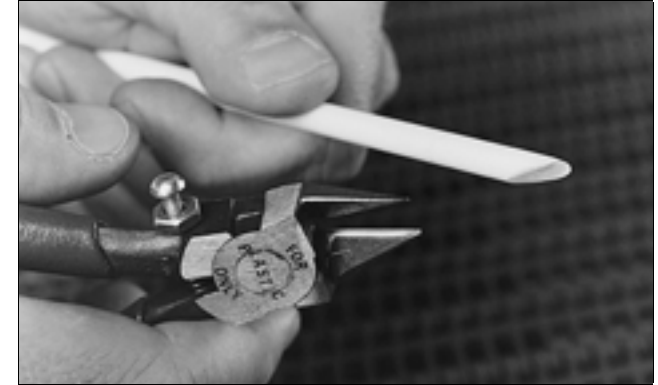


- Link up the belt joints, making sure that the edges are aligned properly.

Note: For Series 200, see *Linking Belt Joints in SERIES 200 section.*



- Clipping the rod at an angle will aid in rod installation.



- Insert the hinge rod, but do not lock in the rod or form a head on the rod at this time.



Note: Intralox uses several different Rod Retention Systems, depending on belt series. Refer to the *Individual Belt Series Instructions* for your product.

Checking the installation

- Turn the drive shaft over by hand or jog slowly for several revolutions to make certain that there is proper sprocket to belt

engagement on both the drive and idle shafts. Watch for possible catch points!

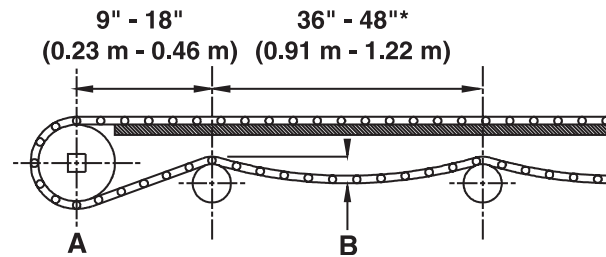


2. If the belt does not track properly, check the positioning of the sprockets on both shafts to insure that they are installed exactly as instructed in the sprocket installation section of this manual. If the belt and sprockets are properly installed, check the shaft bearings and conveyor frame for misalignment.

Catenary Sag

1. If necessary, adjust belt length to achieve proper catenary sag for belt tension. This can be accomplished by adding or removing belt

rows or by adjusting a take-up, if there is one.



A - Drive Sprocket

B - Catenary Sag: set up at 1 in. (25.4 mm) to 6 in. (152 mm) during operational temperature.

Roller Diameter - Min. 2 in. (51 mm) for 0.6 in. and 1.0 in. pitch belts. Min. 4 in. (102 mm) for 1.25 in., 1.5 in., 2.0 in. and 2.5 in. pitch belts.

*For all series except 100, 400 and 1200, these series should have rollers spaced from 48 in. (1219 mm) to 60 in. (1524 mm)

2. Once the belt is properly tensioned and running smoothly, the joining or splicing rod can be seated (snapped into place) or headed, depending upon the belt series.

Break in

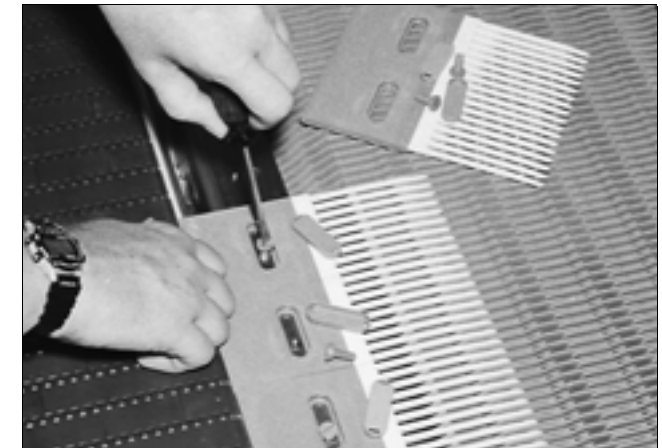
Depending upon the application parameters, belts will elongate from 0.5% to 1% of their total length during the break in period. This usually occurs during the first several days of operation. If belt elongation is excessive, it may be necessary to remove one or more rows of belt modules in order to maintain proper catenary sag and adequate belt tension.

Note: Refer to the *Intralox Engineering Manual - Design Guidelines* section for additional

information regarding the calculation of proper catenary sag.

Finger Transfer Plates Installation

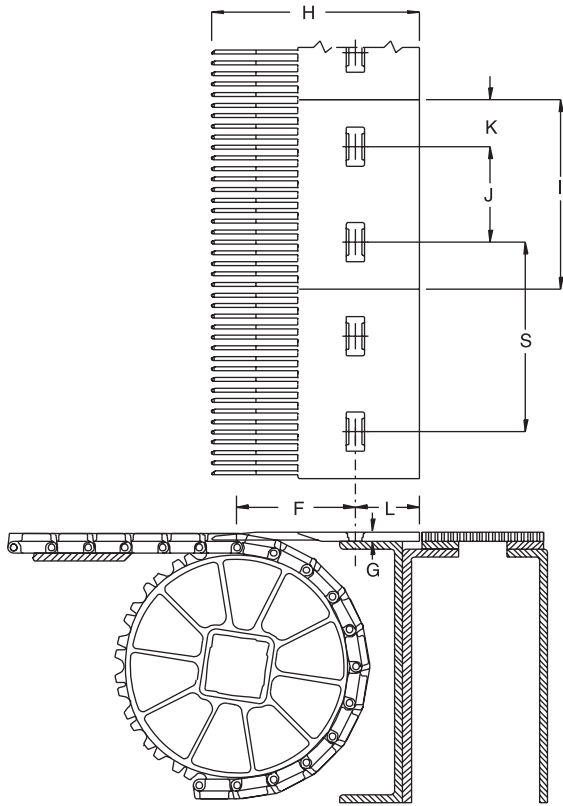
Intralox Finger Transfer Plates work in conjunction with Raised Rib belts. *Correct installation is essential for trouble-free service.* Proper installation is particularly important where the belting will be subjected to high temperature variations with significant thermal expansion.



Intralox Finger Transfer Plates are manufactured with slots for Intralox plastic shoulder bolts. Use *only* these bolts. They prevent the plates from being clamped too tightly to the support. The loose fit allows the plates to move laterally to maintain proper engagement with the belt's ribs during expansion and contraction.

Note: *Because the slots will allow only a limited amount of expansion, very wide belts under going large temperature variations may*

*exceed the allowance provided. In such cases,
contact Intralox Sales Engineering.*



For an even number of finger transfer plates, locate from the centerline of the belt. Straddle the centerline for an odd number of plates.
The finger transfer plate is to be level with the belt +0.03 in. (0.8 mm), -0.00 with hinge rod at top dead center.

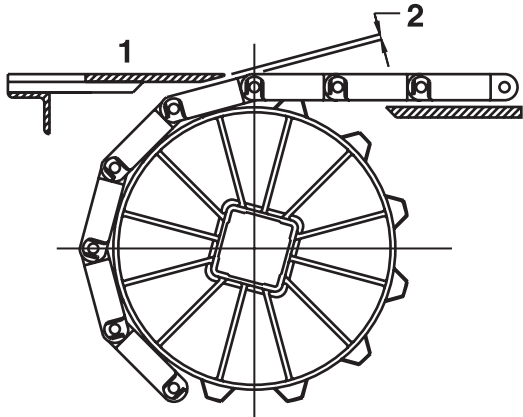
Dimensional Requirements for Finger Transfer Plate Installation

Two-Material																		
Standard													Glass Handling					
S100 & S2400		S400		S1200		S900				S1900		S400		S1200		S1900		
						6 in. 152 mm		4 in. 102 mm Retrofit										
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
F	2.38	61	3.50	89	3.50	89	3.50	89	2.38	61	3.50	89	3.50	89	3.50	89	3.50	89
G	0.19	5	0.31	8	0.31	8	0.25	6	0.19	5	0.31	8	0.31	8	0.31	8	0.31	8
H	5.83	148	7.25	184	7.25	184	6.50	165	5.83	148	6.11	155	8.26	210	8.26	210	6.11	155
I	3.96	101	5.91	150	5.91	150	5.92	150	3.94	100	5.91	150	5.91	150	5.91	150	5.91	150
J	2.50	64	3.00	76	3.00	76	3.00	76	2.18	55	3.00	76	3.00	76	3.00	76	3.00	76
K	0.74	19	1.45	37	1.45	37	1.45	37	0.90	23	1.45	37	1.45	37	1.45	37	1.45	37
L	2.00	51	2.00	51	2.00	51	2.00	51	2.00	51	5.50	140	5.50	140	5.50	140	5.50	140
S	Spacing																	
Spacing at Ambient Temperatures																		
PP 3.979 (101.1)		PP 5.952 (151.2)		Composite PP 6.000 (152.4)		PP 5.981 (151.9)	AC 5.975 (151.8)	AC 3.976 (101.0)	Enduralox™ PP 6.000 (152.4)	PP 5.952 (151.2)		Composite PP 6.000 (152.4)		Enduralox™ PP 6.000 (152.4)				
AC 3.976 (101.0)		PE 5.933 (150.7)								PE 5.933 (150.7)								

Dead plate installation

Dead Plates with Gap

1. For proper Dead Plate installation, position the belt so that a hinge rod is located directly above the centerline of the shaft.
2. Mount the Dead Plate using the minimum gap shown in the tables. This will insure that no contact occurs between the belt and the Dead Plate during operation.



1 - Top Surface of Dead Plate - typically 0.031 in. (0.8 mm) above the belt surface for product transfer onto the belt, and 0.031 in. (0.8 mm) below the belt for product transfer off the belt.

2 - Dead Plate Gap

Dead Plate Gap				
Sprocket Description			Gap	
Pitch Diameter		No. of Teeth	in.	mm
in.	mm			
Series 100				
2.0	51	6	0.134	3.4
3.5	89	11	0.073	1.9
6.1	155	19	0.041	1.0
Series 200				
4.0	102	6	0.268	6.8

Dead Plate Gap				
Sprocket Description			Gap	
Pitch Diameter		No. of Teeth	in.	mm
in.	mm			
6.4	163	10	0.160	4.1
10.1	257	16	0.100	2.5
Series 400				
4.0	102	6	0.268	6.8
5.2	132	8	0.200	5.1
5.8	147	9 (Flush Grid Acetal)	0.178	4.5
6.4	163	10	0.160	4.1
7.8	198	12	0.130	3.3
8.4	213	13 (Flush Grid Acetal)	0.121	3.1
10.1	257	16	0.100	2.5
Series 800				
4.0	102	6	0.268	6.8
5.2	132	8	0.200	5.1
6.5	165	10	0.158	4.0
7.7	196	12	0.132	3.4
10.3	262	16	0.098	2.5
Series 850				
4.0	102	6	0.268	6.8
5.2	132	8	0.200	5.1
6.5	165	10	0.158	4.0
7.7	196	12	0.132	3.4
10.3	262	16	0.098	2.5
Series 900				
2.1	53	6	0.147	3.7
3.1	79	8	0.095	2.4
3.5	89	10	0.084	2.1
4.1	104	12	0.071	1.8
5.1	130	15	0.057	1.4

Dead Plate Gap				
Sprocket Description			Gap	
Pitch Diameter		No. of Teeth	in.	mm
in.	mm			
5.8	147	17	0.050	1.3
6.1	155	18	0.047	1.2
6.8	173	20	0.042	1.1
9.8	249	28	0.029	0.7
Series 1000				
3.1	79	16	0.029	0.7
4.6	117	24	0.020	0.5
6.1	155	32	0.015	0.4
Series 1100				
1.6	41	8	0.058	1.5
2.3	58	12	0.040	1.0
3.1	79	16	0.029	0.7
3.5	89	18	0.026	0.7
3.8	97	20	0.024	0.6
4.6	117	24	0.020	0.5
5.1	130	26	0.018	0.4
6.1	155	32	0.015	0.4
Series 1200				
6.5	165	14	0.081	2.1
7.9	201	17	0.067	1.7
10.2	259	22	0.052	1.3
Series 1400				
3.9	99	12	0.066	1.7
5.1	130	16	0.050	1.3
5.7	145	18	0.044	1.1
6.7	170	21	0.038	1.0
Series 1500				
2.3	58	14	0.028	0.7
2.7	69	17	0.023	0.6

Dead Plate Gap				
Sprocket Description			Gap	
Pitch Diameter		No. of Teeth	in.	mm
in.	mm			
3.8	97	24	0.017	0.4
5.7	145	36	0.011	0.3
Series 1600				
2.0	51	6	0.134	3.4
3.2	81	10	0.079	2.0
3.9	99	12	0.066	1.7
6.4	163	20	0.039	1.0
Series 1650				
2.0	51	6	0.134	3.4
3.2	81	10	0.079	2.0
3.9	99	12	0.066	1.7
6.4	163	20	0.039	1.0
Series 1700				
5.8	147	12	0.224	5.7
6.7	170	14	0.210	5.3
7.7	196	16	0.199	5.0
Series 1800				
5.0	127	6	0.150	3.8
6.5	165	8	0.108	2.8
8.1	206	10	0.091	2.3
10.5	267	13	0.074	1.9
Series 1900				
6.7	170	10	0.164	4.2
10.6	269	16	0.102	2.6
Series 2200				
3.9	99	8	0.150	3.6
5.3	135	11	0.108	2.8
6.3	160	13	0.091	2.3
7.7	196	16	0.074	1.9

Dead Plate Gap				
Sprocket Description			Gap	
Pitch Diameter		No. of Teeth	in.	mm
in.	mm			
Series 2400				
2.0	51	6	0.134	3.4
3.9	99	12	0.065	1.7
5.1	130	16	0.050	1.3
6.4	163	20	0.039	1.0
Series 2600 & 2700 Spiralox®				
5.2	132	8	0.200	5.1
6.5	165	10	0.158	4.0
Series 2800 Spiralox®				
6.3	160	13	0.091	2.3
Series 3000				
5.2	132	8	0.200	5.1
6.5	165	10	0.158	4.0
7.7	196	12	0.132	3.4
Series 4000				
3.9	99	12	0.066	1.7
5.1	130	16	0.050	1.3
5.7	145	18	0.044	1.1
6.7	170	21	0.038	1.0
Series 7000				
8.3	211	8	0.318	8.1
10.3	262	10	0.253	6.4
Series 9000				
6.5	164	20	0.040	1.0
8.1	205	25	0.032	0.8

Dead Plates without Gap

In some installations, it may be desirable to keep the tip of the Dead Plate in contact with the belt, rather than allowing a gap to occur. This can

be done by hinging the Dead Plate support. This allows the Dead Plate to move as the modules pass.

Note: There will be a small oscillating motion that could cause tippage problems for sensitive containers of products.

Belt Pullers

If belt pullers are required you may purchase them from Intralox. Call Customer Service for more information.

Wide belts

Installing belting on wide conveyors is more difficult than on narrow frames. It may be possible to use the conveyor motor to help with the installation.



1. If possible, on the returnway, use pipe or lumber to span the distances between the shoes or rollers. This will prevent the belt from forming catenary sags before the belt ends have been joined together.
2. Slide the belt down the carryway of the conveyor from the idle end.
3. Wrap the belt around the drive sprockets. Once this has been accomplished, use the

motor to pull the belt through the rest of the installation process.

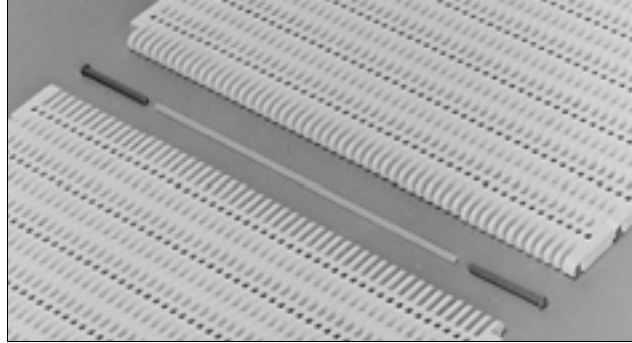
4. Continue adding sections of belt. While using the motor to pull the belt down the carryway, feed the belt manually through the returnway.
5. When the belt in the returnway reaches the idle end of the conveyor, pull it up and wrap it around the idle sprockets. Pull up a sufficient length to prevent the belt from slipping back. Lock the idle shaft.
6. After joining the belt ends, reverse the motor and pull the belt tight. Return the motor to its original position.
7. Correct the belt length.
8. Remove the returnway supports.
9. After any final adjustments, seat or finish the rod heads, then check the operation.

Abrasion Resistant Rod Installation

Intralox has developed Abrasion Resistant rods which enhance the performance of Intralox belts

in abrasive or gritty environments. Rods are held in place by rodlets on both belt edges, shown below by a partially disassembled belt. Rodlets are short rods with preformed heads, made of Abrasion Resistant plastic material.

Note: Abrasion Resistant rods are not to be used with Series 200 and 400 Open Hinge style belts.



Series 100, 400, 800 and 900

1. Cut the old rod heads off with a pair of snips from the underside of the belt.

2. Remove the old rod while inserting the new Abrasion Resistant rod section.
3. Insert the rodlets at each side of the belt. Lock them in position under the Snap-Lock retention system.

Series 400 (SLIDELOX®), 1000, 1100, 1400, 1600, 1700, 1800, 2200 and 2400

Abrasion Resistant rodlets are not required for these Series. The headless rod retention system, which allows for nondestructive rod replacement and reassembly, uses only unheaded rods.

Series 200

Refer to product specific section of this manual, for instructions regarding Abrasion Resistant Rod Installation for Series 200.

Individual Belt Series Instructions: Straight Running

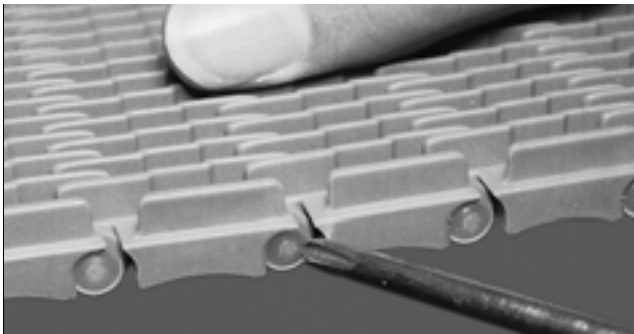
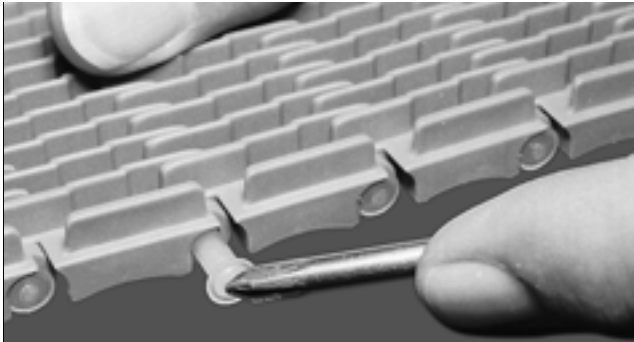
SERIES 100

Inserting the Rod

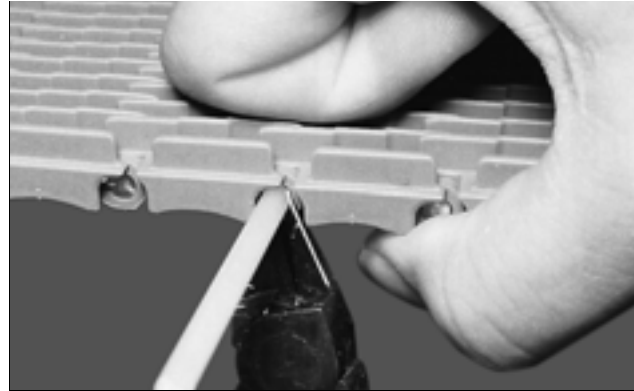
Series 100 belt styles have a retention flange or Snap-Lock in each module's edge.

Snap-Lock Edge

1. Push the preformed head of the hinge rod into position with a screwdriver or similar tool by applying pressure down and away from the Snap-Lock while simultaneously pushing the rod inward.



2. Once the rod is seated in the Snap-Lock, cut the opposite end of the rod flush with the edge of the belt.



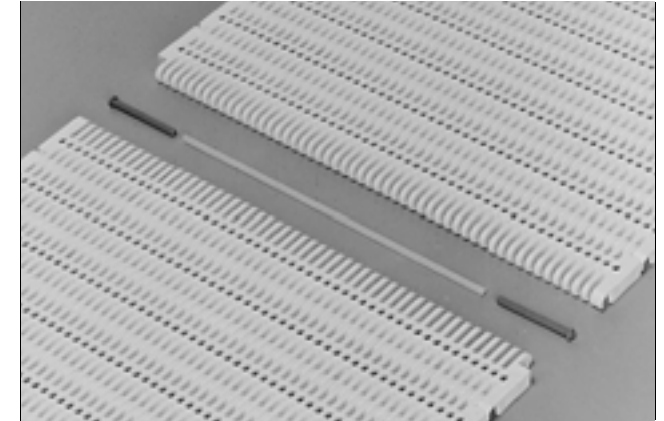
Removing the Rod

1. Rods are expendable. To remove the rod, cut the old rod heads off with a pair of snips from the underside of the belt.
2. Push the rod out using a blunt, small diameter object.

Abrasion Resistant Rod Installation

1. Cut the old rod heads off with a pair of snips from the underside of the belt.
2. Remove the old rod while inserting the new Abrasion Resistant rod section.

3. Insert the rodlets at each side of the belt. Lock them in position under the Snap-Lock retention system.



Section Replacement

Splicing New and Old Edges

Continuous improvement of the Intralox product line often involves harmonizing old and new versions of the same belt style. Care is taken in the design process to insure that older versions of a belt are not rendered obsolete when a section repair is required using a newer length of belt. Lengths of older belt may be run in complete harmony with sections of the improved designs.

A section of "NEW" Series 100 Flush Edge belting can be spliced into an existing original design. ALTERATIONS ARE ONLY NEEDED ON THE ORIGINAL EDGE ROWS.

1. Bring the two sections of belting together, but do not join them. On the edge of the original section of Series 100 Flush Grid or Raised

Rib, cut off the outermost link of the edge module.



2. Snip off the “arrowhead” shaped spacer tip on the second link only.



3. Repeat Steps 1 and 2 on the opposite side of the belt.
4. Join the belting sections by inserting the hinge rod, starting on the side with the Snap-

Lock on the new flush edge module. To seat the preformed rod head properly, follow the procedure outlined above.

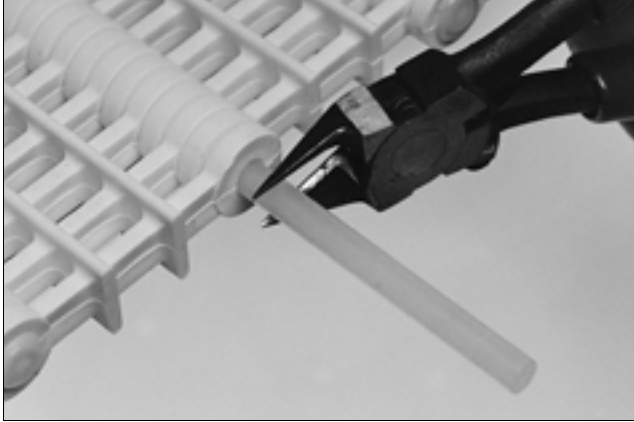


5. Repeat Steps 1 through 4 to join the remaining side of the new belt to the original belt section.

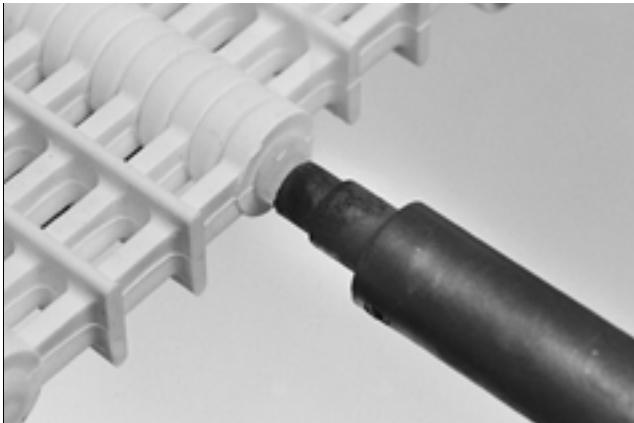
SERIES 200

Inserting the Rod

1. Leave 0.25 in. (6 mm) of rod protruding.



2. Head with an 80 watt soldering iron. The finished rod head should be about 5/16 in. (8 mm) in diameter.



3. Be certain that all rods are headed on both sides of the belt.

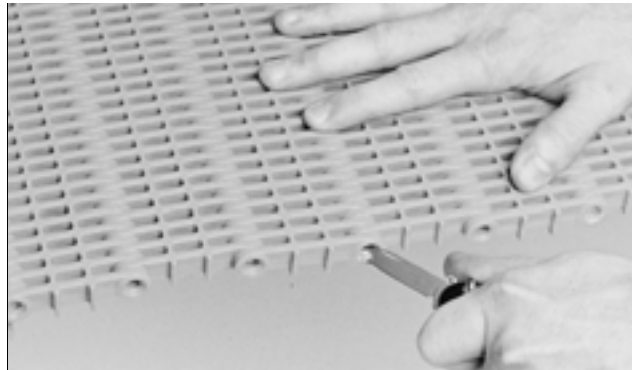
Removing the Rod

1. Rods are expendable. To remove the rod, cut the old rod heads off with a pair of snips from the underside of the belt.
2. Push the rod out using a blunt, small diameter object.

Abrasion Resistant Rod Installation

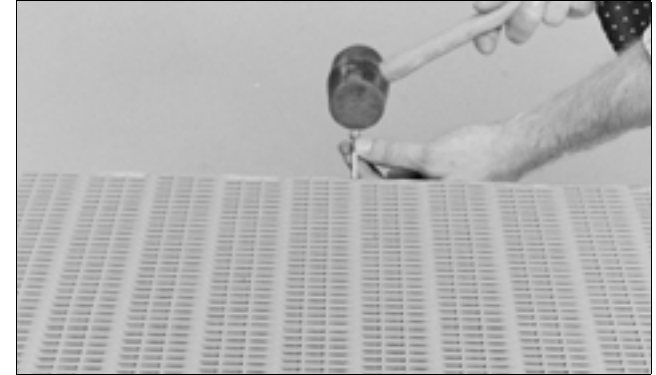
In Series 200 belt styles, the Abrasion Resistant rod is retained by thermally deforming the outermost link on each edge of the belt. This closes the rod hole partially with the module material.

1. Rout out the partially closed hole with a pocket knife.



2. Push the rod out from the opposite side using the blunt steel rod or other stiff, small diameter object. Sharp objects may cause the

rod to flare, making rod removal more difficult.



3. After the new rod is installed, re secure the rod using the same module that was routed out.

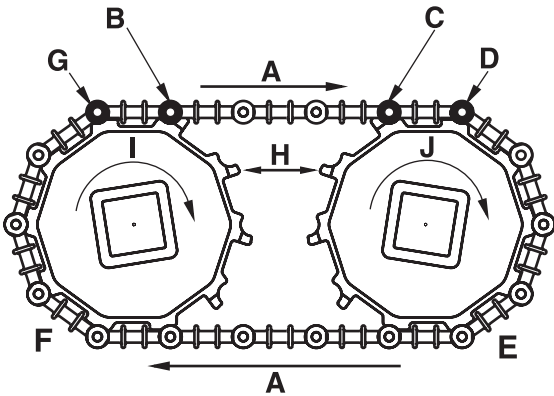


Note: Abrasion Resistant rods are not to be used with Series 200 Open Hinge style belts. They are held in place by preformed rodlets or by the belt edge.

CAUTION: Never head a rod using an open flame. Abrasion Resistant rods should never be headed at all.

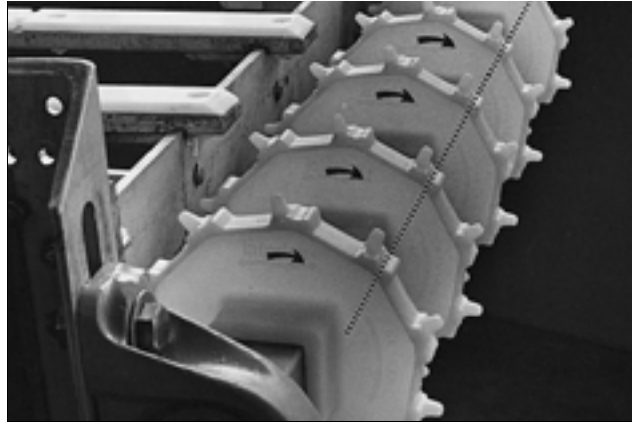
Sprocket Installation (Direction of Rotation)

- Series 200 sprockets are not symmetrical. They have a “driving and idling” direction of rotation. These sprockets must be placed on the shafts as shown below.

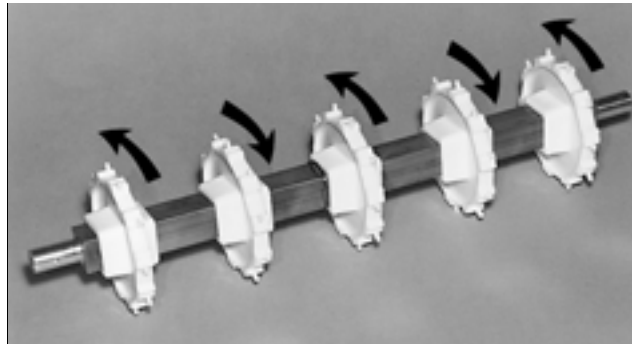


- A - Belt travel
- B - Note profile of sprocket tooth in idling position. Round hinge portion of belt fits into saddle behind sprocket tooth.
- C - Note profile of sprocket tooth in driving position. Round hinge portion of belt fits into saddle in front of sprocket tooth.
- D - In driving position, sprocket pushes belt.
- E - Driving Sprockets
- F - Idling or Take-up Sprockets
- G - In idling position, belt pushes sprocket.
- H - Note teeth on drive and idler sprockets face in opposite directions.
- I - Idling Direction
- J - Driving Direction

- All sprockets must be timed identically, with all corresponding teeth lined up in the same radial direction when looking down the shaft.



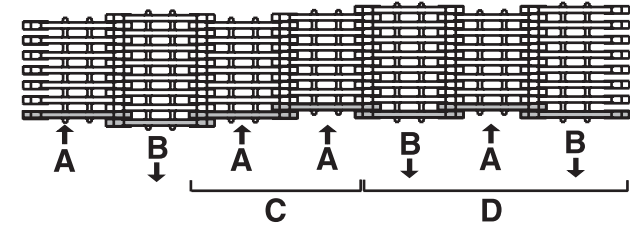
- On center-drive and push-pull bi-directional conveyors, reverse every other sprocket on the shaft.



Linking Belt Joints

With the exception of Series 200 Flat Top and Perforated Flat Top, the edges of Series 200 belts cannot line up flush. The edges must have an in-and-out edge pattern.

Important: If it is necessary to add or remove rows of belting, Series 200 belting must be removed in two row increments to maintain the “in-and-out” belt edge. All Series 200 belts must have an even number of rows.



- A - In
- B - Out
- C - Incorrect Splicing
- D - Correct Splicing

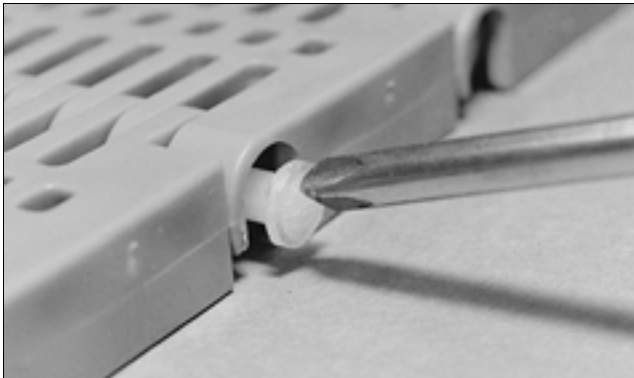
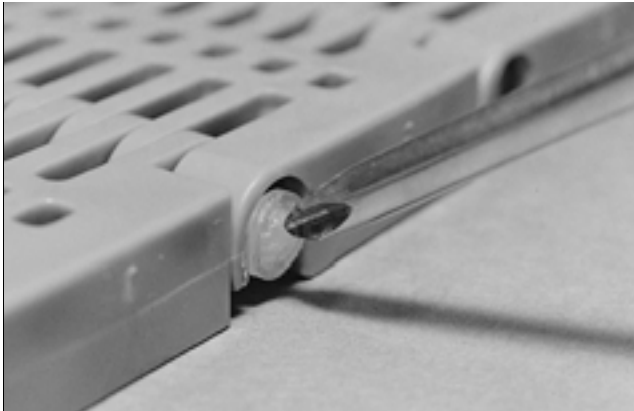
SERIES 400

Inserting the Rod

Snap-Lock Edge

Most Series 400 belt styles have a retention flange or Snap-Lock in each module's edge.

1. Push the preformed head of the hinge rod into position with a screwdriver or similar tool by applying pressure down and away from the Snap-Lock while simultaneously pushing the rod inward.



2. Once the rod is seated in the Snap-Lock, cut the opposite end of the rod flush with the edge of the belt.



Thermally Formed Rod Head

Series 400 Open Hinge belts employ thermally formed rod heads.

1. Leave 0.25 in. (6 mm) of rod protruding.
2. Head with an 80 watt soldering iron. The finished rod head should be about 5/16 in. (8 mm) in diameter.
3. Be certain that all rods are headed on both sides of the belt.

CAUTION: *Never head a rod using an open flame. Abrasion Resistant rods should never be headed at all. Abrasion Resistant rods are not recommended for Series 400 Open Hinge belts.*

SLIDELOX®

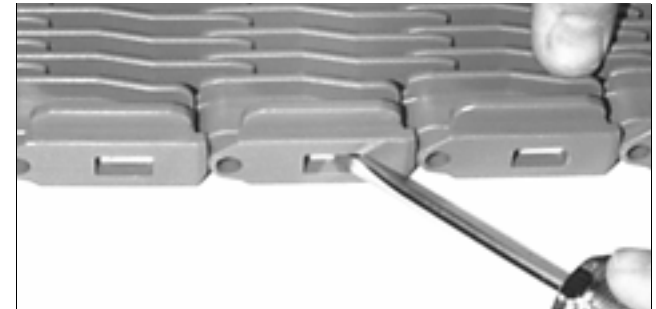
1. Check to see that the rod hole on one side of the belt is closed by a SLIDELOX® piece. If



it is not, with a small-tipped screwdriver, move the SLIDELOX® piece to its closed and operating position.



2. Join the two ends of the belt by inserting a hinge rod through the open hole (opposite the previously closed end). Make sure the rod's tip is about 1/2 in. (12.7 mm) deep into the edge.



3. Once the rod is inserted, move the SLIDELOX® to its closed position. The plug should “snap” into its closed position.

Note: *It is the installers' responsibility to insure that **all** SLIDELOX® are properly closed at the time of installation.*

Removing the Rod

SLIDELOX®

1. Open both SLIDELOX® containing the rod. To do this, push the SLIDELOX® in and over with a small screwdriver.



2. Push the rod out through one of the open ends with a small tool or another rod.



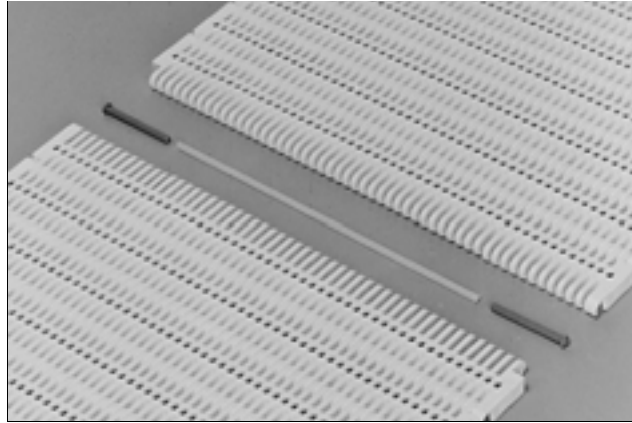
Abrasion Resistant Rod Installation

Note: Abrasion Resistant rods are not to be used with Series 400 Open Hinge style belts.

Snap-Lock Edge

1. Cut the old rod heads off with a pair of snips from the underside of the belt.
2. Remove the old rod while inserting the new Abrasion Resistant rod section.

3. Insert the rodlets at each side of the belt. Lock them in position under the Snap-Lock retention system.



SLIDELOX®

Abrasion Resistant rodlets are not required for Series 400 belts with SLIDELOX® edges. The SLIDELOX® system uses only headless rods.

Section Replacement

Splicing with SLIDELOX®

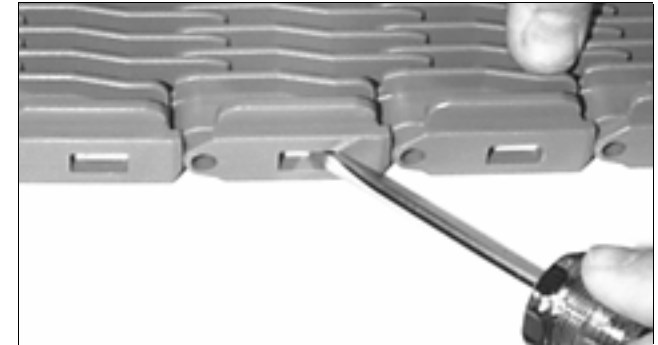
1. Open both SLIDELOX® containing the rod. To do this, push the SLIDELOX® in and over with a small screwdriver.



2. Push the rod out through one of the open ends with a small tool or another rod.



3. When the repairs are complete, replace the rod and slide both SLIDELOX® into the closed and operating positions.



Note: It is the installers' responsibility to insure that all SLIDELOX® are properly closed at the time of installation.

Splicing into a Belt Section that has Single/Double-Headed Rods

Follow the splicing steps described in the previous section.

If the existing flush edge module retention lips appear to be in good condition and headed rods are available, follow these steps:

1. Insert a headed rod into the side of the belt opposite the SLIDELOX® and snap rods into retention lips.

2. Close the SLIDELOX® on opposite side of the belt once the rod is inserted.

If the existing flush edge module retention lips are not in good condition or there are no headed rods available, follow these steps:

1. Close the SLIDELOX® on one side of the belt.
2. Insert a non-headed rod from the opposite side of the belt. The rod should be 1 in. (25.4 mm) shorter than the width of the belt.
3. Using a blunt tip soldering iron or a heated round rod, melt the plastic around the rod hole on the belt until it is at least partially closed.

Splicing into Existing Belt Selection which Contains Blue Rod-Lox™

1. Remove a link from an existing flush edge module.



2. Close SLIDELOX® on this side of the belt.

3. Remove the flush edge overlap from the opposite side of the new belt section for Series 400 Raised Rib belt styles only.

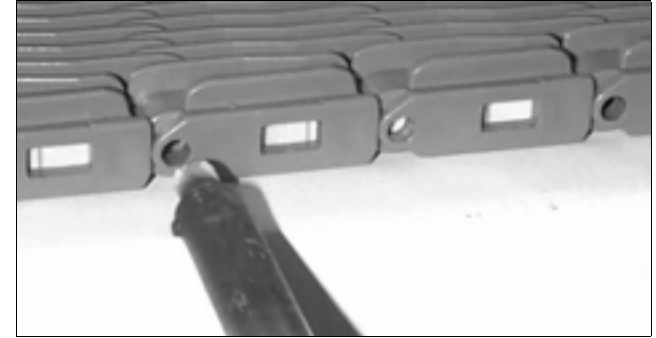


4. Splice together new and existing belts sections.



5. Insert rod through spliced belt. Rod should be about 1 in. (25.4 mm) shorter than the width of the belt.
6. Make sure the rod is correctly inserted in the belt. Thermally deform rod hole by using a blunt tip soldering iron to melt the plastic around the rod hole that previously contained the yellow Rod-Lox™. The rod hole should

be at least partially closed when soldering is completed.

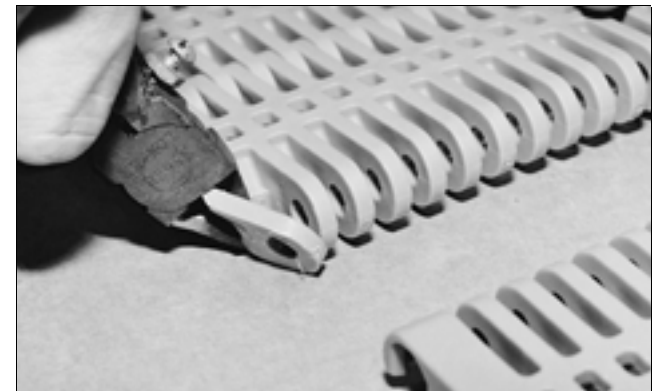


Splicing Flush and Original Edges

A section of Flush Edge Series 400 Flush Grid or Raised Rib belting can be spliced into an existing Series 400 conveyor belt.

ALTERATIONS ARE NEEDED ONLY ON THE ORIGINAL EDGE ROWS.

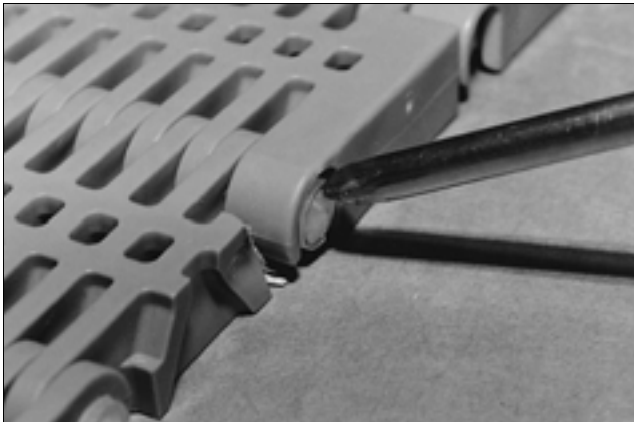
1. Bring the two sections of belting together, but do not attempt to join them at this time. Clip the outermost link of the original edge module.



- For the Raised Rib belt, alter the outermost rib on the old section of belt in order to allow for backbend.



- Repeat steps 1 and 2 on the opposite side of the belt.
- Join the two sections of belting by inserting the hinge rod, starting on the side with the Snap-Lock on the new Flush Edge module.



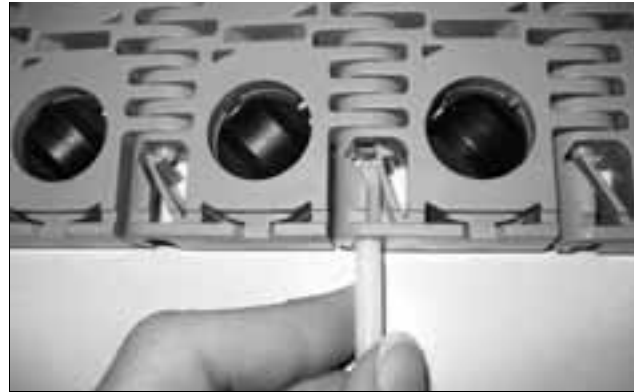
- Refer to the previous instructions on seating the hinge rod in the Snap-Lock.

Special Instructions for Series 400 Angled Roller™

Inserting the Rod - Headless Rod

Series 400 Angled Roller™ utilizes a headless rod retention system.

- Rods should be accurately cut to 1.75 in (44.5 mm) shorter than the actual width of the belt.
- Insert the rod into the aligned holes as far as it will go by hand.



- Use an extra rod or a screwdriver to push the belt rod completely past the retention lip.



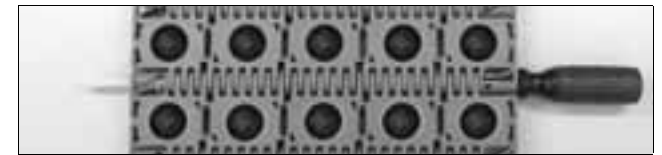
- Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.



Removing the Rod - Headless Rod

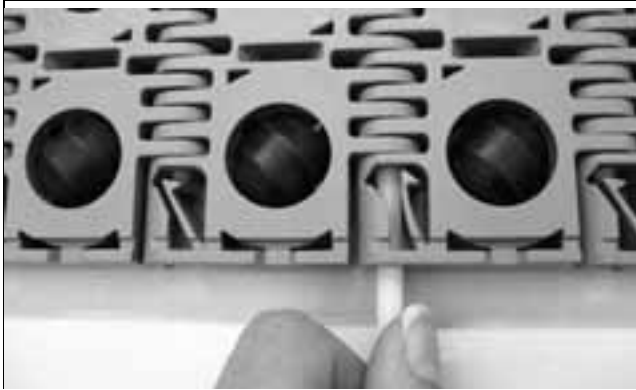
The headless rod retention system of the Series 400 Angled Roller™ allows for nondestructive repair and reassembly.

- Insert a spare rod into one edge of the belt to hold the rod retention lip in the fully open position. From the opposite side of the belt, insert either another rod or screwdriver and push both the spare rod holding the flush edge open and the belt rod past the edge of the belt.



2. Once the belt rod is past the edge of the belt, it can be pulled out by hand for belt

disassembly. Replace rods that show signs of damage or wear.



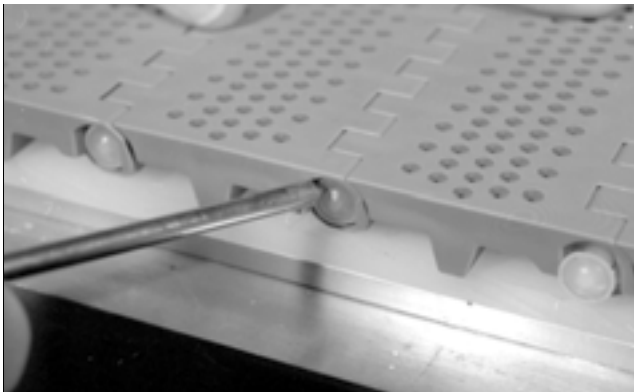
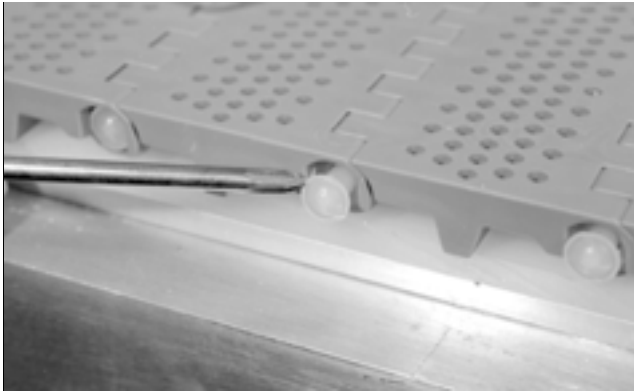
SERIES 800

Inserting the Rod

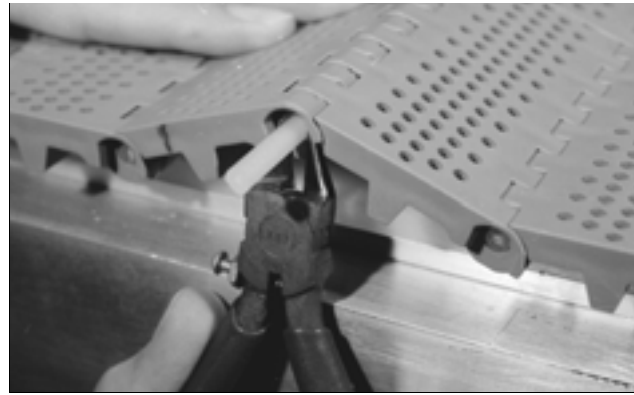
Series 800 belt styles have a retention flange or Snap-Lock in each module's edge.

Snap-Lock Edge

1. Push the preformed head of the hinge rod into position with a screwdriver or similar tool by applying pressure down and away from the Snap-Lock, while simultaneously pushing the rod inward.



2. Once the rod is seated in the Snap-Lock, cut the opposite end of the rod flush with the edge of the belt.



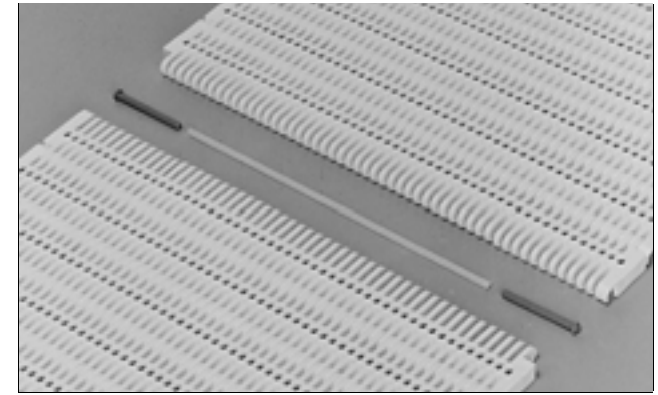
Removing the Rod

1. Rods are expendable. To remove the rod, cut the old rod heads off with a pair of snips from the underside of the belt.
2. Push the rod out using a blunt, small diameter object.

Abrasion Resistant Rod Installation

1. Cut the old rod heads off with a pair of snips from the underside of the belt.
2. Remove the old rod while inserting the new Abrasion Resistant rod section.

3. Insert the rodlets at each side of the belt. Lock them in position under the Snap-Lock retention system.



Special Instructions for Series 800 Open Hinge Flat Top

Inserting the Rod - Headless Rod

Series 800 Open Hinge Flat Top has a headless rod retention system.

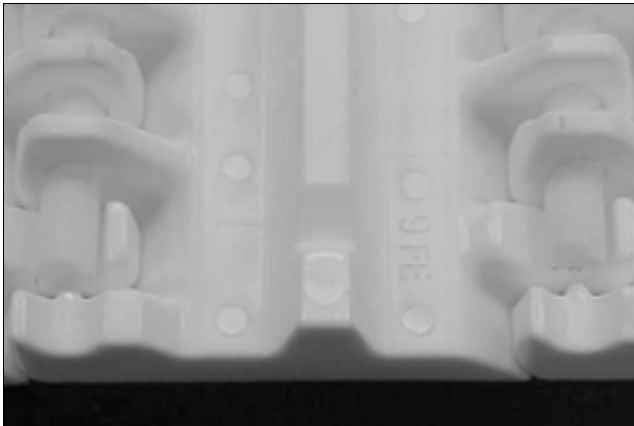
1. Rods should be accurately cut to 0.75 in. (19 mm) shorter than the actual width of the belt.
2. Insert the rod into the aligned holes at an upward angle as far as it will go by hand.



- Using a screwdriver or punch, push the rod the rest of the way in, past the retention lip.



- Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.

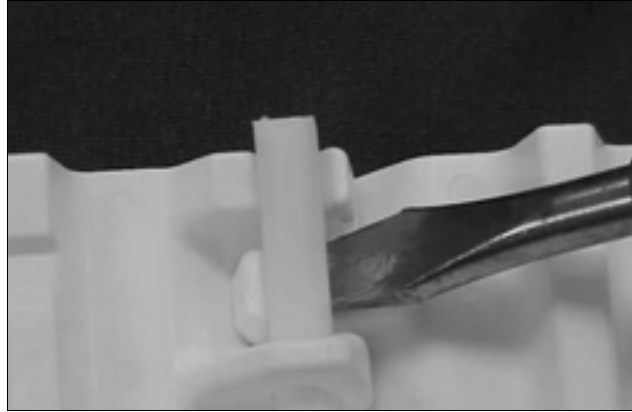


Removing the Rod - Headless Rod

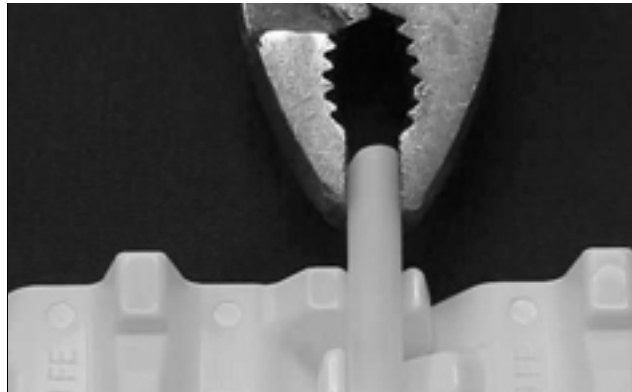
The headless rod retention system of the Series 800 Open Hinge Flat Top belt allows for non-destructive repair and reassembly. This is the preferred method for rod removal.

- From the bottom of the belt, insert a flat head screwdriver in the slot provided. With a clockwise twisting motion, lift the rod over

the retention lip. Repeat this process until the rod tip is past the flush edge.



- Once the rod is past the flush edge, it can be pulled out for belt disassembly. Replace rods that show signs of damage or wear.



Special Instructions for Series 800 Perforated Flat Top Medium Slot (PFT MS) and Raised Rib (RR)

Inserting the Rod - Headless Rod

Series 800 PFT MS and RR utilizes a headless rod retention system.

- Insert the rod into the aligned holes at an upward angle as far as it will go by hand.



- Using another rod push the rod the rest of the way in past the retention lip.



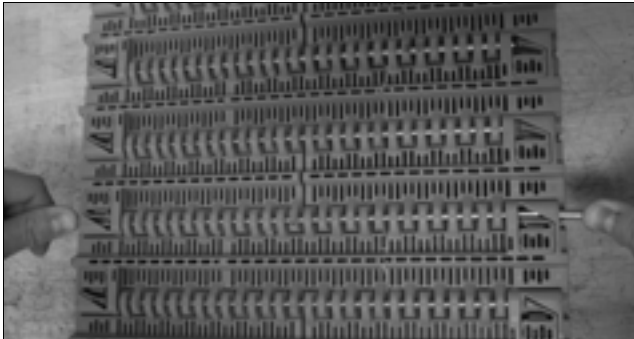
- Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.



Removing the Rod - Headless Rod

The headless rod retention system of the S800 PFT MS and RR allows for non-destructive repair and reassembly. This is the preferred method for rod removal.

1. From the top of the belt, insert a spare rod past the flush edge feature and leave it in the belt holding the flush edge feature open. From the opposite side of the belt, insert a second spare rod and push both the rod holding the flush edge open, and the rod inside the belt out past the flush edge feature.



2. Once the rod is past the flush edge, it can be pulled out by hand for belt disassembly. Replace rods that show signs of damage or wear.



Special Instructions for Series 800 SeamFree™ Open Hinge belts

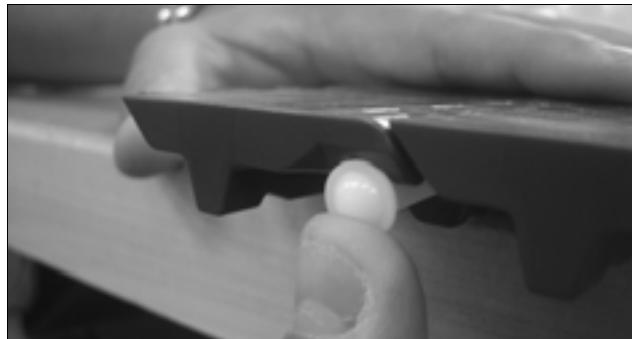
Inserting the Rod

Series 800 SeamFree™ belts utilize a hybrid headed rod retention system

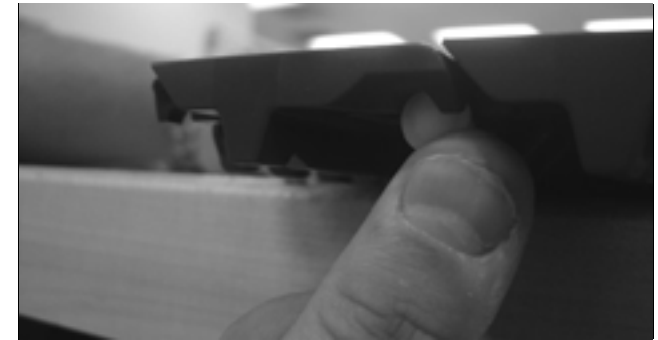
1. Rods should be accurately cut to 0.75 in (19 mm) shorter than the actual width of the belt.
2. Insert the rod into the aligned rod holes.



3. Push the rod into the belt until the rod head contacts the belt edge.



4. Use your thumb or a punch, push the rod head forward until it snaps into the retention pocket.



5. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.



Removing the Rod

1. Rods are expendable. To remove the rod, cut the old rod's head off with a pair of snips from the underside of the belt.



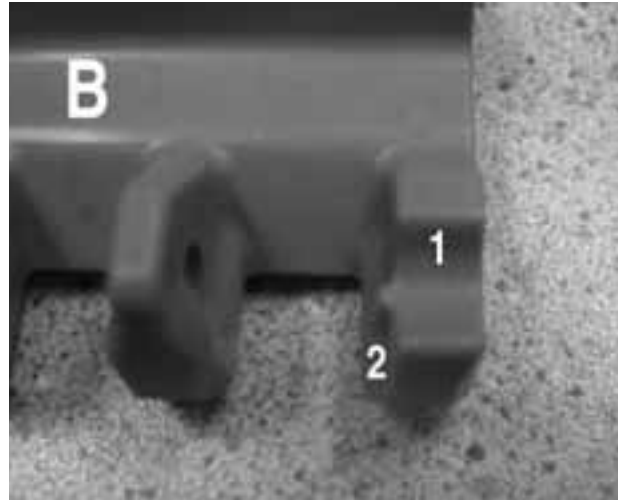
2. Use the snips to grasp the cut end of the rod and pull from the belt.



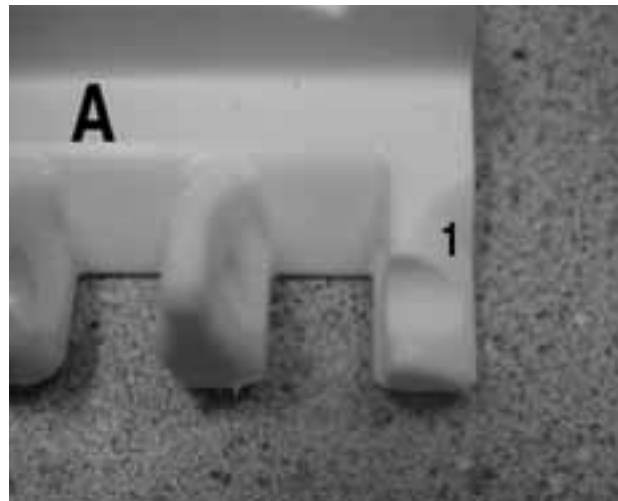
Special Splicing Instructions for New Series 800 Open Hinge Flush Edge (A) with Old Flush Edge (B)

The flush edge of Series 800 Open Hinge styles has been updated to utilize a hybrid headed rod

retention system. Please note the differences in the Old (B) and New (A) edge below.

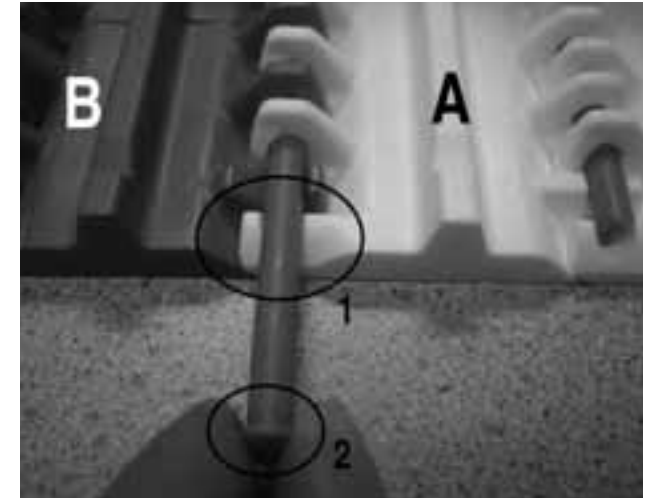


- 1 - Taller vertical face
- 2 - Vertical ledge



- 1 - Shorter angled face

Connecting the edge of the new design (A) to the edge of the old design (B) allows for non-destructive assembly. Join the old (B) and new (A) sections by inserting a pre-cut HEADED rod into the rod pocket side with the new rod retention geometry.

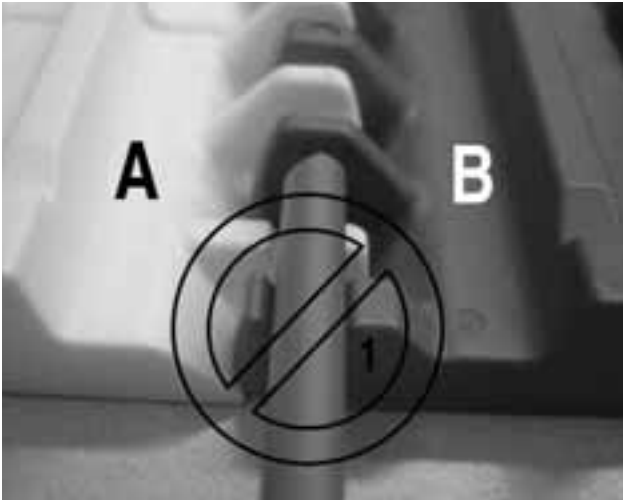


- 1 - New rod retention geometry
- 2 - Rod head

Do not use an UNHEADED rod and do not insert the rod into side with the old rod retention geometry.

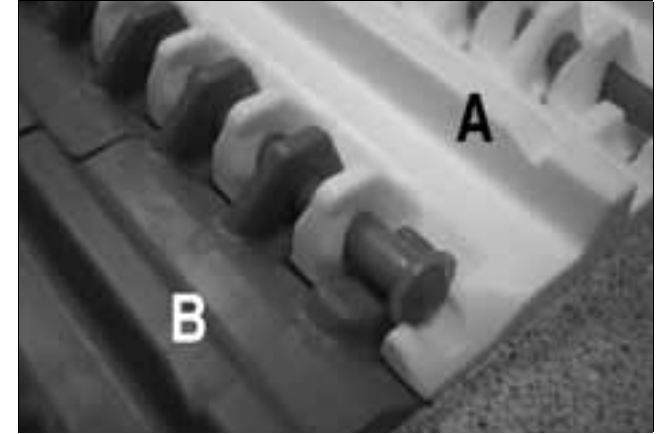
punch to push the rod head forward until it snaps into the pocket behind the new retention geometry.

For proper rod retention, the rod should be fully inserted as shown.



1 - Old rod retention geometry

Push the rod into the belt until the rod head contacts the belt edge. Use your thumb or a



SERIES 850

Inserting the Rod

Series 850 SeamFree™ belt utilize a hybrid headed rod retention system.

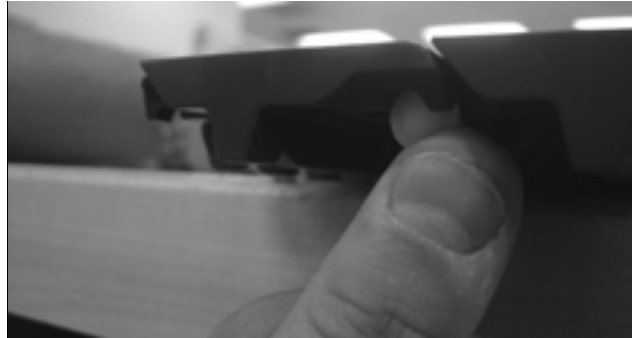
1. Rods should be accurately cut to 0.75 in (19 mm) shorter than the actual width of the belt.
2. Insert the rod into the aligned rod holes.



3. Push the rod into the belt until the rod head contacts the belt edge.



4. Use your thumb or a punch, push the rod head forward until it snaps into the retention pocket.

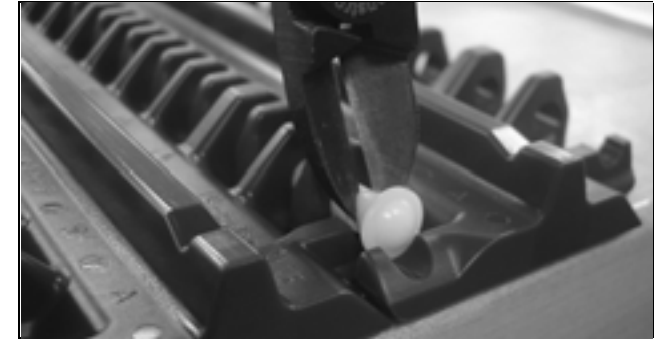


5. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.



Removing the Rod

1. Rods are expendable. To remove the rod, cut the old rod's head off with a pair of snips from the underside of the belt.



2. Use the snips to grasp the cut end of the rod and pull from the belt.



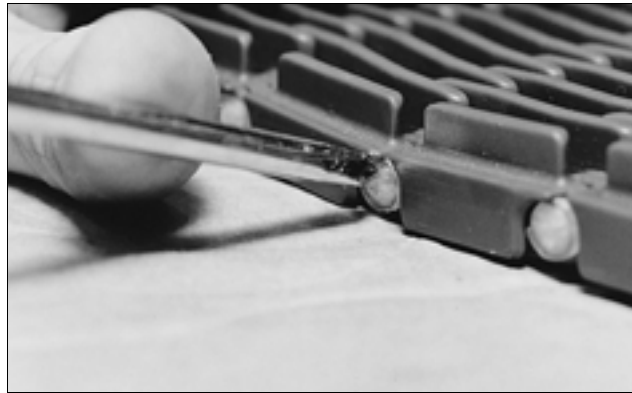
SERIES 900

Inserting the Rod

Series 900 belt styles have a retention flange or Snap-Lock in each module's edge.

Snap-Lock Edge

1. Push the preformed head of the hinge rod into position with a screwdriver or similar tool by applying pressure down and away from the Snap-Lock while simultaneously pushing the rod inward.



2. Once the rod is seated in the Snap-Lock, cut the opposite end of the rod flush with the edge of the belt.

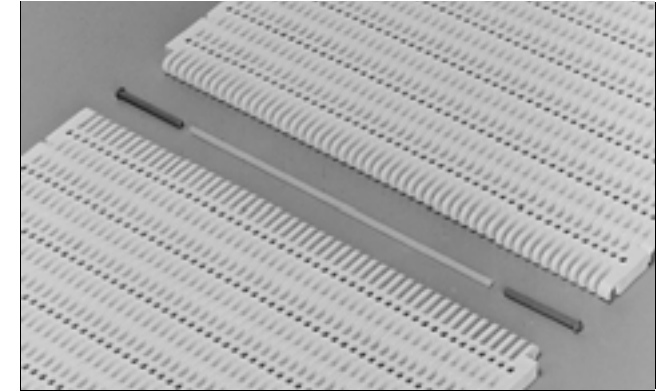


Removing the Rod

1. Rods are expendable. To remove the rod, cut the old rod heads off with a pair of snips from the underside of the belt.
2. Push the rod out using a blunt, small diameter object.

Abrasion Resistant Rod Installation

1. Cut the old rod heads off with a pair of snips from the underside of the belt.
2. Remove the old rod while inserting the new Abrasion Resistant rod section.
3. Insert the rodlets at each side of the belt. Lock them in position under the Snap-Lock retention system.



Friction Top belts

Returnway Requirements

Rubbing or sliding friction is not recommended on the return side of conveyors employing Intralox® Series 900 Diamond Friction Top or Flat Friction Top belts due to the high friction belt surface. Shoes or rollers can be used on the outer edges of belts employing edge modules with no rubber surface.

SERIES 1000

Inserting the Rod

The Series 1000 belting uses a headless rod retention system in each module along one edge of the belt. The rod must be inserted into this edge of the belt.

1. Rods should be accurately cut to the prescribed distance which is shorter than the actual overall width of the belt.
2. Insert the rod into the aligned holes as far as it will go by hand.



3. Using a screwdriver or punch, push the rod the rest of the way in, past the retention lip.



4. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted.

Removing the Rod

The headless rod retention system allows for easy nondestructive repair and reassembly, and for reuse of the hinge rod.

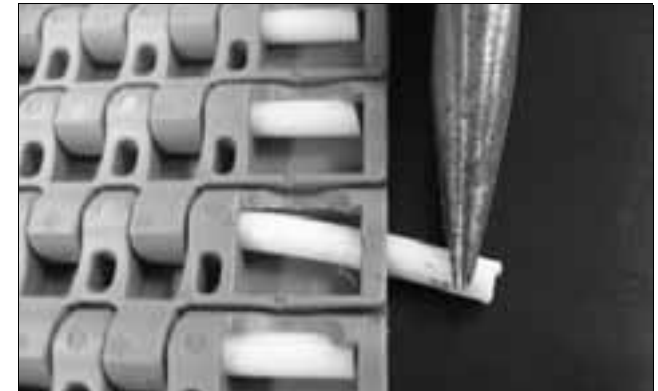
1. From the bottom of the belt, grab the exposed rod in the opening near the edge of the belt using a pair of needle nose pliers (or snips).



2. Push the rod slightly to the side and past the retention lip.



3. Once the rod is past the flush edge, it can be pushed or pulled out for belt disassembly.

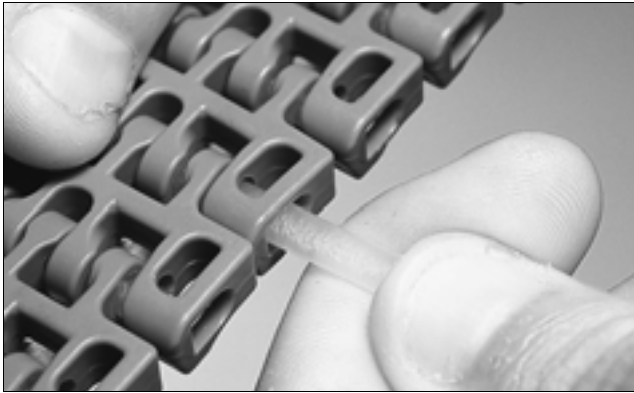


SERIES 1100

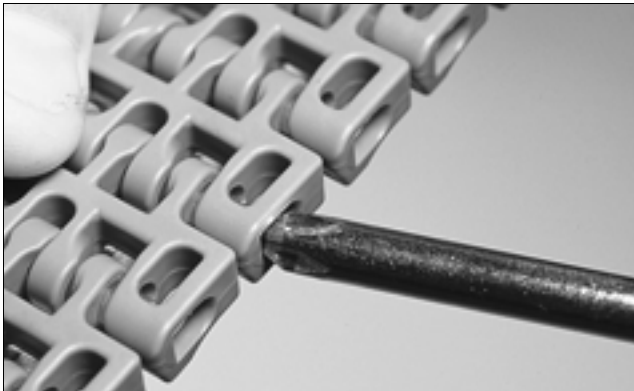
Inserting the Rod

Headless Rod for Flush Grid, Flat Top, Perforated Flat Top, and Flush Grid Friction Top

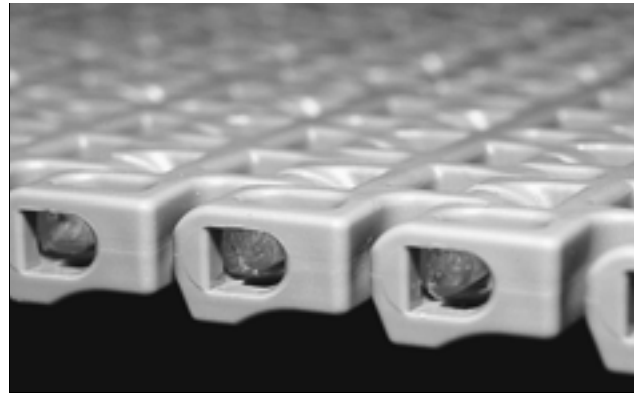
1. Rods should be accurately cut to 0.3 in. (8 mm) shorter than the actual overall width of the belt.
2. Insert the rod into the aligned holes as far as it will go by hand.



3. Using a Phillips screwdriver or punch, push the rod the rest of the way in, past the retention lip.



4. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.

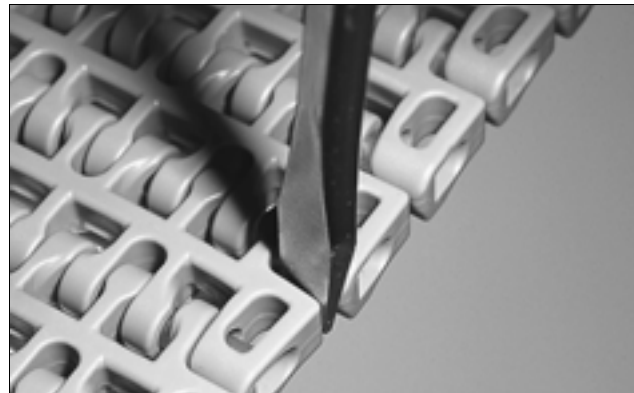


Removing the Rod

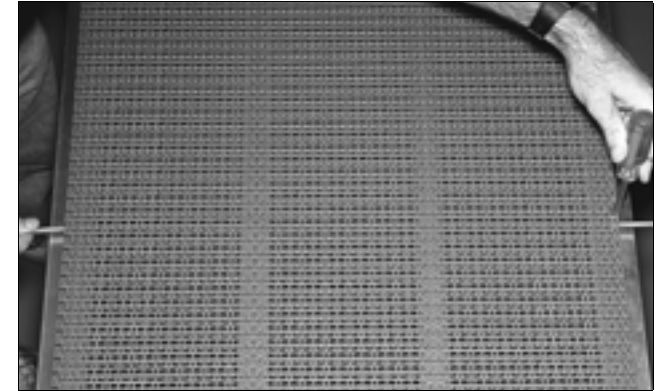
Flush Grid, Friction Top and One Piece Live Transfer Flush Grid Styles

The headless rod retention system allows for easy nondestructive repair and reassembly, and for reuse of the hinge rod.

1. For easy rod removal, insert a screwdriver between two flush edges and twist the flush edge clockwise to free the rod from the retention lip.



2. Push the rod out from the opposite side using a rod of the same size or a blunt object of the same diameter. Partially withdraw the rods to free the damaged module.



3. When repairs are complete, insert the original rod. If rods show signs of damage, replace with new rods.

Flat Top and Perforated Flat Top Styles

The rod retention system allows for non-destructive repair and assembly. Here is the preferred method for rod removal.

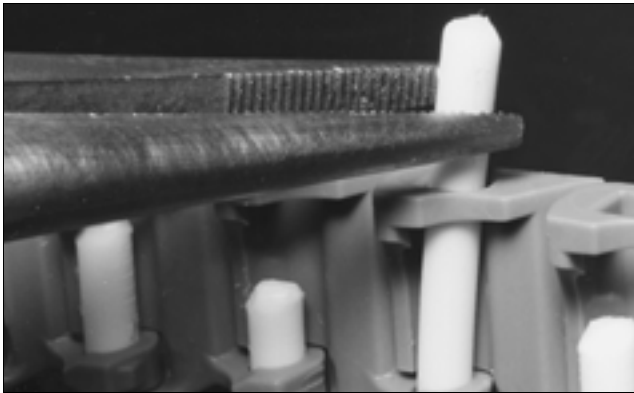
1. From the bottom of the belt, grab the exposed rod in the opening near the edge of the belt using a pair of needle nose pliers (or snips).



2. Push the rod slightly to the side and past the retention lip.



3. Once the rod is past the flush edge, it can be pushed or pulled out for belt disassembly.



When repairs are complete, insert the rod. Do not reuse rods that show signs of damage or wear.

Abrasion Resistant Rod Installation

Abrasion Resistant rodlets are not required for Series 1100. The headless rod retention system,

*Call Intralox Customer Service for headed rods.

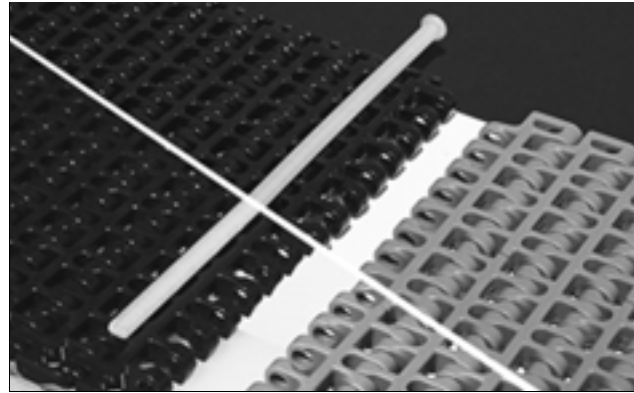
which allows for non-destructive rod replacement and re-assembly, uses only unheaded rods.

Section Replacement

The flush edge of Series 1100 has been updated, as of September 1995, for improved rod retention and flush edge capabilities. Below are instructions for splicing the new and older versions.

Splicing Original Edge (Version 1) with New Edge (Version 3)

1. Accurately cut two 0.18 in. (4.6 mm) diameter headed rods*, of the same material as all other hinge rods in the belt, to 0.25 in. (6 mm) less than the total belt width.

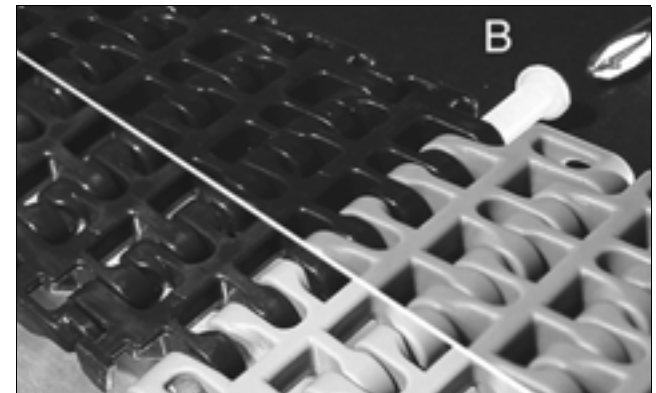


2. Bring the two sections of belting together, but do not join them. Locate the original section of the belt where the old, flexible edge

member points toward the new edge member. Cut off half of that flexible edge member.



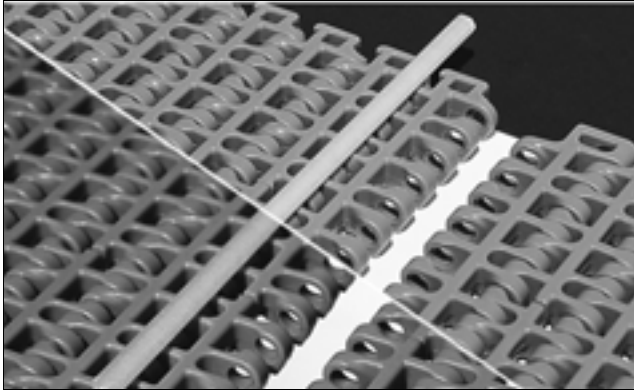
3. Join the old and new sections. Insert one of the pre-cut, headed rods from the side of the belt opposite of the newly cut, flexible edge member (side B). Snap the rod head past the lip on the older edge.



4. Repeat Steps 2 and 3 cutting the flexible edge member on the opposite side of the belt at the other end of the newly spliced section of belt.

Splicing Old Edge (Version 2) with New Edge (Version 3)

1. Accurately cut two 0.18 in. (4.6 mm) diameter rods of the same material as all other hinge rods in the belt, to 0.3 in. (8 mm) less than the total belt width.

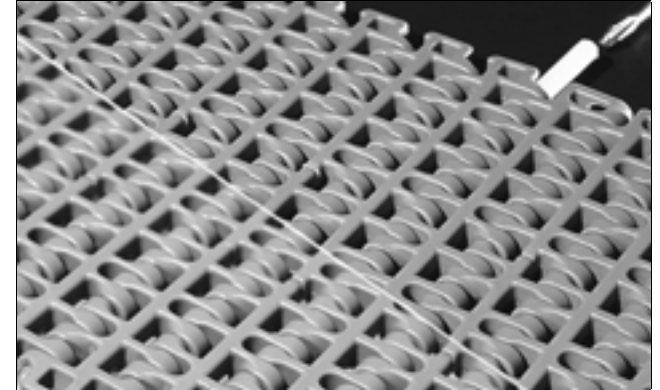


2. Bring the two sections of belting together, but do not join them. Cut off the lip on the Version 2 edge as shown.



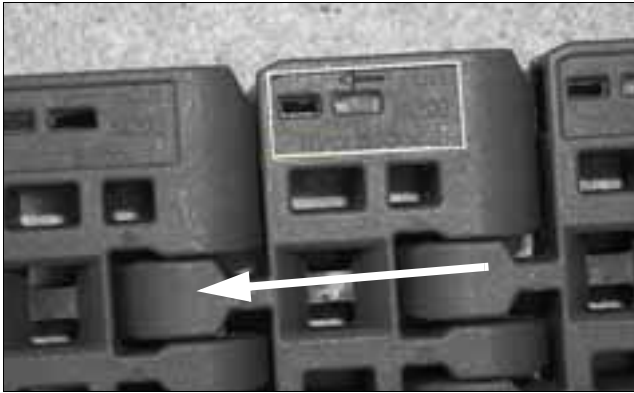
3. Join the old and new sections. Insert one of the pre-cut, headless rods. Make sure that the

trailing end of the rod goes past the rod retention lip.



SERIES 1200

Important: Preferred Run Direction - Unlike most Intralox belts, the Series 1200 belt has a “preferred” run direction. When run in this direction, the belt is capable of pulling the maximum load. The “preferred” direction can be determined by looking at the underside of the edge modules. A run direction arrow is molded into the module. Should this arrow be worn off, the preferred drive surface is the side with a link molded to it. The increased support of the link is what makes the belt stronger in this direction. On bi-directional conveyors, the “preferred” direction should coincide with the direction that the belt runs most frequently. Should you need to run the belt in the “non-preferred” direction, the load rating will be 2,000 lb/ft (3000 kg/m).



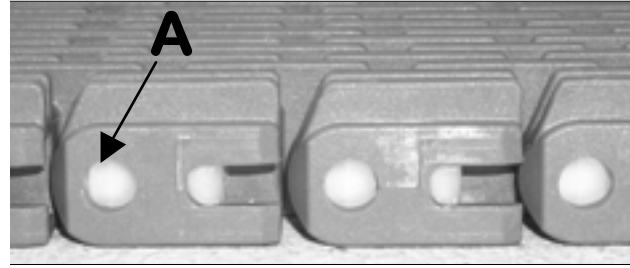
Inserting the Rod

SLIDELOX®

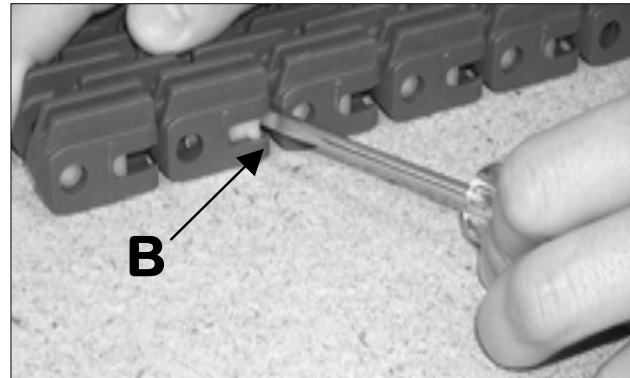
The Series 1200 belting uses the SLIDELOX® rod retention system. Each edge module has a

sliding door, which must be “snapped” closed to insure positive retention of the rod.

1. To open the SLIDELOX®, the blade of a flat headed screwdriver should be inserted at A. Carefully push inward, while sliding the door to the open position.



2. Insert the rod.
3. To close the SLIDELOX®, insert the screwdriver blade at B and slide to the door until you hear it snap. This will indicate that it is properly closed.



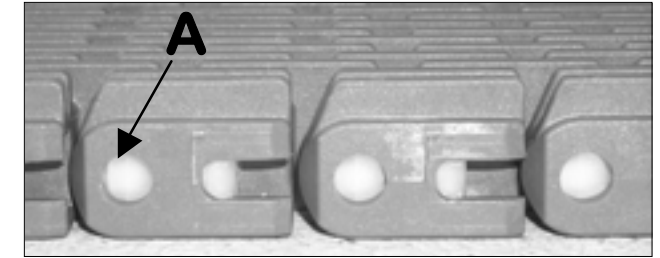
Note: It is the installers' responsibility to insure that **all** SLIDELOX® are properly closed at the time of installation.

Removing the Rod

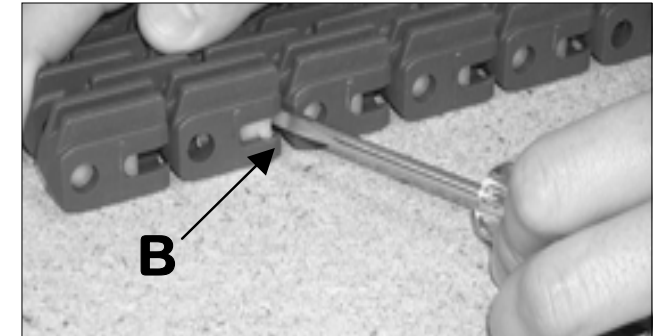
SLIDELOX®

The Series 1200 belting uses the SLIDELOX® rod retention system. Each edge module has a sliding door, which must be “snapped” closed to insure positive retention of the rod.

1. To open the SLIDELOX®, the blade of a flat headed screwdriver should be inserted at A. Carefully push inward, while sliding the door to the open position.



2. Push the rod out using a blunt, small diameter object.
3. To close the SLIDELOX®, insert the screwdriver blade at B and slide to the door until you hear it snap. This will indicate that it is properly closed.



Note: It is the installers' responsibility to insure that **all** SLIDELOX® are properly closed at the time of installation.

CAUTION: When maintenance is done on a Series 1200 belt, do not try to remove the yellow SLIDELOX® pieces from the edge modules. They are designed to remain contained inside the flush edge at all times. A locking barb prevents the SLIDELOX® piece from being completely removed from the flush edge modules. Both the SLIDELOX® and the module can be damaged or destroyed if the SLIDELOX® is completely removed.

Locked Sprocket Location

Series 1200 sprockets engage into dedicated pockets on the underside of the belt. These pockets are located every two inches across the width of the belt. The spacing of the sprockets will be determined by the loading on the belt. Normally the spacing will be either 4 in. (101.6 mm) or 6 in. (152.4 mm). Sprocket spacings will always be a multiple of 2 in. (50.8 mm) with 2 in. (50.8 mm) being the closest spacing possible.

The center most sprocket should be locked in place to retain the belt laterally. On large, heavily loaded conveyors, such as pasteurizers, this is best accomplished with a custom designed locking collar. Care should be taken to avoid stress concentrations in the shaft from machining.

The location of the locked sprocket will be determined by the actual width (# of links) of the belt. The sprocket pocket closest to the center of the belt (the recommended location for the locked sprocket) can be determined using the following table. All references are from the right

hand side of the belt (when viewed from the direction that the belt will run).

Nominal Belt Width Range		Distance From Right Edge	
in.	mm	in.	mm
6-9	152-229	2.83	71.9
10-13	254-330	4.83	122.7
14-17	356-432	6.83	173.5
18-21	457-533	8.83	224.3
22-25	559-635	10.83	275.1
26-29	660-737	12.83	325.9
30-33	762-838	14.83	376.7
34-37	864-940	16.83	427.5
38-41	965-1041	18.83	478.3
42-45	1067-1143	20.83	529.1
46-49	1168-1245	22.83	579.9
50-53	1270-1346	24.83	630.7
54-57	1372-1448	26.83	681.5
58-61	1473-1549	28.83	732.3
62-65	1575-1651	30.83	783.1
66-69	1676-1753	32.83	833.9
70-73	1778-1854	34.83	884.7
74-77	1880-1956	36.83	935.5
78-81	1981-2057	38.83	986.3
82-85	2083-2159	40.83	1037.1
86-89	2184-2261	42.83	1087.9
90-93	2286-2362	44.83	1138.7
94-97	2388-2464	46.83	1189.5
98-101	2489-2565	48.83	1240.3
102-105	2591-2667	50.83	1291.1
106-109	2692-2769	52.83	1341.9
110-113	2794-2870	54.83	1392.7
114-117	2896-2972	56.83	1443.5
118-121	2997-3073	58.83	1494.3
122-125	3099-3175	60.83	1545.1
126-129	3200-3277	62.83	1595.9
130-133	3302-3378	64.83	1646.7
134-137	3404-3480	66.83	1697.5
138-141	3505-3581	68.83	1748.3

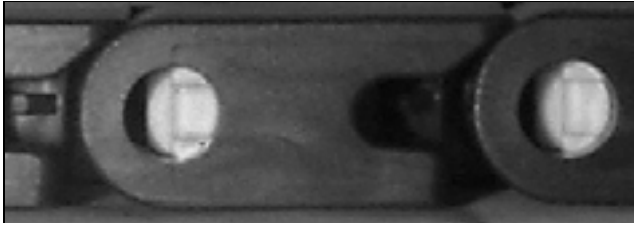
Nominal Belt Width Range		Distance From Right Edge	
in.	mm	in.	mm
142-145	3607-3683	70.83	1799.1
146-149	3708-3785	72.83	1849.9
150-153	3810-3886	74.83	1900.7
154-157	3912-3988	76.83	1951.5
158-161	4013-4089	78.83	2002.3
162-165	4115-4191	80.83	2053.1
166-169	4216-4293	82.83	2103.9
170-173	4318-4394	84.83	2154.7
174-177	4420-4496	86.83	2205.5
178-181	4521-4597	88.83	2256.3
182-185	4623-4699	90.83	2307.1
186-189	4724-4801	92.83	2357.9
190-193	4826-4902	94.83	2408.7
194-197	4928-5004	96.83	2459.5
198-201	5029-5105	98.83	2501.3
202-205	5131-5207	100.83	2561.1
206-209	5232-5309	102.83	2611.9
210-213	5334-5410	104.83	2662.7
214-217	5436-5512	106.83	2713.5
218-221	5537-5613	108.83	2764.3
222-225	5639-5715	110.83	2815.1
226-229	5740-5817	112.83	2865.9
230-233	5842-5918	114.83	2916.7
234-237	5944-6020	116.83	2967.5
238-241	6045-6121	118.83	3018.3
242-245	6147-6223	120.83	3069.1
246-249	6248-6325	122.83	3119.9
250-253	6350-6426	124.83	3170.7
254-257	6452-6528	126.83	3221.5
258-261	6553-6629	128.83	3272.3
262-265	6655-6731	130.83	3323.1
266-269	6756-6833	132.83	3373.9
270-273	6858-6934	134.83	3424.7
274-277	6960-7036	136.83	3475.5
278-281	7061-7137	138.83	3526.3
282-285	7163-7239	140.83	3577.1
286-288	7264-7315	142.83	3627.9

SERIES 1400

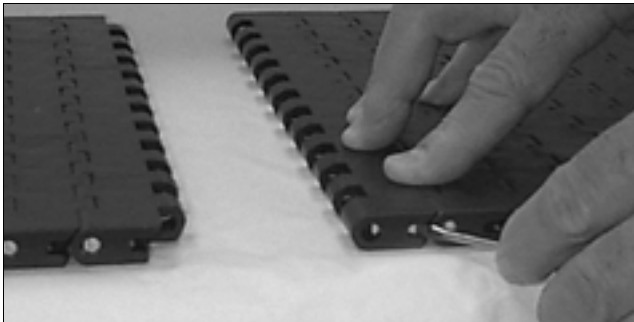
Inserting the Rod

SLIDELOX®

1. Check to see that the rod hole on one side of the belt is closed by a yellow SLIDELOX® piece.

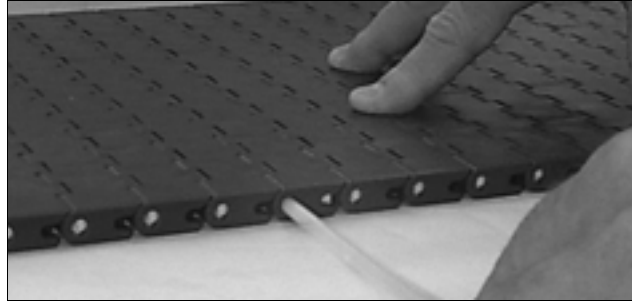


2. If it is not, move the SLIDELOX® to its closed position.



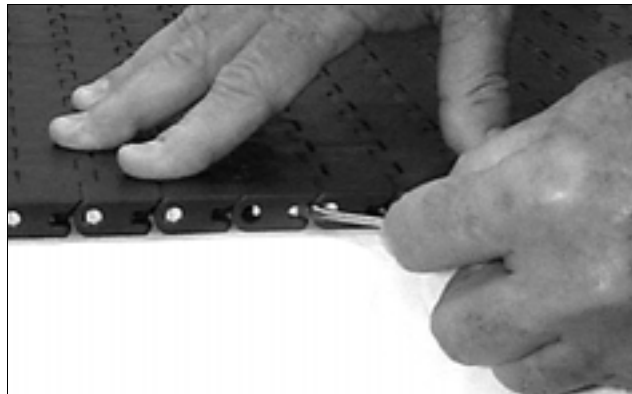
3. Join the two ends of the belt by inserting a hinge rod through the open hole, opposite the

previously closed end. Make sure the rod's tip is about 0.5 in. (12.7 mm) deep into the edge.



4. With a small-tipped tool, like a screwdriver, move the yellow SLIDELOX® piece to its closed and operating position. The plug should “snap” into its closed position.

Note: It is the installers' responsibility to insure that all SLIDELOX® are properly closed at the time of installation.



Abrasion Resistant Rod Installation

Nylon Abrasion Resistant rods are standard on Series 1400 belts. Refer to the previous section

for instructions regarding the SLIDELOX® system of rod retention.

Removing the Rod

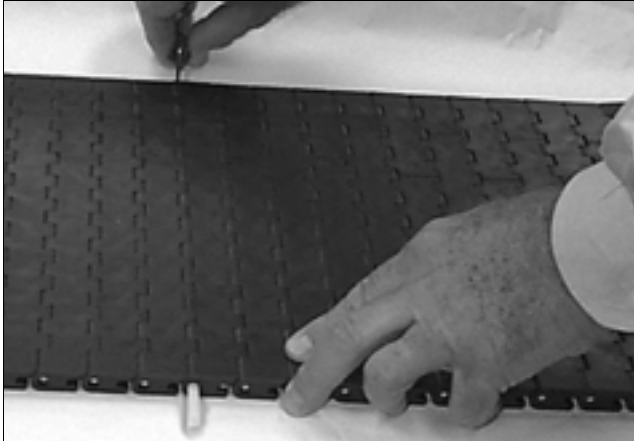
SLIDELOX®

CAUTION: When maintenance is done on a Series 1400 belt, do not try to remove the yellow SLIDELOX® pieces from the edge modules. They are designed to remain contained inside the flush edge at all times. A locking barb prevents the SLIDELOX® piece from being completely removed from the flush edge modules. Both the SLIDELOX® and the module can be damaged or destroyed if the SLIDELOX® is completely removed.

1. To remove a rod, move the two SLIDELOX® containing the rod to their open position. To do this, push the SLIDELOX® in and over with a small screwdriver.



2. Push the rod out through one of the open ends with a small tool or another rod.



3. When the repairs are complete, replace the rod and slide both SLIDELOX® into the closed and operating positions.



Note: It is the installers' responsibility to insure that all SLIDELOX® are properly closed at the time of installation.

Locked Sprocket Location

Series 1400 Flush Grid sprockets engage into dedicated pockets on the underside of the belt. These pockets are located every three inches across the width of the belt. The spacing of the sprockets will be determined by the loading of the belt. Normally the spacing will be either 3 in. (76.2 mm) or 6 in. (152.4 mm). Sprocket spacing

will always be a multiple of 3 in. (76.2 mm) with 3 in. (76.2 mm) being the closest spacing possible.

The center most sprocket should be locked in place to retain the belt laterally. The location of the locked sprocket will be determined by the actual width of the belt. The sprocket pocket closest to the center of the belt (the recommended location for the locked sprocket) can be determined using the following table. All references are from the right hand side of the belt (when viewed from the direction that the belt will run).

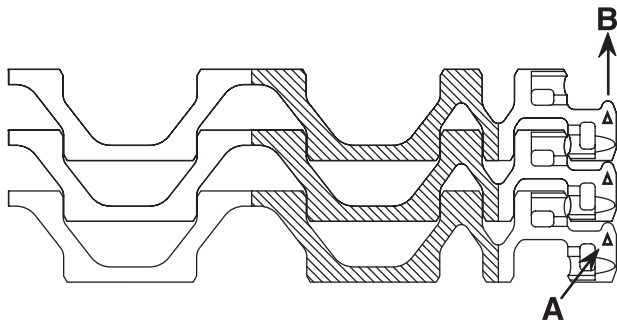
Locked Sprocket Location of the Center of the Sprocket			
Nominal Belt Width Range		Distance From Right Edge	
in.	mm	in.	mm
9-10	229-254	4.42	112
11	279	5.42	138
12-13, 15-16	305-330, 381-406	7.42	188
14, 17	356, 432	8.42	214
18-19, 21-22	457-483, 533-559	10.42	265
20, 23	508, 548	11.42	290
24-25, 27-28	610-635, 686-711	13.42	341
26, 29	660, 737	14.42	366
30-31, 33-34	762-787, 838-864	16.42	417
32, 35	813, 889	17.42	442
36-37, 39-40	914-940, 991-1016	19.42	493
38,41	965, 1041	20.42	519
42-43, 45-46	1067-1092, 1143-1168	22.42	569
44, 47	1118, 1194	23.42	595
48-49, 51-52	1219-1245, 1295-1321	25.42	646

Locked Sprocket Location of the Center of the Sprocket			
Nominal Belt Width Range		Distance From Right Edge	
in.	mm	in.	mm
50, 53	1270, 1346	26.42	671
54-55, 57-58	1372-1397, 1448-1473	28.42	722
56, 59	1422, 1499	29.42	747
60-61, 63-64	1524-1549, 1600-1626	31.42	798
62, 65	1575, 1651	32.42	823
66-67, 69-70	1676-1702, 1753-1778	34.42	874
68,71	1727, 1803	35.42	900
72-73, 75-76	1829-1854, 1905-1930	37.42	950
74, 77	1880, 1956	38.42	976
78-79, 81-82	1981-2007, 2057-2083	40.42	1027
80, 83	2032, 2108	41.42	1052
84-85, 87-88	2134-2159, 2210-2235	43.42	1103
86, 89	2184, 2261	44.42	1128
90-91, 93-94	2286-2311, 2362-2388	46.42	1179
92, 95	2337, 2413	47.42	1204
96-97, 99-100	2438-2464, 2515-2540	49.42	1255
98, 101	2489, 2565	50.42	1281
102-103, 105-106	2591-2616, 2667-2692	52.42	1331
104, 107	2642, 2718	53.42	1357
108-109, 111-112	2743-2769, 2819-2845	55.42	1408
110, 113	2794, 2870	56.42	1433
114-115, 117-118	2896-2921, 2972-2997	58.42	1484
116-119	2946, 3023	59.42	1509
120-121, 123-124	3048-3073, 3142-3150	61.42	1560
122, 125	3099, 3175	62.42	1585

Locked Sprocket Location of the Center of the Sprocket			
Nominal Belt Width Range		Distance From Right Edge	
in.	mm	in.	mm
126-127, 129-130	3200-3226, 3277-3302	64.42	1636
128, 131	3251, 3327	65.42	1662
132-133, 135-136	3353-3378, 3429-3454	67.42	1712
134, 137	3404, 3480	68.42	1738
138-139, 141-142	3503-3531, 3581-3607	70.42	1789
140, 143	3556, 3632	71.42	1814
144-145, 147-148	3658-3683, 3734-3759	73.42	1865
146, 149	3708, 3785	74.42	1890
150-151, 153-154	3810-3853, 3886-3912	76.42	1941
152, 155	3861, 3937	77.42	1966
156-157, 159-160	3962-3988, 4039-4064	79.42	2017
158, 161	4013, 4089	80.42	2043
162-163, 165-166	4115-4140, 4191-4216	82.42	2093
164, 167	4166, 4242	83.42	2119
168-169, 171-172	4267-4293, 4343-4369	85.42	2170
170, 173	4318, 4394	86.42	2195
174-175, 177-178	4420-4445, 4496-4521	88.42	2246
176, 179	4470, 4547	89.42	2271

SERIES 1500

Important: Preferred Run Direction - The Series 1500 belt has a preferred run direction. When run in this direction, the belt will have a longer belt life and the rods will not wear prematurely. A run direction arrow is molded into the top surface of the flush edge module. Should this arrow wear off, the preferred drive surface is the solid round surface on the wide barrel link.



A - Direction Arrow
B - Run Direction

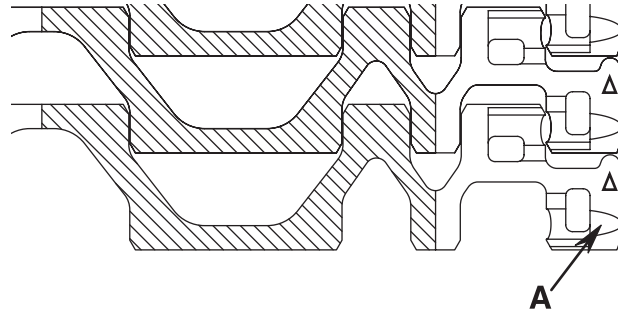
Inserting the Rod

Headless Rod

Series 1500 Flush Grid belt has a headless rod retention system and allows rod insertion from the top of the belt. Therefore, it eliminates conveyor frame removal or side access windows.

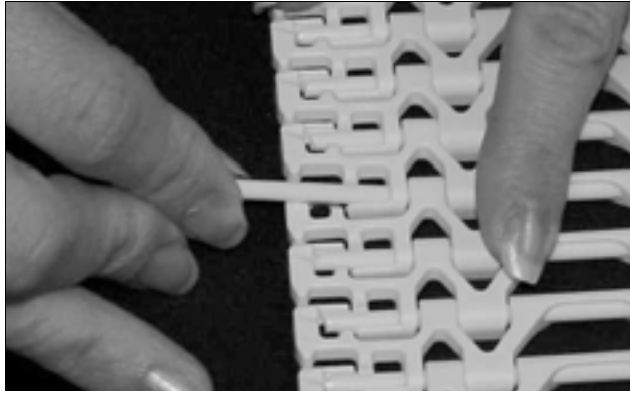
1. Rods should be accurately cut to 0.4 in. (10 mm) shorter than the actual overall width of the belt.

2. Insert the rod into the edge module with the rod insertion guide notch.



A - Insertion Guide Notch

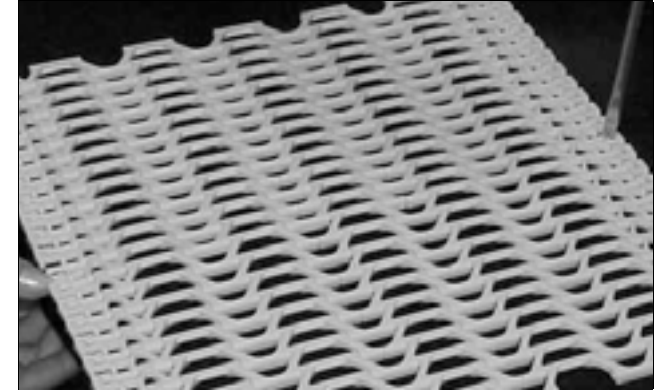
3. Insert the rod into the aligned hole of this edge module as far as it will go and the rod should snap into place.



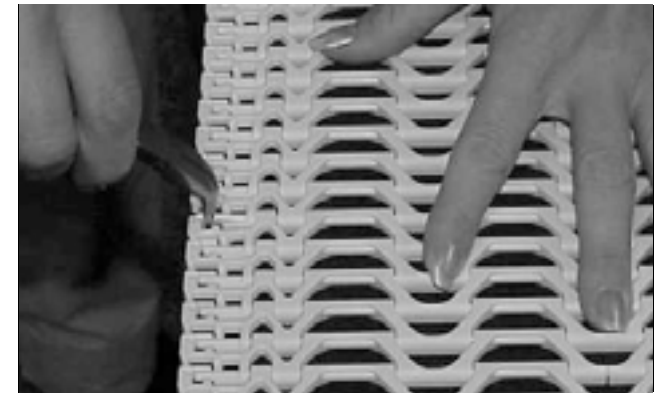
Removing the Rod

The Series 1500 Flush Grid rod retention system allows for non-destructive repair and assembly. The following is the preferred method for rod removal.

1. Slightly depress the edge module, insert a screw driver on the opposite end between the module and rod.
2. Push the rod to the other end of the belt (toward the depressed edge module).



3. Grab the exposed rod using a pair of needle nose pliers (or snips). Once the rod is past the edge of the module, it can be pulled out for belt disassembly. When repairs are complete, insert the rod, as stated in the Headless Rod Retention section. Do not re-use rods that show signs of damage or wear.



Locked Sprocket Location Chart

Link Count	Nom. Belt Width		Center From Edge		Center Sprocket Location
	in.	mm	in.	mm	
	4	8	203	4	
4.25	8.5	216	4.25	108	Center
4.5	9	229	4.5	114	0.25" (6 mm) off center to the Left
4.75	9.5	241	4.75	121	Center
5	10	254	5	127	1" (25 mm) off center
5.25	10.5	267	5.25	133	1" (25 mm) off center
5.5	11	279	5.5	140	1.25" (32 mm) off center to the Left
5.75	11.5	292	5.75	146	1" (25 mm) off center
6	12	305	6	152	Center
6.25	12.5	318	6.25	159	Center
6.5	13	330	6.5	165	0.25" (6 mm) off center to the Left
6.75	13.5	343	6.75	171	Center
7	14	356	7	178	1" (25 mm) off center
7.25	14.5	368	7.25	184	1" (25 mm) off center
7.5	15	381	7.5	191	1.25" (32 mm) off center to the Left
7.75	15.5	394	7.75	197	1" (25 mm) off center
8	16	406	8	203	Center
8.25	16.5	419	8.25	210	Center
8.5	17	432	8.5	216	0.25" (6 mm) off center to the Left
8.75	17.5	445	8.75	222	Center
9	18	457	9	229	1" (25 mm) off center
9.25	18.5	470	9.25	235	1" (25 mm) off center
9.5	19	483	9.5	241	1.25" (32 mm) off center to the Left
9.75	19.5	495	9.75	248	1" (25 mm) off center
10	20	508	10	254	Center
10.25	20.5	521	10.25	260	Center
10.5	21	533	10.5	267	0.25" (6 mm) off center to the Left
10.75	21.5	546	10.75	273	Center
11	22	559	11	279	1" (25 mm) off center
11.25	22.5	572	11.25	286	1" (25 mm) off center
11.5	23	584	11.5	292	1.25" (32 mm) off center to the Left

Link Count	Nom. Belt Width		Center From Edge		Center Sprocket Location
	in.	mm	in.	mm	
	11.75	23.5	597	11.75	
12	24	610	12	305	Center
12.25	24.5	622	12.25	311	Center
12.5	25	635	12.5	318	0.25" (6 mm) off center to the Left
12.75	25.5	648	12.75	324	Center
13	26	660	13	330	1" (25 mm) off center
13.25	26.5	673	13.25	337	1" (25 mm) off center
13.5	27	686	13.5	343	1.25" (32 mm) off center to the Left
13.75	27.5	699	13.75	349	1" (25 mm) off center
14	28	711	14	356	Center
14.25	28.5	724	14.25	362	Center
14.5	29	737	14.5	368	0.25" (6 mm) off center to the Left
14.75	29.5	749	14.75	375	Center
15	30	762	15	381	1" (25 mm) off center
15.25	30.5	775	15.25	387	1" (25 mm) off center
15.5	31	787	15.5	394	1.25" (32 mm) off center to the Left
15.75	31.5	800	15.75	400	1" (25 mm) off center
16	32	813	16	406	Center
16.25	32.5	826	16.25	413	Center
16.5	33	838	16.5	419	0.25" (6 mm) off center to the Left
16.75	33.5	851	16.75	425	Center
17	34	864	17	432	1" (25 mm) off center
17.25	34.5	876	17.25	438	1" (25 mm) off center
17.5	35	889	17.5	445	1.25" (32 mm) off center to the Left
17.75	35.5	902	17.75	451	1" (25 mm) off center
18	36	914	18	457	Center
18.25	36.5	927	18.25	464	Center
18.5	37	940	18.5	470	0.25" (6 mm) off center to the Left
18.75	37.5	953	18.75	476	Center
19	38	965	19	483	1" (25 mm) off center
19.25	38.5	978	19.25	489	1" (25 mm) off center
19.5	39	991	19.5	495	1.25" (32 mm) off center to the Left

Link Count	Nom. Belt Width		Center From Edge		Center Sprocket Location
	in.	mm	in.	mm	
	19.75	39.5	1003	19.75	
20	40	1016	20	508	Center
20.25	40.5	1029	20.25	514	Center
20.5	41	1041	20.5	521	0.25" (6 mm) off center to the Left
20.75	41.5	1054	20.75	527	Center
21	42	1067	21	533	1" (25 mm) off center
21.25	42.5	1080	21.25	540	1" (25 mm) off center
21.5	43	1092	21.5	546	1.25" (32 mm) off center to the Left
21.75	43.5	1105	21.75	552	1" (25 mm) off center
22	44	1118	22	559	Center
22.25	44.5	1130	22.25	565	Center
22.5	45	1143	22.5	572	0.25" (6 mm) off center to the Left
22.75	45.5	1156	22.75	578	Center
23	46	1168	23	584	1" (25 mm) off center
23.25	46.5	1181	23.25	591	1" (25 mm) off center
23.5	47	1194	23.5	597	1.25" (32 mm) off center to the Left
23.75	47.5	1207	23.75	603	1" (25 mm) off center
24	48	1219	24	610	Center
24.25	48.5	1232	24.25	616	Center
24.5	49	1245	24.5	622	0.25" (6 mm) off center to the Left
24.75	49.5	1257	24.75	629	Center
25	50	1270	25	635	1" (25 mm) off center
25.25	50.5	1283	25.25	641	1" (25 mm) off center
25.5	51	1295	25.5	648	1.25" (32 mm) off center to the Left
25.75	51.5	1308	25.75	654	1" (25 mm) off center
26	52	1321	26	660	Center
26.25	52.5	1334	26.25	667	Center
26.5	53	1346	26.5	673	0.25" (6 mm) off center to the Left
26.75	53.5	1359	26.75	679	Center
27	54	1372	27	686	1" (25 mm) off center
27.25	54.5	1384	27.25	692	1" (25 mm) off center
27.5	55	1397	27.5	699	1.25" (32 mm) off center to the Left

Link Count	Nom. Belt Width		Center From Edge		Center Sprocket Location
	in.	mm	in.	mm	
27.75	55.5	1410	27.75	705	1" (25 mm) off center
28	56	1422	28	711	Center
28.25	56.5	1435	28.25	718	Center
28.5	57	1448	28.5	724	0.25" (6 mm) off center to the Left
28.75	57.5	1461	28.75	730	Center
29	58	1473	29	737	1" (25 mm) off center
29.25	58.5	1486	29.25	743	1" (25 mm) off center
29.5	59	1499	29.5	749	1.25" (32 mm) off center to the Left
29.75	59.5	1511	29.75	756	1" (25 mm) off center
30	60	1524	30	762	Center
30.25	60.5	1537	30.25	768	Center
30.5	61	1549	30.5	775	0.25" (6 mm) off center to the Left
30.75	61.5	1562	30.75	781	Center
31	62	1575	31	787	1" (25 mm) off center
31.25	62.5	1588	31.25	794	1" (25 mm) off center
31.5	63	1600	31.5	800	1.25" (32 mm) off center to the Left
31.75	63.5	1613	31.75	806	1" (25 mm) off center
32	64	1626	32	813	Center
32.25	64.5	1638	32.25	819	Center
32.5	65	1651	32.5	826	0.25" (6 mm) off center to the Left
32.75	65.5	1664	32.75	832	Center
33	66	1676	33	838	1" (25 mm) off center
33.25	66.5	1689	33.25	845	1" (25 mm) off center
33.5	67	1702	33.5	851	1.25" (32 mm) off center to the Left
33.75	67.5	1715	33.75	857	1" (25 mm) off center
34	68	1727	34	864	Center
34.25	68.5	1740	34.25	870	Center
34.5	69	1753	34.5	876	0.25" (6 mm) off center to the Left
34.75	69.5	1765	34.75	883	Center
35	70	1778	35	889	1" (25 mm) off center
35.25	70.5	1791	35.25	895	1" (25 mm) off center
35.5	71	1803	35.5	902	1.25" (32 mm) off center to the Left

Link Count	Nom. Belt Width		Center From Edge		Center Sprocket Location
	in.	mm	in.	mm	
35.75	71.5	1816	35.75	908	1" (25 mm) off center
36	72	1829	36	914	Center
36.25	72.5	1842	36.25	921	Center
36.5	73	1854	36.5	927	0.25" (6 mm) off center to the Left
36.75	73.5	1867	36.75	933	Center
37	74	1880	37	940	1" (25 mm) off center
37.25	74.5	1892	37.25	946	1" (25 mm) off center
37.5	75	1905	37.5	953	1.25" (32 mm) off center to the Left
37.75	75.5	1918	37.75	959	1" (25 mm) off center
38	76	1930	38	965	Center
38.25	76.5	1943	38.25	972	Center
38.5	77	1956	38.5	978	0.25" (6 mm) off center to the Left
38.75	77.5	1969	38.75	984	Center
39	78	1981	39	991	1" (25 mm) off center
39.25	78.5	1994	39.25	997	1" (25 mm) off center
39.5	79	2007	39.5	1003	1.25" (32 mm) off center to the Left
39.75	79.5	2019	39.75	1010	1" (25 mm) off center
40	80	2032	40	1016	Center
40.25	80.5	2045	40.25	1022	Center
40.5	81	2057	40.5	1029	0.25" (6 mm) off center to the Left
40.75	81.5	2070	40.75	1035	Center
41	82	2083	41	1041	1" (25 mm) off center
41.25	82.5	2096	41.25	1048	1" (25 mm) off center
41.5	83	2108	41.5	1054	1.25" (32 mm) off center to the Left
41.75	83.5	2121	41.75	1060	1" (25 mm) off center
42	84	2134	42	1067	Center
42.25	84.5	2146	42.25	1073	Center
42.5	85	2159	42.5	1080	0.25" (6 mm) off center to the Left
42.75	85.5	2172	42.75	1086	Center
43	86	2184	43	1092	1" (25 mm) off center
43.25	86.5	2197	43.25	1099	1" (25 mm) off center
43.5	87	2210	43.5	1105	1.25" (32 mm) off center to the Left

Link Count	Nom. Belt Width		Center From Edge		Center Sprocket Location
	in.	mm	in.	mm	
43.75	87.5	2223	43.75	1111	1" (25 mm) off center
44	88	2235	44	1118	Center
44.25	88.5	2248	44.25	1124	Center
44.5	89	2261	44.5	1130	0.25" (6 mm) off center to the Left
44.75	89.5	2273	44.75	1137	Center
45	90	2286	45	1143	1" (25 mm) off center
45.25	90.5	2299	45.25	1149	1" (25 mm) off center
45.5	91	2311	45.5	1156	1.25" (32 mm) off center to the Left
45.75	91.5	2324	45.75	1162	1" (25 mm) off center
46	92	2337	46	1168	Center
46.25	92.5	2350	46.25	1175	Center
46.5	93	2362	46.5	1181	0.25" (6 mm) off center to the Left
46.75	93.5	2375	46.75	1187	Center
47	94	2388	47	1194	1" (25 mm) off center
47.25	94.5	2400	47.25	1200	1" (25 mm) off center
47.5	95	2413	47.5	1207	1.25" (32 mm) off center to the Left
47.75	95.5	2426	47.75	1213	1" (25 mm) off center
48	96	2438	48	1219	Center
48.25	96.5	2451	48.25	1226	Center
48.5	97	2464	48.5	1232	0.25" (6 mm) off center to the Left
48.75	97.5	2477	48.75	1238	Center
49	98	2489	49	1245	1" (25 mm) off center
49.25	98.5	2502	49.25	1251	1" (25 mm) off center
49.5	99	2515	49.5	1257	1.25" (32 mm) off center to the Left
49.75	99.5	2527	49.75	1264	1" (25 mm) off center
50	100	2540	50	1270	Center
50.25	100.5	2553	50.25	1276	Center
50.5	101	2565	50.5	1283	0.25" (6 mm) off center to the Left
50.75	101.5	2578	50.75	1289	Center
51	102	2591	51	1295	1" (25 mm) off center
51.25	102.5	2604	51.25	1302	1" (25 mm) off center
51.5	103	2616	51.5	1308	1.25" (32 mm) off center to the Left

Link Count	Nom. Belt Width		Center From Edge		Center Sprocket Location
	in.	mm	in.	mm	
51.75	103.5	2629	51.75	1314	1" (25 mm) off center
52	104	2642	52	1321	Center
52.25	104.5	2654	52.25	1327	Center
52.5	105	2667	52.5	1334	0.25" (6 mm) off center to the Left
52.75	105.5	2680	52.75	1340	Center
53	106	2692	53	1346	1" (25 mm) off center
53.25	106.5	2705	53.25	1353	1" (25 mm) off center
53.5	107	2718	53.5	1359	1.25" (32 mm) off center to the Left
53.75	107.5	2731	53.75	1365	1" (25 mm) off center
54	108	2743	54	1372	Center
54.25	108.5	2756	54.25	1378	Center
54.5	109	2769	54.5	1384	0.25" (6 mm) off center to the Left
54.75	109.5	2781	54.75	1391	Center
55	110	2794	55	1397	1" (25 mm) off center
55.25	110.5	2807	55.25	1403	1" (25 mm) off center
55.5	111	2819	55.5	1410	1.25" (32 mm) off center to the Left
55.75	111.5	2832	55.75	1416	1" (25 mm) off center
56	112	2845	56	1422	Center
56.25	112.5	2858	56.25	1429	Center
56.5	113	2870	56.5	1435	0.25" (6 mm) off center to the Left
56.75	113.5	2883	56.75	1441	Center
57	114	2896	57	1448	1" (25 mm) off center
57.25	114.5	2908	57.25	1454	1" (25 mm) off center
57.5	115	2921	57.5	1461	1.25" (32 mm) off center to the Left
57.75	115.5	2934	57.75	1467	1" (25 mm) off center
58	116	2946	58	1473	Center
58.25	116.5	2959	58.25	1480	Center
58.5	117	2972	58.5	1486	0.25" (6 mm) off center to the Left
58.75	117.5	2985	58.75	1492	Center
59	118	2997	59	1499	1" (25 mm) off center
59.25	118.5	3010	59.25	1505	1" (25 mm) off center
59.5	119	3023	59.5	1511	1.25" (32 mm) off center to the Left

Link Count	Nom. Belt Width		Center From Edge		Center Sprocket Location
	in.	mm	in.	mm	
59.75	119.5	3035	59.75	1518	1" (25 mm) off center
60	120	3048	60	1524	Center
60.25	120.5	3061	60.25	1530	Center
60.5	121	3073	60.5	1537	0.25" (6 mm) off center to the Left
60.75	121.5	3086	60.75	1543	Center
61	122	3099	61	1549	1" (25 mm) off center
61.25	122.5	3112	61.25	1556	1" (25 mm) off center
61.5	123	3124	61.5	1562	1.25" (32 mm) off center to the Left
61.75	123.5	3137	61.75	1568	1" (25 mm) off center
62	124	3150	62	1575	Center
62.25	124.5	3162	62.25	1581	Center
62.5	125	3175	62.5	1588	0.25" (6 mm) off center to the Left
62.75	125.5	3188	62.75	1594	Center
63	126	3200	63	1600	1" (25 mm) off center
63.25	126.5	3213	63.25	1607	1" (25 mm) off center
63.5	127	3226	63.5	1613	1.25" (32 mm) off center to the Left
63.75	127.5	3239	63.75	1619	1" (25 mm) off center
64	128	3251	64	1626	Center
64.25	128.5	3264	64.25	1632	Center
64.5	129	3277	64.5	1638	0.25" (6 mm) off center to the Left
64.75	129.5	3289	64.75	1645	Center
65	130	3302	65	1651	1" (25 mm) off center
65.25	130.5	3315	65.25	1657	1" (25 mm) off center
65.5	131	3327	65.5	1664	1.25" (32 mm) off center to the Left
65.75	131.5	3340	65.75	1670	1" (25 mm) off center
66	132	3353	66	1676	Center
66.25	132.5	3366	66.25	1683	Center
66.5	133	3378	66.5	1689	0.25" (6 mm) off center to the Left
66.75	133.5	3391	66.75	1695	Center
67	134	3404	67	1702	1" (25 mm) off center
67.25	134.5	3416	67.25	1708	1" (25 mm) off center
67.5	135	3429	67.5	1715	1.25" (32 mm) off center to the Left

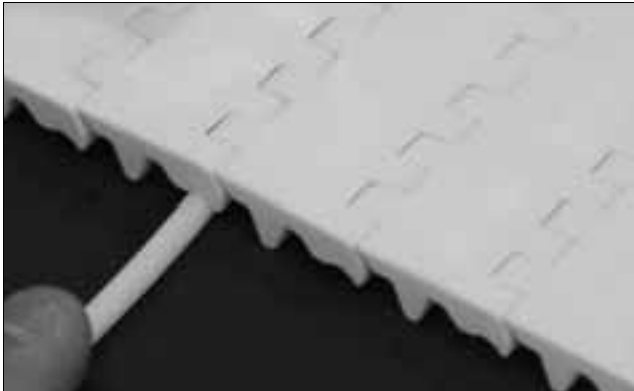
Link Count	Nom. Belt Width		Center From Edge		Center Sprocket Location
	in.	mm	in.	mm	
67.75	135.5	3442	67.75	1721	1" (25 mm) off center
68	136	3454	68	1727	Center
68.25	136.5	3467	68.25	1734	Center
68.5	137	3480	68.5	1740	0.25" (6 mm) off center to the Left
68.75	137.5	3493	68.75	1746	Center
69	138	3505	69	1753	1" (25 mm) off center
69.25	138.5	3518	69.25	1759	1" (25 mm) off center
69.5	139	3531	69.5	1765	1.25" (32 mm) off center to the Left
69.75	139.5	3543	69.75	1772	1" (25 mm) off center
70	140	3556	70	1778	Center
70.25	140.5	3569	70.25	1784	Center
70.5	141	3581	70.5	1791	0.25" (6 mm) off center to the Left
70.75	141.5	3594	70.75	1797	Center
71	142	3607	71	1803	1" (25 mm) off center

SERIES 1600

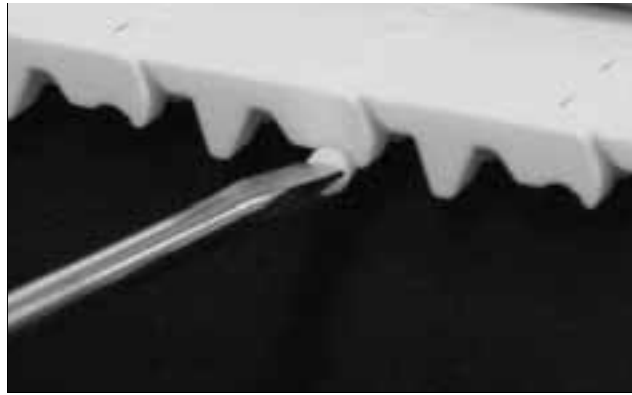
Inserting the Rod

Series 1600 has a headless rod retention system.

1. Rods should be accurately cut to 0.5 in. (12.7 mm) shorter than the actual width of the belt.
2. Insert the rod into the aligned holes at an upward angle as far as it will go by hand.



3. Using a screwdriver or punch, push the rod the rest of the way in, past the retention feature.



4. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.



Removing the Rod

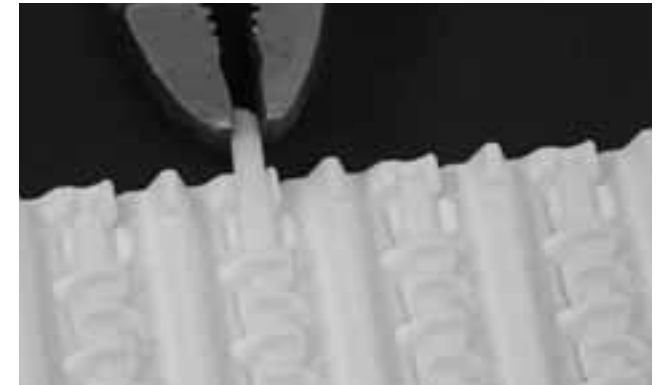
The headless rod retention system of the Series 1600 belt allows for non-destructive repair and

reassembly. This is the preferred method for rod removal.

1. From the bottom of the belt, insert a flat head screwdriver in the slot provided. With a clockwise twisting motion, lift the rod over the retention feature. Repeat this process until the rod tip is past the flush edge.



2. Once the rod is past the flush edge, it can be pulled out for belt disassembly. Replace rods that show signs of damage or wear.



SERIES 1650

Inserting the Rod

Series 1650 SeamFree™ belt utilize a hybrid headed rod retention system.

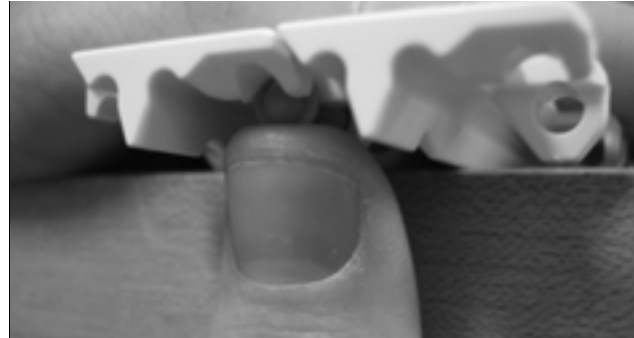
1. Rods should be accurately cut to 0.60 in (15.2 mm) shorter than the actual width of the belt.
2. Insert the rod into the aligned rod holes.



3. Push the rod into the belt until the rod head contacts the belt edge.



4. Use your thumb or a punch, push the rod head forward until it snaps into the retention pocket.

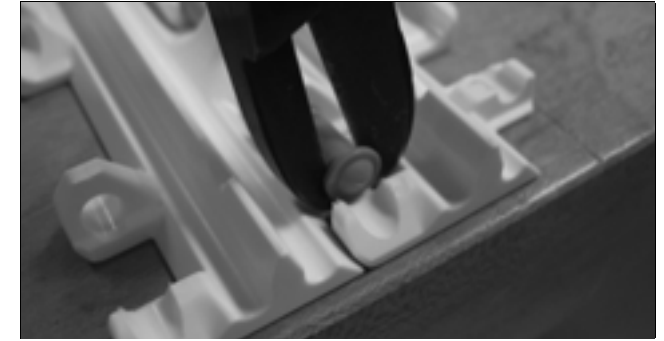


5. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.

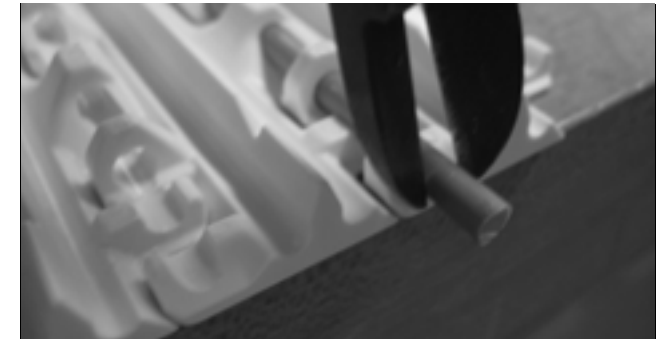


Removing the Rod

1. Rods are expendable. To remove the rod, cut the old rod's head off with a pair of snips from the underside of the belt.



2. Use the snips to grasp the cut end of the rod and pull from the belt.



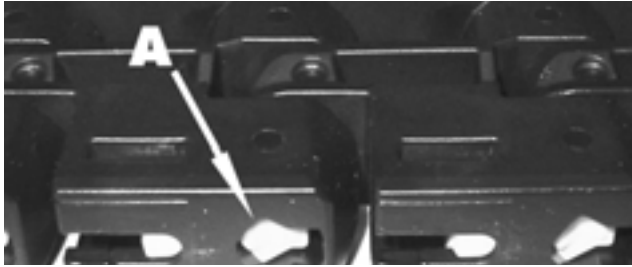
SERIES 1700

Inserting the Rod

SLIDELOX®

The Series 1700 belting uses the SLIDELOX® rod retention system. Each edge module has a sliding door, which must be “snapped” closed to insure positive retention of the rod.

1. To open the SLIDELOX®, the blade of a flat headed screwdriver should be inserted at A. Carefully push inward, while sliding the door to the open position.

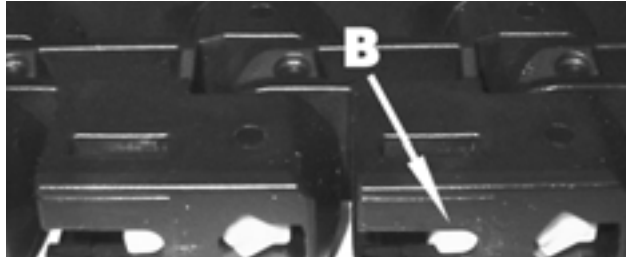


2. Inserting the rods. The Series 1700 belting contains two rectangular rods every row. The two rods should be installed standing up next to each other.



3. To close the SLIDELOX®, insert the screwdriver blade at B and slide to the door

until you hear it snap. This will indicate that it is properly closed.



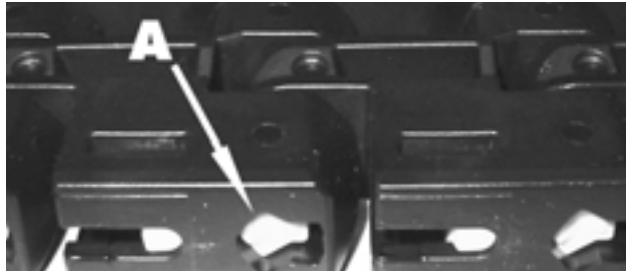
Note: It is the installers' responsibility to insure that all SLIDELOX® are properly closed at the time of installation.

Removing the Rod

SLIDELOX®

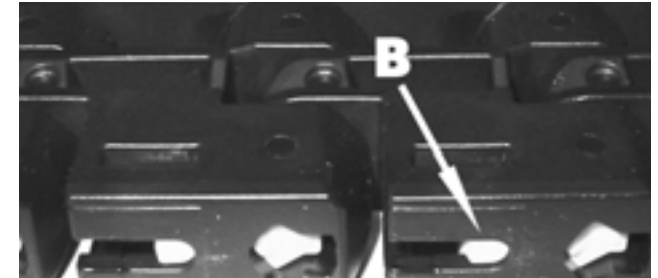
The Series 1700 belting uses the SLIDELOX® rod retention system. Each edge module has a sliding door, which must be “snapped” closed to insure positive retention of the rod.

1. To open the SLIDELOX®, the blade of a flat headed screwdriver should be inserted at A. Carefully push inward, while sliding the door to the open position.



2. Push the rod out using a blunt, small diameter object.

3. To close the SLIDELOX®, insert the screwdriver blade at B and slide to the door until you hear it snap. This will indicate that it is properly closed.



Note: It is the installers' responsibility to insure that all SLIDELOX® are properly closed at the time of installation.

CAUTION: When maintenance is done on a Series 1700 belt, do not try to remove the yellow SLIDELOX® pieces from the edge modules. They are designed to remain contained inside the flush edge at all times. A locking barb prevents the SLIDELOX® piece from being completely removed from the flush edge modules. Both the SLIDELOX® and the module can be damaged or destroyed if the SLIDELOX® is completely removed.

Special Instructions for Series 1700 Transverse Roller Top belt

The Series 1700 Transverse Roller Top does not have a typical belt row pattern. Every other row is a repeat pattern of the rollers on the top surface of the belt. One row has the roller with a 0 inch indent and the other row has a roller indent of

1 inch (25.4 mm). The S1700 TRT must be assembled in two row increments.



The rod type for Series 1700 TRT is 0.312 inch (7.9 mm) diameter. This is different than S1700 Flush Grid or S1700 Flush Grid Nub Top.

Removing the Rod

Note: Tools required include a hammer, small screw driver and 0.25 in. (6.4 mm) diameter steel pin.



1. Insert a small screw driver under the roller on the side where the rod can be removed.



2. Use the steel pin and a hammer to lightly tap the rod out from the belt. The steel pin will

need to be at a slight angle to contact the rod and not the link.



3. Remove the screw driver and pull rod out of the belt.

Inserting the Rod

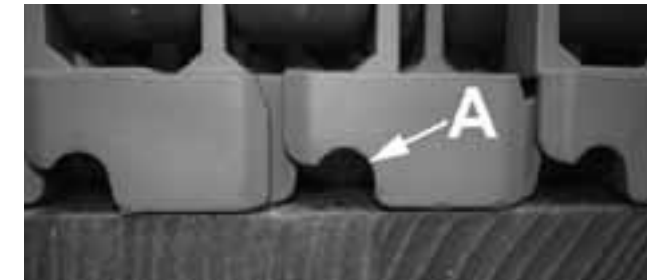
Note: Tools required include a 0.25 in. (6.4 mm) diameter steel pin.

1. Splice belt together and connect belt by inserting the rod into the belt until about 1 inch (25.4 mm) of rod is left to insert into belt.

2. Push the remaining rod in with a steel pin.



3. Check to make sure plastic pin is retained properly. Look at the side of the belt and see if the rod went past retention lip.



A Retention lip

Conveyor Checks

1. The returnway rollers should be check to make sure the diameter is equal or greater than 6 inches (152.4 mm). The S1700 TRT

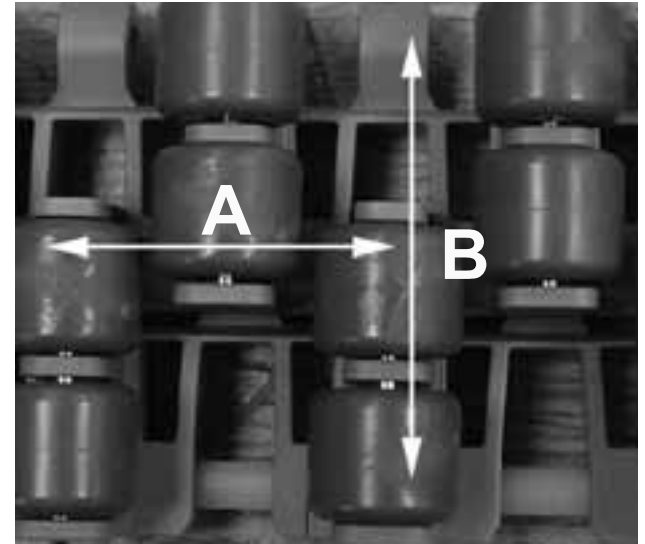
has a minimum back bend of 6 inch (152.4 mm) diameter.



2. Conveyor should be check for rollers contacting conveyor components other than the return rollers.

WARNING: *The S1700 TRT is not recommended for back up conditions. This is because the roller is designed to roll in the transverse direction. If the rollers contact conveyor*

components, the roller can wear to a non-circular shape.



- A Roller Movement
- B Belt Movement

SERIES 1800

Inserting the Rod

Headless Rod

Series 1800 Flat Top has a headless rod retention system.

1. Rods should be accurately cut to 0.6 in. (15 mm) shorter than the actual width of the belt.
2. Insert the rod into the aligned holes at an upward angle as far as it will go by hand.



3. Using a screwdriver or punch, push the rod the rest of the way in, past the retention lip.



4. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.



Removing the Rod

Headless Rod

The headless rod retention system of the Series 1800 Flat Top belt allows for non-destructive

repair and reassembly. This is the preferred method for rod removal.

1. From the bottom of the belt, insert a flat head screwdriver in the slot provided. With a clockwise twisting motion, lift the rod over the retention lip. Repeat this process until the rod tip is past the flush edge.



2. Once the rod is past the flush edge, it can be pulled out for belt disassembly. Replace rods that show signs of damage or wear.



SERIES 1900

Inserting the Rod

The Series 1900 belting uses the Shuttleplug™ self-closing rod retention system in each module along one edge of the belt to insure positive retention of the rod. The rod must be inserted into this edge of the belt.

1. Insert the belt rod into the plug. The plug will slide open when the rod is inserted.



2. Use an extra rod to make sure the belt rod is inserted completely and clears the plug. Remove the extra rod. The self-closing plug will completely close when there is no interference from either the belt rod or the extra rod.

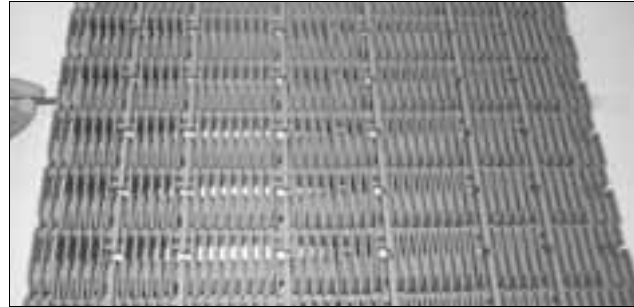


Note: It is the installers' responsibility to insure that all plugs are properly closed at the time of installation.

Removing the Rod

The Series 1900 belting uses the Shuttleplug™ self-closing rod retention system in each module along one edge of the belt to insure positive retention of the rod. The rod must be removed from this edge of the belt.

1. Insert an extra piece of rod into the plug. The plug will slide open when the rod is inserted. The rod should only be inserted far enough to hold the plug in the fully open position.



2. Insert a 0.25 inch punch into the hole on the other edge of the belt. Use the punch to push the extra rod and the belt rod past the plug and out the other edge of the belt. Once the

belt rod is past the edge of the belt, it can be pulled out for belt disassembly.



Note: It is the installers' responsibility to insure that all plugs are properly closed at the time of installation.

Locked Sprocket Location

A center sprocket should be locked in place to retain the belt laterally. The location of the locked sprocket will be determined by the width of the belt. The recommended location for the locked sprocket can be found using the following table. All references are from the Shuttleplug™ edge of the belt.

Locked Sprocket Location of the Center of the Sprocket			
Nominal Belt Width Range		Distance From Shuttleplug™ Edge	
in.	mm	in.	mm
15-20	381-508	7.58	193
21-26	533-660	10.58	269
27-32	686-813	13.58	345
33-38	838-965	16.58	421
39-44	991-1118	19.58	497
45-50	1143-1270	22.58	574
51-56	1295-1422	25.58	650

Locked Sprocket Location of the Center of the Sprocket			
Nominal Belt Width Range		Distance From Shuttleplug™ Edge	
in.	mm	in.	mm
57-62	1448-1575	28.58	726
63-68	1600-1727	31.58	802
69-74	1753-1880	34.58	878
75-80	1905-2032	37.58	955
81-86	2057-2184	40.58	1031
87-92	2210-2337	43.58	1107
93-98	2362-2489	46.58	1183
99-104	2515-2642	49.58	1259
105-110	2667-2794	52.58	1336
111-116	2819-2946	55.58	1412
117-122	2972-3099	58.58	1488
123-128	3124-3251	61.58	1564
129-134	3277-3404	64.58	1640
135-140	3429-3556	67.58	1717
141-146	3581-3708	70.58	1793
147-152	3734-3861	73.58	1869
153-158	3886-4013	76.58	1945
159-164	4039-4166	79.58	2021
165-170	4191-4318	82.58	2098
171-176	4343-4470	85.58	2174
177-182	4496-4623	88.58	2250
183-188	4648-4775	91.58	2326
189-194	4801-4928	94.58	2402
195-200	4953-5080	97.58	2479
201-206	5105-5232	100.58	2555
207-212	5258-5385	103.58	2631
213-218	5410-5537	106.58	2707
219-224	5563-5690	109.58	2783
225-230	5715-5842	112.58	2860
231-236	5867-5994	115.58	2936
237-242	6020-6147	118.58	3012

SERIES 7000

Inserting the Rod

The Series 7000 belting utilizes a headless rod retention system.

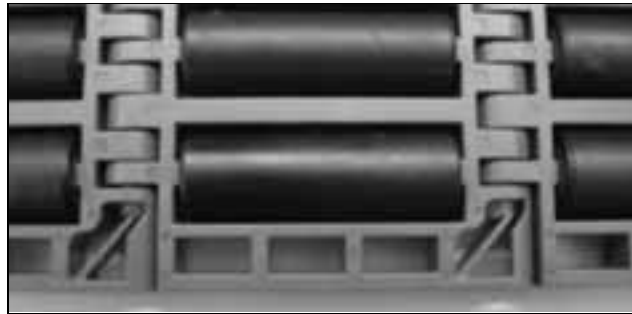
1. Rods should be accurately cut to 1.75 in (44.5mm) shorter than the actual width of the belt.
2. Insert the rod into the aligned holes as far as it will go by hand.



3. Using a screwdriver or punch, push the rod the rest of the way in, past the retention lip.



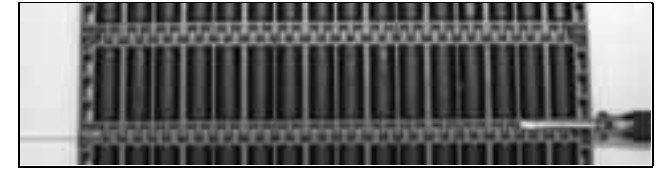
4. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.



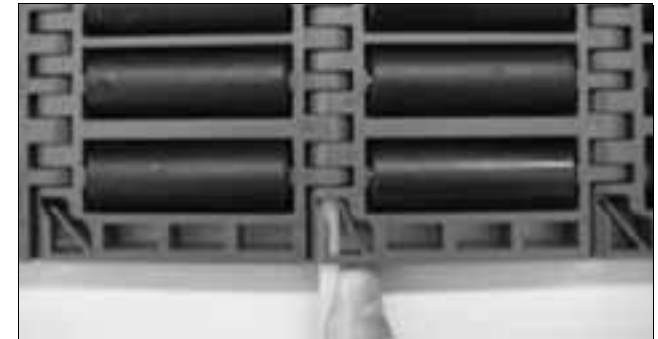
Removing the Rod

The headless rod retention system allows for easy nondestructive repair and reassembly, and for reuse of the hinge rod.

1. Insert a spare rod into one edge of the belt to hold the rod retention lip in the fully open position. From the opposite side of the belt, insert either another rod or screwdriver and push both the spare rod holding the flush edge open and the belt rod past the edge of the belt.



2. Once the belt rod is past the edge of the belt, it can be pulled out by hand for belt disassembly. Replace rods that show signs of damage or wear.

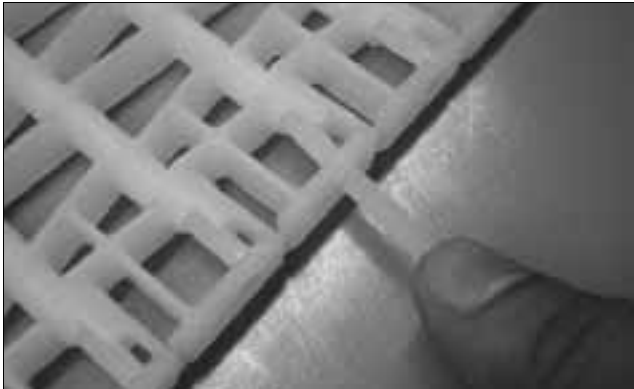


SERIES 9000

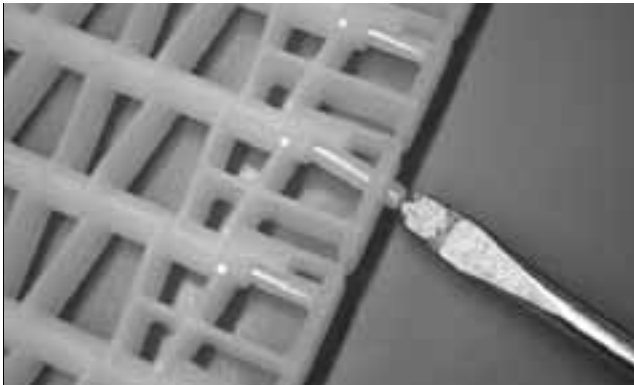
Inserting the Rod

The Series 9000 belt uses a headless rod retention system in each module along the both edges of the belt.

1. Rods should be accurately cut to the prescribed distance which is shorter than the actual overall width of the belt.
2. Insert the rod into the aligned holes as far as it will go by hand.



3. Using a screwdriver or punch, push the rod the rest of the way in, snapping past the retention lip.



4. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted.

Removing the Rod

The headless rod retention system allows for easy nondestructive repair and reassembly, and for reuse of the hinge rod.

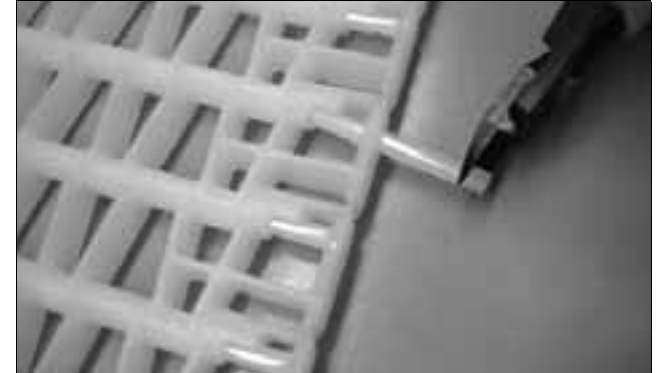
1. From the top or bottom of the belt, grab the exposed rod in the opening near edge of the belt using a pair of needle nose pliers or snips.



2. Push the rod slightly to the side and past the retention lip.



3. Once the rod is past the edge, it can be pushed or pulled out for belt disassembly.



Individual Belt Series Instructions: Radius

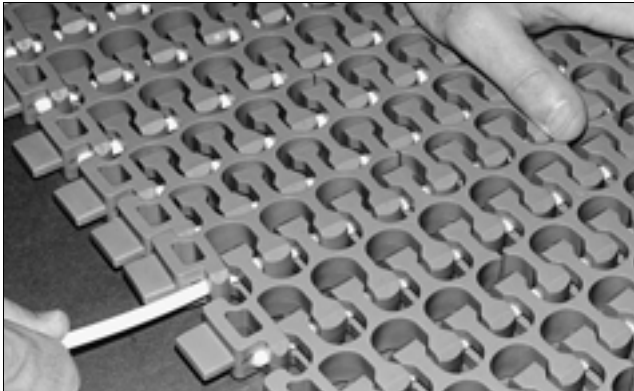
SERIES 2200

Inserting the Rod

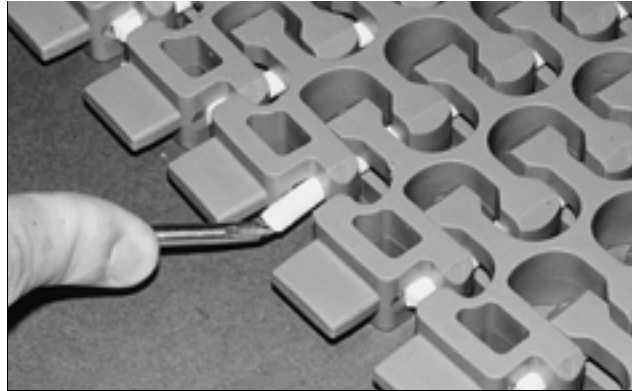
Normally, 0.24 in. (6.1 mm) diameter acetal rods should be used with the Series 2200 polypropylene and polyethylene belts. Nylon or acetal rods can be used with Series 2200 acetal belts. For chemical resistance, polypropylene rods can be used with polypropylene belts. Extra hinge rods are packed with each belt.

Headless Rod

1. Rods should be accurately cut to 0.44 in. (11 mm) shorter than the actual overall width of the belt.
2. Insert the rod into the aligned holes as far as it will go by hand.



3. Using a Phillips screwdriver, punch or other tool, push the rod the rest of the way in, past the retention lip.



4. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.



Removing the Rod

Headless Rod

The headless rod retention system of the Series 2200 belt allows for non-destructive repair and reassembly, and for reuse of the hinge rod.

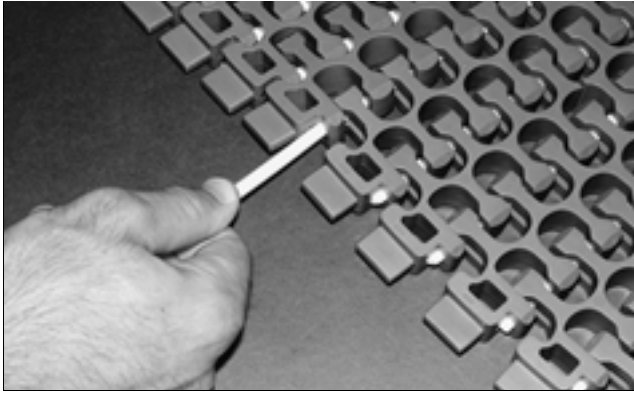
1. For rod removal, flex the flush edge of the module to free the rod from the retention lip.



2. With a pair of snips, grab and pull the rod. Partially withdraw the rods to free the damaged module.



3. When repairs are complete, insert the original rod as explained above. If rods show signs of damage, replace with new rods.



Series 2200 with Insert Rollers

When working with the **Series 2200 with Insert Rollers**, avoid removing rods from the roller rows. However, it may sometimes be necessary to remove a rod from a row in which the insert rollers are placed on the rod. Once the rod is removed, the rollers will fall out of the belt. Make sure to retain the rollers for reinsertion.

When replacing a rod from a roller row, it is important the rollers be placed back into the belt correctly. Make sure that the side of the roller

which is the smallest diameter is next to the link with a regular rod hole and NOT a slotted hole. If the roller is placed incorrectly into the belt, the turn ratio will be negatively affected.



When splicing together two or more sections of belt, make sure the insert rollers are positioned so the sides with the small diameters are oriented in the same direction. Rollers oriented in opposite directions may interfere with the sprockets.

When installing the belt, make sure the rollers are contacting the wearstrips. If your conveyor was designed to your belt specifications but the rollers are not contacting the carryway, it will be necessary to flip the belt over.

Belt Installation and Replacement

The Series 2200 (without accessories) is top to bottom reversible; the belt is symmetrical and bidirectional, please consult an Intralox Spiral Engineer for best run direction on your system.



WARNING: *Hold down edge guides are mandatory on the inside and outside edges of all turns, so that the belt stays constrained while turning. Edge guides should extend at least one belt width into the adjacent straight runs to insure that the belt path is straight before and after each turn.*

SERIES 2400

Inserting the Rod

Normally 0.180 in. (4.6 mm) diameter acetal rods should be used with the Series 2400 polypropylene belts. Nylon rods can be used with Series 2400 acetal belts. For chemical resistance, polypropylene rods can be used with polypropylene belts. Extra hinge rods are packed with each belt.

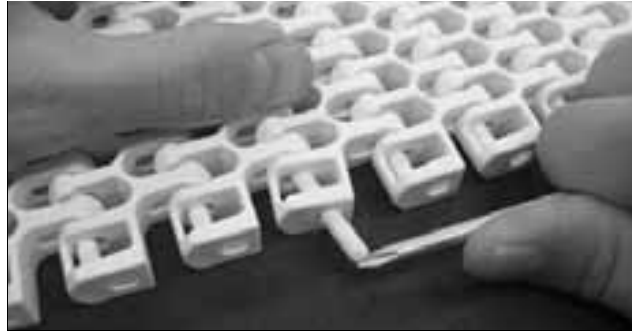
Headless Rod

Series 2400 Flush Grid belts have headless rod retention systems.

1. Rods should be accurately cut to 0.6 in. (15 mm) shorter than the actual overall width of the belt.
2. Insert the rod into the aligned holes as far as it will go by hand.



3. Using a Phillips screwdriver, punch or other tool, push the rod the rest of the way in, past the retention lip.



4. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.



Removing the Rod

Headless Rod

The headless rod retention system of the Series 2400 belt allows for easy, non-destructive repair and reassembly, and for reuse of the hinge rod.

1. For easy rod removal, insert flat head screwdriver in between the rod and module. Then rotate the screwdriver to align the rod towards the insertion hole. Repeat this

process until the rod is sticking slightly out of the flush edge feature.



2. Use a pair of snips to grab and pull the rod from the belt.



3. When repairs are complete, insert the original rod as explained above. If rods show signs of damage, replace with new rods.

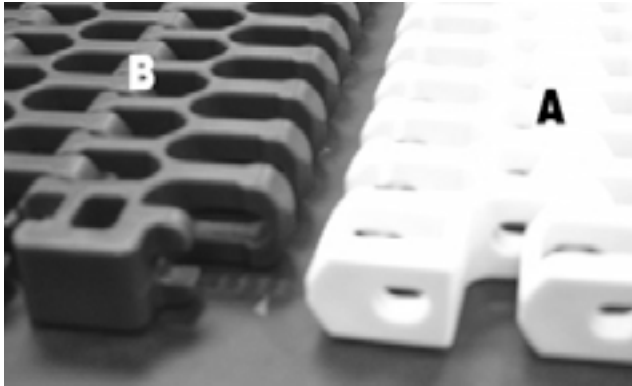
Section Replacement Instructions for Splicing New Flush Edge (A) with Old Flush Edge (B)

The flush edge of Series 2400 has been updated. When connecting the leading edge of the new

design (A) to the trailing edge of the old design (B), no modifications are necessary.



When connecting the leading edge of the old design (B) to the trailing edge of the new design (A), modification of the old module is necessary.

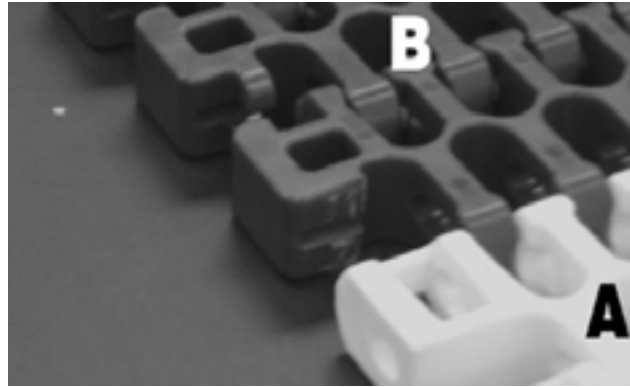


The old design module (B) must be trimmed before joining the sections with a hinge rod. Use

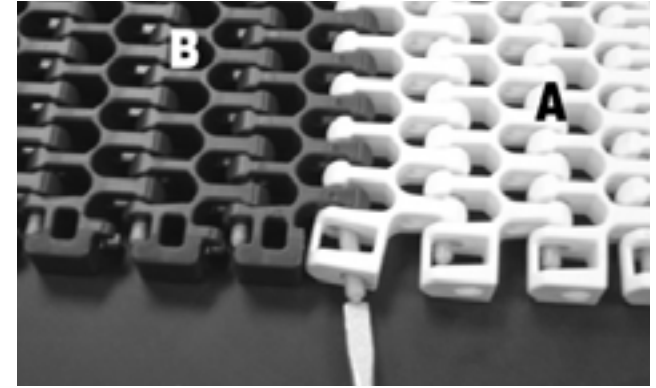
a cutting tool to remove the hinge rod guides from the old design (B).



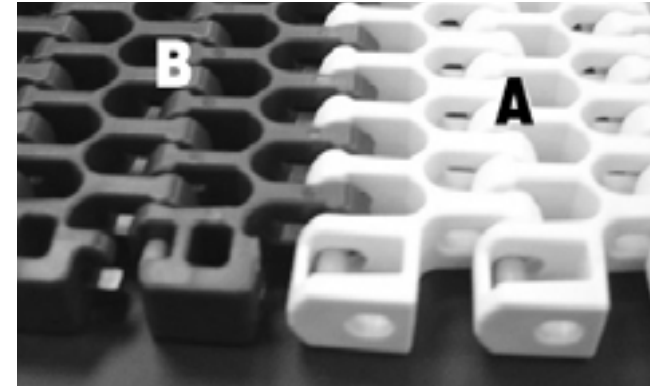
The surface should now be smooth and allow the module to fit together.



Join the old (B) and new (A) sections by inserting a pre-cut rod into the rod pocket.



Snap the rod past the flexible edge to lock in place.

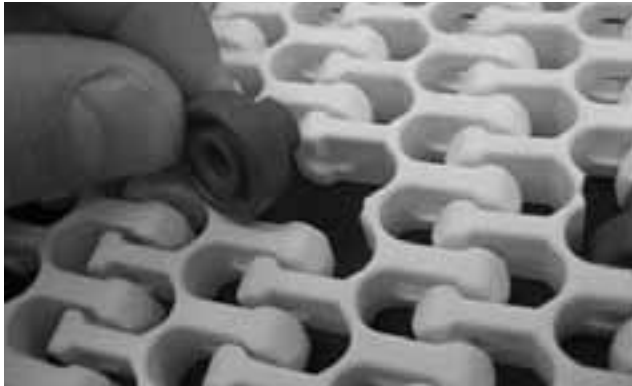


Series 2400 with Insert Rollers

When working with the **S2400 with Insert Rollers**, avoid removing rods from the roller rows. The rollers are placed on the rod, so they will fall out of the belt if the rod is pulled.



If it is necessary to pull a rod from a roller row, make sure when replacing those rollers back into the belt, that the side with the small diameter is next to the link with a regular rod hole and NOT a slot. If the roller is placed incorrectly into the belt, the turn ratio will be negatively effected.



When splicing together two or more sections of belt, make sure the insert rollers are positioned so the sides with the small diameters are oriented in

the same direction. Rollers oriented in opposite directions may interfere with the sprockets.

Belt Installation and Replacement

The Series 2400 can run bi-directionally. The Series 2400 (without flights, friction modules or hold down tabs) is top to bottom reversible; the belt is symmetrical and bidirectional, please consult an Intralox Spiral Engineer for best run direction on your system.



Belts with the bottom hold down guide, friction modules, or flights are not top-to-bottom reversible. As with the regular belt, they do have a preferred direction, though they can run bi-directionally.



WARNING: Hold down edge guides are mandatory on the inside and outside edges of all turns, so that the belt stays constrained while turning. Edge guides should extend at least one belt width into the adjacent straight runs to insure that the belt path is straight before and after each turn.

Stainless Steel Turn Rail for Series 2400 Flush Grid in High Speed Intralox™

Temperature:

The temperature of the Stainless Steel Wearstrip contacting the High Speed Intralox™ edge can exceed 225°F, depending on speed and loading conditions.

CAUTION: Heat Shield the Stainless Steel Turn Rails, Temperatures Exceed 120°F

Construction:

The construction of the stainless steel wearstrip is important to prevent exposed hot spots on returnway and carryway. The stainless steel wearstrip is used to reduce wear on the High Speed Intralox™ edge and for heat resistance. In order to prevent exposed high temperature surfaces, a plastic hold down wearstrip encases the stainless steel wearstrip.

Wearstrips:

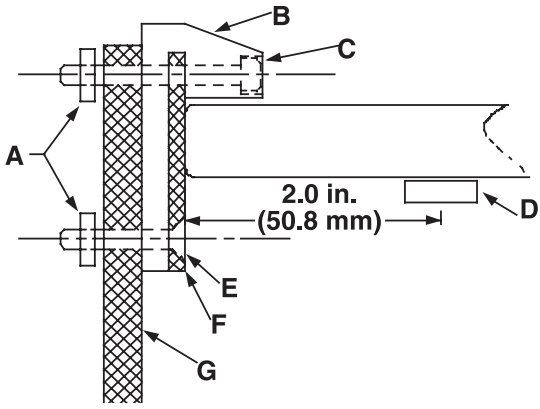
The stainless steel wearstrip must be smooth with a maximum surface roughness of 16 µin Ra, and have a minimum thickness of 11 gauge.

The stainless steel wearstrip should be fastened by bolts and nuts. Make sure the bottom bolts do not contact the bottom of the belt's edge. The leading edge of the stainless steel wearstrip must

be chamfered or bent to provide good lead-in for the belt.

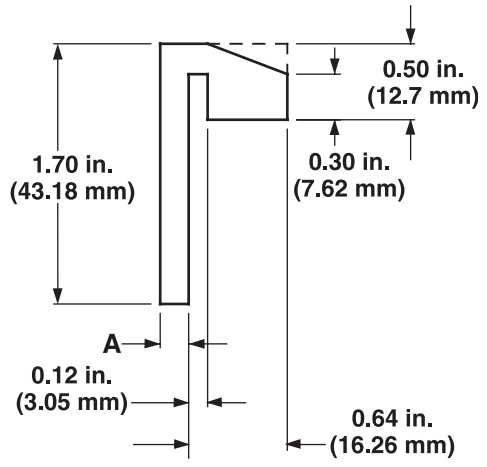
The following drawings are one way to design the wearstrip.

Stainless Steel Wearstrip Configuration



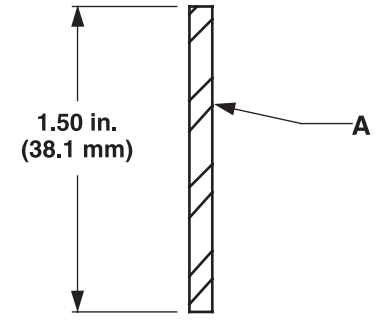
- A - #6 Hex Nut and Washer
- B - UHMW PE Hold Down
- C - #6 Socket Head Screw Counter Bore
- D - Support Wearstrip
- E - #6 Flat Head Screw
- F - Stainless Steel Wearstrip
- G - Conveyor Frame

UHMW PE Hold Down for Stainless Steel Wearstrip



A - Distance to make stainless steel wearstrip flush to straight running plastic wearstrip

Stainless Steel Wearstrip



A - Belt Surface Side
 Surface Finish: Maximum 16 Mircoinches Ra
 Minimum Thickness: 11 Gauge (0.119 in., 3.0226 mm)

SERIES 2600 & 2700 Spiralox®

Inserting the Rod

A 0.240 in. (6 mm) diameter Acetal rod should be used with the Spiralox® Flush Grid belts.

Headless Rod

Spiralox® Flush Grid belts have headless rod retention systems.

1. Rods should be accurately cut to 0.5 in. (12.7 mm) shorter than the actual overall width of the belt.
2. Insert the rod into the aligned holes as far as it will go by hand.

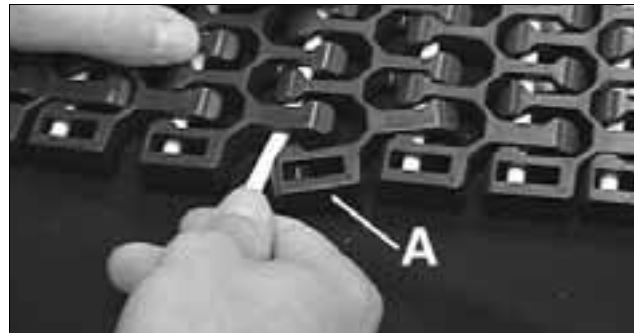


3. Align leading and trailing holes of the fourth and fifth link respectively. Insert rod through the aligned holes until the end of rod is near the flush edge (A).

Spiralox® 1.6 belt



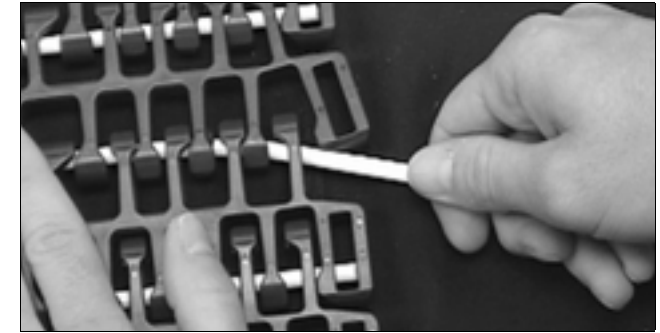
Spiralox® 1.6 belt



Spiralox® 2.2 belt



Spiralox® 2.2 belt



4. Push the rod past the flush edge (A) and snap the flush edge (A) over the rod into a closed position. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown.



Closed Position



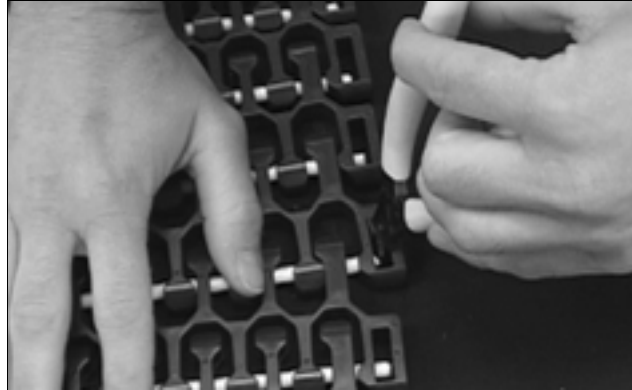
Removing the Rod

Headless Rod

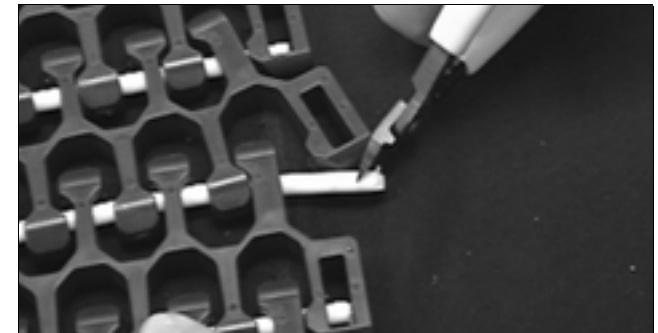
The headless rod retention system of the Spiralox® Flush Grid belts allow for easy, non-destructive repair and reassembly, and for reuse of the hinge rod.

1. For easy rod removal, push rod inward into the belt with a preferred tool, such as snips. Then flex the flush edge of the module

sideways with the tool to free the rod from the retention edge (A).

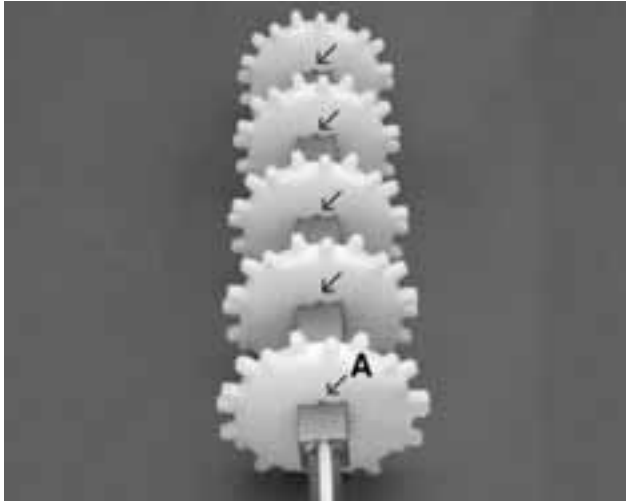


2. With the preferred tool, grab and pull the rod past the retention edge.

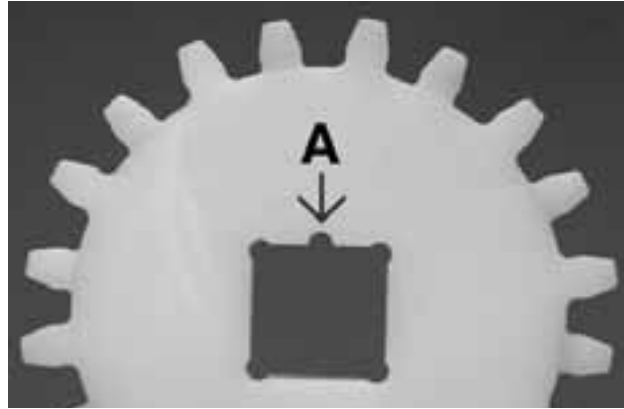


Spiralox® Sprocket Installation

1. Distribute the Spiralox® sprockets uniformly on the primary drive shaft while timing all sprockets identically, with all corresponding teeth lined up in the same radial direction when looking down the shaft.



A - Sprocket Alignment Notch



A - Sprocket Alignment Notch

Minimum sprocket indent is as follows:

- 4.75 in. (120.7 mm) indent from inner & outer belting edge for Series 2600 and Series 2700
- 9.0 in. (228.6 mm) indent from inner edge and 4.75 in. (120.7 mm) indent from outer edge for Series 2600 1.1 turning radius

Note: Sprockets must be installed on the shafts so that the teeth are properly aligned. On sprockets having square bores and a number of teeth evenly divisible by four, the teeth will be aligned properly no matter how the sprockets are placed on the square shaft (i.e., $16 \div 4 = 4$). However, when the number of teeth on a sprocket cannot be evenly divided by four, special care must be taken to insure all sprockets are “timed” alike. In this case, there is a sprocket alignment notch manufactured in each sprocket. When the

sprockets are installed, all of these notches must be placed on the same side of the shaft.

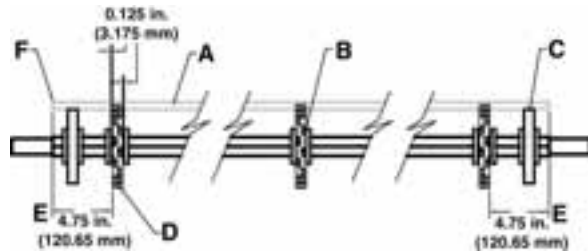
2. Install two support rollers on inner and outer belting edge for Series 2600 and Series 2700. For 1.1 Turning Radius, a minimum of two support rollers are recommended to be locked down approximately 2 in. (50.8 mm) and 6 in. (152.4 mm) from the inside edge.
3. Secure all Spiralox® sprockets temporarily in vicinity on both sides using the Intralox Stainless Steel Split Collar Retainer Rings.



4. Ensure proper sprocket engagement with Spiralox® belting and allow belting to find its natural path, commonly known as “Swing Wide”.
5. Secure all Spiralox® sprockets as follows: lock middle sprocket completely, while allowing 0.25 in. (6.4 mm) total lateral

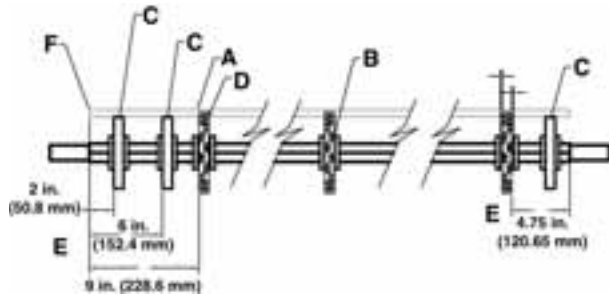
movement for all remaining sprockets. Refer to the followings diagrams.

Series 2600 - 1.6, 2.2, 2.5, 3.2



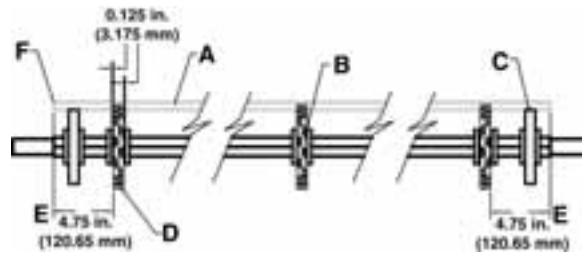
- A - Belt
- B - Lock center sprocket only
- C - Support roller
- D - Sprocket
- E - Sprocket indent
- F - Inside edge of belt

Series 2600 - 1.1



- A - Belt
- B - Lock center sprocket only
- C - Support roller
- D - Sprocket
- E - Sprocket indent
- F - Inside edge of belt

Series 2700 - 1.6



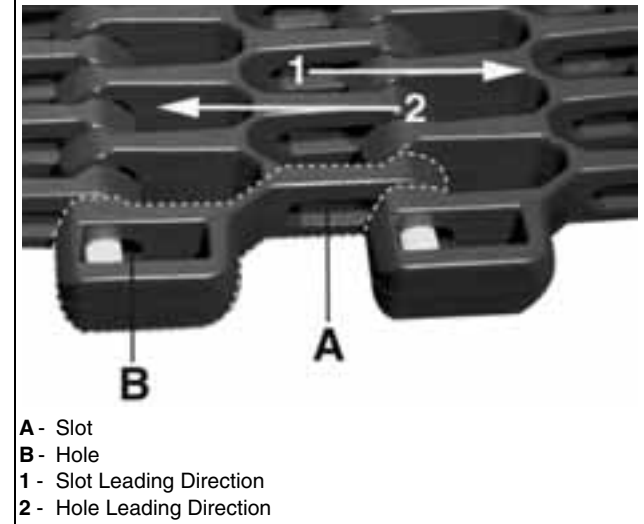
- A - Belt
- B - Lock center sprocket only
- C - Support roller
- D - Sprocket
- E - Sprocket indent
- F - Inside edge of belt

Spiralox® Travel Direction

Spiralox® belting is bi-directional in travel by design. Please consult with Intralox Customer Service for your Spiralox® belting travel direction or review your Spiral Analysis document. Intralox makes the appropriate belting travel recommendation (Slots Leading or Holes

Leading) based upon every spiral system design criteria.

Spiralox® Travel Direction



- A - Slot
- B - Hole
- 1 - Slot Leading Direction
- 2 - Hole Leading Direction

SERIES 2800 Spiralox® G-Tech

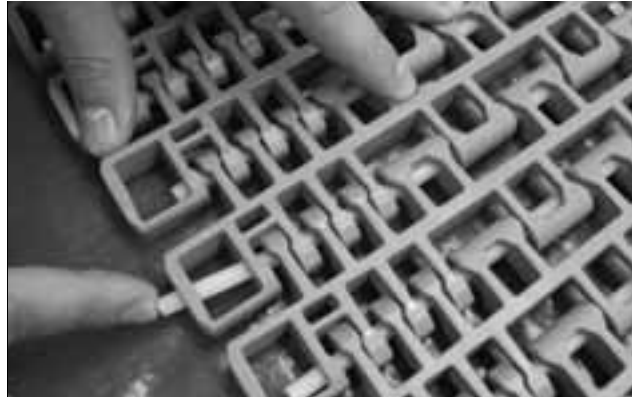
Inserting the Rod

The Series 2800 belt uses a 0.240 in. (6 mm) diameter headless rod retention system.

1. Rods should be accurately cut to 0.6 in. (15.2 mm) shorter than the actual overall width of the belt.
2. Insert the rod into the aligned holes as far as it will go by hand.



3. Using a screwdriver or punch, push the rod the rest of the way in, snapping past the retention lip.



4. Proper rod insertion is required for the rod retention system to work. Upon completion, the rod should be fully inserted as shown below.



Removing the Rod

Headless Rod

The headless rod retention system of the Spiralox® Flush Grid belts allow for easy, non-destructive repair and reassembly, and for reuse of the hinge rod.

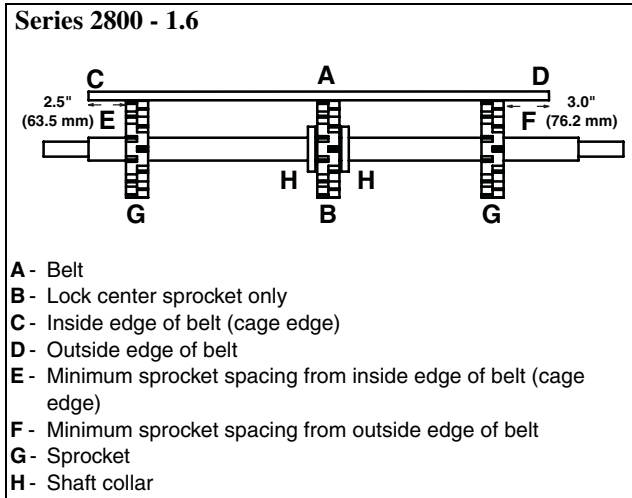
1. From the top or bottom of the belt, grab the exposed rod in the opening near the edge of the belt using a pair of needle nose pliers or snips.
2. Push the rod slightly to the side and past the retention lip.



3. Once the rod is past the edge, it can be pushed or pulled out for belt disassembly.



Spiralox® Sprocket Installation



- Minimum sprocket indent for Series 2800 is 2.5 in. (63.5 mm) from inside edge of the belt

and 3.0 in. (76.2 mm) from the outside edge of the belt.

- Support rollers should not be used for Series 2800.

SERIES 3000

Inserting the Pin

Both Series 3000 chain styles (straight and turning) will run in either direction. The straight chain, Series 3000S, is also reversible top-to-bottom.

1. Pull the ends of the chain together at a location on the conveyor where there is access to the sides of the chain.
2. Insert a steel pin into the chain (smooth end first) and push it through both modules as far as it will go (usually up to the knurled end).
3. Tap the knurled side into the chain, insuring that the edges of the pin are at least flush with the edges of the chain. Preferably, the steel pin will be slightly recessed from both sides of the chain.

Removing the Pin

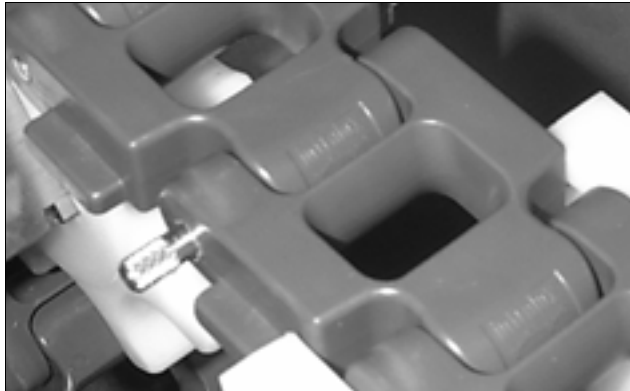
When entire chains or individual modules need replacement, the first step is to remove a steel pin from the chain.

1. From a point on the conveyor where both sides of the chain are accessible, inspect the sides of the chain to see which side the knurl

is on. The knurl will leave small grooves in the module when inserted.



2. From the opposite side of the chain, tap the knurl free of the module, using a hammer and punch or even another pin.



The pin can be reinserted, as described above, from either side of the chain. This is useful if the knurled end has started to wear away the plastic in the original side.

WARNING: *If the pin is bent the chain will not fit properly on the sprockets.*

Section Replacement

If the chain only needs repair of a damaged module or section, it is generally easiest to remove the chain from the conveyor and disassemble the pins on either side of the damaged section. New chain sections can be spliced into older sections. It is important to note that under some circumstances the steel pins will bend, especially if the chain was caught or snagged on the frame or a foreign object. Though this may not be readily apparent, a chain running with bent pins may not fit well on the sprockets, causing drive problems. If bent pins are found, it is common for significant sections of chain to be damaged, and the entire chain may need replacement.

WARNING: *Hold down edge guides are mandatory on the inside and outside edges of all turns, so that the belt stays constrained while turning.*

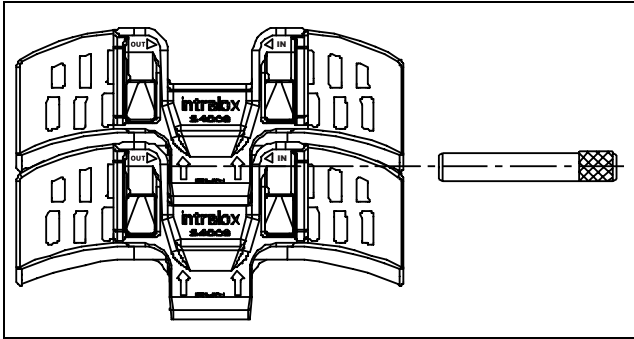
SERIES 4000

Inserting the Pin

The Series 4000 chains are designed to operate optimally in one direction, indicated by a small arrow on the underside of the module. While the belt will operate in the reverse direction, it is susceptible to snagging.

The steel pins that connect the modules together are press fit into the modules. The pins should only be inserted from the direction indicated on the bottom of the module.

1. Pull the chain through the track in the proper direction.
2. Insert a steel pin into the chain (smooth end first) and push it through both modules as far as it will go (usually up to the knurled end).



3. Tap the knurled side into the chain, ensuring that the edges of the pin are at least flush with the edges of the chain. Preferably, the steel pin will be slightly recessed from both sides of the chain.

Removing the Pin

When entire chain or individual modules need replacement, the first step is to remove a steel pin from the chain.

1. From a point on the conveyor where both sides of the chain are accessible, inspect the sides of the chain to see which side the knurl is on.
2. From the opposite side of the chain, tap the knurl free of the module using a hammer and punch. The pins can be reinserted several times, providing that the knurl has not worn down. The plastic will begin to wear if a pin is removed from the same row several times. Intralox recommends that you do not remove the pin repeatedly from the same location.

Section Replacement

If the chain only needs repair of a damaged module or section, it is generally easiest to remove the chain from the conveyor and

disassemble the pins on either side of the damaged section. New chain sections can be spliced into older sections. It is important to note that under some circumstances the steel pins will bend, especially if the chain was caught or snagged on the frame or a foreign object. Though this may not be readily apparent, a chain running with bent pins may not fit well on the sprockets, causing drive problems. If bent pins are found, it is common for significant sections of chain to be damaged, and the entire chain may need replacement.

WARNING: *Hold down edge guides are mandatory on the inside and outside edges of all turns, so that the belt stays constrained while turning.*

Preventive Maintenance and Trouble Shooting

Intralox belting systems have been engineered to be as maintenance-free as possible. However, as with all dynamic machinery, conveyors can occasionally experience mechanically-related occurrences that require attention. This guide is designed to assist in diagnosing and solving any mechanically-related problem that might arise on conveyors using the Intralox belting system. If you require further help, information or additional copies of this guide, call the nearest Intralox office listed on the back cover.

What kinds of conditions should be reported to your Maintenance Department?

1. Report damaged or missing belt modules as soon as they are discovered. (The belt will probably continue to operate adequately. However, damage of this nature can affect the strength integrity of the belt or contribute to further damage.)

2. Report belt edge damage as soon as is discovered. (Belt edge damage should be investigated immediately to prevent further, more serious damage.)
3. Report any mistracking or sprocket migration as soon as it is discovered. (If left uncorrected, belt edge and more serious damage can occur.)
4. Report missing or damaged return rollers, shoes or wearstrips as soon as they are discovered.
5. Report connecting rods that are protruding out of the belt (or missing rods) as soon as they are discovered.

After the first 30 days of operation, it is wise to give the conveyor a good inspection to establish condition of belt, wearwise.

1. Check the belt (top and bottom), sprockets and wearstrips for signs of wear or damage (cuts, gouges, etc.).

2. Check sprockets for proper engagement with the belt and location (transversely) on the shafts.
3. Check belt return system for worn or damaged rollers, shoes or wearstrips.
4. Check connecting rods (remove a couple of them at least part way) for wear (camshafting).

Investigate the cause of any accelerated wear and schedule the time to make any adjustments or take corrective action as soon as possible. Contact Intralox (your District Manager or Customer Service Representative) for assistance or recommendations.

You may wish to repeat this inspection once a month for the first several months to enable you to spot any wear trends and develop a “feel” for the operational characteristics of the conveyor.

Observation, timely reporting of operational problems and initial inspection at roughly thirty day intervals should provide maximum useful life for the Intralox belting system.

Straight Running Belts

Problem:	Possible Cause:	Solution:
1. Belt not engaging with drive sprockets.	Incorrect belt tension around drive sprockets.	Provide catenary sag on return side of belt as recommended by the Intralox Engineering Program or your local Intralox office.
	Incorrect “A” or “B” dimension.	Compare existing shaft location to that recommended for “A” and “B” dimensions in the Intralox Engineering Manual. Adjust drive shaft as necessary to meet these dimensions.
	Incorrect belt returnway design.	Insure belt returnway allows for recommended catenary sag. Re-space rollers to get proper sag; by-pass slider bed returnway to get proper sag. Contact Intralox for assistance.
	Sprockets not aligned correctly on shaft.	Check sprocket alignment by laying a straight edge parallel to the shaft at the base of any tooth on the sprocket to make sure that all sprockets are in the same position across the belt. On sprockets having a tooth count that is evenly divisible by 4, teeth are automatically properly aligned when put on the square shaft. However, if the tooth count cannot be divided evenly by 4, special care must be taken to avoid problems. If timing holes are provided on these sprockets, they must be placed in alignment all the way across the shaft, <i>see</i> Sprocket and Shaft Installation.
	Insufficient belt wrap around drive sprockets.	Relocate the first return roller after the drive shaft to insure 180 degrees or more of belt wrap around drive sprockets. Contact Intralox for assistance.

Straight Running Belts

Problem:	Possible Cause:	Solution:
<p>2. Belt not tracking properly.</p>	<p>Drive and tail shafts not plumb, level and square to each other.</p>	<p>Inspect shafts to insure they are plumb, level and square to each other. Lock into place with shaft collars.</p>
	<p>Conveyor frame and/or components, not level or square.</p>	<p>Check and adjust conveyor frame. Check shaft alignment after any adjustment in frame. It may be necessary to re-plumb, level and square the shafts.</p>
	<p>Sprockets not aligned correctly on shaft.</p>	<p>Check sprocket alignment by laying a straight edge parallel to the shaft at the base of any tooth on the sprocket to make sure that all sprockets are in the same position across the belt. On sprockets having a tooth count that is evenly divisible by 4, teeth are automatically properly aligned when put on the square shaft. However, if the tooth count cannot be divided evenly by 4, special care must be taken to avoid problems. If timing holes are provided on these sprockets, they must be placed in alignment all the way across the shaft, <i>see</i> Sprocket and Shaft Installation.</p>
	<p>Locked sprocket on drive and idle shafts are not properly aligned with each other.</p>	<p>Re-align sprockets “locked” in place by a retainer ring or other device insuring that the drive shaft sprocket is perfectly aligned with the idle shaft sprocket, <i>see</i> Sprocket and Shaft Installation.</p>
	<p>Material build-up on bottom of belt interfering with proper sprocket tooth engagement.</p>	<p>Clean bottom of belt, removing any material build up that could interfere with sprocket tooth engagement. It may be necessary to provide in-place brushes, scrapers, scrolls or other devices to prevent future material build up.</p>
	<p>Belt misspliced.</p>	<p>With the exception of Series 200, all belt series should have a flush edge when spliced properly. Series 200 has an in-out side pattern which must be maintained or the belt will not track properly.</p>
	<p>Return rollers not level and square to conveyor frame.</p>	<p>Inspect and correct any return roller that is not level or square with conveyor frame.</p>
	<p>Retainer rings improperly utilized or missing.</p>	<p>Replace missing retainer rings; check retainer ring location to make sure locked sprockets on drive and idle shafts are in perfect alignment.</p>

Straight Running Belts

Problem:	Possible Cause:	Solution:
3. Excessive belt wear.	Belts, sprockets or wearstrip exposed to abrasive material.	Eliminate or reduce the presence of abrasive material which might come in contact with the belt, sprockets or wearstrip. As an example, this material could be periodically blown off the plastic conveyor parts by the use of plant pressurized air or washed off at the end of the shift. An in-place spray wash could be employed.
	Incorrect wearstrip material.	Insure wearstrip material is correct for the application. Contact Intralox for assistance in wearstrip selection.
	Binding of belt in conveyor frame.	Check the conveyor frame to insure it is level and square. Correct any conditions causing belt to rub or bind.
	Uneven or incorrect product loading.	Add support under loading area of belt, add a chute to orient conveyed material so that it is traveling in the same direction as the belt and, ideally, at a similar speed. If product is side loaded, add a side guide to opposite side of belt.
	Excessive belt speed.	High speed belts, especially those with short shaft centers, will wear faster than belts at lower speeds. Reduce belt speed if possible.
	Incorrect wearstrip spacing.	Wearstrip spacing varies with the load on the belt, belt style and temperature. Contact Intralox for assistance.
	Sharp corners on carryway or returnway wearstrips.	Make sure the leading edge of any carryway or returnway wearstrips, or slider beds are beveled or radiused for smooth belt travel.

Straight Running Belts

Problem:	Possible Cause:	Solution:
4. Excessive sprocket wear.	Sprockets exposed to abrasive material.	Eliminate or reduce the presence of abrasive material which might come in contact with the belt, sprockets or wearstrip. As an example, this material could be periodically blown off the plastic conveyor parts by the use of plant pressurized air or washed off at the end of the shift. An in-place spray wash could be employed. Abrasive resistant sprockets are available for several belt series. Contact Intralox for assistance.
	Incorrect tension on belt.	Provide proper belt tension around the drive sprockets. Provide catenary sag on return side of belt as recommended by the Intralox Engineering Program or your local Intralox office.
	Excessive belt speed.	Reduce belt speed if possible.
	Drive and idle shafts not plumb, level and square to each other.	Inspect shafts to insure they are plumb, level and square to each other. Lock into place with shaft collars.
	Insufficient number of sprockets.	It is possible that the conveyor requires a more even distribution of load among sprockets. Contact Intralox for advice.
	Locked sprockets on drive/idle shafts not aligned with each other correctly.	Re-align sprockets “locked” in place by a retainer ring or other device insuring that the drive shaft sprocket is perfectly aligned with the idle shaft sprocket.
	Sprockets are not aligned correctly on shafts.	Check sprocket alignment by laying a straight edge parallel to the shaft at the base of any tooth on the sprocket to make sure that all sprockets are in the same position across the belt. On sprockets having a tooth count that is evenly divisible by 4, teeth are automatically properly aligned when put on the square shaft. However, if the tooth count cannot be divided evenly by 4, special care must be taken to avoid problems. If timing holes are provided on these sprockets, they must be placed in alignment all the way across the shaft, <i>see</i> Sprocket and Shaft Installation.
	Incorrect “A” or “B” dimension.	Compare existing shaft location to that recommended for “A” and “B” dimensions in the Intralox Engineering Manual. Adjust drive shaft as necessary to meet these dimensions.
	Shaft deflection or twisting.	Inspect shaft for evidence of deflection or twisting. Bent or twisted shafts must be replaced. An intermediate bearing may be required for wide belts. Contact Intralox for assistance.

Straight Running Belts

Problem:	Possible Cause:	Solution:
5. Excessive belt edge wear or damage.	Belt contacting obstructions on conveyor belt, returnway, frame or adjacent equipment.	Check the conveyor frame to insure it is level and square. Correct any conditions causing belt to rub or bind.
	Belt improperly aligned and not tracking correctly.	Re-align sprockets “locked” in place by a retainer ring or other device insuring that the drive shaft sprocket is perfectly aligned with the idle shaft sprocket. Check the conveyor frame to insure it is level and square. Correct any conditions causing belt to rub or bind.
	Thermal expansion causing belt edge to “rub” somewhere on conveyor frame.	Correct conveyor frame dimensions to insure there is a 0.25 in. (6.4 mm) minimum clearance on each side of the belt when full thermal expansion (highest temperature) is encountered.
	Conveyor frame not square or level.	Check the conveyor frame to insure it is level and square. Correct any conditions causing belt to rub or bind.
	Shafts not held in place correctly with shaft collars, etc., allowing the shafts to migrate to one side.	Insure shafts are plumb, level and square; make any corrections and hold shaft in place with a set collar.
	Belt misspliced.	With the exception of Series 200, all belt series should have a flush edge when spliced properly. Series 200 has an in-out side pattern which must be maintained or the belt will not track properly.
	Belt edge not guided through a submerged application.	Intralox belts are buoyant in most solutions and it is necessary to control the course of the belt to prevent edge wear. Consult Intralox for assistance.

Straight Running Belts

Problem:	Possible Cause:	Solution:
6. Sprockets move laterally to center or edge of belt.	Drive and idle shafts not plumb, level and square to each other.	Inspect shafts to insure they are plumb, level and square to each other. Lock into place with shaft collars.
	Retainer rings incorrectly used.	Add or relocate “locked” sprocket retainer rings. Contact Intralox for assistance.
	Locked sprocket on drive and idle shafts not properly aligned with each other.	Re-align sprockets “locked” in place by a retainer ring or other device, insuring that the drive shaft sprocket is perfectly aligned with the idle shaft sprocket, <i>see</i> Sprocket and Shaft Installation.
	Sprockets not aligned correctly on shaft.	Check sprocket alignment by laying a straight edge parallel to the shaft at the base of any tooth on the sprocket to make sure that all sprockets are in the same position across the belt. On sprockets having a tooth count that is evenly divisible by 4, teeth are automatically properly aligned when put on the square shaft. However, if the tooth count cannot be divided evenly by 4, special care must be taken to avoid problems. If timing holes are provided on these sprockets, they must be placed in alignment all the way across the shaft, <i>see</i> Sprocket and Shaft Installation.
	Material build up on bottom of belt preventing proper tooth engagement.	Clean bottom of belt removing any material build up that could interfere with sprocket tooth engagement. It may be necessary to provide in-place brushes, scrapers, scrolls, or other devices to prevent future material build up.
	Belt misspliced.	With the exception of Series 200, all belt series should have a flush edge when spliced properly. Series 200 has an in-out side pattern which must be maintained or the belt will not track properly.
	Shaft deflection or twisting.	Inspect shaft for evidence of deflection or twisting. An intermediate bearing may be required for wide belts. Bent or twisted shaft must be replaced. Contact Intralox for assistance.

Straight Running Belts

Problem:	Possible Cause:	Solution:
7. Hinge rod or hinge pin migrating out of belt.	Rods not headed on both sides of belt on Series 200 belt.	Replace all rods that have lost a head on either edge of the belt.
	Rods not seated in snap-in feature or behind rod occlusion on Series 100, 400, 800, 900, 1100, 2200, or 2400 belts or SLIDELOX® not completely closed and snapped into place on Series 400, 1200, or 1400.	On Series 100, 400 (some versions), 800 and 900, rods are headed on one side only. Insure rod head is firmly seated in Snap-Lock edge module. On Series 1100, 2200, and 2400, Intralox utilizes headless rods. Please make certain that these rods are properly seated behind occlusion in belt module. Series 400 (some versions), 1200, and 1400 also utilize headless rods in combination with our SLIDELOX® feature. Please make certain that SLIDELOX® is completely closed and snapped into place.
	Drive and idle shafts not plumb, level and square to each other.	Inspect shafts to insure they are plumb, level and square. Make any corrections and hold shaft in place with a set collar.
8. Sideguard wear or damage (including breakage).	Sideguards contacting conveyor frame, returnway or adjacent equipment.	Eliminate obstructions to sideguard travel. Check the conveyor frame to insure it is level and square. Correct any conditions causing belt or sideguards to rub or bind.
	Uneven or incorrect belt loading.	Correct any belt loading method that may be damaging sideguards. Use a chute to orient conveyed material so that it is traveling in the same direction as the belt and, ideally, at a similar speed. Add support under loading area of belt.
9. Flight wear or damage (including breakage)	Flights contacting obstructions on conveyor frame, returnway or adjacent equipment.	Eliminate obstructions to the flight travel. Check the conveyor frame to insure it is level and square. Correct any conditions causing belt to rub or bind.
	Uneven or incorrect belt loading.	Adjust belt loading as necessary to protect flights. Add a chute to orient conveyed material so that it is traveling in the same direction as the belt and, ideally, at a similar speed.
	High impact in infeed area.	Reduce or eliminate impact on belt by adding an “impact plate” above belt to absorb initial shock. Mount plate at an angle that will direct impacting piece gently onto the belt.
	Improper flight support on returnway.	Flighted belts should be supported on each side of belt (on the “indent”) and as needed across the belt width. Contact Intralox for assistance.

Straight Running Belts

Problem:	Possible Cause:	Solution:
10. Impact damage to belt.	Uneven or incorrect belt loading.	Add support under loading area of belt. Add a chute to orient conveyed material so that it is traveling in the same direction as the belt and, ideally, at a similar speed.
	Unsuitable belt material.	Review the materials section of the Intralox Engineering Manual or call Intralox for assistance.
	Application may be outside the performance range of a plastic conveyor belt.	Check with Intralox Sales Engineering for guidance and recommendations.

Straight Running Belts

Problem:	Possible Cause:	Solution:
11. Finger transfer plate damage.	Incorrect finger transfer plate mounting.	Refer to Design Guidelines in the Intralox Engineering Manual for correct dimensional information and correct any variances. Finger transfer plates should not be tightened down too firmly on the mounting support surface. This allows them to “float” laterally to accommodate thermal changes in the belt’s width. Make certain the angle used to mount the finger plates is straight, level, and not bent or twisted.
	Excessive heat at finger transfer plate area.	If belts in a high heat area are expanding beyond the movement range of the finger transfer plate’s slotted holes, contact Intralox for assistance.
	Raised Rib belt not tracking properly.	Correct belt tracking problem as explained in Problem #2.
	Material build up between raised ribs.	If possible, eliminate the source of the material build up. If the build up is not preventable, routinely inspect and clean the belt.
	Incorrect “A” or “B” dimensions.	Compare existing shaft location to that recommended for “A” and “B” dimensions in the Intralox Engineering Manual. Adjust drive shaft as necessary to meet these dimensions. Make certain that the drive and idler shafts are plumb, level and square in relation to each other and to the finger plates.
	Shaft deflection or twisting.	Inspect shaft for evidence of deflection or twisting. An intermediate bearing may be required for wide belts. Bent or twisted shafts must be replaced. Contact Intralox for assistance.
	Sprocket not aligned correctly on shaft.	Check sprocket alignment by laying a straight edge parallel to the shaft base of any tooth on the sprocket to make sure that all the sprockets are in the same position across the belt. On sprockets having a tooth count that is evenly divisible by 4, teeth are automatically properly aligned when put on the square shaft. However, if the tooth count cannot be divided by 4, special care must be taken to avoid problems. If timing holes are provided on these sprockets, they must be placed in alignment all the way across the shaft, <i>see</i> Sprocket and Shaft Installation.

Straight Running Belts

Problem:	Possible Cause:	Solution:
12. Belt develops excessive catenary sag.	Incorrect total belt length.	Excess catenary sag must be at the belt's coldest operating temperature because the belt will then be contracted to its shortest length. If excess catenary is found, shorten the belt by removing rows of modules. All Intralox belts, except Series 200, can be shortened in one module row increments. Series 200 must be shortened in two module row increments.
	Insufficient belt tension in high heat applications.	If the excess catenary sag is due to thermal expansion from operational temperatures and is not excessive when cold, it may be necessary to add a take-up/tensioning device on the conveyor to compensate for the thermal growth. Contact Intralox for assistance.
	Elongation of belt due to initial start-up situation or heavy loads.	Plastic belt will elongate during initial "break-in" period. This is a natural process that is a function of the belt acclimating itself to the application, and is more noticeable when heavy loads are present. In this case, allow the belt to adjust to operating conditions before shortening it. CAUTION: Monitor the belt during this "break-in" to avoid binding or catching.

Radius Belts

Problem:	Possible Causes:	Solutions:
1. Belt not engaging with drive sprockets.	Incorrect belt tension/wrap around drive sprockets.	Series 2200 and Series 2400 require very little tension, but belt length changes and the dynamics of the returnway may lead to the belt skipping off of the sprockets. A snub roller is recommended to keep the belt taut around the drive sprockets, with at least 180° wrap.
	Belt length changes not accommodated.	As the belt changes length, with temperature, load, and wear, excess belt may be piling up right after the drive sprockets (at the lowest tensioned point), causing the belt to bounce off of the drive sprockets. A snub roller can help isolate this from the drive sprockets, but a vertical belt take-up, prior to the first turn, may be required.
	Straight section from curve to drive shaft not at least 1.5 times the belt width.	If this straight section is too short, the belt pull will not be evenly distributed. This causes two primary problems: 1) the belt will have a slightly different pitch and phase from one side to the other, and 2) the belt will have a large tendency to “walk” to the outside of the last curve, placing a significant side load on the sprockets. This straight must be 1.5 times the belt width.
	Belt edge not supported leading to the drive sprockets.	Even conveyors that meet the minimum straight requirements have a tendency to walk toward the outside of the last turn. To keep the sprockets from having to absorb this side load, a guide rail should be installed on the outside edge of the belt leading to the drive shaft. This guide should not force the belt to the inside, rather, it should keep the belt perpendicular to the last turn.
	Returnway section not parallel (vertically) with carryway section.	This forces the sprocket rotation to be not truly in-line with the belt travel, leading to side loads on the sprockets. Even if the belt continues to engage, the sides of the sprocket teeth may wear prematurely.
	Locked sprockets and restrained belt edge causing an over constrained condition.	On Series 2200 and Series 2400, however, the sprockets do track the belt. Never guide a Series 2200 or Series 2400 belt to the drive shaft AND lock the sprockets in position. If these two constraints don't “agree,” the sprockets will disengage or wear quickly.

Radius Belts

Problem:	Possible Causes:	Solutions:
<p>2. Excessive wear on the guide rail wearstrip, especially in turns.</p>	<p>Wearstrip material's PV value is exceeded.</p>	<p>The wearstrip that guides the belting through the turn is under significant bearing load, especially at the transitions between straight sections and turning sections. The combination of this load and the speed of the conveyor may be too much for the particular wearstrip material. An indication of this will be a sharp temperature rise in these sections of the conveyor. A better material with a higher PV may be used, but care should be taken; at some point the wearstrip will stop wearing and the belt edge will start to wear. It is generally preferable to replace wearstrip instead of belting.</p>
	<p>Not enough clearance for belt through the section in question.</p>	<p>If the belt is bound through a section, additional compressive loads are applied to the wearstrip (as well as additional tensile loads on the belt). Before installing a belt, take a section of belt and manually pass it through all sections and wearstrip to insure adequate clearance.</p>
	<p>Guide rails through the turn not smooth or even.</p>	<p>A guide rail that is not smooth can induce high radial forces, leading to higher loads on the rail and the belt. An indication of this will be higher temperatures on this wearstrip than in other sections. Insure that all guide rails form a smooth arc for any turn.</p>
<p>3. Excessive sprocket wear.</p>	<p>Belt edge not supported leading to the drive sprockets.</p>	<p>Even conveyors that meet the minimum straight requirements have a tendency to walk toward the outside of the last turn. To keep the sprockets from having to absorb this side load, a guide rail should be installed on the outside edge of the belt leading to the drive shaft. This guide should not force the belt to the inside, rather, it should keep the belt perpendicular to the last turn.</p>
	<p>Returnway section not parallel (vertically) with carryway section.</p>	<p>This forces the sprocket rotation to be not truly in-line with the belt travel, leading to side loads on the sprockets. Even if the belt continues to engage, the sides of the sprocket teeth may wear prematurely.</p>
	<p>Locked sprockets and restrained belt edge causing an over constrained condition.</p>	<p>On Series 2200 and Series 2400, however, the sprockets do track the belt. Never guide a Series 2200 or Series 2400 belt to the drive shaft AND lock the sprockets in position. If these two constraints don't "agree," the sprockets will disengage or wear quickly.</p>

Radius Belts

Problem:	Possible Causes:	Solutions:
4. Excessive belt edge wear or damage.	There is a catch point on the guide rail or hold down wearstrip that is snagging an edge.	The guide rail wearstrip obviously must be in contact with the belt, but it should be as free from catch points or sharp leading edges as practical. If an outer hold down rail is placed so that it catches the belt, the edge may be damaged. The outer rail needs to be placed so that there is running clearance between it and the belt at the belt's maximum operating temperature.
	Inappropriate guide rail wearstrip material.	If the wearstrip is not showing dramatic wear, it may have too high of a PV value in relation to the belt. If the wearstrip is made from an acetal, nylon, PTFE, etc., a UHMW (plain or lubricated) may need to be used. Replacing wearstrip is usually preferable to replacing belts.
5. Hinge rod migrating out of belt.	Rods not correctly seated during belt installation.	Series 2200 and Series 2400 use headless rods. These rods must snap past the retention lip on the flush edge.
	The edge is damaged, either from a snag or from wear.	Inspect the belt for signs of damage. If it is from a snag point, replace the damaged edges and check the frame carefully for the cause of the snag.
	For Series 2200 or Series 2400, rods cut at a sharp angle for installation.	When cutting a rod prior to installation, a blunt cut is preferable to a sharply angled cut. An angled cut may allow the tip of the rod to start past the retention lip.

Radius Belt Data Sheet

Company Name: _____
 Mailing Address: _____
 Shipping Address: _____
 City & State: _____
 Zip: _____
 Contact: _____
 Title: _____
 Phone: _____
 Fax: _____
 Dist. Mgr: _____
 New Installation: _____
 Retrofit Existing: _____

1. Application Data:

Product Being Conveyed: _____
 Number of Turns? (4 max) _____

Length of Straight Run #1 (ft. or m) _____
 Inside Radius of Turn #1 (in. or mm) _____
 Turn Angle in Degrees of Turn #1 _____
 Turn Direction of Turn #1 (right or left) _____

Length of Straight Run #2 (ft. or m) _____
 Inside Radius of Turn #2 (in. or mm) _____
 Turn Angle in Degrees of Turn #2 _____
 Turn Direction of Turn #2 (right or left) _____

Length of Straight Run #3 (ft. or m) _____
 Inside Radius of Turn #3 (in. or mm) _____
 Turn Angle in Degrees of Turn #3 _____
 Turn Direction of Turn #3 (right or left) _____

Length of Straight Run #4 (ft. or m) _____

Inside Radius of Turn #4 (in. or mm) _____
 Turn Angle in Degrees of Turn #4 _____
 Turn Direction of Turn #4 (right or left) _____

Length of Final Straight Run (ft. or m) _____


Belt Width (in. or mm): _____
 Belt Material: _____
 Carryway Material (UHMW or steel): _____
 Turn Rail Material (UHMW, steel or roller): _____
 Does Product Back Up On Belt? _____
 If so, % of Belt Backed Up: _____
 Belt Speed (ft. or m/min.): _____
 Belt Loading (lb/ft² or kg/m²) on Conveyor: _____
 Elevation Change (ft or m): _____
 Incline: _____
 Decline: _____
 Where: _____
 Operating Temp: _____
 Product Temp (at infeed): _____
 Product Size: _____
 Product Wt/Piece: _____
 Pcs/ft² or Pcs/m²: _____

2. Sanitation:

Method of Cleaning: _____
 Frequency: _____
 Cleaning Chemicals: _____
 Concentration (%): _____
 Temperature of Cleaning Media: _____
 Time Belt Exposed (Temp): _____
 Belt Scrapers: _____
 Finger Transfer Plates: _____
 Brushes: _____

- | | | |
|-----------------------------------|-------------------------------------|------------------------------------|
| <input type="checkbox"/> Plastic | <input type="checkbox"/> Cardboard | <input type="checkbox"/> Wet |
| <input type="checkbox"/> Aluminum | <input type="checkbox"/> Glass | <input type="checkbox"/> Fresh |
| <input type="checkbox"/> Steel | <input type="checkbox"/> Sauce | <input type="checkbox"/> Slippery |
| | <input type="checkbox"/> Frozen | <input type="checkbox"/> Abrasive |
| | <input type="checkbox"/> Marinade | <input type="checkbox"/> Seasoning |
| | <input type="checkbox"/> Cooked | <input type="checkbox"/> Raw |
| | <input type="checkbox"/> Dry | <input type="checkbox"/> Crumbly |
| | <input type="checkbox"/> Corrosive | <input type="checkbox"/> Sticky |
| | <input type="checkbox"/> USDA Req'd | <input type="checkbox"/> Sharp |

Sketch/Notes: (Indicate Drive Location)



Fax this page to Intralox Customer Service for a free analysis of your design using one of our radius belts.

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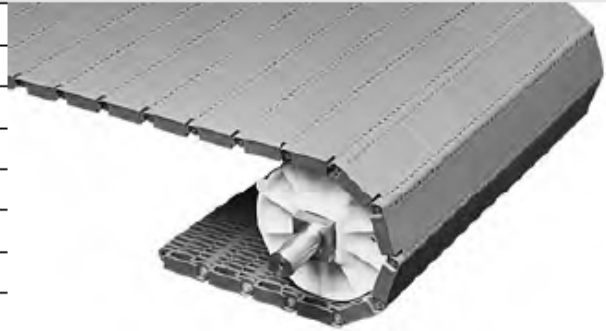
Section 12: Supplemental Manuals

12-1: Intralox Belting

See information below

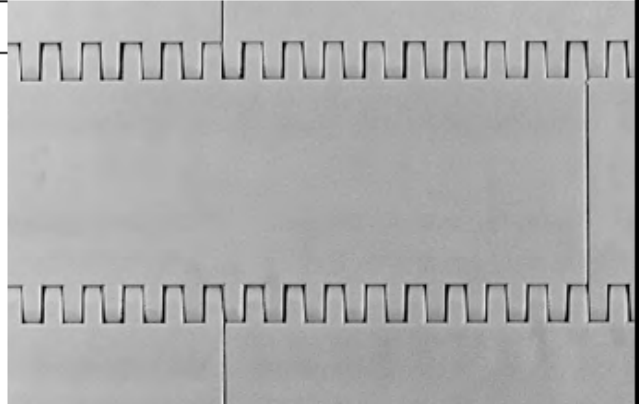
Flat Top

	in.	mm
Pitch	2.00	50.8
Minimum Width	2	51
Width Increments	0.33	8.4
Opening Size (approximate)	-	-
Open Area	0%	
Hinge Style	Closed	
Drive Method	Center-driven	



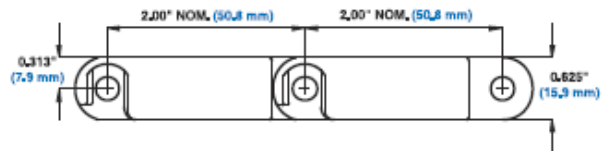
Product Notes

- Always check with Customer Service for precise belt measurements and stock status before designing a conveyor or ordering a belt.
- Smooth upper surface and straightforward design provides free product movement.
- Flights and Sideguards are available.
- It is recommended that Abrasion Resistant Split Sprockets be used with Series 400 Flat Top in Acetal.
- Series 400 Flat Top is available with SLIDELOX® rod retention for belts 6.0 ft. (1829 mm) wide and wider. All Series 400 Flat Top with Abrasion Resistant Rods are available with SLIDELOX® Rod Retention. All other Series 400 Flat Top belts use the standard headed rods.



Additional Information

- See "Belt selection process" (page 5)
- See "Standard belt materials" (page 20)
- See "Special application belt materials" (page 20)
- See "Friction factors" (page 35)



Belt Data

Belt Material	Standard Rod Material Ø 0.24 in. (6.1 mm)	BS Belt Strength		Temperature Range (continuous)		W Belt Weight		Agency Acceptability: 1=White, 2=Blue, 3=Natural, 4=Grey							
		lb/ft	kg/m	°F	°C	lb/ft ²	kg/m ²	FDA (USA)	USDA Dairy ^a	CFA ^b	A ^c	J ^d	Z ^e	EU MC ^f	
Polypropylene	Polypropylene	2400	3570	34 to 220	1 to 104	1.81	8.82	•					3		•
Polyethylene	Polyethylene	1800	2680	-100 to 150	-73 to 66	1.90	9.28	•					3		•
Acetal	Polypropylene	3200	4760	34 to 200	1 to 93	2.74	13.38	•					3		•
Acetal ^g	Polyethylene	3000	4460	-50 to 70	-46 to 21	2.74	13.38	•					3		•

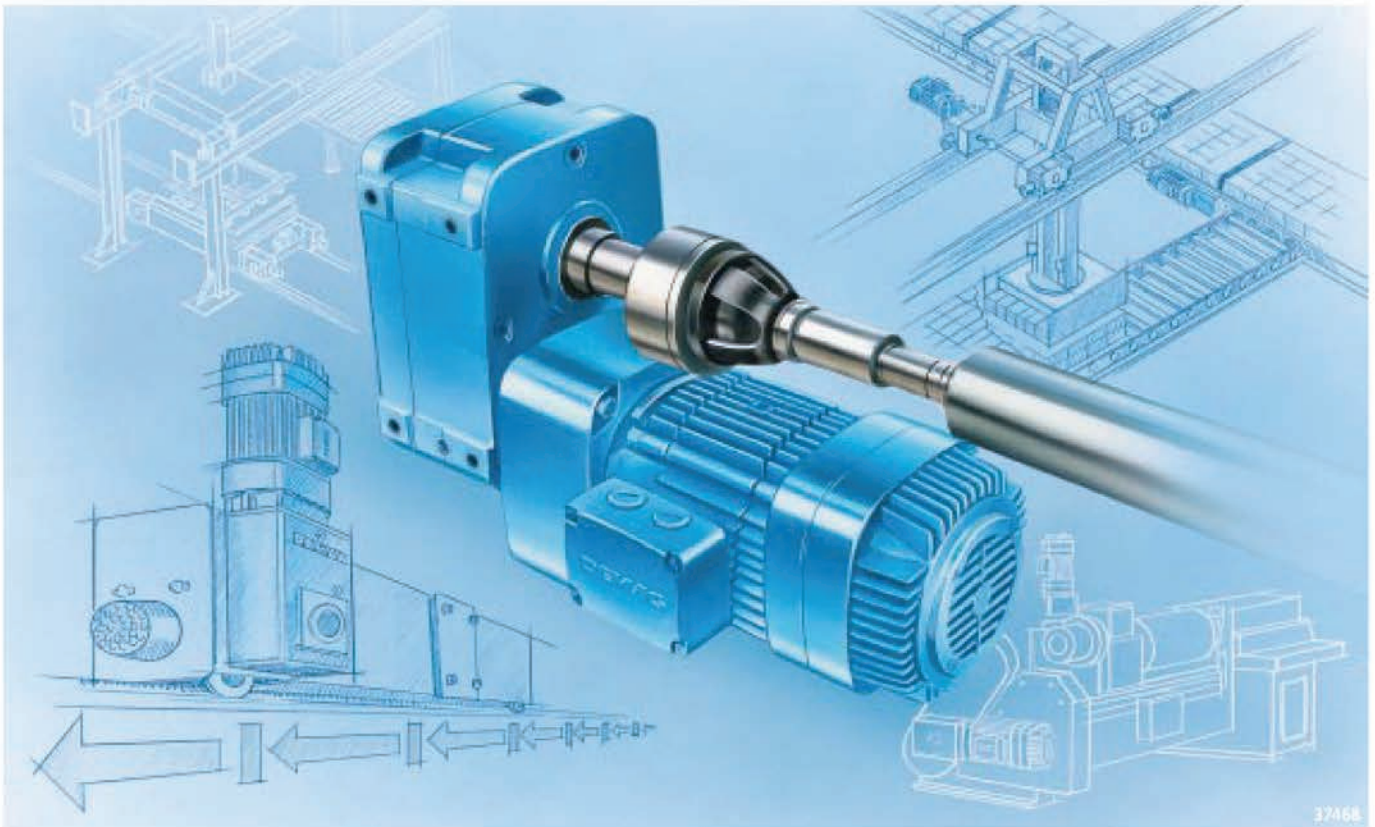
- USDA Dairy acceptance requires the use of a clean-in-place-system.
- Canada Food Inspection Agency
- Australian Quarantine Inspection Service
- Japan Ministry of Health, Labour, and Welfare
- MAF-New Zealand Ministry of Agriculture and Forestry. MAF acceptance requires the use of a clean-in-place-system.
- European Migration Certificate providing approval for food contact according to EU Regulation 10/2011.
- Polyethylene rods can be used in cold applications when impacts or sudden starts/stops occur. Please note lower rating.

Section 12: Supplemental Manuals

12-2: Demag Brakemotor

See information below

Drives with Demag KB conical-rotor brake motors



Demag KB conical rotor brake motors:

Demag KB conical rotor brake motors offered by Demag Cranes & Components feature a unique principle: the brake is not separately controlled, but is permanently connected to the rotor. This means that the brake is literally integrated into the brake motor. The advantage: the brake is released when the motor starts up and applied when the motor is switched off.

The rotor and stator as well as the brake disc, brake ring and brake cap of Demag KB brake motors are conical, the brake forms an integral part of the sliding rotor. The brake spring is arranged between the drive and bearing and the rotor. Only one winding is required to move the rotor and to release the brake.

Functional reliability

Due to the conical design of the rotor and stator, the magnetic field which is generated when the motor is switched on creates both axial and rotary forces. In this way, the rotor and brake disc move against the brake spring and the brake is released at the same time as the rotor starts to turn.

When the motor is switched off or in the event of a power failure, the magnetic field disappears. The brake spring moves the rotor back and presses the brake disc with the brake ring against the brake cap. Thus, the rotor is automatically brought to a standstill.

At standstill, the brake spring continues to push the rotor and brake disc with the brake ring against the brake cap: the motor is braked.

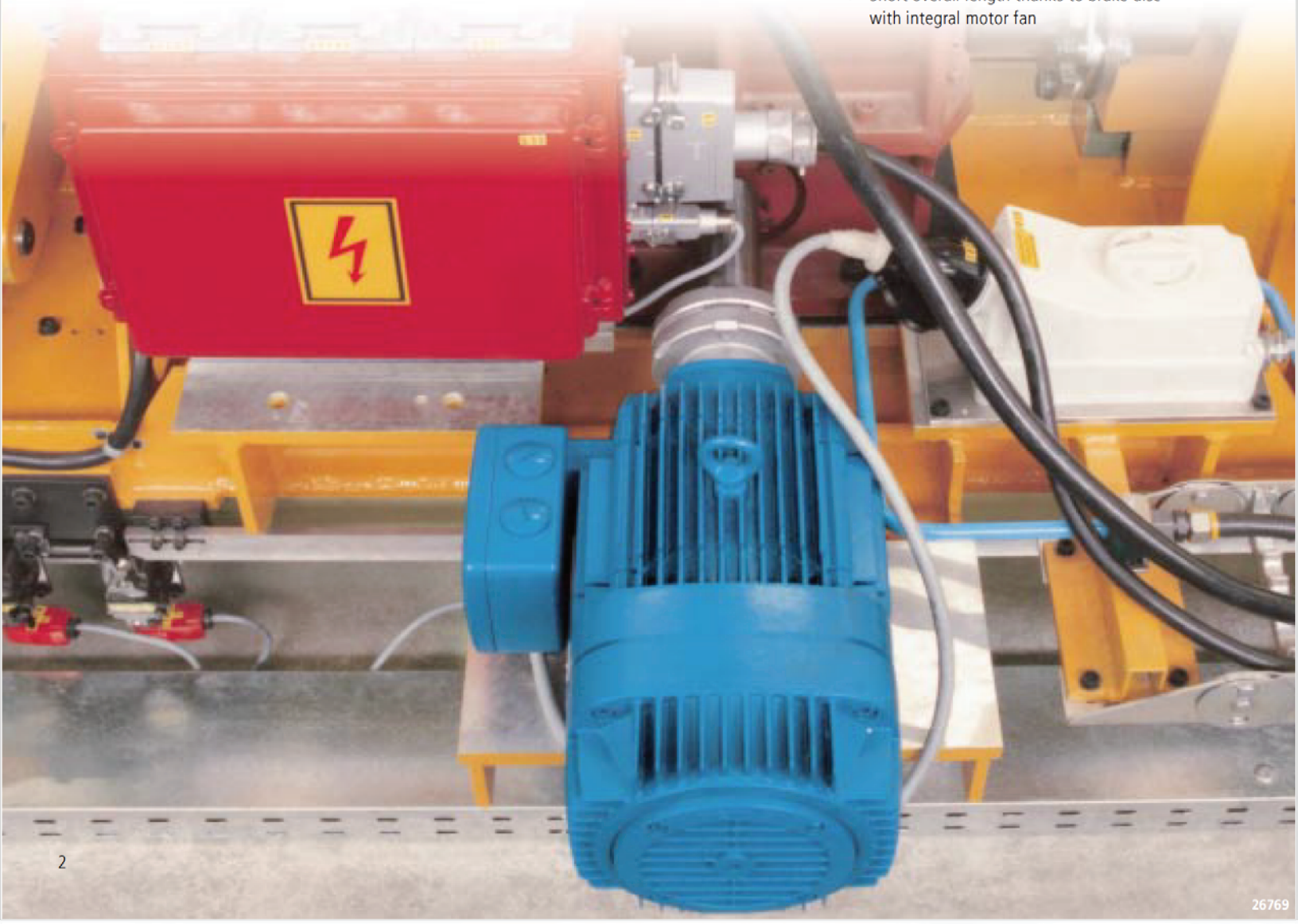
Decisive advantages

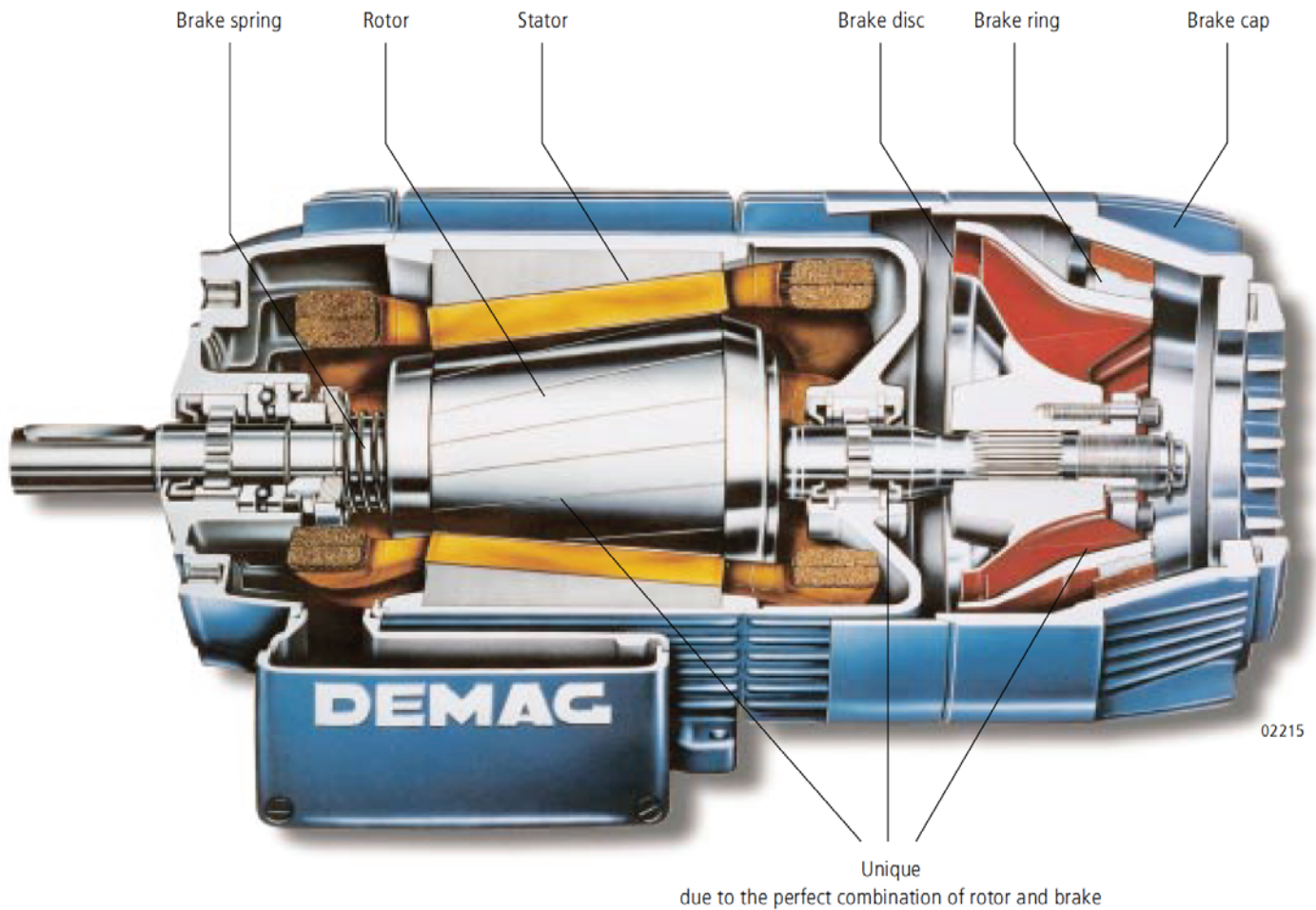
Demag KB conical rotor brake motors feature a simple, robust and reliable braking system. They are proven in all applications in which special demands are placed on the brake, and guarantee

- extremely high number of starts per hour
- high braking capacity
- unaffected by temporary overloads

Further advantages

- Require no separate control and no additional switching components as the brake is automatically released and applied
- No additional temperature rise because no brake coil is required
- Long life of brake lining due to efficient heat dissipation from the braking surface
- Short overall length thanks to brake disc with integral motor fan





For individual solutions:

three ranges ...

Demag KB conical rotor brake motors are available as foot-mounted, flange-mounted and universal type solo motors with IEC dimensions and as geared motors with coupling connections:

- KBA for starting and stopping tasks with short cycle times
- KBF for mains-operated travel drives
- KBS as torque motors

... three gearbox types ...

Depending on the mounting arrangement and application, KB motors can be supplied with

- helical gearboxes
- angular gearboxes
- offset gearboxes

... and many options

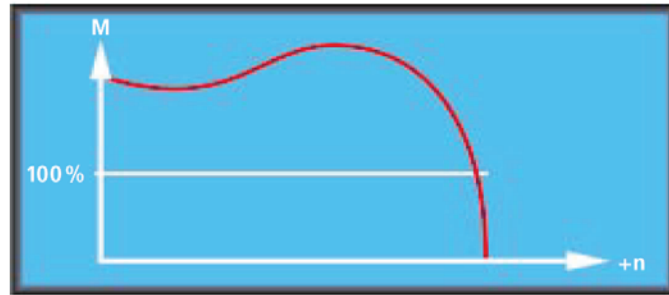
A wide variety of motor and gearbox options make it possible to provide solutions for a wide variety of applications. The spectrum ranges from modified motor rotating mass, additional microspeed gearboxes and integrated pulse generators to special paint finishes.

Starting and stopping drives for short cycle times: KBA

Demag KBA conical rotor brake motors are squirrel-cage motors and feature high starting torques. They are particularly suited for starting and stopping drive applications, but also for most other dynamic drive requirements.

KBA motors may be operated from a mains supply or via frequency inverters. They are available for continuous duty S 1 with 100 % CDF or intermittent duty S 3 with 60, 40, 25 or 15 % CDF.

With IP 54 enclosure and class F insulation, KBA motors have a considerable thermal reserve for extremely high switching frequencies. The mounting and terminal box position can be selected as required and can also be altered at a later date.

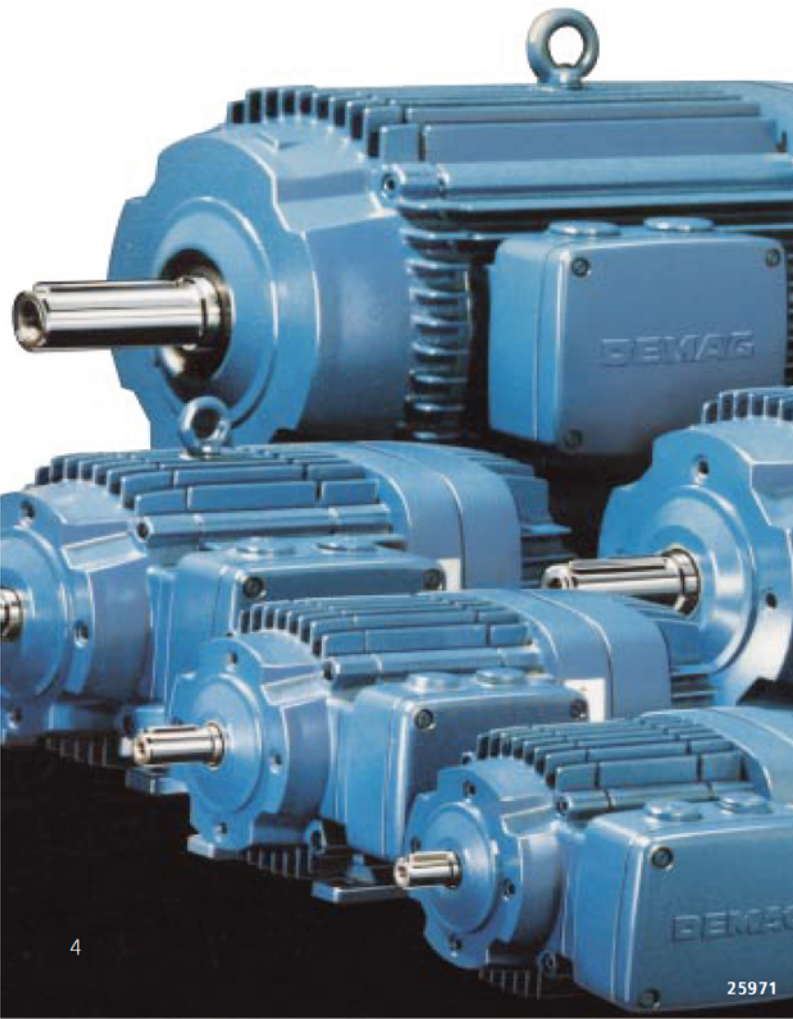


Torque and speed curve of a KBA motor for standard applications

KBA motors can be supplied with 2, 4, 6 and 8 poles. They are also available as pole-changing variants, e.g. 8/2, 12/2 and 12/4-pole types with separate windings and 8/4-pole with Dahlander winding.

By fitting different strength brake springs and influencing the mass moment of inertia, the braking characteristics can be modified to meet specific requirements.

The motors can be supplied for a standard voltage of 400 V to IEC as well as for special voltages from 380 to 415 and up to 600 V.

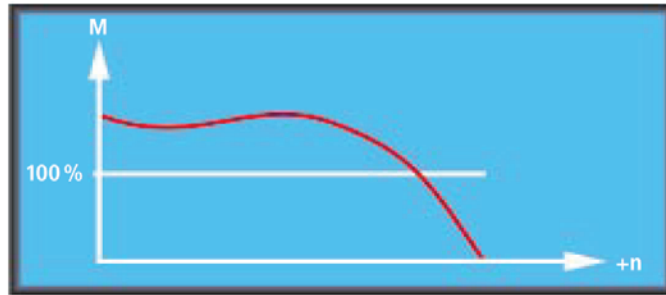


approx.	Output in kW (100 % CDF)			
	2-pole 3000 rpm	4-pole 1500 rpm	6-pole 1000 rpm	8-pole 750 rpm
KBA 71A	0,37	0,37	0,18	0,10
KBA 71B	0,55	0,55	0,27	0,16
KBA 80A	0,95	0,83	0,45	0,23
KBA 80B	1,10	1,00	0,60	0,30
KBA 90A	1,25	1,25	0,75	0,40
KBA 90B	1,60	1,55	0,95	0,55
KBA 100A	1,90	1,90	1,20	0,75
KBA 100B	2,20	2,30	1,50	0,90
KBA 112A	2,80	2,80	1,80	1,10
KBA 112B	3,50	3,50	2,20	1,35
KBA 125A	4,60	4,60	2,90	1,70
KBA 125B	6,00	5,70	3,60	2,10
KBA 140A	7,40	7,40	4,70	3,20
KBA 140B	8,80	8,80	5,80	4,00
KBA 160B	–	15,00	10,00	6,80
KBA 180B	–	22,00	14,00	10,00
KBA 200B	–	30,00	20,00	14,00
KBA 225B	–	42,00	30,00	20,00

Mains-operated travel drives: KBF

Demag KBF conical rotor brake motors are ideally suited to meet the demanding requirements to be met by travel drives, particularly for materials handling applications. They offer smooth starting and braking characteristics for long starting times with high starting frequencies. KBF motors also meet the specifications for high inertia drives.

The smooth start characteristic of KBF motors gives a relatively constant starting torque without any extremely high starting and pull-out torques. When the external moments of inertia are relatively low and vary due to differing loads, a heavy brake disc and coupling with a higher moment of inertia can be fitted to achieve smooth starting and braking.



KBF travel motor torque and speed curve

Since KBF motors are of squirrel-cage design, even cranes or transfer cars with travel speeds up to approx. 63 m/min can be fitted with this attractively priced sturdy motor type.

KBF motors are available as 2 and 4-pole types with output speeds of 3000 and 1500 rpm, respectively, and as pole-changing motors for 1500/3000, 750/3000, 500/3000 and 500/1500 rpm.

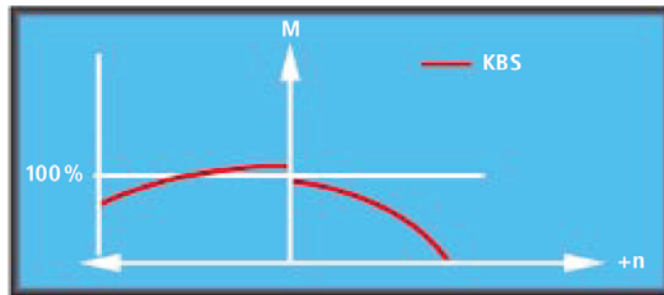


Output in kW (40 % CDF)		
	2-pole	4-pole
approx.	3000 rpm	1500 rpm
KBF 71A	0,26	0,13
KBF 80A	0,65	0,32
KBF 90A	1,00	0,50
KBF 100A	1,50	0,80
KBF 112A	2,40	1,20
KBF 125A	3,60	1,90
KBF 140A	5,60	2,90

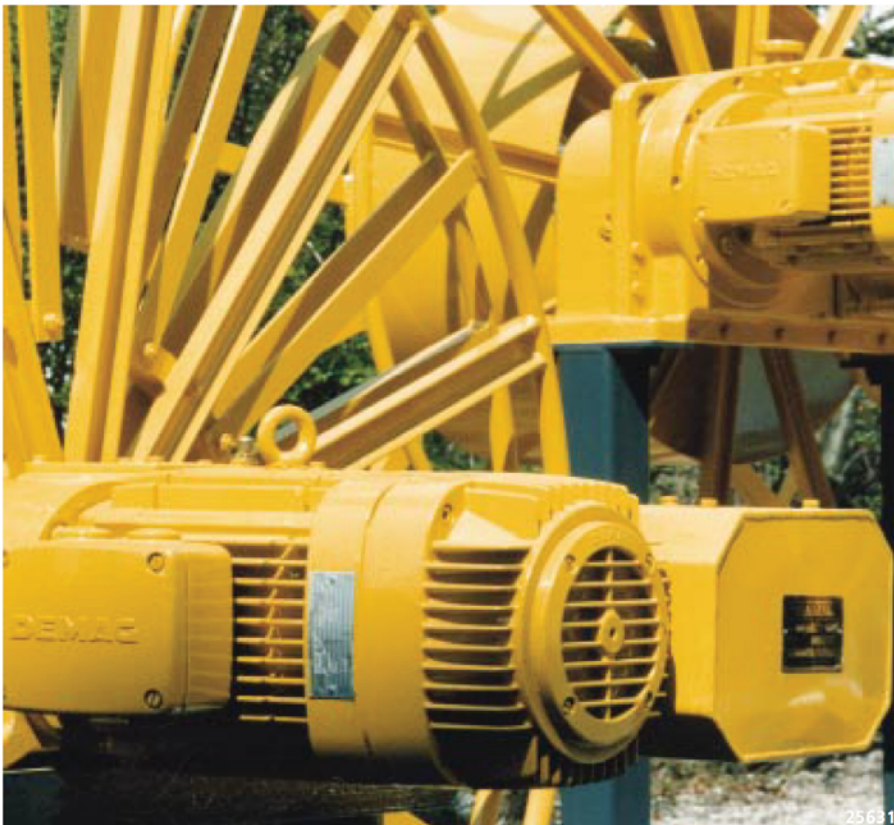
Torque motors: KBS

Demag conical rotor brake motors can also be supplied with windings designed to individual specifications.

Motors which develop a maximum torque at standstill and which can be continuously operated in this way are also available as standard. KBS motors are preferably used as drive units in cable reeling drums or for travelling against a physical stop. They also make it possible to achieve relatively low, varying speeds in both directions and a comparatively constant torque either for driving or for braking. Even with a locked rotor, these windings for continuous duty are short-circuit-proof.



KBS torque motor torque and speed curve



Torques at standstill in Nm (100 % CDF)

	12-pole -300 to +300 rpm
KBZ 71B	0,65*
KBS 80B	1,7
KBS 90B	2,6
KBS 100B	3,6
KBS 112B	5,6
KBS 125B	7
KBS 140B	10

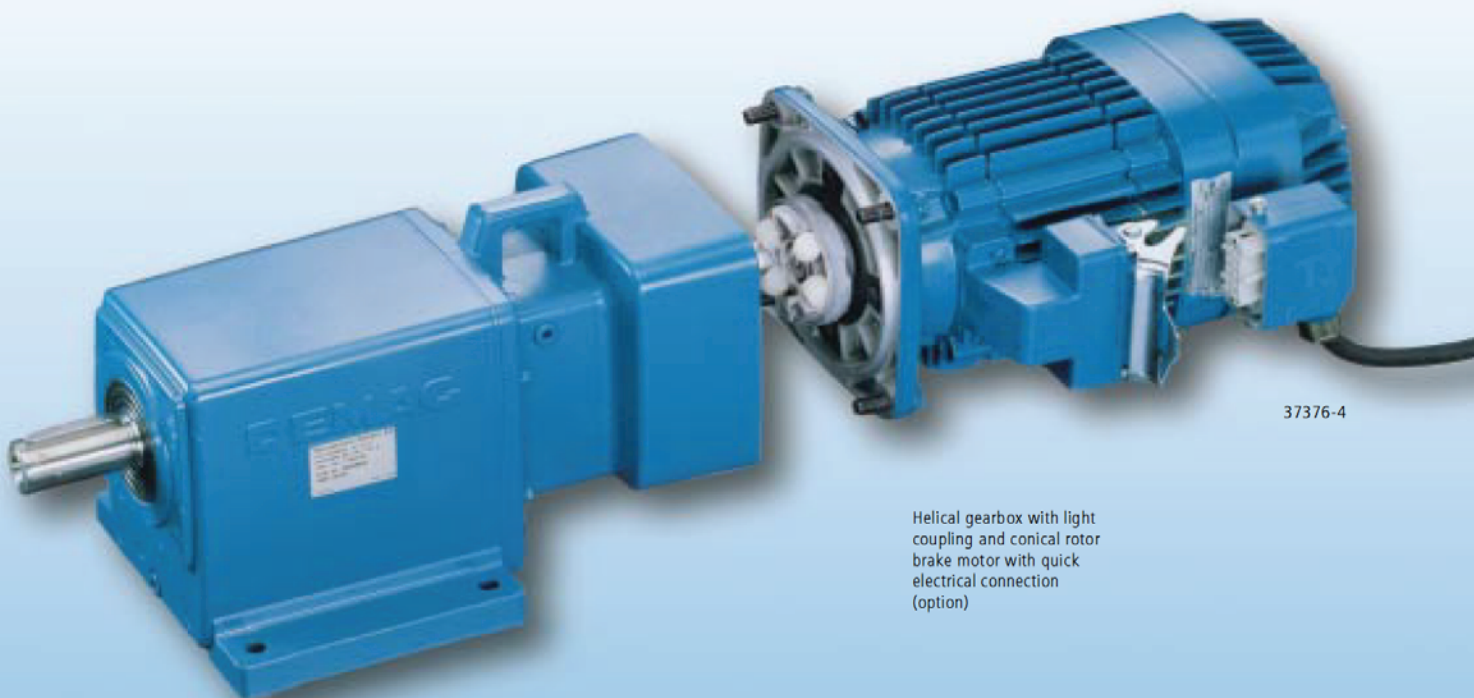
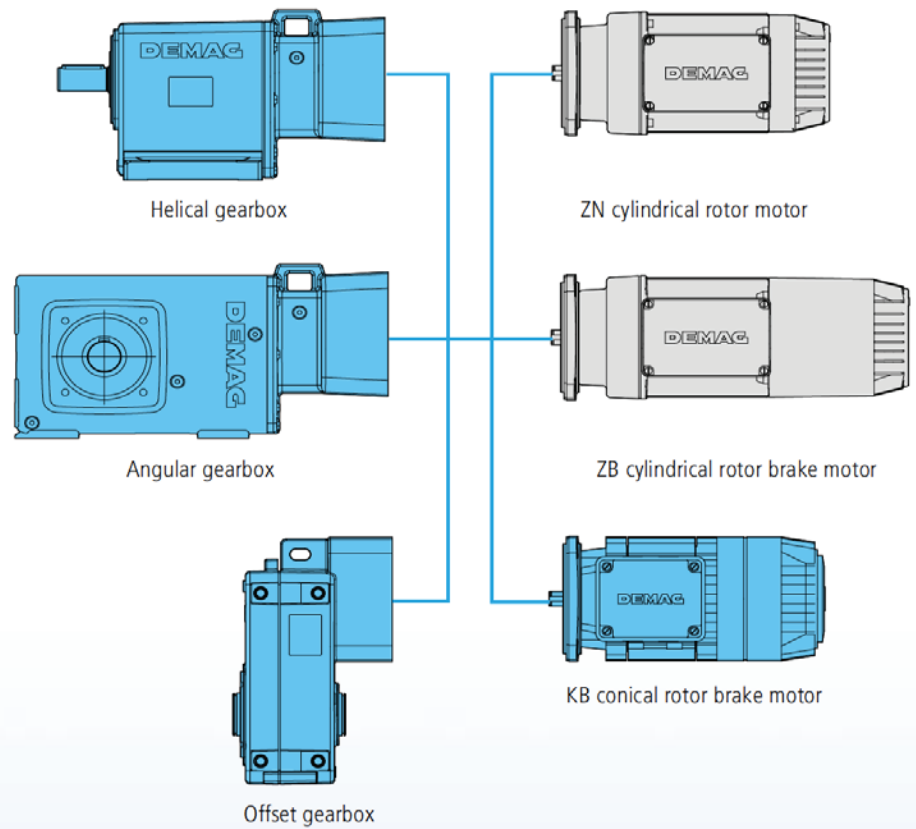
*8-pole, -400 to +400 rpm

The versatile modular geared motor system

Demag KB conical rotor brake motors are designed to be fitted to all of our helical, angular and offset gearboxes with coupling connections..

Since there is no oil in the coupling housing, the gearboxes can be fitted independently of the associated motor or, if required, the motors can be easily disconnected, e.g. for transporting your installations.

This work can be performed quickly and easily using the optional quick electrical connection.



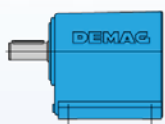
Helical geared motors: with high transmission ratios

Demag conical-rotor brake motors are supplied in 9 sizes, each available as foot or flange-mounted units, as D-KB helical geared motors; they can also be supplied as D/T-KB units for existing installations.

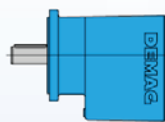
The transmission ratio of the basic two-stage design is already very high. It can also be significantly increased by means of a third stage.

Sizes D10 to D40 feature a housing of high-quality pressure or gravity die-cast aluminium alloy, which guarantees high stability for a low deadweight. Gearbox sizes D50 to D90 feature a grey cast iron housing.

Conical-rotor brake motors can also be supplied with D/T spur-wheel gearboxes for existing installations.



Foot-mounted type



Flange-mounted type



37375-2

Conical-rotor brake motors with D-KB helical gearboxes		
Gearbox size	Torque (Nm)	Transmission ratio (i)
D10	80	2,94 – 66,5
D20	135	3,4 – 253
D30	220	3,18 – 240
D40	340	2,88 – 259
D50	550	2,78 – 251
D60	1000	6,44 – 197
D70	1800	6,89 – 201
D80	3200	7,03 – 193
D90	5800	7,49 – 220

Conical-rotor brake motors with D/T-KB helical gearboxes		
Gearbox size	Torque (Nm)	Transmission ratio (i)
D04	84	2,26 – 38,2
D05	165	2,66 – 45,8
D06	328	2,32 – 46,3
D08	640	2,23 – 22,5
T08	761	26,2 – 169
D10	1356	2,26 – 22,9
T10	1587	24,8 – 169
D12	2655	2,26 – 22,9
T12	2989	24,8 – 169

Angular geared motors: with up to 4 stages

Demag conical-rotor brake motors are available in combination with 10 gearbox sizes, each available as foot or flange-mounted and universal units, with various output shafts as W-KB angular geared motors.

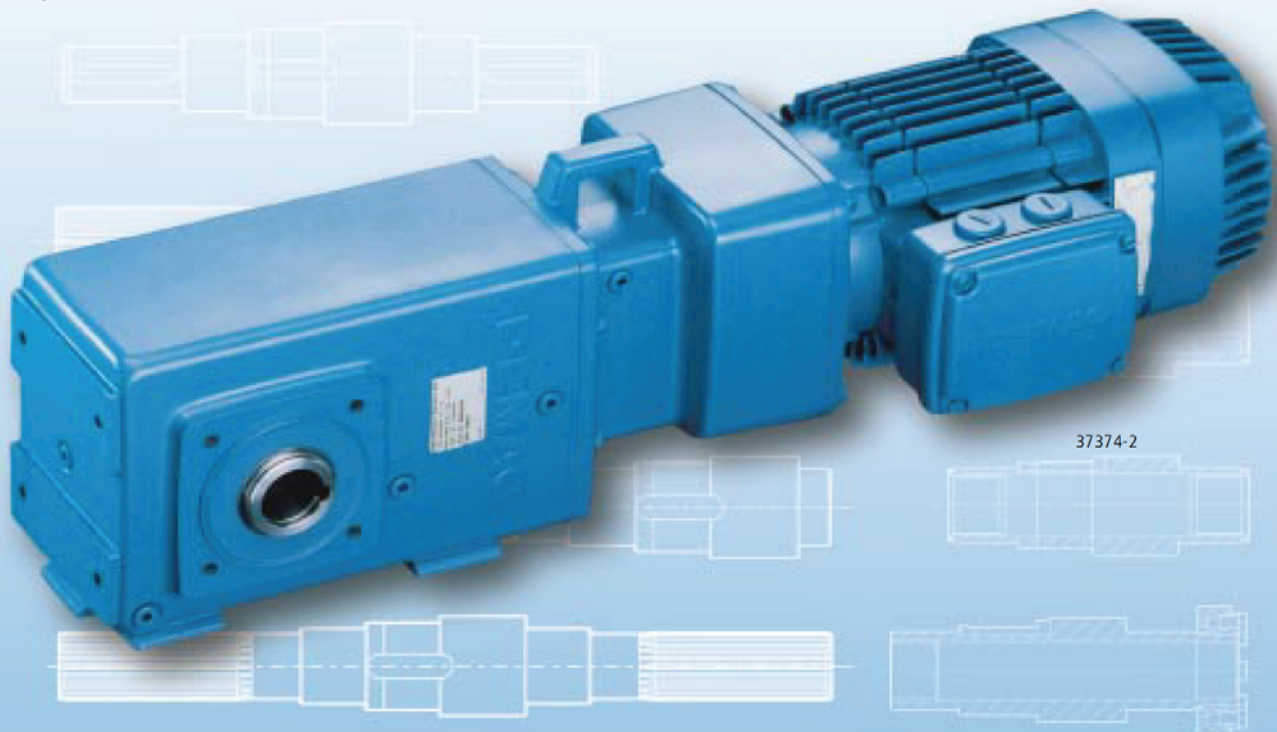
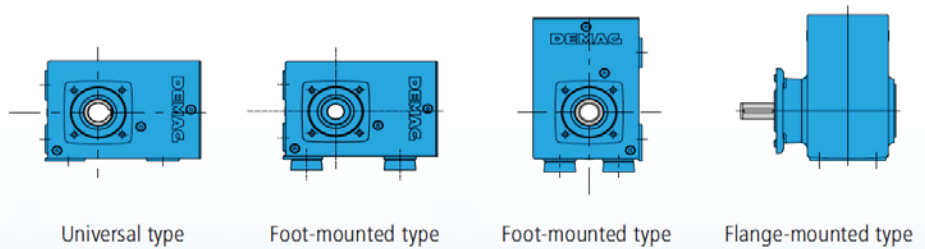
Angular gearbox sizes W10 to W50 feature a hypoid wheel pair, offering good efficiency in the lower power range for quiet running characteristics and a large transmission ratio range. Angular gearbox sizes W60 to W100 feature bevel gear wheels.

The basic W10 to W50 gearboxes are of two-stage design, the W60 to W100 bevel gearboxes are of three-stage design. The transmission ratio of all gearboxes from size W20 can be significantly increased by means of an intermediate stage.

Sizes W10 to W40 feature a housing of high-quality gravity die-cast aluminium alloy, which guarantees high stability for a low deadweight. Gearbox sizes W50 to W100 feature a grey cast iron housing.

With the many shaft types available, our angular geared motors can be used for a wide variety of drive configurations.

Conical-rotor brake motors with W-KB angular gearboxes		
Gearbox size	Torque (Nm)	Transmission ratio (i)
W10	120	5,34 – 100
W20	200	5,45 – 369
W30	330	4,85 – 371
W40	500	4,85 – 371
W50	800	4,94 – 386
W60	1350	12,6 – 388
W70	2500	13,8 – 399
W80	4000	15,0 – 441
W90	7000	15,9 – 434
W100	12000	16,5 – 485



Offset geared motors: with a wide choice of housings and shafts

Demag conical-rotor brake motors are supplied in 9 sizes, each available as foot or flange-mounted and universal units, with integrated torque brackets and various output shafts as A-KB offset geared motors. They offer the optimum solution for space-saving drive requirements owing to their compact design.

Offset geared motors with an integrated torque bracket are particularly suitable for creating compact high-performance travel units when combined with the Demag DRS wheel block system.

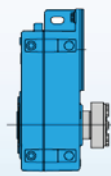
Gearbox size A10 is a two-stage unit, all other units are two or three-stage depending on the transmission ratio range.

Gearbox sizes A10 to A40 feature a vertically split housing of high-quality pressure die-cast aluminium alloy, which guarantees high stability for a low deadweight. Sizes A50 to A90 feature a grey cast iron housing.

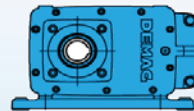
Our conical-rotor brake motors can be supplied with AFM/AF offset gearboxes for existing installations. They can be used as complete travel units together with the Demag RS wheel block system.

Conical-rotor brake motors with A-KB offset gearboxes		
Gearbox size	Torque (Nm)	Transmission ratio (i)
A10	130	8,32 – 52,5
A20	205	6,21 – 124
A30	370	3,85 – 156
A40	660	3,69 – 256
A50	1150	8,69 – 171
A60	2100	8,91 – 247
A70	3700	9,23 – 267
A80	6600	9,89 – 281
A90	11500	10,2 – 274

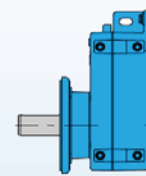
Conical-rotor brake motors with AFM/AF-KB offset gearboxes		
Gearbox size	Torque (Nm)	Transmission ratio (i)
AFM04	185	7.15 – 114
AFM05	330	7.44 – 145
AFM06	585	7.15 – 139
AF08	1030	14.4 – 142
AF10	2075	14.5 – 180
AF12	4230	14.3 – 175
AF18	9327	29.4 – 181



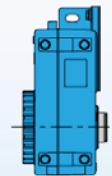
Universal type



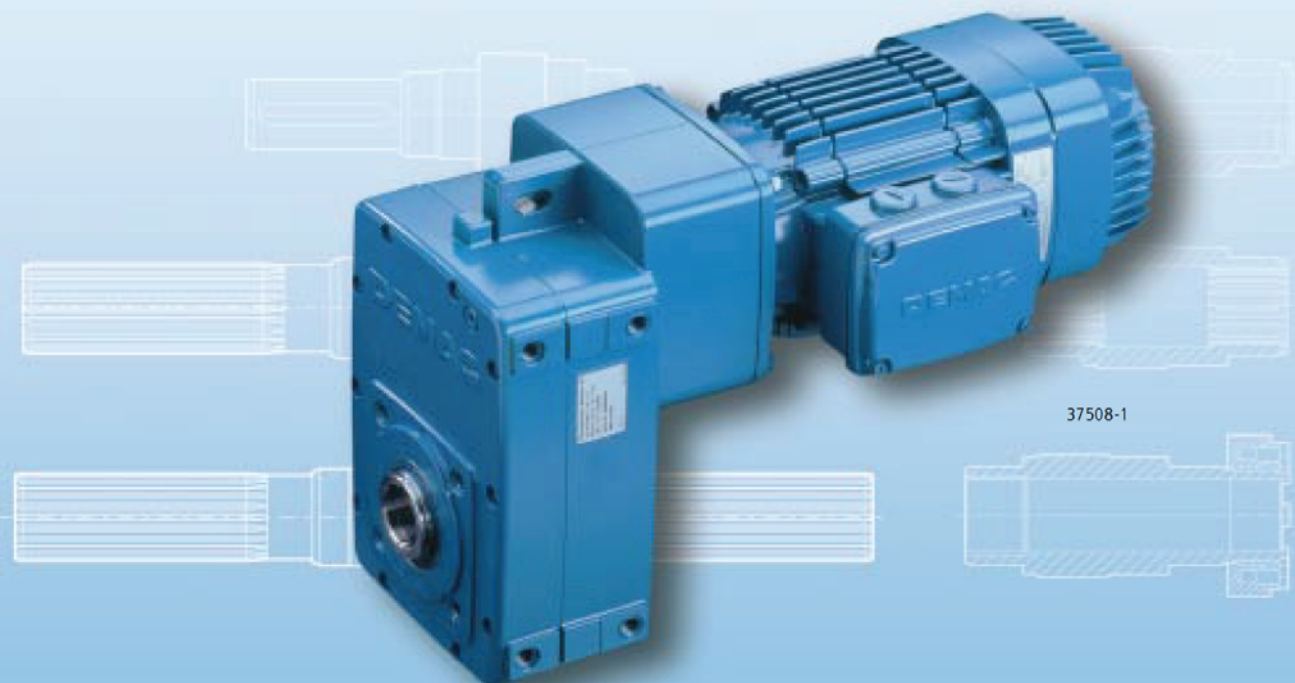
Foot-mounted type



Flange-mounted type



Integrated torque bracket design



37508-1

Options: for drive solutions tailored to meet your special needs

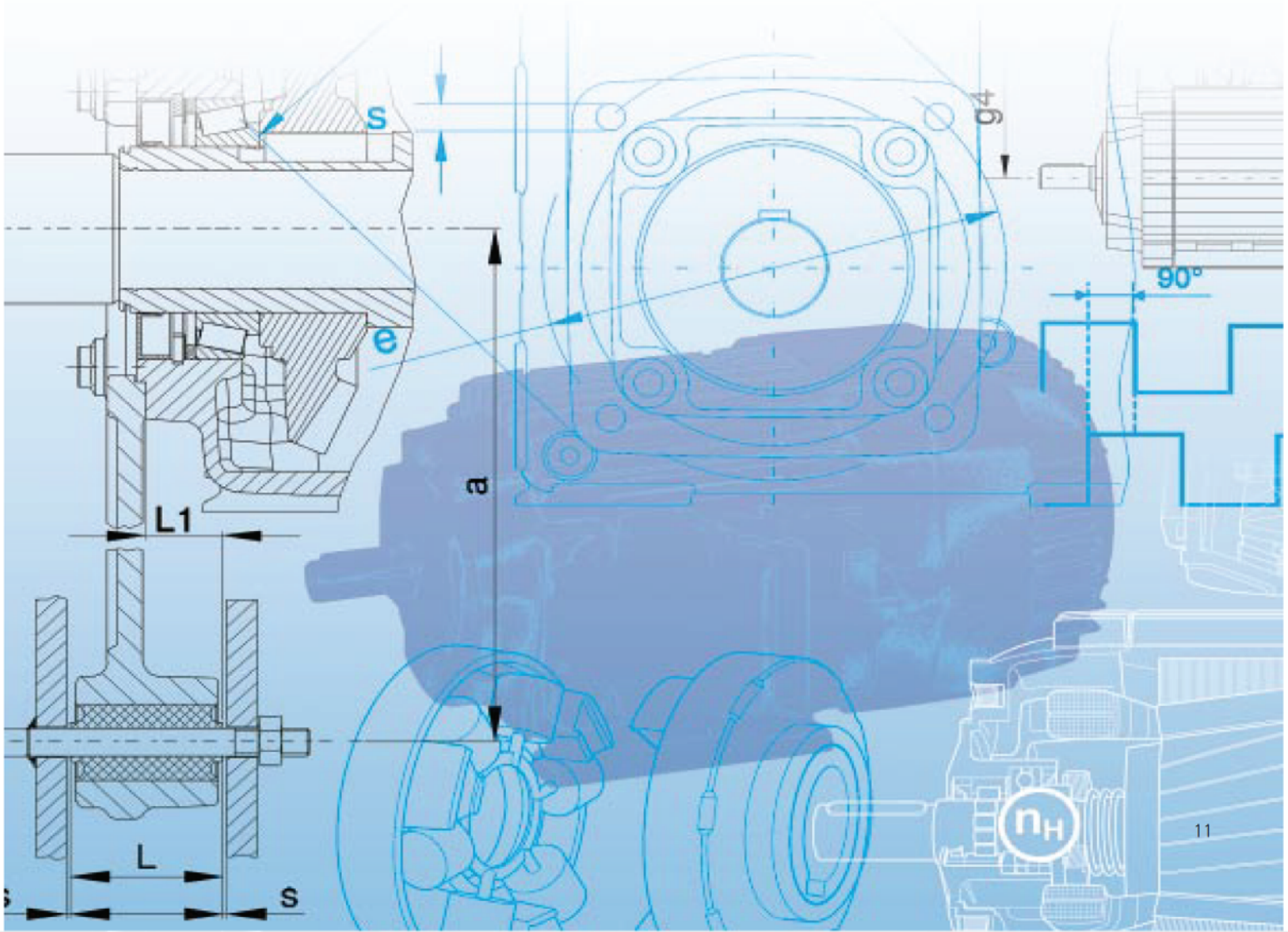
The various standard gearboxes and conical-rotor geared motors already offer you an extremely wide variety of possibilities for optimum drive solutions. Numerous options make it possible to adapt them even further to specific application requirements and operating conditions.

Gearboxes

- Base plates
- Flanges
- Torque brackets
- Special lubricants
- Oil level gauge
- Extended temperature range
- Special shafts
- Special paint finishes

Conical-rotor brake motors

- Couplings – light, heavy
- Slipping clutch
- Integrated pulse generator with electronic evaluation units
- Encoder fitting
- External fan
- PTC thermistors
- Temperature detectors
- Canopy
- Increased protection
- Quick-change electrical connectors
- Manual brake release
- Electric brake release
- Load lowering device
- Combination with mechanical microspeed units



From drive calculation to operating instructions –

With a wide range of information, we make it easy for you to select the right drive for your application and save you a great deal of routine work.

Our Drive Helpline is available during office hours:

Tel. (+49 2335) 963535

Fax (+49 2335) 963537

Whatever information you need about our conical-rotor motors – we can provide you with extensive documentation: technical descriptions, data and dimension tables, drawings and operating instructions in many languages.

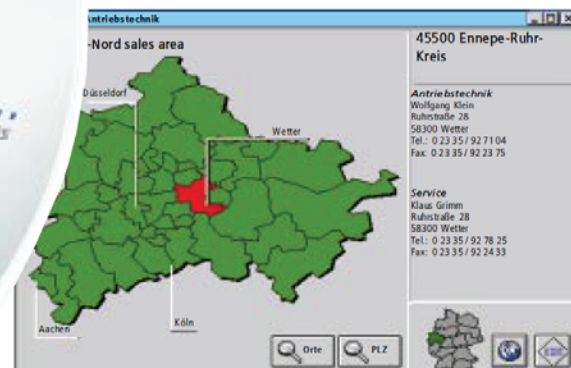
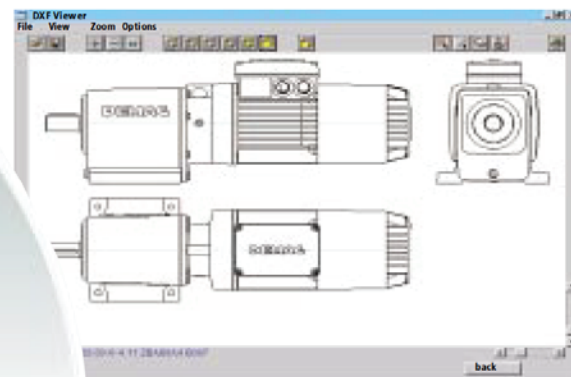
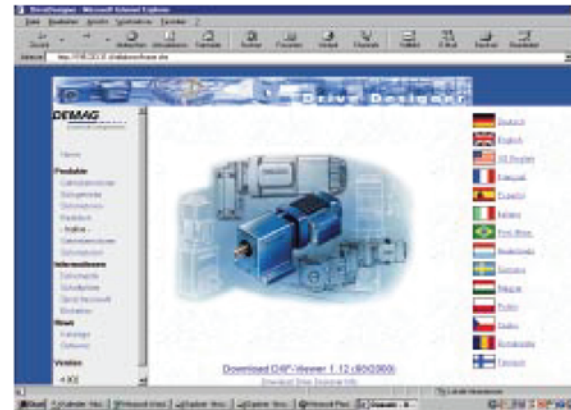
By simply entering the required model code, you can use our Drive Designer CD-ROM to determine all the data you need in order to design and specify your drives. In addition, Drive Designer also includes CAD drawings as DXF files for your designs and standard order forms.

Drive Designer is available online at www.demag-drivedesigner.de.

Decisive benefits:

- Requires no installation and no hard disk space
- Latest technical data and dimensions
- All information available round the clock worldwide

And our sales engineers are available to give you advice and help you to develop solutions. Our international after-sales service network guarantees expert commissioning and rapid repairs all over the world. Spare parts are also held in stock world-wide and can be called up on-line at any time.

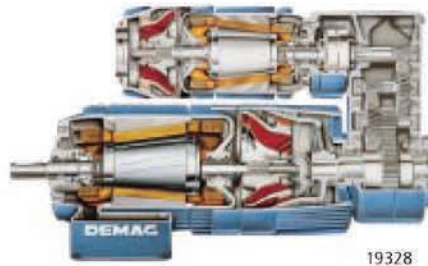


Drives product range

Demag KB conical-rotor brake motors – for increased requirements such as extremely high switching frequencies and braking operation for line-controlled drives; outputs ranging from 0,37 to 45 kW

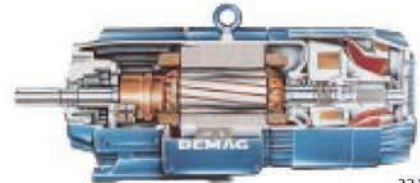


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Demag G DC motors – for acceleration rates and constant speeds independent of the load; output range from 1,5 to 43 kW; with additional features as required, e.g. with tachogenerator, separate fan

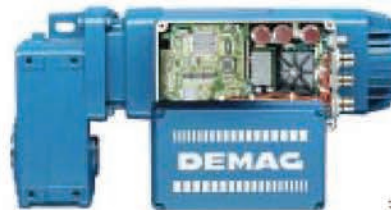


22127

Demag FG mechanical microspeed units – for high speed stages and positioning with high stopping accuracy; speed ratios up to 500:1; with conical-rotor brake motors or DC motors



36633



37105



37562

Demag geared motors with ZN cylindrical-rotor motors not fitted with a brake or ZB cylindrical-rotor brake motors – for general drive applications; outputs ranging from 0,18 to 45 kW; as D helical geared motors for 80 to 5800 Nm, as W angular geared motors for 120 to 12000 Nm and as A offset geared motors for torques from 130 to 11500 Nm



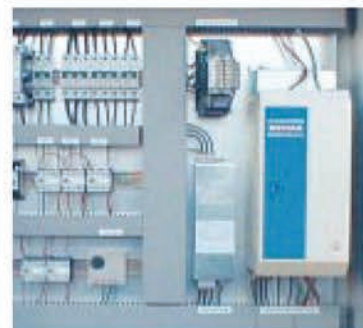
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Demag Indrive – variable speed geared motors with integrated frequency inverters for precise acceleration and deceleration; output range 0,25 to 5,2 kW



37429

Demag frequency inverters – for infinitely variable speed control of series three-phase motors as single or groups of drives for stopping and starting applications; motor shaft outputs up to 250 kW



38278

Demag DRS and RS wheel block systems – modular systems for integration into materials handling and general engineering installations and devices featuring complete travel units without the need for any additional design work and production; for wheel loads up to 40000 kg, with many possible connections

Demag control and regulating systems – complete installations wired and ready for connections to the supply, functions checked and adjusted for use in the given application

Demag Cranes & Components GmbH

Drives

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Telephone (+49/2335) 92-0 · Telefax (+49/2335) 927676

E-mail drives@dematic.de

Internet <http://www.drives.demagcranes.de>

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Section 12: Supplemental Manuals

12-3: Dodge Reducers

See information below

DODGE[®] TIGEAR-2[®] Setting a New Standard for Wormgear Speed Reducers

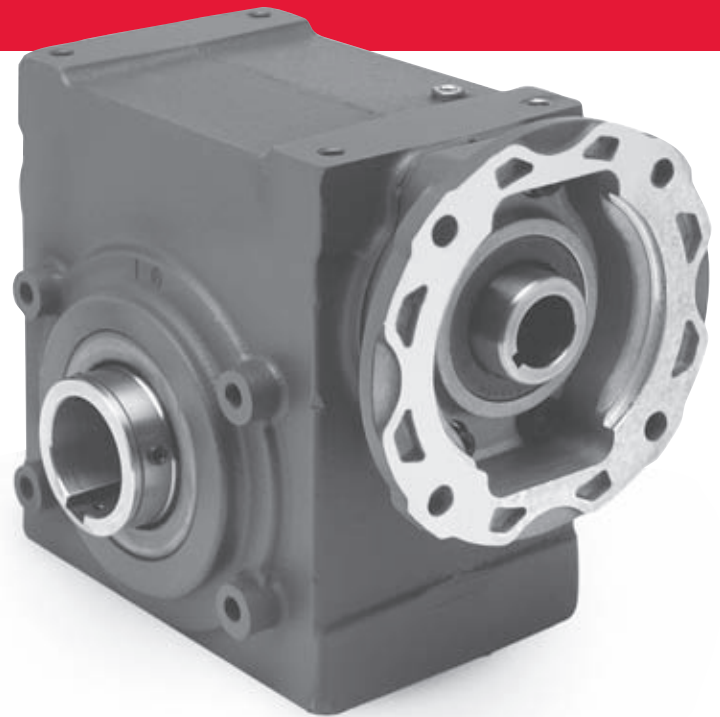
The DODGE TIGEAR-2 speed reducers are the only complete line of single-reduction, right-angle worm speed reducers specifically engineered with new sealing and bushing system technology that can actually lower your cost of ownership.

Standard and Optional Features:

- Compact Drive package
 - Direct drive, beltless shaft mount configurations
 - Belt or chain driven solid output base mount units
 - Up to 10 Hp input
 - Up to 60:1 ratio in single reduction reducer
 - Quill and 3-piece coupled style NEMA inputs in addition to Separate keyed input configurations
- Virtually Maintenance-Free
 - Totally enclosed ventless construction
 - Factory filled with synthetic lubricant
 - No routine oil changes required
 - Advanced Sealing Technology for long leak-free performance
- Advanced Gear Design
 - More torque capacity
 - Higher efficiency
 - Less wear



- New GRIP TIGHT[®] Tapered Adapter Bushing
 - Eliminates fretting corrosion with shaft mounted drives - Easy-on, Easy-off
 - 360° press fit performance
 - No loose parts
 - Keyless solutions available



Hollow Bore Reducers



Quill Input

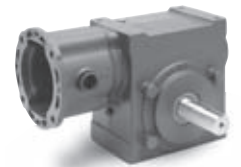


3-piece Coupled Input

Solid Output Shaft Reducers



Quill Input



3-piece Coupled Input

Ratio	SIZE	13	15	17	20	23	26	30	35	40	47
5	Mechanical Input HP	1.32	1.75	2.59	3.47	5.25	7.37	10.84	15.18	20.24	28.45
	Output Torque	219	293	430	581	881	1247	1849	2593	3449	4832
	Output OHL	650	710	1050	1050	1330	1330	1330	2120	2860	5100
7.5	Mechanical Input HP	1.04	1.40	2.06	2.78	4.18	5.92	8.74	12.24	16.38	23.35
	Output Torque	251	337	500	678	1026	1458	2171	3054	4071	5801
	Output OHL	650	710	1190	1190	1520	1520	1540	2430	3280	5600
10	Mechanical Input HP	0.85	1.13	1.67	2.25	3.42	4.83	7.11	10.00	13.33	19.27
	Output Torque	270	361	534	725	1106	1576	2347	3310	4418	6390
	Output OHL	650	710	1190	1320	1610	1610	1720	2700	3640	5600
15	Mechanical Input HP	0.64	0.86	1.27	1.69	2.57	3.62	5.00	7.44	10.01	14.05
	Output Torque	293	392	583	790	1199	1708	2371	3599	4804	6739
	Output OHL	650	710	1190	1500	1610	1610	2300	2760	4190	5600
20	Mechanical Input HP	0.53	0.70	1.03	1.34	2.00	2.71	3.81	5.79	7.75	10.82
	Output Torque	304	407	602	796	1178	1673	2345	3620	4822	6659
	Output OHL	650	710	1190	1560	1610	1610	2300	2760	4300	5600
25	Mechanical Input HP	0.46	0.60	0.88	1.11	1.65	2.26	3.05	4.72	6.35	8.76
	Output Torque	311	410	609	788	1184	1677	2284	3586	4722	6410
	Output OHL	650	710	1190	1560	1610	1610	2300	2760	4300	5600
30	Mechanical Input HP	0.39	0.51	0.76	0.96	1.42	2.00	2.75	4.15	5.61	7.95
	Output Torque	314	413	615	802	1201	1705	2417	3682	4898	6845
	Output OHL	650	710	1190	1560	1610	1610	2300	2760	4300	5600
40	Mechanical Input HP	0.32	0.41	0.60	0.76	1.11	1.55	2.09	3.23	4.43	6.21
	Output Torque	319	417	627	801	1193	1685	2324	3622	4800	6644
	Output OHL	650	710	1190	1560	1610	1610	2300	2760	4300	5600
50	Mechanical Input HP	0.27	0.34	0.51	0.64	0.95	1.32	1.75	2.64	3.63	5.05
	Output Torque	313	402	608	787	1182	1662	2257	3485	4559	6241
	Output OHL	650	710	1190	1560	1610	1610	2300	2760	4300	5600
60	Mechanical Input HP	0.23	0.29	0.43	0.56	0.80	1.08	1.50	2.19	3.00	4.12
	Output Torque	298	381	576	767	1111	1547	2138	3194	4166	5683
	Output OHL	650	710	1190	1560	1610	1610	2300	2760	4300	5600

Ratings based on 1750 RPM input and 75 degree F ambient / Output torque capacity shown in lb-in. OHL capacity shown in lbs.



World Headquarters

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Baldor - Dodge

6040 Ponders Court, Greenville, SC 29615-4617 U.S.A., Ph: (1) 864.297.4800, Fax: (1) 864.281.2433

www.baldor.com

Section 12: Supplemental Manuals

12-3: Dodge Reducers

See information below

DODGE® TIGEAR-2™ Right Angle Quill C-Face, 3-Piece Coupled C-Face, & Separate Speed Reducers

Mounting, Operation and Maintenance Instructions Sizes 13 - 47

These instructions must be read thoroughly before installing or operating this product.

APPLICATION INFORMATION

Thoroughly review the selection section of the Baldor•Dodge Tigeat-2 catalog to ensure the reducer has been properly selected before putting the product into service.

The Tigeat-2 reducer is designed to operate within the following temperature limits: Oil sump -10°F to +200°F with factory supplied standard lubricant.

The oil sump temperature can be approximated by taking measurements on the gear case upper or lower mounting pads on the end of the reducer opposite of the motor.

Where ambient temperatures exceed 100°F, care should be taken not to exceed 200°F sump temperature during unit operation. Contact Baldor•Dodge Engineering for application assistance in extreme hot or cold ambient conditions. The use of non-ventilated motors will increase the reducer temperature. TEFC motors are recommended.

The continuous rated input horsepower (mechanical) shown on the reducer nameplate is for service factor of 1.0 at an input speed of 1750 RPM. Before placing the reducer into service, check the nameplate to confirm that its horsepower rating is consistent with the motor horsepower and the desired service factor. Service factor information can be found in your Baldor•Dodge Engineering catalogs.

3-piece coupled input reducers are required when using a clutch or clutch-brake between the reducer and motor.

3-piece coupled is also recommended when using single phase motors, or motors with brakes.

WARNING: Because of the possible danger to person(s) or property from accidents which may result from the improper use of products, it is important that correct procedures be followed. Products must be used in accordance with the engineering information specified in the catalog. Proper installation, maintenance and operation procedures must be observed. The instructions in the instruction manuals must be followed. Inspections should be made as necessary to assure safe operation under prevailing conditions. Proper guards and other suitable safety devices or procedures, as may be desirable, or as may be specified in safety codes should be provided, and are neither provided by Baldor Electric Company, nor are the responsibility of Baldor Electric Company. This unit and its associated equipment must be installed, adjusted and maintained by qualified personnel who are familiar with the construction and operation of all equipment in the system and the potential hazards involved. When risks to persons or property may be involved, a holding device must be an integral part of the driven equipment beyond the speed reducer output shaft.

INITIAL START-UP

WARNING: To ensure that driven equipment is not unexpectedly started, turn off, lock out and tag power source before working near the equipment. Failure to observe these precautions could result in bodily injury or property damage.

The TIGEAR-2 reducer will require a break-in period before reaching maximum operating efficiency and may run hot during the initial operation of the reducer. This is normal. It is also possible for a few drops of oil to be purged from the lip seals during the break-in period. The user can recognize this start-up seepage by its small volume and short duration. New reducers should be checked periodically during the first few days of use for any signs of severe overheating, continuous lubricant leakage or unusual noises.

CHECKLIST

1. Visually inspect the contents of the shipping container for any damage that may have been caused during shipping. Check contents for missing hardware and accessories.
2. Quill style input reducers are shipped from the factory as follows:
 - a. Input key installed in the Quill bore. DO NOT REMOVE THIS KEY AND SUBSTITUTE ANY OTHER KEY.
 - b. Quill bore is pre-lubricated with special anti-seize compound – (do not remove).
 - c. (4) motor mounting bolts with lock washers in a plastic bag.
 - d. Output key is taped to the output (slow speed) shaft.
 - e. With hollow output reducers. The output key is supplied along with (6) set screws that have been pre-installed in the output (slow speed) hub.
 - f. Motor mounting flange gasket.
3. Separate style input reducers (keyed input shaft) are shipped from the factory as follows:
 - a. Input key taped to input shaft.
 - b. Output key taped to output (slow speed) shaft.
 - c. With hollow output reducers. The output key is supplied along with (6) set screws that have been pre-installed in the output (slow speed) hub.
4. Motor Adapter Kits (Three-piece coupled)
 - a. Reducer coupling hub
 - b. Motor coupling hub
 - c. Elastomeric element
 - d. Motor adapter
 - e. Adapter mounting hardware
 - f. (4) motor mounting bolts with lock washers in a plastic bag
 - g. "O" ring for adapter to reducer
 - h. Motor mounting flange gasket

BALDOR • DODGE®

MAINTENANCE

TIGEAR-2 reducers require no periodic maintenance. However, an occasional visual inspection to check for hardware tightness, leakage and the general overall condition of the reducer is good practice. TIGEAR-2 reducers are designed to operate successfully without breather vents. Since the reducer is shipped with lubricant, and breather plugs are not required, the user is able to eliminate the lengthy preparation normally required to place a reducer into service.

LUBRICATION – OIL FILL LEVELS

The TIGEAR-2 reducer is factory filled with a synthetic lubricant which eliminates costly preparation time normally required to put a reducer into service. The lubricant supplied is a high performance, H1 grade lubricant, suitable for all approved mounting positions. Do not add or remove any oil during installation or after the break-in period. When reducer selections are properly service factored to account for the thermal limitations of the reducer, the standard lubricant covers an operating ambient temperature range of -10°F to 130°F. No other lubricant available on the market provides the outstanding wear protection and thermal abilities of the factory-filled lubricant. Other lubricants, including Mobil SHC series lubricant, must not be mixed with the factory supplied lubricant. The use of another lubricant may compromise the performance of the reducer and void the warranty. Replacement lubricant is available through Baldor•Dodge Renewal Parts, 864-297-4160. Standard temperature range replacement lubricant is available in quarts, part number 334863, and gallons, part number 334862. For operating ambient temperature range from -10°F to -30°F, replace the factory supplied lubricant with low temperature lubricant. Low temperature lubricant is available in quarts, part number 334861, and gallons, part number 334860.

Table 1 - Lubrication Quantities

Configuration	REDUCER SIZE									
	13	15	17	20	23	26	30	35	40	47
Quill Input Hollow Output Shaft	6 oz.	7 oz.	11 oz.	14 oz.	21 oz.	28 oz.	44 oz.	60 oz.	89 oz.	164 oz.
Quill Input Solid Shaft Output	6 oz.	7 oz.	12 oz.	15 oz.	23 oz.	32 oz.	48 oz.	66 oz.	97 oz.	176 oz.
Separate or 3-Piece Coupled Input Hollow Output Shaft	9 oz.	10 oz.	15 oz.	21 oz.	28 oz.	38 oz.	59 oz.	82 oz.	139 oz.	228 oz.
Separate or 3-Piece Coupled Input Solid Output Shaft	9 oz.	11 oz.	18 oz.	23 oz.	32 oz.	44 oz.	70 oz.	94 oz.	144 oz.	266 oz.

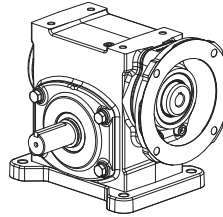
THE TIGEAR-2 SEALING SYSTEM

TIGEAR-2 reducers are kept completely sealed from the environment. No breather vents are required for any approved mounting position. The special design of the gear sets and the special synthetic lubricant enable the reducer to operate in a highly efficient manner. The internal temperature rise is minimized which, in turn, minimizes internal pressure build up. TIGEAR-2 oil seals employ special lip material and fit and are designed to ensure long, leak free operation when subjected to the small amounts of pressure that may develop within the speed reducer.

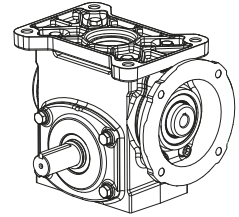
WARNING: The gearcase may be under pressure when the oil sump temperature is higher than the ambient temperature. Allow the reducer to cool down to room temperature before removing seals or bearing covers. Slightly loosen oil fill plug on top of gear case to vent any internal pressure. Failure to observe this precaution could result in personal injury or damage to the equipment.

MOUNTING POSITIONS

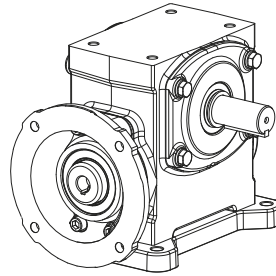
TIGEAR-2 reducers are supplied with a high performance lubricant factory filled to a level suitable for all approved mounting positions. Contact Baldor•Dodge Application Engineering for positions not shown.



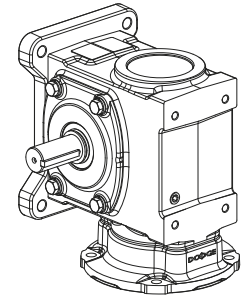
Floor Mounted, Motor Adapter or Input Shaft above Output Shaft



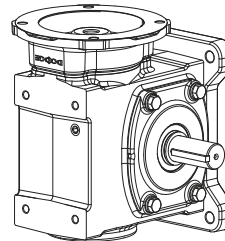
Ceiling Mounted, Motor Adapter or Input Shaft above the Output Shaft



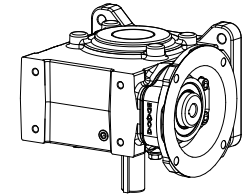
Floor or Ceiling Mounted, Motor Adapter or Input Shaft below Output Shaft
See Note 1



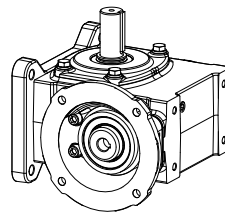
Wall Mounted, Motor Adapter or Input Shaft Facing Down
See Note 2



Wall Mounted, Motor Adapter or Input Shaft Facing Up
See Note 3



Wall Mounted, Output Shaft Facing Down
See Note 4



Wall Mounted, Output Shaft Facing Up
See Note 4

Note 1: Not recommended due to flooded input seal.

Note 2: Not recommended due to flooded input seal. The configuration does not allow the upper bearing to get sufficient lubrication.

Note 3: For the 3 piece coupled & separate inputs, a sealed upper input bearing is required. Use Tigear-2 Mod Express designation "SB" for bearing modification.

Note 4: Not recommended for Quill input.

Figure 1 - Mounting Positions

MOTOR MOUNTING INSTRUCTIONS - Quill Style Reducers

1. Check the reducer C-face mounting surface and tenon for nicks, burrs, and cleanliness.
2. Locate the supplied motor mounting bolts and lock washers shipped with the reducer.
3. Verify the factory applied anti-seize compound is in the quill bore. Do not remove the anti-seize compound from the bore.
4. Check that the factory installed quill input key is in place. The key may not be flush with the end of the input quill shaft.

WARNING: Do not replace the pre-installed key with any other key, or add an additional key. Failure to use the factory supplied key may result in motor shaft and quill bore damage along with the inability to transmit torque.

5. Check the motor shaft, motor shaft keyway, and motor C-face mounting surface for nicks, burrs, cleanliness and proper size.
6. Be sure to install the supplied gasket between the motor and reducer C-face mounting surfaces. To help prevent pinching the gasket, place and align the gasket onto the motor C-face for the 56 & 140TC frame motors and onto the reducer C-face for the 180, 210, & 250TC frame motors. A small amount of grease or other suitable product can be placed on the gasket in three locations to temporarily hold gasket into place.
7. Place the reducer on a secure surface with the reducer C-face mounting surface facing up. Align the quill input key with the motor shaft keyway and lower the motor into place making sure the motor tenon fully seats in the reducer motor adapter. If the motor cannot be installed vertically, the use of 2 threaded studs during the assembly will help locate and align the motor as it is being mounted onto the reducer. Thread the studs into any 2 tapped holes in the motor C-face that are 180 degrees apart as shown in Figure 2. Align the reducer key and motor keyway, and also align the threaded studs with the mounting holes in the reducer C-face. Slide the motor into place making sure the motor tenon fully seats in the reducer motor adapter.
8. Install and tighten the motor bolts. Torque motor bolts per Table 2 below.

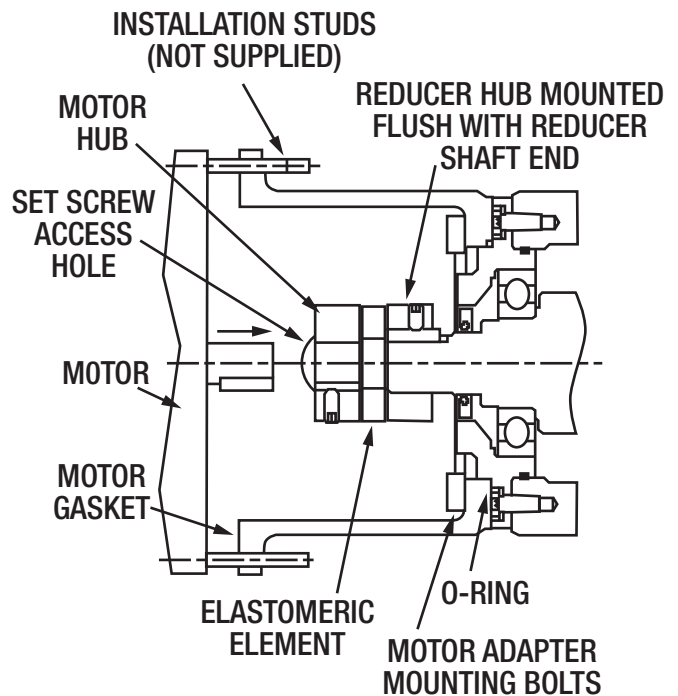


Figure 2 - Motor Mounting

MOTOR MOUNTING INSTRUCTIONS - Separate Style Reducer with 3-Piece Coupling Motor Adapter

This configuration of Tigear-2 uses a standard NEMA C-Face motor with a 3-piece flexible coupling. The 3 piece couplings are sourced from two manufacturers. Tigear-2 reducers may contain either manufacturer's coupling. Both manufacturer's 3 jaw coupling design meet or exceed Baldor's torque and dimensional requirements. Do not mix components between manufactures.

ASSEMBLING THE COUPLING

1. Position the reducer vertically with the input shaft facing up.
2. Install reducer half of the coupling with key so that the main body of the hub is flush with the end of the reducer input shaft and tighten the set-screw / set-screws. Coupling hubs may contain one or two setscrews. Rotate coupling hub one revolution to verify the number of setscrews. Torque all setscrews per Table 3.
3. Install the supplied "O" ring between the reducer and the motor adapter.
4. Install the Motor Adapter using the supplied hardware. Torque Motor Adapter bolts per Table 4.
5. Install the elastomeric center element of the coupling.
6. Place the motor half of the coupling onto the elastomeric element mounted on the reducer shaft.
7. Install the key into the motor shaft. Stake in place with a punch.
8. Install the gasket between the motor and motor adapter flange. To help prevent pinching the gasket, place and align the gasket onto the motor face for the 56 & 140TC frame motors and onto the motor adapter face for the 180, 210, & 250TC frame motors. A small amount of grease or other suitable product can be placed on the gasket in three locations to temporarily hold gasket into place.

Table 2 - Motor Mounting Bolt Torque

Reducer Size	C-Face	Bolt or Capscrew Size	Torque in-lbs. (non-lubricated)
13 - 40	56C 140TC	3/8 -16	276 in-lbs. (23 ft-lb.)
23 - 47	180TC 210TC 250TC	1/2 - 13	684 in-lbs. (57 ft-lb.)

9. Align the coupling keyway and motor key then slide the motor shaft into the coupling assembly until the motor stops against the flange.
10. Install and tighten the motor bolts. Torque motor bolts per Table 2.
11. Looking through the access hole verify that the coupling faces are in full contact with the coupling elastomeric element - without any preload.
12. Insert a .010" to .030" shim between the elastomeric element and motor half of the coupling and tighten the set screw / set-screws on the motor half of the coupling. Coupling hubs may contain one or two setscrews. Rotate coupling one revolution to verify the number of setscrews. Torque all setscrews per Table 3.

NOTE: The factory supplied coupling setscrews contain a thread locking patch. Additional thread locker is not required. The setscrews should be replaced after 15 tightening / loosening cycles with new factory setscrews containing the thread locking patch.

Inspect the motor / adapter gasket each time the motor is removed and installed. If the gasket is damaged, replace the gasket.

Contact the TIGEAR-2 Custom Order Engineering group at (864-284-5700) with any questions.

LIMITED WARRANTY

The Baldor•Dodge TIGEAR-2 Reducer is warranted under the Dodge "Standard Terms and Conditions of Sale" against defects in material and workmanship. Warranty claims must be submitted to the company within one (1) year from the date of installation or three (3) years from the date of manufacture, whichever occurs first. The warranty is valid providing the product is properly applied, installed, operated and maintained in accordance with the instruction manual. This warranty covers product replacement or repair only and excludes labor, equipment and/or downtime for removal and installation. This warranty shall not apply where equipment is operated above rated load capacity or is subject to accident, alteration, misuse or abuse. This warranty described in the Dodge "Standard Terms and Conditions of Sale" is in lieu of and excludes all other expressed or implied warranties.

NOTE: Service and repair under warranty should be performed only by a Dodge authorized service shop. Contact Baldor Electric Company Warranty Administration at (864) 284-5777 for the nearest location and to register warranty claims.

Table 3 - 3 Piece Coupling Motor & Reducer Coupling Setscrew Torque

Reducer Size	C-Face	Coupling Size	Setscrew Size	Hex Key Size	Tightening Torque
13A - 30A	56C	L075	1/4-20 x 5/16	1/8	78-87 in-lbs. (6.5 - 7.3 ft-lb.)
13A - 15A	140TC				
35A	56C	L090	1/4-20 x 5/16	1/8	78-87 in-lbs. (6.5 - 7.3 ft-lb.)
17A - 35A	140TC				
40A - 47A	140TC	L099	5/16-18 x 3/8	5/32	150-165 in-lbs. (12.5 - 13.8 ft-lb.)
23A - 47A	180TC				
35A - 47A	210TC	L110	3/8-16 x 1/2	3/16	260-290 in-lbs. (21.7 - 24.2 ft-lb.)

Table 4 - Motor Adapter Bolt Torque

Reducer Size	"Bolt or Capscrew Size"	Tightening Torque (non lubricated)
13 - 20	5/16 - 18	204 in-lb.
		(17 ft-lb.)
23 - 30	3/8 - 16	360 in-lb.
		(30 ft-lb.)
35 - 47	7/16 - 14	576 in-lb.
		(48 ft-lb.)

BALDOR®
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Dodge Product Support

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www.baldor.com



Section 12: Supplemental Manuals

12-3: Dodge Reducers

For DODGE TIGEAR-2 Reducers

The DODGE TIGEAR-2 reducer is factory filled with a new synthetic lubricant which eliminates costly preparation time normally required to put a reducer into service. The lubricant supplied is a high performance, H1 food grade lubricant, suitable for all mounting positions. When reducer selections are properly service factored to account for the thermal limitations of the reducer, the standard lubricant covers an operating ambient temperature range of -10° F to 165° F. No other lubricant available on the market provides the outstanding wear protection and thermal abilities of the factory-filled lubricant. Other lubricants, including Mobil SHC series lubricants, must not be mixed with the factory supplied lubricant.



Low Temperature Applications

For operating ambient temperature ranges from -10° F to -30° F, order Low Temperature Lubricant at the time of reducer order.

The low temperature lubricant has all of the high performance features of the standard temperature lubricant, but has been modified for lower temperatures. Contact Application Engineering for temperatures below -30° F.

Standard Temperature Range		
Volume	Quart (32 oz)	Gallon (128 oz)
Part Number	334863	334862

Low Temperature Range		
Volume	Quart (32 oz)	Gallon (128 oz)
Part Number	334861	334860



Approximate Oil Volumes

Reducer Configuration	Reducer Size														
	13			15			17			20			23		
	Required Volume	You Need to Purchase		Required Volume	You Need to Purchase		Required Volume	You Need to Purchase		Required Volume	You Need to Purchase		Required Volume	You Need to Purchase	
		Gal	Qt		Gal	Qt		Gal	Qt		Gal	Qt		Gal	Qt
(QH) Quill Input Hollow Output Shaft	6 oz	-	1	7 oz	-	1	11 oz	-	1	14 oz	-	1	21 oz	-	1
(QS) Quill Input Solid Output Shaft	6 oz	-	1	7 oz	-	1	12 oz	-	1	15 oz	-	1	23 oz	-	1
Separate or 3-Piece Coupled Input (AH & SH) Hollow Output Shaft	9 oz	-	1	10 oz	-	1	15 oz	-	1	21 oz	-	1	28 oz	-	1
Separate or 3-Piece Coupled Input (AS & SS) Solid Output Shaft	9 oz	-	1	11 oz	-	1	18 oz	-	1	23 oz	-	1	1 qt	-	1

Reducer Configuration	Reducer Size														
	26			30			35			40			47		
	Required Volume	You Need to Purchase		Required Volume	You Need to Purchase		Required Volume	You Need to Purchase		Required Volume	You Need to Purchase		Required Volume	You Need to Purchase	
		Gal	Qt		Gal	Qt		Gal	Qt		Gal	Qt		Gal	Qt
(QH) Quill Input Hollow Output Shaft	28 oz	-	1	1.38 qt	-	2	1.88 qt	-	2	2.78 qt	-	3	1.28 gal	1	2
(QS) Quill Input Solid Output Shaft	1 qt	-	1	1.50 qt	-	2	2.06 qt	-	3	3.03 qt	1	-	1.38 gal	1	2
Separate or 3-Piece Coupled Input (AH & SH) Hollow Output Shaft	1.19 qt	-	2	1.84 qt	-	2	2.56 qt	-	3	1.09 gal	1	1	1.78 gal	2	-
Separate or 3-Piece Coupled Input (AS & SS) Solid Output Shaft	1.38 qt	-	2	2.19 qt	-	3	2.94 qt	-	3	1.13 gal	1	1	2.08 gal	2	1



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Section 12: Supplemental Manuals

12-4: Dodge Bearings

See information below

CONTENTS



E-Z KLEEN Polymer and Stainless Steel Housed Mounted Bearings

Features / Benefits	B2-3
How to Order / Nomenclature	B2-8
Selection	B2-9
Easy Selection	B2-12
Selection/Dimensions	
Stainless Housed Ball	
Pillow Blocks	B2-24
Tapped Base Pillow Block	B2-29
2-Bolt Flange Bearings	B2-30
LF, LFT Flange Bearings	B2-33
Flanged Bracketed Bearings	B2-35
4-Bolt Flange Bearings	B2-36
NSTU Narrow Slot Take-Up Bearings	B2-38
Wide Slot Take-Up Bearings	B2-39
CR Inserts	B2-40
Polymer Housed Ball	
Pillow Blocks	B2-44
Tapped Base Pillow Blocks	B2-50
2-Bolt Flange Bearings	B2-54
Flange Bearings	B2-58
4-Bolt Flange Bearings	B2-62
Wide Slot Take-Up Bearings	B2-66
Polymer Sleeve	
Pillow Block	B2-71
Tapped Base Pillow Blocks	B2-72
2-Bolt Flange Bearings	B2-73
3-Bolt Flange Bearings	B2-74
4-Bolt Flange Bearings	B2-75
Inserts	B2-76
Accessories	B2-77
Part Number Index	INDEX-1
Key Word Index	INDEX-69



CONTENTS

Bearing Reference
Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing



FEATURES/BENEFITS

E-Z KLEEN

Polymer and Stainless Steel Housed Mounted Bearings

Our goal at DODGE is to create the world's most successful customer. We do that by listening and responding to our customers' needs. Customers in the food and beverage processing industry told us they needed new and improved products that help make their industry safer - products that help in the fight against contamination from bacteria such as E. coli, salmonella, and staphylococcus aureus.

DODGE delivered by expanding our high performance E-Z KLEEN line with this new, improved generation of E-Z KLEEN engineered polymer housed ball and sleeve bearings and stainless steel housed ball bearings.



- 300 Series Stainless Steel



DODGE E-Z KLEEN with solid-base housing

Competitive bearing with cavities and fillings that can trap bacteria



POPULAR HOUSING STYLES

Polymer

Stainless Steel

- | | |
|---|--|
| <ul style="list-style-type: none"> • Pillow blocks • Tapped-base pillow blocks • 2 and 4 bolt flange bearings • Flange brackets • Wide slot take-up bearings | <ul style="list-style-type: none"> • Pillow blocks • Tapped-base pillow blocks • Flange brackets • Wide and narrow slot take-up bearings • 2 and 3 bolt light duty flange • 2 and 4 bolt flange bearings |
|---|--|

RUGGED, SOLID-BASE HOUSING

- | | |
|--|--|
| <ul style="list-style-type: none"> • Manufactured with no cavities and no fillings -no traps for bacteria • Features anti-microbial polymer that helps prevent bacterial and fungal growth (polymer housing) • Housing strength exceeds static capacity of bearing • Designed with stainless steel lube fittings and stainless steel ferrules in bolt holes (polymer housed) | <ul style="list-style-type: none"> • 316 Series stainless steel housing also available • For no relube (NL) remove the lube fitting and install the polymer plug that is shipped with each bearing • Retains dimensional stability in harsh environments • No flaking or peeling, even after repeated washdowns • Provides excellent chemical resistance • Available with either open or closed end closures <ul style="list-style-type: none"> • FDA/USDA compliant |
|--|--|

RESULTS OF HOUSING ANTI-MICROBIAL ACTIVITY AGAINST TEST ORGANISMS

Test Organism	Type of Organism	Growth-Free Zone (MM)	Contact Inhibition (%)
Staphylococcus aureus	Bacterial	0	100
Aspergillus niger	Fungal	0	100



FEATURES/BENEFITS

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

E-Z KLEEN QuadGuard Sealing System

For over 125 years, the DODGE brand has been synonymous with the best the industry has to offer. Bearing users in the food and beverage industry recognize that with DODGE they have access to the best selection of the highest quality mounted ball bearings available in the market.

The DODGE E-Z KLEEN and ULTRA KLEEN bearings for the food and beverage industry offer an array of features that provide extended life in these challenging conditions. DODGE has the only bearings in the industry to offer a patented triple-lip seal with a rubberized flinger, the QuadGuard™ sealing system. These units also include an exclusive ball retainer, the Maxlife™ cage which helps retain lubrication and prevents washout in wet environments.

Combine these features with a complete line of polymer and stainless housing offerings, concentric and adapter mounting options and you have a family of mounted ball bearing products that are unsurpassed in the industry.

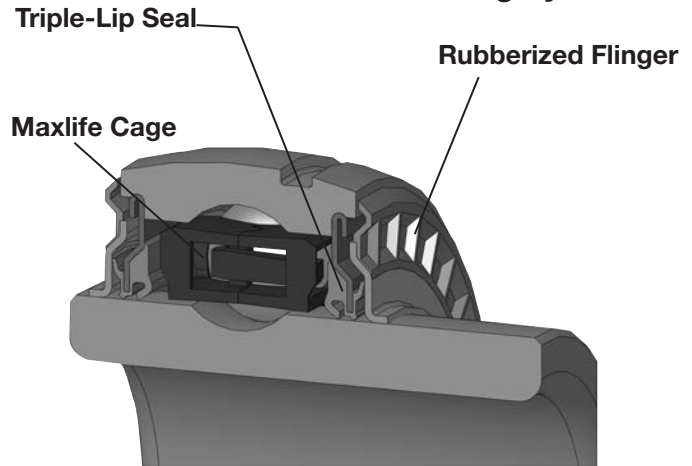
THREE SHAFT LOCKING SYSTEMS FROM STOCK

- SC - Two stainless-steel setscrews set 65 apart
- D-LOK - Corrosion resistant concentric collar
- GT - GRIP TIGHT

The QuadGuard seal consists of two patented features that are unique to DODGE bearings and are standard on the E-Z KLEEN and ULTRA KLEEN product.

- **Triple-lip seal**
 - Patented design
 - Mechanically retained seal with two contact points on the inner ring and one that rides against flinger surface
 - Three points of contact guard against contamination and keep in lubricants
 - Maximizes sealing with minimal increase in drag compared to a single lip design

DODGE QuadGuard Sealing System



CORROSION-RESISTANT BALL BEARING INSERTS

- New QuadGuard sealing system with stainless triple-lip seal and rubberized flinger
- Corrosion-resistant inner and outer ring
- Stainless steel balls and lube fitting
- Stainless steel setscrews (SC) and stainless steel capscrew (DLOK)
- 100% Filled with H1, food grade grease
- Relubricable
- Anti-rotation pin
- Patented Maxlife cage extends grease life
- Offered in inch and metric sizes
- Temperature range -20° to +225° F

- **Rubberized flinger**
 - Industry's first and only patented design
 - Molded rubber provides additional protection from contaminants entering the bearing
 - Baffle design of the rubber on the external surface of the flinger enhances the removal of liquid as it rotates
 - Extended rubber baffle outer diameter increases centrifugal acceleration to discard moisture and contamination away from bearing
 - Grease chambers on the internal surface prevent lubricants from exiting the bearing
 - Superior design increases service life in dirty environments thus leading to extended uptime



FEATURES/BENEFITS

E-Z KLEEN Corrosion Resistant Coating

The DODGE E-Z KLEEN ball bearing uses a patented, corrosion resistant coating that is superior to any coated product in the market.

- QuadGuard sealing system
- Maxlife cage
- Corrosion resistant insert has a patented nickel alloy Teflon composite coating
- Offered in setscrew (SC), concentric (D-LOK), and adapter mount (GRIP TIGHT) locking mechanisms
- Available in polymer and stainless housings

The DODGE E-Z KLEEN corrosion resistant (CR) insert outperforms other coatings on the market today such as black oxide, zinc and thin dense chrome (TDC).

Tests have shown that the DODGE CR insert exhibited 300% longer bearing life than a typical TDC coated insert. The CR insert load capacity is not de-rated as compared to stainless inserts.

DODGE offers the CR insert in three patented locking mechanisms.

- Setscrew (SC)
 - 65° stainless set screws provide superior holding force without compromising the strength of the inner ring
 - Stainless anti-rotation pin to prevent insert from rotating in the housing
- Concentric (D-LOK)
 - Concentric locking accomplished with the use of a locking collar and slotted inner ring
 - Eliminates damage to stainless shafting caused by set screws
 - Reduced vibration as compared to set screws
- Adapter Mount (GRIP TIGHT)
 - DODGE-only patented thin wall adapter mount
 - Push/pull adapter mount system provides easy on/easy off installation and removal
 - Built-in bearing puller reduces the time associated with removing bearings from shaft
 - Adapter mount does not damage stainless shafting
 - Interchangeable adapters reduce inventory

NOTE: Instruction manuals and drawings for Dodge Bearings are available on www.dodge-pt.com

24 Hour Salt Fog Test Results

DODGE E-Z KLEEN Corrosion Resistant Insert –
No corrosion after testing





FEATURES/BENEFITS

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

E-Z KLEEN Maxlife Cage

The Maxlife cage is the product of extensive research and development in retainer technology and industry leading engineering.

- Two-piece design that creates a grease compartment around each of the rolling elements
- Compartments provide constant contact between balls and grease so an oil film will always exist to prevent wear and minimize friction and heat
- Relative motion between the components and the grease is reduced which results in lower operating temperatures and extended life
- Compartmental construction of the cage holds in the grease and prevents it from being washed out in extremely wet conditions
- Exclusive design extends life with less frequency of re-lubrication than standard designs
- Included in both E-Z KLEEN and ULTRA KLEEN products



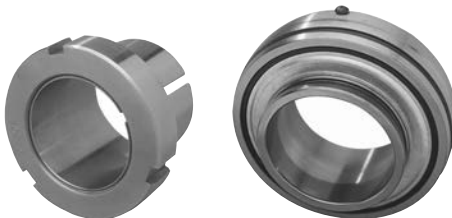
D-LOK DL

Dodge E-Z KLEEN bearings are available with the D-LOK concentric locking device that provides easy installation and 360° contact with the shaft.

GRIP-TIGHT LOCKING SYSTEM

Full Contact on shaft for better grip, less vibration.

Setscrew locking can distort the inner ring and cause system-induced vibration. But with the DODGE GRIP-TIGHT adapter, the adapter attaches itself to the shaft for full concentric contact - 360° through the length of the bearing. E-Z KLEEN and GRIP-TIGHT use stainless steel adapter sleeve and nut and provides easy-on and easy-off installation and removal.



NOTE: Instruction manuals and drawings for Dodge Bearings are available on www.dodge-pt.com



FEATURES/BENEFITS

E-Z KLEEN-SC, DL, GT; ULTRA KLEEN-SC

EZ Kleen-SC, DL, GT Ultra Kleen-SC	End-Cover Capability		Sealing		Retainer
	End-Cover Groove	Snap-On End Cover	Triple-Lip Seal	Stainless Rubberized Flinger	Maxlife Cage
Standard Features	X	X	X	X	X

Housing Capability Stainless

Housing Style	204	205	206	207	208	209	210
P2B	X	X	X	X	X		X
F2B	X	X	X	X	X		X
F4B	X	X	X	X	X		X
FB	X	X	X	X			X
TB	X	X	X	X	X		X
NSTU	X	X	X	X	X		X
WSTU	X	X	X	X	X		X
LF	X	X	X	X			
LFT	X	X	X	X			

Housing Capability Polymer

Housing Style	204	205	206	207	208	209	210
P2B	X	X	X	X	X	X	X
F2B	X	X	X	X	X	X	X
F4B	X	X	X	X	X	X	X
FB	X	X	X	X			
TB	X	X	X	X			
NSTU							
WSTU	X	X	X	X			
LF							
LFT							

NOTE: Instruction manuals and drawings for Dodge Bearings are available on www.dodge-pt.com



HOW TO ORDER/NOMENCLATURE

E-Z KLEEN Polymer and Stainless Steel Housed Mounted Bearings

HOW TO ORDER

There are two ways to specify DODGE E-Z KLEEN ball bearings. Most of the product offerings have part numbers with listings shown throughout this catalog. Use of part numbers ensures accurate order processing.

When part numbers are not shown, the product may be specified by description or part name. This method is used when ordering units that include modifications or options.

NOMENCLATURE

P2B - SCHUEZ - 104S = PCR

Modification Or Feature:

- CR = Corrosion resistant insert
- MOD = Modified
- P = Polymer housing
- SH = Stainless Steel Housing

Shaft Size:

Inches:

- First digit = Number of inches
- Second & third digits = Number of sixteenths of an inch
- 104 = Indicates 1-4/16 or 1-1/4
- S = Next smaller ring size. E.g. 1-1/4 206 would be written as 104S
- L = Next larger ring size. E.g. 1/2 204 would be written as 008L

Metric:

- First two digits = number of millimeters
- M = Metric

Bearing Type:

- SC = Wide inner ring, normal duty, 65° setscrew locking
- DL = Wide inner ring, normal duty, concentric clamp collar
- GT = Wide inner ring, normal duty, thin wall adapter locking
- PS = Polymer Sleeve Insert
- Suffixes to the above:
 - EZ = E-Z KLEEN/ULTRA KLEEN (used with polymer or stainless steel housed units)
 - BEZ = Low backing height pillow block, E-Z KLEEN/ULTRA KLEEN
 - UEZ = higher back pillow block, E-Z KLEEN/ULTRA KLEEN (for interchangeability with competitive pillow blocks)

Housing:

- F2B = 2-bolt flange
- F4B = 4-bolt flange
- FB = Flanged bracket
- INS = Insert
- P2B = Pillow block, 2-bolt base
- TB = Tapped base pillow block
- WSTU = Wide slot take-up



SELECTION

Selection of DODGE E-Z KLEEN Polymer and Stainless Steel Housed Ball Bearings

DODGE E-Z KLEEN mounted ball bearings are primarily designed for radial loading. However, they have the capacity to carry thrust loads and combined radial/thrust loads. The maximum recommended load which can be applied is limited by various components in the system, such as bearing, housing, shaft attachments, speed and life requirements as listed in this catalog and the instruction manual that accompanies each bearing. DODGE E-Z KLEEN ball bearings have been applied successfully when these limits have been exceeded under controlled operating conditions. Contact DODGE Engineering for applications which exceed these recommendations.

Select a bearing from the Selection Table that has a radial load rating at the operating speed equal to or greater than the calculated Equivalent Radial Load for a desired L_{10} life. This simple method is all that is required for the majority of general applications and provides for occasional average shock loads.

L_{10} Hours Life – The life which may be expected for at least 90% of a given group of bearings operating under identical conditions.

Heavy Service – For heavy shock loads, frequent shock loads or severe vibrations, add up to 50% (according to severity of conditions) to the Equivalent Radial Load to obtain a Modified Equivalent Radial Load. Consult Application Engineering for additional selection assistance.

A maximum thrust load value of $C/10$ is recommended as a guide for general applications and will give adequate L_{10} life. If the thrust load exceeds this limit, it is advisable to use auxiliary thrust carrying devices, such as a shaft shoulder, snap ring, or a thrust collar. Where substantial radial load pulls the housing away from the mounting base, both the hold-down bolts and housing must be of adequate strength. Auxiliary load carrying devices, such as shear bars, are advisable for side or end-loading of pillow blocks and radial loads for flange units.

To determine the L_{10} hours life for loads and RPMs not listed use the following equation:

$$L_{10} = \left(\frac{C}{P}\right)^3 \times \left(\frac{16667}{n}\right)$$

Where:

L_{10} = Life, hours

C = Dynamic Capacity, lbs. or N

P = Equivalent Radial Load, lbs. or N

n = Revolutions per minute

When the load on a ball bearing is solely a radial load with no thrust (axial) load, the Equivalent Radial Load (P) is equal to the actual radial load. However, when a thrust (axial) load is applied, the radial and thrust loads applied must be converted into an Equivalent Radial Load. Use X (radial factor) and Y (thrust factor) from Table 1 to convert the actual applied thrust and radial loads to an Equivalent Radial Load which has the same effect on the life of a bearing as a radial load of this magnitude.

$$P = XF_R + YF_A$$

Where:

P = Equivalent Radial Load, lbs.

F_R = Radial load, lbs.

F_A = Thrust load, lbs.

e = Thrust load to radial load factor (Table 1)

X = Radial load factor (Table 1)

Y = Thrust Factor (Table 1)

C_0 = Basic static capacity (Selection Table)

To find X and Y, first calculate F_A/C_0 to determine e. Calculate F_A/F_R and compare to e to determine the X and Y factors to use from Table 1.

Shaft Tolerances

Normal Shaft Size Inches	Recommended Shaft Tolerances SC & D-LOK Products (Inches)	Recommended Shaft Tolerances GRIP TIGHT Ball Bearings (Inches)
Up to 1-1/2"	+0.000 -0.0005	+0.000 -0.002
Over 1-1/2 to 2"	+0.000 -0.0010	+0.000 -0.003

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------



SELECTION

Selection of DODGE E-Z KLEEN Polymer and Stainless Steel Housed Ball Bearings

Table 1

F_A / C_0	e	Radial/Thrust Factors			
		If F_A/F_R is equal to or less than e		If F_A/F_R is greater than e	
		$F_A/F_R \leq e$		$F_A/F_R > e$	
		X	Y	X	Y
0.014	0.19	1	0	0.56	2.30
0.021	0.21	1	0	0.56	2.15
0.028	0.22	1	0	0.56	1.99
0.042	0.24	1	0	0.56	1.85
0.056	0.26	1	0	0.56	1.71
0.070	0.27	1	0	0.56	1.63
0.084	0.28	1	0	0.56	1.55
0.110	0.30	1	0	0.56	1.45
0.170	0.34	1	0	0.56	1.31
0.280	0.38	1	0	0.56	1.15
0.420	0.42	1	0	0.56	1.04
0.560	0.44	1	0	0.56	1.00

Lubrication – DODGE Ball Bearings are lubricated at the factory and are ready to run. The bearings are initially lubricated with an aluminum complex based, H1 Food Grade grease and should be relubricated with the same or some equivalent. For high speeds, high loads, extreme temperatures and other abnormal operating conditions, special greases may be required. Contact DODGE Application Engineering for recommendations on these types of applications.

Misalignment – DODGE Ball Bearings are designed to allow a maximum of 2° static misalignment. These bearings are not suitable for dynamic misalignment. To ensure good alignment, mounting surfaces must be checked for flatness and must lie in the same plane. When tightening base bolts, each bolt should be alternately tightening in incremental torque values until full torque is achieved to prevent the angular shifting of the pillow block that occurs when one bolt is tightened to its full torque. Shimming may be required to minimize misalignment.

Substitute all known values into the Equivalent Radial Load equation. The Equivalent Radial Load (P) thus determined can be used in the L10 life formula or compared to the allowable Equivalent Radial Load rating desired in the expanded rating chart to select a bearing (Selection Table).

If calculated value of P is less than F_R , use $P=F_R$.

NOTE: Bearing analysis program “BEST” is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------



SELECTION

Selection of DODGE E-Z KLEEN Polymer and Stainless Steel Housed Ball Bearings

Recommended Torque													
Setscrew Size	Key Hex Across Flats	Setscrews			D-LOK			Mounting Bolts					
		◆ Recommended Torque			Cap Screw Size	Recom. Torque	EZ-KLEEN Recom. Torque	Metal Housings		EZ-KLEEN Housed Bearings			
		Standard Ball Bearing Insert		Corrosion Resistant Stainless Steel				Bolt Size	Recom. Dry Torque (Grade 2)	2-Bolt PB, 2 & 4 Bolt Fig. and Fig. Brackets		Tapped Base PB	
		Min	Max							Bolt Size	Torque ①	Bolt Size	Torque ②
(in.)	(in.)	(in.-lbs.)	(in.-lbs.)	(in.-lbs.)	(in.)	(in.0lbs.)	(in.-lbs.)	(in.)	(in.0lbs.)	(in.)	(in.-lbs.)	(in.)	(in.-lbs.)
#10	3/32	28	33	25	#8-32	58	46	3/8-16	240	3/8-16	225	3/8-16	175
1/4	1/8	66	80	60	#10-32	90	72	7/16-14	384	7/16-14	350	7/16-14	350
5/16	5/32	126	156	117	1/4-28	180	144	1/2-13	600	1/2-13	500	1/2-13	400
3/8	3/16	228	275	206	5/16-24	400	320	5/8-11	1200	9/16-12	650		
7/16	7/32	342	428	321	3/8-24	750	600	3/4-10	1950	5/8-11	1000		
								7/8-9	2890				
(mm)	(mm)	(N-m)	(N-m)	(N-m)	(mm)	(N-m)	(N-m)	(mm)	(N-m)	(mm)	(N-m)	① Torque for Austenitic (18-8) Stainless	
M5	2.5	3.2	3.7	2.8	M4	585	4.68	M10	29	M8	15		
M6	3	6.2	7.7	5.8	M5	10.75	8.6	M12	50	M10	25		
M8	4	14.2	17.8	13.4	M6	20.5	16.4	M16	124	M12	50		
M10	5	26	31	23	M8	45	36	M20	238	M14	75		
M12	6	46	57	43				M22	322	M18	125		

Lubrication

High Speed Operation - In the higher speed ranges, too much grease will cause over-heating. The amount of grease that the bearing will take for a particular high speed application can only be determined by experience. If excess grease in the bearing causes overheating, it will be necessary to remove grease fitting to permit excess grease to escape. The bearing has been greased at the factory and is ready to run. When establishing a relubrication schedule, note that a small amount of grease at frequent intervals is preferable to a large amount at infrequent intervals.

◆ **NOTE:** Dodge does not recommend the use of oils or locking agents on setscrew threads. However, if utilized, the the minimum installation torque values should be followed.

Lubrication Guide

Use a No. 2 Lithium complex base grease or equivalent*

Hours Run per Day	Suggested Lubrication Period in Weeks							
	1 to 250 RPM	251 to 500 RPM	501 to 750 RPM	751 to 1000 RPM	1001 to 1500 RPM	1501 to 2000 RPM	2001 to 2500 RPM	2501 to 3000 RPM
8	12	12	10	7	5	4	3	2
16	12	7	5	4	2	2	1	1
24	10	5	3	2	1	1	1	1

* For EZ-KLEEN series bearings, use an aluminum complex base grease.

Lubrication recommendations are intended for standard products applied in general operating conditions. For modified products, high temperature applications, and other anomalous applications contact product engineering at 864-284-5700.

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------



EASY SELECTION

E-Z KLEEN SC and DL

Ring Size	Shaft Size		Dynamic Capacity C _d , lbs.	Static Capacity C ₀ , lbs.	L ₁₀ Life - Hours	Allowable Equivalent Radial Load Rating (lbs.) at Various RPM*											
	SC	SCM				50	150	250	500	750	1000	1250	1500	1600	1750	2000	2250
204	1/2 5/8 3/4 13/16 20mm		2899	1482	20000	741	513	433	344	300	273	253	238	233	226	217	208
					30000	647	449	378	300	262	238	221	208	204	198	189	182
					40000	588	408	344	273	238	217	201	189	185	180	172	165
					60000	513	356	300	238	208	189	176	165	162	157	150	144
					100000	433	300	253	201	176	160	148	139	136	132	127	122
205	7/8 15/16 1 25mm		3146	1769	20000	804	557	470	373	326	296	275	259	253	246	235	226
					30000	702	487	411	326	285	259	240	226	221	215	205	197
					40000	638	442	373	296	259	235	218	205	201	195	187	179
					60000	557	386	326	259	226	205	191	179	176	170	163	157
					100000	470	326	275	218	191	173	161	151	148	144	137	132
206	1-1/16 1-1/8 1-3/16 1-1/4 30mm	1 25mm	4368	2538	20000	1116	774	652	518	452	411	382	359	351	341	326	314
					30000	975	676	570	452	395	359	333	314	307	298	285	274
					40000	886	614	518	411	359	326	303	285	279	271	259	249
					60000	774	536	452	359	314	285	265	249	244	237	226	217
					100000	652	452	382	303	265	240	223	210	206	199	191	183
207	1-1/4 1-5/16 1-3/8 1-7/16 35mm	1-3/16 1-1/4 30mm	5759	3461	20000	1471	1020	860	683	596	542	503	473	463	450	430	414
					30000	1285	891	752	596	521	473	439	414	405	393	376	361
					40000	1168	810	683	542	473	430	399	376	368	357	341	328
					60000	1020	707	596	473	414	376	349	328	321	312	298	287
					100000	860	596	503	399	349	317	294	277	271	263	252	242
208	1-1/2 1-5/8 40mm	1-7/16 1-1/2▲ 35mm	7332	4475	20000	1873	1299	1095	869	759	690	641	603	590	573	548	527
					30000	1636	1134	957	759	663	603	560	527	515	500	478	460
					40000	1487	1031	869	690	603	548	508	478	468	454	435	418
					60000	1299	900	759	603	527	478	444	418	409	397	380	365
					100000	1095	759	641	508	444	403	375	352	345	335	320	308
209	1-5/8 1-11/16 1-3/4 45mm	1-1/2 40mm	7891	4906	20000	2016	1398	1179	936	817	743	689	649	635	616	589	567
					30000	1761	1221	1030	817	714	649	602	567	555	538	515	495
					40000	1600	1109	936	743	649	589	547	515	504	489	468	450
					60000	1398	969	817	649	567	515	478	450	440	427	409	393
					100000	1179	817	689	547	478	434	403	379	371	360	345	331
210	1-15/16 2 50mm	1-11/16 1-3/4 45mm	7891	5213	20000	2016	1398	1179	936	817	743	689	649	635	616	589	567
					30000	1761	1221	1030	817	714	649	602	567	555	538	515	495
					40000	1600	1109	936	743	649	589	547	515	504	489	468	450
					60000	1398	969	817	649	567	515	478	450	440	427	409	393
					100000	1179	817	689	547	478	434	403	379	371	360	345	331

* Slight interference fit required when operating on the right of the heavy line or in the shaded area.

▲ Piloted flange only

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------

EASY SELECTION



E-Z KLEEN SC and DL (continued)

Ring Size	Shaft Size		Dynamic Capacity C, lbs.	Static Capacity Co, lbs.	L ₁₀ Life - Hours	Allowable Equivalent Radial Load Rating (lbs.) at Various RPM*											
	SC	SCM				2500	2750	3000	3250	3500	3600	4000	4500	5000	5250	5500	6000
204	1/2 5/8 3/4 13/16 20mm		2899	1482	20000	201	195	189	184	180	178	172	165	160	157	155	150
					30000	176	170	165	161	157	155	150	144	139	137	135	131
					40000	160	155	150	146	143	141	136	131	127	125	123	119
					60000	139	135	131	128	125	123	119	115	111	109	107	104
					100000	118	114	111	108	105	104	101	97	93	92	90	88
205	7/8 15/16 1 25mm		3146	1769	20000	218	211	205	200	195	193	187	179	173	170	168	163
					30000	191	185	179	175	170	169	163	157	151	149	147	142
					40000	173	168	163	159	155	153	148	142	137	135	133	129
					60000	151	147	142	139	135	134	129	124	120	118	116	113
					100000	128	124	120	117	114	113	109	105	101	100	98	95
206	1-1/16 1-1/8 1-3/16 1-1/4 30mm	1 25mm	4368	2538	20000	303	293	285	278	271	268	259	249	240	237		
					30000	265	256	249	242	237	234	226	217	210	207		
					40000	240	233	226	220	215	213	206	198	191	188		
					60000	210	203	198	192	188	186	180	173	167	164		
					100000	177	172	167	162	158	157	151	146	141	138		
207	1-1/4 1-5/16 1-3/8 1-7/16 35mm	1-3/16 1-1/4 30mm	5759	3461	20000	399	387	376	366	357	354	341	328				
					30000	349	338	328	320	312	309	298	287				
					40000	317	307	298	290	283	281	271	261				
					60000	277	268	261	254	247	245	237	228				
					100000	234	226	220	214	209	207	200	192				
208	1-1/2 1-5/8 40mm	1-7/16 1-1/2▲ 35mm	7332	4475	20000	508	492	478	466	454	450	435					
					30000	444	430	418	407	397	393	380					
					40000	403	391	380	370	361	357	345					
					60000	352	341	332	323	315	312	301					
					100000	297	288	280	272	266	263	254					
209	1-5/8 1-11/16 1-3/4 45mm	1-1/2 40mm	7891	4906	20000	547	530	515	501	489	485	468					
					30000	478	463	450	438	427	423	409					
					40000	434	421	409	398	388	385	371					
					60000	379	367	357	348	339	336	324					
					100000	320	310	301	293	286	283	274					
210	1-15/16 2 50mm	1-11/16 1-3/4 45mm	7891	5213	20000	547	530	515	501	489	485						
					30000	478	463	450	438	427	423						
					40000	434	421	409	398	388	385						
					60000	379	367	357	348	339	336						
					100000	320	310	301	293	286	283						

* Slight interference fit required when operating on the right of the heavy line or in the shaded area.

▲ Piloted flange only

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------



EASY SELECTION

E-Z KLEEN GT

Ring Size	Shaft Size		Dynamic Capacity C, lbs.	Static Capacity C ₀ , lbs.	Allowable Equivalent Radial Load Rating (lbs.) at Various RPM*							
	GT	GTM			L ₁₀ Life - Hours	50	150	250	500	750	1000	1500
204	3/4 20mm		2899	1482	20000	741	513	433	344	300	273	238
					30000	647	449	378	300	262	238	208
					40000	588	408	344	273	238	217	189
					60000	513	356	300	238	208	189	165
					100000	433	300	253	201	176	160	139
205	7/8 15/16 1 25mm	3/4	3146	1769	20000	804	557	470	373	326	296	259
					30000	702	487	411	326	285	259	226
					40000	638	442	373	296	259	235	205
					60000	557	386	326	259	226	205	179
					100000	470	326	275	218	191	173	151
206	1-1/8 1-3/16 1-1/4 30mm	1 25mm	4368	2538	20000	1116	774	652	518	452	411	359
					30000	975	676	570	452	395	359	314
					40000	886	614	518	411	359	326	285
					60000	774	536	452	359	314	285	249
					100000	652	452	382	303	265	240	210
207	1-1/4 1-3/8 1-7/16 35mm	1-3/16 1-1/4 30mm	5759	3461	20000	1471	1020	860	683	596	542	473
					30000	1285	891	752	596	521	473	414
					40000	1168	810	683	542	473	430	376
					60000	1020	707	596	473	414	376	328
					100000	860	596	503	399	349	317	277
208	1-1/2 40mm	1-7/16 1-1/2▲ 35mm	7332	4475	20000	1873	1299	1095	869	759	690	603
					30000	1636	1134	957	759	663	603	527
					40000	1487	1031	869	690	603	548	478
					60000	1299	900	759	603	527	478	418
					100000	1095	759	641	508	444	403	352
209	1-5/8 1-11/16 1-3/4 45mm	1-1/2 40mm	7891	4906	20000	2016	1398	1179	936	817	743	649
					30000	1761	1221	1030	817	714	649	567
					40000	1600	1109	936	743	649	589	515
					60000	1398	969	817	649	567	515	450
					100000	1179	817	689	547	478	434	379
210	1-15/16 2 50mm	1-11/16 1-3/4 45mm	7891	5213	20000	2016	1398	1179	936	817	743	649
					30000	1761	1221	1030	817	714	649	567
					40000	1600	1109	936	743	649	589	515
					60000	1398	969	817	649	567	515	450
					100000	1179	817	689	547	478	434	379

* Speed limit values reflect quad contact seal

▲ Piloted flange only

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing



E-Z KLEEN GT (continued)

Ring Size	Shaft Size		Dynamic Capacity C, lbs.	Static Capacity Co, lbs.	Allowable Equivalent Radial Load Rating (lbs.) at Various RPM*							
	GT	GTM			L ₁₀ Life - Hours	1750	2000	2200	2600	3000	3200	3600
204	3/4 20mm		2899	1482	20000	226	217	210	198	189	185	178
					30000	198	189	183	173	165	162	155
					40000	180	172	166	157	150	147	141
					60000	157	150	145	138	131	128	123
					100000	132	127	123	116	111	108	104
205	7/8 15/16 1 25mm	3/4	3146	1769	20000	246	235	228	215	205	201	193
					30000	215	205	199	188	179	176	169
					40000	195	187	181	171	163	159	153
					60000	170	163	158	149	142	139	134
					100000	144	137	133	126	120	117	113
206	1-1/8 1-3/16 1-1/4 30mm	1 25mm	4368	2538	20000	341	326	316	299	285	279	268
					30000	298	285	276	261	249	244	234
					40000	271	259	251	237	226	221	213
					60000	237	226	219	207	198	193	186
					100000	199	191	185	175	167	163	157
207	1-1/4 1-3/8 1-7/16 35mm	1-3/16 1-1/4 30mm	5759	3461	20000	450	430	417	394	376	368	354
					30000	393	376	364	344	328	321	309
					40000	357	341	331	313	298	292	281
					60000	312	298	289	273	261	255	245
					100000	263	252	244	230	220	215	207
208	1-1/2 40mm	1-7/16 1-1/2▲ 35mm	7332	4475	20000	573	548	531	502	478	468	450
					30000	500	478	463	438	418	409	393
					40000	454	435	421	398	380	372	357
					60000	397	380	368	348	332	325	312
					100000	335	320	310	293	280	274	263
209	1-5/8 1-11/16 1-3/4 45mm	1-1/2 40mm	7891	4906	20000	616	589	571	540	515	504	485
					30000	538	515	499	472	450	440	423
					40000	489	468	453	429	409	400	385
					60000	427	409	396	374	357	349	336
					100000	360	345	334	316	301	295	283
210	1-15/16 2 50mm	1-11/16 1-3/4 45mm	7891	5213	20000	616	589	571	540	515	504	485
					30000	538	515	499	472	450	440	423
					40000	489	468	453	429	409	400	385
					60000	427	409	396	374	357	349	336
					100000	360	345	334	316	301	295	283

* Speed limit values reflect quad contact seal

▲ Piloted flange only

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------



EASY SELECTION

E-Z KLEEN GT (continued)

Ring Size	Shaft Size		Dynamic Capacity C, lbs.	Static Capacity C ₀ , lbs.	Allowable Equivalent Radial Load Rating (lbs.) at Various RPM*							
	GT	GTM			L ₁₀ Life - Hours	3840	4000	4240	4480	4800	5040	5300
204	3/4 20mm		2899	1482	20000	174	172	169	165	162	159	156
					30000	152	150	147	145	141	139	137
					40000	138	136	134	131	128	126	124
					60000	121	119	117	115	112	110	108
					100000	102	101	99	97	95	93	92
205	7/8 15/16 1 25mm	3/4	3146	1769	20000	189	187	183	180	176	173	170
					30000	165	163	160	157	153	151	148
					40000	150	148	145	143	139	137	135
					60000	131	129	127	125	122	120	118
					100000	111	109	107	105	103	101	99
206	1-1/8 1-3/16 1-1/4 30mm	1 25mm	4368	2538	20000	262	259	254	249	244	240	236
					30000	229	226	222	218	213	209	206
					40000	208	206	202	198	193	190	187
					60000	182	180	176	173	169	166	163
					100000	154	151	149	146	143	140	138
207	1-1/4 1-3/8 1-7/16 35mm	1-3/16 1-1/4 30mm	5759	3461	20000	346	341	335	329	321	316	
					30000	302	298	293	287	281	276	
					40000	275	271	266	261	255	251	
					60000	240	237	232	228	223	219	
					100000	202	200	196	192	188	185	
208	1-1/2 40mm	1-7/16 1-1/2▲ 35mm	7332	4475	20000	441	435	426	419			
					30000	385	380	372	366			
					40000	350	345	338	332			
					60000	306	301	296	290			
					100000	258	254	249	245			
209	1-5/8 1-11/16 1-3/4 45mm	1-1/2 40mm	7891	4906	20000	474	468	459				
					30000	414	409	401				
					40000	376	371	364				
					60000	329	324	318				
					100000	277	274	268				
210	1-15/16 2 50mm	1-11/16 1-3/4 45mm	7891	5213	20000	474						
					30000	414						
					40000	376						
					60000	329						
					100000	277						

* Speed limit values reflect quad contact seal

▲ Piloted flange only

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

EASY SELECTION



E-Z KLEEN GT (continued)

Ring Size	Shaft Size		Dynamic Capacity C, lbs.	Static Capacity Co, lbs.	Allowable Equivalent Radial Load Rating (lbs.) at Various RPM*						
	GT	GTM			L ₁₀ Life - Hours	5600	6000	6500	7000	7200	8000
204	3/4 20mm		2899	1482	20000	154	150	146	143	141	136
					30000	134	131	128	125	123	119
					40000	122	119	116	113	112	108
					60000	107	104	101	99	98	95
					100000	90	88	85	83	83	80
205	7/8 15/16 1 25mm	3/4	3146	1769	20000	167	163	159	155	153	
					30000	146	142	139	135	134	
					40000	132	129	126	123	122	
					60000	116	113	110	107	106	
					100000	97	95	93	91	90	
206	1-1/8 1-3/16 1-1/4 30mm	1 25mm	4368	2538	20000	231	226				
					30000	202	198				
					40000	184	180				
					60000	160	157				
					100000	135	132				
207	1-1/4 1-3/8 1-7/16 35mm	1-3/16 1-1/4 30mm	5759	3461	20000						
					30000						
					40000						
					60000						
					100000						
208	1-1/2 40mm	1-7/16 1-1/2▲ 35mm	7332	4475	20000						
					30000						
					40000						
					60000						
					100000						
209	1-5/8 1-11/16 1-3/4 45mm	1-1/2 40mm	7891	4906	20000						
					30000						
					40000						
					60000						
					100000						
210	1-15/16 2 50mm	1-11/16 1-3/4 45mm	7891	5213	20000						
					30000						
					40000						
					60000						
					100000						

* Speed limit values reflect quad contact seal

▲ Piloted flange only

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------



EASY SELECTION

Table 2 - Easy Selection For E-Z KLEEN Polymer-Housed Sleeve Bearing Mounted Units - Inch

RADIAL LOAD RATINGS (LBS) AT VARIOUS REVOLUTIONS PER MINUTE (RPM)

Series	Shaft Size	Up To 10	25	50	75	100	150	200	250
204	3/4	450	400	375	300	230	175	110	90
205	1	600	550	450	215	235	175	110	90
206	1-3/16 1-1/4	900	800	500	325	250	175	110	90
207	1-1/4 1-7/16	1000	900	600	400	300	175	120	95
208	1-1/2	1400	1200	700	430	320	180	125	95
210	1-15/16	1800	1600	750	450	350	185	130	100

RADIAL LOAD RATINGS (LBS) AT VARIOUS REVOLUTIONS PER MINUTE (RPM)

Series	Shaft Size	300	350	400	450	500	550	600	650
204	3/4	60	50	45	40	35	25	20	15
205	1	60	50	45	40	35	25	20	15
206	1-3/16 1-1/4	65	60	50	40	35	30	25	20
207	1-1/4 1-7/16	70	65	55	45	40	35	30	
208	1-1/2	70	65	55	45	40	35		
210	1-15/16	80	70	60	50	45			

Continuous operating temperature: -40 to 180° F

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------



Table 3 - Easy Selection For E-Z KLEEN Polymer-Housed Sleeve Bearing Mounted Units - Metric

RADIAL LOAD RATINGS (NEWTONS) AT VARIOUS REVOLUTIONS PER MINUTE (RPM)

Series	Shaft Size	Up To 10	25	50	75	100	150	200	250
204	20	2000	1775	1665	1330	1020	775	485	400
205	25	2665	2445	2000	1400	1045	775	485	400
206	30	4000	3555	2220	1445	1110	775	485	400
207	35	4445	4000	2665	1775	1330	775	530	420
208	40	6225	5335	3110	1910	1420	8000	555	420
210	50	8005	7115	3335	2000	1555	820	575	440

RADIAL LOAD RATINGS (NEWTONS) AT VARIOUS REVOLUTIONS PER MINUTE (RPM)

Series	Shaft Size	300	350	400	450	500	550	600	650
204	20	265	220	200	175	155	110	85	65
205	25	265	220	200	175	155	110	85	65
206	30	285	265	220	175	155	130	110	85
207	35	310	285	240	200	175	155	130	
208	40	310	285	240	200	175	155		
210	50	355	310	265	220	200			

Continuous operating temperature: -40 to 180° C

NOTE: Bearing analysis program “BEST” is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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EASY SELECTION

Chemical Resistance Chart*

	Housing		Ball Bearing Insert	
	Polymer	Stainless	EZ-KLEEN	ULTRA-KLEEN
A				
Acetic Acid	B	B	A	B
Acetone	B	A	A	B
Ammonium Chloride		B	A	B
Ammonium Hydroxide	D	A		A
Aniline	A	A	B	A
B				
Beer		A	A	
Beet Sugar Liquids		A		
Benzene	B	B	B	B
Bleaching Lye	A			
Brake Fluid	A			
Butane	A	A	A	
Butanol	B	A	A	
Butyl Acetate	A	B	A	
C				
Calcium Chloride	A	B	A	C
Calcium Hydroxide		B	A	
Calcium Hypochlorite	A	D	B	C
Carbon Disulphide	A	B	B	
Carbon Tetrachloride	A	B	A	A
Chloroform	D	A	A	A
Chromic Acid	A	B	A	B
Citric Acid	A	A	A	A
Cresol	D	A		
D				
Detergents	A	A	A	A
Diesel Fuel	A	A	B	

Where: (A) = No Effect - Excellent
 (B) = Minor Effect - Good
 (C) = Moderate Effect - Fair
 (D) = Severe Effect - Not Recommended
 Blank = No Data Available

NOTE: All references assume exposure temperature of 72°F.

* This chemical resistance chart is intended as a guideline. For exposure to high concentrations, prolonged contact, or higher operating temperatures, etc. reliance upon actual application experience is best. Aggressive relubrication intervals may also benefit bearing life. Contact application engineering at 864-284-5700 for assistance.

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing



Chemical Resistance Chart*

	Housing		Ball Bearing Insert	
	Polymer	Stainless	EZ-KLEEN	ULTRA-KLEEN
E				
Ethanol	A	A		A
Ether (diethyl-)	A	A	B	A
Ethyl Acetate	B	B	B	
Ethylene Dichloride	D	B	B	
F				
Ferrous Chloride		D	B	
Formaldehyde		B	B	
Formic Acid	B	B	A	B
Freon 11	A	A	A	
G				
Gasoline	A	A	A	A
Glycerol (Glycerin)	B	A	A	A
Glycol	B			
Grease	A	A	A	A
H				
Heptane	A	A	A	
Hexane	A	A	A	
Hydrochloric Acid (20%)	A	D	B	D
Hydrochloric Acid (100%)	D	D	C	D
Hydrofluoric Acid (20%)	D	D	B	D
Hydrofluoric Acid (100%)	D	D	C	D
Hydrogen Peroxide (10%)	A	C	A	
Hydrogen Peroxide (30%)	B	C	A	
I, K, L				
Iodine		D	B	D
Isopropanol (Isopropyl Alcohol)	B	A	A	
Kerosene	A	A	A	A
Lithium Chloride		A		

Where: (A) = No Effect - Excellent
 (B) = Minor Effect - Good
 (C) = Moderate Effect - Fair
 (D) = Severe Effect - Not Recommended
 Blank = No Data Available

NOTE: All references assume exposure temperature of 72°F.

* This chemical resistance chart is intended as a guideline. For exposure to high concentrations, prolonged contact, or higher operating temperatures, etc. reliance upon actual application experience is best. Aggressive relubrication intervals may also benefit bearing life. Contact application engineering at 864-284-5700 for assistance.

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------



EASY SELECTION

Chemical Resistance Chart*

	Housing		Ball Bearing Insert	
	Polymer	Stainless	EZ-KLEEN	ULTRA-KLEEN
M				
Methanol	A	A	A	A
Methylene Chloride	D	B	B	
Methyl Ethyl Ketone	A	A	A	
Mineral Oil	A	A	A	A
Motor Oils	A	A	A	A
N				
Nitric Acid (10%)	A	A	A	A
Nitric Acid (20%)	D	A	A	A
Nitric Acid (50%)	D	A	A	A
O				
Oleic Acid	A	A	B	B
Olive Oil	A	A	A	A
P				
Perchloroethylene	A	B	B	
Phenol	B	B	A	
Phosphoric Acid (<40%)	A	B	A	A
Phosphoric Acid (>40%)	A	C	A	B
Potassium Chloride	A	B	A	B
Potassium Dichromate	A	B	B	B
Potassium Hydroxide	D	B	A	B
Potassium Permanganate	A	A	B	B
S				
Silicone	A	B	A	A
Soap Solution	A	A	A	A
Sodium Bicarbonate	A	A	A	A
Sodium Bisulfate		D	B	B
Sodium Bisulfite	A	B	B	B
Sodium Carbonate	A	A	A	B
Sodium Chloride	A	B	A	B
Sodium Hydroxide (20%)	D	A	A	A
Sodium Hydroxide (50%)	D	B	A	

Where: (A) = No Effect - Excellent
 (B) = Minor Effect - Good
 (C) = Moderate Effect - Fair
 (D) = Severe Effect - Not Recommended
 Blank = No Data Available

NOTE: All references assume exposure temperature of 72°F.

* This chemical resistance chart is intended as a guideline. For exposure to high concentrations, prolonged contact, or higher operating temperatures, etc. reliance upon actual application experience is best. Aggressive relubrication intervals may also benefit bearing life. Contact application engineering at 864-284-5700 for assistance.

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
--------------------------------	--	------------------------------------	---------------------------

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing



Chemical Resistance Chart*

	Housing		Ball Bearing Insert	
	Polymer	Stainless	EZ-KLEEN	ULTRA-KLEEN
S (Continued)				
Sodium Hydroxide (80%)	D	C	B	
Sodium Hypochlorite (<20%)	A	C	B	C
Sodium Hypochlorite (100%)	B	D	B	D
Sulfuric Acid (<10%)	A	D	A	C
Sulfuric Acid (10 - 75%)	A	D	B	D
Sulfuric Acid (>75%)	D	D	C	D
T				
Tetrahydrofuran	B	A	A	
Toulene	A	A	A	
Trichlorethylene	B	B	A	
Triethylamine		A	A	
Turpentine	A	A	A	
V, W, X				
Vegetable Oils	A	A	A	A
Water	A	A	A	A
Xylene	A	B	A	

Where: (A) = No Effect - Excellent
 (B) = Minor Effect - Good
 (C) = Moderate Effect - Fair
 (D) = Severe Effect - Not Recommended
 Blank = No Data Available

NOTE: All references assume exposure temperature of 72°F.

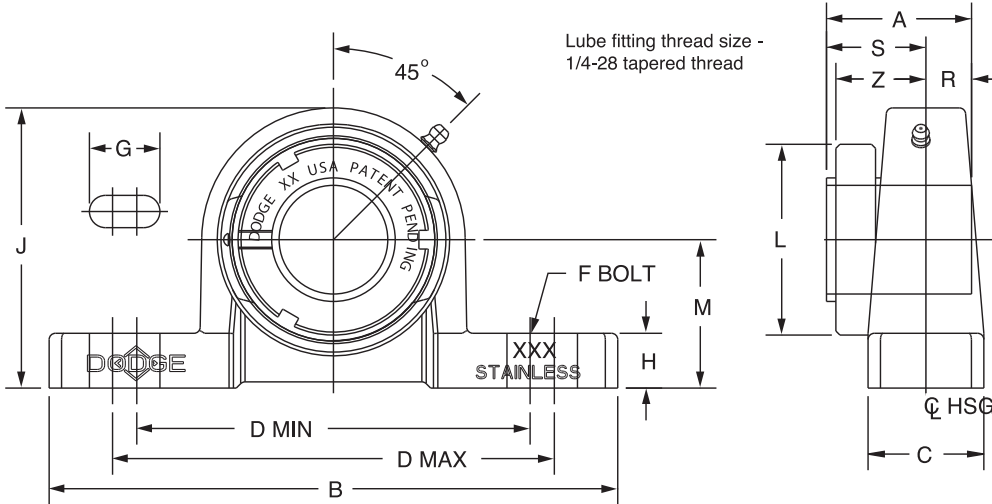
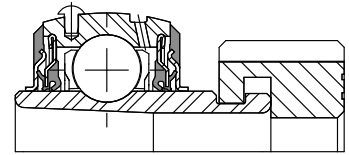
* This chemical resistance chart is intended as a guideline. For exposure to high concentrations, prolonged contact, or higher operating temperatures, etc. reliance upon actual application experience is best. Aggressive relubrication intervals may also benefit bearing life. Contact application engineering at 864-284-5700 for assistance.

NOTE: Bearing analysis program "BEST" is available on www.ptwizard.com

SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY STAINLESS STEEL HOUSED PILLOW BLOCKS



Series	Shaft Size	Complete Unit		Unit Without Adapter		Adapter & Nut Assembly	
		Part No.	Description	Part No.	Description	Part No.	Description
204	3/4	129260	P2B-GTEZ-012-SHCR	129559	P2B-GTEZ-04-SHCR	129967	AN-GT-04-012-CR
	20mm	129261	P2B-GTEZ-20M-SHCR			129980	AN-GT-04-20M-CR
205	1	129262	P2B-GTEZ-100-SHCR	129560	P2B-GTEZ-05-SHCR	129968	AN-GT-05-100-CR
	25mm	129263	P2B-GTEZ-25M-SHCR			129981	AN-GT-05-25M-CR
206	1-1/8	064994	P2B-GTEZ-102-SHCR	129561	P2B-GTEZ-06-SHCR	129969	AN-GT-06-102-CR
	1-3/16	129264	P2B-GTEZ-103-SHCR			129970	AN-GT-06-103-CR
	1-1/4	@	P2B-GTEZ-104S-SHCR			129971	AN-GT-06-104-CR
	30mm	@	P2B-GTEZ-30M-SHCR			129982	AN-GT-06-30M-CR
206 (GTU)	1-1/8	@	P2B-GTUEZ-102-SHCR	129566	P2B-GTUEZ-06-SHCR	129969	AN-GT-06-102-CR
	1-3/16	129265	P2B-GTUEZ-103-SHCR			129602	AN-GT-06-103-CR
	1-1/4	129266	P2B-GTUEZ-104S-SHCR			129605	AN-GT-06-104S-CR
	30mm	129267	P2B-GTUEZ-30M-SHCR			129612	AN-GT-06-30M-CR
207	1-1/4	129268	P2B-GTEZ-104-SHCR	129562	P2B-GTEZ-07-SHCR	129972	AN-GT-07-104-CR
	1-3/8	067678	P2B-GTEZ-106-SHCR			129973	AN-GT-07-106-CR
	1-7/16	129269	P2B-GTEZ-107-SHCR			129974	AN-GT-07-107-CR
	35mm	129270	P2B-GTEZ-35M-SHCR			129983	AN-GT-07-35M-CR
208	1-1/2	129271	P2B-GTEZ-108-SHCR	129563	P2B-GTEZ-08-SHCR	129975	AN-GT-08-108-CR
	40mm	@	P2B-GTEZ-40M-SHCR			129984	AN-GT-08-40M-CR
208 (GTB)	1-1/2	129272	P2B-GTBEZ-108-SHCR	129565	P2B-GTBEZ-08-SHCR	129606	AN-GT-08-108-CR
	40mm	129273	P2B-GTBEZ-40M-SHCR			129613	AN-GT-08-40M-CR
210	1-15/16	129274	P2B-GTEZ-115-SHCR	129564	P2B-GTEZ-10-SHCR	129978	AN-GT-10-115-CR
	2	073007	P2B-GTEZ-200-SHCR			129979	AN-GT-10-200-CR
	50mm	129275	P2B-GTEZ-50M-SHCR			129986	AN-GT-10-50M-CR

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY STAINLESS STEEL HOUSED PILLOW BLOCKS

Series	Shaft Size	Weight lbs kg	A	B	C	D		F Bolt Dia.	G	H	J	L	M	R#	S#	Z
						min.	max.									
204	3/4	1.46	1.48	5.00	1.00	3.38	4.18	3/8	0.84	0.50	2.50	1.50	1.31	0.46	1.02	1.03
	20mm	0.65	37.6	127.0	25.4	85.9	106.2	M10	21.3	12.7	63.5	38.1	33.3	11.7	25.9	26.2
205	1	1.92	1.46	5.50	1.12	3.68	4.50	3/8	0.85	0.53	2.71	1.80	1.44	0.48	0.98	1.00
	25mm	0.83	37.1	139.7	28.4	93.5	114.3	M10	21.6	13.5	68.8	45.7	36.5	12.2	24.9	25.4
206	1-1/8	2.60	1.61	6.25	1.25	4.26	5.00	1/2	0.93	0.53	3.13	2.08	1.63	0.52	1.09	1.13
	1-3/16															
	30mm	1.18	40.9	158.8	31.8	108.2	127.0	M12	23.6	13.5	79.5	52.8	41.3	13.2	27.7	28.7
206 (GTU)	1-1/8	2.65	1.61	6.25	1.25	4.26	5.00	1/2	0.93	0.59	3.19	2.08	1.69	0.52	1.09	1.13
	1-3/16															
	30mm	1.18	40.9	158.8	31.8	108.2	127.0	M12	23.6	15.0	81.0	52.8	42.9	13.2	27.7	28.7
207	1-1/4	3.83	1.62	6.50	1.38	4.68	5.44	1/2	0.94	0.56	3.63	2.38	1.88	0.54	1.08	1.14
	1-3/8															
	35mm	1.75	41.1	165.1	35.1	118.9	138.2	M12	23.9	14.2	92.2	60.5	47.6	13.7	27.4	29.0
208	1-1/2	4.90	1.84	7.00	1.50	5.18	6.00	1/2	0.97	0.75	4.00	2.62	2.13	0.61	1.23	1.23
	40mm	2.22	46.7	177.8	38.1	131.6	152.4	M12	24.6	19.1	101.6	66.5	54.0	15.5	31.2	31.2
208 (GTB)	1-1/2	4.85	1.84	7.00	1.50	5.18	6.00	1/2	0.97	0.56	3.81	2.62	1.94	0.61	1.23	1.23
	40mm	2.22	46.7	177.8	38.1	131.6	152.4	M12	24.6	14.2	96.8	66.5	49.2	15.5	31.2	31.2
210	1-15/16	6.14	1.86	8.00	1.63	5.76	6.68	5/8	1.14	0.62	4.31	3.13	2.25	0.63	1.23	1.26
	50mm	2.62	47.2	203.2	41.4	146.3	169.7	M16	29.0	15.7	109.5	79.5	57.2	16.0	31.2	32.0

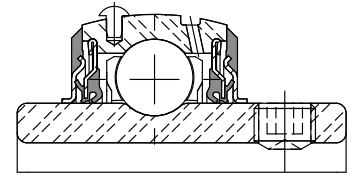
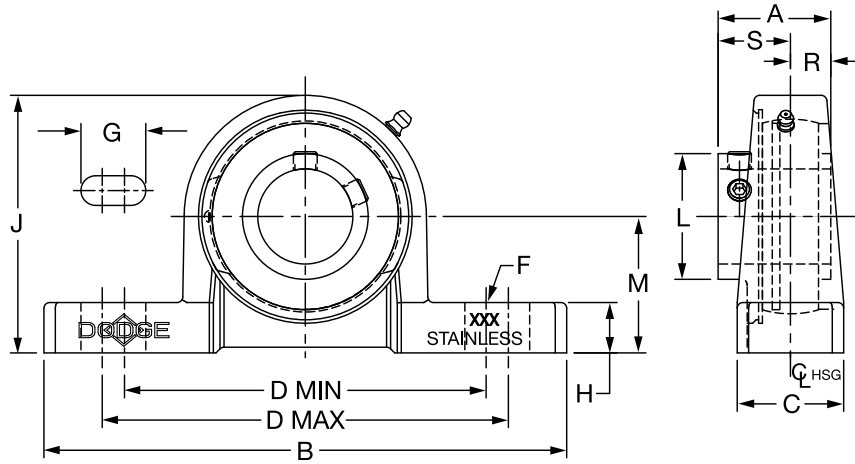
#R & S dimensions will vary slightly depending on true shaft diameter

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY STAINLESS STEEL HOUSED PILLOW BLOCKS



Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert with Flingers	
		Part No.	Description	Part No.	Description
204	1/2	074512	P2B-SCEZ-008L-SHCR*	@	P2B-SCEZ-008L-SH
	5/8	068236	P2B-SCEZ-010L-SHCR*	074631	P2B-SCEZ-010L-SH
	3/4	127670	P2B-SCEZ-012-SHCR	059870	P2B-SCEZ-012-SH
	20mm	127697	P2B-SCEZ-20M-SHCR	@	P2B-SCEZ-20M-SH
205	7/8	056553	P2B-SCEZ-014-SHCR*	049996	P2B-SCEZ-014-SH
	15/16	067839	P2B-SCEZ-015-SHCR*	@	P2B-SCEZ-015-SH
	1	127671	P2B-SCEZ-100-SHCR	056796	P2B-SCEZ-100-SH
	25mm	127698	P2B-SCEZ-25M-SHCR	@	P2B-SCEZ-25M-SH
206	1-1/8	@	P2B-SCEZ-102-SHCR*	056548	P2B-SCEZ-102-SH
	1-3/16	127672	P2B-SCEZ-103-SHCR	056797	P2B-SCEZ-103-SH
	1-1/4	127674	P2B-SCEZ-104S-SHCR	067630	P2B-SCEZ-104S-SH
	30mm	@	P2B-SCEZ-30M-SHCR	@	P2B-SCEZ-30M-SH
206 (SCU)	1-1/8	@	P2B-SCUEZ-102-SHCR*	@	P2B-SCUEZ-102-SH
	1-3/16	127673	P2B-SCUEZ-103-SHCR	@	P2B-SCUEZ-103-SH
	1-1/4	127675	P2B-SCUEZ-104S-SHCR	@	P2B-SCUEZ-104S-SH
	30mm	127699	P2B-SCUEZ-30M-SHCR	@	P2B-SCUEZ-30M-SH
207	1-1/4	127676	P2B-SCEZ-104-SHCR	059798	P2B-SCEZ-104-SH
	1-3/8	@	P2B-SCEZ-106-SHCR*	056525	P2B-SCEZ-106-SH
	1-7/16	127677	P2B-SCEZ-107-SHCR	059799	P2B-SCEZ-107-SH
	35mm	127700	P2B-SCEZ-35M-SHCR	@	P2B-SCEZ-35M-SH
208	1-1/2	127678	P2B-SCEZ-108-SHCR	056565	P2B-SCEZ-108-SH
	1-5/8	@	P2B-SCEZ-110-SHCR*	062874	P2B-SCEZ-110-SH
	40mm	@	P2B-SCEZ-40M-SHCR	@	P2B-SCEZ-40M-SH
208 (SCB)	1-1/2	127679	P2B-SCBEZ-108-SHCR	@	P2B-SCBEZ-108-SH
	40mm	127701	P2B-SCBEZ-40M-SHCR	@	P2B-SCBEZ-40M-SH
210	1-11/16	@	P2B-SCMEZ-111-SHCR	@	P2B-SCMEZ-111-SH
	1-15/16	127680	P2B-SCEZ-115-SHCR	056800	P2B-SCEZ-115-SH
	2	064306	P2B-SCEZ-200-SHCR	062879	P2B-SCEZ-200-SH
	50mm	127702	P2B-SCEZ-50M-SHCR	@	P2B-SCEZ-50M-SH

@ Assembled to order * 20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY STAINLESS STEEL HOUSED PILLOW BLOCKS

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

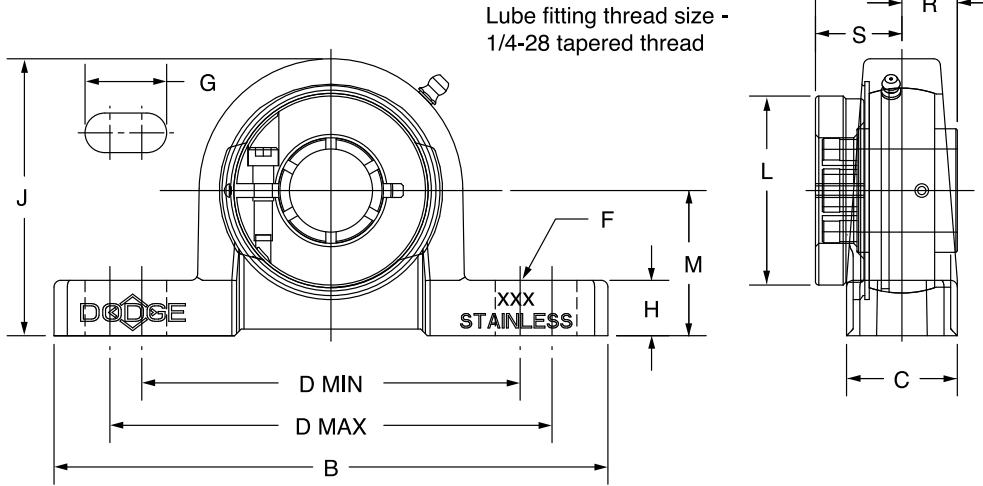
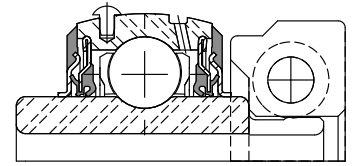
Series	Shaft Size	Weight lbs kg	A	B	C	D		F Bolt Dia.	G	H	J	L	M	R	S
						min.	max.								
204	1/2	1.39	1.23	5.00	1.00	3.38	4.18	3/8	0.84	0.50	2.50	1.12	1.31	0.50	0.73
	5/8	1.35													
	3/4	1.31													
	20mm	0.59	31.2	127.0	25.4	85.9	106.2	M10	21.3	12.7	63.5	28.4	33.3	12.7	18.5
205	7/8	1.65	1.34	5.50	1.12	3.68	4.50	3/8	0.85	0.53	2.71	1.32	1.44	0.56	0.78
	15/16	1.62													
	1	1.59													
	25mm	0.73	34.0	139.7	28.4	93.5	114.3	M10	21.6	13.5	68.8	33.5	36.5	14.2	19.8
206	1-1/8	2.37	1.52	6.25	1.25	4.26	5.00	1/2	0.93	0.53	3.13	1.57	1.63	0.58	0.94
	1-3/16	2.33													
	1-1/4	2.29													
	30mm	1.06	38.6	158.8	31.8	108.2	127.0	M12	23.6	13.5	79.5	39.9	41.3	14.7	23.9
206 (SCU)	1-1/8	2.48	1.52	6.25	1.25	4.26	5.00	1/2	0.93	0.59	3.19	1.57	1.69	0.58	0.94
	1-3/16	2.44													
	1-1/4	2.39													
	30mm	1.11	38.6	158.8	31.8	108.2	127.0	M12	23.6	15.0	81.0	39.9	42.9	14.7	23.9
207	1-1/4	3.36	1.71	6.50	1.38	4.68	5.44	1/2	0.94	0.56	3.63	1.84	1.88	0.67	1.04
	1-3/8	3.25													
	1-7/16	3.19													
	35mm	1.47	43.4	165.1	35.1	118.9	138.2	M12	23.9	14.2	92.2	46.7	47.6	17.0	26.4
208	1-1/2	4.39	1.94	7.00	1.50	5.18	6.00	1/2	0.97	0.75	4.00	2.05	2.13	0.75	1.19
	1-5/8														
	40mm	1.95	49.3	177.8	38.1	131.6	152.4	M12	24.6	19.1	101.6	52.1	54.0	19.1	30.2
208 (SCB)	1-1/2	3.93	1.94	7.00	1.50	5.18	6.00	1/2	0.97	0.56	3.81	2.05	1.94	0.75	1.19
	40mm	1.74	49.3	177.8	38.1	131.6	152.4	M12	24.6	14.2	96.8	52.1	49.2	19.1	30.2
210	1-11/16	5.14	1.94	8.00	1.63	5.76	6.68	5/8	1.14	0.62	4.31	2.43	2.25	0.75	1.19
	1-15/16	5.09													
	2 50mm	2.29	49.3	203.2	41.4	146.3	169.7	M16	29.0	15.7	109.5	61.7	57.2	19.1	30.2

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS

E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY STAINLESS STEEL HOUSED PILLOW BLOCKS



Series	Shaft Size	Part No.	Description	Weight lgs kg	A	B	C	D		F Bolt Dia.	G	H	J	L	M	R	S
								min.	max.								
204	3/4	127715	P2B-DLEZ-012-SHCR	1.46	1.28	5.00	1.00	3.38	4.18	3/8	0.84	0.50	2.50	1.71	1.31	0.50	0.78
	20mm	127739	P2B-DLEZ-20M-SHCR	0.65	32.5	127.0	25.4	85.9	106.2	M10	21.3	12.7	63.5	43.4	33.3	12.7	19.8
205	7/8	@	P2B-DLEZ-014-SHCR*	1.92	1.44	5.50	1.12	3.68	4.50	3/8	0.85	0.53	2.71	1.99	1.44	0.56	0.88
	15/16	@	P2B-DLEZ-015-SHCR*	1.87													
	1	127716	P2B-DLEZ-100-SHCR	1.82													
	25mm	127740	P2B-DLEZ-25M-SHCR	0.83	36.6	139.7	28.4	93.5	114.3	M10	21.6	13.5	68.8	50.5	36.5	14.2	22.4
206	1-1/8	@	P2B-DLEZ-102-SHCR*	2.60	1.56	6.25	1.25	4.26	5.00	1/2	0.93	0.53	3.13	2.22	1.63	0.58	0.98
	1-3/16	127717	P2B-DLEZ-103-SHCR	2.55													
	1-1/4	127718	P2B-DLEZ-104S-SHCR	2.50													
	30mm	127741	P2B-DLEZ-30M-SHCR	1.18	39.6	158.8	31.8	108.2	127.0	M12	23.6	13.5	79.5	56.4	41.3	14.7	24.9
206 (DLU)	1-1/8	@	P2B-DLUEZ-102-SHCR*	2.65	1.56	6.25	1.25	4.26	5.00	1/2	0.93	0.59	3.19	2.22	1.69	0.58	0.98
	1-3/16	068234	P2B-DLUEZ-103-SHCR	2.60													
	1-1/4	@	P2B-DLUEZ-104S-SHCR	2.55													
	30mm	@	P2B-DLUEZ-30M-SHCR	1.18	39.6	158.8	31.8	108.2	127.0	M12	23.6	15.0	81.0	56.4	42.9	14.7	24.9
207	1-1/4	127719	P2B-DLEZ-104-SHCR	3.83	1.75	6.50	1.38	4.68	5.44	1/2	0.94	0.56	3.63	2.69	1.88	0.67	1.08
	1-3/8	@	P2B-DLEZ-106-SHCR*	3.74													
	1-7/16	127720	P2B-DLEZ-107-SHCR	3.66													
	35mm	127742	P2B-DLEZ-35M-SHCR	1.75	44.5	165.1	35.1	118.9	138.2	M12	23.9	14.2	92.2	68.3	47.6	17.0	27.4
208	1-1/2	127721	P2B-DLEZ-108-SHCR	4.90	2.01	7.00	1.50	5.18	6.00	1/2	0.97	0.75	4.00	2.74	2.13	0.75	1.26
	40mm	127743	P2B-DLEZ-40M-SHCR	2.22	51.1	177.8	38.1	131.6	152.4	M12	24.6	19.1	101.6	69.6	54.0	19.1	32.0
208 (DLB)	1-1/2	049469	P2B-DLBEZ-108-SHCR	4.85	2.01	7.00	1.50	5.18	6.00	1/2	0.97	0.56	3.81	2.74	1.94	0.75	1.26
	40mm	@	P2B-DLBEZ-40M-SHCR	2.22	51.1	177.8	38.1	131.6	152.4	M12	24.6	14.2	96.8	69.6	49.2	19.1	32.0
210	1-11/16	@	P2B-DLMEZ-111-SHCR*	6.14	2.01	8.00	1.63	5.76	6.68	5/8	1.14	0.62	4.31	3.24	2.25	0.75	1.26
	1-15/16	127722	P2B-DLEZ-115-SHCR	5.77													
	50mm	127744	P2B-DLEZ-50M-SHCR	2.62	51.1	203.2	41.4	146.3	169.7	M16	29.0	15.7	109.5	82.3	57.2	19.1	32.0

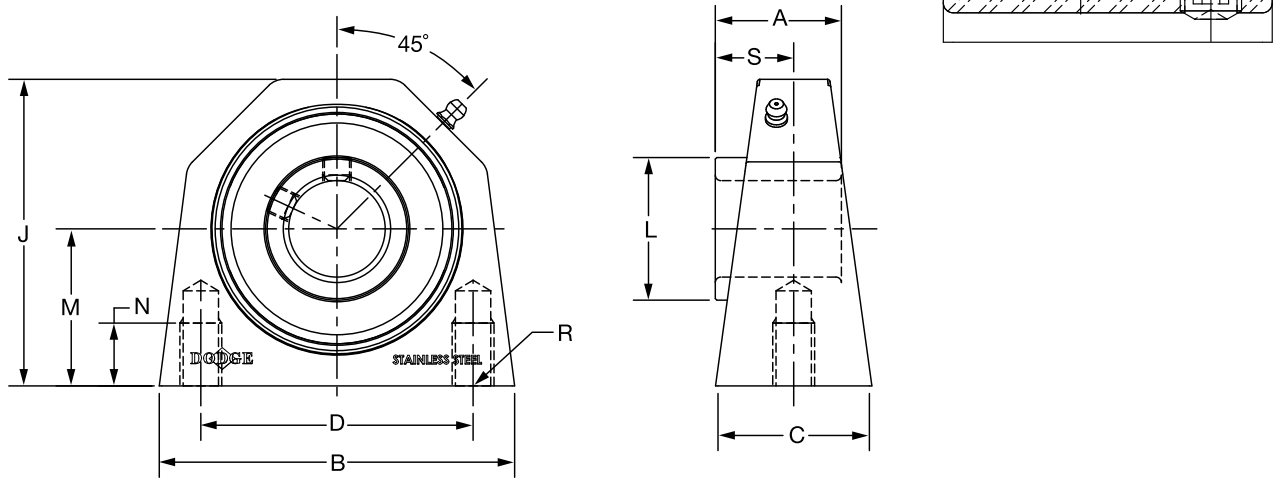
@ Assembled to order
20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ TB SHCR NORMAL DUTY STAINLESS STEEL TAPPED BASE BEARINGS



Series	Shaft Size	Corrosion Resistant Insert		Weight lbs kg	A	B	C	D	J	L	M	N	R	S
		Part No.	Description											
204	3/4	136912	TB-SCEZ-012-SHCR	1.27	1.23	2.77	1.36	2.00	2.50	1.12	1.31	0.45	3/8-16	0.73
	20mm	136955	TB-SCEZ-20M-SHCR	.58	31.2	70.4	34.5	50.8	63.5	28.4	33.4	11.4	3/8-16	18.5
205	1	136913	TB-SCEZ-100-SHCR	1.48	1.34	3.06	1.39	2.00	2.75	1.32	1.44	0.45	3/8-16	0.78
	25mm	136956	TB-SCEZ-25M-SHCR	.67	34.0	77.7	35.3	50.8	69.9	33.5	36.5	11.4	3/8-16	19.8
206	1-3/16	136914	TB-SCEZ-103-SHCR	3.55	1.52	3.84	1.50	3.00	3.22	1.57	1.69	0.88	7/16-14	0.94
	1-1/4	136915	TB-SCEZ-104S-SHCR											
	30mm	136957	TB-SCEZ-30M-SHCR	10.61	38.6	97.5	38.1	76.2	81.8	39.9	42.9	22.4	7/16-14	23.9
207	1-1/4	136916	TB-SCEZ-104-SHCR	4.21	1.71	4.15	1.77	3.25	3.66	1.84	1.88	0.75	1/2-13	1.04
	1-7/16	136917	TB-SCEZ-107-SHCR											
	35mm	136958	TB-SCEZ-35M-SHCR	1.91	43.4	105.4	45.0	82.6	93.0	46.7	47.6	19.1	1/2-13	26.4
208	1-1/2	136918	TB-SCEZ-108-SHCR	5.67	1.94	4.51	1.80	3.50	4.00	2.05	2.13	1.00	1/2-13	1.19
	40mm	136959	TB-SCEZ-40M-SHCR	2.57	49.3	114.6	45.7	88.9	101.6	52.1	54.0	25.4	1/2-13	30.2
210	1-15/16	136919	TB-SCEZ-115-SHCR	5.58	1.94	5.37	1.92	4.00	4.47	2.43	2.25	1.25	5/8-11	1.19
	50mm	136960	TB-SCEZ-50M-SHCR	2.53	49.3	136.4	48.8	101.6	113.5	61.7	57.2	31.8	5/8-11	30.2

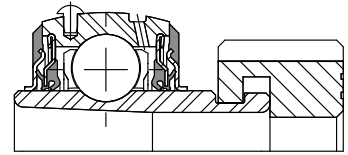
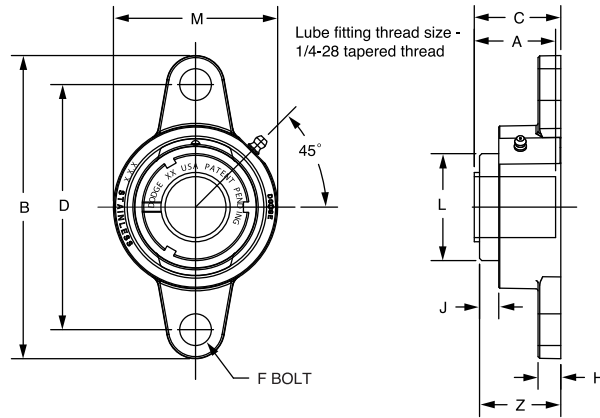
FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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Bearing Reference Guide
 ULTRA KLEEN
 E-Z KLEEN
 Extreme Duty
 Setscrew Ball Bearing
 GRIP TIGHT
 D-LOK Ball Bearing

SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY STAINLESS STEEL 2-BOLT FLANGE BEARINGS



Series	Shaft Size	Complete Unit		Unit Without Adapter		Adapter & Nut Assembly	
		Part No.	Description	Part No.	Description	Part No.	Description
204	3/4 20mm	129355	F2B-GTEZ-012-SHCR	129573	F2B-GTEZ-04-SHCR	129967	AN-GT-04-012-CR
		129356	F2B-GTEZ-20M-SHCR			129980	AN-GT-04-20M-CR
205	1 25mm	129357	F2B-GTEZ-100-SHCR	129574	F2B-GTEZ-05-SHCR	129968	AN-GT-05-100-CR
		129358	F2B-GTEZ-25M-SHCR			129981	AN-GT-05-25M-CR
206	1-1/8	@	F2B-GTEZ-102-SHCR	129575	F2B-GTEZ-06-SHCR	129969	AN-GT-06-102-CR
	1-3/16	129359	F2B-GTEZ-103-SHCR			129970	AN-GT-06-103-CR
	1-1/4	129360	F2B-GTEZ-104S-SHCR			129971	AN-GT-06-104S-CR
	30mm	129361	F2B-GTEZ-30M-SHCR			129982	AN-GT-06-30M-CR
207	1-1/4	129362	F2B-GTEZ-104-SHCR	129576	F2B-GTEZ-07-SHCR	129972	AN-GT-07-104-CR
	1-3/8	065694	F2B-GTEZ-106-SHCR			129973	AN-GT-07-106-CR
	1-7/16	129363	F2B-GTEZ-107-SHCR			129974	AN-GT-07-107-CR
	35mm	129364	F2B-GTEZ-35M-SHCR			129983	AN-GT-07-35M-CR
208	1-1/2	129365	F2B-GTEZ-108-SHCR	129577	F2B-GTEZ-08-SHCR	129975	AN-GT-08-108-CR
	40mm	129366	F2B-GTEZ-40M-SHCR			129984	AN-GT-08-40M-CR
210	1-15/16	129367	F2B-GTEZ-115-SHCR	129578	F2B-GTEZ-10-SHCR	129978	AN-GT-10-115-CR
	2 50mm	073008 129368	F2B-GTEZ-200-SHCR F2B-GTEZ-50M-SHCR			129979 129986	AN-GT-10-200-CR AN-GT-10-50M-CR

@ Assembled to order

Series	Shaft Size	Weight lbs kg	A	B	C#	D	F Bolt Dia.	H	J	L	M	Z
204	3/4	1.10	1.48	4.38	1.54	3.54	3/8	0.32	0.66	1.50	2.38	1.55
	20mm	0.49	37.6	111.3	39.1	90.0	M10	8.1	16.8	38.1	60.5	39.4
205	1	1.43	1.46	4.89	1.57	3.89	3/8	0.35	0.61	1.80	2.63	1.58
	25mm	0.65	37.1	124.2	39.9	98.8	M10	8.9	15.5	45.7	66.8	40.1
206	1-1/8	2.21	1.61	5.51	1.75	4.59	3/8	0.35	0.65	2.08	3.13	1.78
	1-3/16	2.17										
	1-1/4	2.13										
	30mm	0.98	40.9	140.0	44.5	116.5	M10	8.9	16.5	52.8	79.5	45.2
207	1-1/4	3.12	1.62	6.18	1.80	5.12	1/2	0.42	0.64	2.38	3.50	1.86
	1-3/8	2.99										
	1-7/16	2.95										
	35mm	1.42	41.1	157.0	45.7	130.0	M12	10.7	16.3	60.5	88.9	47.2
208	1-1/2	3.91	1.84	6.71	2.01	5.65	1/2	0.42	0.67	2.62	3.84	2.02
	40mm	1.77	46.7	170.4	51.1	143.5	M12	10.7	17.0	66.5	97.5	51.3
210	1-15/16	4.89	1.86	7.48	2.03	6.18	5/8	0.48	0.70	3.13	4.31	2.05
	2 50mm	4.85 2.20										

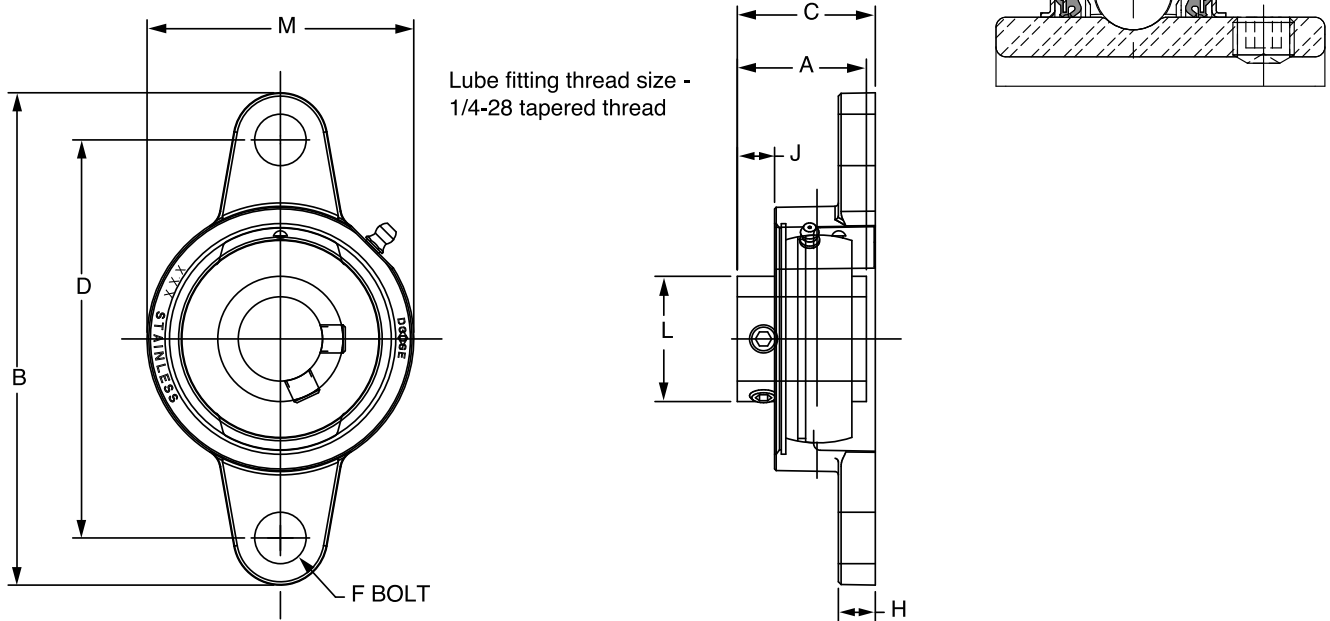
#C dimension will vary slightly depending on true shaft diameter.

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY STAINLESS STEEL 2-BOLT FLANGE BEARINGS



Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert with Flingers		Weight lbs kg	A	B	C	D	F Bolt Dia.	H	J	L	M
		Part No.	Description	Part No.	Description										
204	1/2	073396	F2B-SCEZ-008L-SHCR*	@	F2B-SCEZ-008L-SH	1.04	1.23	4.38	1.25	3.54	3/8	0.32	0.36	1.12	2.38
	5/8	062994	F2B-SCEZ-010L-SHCR*	@	F2B-SCEZ-010L-SH	0.99									
	3/4	127681	F2B-SCEZ-012-SHCR	056801	F2B-SCEZ-012-SH	0.95									
	20mm	127703	F2B-SCEZ-20M-SHCR	@	F2B-SCEZ-20M-SH	0.42	31.2	111.3	31.8	90.0	M10	8.1	9.1	28.4	60.5
205	7/8	@	F2B-SCEZ-014-SHCR*	064000	F2B-SCEZ-014-SH	1.25	1.34	4.89	1.37	3.89	3/8	0.35	0.39	1.32	2.63
	15/16	@	F2B-SCEZ-015-SHCR*	049686	F2B-SCEZ-015-SH	1.23									
	1	127682	F2B-SCEZ-100-SHCR	056611	F2B-SCEZ-100-SH	1.21									
	25mm	127704	F2B-SCEZ-25M-SHCR	@	F2B-SCEZ-25M-SH	0.55	34.0	124.2	34.8	98.8	M10	8.9	9.9	33.5	66.8
206	1-1/8	064341	F2B-SCEZ-102-SHCR	064255	F2B-SCEZ-102-SH	1.95	1.52	5.51	1.59	4.59	3/8	0.35	0.46	1.57	3.13
	1-3/16	127683	F2B-SCEZ-103-SHCR	056971	F2B-SCEZ-103-SH	1.91									
	1-1/4	127684	F2B-SCEZ-104S-SHCR	056612	F2B-SCEZ-104S-SH	1.87									
	30mm	127705	F2B-SCEZ-30M-SHCR	@	F2B-SCEZ-30M-SH	0.87	38.6	140.0	40.4	116.5	M10	8.9	11.7	39.9	79.5
207	1-1/4	127685	F2B-SCEZ-104-SHCR	056802	F2B-SCEZ-104-SH	2.64	1.71	6.18	1.76	5.12	1/2	0.42	0.55	1.84	3.50
	1-3/8	056734	F2B-SCEZ-106-SHCR*	@	F2B-SCEZ-106-SH	2.53									
	1-7/16	127686	F2B-SCEZ-107-SHCR	056803	F2B-SCEZ-107-SH	2.47									
	35mm	127706	F2B-SCEZ-35M-SHCR	@	F2B-SCEZ-35M-SH	1.15	43.4	157.0	44.7	130.0	M12	10.7	14.0	46.7	88.9
208	1-1/2	127687	F2B-SCEZ-108-SHCR	056804	F2B-SCEZ-108-SH	3.40	1.94	6.71	1.97	5.65	1/2	0.42	0.63	2.05	3.84
	1-5/8	068283	F2B-SCEZ-110-SHCR	—	—	3.10									
	40mm	127707	F2B-SCEZ-40M-SHCR	075248	F2B-SCEZ-40M-SH	1.50	49.3	170.4	50.0	143.5	M12	10.7	16.0	52.1	97.5
210	1-11/16	@	F2B-SCMEZ-111-SHCR*	056552	F2B-SCMEZ-111-SH	4.21	1.94	7.48	1.98	6.18	5/8	0.48	0.63	2.43	4.31
	1-15/16	127688	F2B-SCEZ-115-SHCR	056805	F2B-SCEZ-115-SH	4.17									
	2	062913	F2B-SCEZ-200-SHCR	056964	F2B-SCEZ-200-SH	4.13									
	50mm	127708	F2B-SCEZ-50M-SHCR	@	F2B-SCEZ-50M-SH	1.87	49.3	190.0	50.3	157.0	M16	12.2	16.0	61.7	109.5

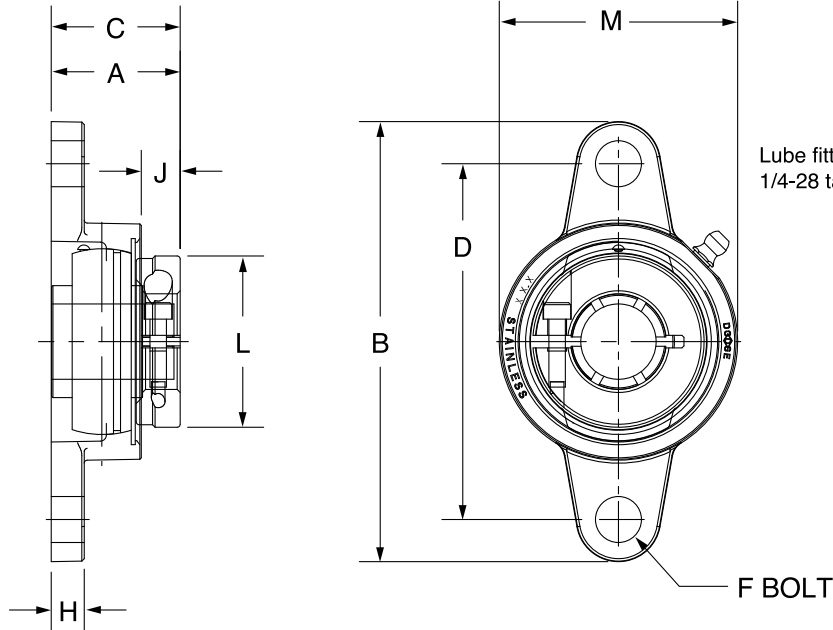
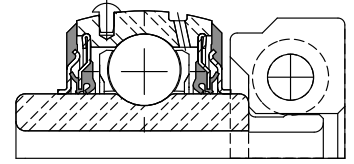
@ Assembled to order
*20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS

E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY STAINLESS STEEL 2-BOLT FLANGE BEARINGS



Series	Shaft Size	Part No.	Description	Weight lbs kg	A	B	C	D	F Bolt Dia.	H	J	L	M
204	3/4	127723	F2B-DLEZ-012-SHCR	1.10	1.28	4.38	1.30	3.54	3/8	0.32	0.41	1.71	2.38
	20mm	127745	F2B-DLEZ-20M-SHCR	0.49	32.5	111.3	33.0	90.0	M10	8.1	10.4	43.4	60.5
205	7/8	@	F2B-DLEZ-014-SHCR*	1.51	1.44	4.89	1.46	3.89	3/8	0.35	0.48	1.99	2.63
	15/16	@	F2B-DLEZ-015-SHCR*	1.47									
	1	127724	F2B-DLEZ-100-SHCR	1.43									
	25mm	127746	F2B-DLEZ-25M-SHCR	0.65	36.6	124.2	37.1	98.8	M10	8.9	12.2	50.5	66.8
206	1-1/8	076584	F2B-DLEZ-102-SHCR*	2.21	1.56	5.51	1.63	4.59	3/8	0.35	0.50	2.22	3.13
	1-3/16	127725	F2B-DLEZ-103-SHCR	2.17									
	1-1/4	127726	F2B-DLEZ-104S-SHCR	2.13									
	30mm	127747	F2B-DLEZ-30M-SHCR	0.98	39.6	140.0	41.4	116.5	M10	8.9	12.7	56.4	79.5
207	1-1/4	127727	F2B-DLEZ-104-SHCR	3.12	1.75	6.18	1.80	5.12	1/2	0.42	0.58	2.69	3.50
	1-3/8	@	F2B-DLEZ-106-SHCR*	2.99									
	1-7/16	127728	F2B-DLEZ-107-SHCR	2.95									
	35mm	127748	F2B-DLEZ-35M-SHCR	1.42	44.5	157.0	45.7	130.0	M12	10.7	14.7	68.3	88.9
208	1-1/2	127729	F2B-DLEZ-108-SHCR	3.91	2.01	6.71	2.05	5.65	1/2	0.42	0.70	2.74	3.84
	40mm	127749	F2B-DLEZ-40M-SHCR	1.77	51.1	170.4	52.1	143.5	M12	10.7	17.8	69.6	97.5
210	1-11/16	@	F2B-DLMEZ-111-SHCR*	4.89	2.01	7.48	2.05	6.18	5/8	0.48	0.70	3.24	4.31
	1-15/16	127730	F2B-DLEZ-115-SHCR	4.85									
	50mm	127750	F2B-DLEZ-50M-SHCR	2.20	51.1	190.0	52.1	157.0	M16	12.2	17.8	82.3	109.5

@ Assembled to order

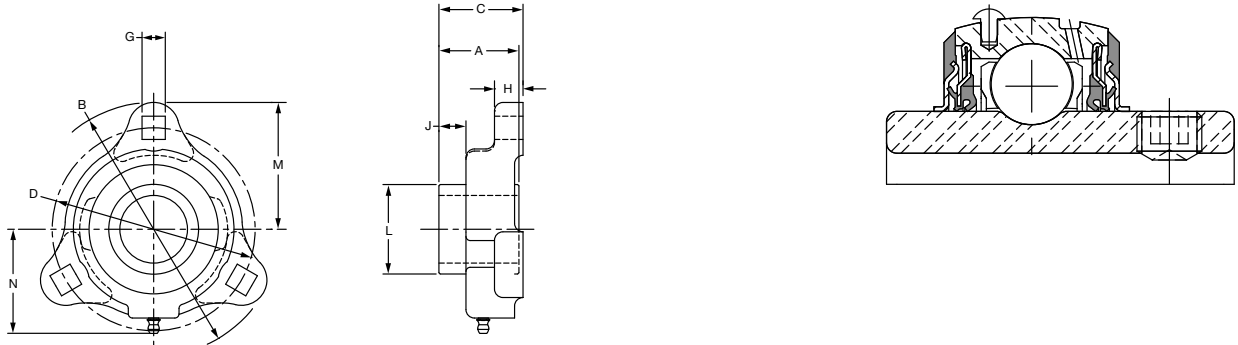
*20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS

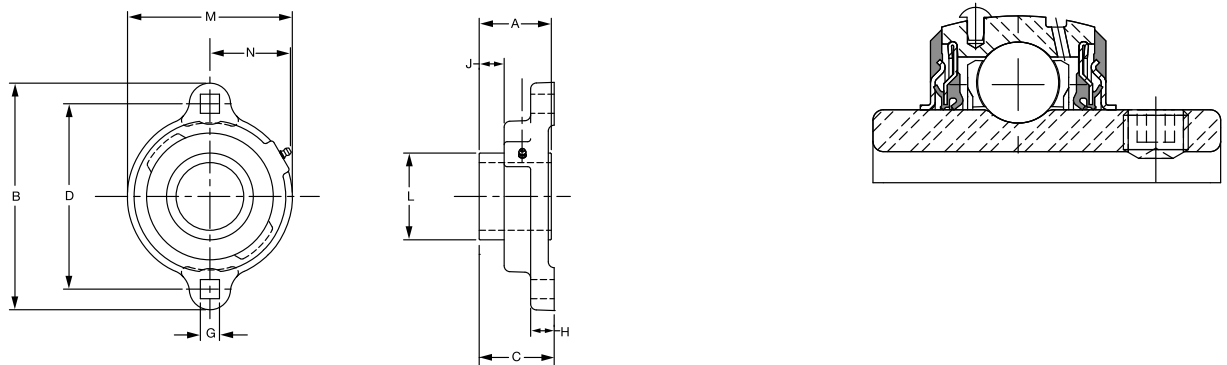


E-Z KLEEN Mounted Bearings SCEZ LF SHCR NORMAL DUTY STAINLESS STEEL 3-BOLT FLANGE BEARINGS



Series	Shaft Size	Corrosion Resistant Insert		Weight lbs. kgs.	A	B	C	D	G	H	J	L	M	N
		Part No.	Description											
204	3/4	136927	LF-SCEZ-012-SHCR	.64	1.02	3.56	1.24	2.81	0.34	0.58	0.37	1.12	1.78	1.55
	20 mm	136966	LF-SCEZ-20M-SHCR	.29	25.9	90.4	31.6	71.4	8.6	14.7	9.3	28.4	45.2	39.4
205	1	136928	LF-SCEZ-100-SHCR	.80	1.06	3.75	1.34	3.00	0.34	0.50	0.37	1.32	1.88	1.67
	25 mm	136967	LF-SCEZ-25M-SHCR	.36	26.8	95.3	34.1	76.2	8.6	12.7	9.5	33.5	47.8	42.4
206	1-3/16	136929	LF-SCEZ-103-SHCR	1.23	1.26	4.44	1.56	3.56	0.41	0.61	0.48	1.57	2.22	1.98
	1-1/4	136930	LF-SCEZ-104S-SHCR											
	30 mm	136968	LF-SCEZ-30M-SHCR	.56	32.0	112.8	39.6	90.4	10.4	15.5	12.1	39.9	56.4	50.3
207	1-1/4	136931	LF-SCEZ-104-SHCR	1.73	1.40	4.81	1.73	3.94	0.41	0.67	0.53	1.84	2.41	2.09
	1-7/16	136932	LF-SCEZ-107-SHCR											
	35 mm	136969	LF-SCEZ-35M-SHCR	.78	35.7	122.2	44.0	100.1	10.4	17.1	13.6	46.7	61.2	53.1

E-Z KLEEN Mounted Bearings SCEZ SHCR NORMAL DUTY STAINLESS STEEL HOUSED 2-BOLT FLANGE BEARINGS



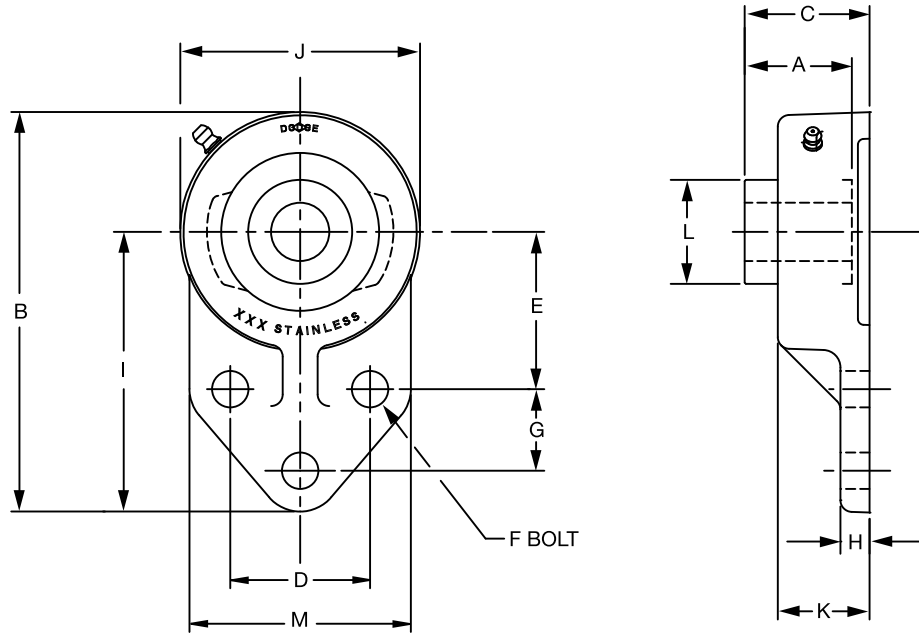
Series	Shaft Size	Corrosion Resistant Insert		Weight lbs. kgs.	A	B	C	D	G	H	J	L	M	N
		Part No.	Description											
204	3/4	136933	LFT-SCEZ-012-SHCR	.68	1.02	3.56	1.24	2.81	0.34	0.58	0.37	1.12	2.38	1.34
	20 mm	136970	LFT-SCEZ-20M-SHCR	.31	25.9	90.4	31.6	71.4	8.6	14.7	9.3	28.4	60.5	34.0
205	1	136934	LFT-SCEZ-100-SHCR	.84	1.06	3.75	1.34	3.00	0.34	0.50	0.37	1.32	2.63	1.44
	25 mm	136971	LFT-SCEZ-25M-SHCR	.38	26.8	95.3	34.1	76.2	8.6	12.7	9.5	33.5	66.8	36.6
206	1-3/16	136935	LFT-SCEZ-103-SHCR	1.28	1.26	4.44	1.56	3.56	0.41	0.61	0.48	1.57	3.25	1.72
	1-1/4	136936	LFT-SCEZ-104S-SHCR											
	30 mm	136972	LFT-SCEZ-30M-SHCR	.58	32.0	112.8	39.6	90.4	10.4	15.5	12.1	39.9	82.6	43.7
207	1-1/4	136937	LFT-SCEZ-104-SHCR	1.77	1.40	4.81	1.73	3.94	0.41	0.67	0.53	1.84	3.50	1.83
	1-7/16	136938	LFT-SCEZ-107-SHCR											
	35 mm	136973	LFT-SCEZ-35M-SHCR	.80	35.7	122.2	44.0	100.1	10.4	17.1	13.6	46.7	88.9	46.5

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Ball Bearings SCEZ SHCR NORMAL DUTY STAINLESS STEEL FLANGE BRACKET BEARINGS



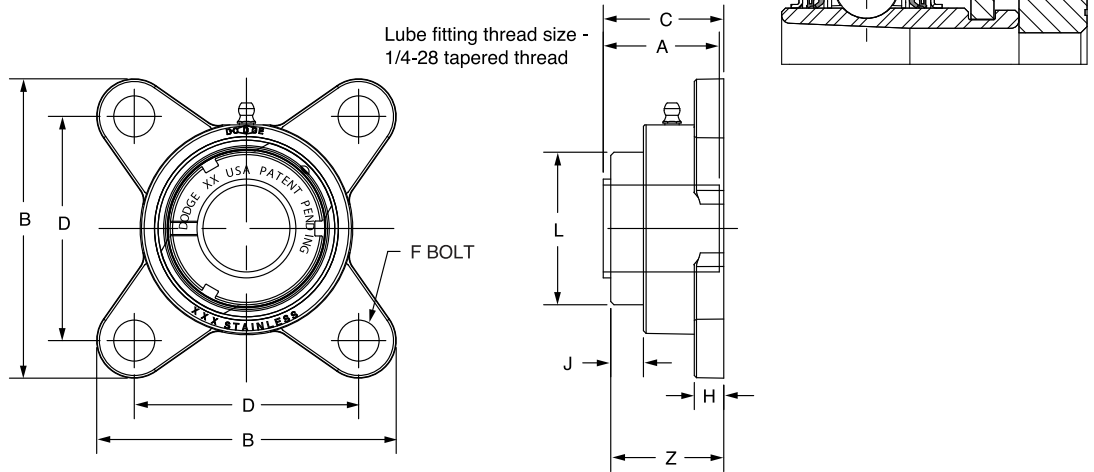
Series	Shaft Size	Corrosion Resistant Insert		Weight lbs. kgs.	A	B	C	D	E	F Bolt Dia	G	H	I	J	K	L	M
		Part No.	Description														
204	3/4	136920	FB-SCEZ-012-SHCR	1.00	1.23	4.19	1.25	1.50	1.69	3/8	0.88	0.31	3.00	2.38	0.90	1.12	2.38
	20mm	136961	FB-SCEZ-20M-SHCR	.45	31.2	106.4	31.8	38.1	42.9	M10	22.4	7.9	76.2	60.5	22.9	28.4	60.5
205	1	136921	FB-SCEZ-100-SHCR	1.26	1.34	4.69	1.37	1.63	1.81	3/8	1.13	0.38	3.38	2.63	0.98	1.32	2.50
	25mm	136962	FB-SCEZ-25M-SHCR	.52	34.0	119.1	34.8	41.4	46.0	M10	28.7	9.7	85.9	66.8	24.9	33.5	63.5
206	1-3/16	136922	FB-SCEZ-103-SHCR	1.96	1.52	5.31	1.59	1.88	2.06	3/8	1.25	0.38	3.75	3.13	1.14	1.57	2.75
	1-1/4	136923	FB-SCEZ-104S-SHCR														
	30mm	136963	FB-SCEZ-30M-SHCR	.89	38.6	134.9	40.4	47.8	52.3	M10	31.8	9.7	95.3	79.5	29.0	39.9	69.9
207	1-1/4	136924	FB-SCEZ-104-SHCR	2.87	1.71	6.00	1.76	2.00	2.38	1/2	1.25	0.50	4.25	3.50	1.22	1.84	3.25
	1-7/16	136925	FB-SCEZ-107-SHCR														
	35mm	136964	FB-SCEZ-35M-SHCR	1.3	43.4	152.4	44.7	50.8	60.5	M12	31.8	12.7	108.0	88.9	31.0	46.7	82.6
210	1-15/16	136926	FB-SCEZ-115-SHCR	4.47	1.94	7.34	1.98	2.75	2.94	1/2	1.63	0.50	5.19	4.31	1.35	2.43	4.00
	2 50mm	@ 136965	FB-SCEZ-200-SHCR FB-SCEZ-50M-SHCR	2.03	49.3	186.4	50.3	69.9	74.7	M12	41.4	12.7	131.8	109.5	34.3	61.7	101.6

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY STAINLESS STEEL 4-BOLT FLANGE BEARINGS



Series	Shaft Size	Complete Unit		Unit Without Adapter		Adapter & Nut Assembly	
		Part No.	Description	Part No.	Description	Part No.	Description
204	3/4	129721	F4B-GTEZ-012-SHCR	129567	F4B-GTEZ-04-SHCR	129967	AN-GT-04-012-CR
	20mm	129722	F4B-GTEZ-20M-SHCR			129980	AN-GT-04-20M-CR
205	1	129723	F4B-GTEZ-100-SHCR	129568	F4B-GTEZ-05-SHCR	129968	AN-GT-05-100-CR
	25mm	129724	F4B-GTEZ-25M-SHCR			129981	AN-GT-05-25M-CR
206	1 -1/8	075913	F4B-GTEZ-102-SHCR	129569	F4B-GTEZ-06-SHCR	129969	AN-GT-06-102-CR
	1 -3/16	129725	F4B-GTEZ-103-SHCR			129970	AN-GT-06-103-CR
	1 -1/4	129726	F4B-GTEZ-104S-SHCR			129971	AN-GT-06-104S-CR
	30mm	129727	F4B-GTEZ-30M-SHCR			129982	AN-GT-06-30M-CR
207	1 -1/4	129728	F4B-GTEZ-104-SHCR	129570	F4B-GTEZ-07-SHCR	129972	AN-GT-07-104-CR
	1 -3/8	064993	F4B-GTEZ-106-SHCR			129973	AN-GT-07-106-CR
	1 -7/16	129729	F4B-GTEZ-107-SHCR			129974	AN-GT-07-107-CR
	35mm	129730	F4B-GTEZ-35M-SHCR			129983	AN-GT-07-35M-CR
208	1 -1/2	129731	F4B-GTEZ-108-SHCR	129571	F4B-GTEZ-08-SHCR	129975	AN-GT-08-108-CR
	40mm	129732	F4B-GTEZ-40M-SHCR			129984	AN-GT-08-40M-CR
210	1-15/16	129733	F4B-GTEZ-115-SHCR	129572	F4B-GTEZ-10-SHCR	129978	AN-GT-10-115-CR
	2	062901	F4B-GTEZ-200-SHCR			129979	AN-GT-10-200-CR
	50mm	129734	F4B-GTEZ-50M-SHCR			129986	AN-GT-10-50M-CR

@ Assembled to order

Series	Shaft Size	Weight lbs kg	A	B	C#	D	F Bolt Dia.	H	J	L	Z
204	3/4	1.23	1.48	3.35	1.54	2.51	3/8	0.34	0.66	1.50	1.55
	20mm	0.55	37.6	85.1	39.1	63.6	M10	8.6	16.8	38.1	39.4
205	1	1.69	1.46	3.75	1.57	2.75	3/8	0.37	0.61	1.80	1.58
	25mm	0.73	37.1	95.3	39.9	69.9	M10	9.4	15.5	45.7	40.1
206	1 -1/8	2.41	1.61	4.16	1.75	3.24	3/8	0.37	0.65	2.08	1.78
	1 -3/16										
	1 -1/4										
207	30mm	1.07	40.9	105.7	44.5	82.4	M10	9.4	16.5	52.8	45.2
	1 -1/4	3.42	1.62	4.68	1.80	3.62	1/2	0.42	0.64	2.38	1.86
	1 -3/8										
208	1 -7/16	1.56	41.1	118.9	45.7	92.0	M12	10.7	16.3	60.5	47.2
	35mm										
	1 -1/2	4.21	1.84	5.06	2.01	4.00	1/2	0.43	0.67	2.62	2.02
210	40mm	1.91	46.7	128.5	51.1	101.5	M12	10.9	17.0	66.5	51.3
	1-15/16	5.33	1.86	5.67	2.03	4.37	5/8	0.49	0.70	3.13	2.05
210	2										
	50mm	2.39	47.2	144.0	51.6	111.0	M16	12.4	17.8	79.5	52.1

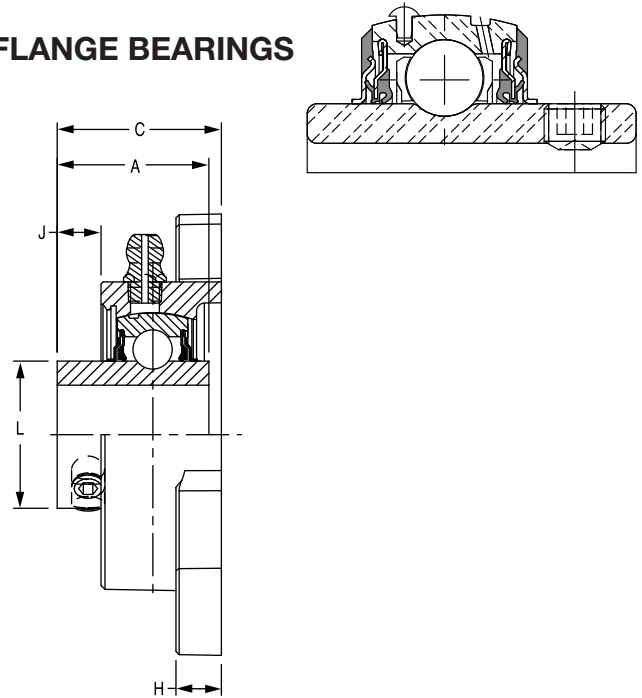
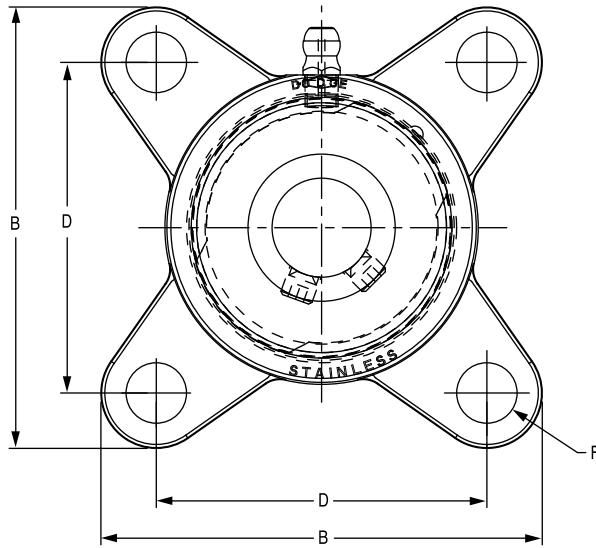
#C dimension will vary slightly depending on true shaft diameter.

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY STAINLESS STEEL 4-BOLT FLANGE BEARINGS



Series	Shaft Size	With Corrosion Resistant Insert		With Insert With Flingers		Weight lbs kg	A	B	C	D	F Bolt Dia.	H	J	L
		Part No.	Description	Part No.	Description									
204	1/2	@	F4B-SCEZ-008L-SHCR*	@	F4B-SCEZ-008L-SH	1.16	1.23	3.35	1.25	2.51	3/8	0.34	0.34	1.12
	5/8	@	F4B-SCEZ-010L-SHCR*	@	F4B-SCEZ-010L-SH	1.12								
	3/4	127689	F4B-SCEZ-012-SHCR	056806	F4B-SCEZ-012-SH	1.08								
	20mm	127709	F4B-SCEZ-20M-SHCR	@	F4B-SCEZ-20M-SH	0.49	31.2	85.1	31.8	63.6	M10	8.6	8.6	28.4
205	7/8	065600	F4B-SCEZ-014-SHCR*	@	F4B-SCEZ-014-SH	1.47	1.34	3.75	1.37	2.75	3/8	0.37	0.38	1.32
	15/16	@	F4B-SCEZ-015-SHCR*	@	F4B-SCEZ-015-SH	1.43								
	1	127690	F4B-SCEZ-100-SHCR	056593	F4B-SCEZ-100-SH	1.39								
	25mm	127710	F4B-SCEZ-25M-SHCR	@	F4B-SCEZ-25M-SH	0.63	34.0	95.3	34.8	69.9	M10	9.4	9.7	33.5
206	1-1/8	@	F4B-SCEZ-102-SHCR*	049477	F4B-SCEZ-102-SH	2.13	1.52	4.16	1.59	3.24	3/8	0.37	0.45	1.57
	1-3/16	127691	F4B-SCEZ-103-SHCR	056807	F4B-SCEZ-103-SH	2.09								
	1-1/4	127692	F4B-SCEZ-104S-SHCR	@	F4B-SCEZ-104S-SH	2.05								
	30mm	127711	F4B-SCEZ-30M-SHCR	@	F4B-SCEZ-30M-SH	0.95	38.6	105.7	40.4	82.4	M10	9.4	11.4	39.9
207	1-1/4	127693	F4B-SCEZ-104-SHCR	056633	F4B-SCEZ-104-SH	2.95	1.71	4.68	1.76	3.62	1/2	0.42	0.55	1.84
	1-3/8	062835	F4B-SCEZ-106-SHCR*	@	F4B-SCEZ-106-SH	2.83								
	1-7/16	127694	F4B-SCEZ-107-SHCR	056808	F4B-SCEZ-107-SH	2.78								
	35mm	127712	F4B-SCEZ-35M-SHCR	@	F4B-SCEZ-35M-SH	1.29	43.4	118.9	44.7	92.0	M12	10.7	14.0	46.7
208	1-1/2	127695	F4B-SCEZ-108-SHCR	056809	F4B-SCEZ-108-SH	3.70	1.94	5.06	1.97	4.00	1/2	0.43	0.62	2.05
	1-5/8	@	F4B-SCEZ-110-SHCR*	062340	F4B-SCEZ-110-SH									
	40mm	127713	F4B-SCEZ-40M-SHCR	@	F4B-SCEZ-40M-SH	1.64	49.3	128.5	50.0	101.5	M12	10.9	15.7	52.1
210	1-11/16	@	F4B-SCMEZ-111-SHCR*	@	F4B-SCMEZ-111-SH	4.64	1.94	5.67	1.98	4.37	5/8	0.49	0.62	2.43
	1-3/4	@	F4B-SCMEZ-112-SHCR*	065945	F4B-SCMEZ-112-SH	4.40								
	1-15/16	127696	F4B-SCEZ-115-SHCR	056810	F4B-SCEZ-115-SH	4.60								
	2	062542	F4B-SCEZ-200-SHCR	@	F4B-SCEZ-200-SH	4.56								
50mm	127714	F4B-SCEZ-50M-SHCR	@	F4B-SCEZ-50M-SH	2.07	49.3	144.0	50.3	111.0	M16	12.4	15.7	61.7	

@ Assembled to order

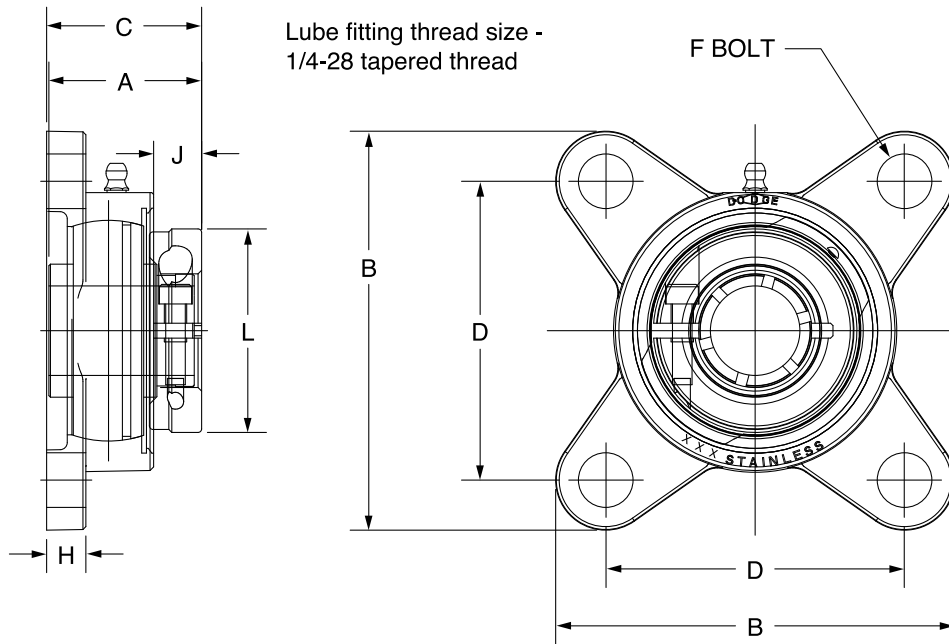
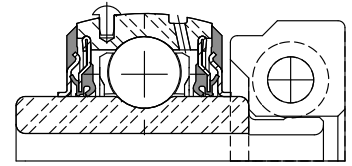
*20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY STAINLESS STEEL 4-BOLT FLANGE BEARINGS



Series	Shaft Size	Part No.	Description	Weight lbs kg	A	B	C	D	F Bolt Dia.	H	J	L
204	3/4	127731	F4B-DLEZ-012-SHCR	1.23	1.28	3.35	1.30	2.51	3/8	0.34	0.41	1.71
	20mm	127751	F4B-DLEZ-20M-SHCR	0.55	32.5	85.1	33.0	63.6	M10	8.6	10.4	43.4
205	7/8	@	F4B-DLEZ-014-SHCR*	1.69	1.44	3.75	1.46	2.75	3/8	0.37	0.48	1.99
	15/16	@	F4B-DLEZ-015-SHCR*	1.65								
	1	127732	F4B-DLEZ-100-SHCR	1.61								
206	25mm	127752	F4B-DLEZ-25M-SHCR	0.73	36.6	95.3	37.1	69.9	M10	9.4	12.2	50.5
	1-1/8	@	F4B-DLEZ-102-SHCR*	2.41	1.56	4.16	1.63	3.24	3/8	0.37	0.50	2.22
	1-3/16	127733	F4B-DLEZ-103-SHCR	2.36								
	1-1/4	127734	F4B-DLEZ-104S-SHCR	2.31								
207	30mm	127753	F4B-DLEZ-30M-SHCR	1.07	39.6	105.7	41.4	82.4	M10	9.4	12.7	56.4
	1-1/4	127735	F4B-DLEZ-104-SHCR	3.42	1.75	4.68	1.80	3.62	1/2	0.42	0.58	2.69
	1-3/8	@	F4B-DLEZ-106-SHCR*	3.29								
208	1-7/16	127736	F4B-DLEZ-107-SHCR	3.25								
	35mm	127754	F4B-DLEZ-35M-SHCR	1.56	44.5	118.9	45.7	92.0	M12	10.7	14.7	68.3
	1-1/2	127737	F4B-DLEZ-108-SHCR	4.21	2.01	5.06	2.05	4.00	1/2	0.43	0.70	2.74
210	40mm	127755	F4B-DLEZ-40M-SHCR	1.91	51.1	128.5	52.1	101.5	M12	10.9	17.8	69.6
	1-11/16	@	F4B-DLEZM-111-SHCR*	5.33	2.01	5.67	2.05	4.37	5/8	0.49	0.70	3.24
	1-15/16	127738	F4B-DLEZ-115-SHCR	5.28								
	50mm	127756	F4B-DLEZ-50M-SHCR	2.39	51.1	144.0	52.1	111.0	M16	12.4	17.8	82.3

@ Assembled to order

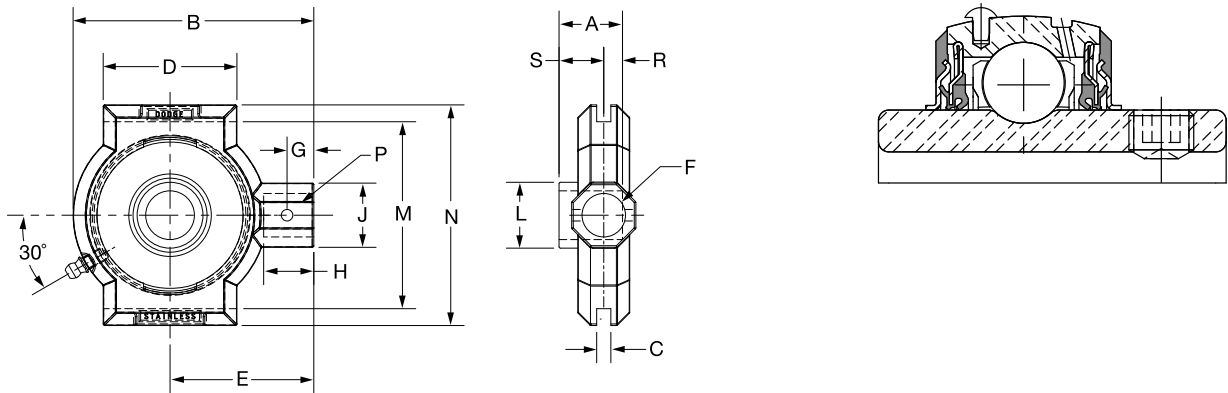
*20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ SHCR NORMAL DUTY STAINLESS STEEL NARROW SLOT TAKE-UP BEARINGS



Series	Shaft Size	Standard		Weight lbs. kgs.	Take-Up Frame No. Ref.	A	B	C	D	E
		Part No.	Description							
204	3/4	136939	NSTU-SCEZ-012-SHCR	1.16	NS210	1.23	3.49	0.265	1.50	2.19
	20mm	136974	NSTU-SCEZ-20M-SHCR	.53		31.2	88.6	6.73	38.1	55.6
205	1	136940	NSTU-SCEZ-100-SHCR	1.06	NS210	1.34	3.49	0.265	1.50	2.19
	25mm	136975	NSTU-SCEZ-25M-SHCR	.48		34.0	88.6	6.73	38.1	55.6
206	1-3/16	136941	NSTU-SCEZ-103-SHCR	2.51	NS308	1.52	4.50	0.265	2.50	2.69
	1-1/4	136942	NSTU-SCEZ-104S-SHCR	1.14		38.6	114.3	6.73	63.5	68.3
	30mm	136976	NSTU-SCEZ-30M-SHCR							
207	1-1/4	136943	NSTU-SCEZ-104-SHCR	2.42	NS308	1.71	4.50	0.265	2.50	2.69
	1-7/16	136944	NSTU-SCEZ-107-SHCR	1.10		43.4	114.3	6.73	63.5	68.3
	35mm	136977	NSTU-SCEZ-35M-SHCR							
208	1-1/2	136945	NSTU-SCEZ-108-SHCR	4.16	NS400	1.94	5.38	0.328	3.00	3.25
	40mm	136978	NSTU-SCEZ-40M-SHCR	1.89		49.3	136.7	8.33	76.2	82.6
210	1-15/16	136946	NSTU-SCEZ-115-SHCR	3.87	NS400	1.94	5.50	0.328	3.00	3.25
	2	136997	NSTU-SCEZ-200-SHCR	1.76		49.3	139.7	8.33	76.2	82.6
	50mm	136979	NSTU-SCEZ-50M-SHCR							

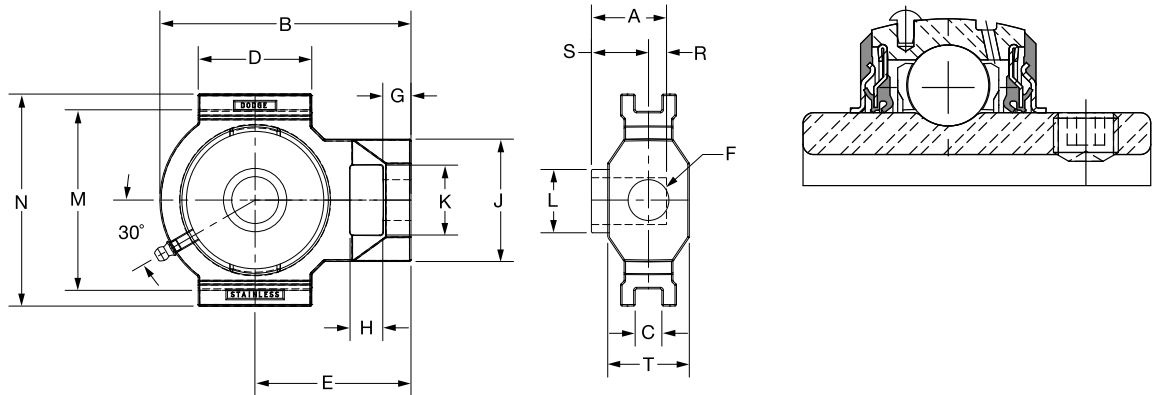
@ Assembled to order

Series	Shaft Size	F Screw Dia	G	H	J	L	M	N	P Pin Dia	R	S
204	3/4	3/4	0.44	0.88	1.20	1.12	2.635/2.605	3.13	0.32	0.50	0.73
	20mm	19.1	11.2	22.4	30.5	28.4	66.93/66.17	79.5	8.1	12.7	18.5
205	1	3/4	0.44	0.88	1.20	1.32	2.635/2.605	3.13	0.32	0.56	0.78
	25mm	19.1	11.2	22.4	30.5	33.5	66.93/66.17	79.5	8.1	14.2	19.8
206	1-3/16	3/4	0.50	0.94	1.20	1.57	3.510/3.480	4.13	0.32	0.58	0.94
	1-1/4	19.1	12.7	23.9	30.5	39.9	89.15/88.39	104.9	8.1	14.7	23.9
207	1-1/4	3/4	0.50	0.94	1.20	1.84	3.510/3.480	4.13	0.32	0.67	1.04
	1-7/16	19.1	12.7	23.8	30.5	46.7	89.15/88.39	104.9	8.1	17.0	26.4
208	1-1/2	1	0.66	1.16	1.50	2.05	4.015/3.985	4.75	0.38	0.75	1.19
	40mm	25.4	16.8	29.5	38.1	52.1	101.98/101.22	120.7	9.7	19.1	30.2
210	1-15/16	1	0.66	1.16	1.50	2.43	4.015/3.985	4.75	0.38	0.75	1.19
	2	25.4	16.8	29.5	38.1	61.7	101.98/101.22	120.7	9.7	19.1	30.2

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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E-Z KLEEN Mounted Bearings SCEZ SHCR NORMAL DUTY STAINLESS STEEL WIDE SLOT TAKE-UP BEARINGS



Series	Shaft Size	Standard		Weight lbs. kgs.	Take-Up Frame No. Ref.	A	B	C	D	E	
		Part No.	Description								
204	3/4 20mm	136947	WSTU-SCEZ-012-SHCR	2.14	WS300	1.23	3.97	0.530	2.20	2.56	
		136980	WSTU-SCEZ-20M-SHCR	.97		31.2	100.8	13.46	55.9	65.0	
205	1 25mm	136948	WSTU-SCEZ-100-SHCR	2.03	WS300	1.34	3.97	0.530	2.20	2.56	
		136981	WSTU-SCEZ-25M-SHCR	.92		34.0	100.8	13.46	55.9	65.0	
206	1-3/16 1-1/4 30mm	136949	WSTU-SCEZ-103-SHCR	3.31	WS308	1.52	4.99	0.530	2.26	3.10	
		136950	WSTU-SCEZ-104S-SHCR								
		136982	WSTU-SCEZ-30M-SHCR	1.50		38.6	126.7	13.46	57.4	78.7	
207	1-1/4 1-7/16 35mm	136951	WSTU-SCEZ-104-SHCR	3.21	WS308	1.71	4.99	0.530	2.26	3.10	
		136952	WSTU-SCEZ-107-SHCR								
		136983	WSTU-SCEZ-35M-SHCR	1.46		43.4	126.7	13.46	57.4	78.7	
208	1-1/2 40mm	136953	WSTU-SCEZ-108-SHCR	4.60	WS400	1.94	5.63	0.688	3.25	3.50	
		136984	WSTU-SCEZ-40M-SHCR	2.09		49.3	143.0	17.48	82.6	88.9	
210	1-15/16 2 50mm	136954	WSTU-SCEZ-115-SHCR	4.12	WS400	1.94	5.63	0.688	3.25	3.50	
		136985	WSTU-SCEZ-200-SHCR	1.87		49.3	143.0	17.48	82.6	88.9	

@ Assembled to Order

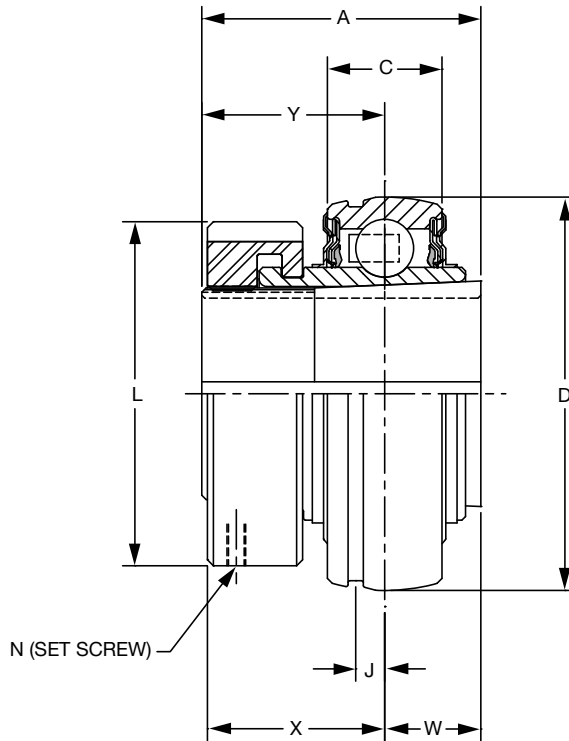
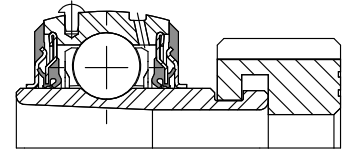
Series	Shaft Size	F Screw Dia	G	H	J	K	L	M	N	R	S	T
204	3/4 20mm	5/8	0.56	0.65	2.12	1.15	1.12	3.025/2.995	3.63	0.50	0.73	1.38
		15.9	14.2	16.5	53.8	29.2	28.4	76.84/76.07	92.2	12.7	18.5	35.1
205	1 25mm	5/8	0.56	0.65	2.12	1.15	1.32	3.025/2.995	3.63	0.56	0.78	1.38
		15.9	14.2	16.5	53.8	29.2	33.5	76.84/76.07	92.2	14.2	19.8	35.1
206	1-3/16 1-1/4 30mm	3/4	0.56	0.65	2.43	1.39	1.57	3.540/3.510	4.20	0.58	0.94	1.62
		19.1	14.2	16.5	61.7	35.3	39.9	89.92/89.15	106.7	14.7	23.9	41.1
207	1-1/4 1-7/16 35mm	3/4	0.56	0.65	2.43	1.39	1.84	3.540/3.510	4.20	0.67	1.04	1.62
		19.1	14.2	16.5	61.7	35.3	46.7	89.92/89.15	106.7	17.0	26.4	41.1
208	1-1/2 40mm	1	0.63	0.75	2.75	1.94	2.05	4.015/3.985	4.50	0.75	1.19	1.62
		25.4	16.0	19.1	69.9	49.3	52.1	101.98/101.22	114.3	19.1	30.2	41.1
210	1-15/16 2 50mm	1	0.63	0.75	2.75	1.94	2.43	4.015/3.985	4.50	0.75	1.19	1.62
		25.4	16.0	19.1	69.9	49.3	61.7	101.98/101.22	114.3	19.1	30.2	41.1

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GT NORMAL DUTY BEARING INSERTS FOR E-Z KLEEN BEARINGS



Series	Shaft Size	Complete Unit		Unit Without Adapter		Adapter & Nut Assembly	
		Part No.	Description	Part No.	Description	Part No.	Description
204	3/4 20mm	129825	INS-GT-012-CR	129579	INS-GT-04-CR	129967	AN-GT-04-012-CR
		129826	INS-GT-20M-CR			129980	AN-GT-04-20M-CR
205	1 25mm	129827	INS-GT-100-CR	129580	INS-GT-05-CR	129968	AN-GT-05-100-CR
		129828	INS-GT-25M-CR			129981	AN-GT-05-25M-CR
206	1-1/8 1-3/16 1-1/4 30mm	@	INS-GT-102-CR	129581	INS-GT-06-CR	129969	AN-GT-06-102-CR
		129829	INS-GT-103-CR			129970	AN-GT-06-103-CR
		129830	INS-GT-104S-CR			129971	AN-GT-06-104S-CR
		129831	INS-GT-30M-CR			129982	AN-GT-06-30M-CR
207	1-1/4 1-3/8 1-7/16 35mm	129832	INS-GT-104-CR	129582	INS-GT-07-CR	129972	AN-GT-07-104-CR
		@	INS-GT-106-CR			129973	AN-GT-07-106-CR
		129833	INS-GT-107-CR			129974	AN-GT-07-107-CR
		129834	INS-GT-35M-CR			129983	AN-GT-07-35M-CR
208	1-1/2 40mm	129835	INS-GT-108-CR	129583	INS-GT-08-CR	129975	AN-GT-08-108-CR
		129836	INS-GT-40M-CR			129984	AN-GT-08-40M-CR
209	1-11/16 1-3/4 45mm	129837	INS-GT-111-CR	129584	INS-GT-09-CR	129976	AN-GT-09-111-CR
		@	INS-GT-112-CR			129977	AN-GT-09-112-CR
210	1-15/16 2 50mm	129839	INS-GT-115-CR	129585	INS-GT-10-CR	129978	AN-GT-10-115-CR
		@	INS-GT-200-CR			129979	AN-GT-10-200-CR
		129840	INS-GT-50M-CR			129986	AN-GT-10-50M-CR

@ Assembled to order.

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GT NORMAL DUTY BEARING INSERTS FOR E-Z KLEEN BEARINGS

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

Series	Shaft Size	Weight lbs kg	A	C	D	J	L	N Screw (UNF)	W#	X	Y#
204	3/4	0.6	1.48	0.58	1.8504	0.15	1.50	#10-32 x 1/4	0.46	1.03	1.02
	20mm	0.3	37.6	14.7	47.000	3.8	38.1		11.7	26.2	25.9
205	1	0.8	1.46	0.59	2.0472	0.16	1.80	#10-32 x 1/4	0.48	1.00	0.98
	25mm	0.4	37.1	15.0	52.000	4.1	45.7		12.2	25.4	24.9
206	1-1/8	1.2	1.61	0.69	2.4409	0.16	2.08	#10-32 x 1/4	0.52	1.13	1.09
	1-3/16										
	1-1/4										
	30mm	0.6	40.9	17.5	62.000	4.1	52.8		13.2	28.7	27.7
207	1-1/4	1.8	1.62	0.75	2.8346	0.20	2.38	#10-32 x 1/4	0.54	1.14	1.08
	1-3/8										
	1-7/16										
	35mm	0.8	41.1	19.1	72.000	5.1	60.5		13.7	29.0	27.4
208	1-1/2	2.2	1.84	0.87	3.1496	0.22	2.62	#10-32 x 1/4	0.61	1.23	1.23
	40mm	1.0	46.7	22.1	80.000	5.6	66.5		15.5	31.2	31.2
209	1-11/16	2.5	1.85	0.87	3.3465	0.25	2.86	#10-32 x 1/4	0.62	1.26	1.23
	1-3/4		47.0	22.1	85.000	6.4	72.6		15.7	32.0	31.2
	45mm										
210	1-15/16	3.0	1.86	0.87	3.5433	0.25	3.13	#10-32 x 1/4	0.63	1.26	1.23
	2										
	50mm	1.4	47.2	22.1	90.000	6.4	79.5		16.0	32.0	31.2

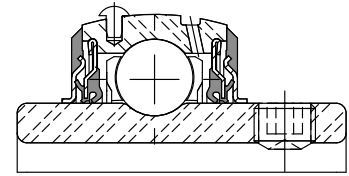
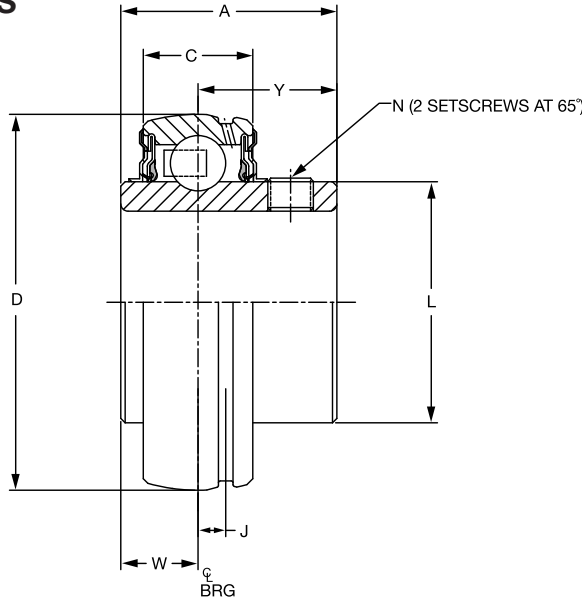
#W & Y dimensions will vary slightly depending on true shaft diameter.

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SC NORMAL DUTY BEARING CORROSION RESISTANT INSERTS FOR E-Z KLEEN BEARINGS



Series	Shaft Size	Insert with Flingers		Corrosion Resistant Insert		Weight lbs kg	A	C	D	J	L	N	W	Y
		Part No.	Description	Part No.	Description									
204	1/2	@	INS-SC-008L-FF	052981	INS-SC-008L-CR*	.38	1.23	0.58	1.8504	0.15	1.12	10-32	0.50	0.73
	5/8	124932	INS-SC-010L-FF	127073	INS-SC-010L-CR*	.35								
	3/4	123070	INS-SC-012-FF	045600	INS-SC-012-CR	.32								
	20mm	050524	INS-SC-20M-FF	125873	INS-SC-20M-CR	.16	31.2	14.7	47.000	3.8	28.4	M6x1	12.7	18.5
205	7/8	124931	INS-SC-014-FF	058665	INS-SC-014-CR*	.43	1.34	0.59	2.0472	0.16	1.32	1/4-28	0.56	0.78
	15/16	123069	INS-SC-015-FF	@	INS-SC-015-CR*	.40								
	1	123071	INS-SC-100-FF	045601	INS-SC-100-CR	.37								
	25mm	052620	INS-SC-25M-FF	050580	INS-SC-25M-CR	.18	34.0	15.0	52.000	4.1	33.5	M6x1	14.2	19.8
206	1-1/8	123234	INS-SC-102-FF	058989	INS-SC-102-CR*	.63	1.52	0.69	2.4409	0.16	1.57	5/16-24	0.58	0.94
	1-3/16	123072	INS-SC-103-FF	045602	INS-SC-103-CR	.60								
	1-1/4	123073	INS-SC-104S-FF	045603	INS-SC-104S-CR	.58								
	30mm	052621	INS-SC-30M-FF	125874	INS-SC-30M-CR	.27	38.6	17.5	62.000	4.1	39.9	M8x1.25	14.7	23.9
207	1-1/4	123074	INS-SC-104-FF	045412	INS-SC-104-CR	1.02	1.71	0.75	2.8346	0.20	1.84	5/16-24	0.67	1.04
	1-5/16	057102	INS-SC-105-FF	058345	INS-SC-105-CR*	.97								
	1-3/8	123460	INS-SC-106-FF	058965	INS-SC-106-CR*	.92								
	1-7/16	123075	INS-SC-107-FF	045604	INS-SC-107-CR	.86								
	35mm	052622	INS-SC-35M-FF	050653	INS-SC-35M-CR	.44	43.4	19.1	72.000	5.1	46.7	M8x1.25	17.0	26.4
208	1-1/2	123076	INS-SC-108-FF	045605	INS-SC-108-CR	1.27	1.94	0.87	3.1496	0.22	2.05	5/16-24	0.75	1.19
	1-5/8	123409	INS-SC-110-FF	@	INS-SC-110-CR*	1.13								
	40mm	052623	INS-SC-40M-FF	050654	INS-SC-40M-CR	.51	49.3	22.1	80.000	5.6	52.1	M8x1.25	19.1	30.2
209	1-5/8	@	INS-SC-110L-FF	@	INS-SC-110L-CR*	1.49	1.94	0.87	3.3465	0.25	2.22	5/16-24	0.75	1.19
	1-11/16	@	INS-SC-111-FF	125004	INS-SC-111-CR	1.43								
	1-3/4	045677	INS-SC-112-FF	054145	INS-SC-112-CR*	1.36								
	45mm	@	INS-SC-45M-FF	125005	INS-SC-45M-CR	.62	49.3	22.1	85.000	6.4	56.4	M8x1.25	19.1	30.2
210	1-11/16	@	INS-SCM-111-FF	@	INS-SCM-111-CR*	1.82	1.94	0.87	3.5433	0.25	2.43	3/8-24	0.75	1.19
	1-15/16	123077	INS-SC-115-FF	045606	INS-SC-115-CR	1.48								
	2	123413	INS-SC-200-FF	045338	INS-SC-200-CR*	1.39								
	50mm	@	INS-SC-50M-FF	050656	INS-SC-50M-CR	.67	49.3	22.1	90.000	6.4	61.7	M10x1.5	19.1	30.2

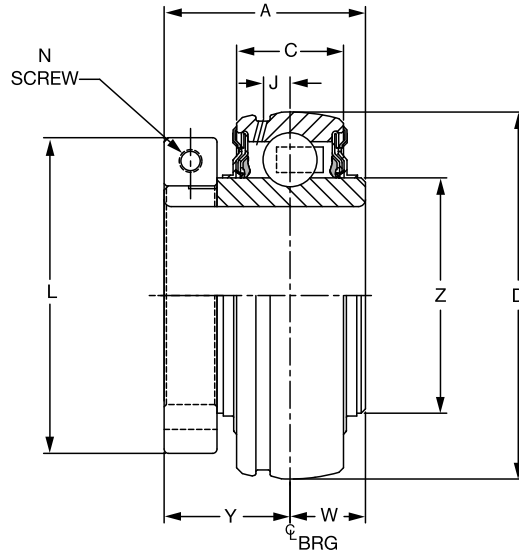
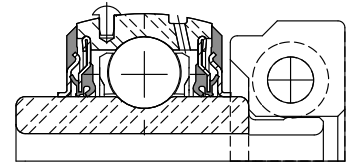
@ Assembled to order * 20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings DL NORMAL DUTY BEARING CORROSION RESISTANT INSERTS FOR E-Z KLEEN BEARINGS



Series	Shaft Size	Insert with Flingers		Corrosion Resistant Insert		Weight lbs kg	A	C	D	J	L	N	W	Y	Z
		Part No.	Description	Part No.	Description										
204	3/4	128646	INS-DL-012	126685	INS-DL-012-CR	0.6	1.28	0.58	1.8504	0.15	1.71	#8-32	0.50	0.78	1.12
	20mm	126629	INS-DL-20M	126693	INS-DL-20M-CR	0.3	32.5	14.7	47.000	3.8	43.4	M4x6	12.7	19.8	28.4
205	7/8	128684	INS-DL-014	@	INS-DL-014-CR*	0.8	1.44	0.59	2.0472	0.16	1.99	#10-32	0.56	0.88	1.32
	15/16	128647	INS-DL-015	@	INS-DL-015-CR*	0.8									
	1	128648	INS-DL-100	126686	INS-DL-100-CR	0.8									
	25mm	126630	INS-DL-25M	126694	INS-DL-25M-CR	0.4	36.6	15.0	52.000	4.1	50.5	M5x20	14.2	22.4	33.5
206	1-1/8	128649	INS-DL-102	059869	INS-DL-102-CR*	1.2	1.56	0.69	2.4409	0.16	2.22	#10-32	0.58	0.98	1.57
	1-3/16	128650	INS-DL-103	126687	INS-DL-103-CR	1.2									
	1-1/4	128651	INS-DL-104S	126688	INS-DL-104S-CR	1.1									
	30mm	126631	INS-DL-30M	126695	INS-DL-30M-CR	0.6	39.6	17.5	62.000	4.1	56.4	M5x20	14.7	24.9	39.9
207	1-1/4	128652	INS-DL-104	126689	INS-DL-104-CR	1.8	1.75	0.75	2.8346	0.20	2.69	1/4-28	0.67	1.08	1.84
	1-3/8	128653	INS-DL-106	@	INS-DL-106-CR*	1.8									
	1-7/16	128654	INS-DL-107	052093	INS-DL-107-CR	1.7									
	35mm	126632	INS-DL-35M	126696	INS-DL-35M-CR	0.8	44.5	19.1	72.000	5.1	68.3	M6x20	17.0	27.4	46.7
208	1-1/2	128655	INS-DL-108	126690	INS-DL-108-CR	2.2	2.01	0.87	3.1496	0.22	2.74	1/4-28	0.75	1.26	2.05
	40mm	126633	INS-DL-40M	126697	INS-DL-40M-CR	1.0	51.1	22.1	80.000	5.6	69.6	M6x20	19.1	32.0	52.1
209	1-5/8	128656	INS-DL-110L	@	INS-DL-110L-CR*	2.5	2.01	0.87	3.3465	0.25	2.99	1/4-28	0.75	1.26	2.22
	1-11/16	128657	INS-DL-111	126691	INS-DL-111-CR	2.5									
	1-3/4	128658	INS-DL-112	@	INS-DL-112-CR*	2.5									
	45mm	126634	INS-DL-45M	126698	INS-DL-45M-CR	1.2	51.1	22.1	85.000	6.4	75.9	M6x20	19.1	32.0	56.4
210	1-11/16	128672	INS-DLM-111	@	INS-DLM-111-CR	3.0	2.01	0.87	3.5433	0.25	3.24	1/4-28	0.75	1.26	2.43
	1-15/16	128659	INS-DL-115	126692	INS-DL-115-CR	3.0									
	2	128660	INS-DL-200	053986	INS-DL-200-CR*	3.0									
	50mm	126635	INS-DL-50M	126699	INS-DL-50M-CR	1.4	51.1	22.1	90.000	6.4	82.3	M6x20	19.1	32.0	61.7

@ Assembled to order

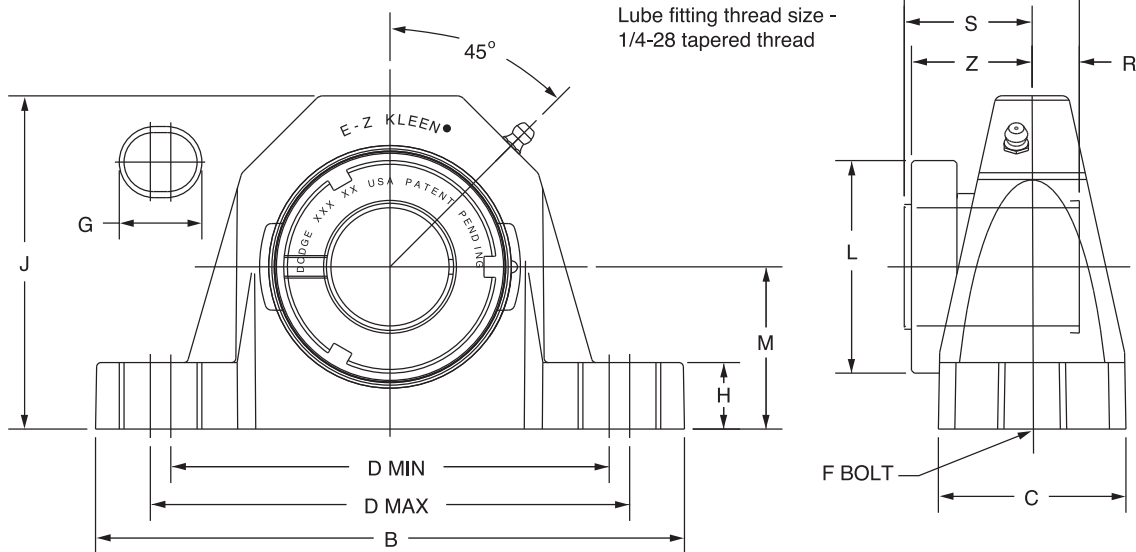
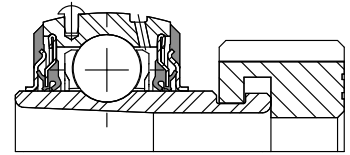
* 20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY POLYMER HOUSED PILLOW BLOCKS



Series	Shaft Size	Complete Unit		Unit without Adapter		Adapter & Nut Assembly	
		Part No.	Description	Part No.	Description	Part No.	Description
204	3/4 20mm	129244	P2B-GTEZ-012-PCR	129530	P2B-GTEZ-04-PCR	129967	AN-GT-04-012-CR
		129245	P2B-GTEZ-20M-PCR			129980	AN-GT-04-20M-CR
205	1 25mm	129246	P2B-GTEZ-100-PCR	129531	P2B-GTEZ-05-PCR	129968	AN-GT-05-100-CR
		129247	P2B-GTEZ-25M-PCR			129981	AN-GT-05-25M-CR
206 (GTU)	1-1/8	@	P2B-GTUEZ-102-PCR	129536	P2B-GTUEZ-06-PCR	129969	AN-GT-06-102-CR
	1-3/16	129248	P2B-GTUEZ-103-PCR			129602	AN-GT-06-103-CR
	1-1/4	129249	P2B-GTUEZ-104S-PCR			129603	AN-GT-06-104S-CR
	30mm	129250	P2B-GTUEZ-30M-PCR			129611	AN-GT-06-30M-CR
207	1-1/4	129251	P2B-GTEZ-104-PCR	129532	P2B-GTEZ-07-PCR	129972	AN-GT-07-104-CR
	1-3/8	129392	P2B-GTEZ-106-PCR			129973	AN-GT-07-106-CR
	1-7/16	129252	P2B-GTEZ-107-PCR			129974	AN-GT-07-107-CR
	35mm	129253	P2B-GTEZ-35M-PCR			129983	AN-GT-07-35M-CR
208 (GTB)	1-1/2 40mm	129254	P2B-GTBEZ-108-PCR	129535	P2B-GTBEZ-08-PCR	129606	AN-GT-08-108-CR
		129255	P2B-GTBEZ-40M-PCR			129613	AN-GT-08-40M-CR
209	1-11/16	129256	P2B-GTEZ-111-PCR	129533	P2B-GTEZ-09-PCR	129976	AN-GT-09-111-CR
	1-3/4	129396	P2B-GTEZ-112-PCR			129977	AN-GT-09-112-CR
	45mm	129257	P2B-GTEZ-45M-PCR			129985	AN-GT-09-45M-CR
210	1-15/16	129258	P2B-GTEZ-115-PCR	129534	P2B-GTEZ-10-PCR	129978	AN-GT-10-115-CR
	2 50mm	129393	P2B-GTEZ-200-PCR			129979	AN-GT-10-200-CR
		129259	P2B-GTEZ-50M-PCR			129986	AN-GT-10-50M-CR

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY POLYMER HOUSED PILLOW BLOCKS

Series	Shaft Size	Weight lbs kg	A	B	C	D		F Bolt Dia.	G	H	J	L	M	R#	S#	Z
						min.	max.									
204	3/4	0.9	1.48	5.02	1.48	3.66	3.92	3/8	0.59	0.61	2.63	1.50	1.31	0.46	1.02	1.03
	20mm	0.4	37.6	127.5	37.6	93.0	99.6	M10	15.0	15.5	66.8	38.1	33.4	11.7	25.9	26.2
205	1	1.1	1.46	5.48	1.48	3.96	4.20	3/8	0.59	0.61	2.86	1.80	1.44	0.48	0.98	1.00
	25mm	0.5	37.1	139.2	37.6	100.6	106.7	M10	15.0	15.5	72.6	45.7	36.5	12.2	24.9	25.4
206 (GTU)	1-1/8	1.8	1.61	6.30	1.77	4.60	4.88	1/2	0.73	0.70	3.34	2.08	1.69	0.52	1.09	1.13
	1-3/16	1.7														
	1-1/4	1.6														
207	30mm	0.8	40.9	160.0	45.0	116.8	124.0	M12	18.5	17.8	84.8	52.8	42.9	13.2	27.7	28.7
	1-1/4	2.5	1.62	6.54	1.86	4.80	5.12	1/2	0.73	0.72	3.89	2.38	1.88	0.54	1.08	1.14
	1-3/8	2.4														
208 (GTB)	1-7/16	2.4														
	35mm	1.1	41.1	166.1	47.2	121.9	130.0	M12	18.5	18.3	98.8	60.5	47.6	13.7	27.4	29.0
	1-1/2	3.0	1.84	7.19	2.10	5.10	5.64	1/2	0.88	0.76	4.16	2.62	1.94	0.61	1.23	1.23
209	40mm	1.4	46.7	182.6	53.3	129.5	143.3	M12	22.4	19.3	105.7	66.5	49.2	15.5	31.2	31.2
	1-11/16	3.4	1.85	7.20	2.10	5.42	5.96	1/2	0.88	0.84	4.31	2.86	2.13	0.62	1.23	1.26
	1-3/4	3.3														
210	45mm	1.6	47.0	182.9	53.3	137.7	151.4	M12	22.4	21.3	109.5	72.6	54.0	15.7	31.2	32.0
	1-15/16	4.2	1.86	8.06	2.36	6.00	6.56	5/8	1.00	0.91	4.56	3.13	2.25	0.63	1.23	1.26
	2	4.1														
210	50mm	1.7	47.2	204.7	59.9	152.4	166.6	M16	25.4	23.1	115.8	79.5	57.2	16.0	31.2	32.0

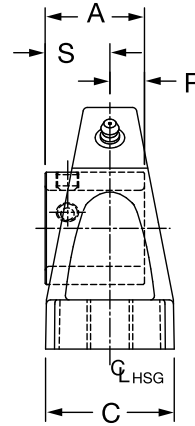
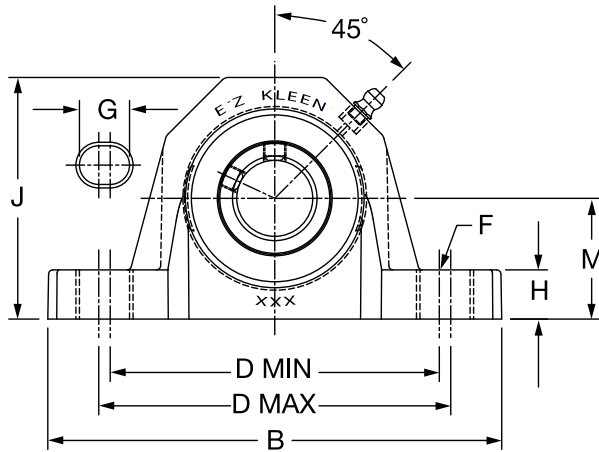
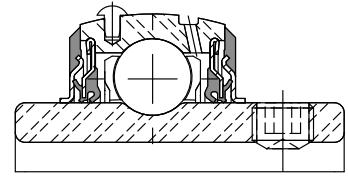
#R & S dimensions will vary slightly depending on true shaft Diameter

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY POLYMER HOUSED PILLOW BLOCKS



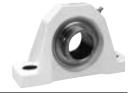
Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert With Fingers	
		Part No.	Description	Part No.	Description
204	1/2	@	P2B-SCEZ-008L-PCR*	@	P2B-SCEZ-008L-P
	5/8	068322	P2B-SCEZ-010L-PCR*	064572	P2B-SCEZ-010L-P
	3/4	127500	P2B-SCEZ-012-PCR	@	P2B-SCEZ-012-P
	20mm	127545	P2B-SCEZ-20M-PCR	@	P2B-SCEZ-20M-P
205	7/8	064839	P2B-SCEZ-014-PCR*	062837	P2B-SCEZ-014-P
	15/16	058975	P2B-SCEZ-015-PCR*	@	P2B-SCEZ-015-P
	1	127501	P2B-SCEZ-100-PCR	058597	P2B-SCEZ-100-P
	25mm	127546	P2B-SCEZ-25M-PCR	@	P2B-SCEZ-25M-P
206	1-1/8	075096	P2B-SCUEZ-102-PCR*	067919	P2B-SCUEZ-102-P
	1-3/16	127502	P2B-SCUEZ-103-PCR	@	P2B-SCUEZ-103-P
	1-1/4	127503	P2B-SCUEZ-104S-PCR	058596	P2B-SCUEZ-104S-P
	30mm	127547	P2B-SCUEZ-30M-PCR	@	P2B-SCUEZ-30M-P
207	1-1/4	127504	P2B-SCEZ-104-PCR	065655	P2B-SCEZ-104-P
	1-5/16	059722	P2B-SCEZ-105-PCR*	@	P2B-SCEZ-105-P
	1-3/8	058944	P2B-SCEZ-106-PCR*	@	P2B-SCEZ-106-P
	1-7/16	127505	P2B-SCEZ-107-PCR	064064	P2B-SCEZ-107-P
208	35mm	127548	P2B-SCEZ-35M-PCR	@	P2B-SCEZ-35M-P
	1-1/2	127506	P2B-SCBEZ-108-PCR	@	P2B-SCBEZ-108-P
	1-5/8	068495	P2B-SCBEZ-110-PCR*	@	P2B-SCBEZ-110-P
	40mm	127549	P2B-SCBEZ-40M-PCR	@	P2B-SCBEZ-40M-P
209	1-5/8	@	P2B-SCBEZ-110L-PCR*	@	P2B-SCBEZ-110L-P
	1-11/16	127507	P2B-SCEZ-111-PCR	067996	P2B-SCEZ-111-P
	1-3/4	058931	P2B-SCEZ-112-PCR	@	P2B-SCEZ-112-P
	45mm	127550	P2B-SCEZ-45M-PCR	@	P2B-SCEZ-45M-P
210	1-15/16	127508	P2B-SCEZ-115-PCR	056497	P2B-SCEZ-115-P
	2	057898	P2B-SCEZ-200-PCR	@	P2B-SCEZ-200-P
	50mm	127551	P2B-SCEZ-50M-PCR	@	P2B-SCEZ-50M-P

@ Assembled to order

* 20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY POLYMER HOUSED PILLOW BLOCKS

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

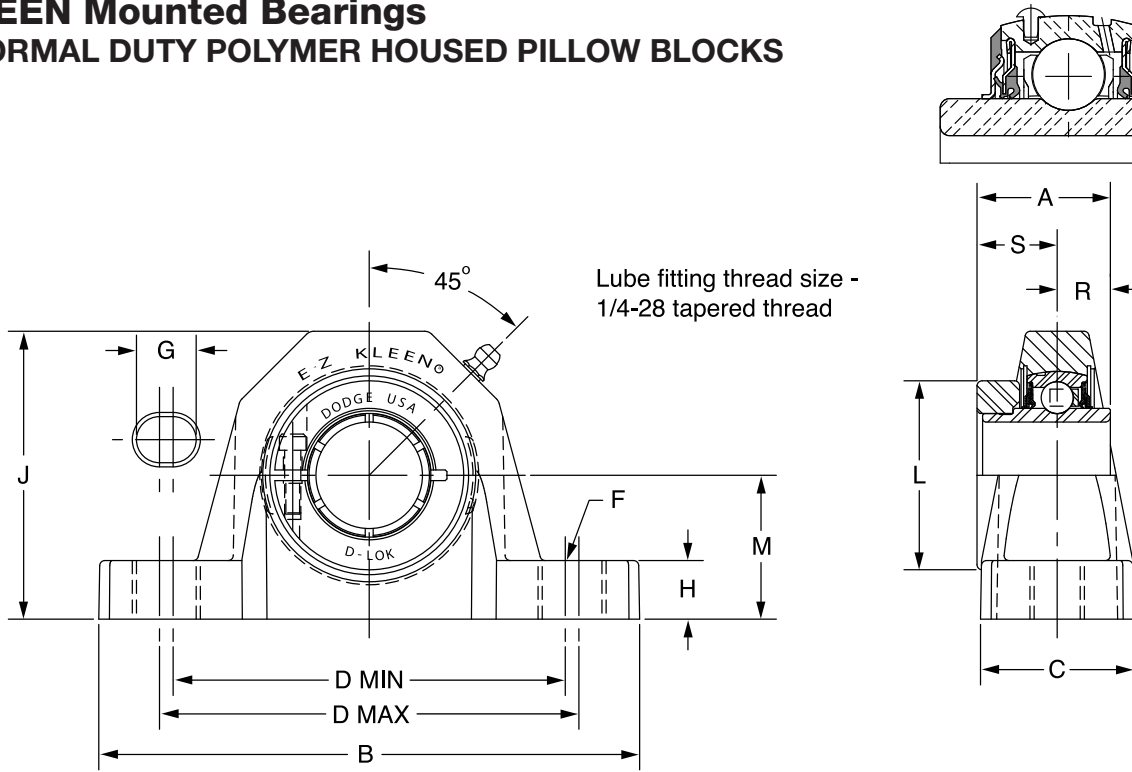
Size	Shaft Series	Weight lbs kg	A	B	C	D		F Bolt Dia.	G	H	J	L	M	R	S
						min.	max.								
204	1/2	0.68	1.23	5.02	1.48	3.66	3.92	3/8	0.59	0.61	2.63	1.12	1.31	0.50	0.73
	5/8	0.66													
	3/4	0.64													
	20mm	0.30	31.2	127.5	37.6	93.0	99.6	M10	15.0	15.5	66.8	28.4	33.4	12.7	18.5
205	7/8	0.73	1.34	5.48	1.48	3.96	4.20	3/8	0.59	0.61	2.86	1.32	1.44	0.56	0.78
	15/16	0.71													
	1	0.69													
	25mm	0.32	34.0	139.2	37.6	100.6	106.7	M10	15.0	15.5	72.6	33.5	36.5	14.2	19.8
206	1-1/8	1.15	1.52	6.30	1.77	4.60	4.88	1/2	0.73	0.70	3.34	1.57	1.69	0.58	0.94
	1-3/16	1.13													
	1-1/4	1.11													
	30mm	0.51	38.6	160.0	45.0	116.8	124.0	M12	18.5	17.8	84.8	39.9	42.9	14.7	23.9
207	1-1/4	1.68	1.71	6.54	1.86	4.80	5.12	1/2	0.73	0.72	3.89	1.84	1.88	0.67	1.04
	1-5/16	1.63													
	1-3/8	1.58													
	1-7/16	1.52													
	35mm	0.74	43.4	166.1	47.2	121.9	130.0	M12	18.5	18.3	98.8	46.7	47.6	17.0	26.4
208	1-1/2	2.08	1.94	7.19	2.10	5.10	5.64	1/2	0.88	0.76	4.16	2.05	1.94	0.75	1.19
	1-5/8	2.00													
	40mm	0.88	49.3	182.6	53.3	129.5	143.3	M12	22.4	19.3	105.7	52.1	49.2	19.1	30.2
209	1-5/8	2.41	1.94	7.20	2.10	5.42	5.96	1/2	0.88	0.84	4.31	2.22	2.13	0.75	1.19
	1-11/16	2.34													
	45mm	1.03	49.3	182.9	53.3	137.7	151.4	M12	22.4	21.3	109.5	56.4	54.0	19.1	30.2
210	1-15/16	2.65	1.94	8.06	2.36	6.00	6.56	5/8	1.00	0.91	4.56	2.43	2.25	0.75	1.19
	50mm	1.30	49.3	204.7	59.9	152.4	166.6	M16	25.4	23.1	115.8	61.7	57.2	19.1	30.2

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY POLYMER HOUSED PILLOW BLOCKS



Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert With Fingers	
		Part No.	Description	Part No.	Description
204	3/4	127578	P2B-DLEZ-012-PCR	@	P2B-DLEZ-012-P
	20mm	127623	P2B-DLEZ-20M-PCR	@	P2B-DLEZ-20M-P
205	7/8	@	P2B-DLEZ-014-PCR*	@	P2B-DLEZ-014-P
	15/16	@	P2B-DLEZ-015-PCR*	@	P2B-DLEZ-015-P
	1	127579	P2B-DLEZ-100-PCR	@	P2B-DLEZ-100-P
	25mm	127624	P2B-DLEZ-25M-PCR	@	P2B-DLEZ-25M-P
206 (DLU)	1-1/8	@	P2B-DLUEZ-102-PCR*	@	P2B-DLUEZ-102-P
	1-3/16	127580	P2B-DLUEZ-103-PCR	@	P2B-DLUEZ-103-P
	1-1/4	127581	P2B-DLUEZ-104S-PCR	@	P2B-DLUEZ-104S-P
207	30mm	127625	P2B-DLUEZ-30M-PCR	@	P2B-DLUEZ-30M-P
	1-1/4	127582	P2B-DLEZ-104-PCR	@	P2B-DLEZ-104-P
	1-3/8	@	P2B-DLEZ-106-PCR*	@	P2B-DLEZ-106-P
	1-7/16	127583	P2B-DLEZ-107-PCR	@	P2B-DLEZ-107-P
208 (DLB)	35mm	127626	P2B-DLEZ-35M-PCR	@	P2B-DLEZ-35M-P
	1-1/2	127584	P2B-DLBEZ-108-PCR	@	P2B-DLBEZ-108-P
	40mm	127627	P2B-DLBEZ-40M-PCR	@	P2B-DLBEZ-40M-P
209	1-5/8	057442	P2B-DLEZ-110L-PCR*	@	P2B-DLEZ-110L-P
	1-11/16	127585	P2B-DLEZ-111-PCR	@	P2B-DLEZ-111-P
	1-3/4	062875	P2B-DLEZ-112-PCR*	@	P2B-DLEZ-112-P
	45mm	127628	P2B-DLEZ-45M-PCR	@	P2B-DLEZ-45M-P
210	1-15/16	127586	P2B-DLEZ-115-PCR	@	P2B-DLEZ-115-P
	2	058516	P2B-DLEZ-200-PCR	@	P2B-DLEZ-200-P
	50mm	127629	P2B-DLEZ-50M-PCR	@	P2B-DLEZ-50M-P

@ Assembled to order
* 20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY POLYMER HOUSED PILLOW BLOCKS

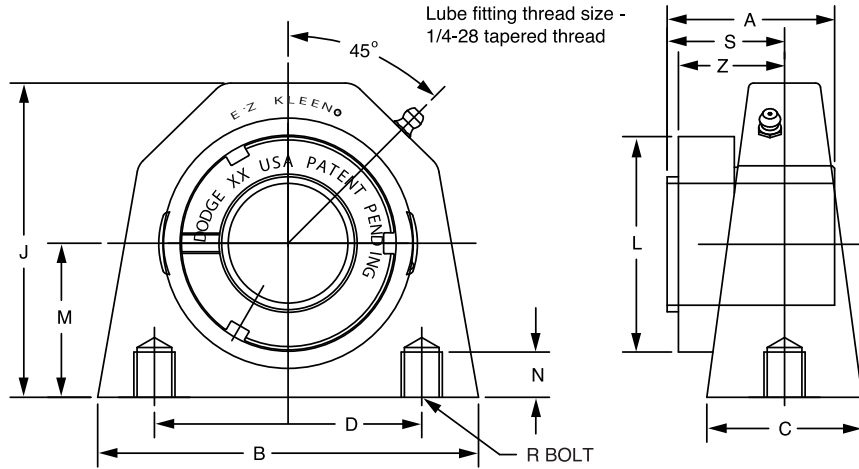
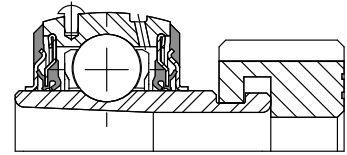
Size	Shaft Series	Weight lbs kg	A	B	C	D		F Bolt Dia.	G	H	J	L	M	R	S
						min.	max.								
204	3/4	0.92	1.28	5.02	1.48	3.66	3.92	3/8	0.59	0.61	2.63	1.71	1.31	0.50	0.78
	20mm	0.42	32.5	127.5	37.6	93.0	99.6	M10	15.0	15.5	66.8	43.4	33.4	12.7	19.8
205	7/8	1.32	1.44	5.48	1.48	3.96	4.20	3/8	0.59	0.61	2.86	1.99	1.44	0.56	0.88
	15/16	1.22													
	1	1.12													
	25mm	0.51	36.6	139.2	37.6	100.6	106.7	M10	15.0	15.5	72.6	50.5	36.5	14.2	22.4
206 (DLU)	1-1/8	1.83	1.56	6.30	1.77	4.60	4.88	1/2	0.73	0.70	3.34	2.22	1.69	0.58	0.98
	1-3/16	1.73													
	1-1/4	1.63													
	30mm	0.79	39.6	160.0	45.0	116.8	124.0	M12	18.5	17.8	84.8	56.4	42.9	14.7	24.9
207	1-1/4	2.46	1.75	6.54	1.86	4.80	5.12	1/2	0.73	0.72	3.89	2.69	1.88	0.67	1.08
	1-3/8	2.41													
	1-7/16	2.36													
	35mm	1.13	44.5	166.1	47.2	121.9	130.0	M12	18.5	18.3	98.8	68.3	47.6	17.0	27.4
208 (DLB)	1-1/2	3.01	2.01	7.19	2.10	5.10	5.64	1/2	0.88	0.76	4.16	2.74	1.94	0.75	1.26
	40mm	1.39	51.1	182.6	53.3	129.5	143.3	M12	22.4	19.3	105.7	69.6	49.2	19.1	32.0
209	1-5/8	3.51	2.01	7.20	2.10	5.42	5.96	1/2	0.88	0.84	4.31	2.99	2.13	0.75	1.26
	1-11/16	3.41													
	1-3/4	3.31													
	45mm	1.56	51.1	182.9	53.3	137.7	151.4	M12	22.4	21.3	109.5	75.9	54.0	19.1	32.0
210	1-15/16	4.17	2.01	8.06	2.36	6.00	6.56	5/8	1.00	0.91	4.56	3.24	2.25	0.75	1.26
	2	4.07													
	50mm	1.68	51.1	204.7	59.9	152.4	166.6	M16	25.4	23.1	115.8	82.3	57.2	19.1	32.0

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY POLYMER HOUSED TAPPED BASE PILLOW BLOCKS



Series	Shaft Size	Complete Unit		Unit Without Adapter		Adapter & Nut Assembly	
		Part No.	Description	Part No.	Description	Part No.	Description
204	3/4	129291	TB-GTEZ-012-PCR	129537	TB-GTEZ-04-PCR	129967	AN-GT-04-012-CR
	20mm	129292	TB-GTEZ-20M-PCR	129988	TB-GTEZ-04M-PCR	129980	AN-GT-04-20M-CR
205	1	129293	TB-GTEZ-100-PCR	129538	TB-GTEZ-05-PCR	129968	AN-GT-05-100-CR
	25mm	129294	TB-GTEZ-25M-PCR	129989	TB-GTEZ-05M-PCR	129981	AN-GT-05-25M-CR
206	1-1/8	@	TB-GTEZ-102-PCR	129539	TB-GTEZ-06-PCR	129969	AN-GT-06-102-CR
	1-3/16	129295	TB-GTEZ-103-PCR			129970	AN-GT-06-103-CR
	1-1/4	129296	TB-GTEZ-104S-PCR			129971	AN-GT-06-104S-CR
	30mm	129297	TB-GTEZ-30M-PCR			129982	AN-GT-06-30M-CR
207	1-1/4	129298	TB-GTEZ-104-PCR	129540	TB-GTEZ-07-PCR	129972	AN-GT-07-104-CR
	1-3/8	@	TB-GTEZ-106-PCR			129973	AN-GT-07-106-CR
	1-7/16	129299	TB-GTEZ-107-PCR			129974	AN-GT-07-107-CR
	35mm	129300	TB-GTEZ-35M-PCR			129983	AN-GT-07-35M-CR

@ Assembled to order

Series	Shaft Size	Weight Lbs kg	A	B	C	D	J	L	M	N Thread Depth	R Bolt Hole Threads	S#	Z
204	3/4	0.88	1.48	3.25	1.48	2.00	2.65	1.50	1.31	0.40	3/8-16	1.02	1.03
	20mm	0.41	37.6	82.6	37.6	50.8	67.3	38.1	33.4	10.2	M10x1.5	25.9	26.2
205	1	1.01	1.46	3.25	1.49	2.00	2.89	1.80	1.44	0.40	3/8-16	0.98	1.00
	25mm	0.47	37.1	82.6	37.8	50.8	73.4	45.7	36.5	10.2	M10x1.5	24.9	25.4
206	1-1/8	1.79	1.61	4.38	1.57	3.00	3.38	2.08	1.69	0.45	7/16-14	1.09	1.13
	1-3/16	1.69											
	1-1/4	1.59											
	30mm	0.77	40.9	111.3	39.9	76.2	85.9	52.8	42.9	11.4	M10x1.5	27.7	28.7
207	1-1/4	2.62	1.62	4.63	1.89	3.25	3.82	2.38	1.88	0.55	1/2-13	1.08	1.14
	1-3/8	2.42											
	1-7/16	2.32											
	35mm	1.11	41.1	117.6	48.0	82.6	97.0	60.5	47.6	14.0	M12x1.75	27.4	29.0

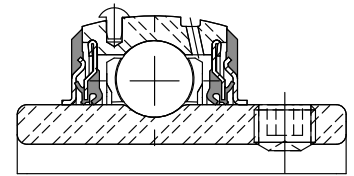
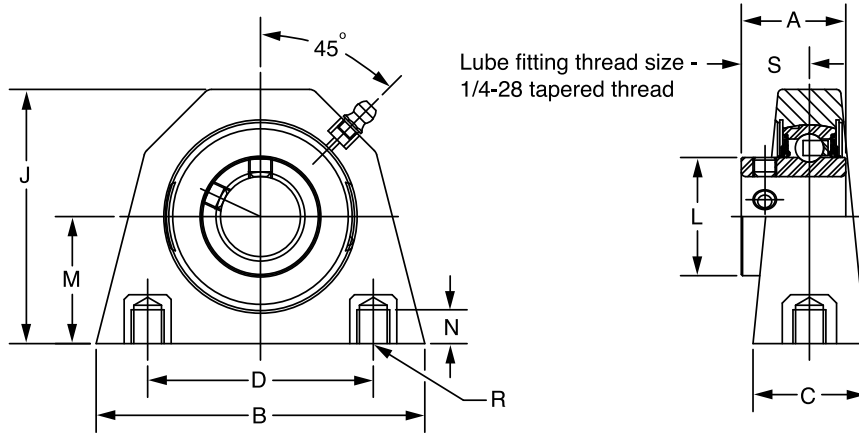
#S dimension will vary slightly depending on true shaft diameter

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY POLYMER HOUSED TAPPED BASE PILLOW BLOCKS



Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert With Flingers		Weight lbs kg	A	B	C	D	J	L	M	N Thread Depth	R Bolt Hole Threads	S
		Part No.	Description	Part No.	Description											
204	1/2	@	TB-SCEZ-008L-PCR*	@	TB-SCEZ-008L-P	0.74	1.23	3.25	1.48	2.00	2.65	1.12	1.31	0.40	3/8-16	0.73
	5/8	064720	TB-SCEZ-010L-PCR*	@	TB-SCEZ-010L-P	0.66										
	3/4	127509	TB-SCEZ-012-PCR	@	TB-SCEZ-012-P	0.60										
	20mm	127552	TB-SCEZ-20M-PCR	@	TB-SCEZ-20M-P	0.29	31.2	82.6	37.6	50.8	67.3	28.4	33.4	10.2	M10x1.5	18.5
205	7/8	@	TB-SCEZ-014-PCR*	@	TB-SCEZ-014-P	0.72	1.34	3.25	1.49	2.00	2.89	1.32	1.44	0.40	3/8-16	0.78
	15/16	@	TB-SCEZ-015-PCR*	@	TB-SCEZ-015-P	0.64										
	1	127510	TB-SCEZ-100-PCR	@	TB-SCEZ-100-P	0.58										
	25mm	127553	TB-SCEZ-25M-PCR	@	TB-SCEZ-25M-P	0.28	34.0	82.6	37.8	50.8	73.4	33.5	36.5	10.2	M10x1.5	19.8
206	1-1/8	@	TB-SCEZ-102-PCR*	@	TB-SCEZ-102-P	1.16	1.52	4.38	1.57	3.00	3.38	1.57	1.69	0.45	7/16-14	0.94
	1-3/16	127511	TB-SCEZ-103-PCR	@	TB-SCEZ-103-P	1.09										
	1-1/4	127512	TB-SCEZ-104S-PCR	058632	TB-SCEZ-104S-P	1.07										
	30mm	127554	TB-SCEZ-30M-PCR	@	TB-SCEZ-30M-P	0.49	38.6	111.3	39.9	76.2	85.9	39.9	42.9	11.4	M10x1.5	23.9
207	1-1/4	127513	TB-SCEZ-104-PCR	@	TB-SCEZ-104-P	1.64	1.71	4.63	1.89	3.25	3.82	1.84	1.88	0.55	1/2-13	1.04
	1-5/16	@	TB-SCEZ-105-PCR*	@	TB-SCEZ-105-P	1.58										
	1-3/8	056577	TB-SCEZ-106-PCR*	@	TB-SCEZ-106-P	1.53										
	1-7/16	127514	TB-SCEZ-107-PCR	@	TB-SCEZ-107-P	1.48										
35mm	127555	TB-SCEZ-35M-PCR	@	TB-SCEZ-35M-P	0.72	43.4	117.6	48.0	82.6	97.0	46.7	47.6	14.0	M12x1.75	26.4	

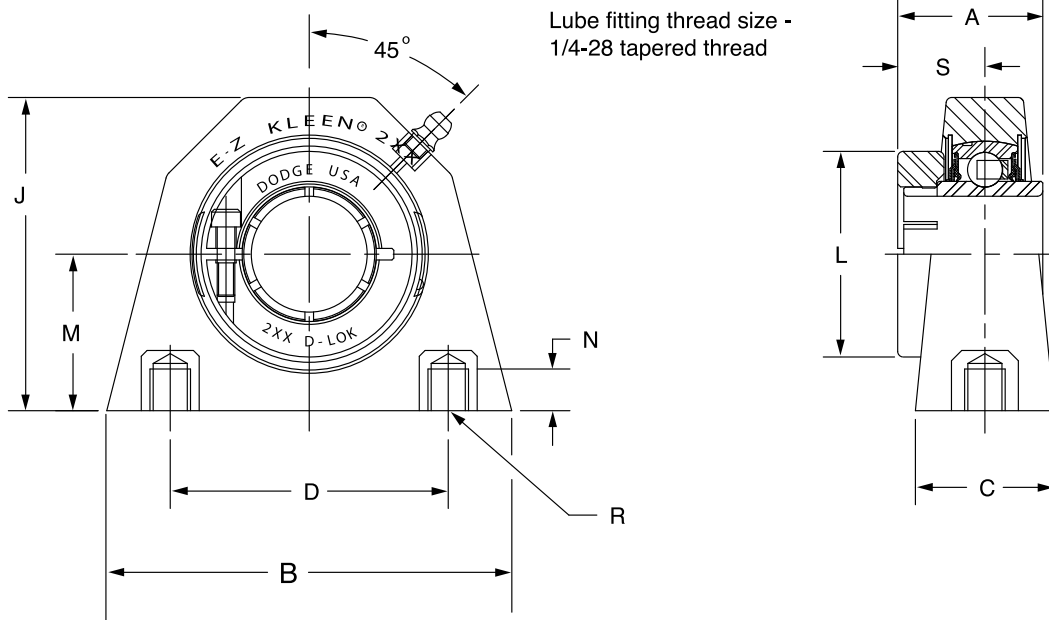
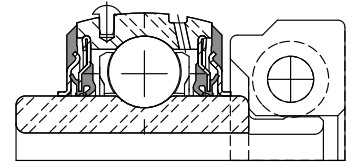
@ Assembled to order
*20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS

E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY POLYMER HOUSED TAPPED BASE PILLOW BLOCKS



Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert With Flingers	
		Part No.	Description	Part No.	Description
204	3/4	127587	TB-DLEZ-012-PCR	@	TB-DLEZ-012-P
	20mm	127630	TB-DLEZ-20M-PCR	@	TB-DLEZ-20M-P
205	7/8	@	TB-DLEZ-014-PCR*	@	TB-DLEZ-014-P
	15/16	@	TB-DLEZ-015-PCR*	@	TB-DLEZ-015-P
	1	127588	TB-DLEZ-100-PCR	@	TB-DLEZ-100-P
	25mm	127631	TB-DLEZ-25M-PCR	@	TB-DLEZ-25M-P
206	1-1/8	@	TB-DLEZ-102-PCR*	@	TB-DLEZ-102-P
	1-3/16	127589	TB-DLEZ-103-PCR	@	TB-DLEZ-103-P
	1-1/4	127590	TB-DLEZ-104S-PCR	@	TB-DLEZ-104S-P
	30mm	127632	TB-DLEZ-30M-PCR	@	TB-DLEZ-30M-P
207	1-1/4	127591	TB-DLEZ-104-PCR	@	TB-DLEZ-104-P
	1-3/8	@	TB-DLEZ-106-PCR*	@	TB-DLEZ-106-P
	1-7/16	127592	TB-DLEZ-107-PCR	@	TB-DLEZ-107-P
	35mm	127633	TB-DLEZ-35M-PCR	@	TB-DLEZ-35M-P

@ Assembled to order
*20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY POLYMER HOUSED TAPPED BASE PILLOW BLOCKS

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

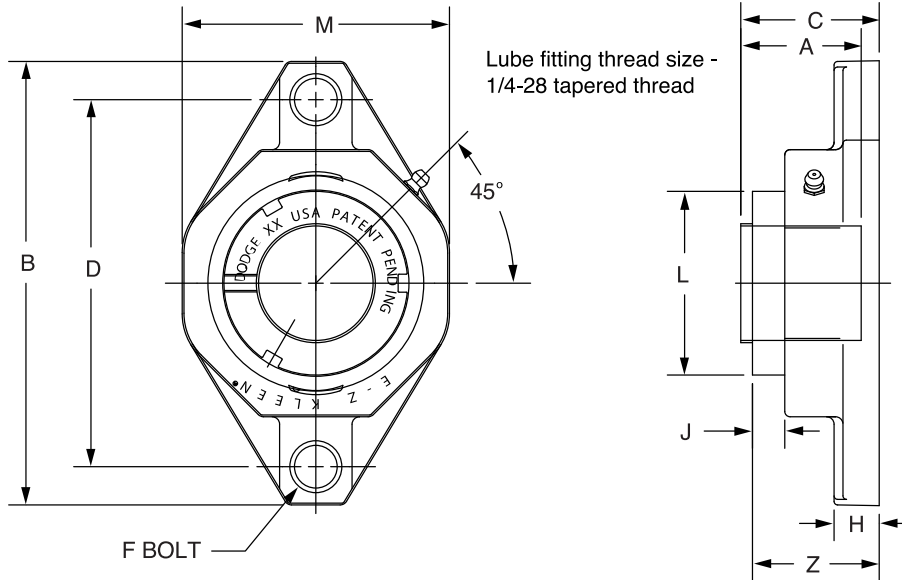
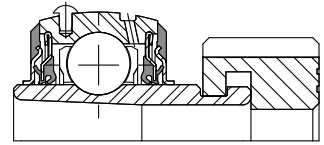
Series	Shaft Size	Weight lbs kg	A	B	C	D	J	L	M	N Thread Depth	R Bolt Hole Threads	S
204	3/4	0.88	1.28	3.25	1.48	2.00	2.65	1.71	1.31	0.40	3/8-16	0.78
	20mm	0.41	32.5	82.6	37.6	50.8	67.3	43.4	33.4	10.2	M10x1.5	19.8
205	7/8	1.12	1.44	3.25	1.49	2.00	2.89	1.99	1.44	0.40	3/8-16	0.88
	15/16	1.11										
	1	1.01										
206	25mm	0.47	36.6	82.6	37.8	50.8	73.4	50.5	36.5	10.2	M10x1.5	22.4
	1-1/8	1.79	1.56	4.38	1.57	3.00	3.38	2.22	1.69	0.45	7/16-14	0.98
	1-3/16	1.69										
	1-1/4	1.59										
207	30mm	0.77	39.6	111.3	39.9	76.2	85.9	56.4	42.9	11.4	M10x1.5	24.9
	1-1/4	2.62	1.75	4.63	1.89	3.25	3.82	2.69	1.88	0.55	1/2-13	1.08
	1-3/8	2.42										
	1-7/16	2.32										
	35mm	1.11	44.5	117.6	48.0	82.6	97.0	68.3	47.6	14.0	M12x1.75	27.4

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS

E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY POLYMER HOUSED 2-BOLT FLANGE BEARINGS



Series	Shaft Size	Complete Unit		Unit Without Adapter		Adapter & Nut Assembly	
		Part No.	Description	Part No.	Description	Part No.	Description
204	3/4 20mm	129339	F2B-GTEZ-012-PCR	129548	F2B-GTEZ-04-PCR	129967	AN-GT-04-012-CR
		129340	F2B-GTEZ-20M-PCR			129980	AN-GT-04-20M-CR
205	1 25mm	129341	F2B-GTEZ-100-PCR	129549	F2B-GTEZ-05-PCR	129968	AN-GT-05-100-CR
		129342	F2B-GTEZ-25M-PCR			129981	AN-GT-05-25M-CR
206	1 -1/8 1 -3/16 1 -1/4 30mm	129394	F2B-GTEZ-102-PCR	129550	F2B-GTEZ-06-PCR	129969	AN-GT-06-102-CR
		129343	F2B-GTEZ-103-PCR			129970	AN-GT-06-103-CR
		129344	F2B-GTEZ-104S-PCR			129971	AN-GT-06-104S-CR
		129345	F2B-GTEZ-30M-PCR			129982	AN-GT-06-30M-CR
207	1 -1/4 1 -3/8 1 -7/16 35mm	129346	F2B-GTEZ-104-PCR	129551	F2B-GTEZ-07-PCR	129972	AN-GT-07-104-CR
		073406	F2B-GTEZ-106-PCR			129973	AN-GT-07-106-CR
		129347	F2B-GTEZ-107-PCR			129974	AN-GT-07-107-CR
		129348	F2B-GTEZ-35M-PCR			129983	AN-GT-07-35M-CR
208	1 -1/2 40mm	129349	F2B-GTEZ-108-PCR	129552	F2B-GTEZ-08-PCR	129975	AN-GT-08-108-CR
		129350	F2B-GTEZ-40M-PCR			129984	AN-GT-08-40M-CR
209	1 -11/16 1 -3/4 45mm	129351	F2B-GTEZ-111-PCR	129553	F2B-GTEZ-09-PCR	129976	AN-GT-09-111-CR
		064147	F2B-GTEZ-112-PCR			129977	AN-GT-09-112-CR
		129352	F2B-GTEZ-45M-PCR			129985	AN-GT-09-45M-CR
210	1 -15/16 2 50mm	129353	F2B-GTEZ-115-PCR	129554	F2B-GTEZ-10-PCR	129978	AN-GT-10-115-CR
		064503	F2B-GTEZ-200-PCR			129979	AN-GT-10-200-CR
		129354	F2B-GTEZ-50M-PCR			129986	AN-GT-10-50M-CR

@ Assembled to order

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY POLYMER HOUSED 2-BOLT FLANGE BEARINGS

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

Size	Shaft Series	Weight lbs kg	A	B	C#	D	F Bolt Dia.	H	J	L	M	Z
204	3/4	0.77	1.48	4.45	1.72	3.54	3/8	0.53	0.61	1.50	2.35	1.73
	20mm	0.36	37.6	113.0	43.7	90.0	M10	13.5	15.5	38.1	59.7	43.9
205	1	1.01	1.46	4.92	1.70	3.90	3/8	0.54	0.58	1.80	2.71	1.72
	25mm	0.47	37.1	125.0	43.2	99.0	M10	13.7	14.7	45.7	68.8	43.7
206	1-1/8	1.56	1.61	5.58	1.84	4.59	3/8	0.60	0.64	2.08	3.19	1.88
	1-3/16	1.46										
	1-1/4	1.36										
	30mm	0.57	40.9	141.7	46.7	116.5	M10	15.2	16.3	52.8	81.0	47.8
207	1-1/4	2.18	1.62	6.31	1.86	5.12	1/2	0.62	0.64	2.38	3.69	1.92
	1-5/16	2.11										
	1-7/16	2.08										
	35mm	1.00	41.1	160.3	47.2	130.0	M12	15.7	16.3	60.5	93.7	48.8
208	1-1/2	2.75	1.84	6.77	2.12	5.65	1/2	0.67	0.67	2.62	4.06	2.12
	40mm	1.26	46.7	172.0	53.8	143.5	M12	17.0	17.0	66.5	103.1	53.8
209	1-5/8	3.11	1.85	7.07	2.12	5.85	9/16	0.72	0.69	2.86	4.31	2.15
	1-11/16	3.07										
	1-3/4	3.04										
	45mm	1.41	47.0	179.6	53.8	148.5	M14	18.3	17.5	72.6	109.5	54.6
210	1-15/16	3.64	1.86	7.47	2.26	6.18	5/8	0.76	0.70	3.13	4.50	2.29
	2	3.60										
	50mm	1.67	47.2	189.7	57.4	157.0	M16	19.3	17.8	79.5	114.3	58.2

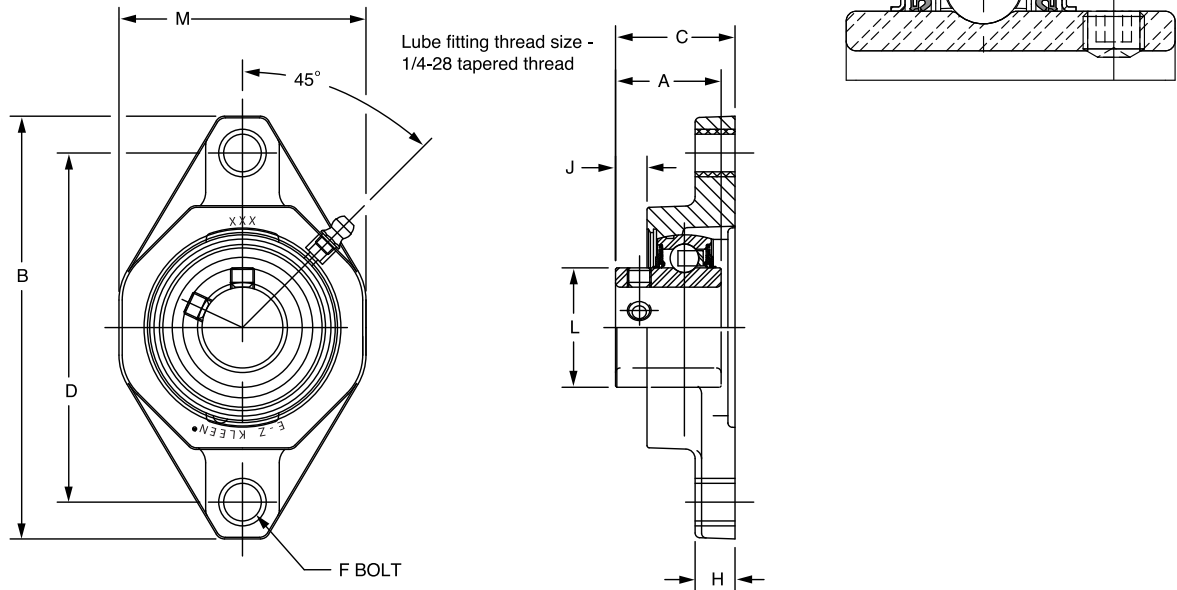
#C dimension will vary slightly depending on true shaft diameter.

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY POLYMER HOUSED 2-BOLT FLANGE BEARINGS



Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert With Flingers		Weight lbs kg	A	B	C	D	F Bolt Dia.	H	J	L	M
		Part No.	Description	Part No.	Description										
204	1/2	059823	F2B-SCEZ-008L-PCR*	@	F2B-SCEZ-008L-P	0.48	1.23	4.45	1.43	3.54	3/8	0.53	0.31	1.12	2.35
	5/8	058792	F2B-SCEZ-010L-PCR*	@	F2B-SCEZ-010L-P	0.44									
	3/4	127524	F2B-SCEZ-012-PCR	058404	F2B-SCEZ-012-P	0.40									
	20mm	127563	F2B-SCEZ-20M-PCR	@	F2B-SCEZ-20M-P	0.24	31.2	113.0	36.3	90.0	M10	13.5	7.9	28.4	59.7
205	7/8	@	F2B-SCEZ-014-PCR*	062837	F2B-SCEZ-014-P	0.64	1.34	4.92	1.50	3.90	3/8	0.54	0.36	1.32	2.71
	15/16	076841	F2B-SCEZ-015-PCR*	@	F2B-SCEZ-015-P	0.60									
	1	127525	F2B-SCEZ-100-PCR	057524	F2B-SCEZ-100-P	0.56									
	25mm	127564	F2B-SCEZ-25M-PCR	@	F2B-SCEZ-25M-P	0.28	34.0	125.0	38.1	99.0	M10	13.7	9.1	33.5	68.8
206	1-1/8	058470	F2B-SCEZ-102-PCR*	@	F2B-SCEZ-102-P	0.88	1.52	5.58	1.69	4.59	3/8	0.60	0.45	1.57	3.19
	1-3/16	127526	F2B-SCEZ-103-PCR	056449	F2B-SCEZ-103-P	0.86									
	1-1/4	127527	F2B-SCEZ-104S-PCR	057594	F2B-SCEZ-104S-P	0.84									
	30mm	127565	F2B-SCEZ-30M-PCR	@	F2B-SCEZ-30M-P	0.39	38.6	141.7	42.9	116.5	M10	15.2	11.4	39.9	81.0
207	1-1/4	127528	F2B-SCEZ-104-PCR	057687	F2B-SCEZ-104-P	1.36	1.71	6.31	1.82	5.12	1/2	0.62	0.54	1.84	3.69
	1-5/16	049380	F2B-SCEZ-105-PCR*	@	F2B-SCEZ-105-P	1.32									
	1-3/8	056893	F2B-SCEZ-106-PCR*	056526	F2B-SCEZ-106-P	1.28									
	1-7/16	127529	F2B-SCEZ-107-PCR	058941	F2B-SCEZ-107-P	1.24									
	35mm	127566	F2B-SCEZ-35M-PCR	@	F2B-SCEZ-35M-P	0.61	43.4	160.3	46.2	130.0	M12	15.7	13.7	46.7	93.7
208	1-1/2	127530	F2B-SCEZ-108-PCR	056580	F2B-SCEZ-108-P	1.82	1.94	6.77	2.08	5.65	1/2	0.67	0.63	2.05	4.06
	1-5/8	073651	F2B-SCEZ-110-PCR*	073638	F2B-SCEZ-110-P	1.78									
	40mm	127567	F2B-SCEZ-40M-PCR	@	F2B-SCEZ-40M-P	0.76	49.3	172.0	52.8	143.5	M12	17.0	16.0	52.1	103.1
209	1-5/8	@	F2B-SCEZ-110L-PCR*	@	F2B-SCEZ-110L-P	2.04	1.94	7.07	2.08	5.85	9/16	0.72	0.62	2.22	4.31
	1-11/16	127531	F2B-SCEZ-111-PCR	067986	F2B-SCEZ-111-P	2.00									
	1-3/4	@	F2B-SCEZ-112-PCR	065786	F2B-SCEZ-112-P	1.96									
	45mm	127568	F2B-SCEZ-45M-PCR	@	F2B-SCEZ-45M-P	0.88	49.3	179.6	52.8	148.5	M14	18.3	15.7	56.4	109.5
210	1-15/16	127532	F2B-SCEZ-115-PCR	058593	F2B-SCEZ-115-P	2.12	1.94	7.47	2.22	6.18	5/8	0.76	0.63	2.43	4.50
	2	049835	F2B-SCEZ-200-PCR	@	F2B-SCEZ-200-P	2.08									
	50mm	127569	F2B-SCEZ-50M-PCR	@	F2B-SCEZ-50M-P	0.96	49.3	189.7	56.4	157.0	M16	19.3	16.0	61.7	114.3

@ Assembled to order

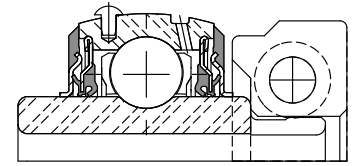
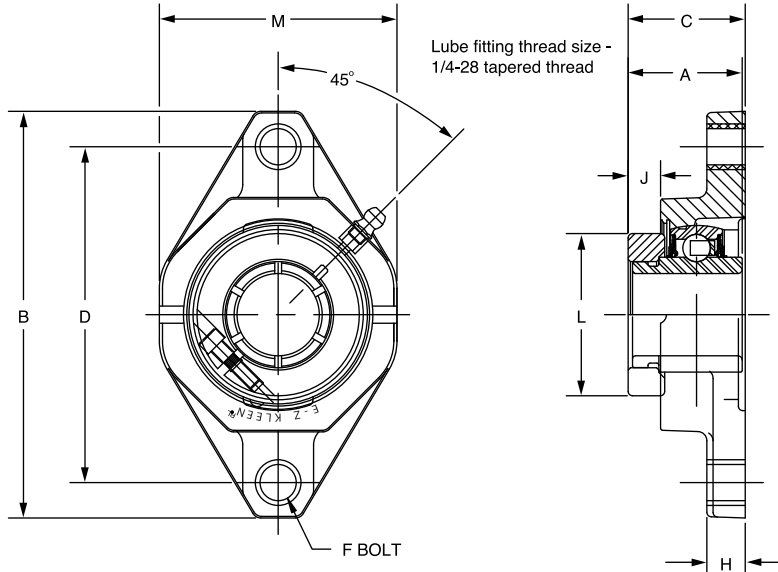
* 20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY POLYMER HOUSED 2-BOLT FLANGE BEARINGS



Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert With Flingers		Weight lbs kg	A	B	C	D	F Bolt Dia.	H	J	L	M
		Part No.	Description	Part No.	Description										
204	3/4	127602	F2B-DLEZ-012-PCR	@	F2B-DLEZ-012-P	0.77	1.28	4.45	0.37	3.54	3/8	0.53	1.49	1.71	2.35
	20mm	127641	F2B-DLEZ-20M-PCR	@	F2B-DLEZ-20M-P	0.36	32.5	113.0	9.4	90.0	M10	13.5	37.8	43.4	59.7
205	7/8	@	F2B-DLEZ-014-PCR*	@	F2B-DLEZ-014-P	1.09	1.44	4.92	1.60	3.90	3/8	0.54	0.46	1.99	2.71
	15/16	@	F2B-DLEZ-015-PCR*	@	F2B-DLEZ-015-P	1.05									
	1	127603	F2B-DLEZ-100-PCR	@	F2B-DLEZ-100-P	1.01									
	25mm	127642	F2B-DLEZ-25M-PCR	@	F2B-DLEZ-25M-P	0.47	36.6	125.0	40.6	99.0	M10	13.7	11.7	50.5	68.8
206	1-1/8	@	F2B-DLEZ-102-PCR*	@	F2B-DLEZ-102-P	1.56	1.56	5.58	1.73	4.59	3/8	0.60	0.49	2.22	3.19
	1-3/16	127604	F2B-DLEZ-103-PCR	@	F2B-DLEZ-103-P	1.46									
	1-1/4	127605	F2B-DLEZ-104S-PCR	@	F2B-DLEZ-104S-P	1.36									
	30mm	127643	F2B-DLEZ-30M-PCR	@	F2B-DLEZ-30M-P	0.57	39.6	141.7	43.9	116.5	M10	15.2	12.4	56.4	81.0
207	1-1/4	127606	F2B-DLEZ-104-PCR	@	F2B-DLEZ-104-P	2.18	1.75	6.31	1.86	5.12	1/2	0.62	0.58	2.69	3.69
	1-3/8	@	F2B-DLEZ-106-PCR*	@	F2B-DLEZ-106-P	2.11									
	1-7/16	127607	F2B-DLEZ-107-PCR	@	F2B-DLEZ-107-P	2.08									
	35mm	127644	F2B-DLEZ-35M-PCR	@	F2B-DLEZ-35M-P	1.00	44.5	160.3	47.2	130.0	M12	15.7	14.7	68.3	93.7
208	1-1/2	127608	F2B-DLEZ-108-PCR	@	F2B-DLEZ-108-P	2.75	2.01	6.77	2.15	5.65	1/2	0.67	0.70	2.74	4.06
	40mm	127645	F2B-DLEZ-40M-PCR	@	F2B-DLEZ-40M-P	1.26	51.1	172.0	54.6	143.5	M12	17.0	17.8	69.6	103.1
209	1-5/8	@	F2B-DLEZ-110L-PCR*	@	F2B-DLEZ-110L-P	3.11	2.01	7.07	2.15	5.85	9/16	0.72	0.69	2.99	4.31
	1-11/16	127609	F2B-DLEZ-111-PCR	@	F2B-DLEZ-111-P	3.07									
	1-3/4	@	F2B-DLEZ-112-PCR*	@	F2B-DLEZ-112-P	3.04									
	45mm	127646	F2B-DLEZ-45M-PCR	@	F2B-DLEZ-45M-P	1.41	51.1	179.6	54.6	148.5	M14	18.3	17.5	75.9	109.5
210	1-15/16	127610	F2B-DLEZ-115-PCR	@	F2B-DLEZ-115-P	3.64	2.01	7.47	2.29	6.18	5/8	0.76	0.70	3.24	4.50
	2	058515	F2B-DLEZ-200-PCR	@	F2B-DLEZ-200-P	3.60									
	50mm	127647	F2B-DLEZ-50M-PCR	@	F2B-DLEZ-50M-P	1.67	51.1	189.7	58.2	157.0	M16	19.3	17.8	82.3	114.3

@ Assembled to order
*20 piece minimum

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

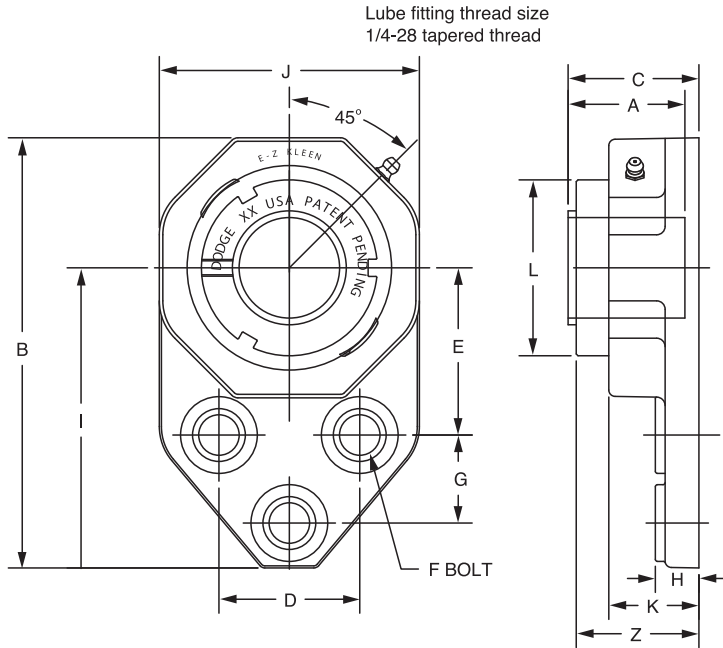
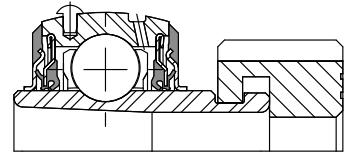
D-LOK Ball Bearing

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS

E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY POLYMER HOUSED FLANGE BEARINGS



Lube fitting thread size
1/4-28 tapered thread

Series	Shaft Size	Complete Unit		Unit Without Adapter		Adapter & Nut Assembly	
		Part No.	Description	Part No.	Description	Part No.	Description
204	3/4	129627	FB-GTEZ-012-PCR	129555	FB-GTEZ-04-PCR	129967	AN-GT-04-012-CR
205	1	129629	FB-GTEZ-100-PCR	129556	FB-GTEZ-05-PCR	129968	AN-GT-05-100-CR
206	1-1/8	@	FB-GTEZ-102-PCR	129557	FB-GTEZ-06-PCR	129969	AN-GT-06-102-CR
	1-3/16	129631	FB-GTEZ-103-PCR			129970	AN-GT-06-103-CR
	1-1/4	129632	FB-GTEZ-104S-PCR			129971	AN-GT-06-104S-CR
207	1-1/4	129634	FB-GTEZ-104-PCR	129558	FB-GTEZ-07-PCR	129972	AN-GT-07-104-CR
	1-3/8	@	FB-GTEZ-106-PCR			129973	AN-GT-07-106-CR
	1-7/16	129635	FB-GTEZ-107-PCR			129974	AN-GT-07-107-CR

@ Assembled to order

Series	Shaft Size	Weight lbs ks	A	B	C#	D	E	F Bolt Dia.	G	H	I	J	K	L	Z
204	3/4	0.75	1.48	4.39	1.72	1.50	1.69	3/8	0.88	0.53	3.22	2.34	1.12	1.50	1.73
205	1	1.12	1.46	4.91	1.70	1.63	1.81	3/8	1.13	0.54	3.56	2.71	1.14	1.80	1.72
206	1-1/8	1.77	1.61	5.48	1.84	1.88	2.06	3/8	1.25	0.60	3.88	3.20	1.24	2.08	1.88
	1-3/16	1.67													
	1-1/4	1.57													
207	1-1/4	2.65	1.62	6.11	1.86	2.00	2.38	1/2	1.25	0.62	4.26	3.69	1.28	2.38	1.92
	1-3/8	2.58													
	1-7/16	2.55													

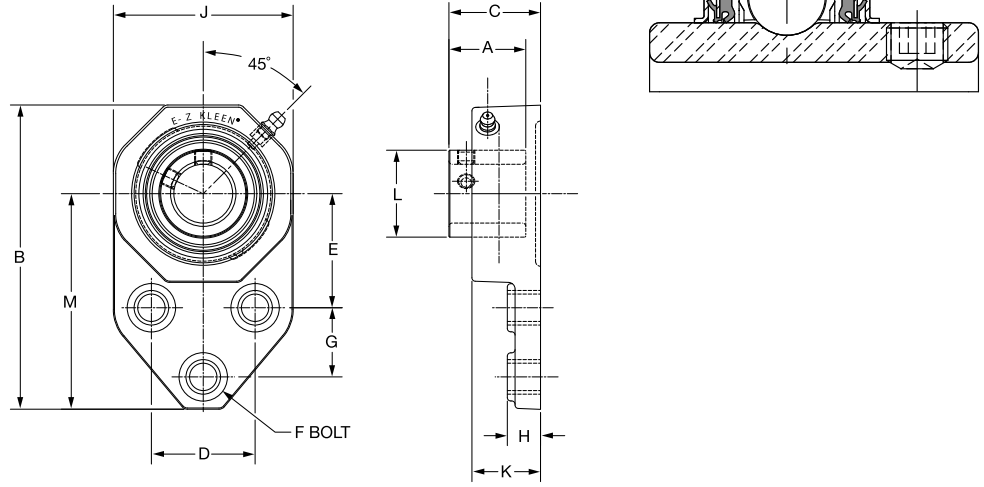
#C dimension will vary slightly depending on true shaft diameter

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY POLYMER HOUSED FLANGE BRACKETS



Series	Shaft Size	With Corrosion Resistant Insert		With Insert With Flingers	
		Part No.	Description	Part No.	Description
204	1/2	@	FB-SCEZ-008-PCR*	062317	FB-SCEZ-008L-P
	5/8	@	FB-SCEZ-010-PCR*	@	FB-SCEZ-010-P
	3/4	127533	FB-SCEZ-012-PCR	058336	FB-SCEZ-012-P
	20mm	127570	<i>FB-SCEZ-20M-PCR</i>	@	<i>FB-SCEZ-20M-P</i>
205	7/8	@	FB-SCEZ-014-PCR*	@	FB-SCEZ-014-P
	15/16	@	FB-SCEZ-015-PCR*	@	FB-SCEZ-015-P
	1	127534	FB-SCEZ-100-PCR	057908	FB-SCEZ-100-P
	25mm	127521	<i>FB-SCEZ-25M-PCR</i>	@	<i>FB-SCEZ-25M-P</i>
206	1-1/8	@	FB-SCEZ-102-PCR*	@	FB-SCEZ-102-P
	1-3/16	127535	FB-SCEZ-103-PCR	@	FB-SCEZ-103-P
	1-1/4	127536	FB-SCEZ-104S-PCR	058311	FB-SCEZ-104S-P
	30mm	127522	<i>FB-SCEZ-30M-PCR</i>	@	<i>FB-SCEZ-30M-P</i>
207	1-1/4	127537	FB-SCEZ-104-PCR	@	FB-SCEZ-104-P
	1-5/16	058648	FB-SCEZ-105-PCR*	@	FB-SCEZ-105-P
	1-3/8	@	FB-SCEZ-106-PCR*	@	FB-SCEZ-106-P
	1-7/16	127538	FB-SCEZ-107-PCR	@	FB-SCEZ-107-P
35mm	127523	<i>FB-SCEZ-35M-PCR</i>	@	<i>FB-SCEZ-35M-P</i>	

@ Assembled to order * 20 piece minimum

Series	Shaft Size	Weight lbs kg	A	B	C	D	E	F Bolt Dia.	G	H	I	J	K	L
204	1/2	0.51	1.23	4.39	1.44	1.50	1.69	3/8	0.88	0.53	3.22	2.34	1.12	1.12
	5/8	0.49												
	3/4	0.47												
	20mm	0.23	31.2	111.5	36.6	38.1	42.9	M10	22.4	13.5	81.8	59.4	28.4	28.4
205	7/8	0.73	1.34	4.91	1.50	1.63	1.81	3/8	1.13	0.54	3.56	2.71	1.14	1.32
	15/16	0.71												
	1	0.69												
	25mm	0.32	34.0	124.7	38.1	41.4	46.0	M10	28.7	13.7	90.4	68.8	29.0	33.5
206	1-1/8	1.09	1.52	5.48	1.69	1.88	2.06	3/8	1.25	0.60	3.88	3.20	1.24	1.57
	1-3/16	1.07												
	1-1/4	1.05												
	30mm	0.48	38.6	139.2	42.9	47.8	52.3	M10	31.8	15.2	98.6	81.3	31.5	39.9
207	1-1/4	1.87	1.71	6.11	1.82	2.00	2.38	1/2	1.25	0.62	4.26	3.69	1.28	1.84
	1-5/16	1.81												
	1-3/8	1.76												
	1-7/16	1.71												
35mm	0.83	43.4	155.2	46.2	50.8	60.5	M12	31.8	15.7	108.2	93.7	32.5	46.7	

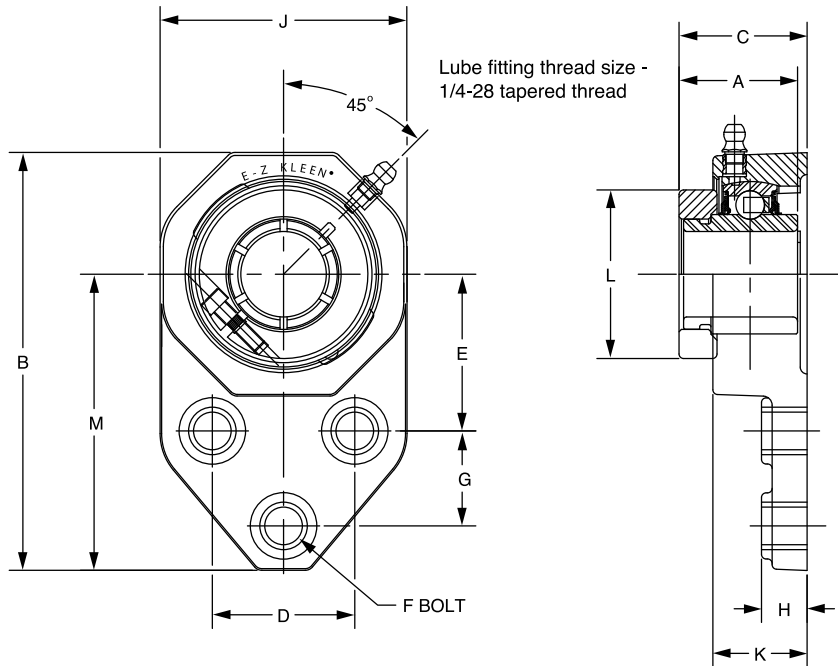
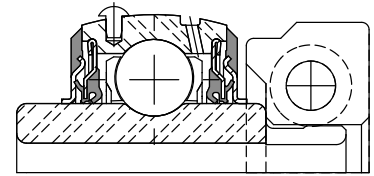
FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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Bearing Reference Guide
 ULTRA KLEEN
 E-Z KLEEN
 Extreme Duty
 Setscrew Ball Bearing
 GRIP TIGHT
 D-LOK Ball Bearing

SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY POLYMER HOUSED FLANGE BRACKETS



Series	Shaft Size	With Corrosion Resistant Insert		With Insert With Flingers	
		Part No.	Description	Part No.	Description
204	3/4	127611	FB-DLEZ-012-PCR	@	FB-DLEZ-012-P
	20mm	127648	FB-DLEZ-20M-PCR	@	FB-DLEZ-20M-P
205	7/8	@	FB-DLEZ-014-PCR*	@	FB-DLEZ-014-P
	15/16	@	FB-DLEZ-015-PCR*	@	FB-DLEZ-015-P
	1	127612	FB-DLEZ-100-PCR	@	FB-DLEZ-100-P
	25mm	127649	FB-DLEZ-25M-PCR	@	FB-DLEZ-25M-P
206	1-1/8	@	FB-DLEZ-102-PCR*	@	FB-DLEZ-102-P
	1-3/16	127613	FB-DLEZ-103-PCR	@	FB-DLEZ-103-P
	1-1/4	127614	FB-DLEZ-104S-PCR	@	FB-DLEZ-104S-P
	30mm	127650	FB-DLEZ-30M-PCR	@	FB-DLEZ-30M-P
207	1-1/4	127615	FB-DLEZ-104-PCR	@	FB-DLEZ-104-P
	1-3/8	@	FB-DLEZ-106-PCR*	@	FB-DLEZ-106-P
	1-7/16	127616	FB-DLEZ-107-PCR	@	FB-DLEZ-107-P
	35mm	127651	FB-DLEZ-35M-PCR	@	FB-DLEZ-35M-P

@ Assembled to order

* 20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY POLYMER HOUSED FLANGE BRACKETS

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

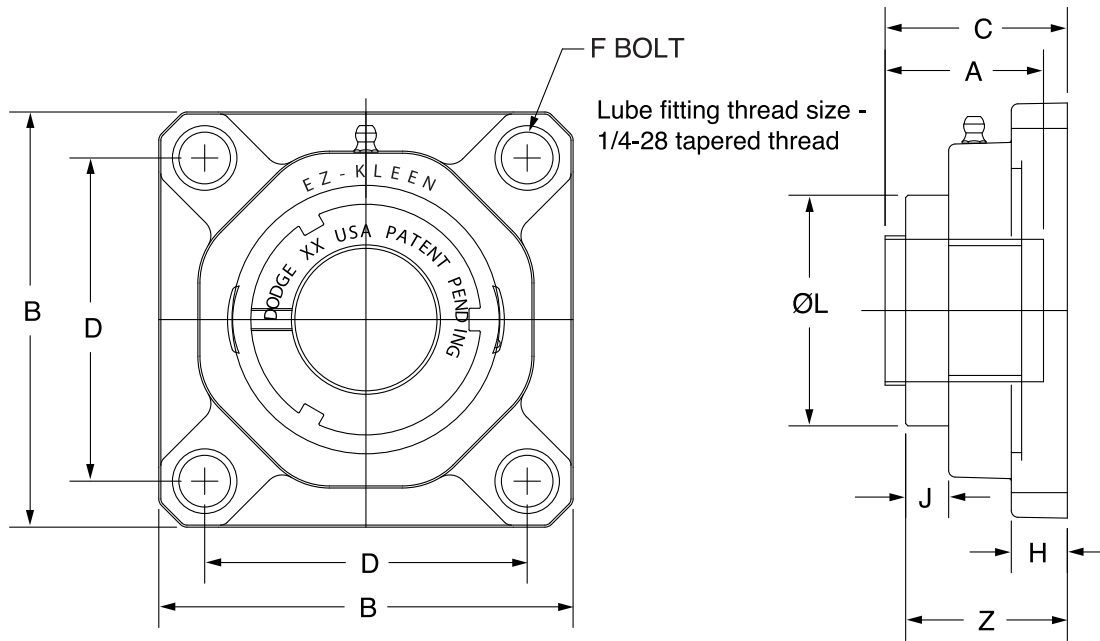
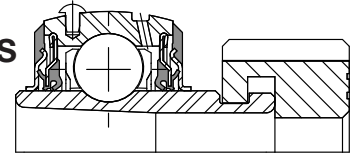
Series	Shaft Size	Weight lbs kg	A	B	C	D	E	F Bolt Dia.	G	H	I	J	K	L
204	3/4	0.75	1.28	4.39	0.37	1.50	1.69	3/8	0.88	0.53	3.22	2.34	1.12	1.71
	20mm	0.35	32.5	111.5	9.4	38.1	42.9	M10	22.4	13.5	81.8	59.4	28.4	43.4
205	7/8	1.32	1.44	4.91	1.60	1.63	1.81	3/8	1.13	0.54	3.56	2.71	1.14	1.99
	15/16	1.22												
	1	1.12												
206	25mm	0.51	36.6	124.7	40.6	41.4	46.0	M10	28.7	13.7	90.4	68.8	29.0	50.5
	1-1/8	1.77	1.56	5.48	1.73	1.88	2.06	3/8	1.25	0.60	3.88	3.20	1.24	2.22
	1-3/16	1.67												
	1-1/4	1.57												
207	30mm	0.76	39.6	139.2	43.9	47.8	52.3	M10	31.8	15.2	98.6	81.3	31.5	56.4
	1-1/4	2.65	1.75	6.11	1.86	2.00	2.38	1/2	1.25	0.62	4.26	3.69	1.28	2.69
	1-3/8	2.58												
	1-7/16	2.55												
	35mm	1.22	44.5	155.2	47.2	50.8	60.5	M12	31.8	15.7	108.2	93.7	32.5	68.3

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS

E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY POLYMER HOUSED 4-BOLT FLANGE BEARINGS



Series	Shaft Size	Complete Unit		Unit Without Adapter		Adapter & Nut Assembly	
		Part No.	Description	Part No.	Description	Part No.	Description
204	3/4	129706	F4B-GTEZ-012-PCR	129541	F4B-GTEZ-04-PCR	129967	AN-GT-04-012-CR
	20mm	129707	F4B-GTEZ-20M-PCR			129980	AN-GT-04-20M-CR
205	1	129708	F4B-GTEZ-100-PCR	129542	F4B-GTEZ-05-PCR	129968	AN-GT-05-100-CR
	25mm	129709	F4B-GTEZ-25M-PCR			129981	AN-GT-05-25M-CR
206	1-1/8	068687	F4B-GTEZ-102-PCR	129543	F4B-GTEZ-06-PCR	129969	AN-GT-06-102-CR
	1-3/16	129710	F4B-GTEZ-103-PCR			129970	AN-GT-06-103-CR
	1-1/4	129711	F4B-GTEZ-104S-PCR			129971	AN-GT-06-104S-CR
	30mm	129712	F4B-GTEZ-30M-PCR			129982	AN-GT-06-30M-CR
207	1-1/4	129713	F4B-GTEZ-104-PCR	129544	F4B-GTEZ-07-PCR	129972	AN-GT-07-104-CR
	1-3/8	@	F4B-GTEZ-106-PCR			129973	AN-GT-07-106-CR
	1-7/16	129714	F4B-GTEZ-107-PCR			129974	AN-GT-07-107-CR
	35mm	129715	F4B-GTEZ-35M-PCR			129983	AN-GT-07-35M-CR
208	1-1/2	129716	F4B-GTEZ-108-PCR	129545	F4B-GTEZ-08-PCR	129975	AN-GT-08-108-CR
	40mm	129717	F4B-GTEZ-40M-PCR			129984	AN-GT-08-40M-CR
209	1-11/16	129718	F4B-GTEZ-111-PCR	129546	F4B-GTEZ-09-PCR	129976	AN-GT-09-111-CR
	1-3/4	064584	F4B-GTEZ-112-PCR			129977	AN-GT-09-112-CR
	45mm	129705	F4B-GTEZ-45M-PCR			129985	AN-GT-09-45M-CR
210	1-15/16	129719	F4B-GTEZ-115-PCR	129547	F4B-GTEZ-10-PCR	129978	AN-GT-10-115-CR
	2	129395	F4B-GTEZ-200-PCR			129979	AN-GT-10-200-CR
	50mm	129720	F4B-GTEZ-50M-PCR			129986	AN-GT-10-50M-CR

@ Assembled to order

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY POLYMER HOUSED 4-BOLT FLANGE BEARINGS

Series	Shaft Size	Weight lbs kg	A	B	C#	D	F Bolt Dia.	H	J	L	Z
204	3/4	0.50	1.48	3.38	1.72	2.50	3/8	0.53	0.59	1.50	1.73
	20mm	0.30	37.6	85.9	43.7	63.5	M10	13.5	15.0	38.1	43.9
205	1	0.90	1.46	3.75	1.70	2.75	3/8	0.54	0.58	1.80	1.72
	25mm	0.30	37.1	95.3	43.2	69.9	M10	13.7	14.7	45.7	43.7
206	1-1/8	1.20	1.61	4.25	1.84	3.25	3/8	0.60	0.64	2.08	1.88
	1-3/16										
	1-1/4										
207	30mm	0.50	40.9	108.0	46.7	82.6	M10	15.2	16.3	52.8	47.8
	1-1/4	1.60	1.62	4.65	1.86	3.63	1/2	0.62	0.63	2.38	1.92
	1-3/8										
208	1-7/16	0.70	41.1	118.1	47.2	92.1	M12	15.7	16.0	60.5	48.8
	35mm										
	1-1/2										
209	40mm	2.00	1.84	5.12	2.12	4.00	1/2	0.67	0.66	2.62	2.12
	1-11/16	2.30	1.85	5.38	2.12	4.13	9/16	0.72	0.69	2.86	2.15
210	1-3/4	1.00	47.0	136.7	53.8	104.8	M14	18.3	17.5	72.6	54.6
	45mm										
	1-15/16										
210	2	2.30	1.86	5.62	2.26	4.38	5/8	0.76	0.70	3.13	2.29
	50mm	1.10	47.2	142.7	57.4	111.2	M16	19.3	17.8	79.5	58.2

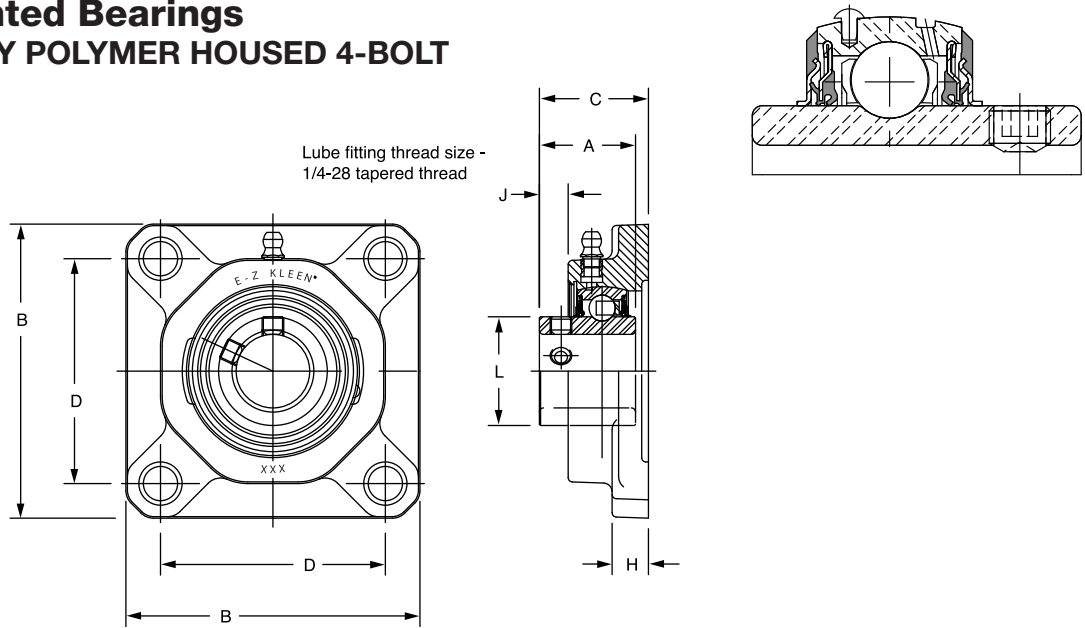
#C dimension will vary slightly depending on true shaft diameter.

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY POLYMER HOUSED 4-BOLT FLANGE BEARINGS



Series	Shaft Size	With Corrosion Resistant Insert		With Insert With Flingers		Weight lbs kg	A	B	C	D	F Bolt Dia.	H	J	L
		Part No.	Description	Part No.	Description									
204	1/2	073224	F4B-SCEZ-008L-PCR*	@	F4B-SCEZ-008L-P	0.59	1.23	3.38	1.46	2.50	3/8	0.53	0.30	1.12
	5/8	@	F4B-SCEZ-010L-PCR*	@	F4B-SCEZ-010L-P	0.57								
	3/4	127515	F4B-SCEZ-012-PCR	056440	F4B-SCEZ-012-P	0.55								
	20mm	127556	F4B-SCEZ-20M-PCR	@	F4B-SCEZ-20M-P	0.27	31.2	85.9	37.0	63.5	M10	13.5	7.6	28.4
205	7/8	068424	F4B-SCEZ-014-PCR*	@	F4B-SCEZ-014-P	0.71	1.34	3.75	1.52	2.75	3/8	0.54	0.36	1.32
	15/16	@	F4B-SCEZ-015-PCR*	@	F4B-SCEZ-015-P	0.69								
	1	127516	F4B-SCEZ-100-PCR	058910	F4B-SCEZ-100-P	0.67								
	25mm	127557	F4B-SCEZ-25M-PCR	@	F4B-SCEZ-25M-P	0.32	34.0	95.3	38.6	69.9	M10	13.7	9.1	33.5
206	1-1/8	068053	F4B-SCEZ-102-PCR*	@	F4B-SCEZ-102-P	0.89	1.52	4.25	1.72	3.25	3/8	0.60	0.45	1.57
	1-3/16	127517	F4B-SCEZ-103-PCR	@	F4B-SCEZ-103-P	0.86								
	1-1/4	127518	F4B-SCEZ-104S-PCR	058594	F4B-SCEZ-104S-P	0.84								
	30mm	127558	F4B-SCEZ-30M-PCR	@	F2B-SCEZ-30M-P	0.39	38.6	108.0	43.7	82.6	M10	15.2	11.4	39.9
207	1-1/4	127519	F4B-SCEZ-104-PCR	074632	F4B-SCEZ-104-P	1.40	1.71	4.65	1.84	3.63	1/2	0.62	0.53	1.84
	1-5/16	@	F4B-SCEZ-105-PCR*	@	F4B-SCEZ-105-P	1.35								
	1-3/8	058294	F4B-SCEZ-106-PCR*	065780	F4B-SCEZ-106-P	1.30								
	1-7/16	127520	F4B-SCEZ-107-PCR	@	F4B-SCEZ-107-P	1.24								
208	35mm	127559	F4B-SCEZ-35M-PCR	@	F4B-SCEZ-35M-P	0.61	43.4	118.1	46.7	92.1	M12	15.7	13.5	46.7
	1-1/2	127521	F4B-SCEZ-108-PCR	058595	F4B-SCEZ-108-P	1.82	1.94	5.12	2.10	4.00	1/2	0.67	0.62	2.05
	1-5/8	062628	F4B-SCEZ-110-PCR*	@	F4B-SCEZ-110-P	1.68								
	40mm	127560	F4B-SCEZ-40M-PCR	@	F4B-SCEZ-40M-P	0.76	49.3	130.0	53.3	101.6	M12	17.0	15.7	52.1
209	1-5/8	@	F4B-SCEZ-110L-PCR*	@	F4B-SCEZ-110L-P	2.09	1.94	5.38	2.10	4.13	9/16	0.72	0.62	2.22
	1-11/16	127522	F4B-SCEZ-111-PCR	@	F4B-SCEZ-111-P	2.00								
	1-3/4	057907	F4B-SCEZ-112-PCR*	@	F4B-SCEZ-112-P	1.93								
	45mm	127561	F4B-SCEZ-45M-PCR	@	F4B-SCEZ-45M-P	0.88	49.3	136.7	53.3	104.8	M14	18.3	15.7	56.4
210	1-15/16	127523	F4B-SCEZ-115-PCR	@	F4B-SCEZ-115-P	2.12	1.94	5.62	2.24	4.38	5/8	0.76	0.63	2.43
	2	057899	F4B-SCEZ-200-PCR	@	F4B-SCEZ-200-P	2.03								
	50mm	127562	F4B-SCEZ-50M-PCR	@	F4B-SCEZ-50M-P	0.96	49.3	142.7	56.9	111.2	M16	19.3	16.0	61.7

@ Assembled to order

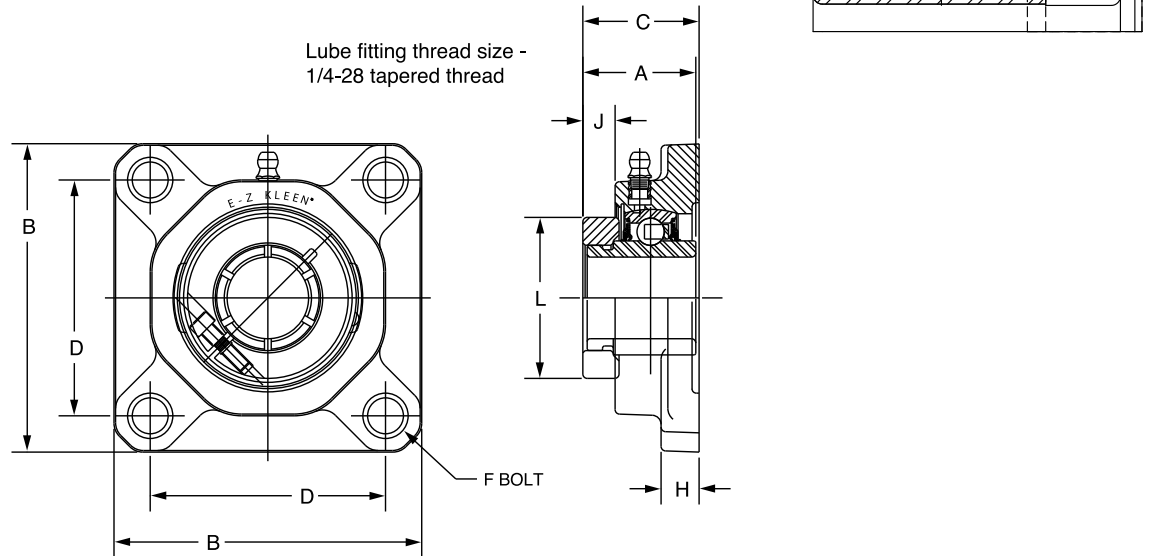
* 20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY POLYMER HOUSED 4-BOLT FLANGE BEARINGS



Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert With Flingers		Weight lbs kg	A	B	C	D	F Bolt Dia.	H	J	L
		Part No.	Description	Part No.	Description									
204	3/4	127593	F4B-DLEZ-012-PCR	@	F4B-DLEZ-012-P	0.50	1.28	3.38	0.37	2.50	3/8	0.53	1.49	1.71
	20mm	127634	F4B-DLEZ-20M-PCR	@	F4B-DLEZ-20M-P	0.30	32.5	85.9	9.4	63.5	M10	13.5	37.8	43.4
205	7/8	@	F4B-DLEZ-014-PCR*	@	F4B-DLEZ-014-P	0.90	1.44	3.75	1.60	2.75	3/8	0.54	0.46	1.99
	15/16	@	F4B-DLEZ-015-PCR*	@	F4B-DLEZ-015-P	0.80								
	1	127594	F4B-DLEZ-100-PCR	@	F4B-DLEZ-100-P	0.70								
	25mm	127635	F4B-DLEZ-25M-PCR	@	F4B-DLEZ-25M-P	0.30	36.6	95.3	40.6	69.9	M10	13.7	11.7	50.5
206	1-1/8	@	F4B-DLEZ-102-PCR*	@	F4B-DLEZ-102-P	1.20	1.56	4.25	1.73	3.25	3/8	0.60	0.49	2.22
	1-3/16	127595	F4B-DLEZ-103-PCR	@	F4B-DLEZ-103-P	1.10								
	1-1/4	127596	F4B-DLEZ-104S-PCR	@	F4B-DLEZ-104S-P	1.10								
	30mm	127636	F4B-DLEZ-30M-PCR	@	F4B-DLEZ-30M-P	0.50	39.6	108.0	43.9	82.6	M10	15.2	12.4	56.4
207	1-1/4	127597	F4B-DLEZ-104-PCR	@	F4B-DLEZ-104-P	1.60	1.75	4.65	1.86	3.63	1/2	0.62	0.58	2.69
	1-3/8	@	F4B-DLEZ-106-PCR*	@	F4B-DLEZ-106-P	1.50								
	1-7/16	127598	F4B-DLEZ-107-PCR	@	F4B-DLEZ-107-P	1.40								
	35mm	127637	F4B-DLEZ-35M-PCR	@	F4B-DLEZ-35M-P	0.70	44.5	118.1	47.2	92.1	M12	15.7	14.7	68.3
208	1-1/2	127599	F4B-DLEZ-108-PCR	@	F4B-DLEZ-108-P	2.00	2.01	5.12	2.15	4.00	1/2	0.67	0.70	2.74
	40mm	127638	F4B-DLEZ-40M-PCR	@	F4B-DLEZ-40M-P	0.90	51.1	130.0	54.6	101.6	M12	17.0	17.8	69.6
209	1-5/8	@	F4B-DLEZ-110L-PCR*	@	F4B-DLEZ-110L-P	2.30	2.01	5.38	2.15	4.13	9/16	0.72	0.69	2.99
	1-11/16	127600	F4B-DLEZ-111-PCR	@	F4B-DLEZ-111-P	2.20								
	1-3/4	@	F4B-DLEZ-112-PCR*	@	F4B-DLEZ-112-P	2.10								
	45mm	127639	F4B-DLEZ-45M-PCR	@	F4B-DLEZ-45M-P	1.00	51.1	136.7	54.6	104.8	M14	18.3	17.5	75.9
210	1-15/16	127601	F4B-DLEZ-115-PCR	@	F4B-DLEZ-115-P	2.30	2.01	5.62	2.29	4.38	5/8	0.76	0.70	3.24
	2	058514	F4B-DLEZ-200-PCR*	@	F4B-DLEZ-200-P	2.20								
	50mm	127640	F4B-DLEZ-50M-PCR	@	F4B-DLEZ-50M-P	1.10	51.1	142.7	58.2	111.2	M16	19.3	17.8	82.3

@ Assembled to order

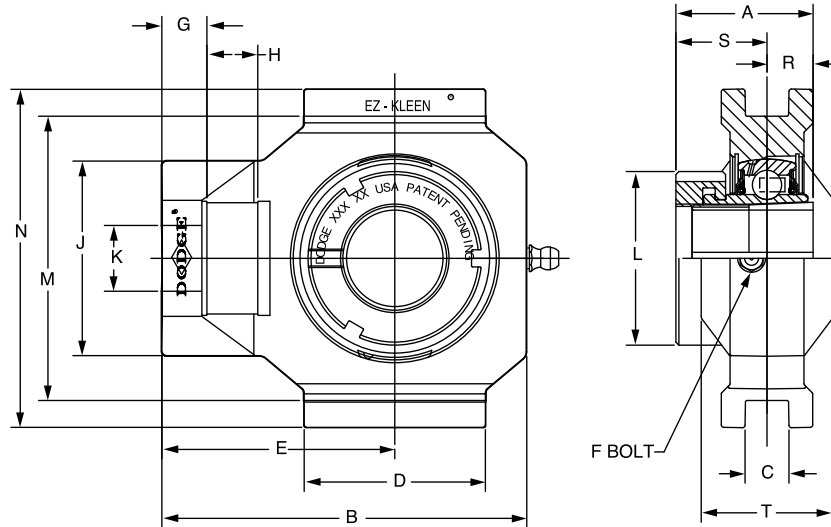
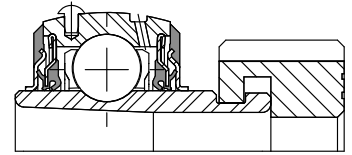
* 20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS

E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY POLYMER HOUSED WIDE SLOT TAKE-UP BEARINGS



Series	Shaft Size	With Corrosion Resistant Insert		Unit without Adapter & Nut		Adapter & Nut Assembly	
		Part No.	Description	Part No.	Description	Part No.	Description
204	3/4 20mm	136315	WSTU-GTEZ-012-PCR	136327	WSTU-GTEZ-04-PCR	129967	AN-GT-04-012-CR
		136323	WSTU-GTEZ-20M-PCR			129980	AN-GT-04-20M-CR
205	1 25mm	136316	WSTU-GTEZ-100-PCR	136328	WSTU-GTEZ-05-PCR	129968	AN-GT-05-100-CR
		136324	WSTU-GTEZ-25M-PCR			129981	AN-GT-05-25M-CR
206	1-1/8	136317	WSTU-GTEZ-102-PCR	136329	WSTU-GTEZ-06-PCR	129969	AN-GT-06-102-CR
	1-3/16	136318	WSTU-GTEZ-103-PCR			129970	AN-GT-06-103-CR
	1-1/4	136319	WSTU-GTEZ-104S-PCR			129971	AN-GT-06-104S-CR
	30mm	136325	WSTU-GTEZ-30M-PCR			129982	AN-GT-06-30M-CR
207	1-1/4	136320	WSTU-GTEZ-104-PCR	136330	WSTU-GTEZ-07-PCR	129972	AN-GT-07-104-CR
	1-3/8	136321	WSTU-GTEZ-106-PCR			129973	AN-GT-07-106-CR
	1-7/16	136322	WSTU-GTEZ-107-PCR			129974	AN-GT-07-107-CR
	35mm	136326	WSTU-GTEZ-35M-PCR			129983	AN-GT-07-35M-CR

SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings GTEZ NORMAL DUTY POLYMER HOUSED WIDE SLOT TAKE-UP BEARINGS

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

Series	Shaft Size	Weight lbs kg	Take-Up Frame No. Ref.	A	B	C	D	E	F Thd Shaft	G	H
204	3/4	0.90	WS300	1.48	3.81	0.530	2.10	2.50	5/8	0.56	0.65
	20mm	0.40		37.6	96.8	13.46	53.3	63.5	15.9	14.2	16.5
205	1	1.20	WS300	1.46	3.97	0.530	2.20	2.56	5/8	0.56	0.65
	25mm	0.50		37.1	100.8	13.46	55.9	65.0	15.9	14.2	16.5
206	1-1/8	1.80	WS308	1.61	4.49	0.530	2.29	2.86	3/4	0.56	0.65
	1-3/16	1.70									
	1-1/4	1.60									
	30mm	0.80		40.9	114.0	13.46	58.2	72.6	19.1	14.2	16.5
207	1-1/4	2.40	WS308	1.62	4.99	0.530	2.25	3.10	3/4	0.56	0.65
	1-3/8	2.30									
	1-7/16	2.30									
	35mm	1.08		41.1	126.7	13.46	57.2	78.7	19.1	14.2	16.5

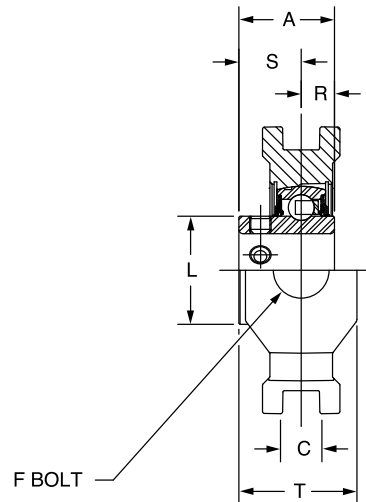
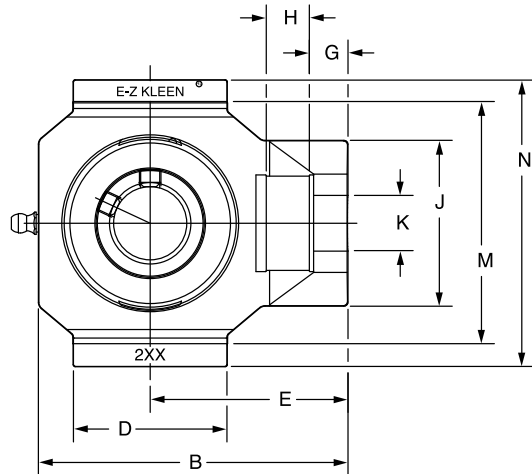
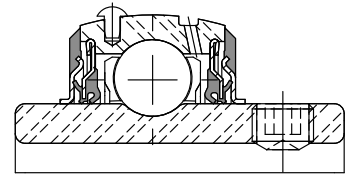
Series	Shaft Size	J	K	L	M	N	R	S	T	Z
204	3/4	2.10	0.71	1.50	3.015/2.985	3.63	0.46	1.02	1.38	1.73
	20mm	53.3	18.0	38.1	76.58/75.82	92.2	11.7	25.9	35.1	43.9
205	1	2.12	0.71	1.80	3.030/3.000	3.63	0.48	0.98	1.38	1.72
	25mm	53.8	18.0	45.7	76.96/76.20	92.2	12.2	24.9	35.1	43.7
206	1-1/8	2.41	0.81	2.08	3.525/3.495	4.20	0.52	1.09	1.62	1.88
	1-3/16									
	1-1/4									
	30mm	61.2	20.6	52.8	89.54/88.77	106.7	13.2	27.7	41.1	47.8
207	1-1/4	2.41	0.81	2.38	3.540/3.510	4.20	0.54	1.08	1.62	1.92
	1-3/8									
	1-7/16									
	35mm	61.2	20.6	60.5	89.93/89.15	106.7	13.7	27.4	41.1	48.8

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY POLYMER HOUSED WIDE SLOT TAKE-UP BEARINGS



Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert With Flingers	
		Part No.	Description	Part No.	Description
204	1/2	@	WSTU-SCEZ-008L-PCR*	@	WSTU-SCEZ-008L-P
	5/8	@	WSTU-SCEZ-010L-PCR*	@	WSTU-SCEZ-010L-P
	3/4	127539	WSTU-SCEZ-012-PCR	@	WSTU-SCEZ-012-P
	20mm	127574	WSTU-SCEZ-20M-PCR	@	WSTU-SCEZ-20M-P
205	7/8	@	WSTU-SCEZ-014-PCR*	@	WSTU-SCEZ-014-P
	15/16	@	WSTU-SCEZ-015-PCR*	@	WSTU-SCEZ-015-P
	1	127540	WSTU-SCEZ-100-PCR	058940	WSTU-SCEZ-100-P
	25mm	127575	WSTU-SCEZ-25M-PCR	@	WSTU-SCEZ-25M-P
206	1-1/8	@	WSTU-SCEZ-102-PCR*	@	WSTU-SCEZ-102-P
	1-3/16	127541	WSTU-SCEZ-103-PCR	@	WSTU-SCEZ-103-P
	1-1/4	127542	WSTU-SCEZ-104S-PCR	@	WSTU-SCEZ-104S-P
	30mm	127576	WSTU-SCEZ-30M-PCR	@	WSTU-SCEZ-30M-P
207	1-1/4	127543	WSTU-SCEZ-104-PCR	@	WSTU-SCEZ-104-P
	1-5/16	@	WSTU-SCEZ-105-PCR*	@	WSTU-SCEZ-105-P
	1-3/8	@	WSTU-SCEZ-106-PCR*	073836	WSTU-SCEZ-106-P
	1-7/16	127544	WSTU-SCEZ-107-PCR	@	WSTU-SCEZ-107-P
	35mm	127577	WSTU-SCEZ-35M-PCR	@	WSTU-SCEZ-35M-P

SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings SCEZ NORMAL DUTY POLYMER HOUSED WIDE SLOT TAKE-UP BEARINGS

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

Series	Shaft Size	Weight Lbs kg	Take-Up Frame No. Ref.	A	B	C	D	E	F Thd Shaft	G
204	1/2	0.86	WS300	1.23	3.81	0.545/0.515	2.10	2.50	5/8	0.56
	5/8	0.76								
	3/4	0.66								
	20mm	0.31		31.2	96.8	13.84/13.08	53.3	63.5	15.9	14.2
205	7/8	0.92	WS300	1.34	3.97	0.545/0.515	2.20	2.56	5/8	0.56
	15/16	0.82								
	1	0.72								
	25mm	0.34		34.0	100.8	13.84/13.08	55.9	65.0	15.9	14.2
206	1-1/8	1.11	WS308	1.52	4.49	0.545/0.515	2.29	2.86	3/4	0.56
	1-3/16	1.09								
	1-1/4	1.07								
	30mm	0.49		38.6	114.0	13.84/13.08	58.2	72.6	19.1	14.2
207	1-1/4	1.58	WS308	1.71	4.99	0.545/0.515	2.25	3.10	3/4	0.56
	1-5/16	1.52								
	1-3/8	1.47								
	1-7/16	1.42								
	35mm	0.69		43.4	126.7	13.84/13.08	57.2	78.7	19.1	14.2

Series	Shaft Size	H	J	K	L	M	N	R	S	T
204	1/2	0.65	2.10	0.71	1.12	3.015/2.985	3.63	0.50	0.73	1.38
	5/8									
	3/4									
	20mm	16.5	53.3	18.0	28.4	76.58/75.82	92.2	12.7	18.5	35.1
205	7/8	0.65	2.12	0.71	1.32	3.030/3.000	3.63	0.56	0.78	1.38
	15/16									
	1									
	25mm	16.5	53.8	18.0	33.5	76.96/76.20	92.2	14.2	19.8	35.1
206	1-1/8	0.65	2.41	0.81	1.57	3.525/3.495	4.20	0.58	0.94	1.62
	1-3/16									
	1-1/4									
	30mm	16.5	61.2	20.6	39.9	89.54/88.77	106.7	14.7	23.9	41.1
207	1-1/4	0.65	2.41	0.81	1.84	3.540/3.510	4.20	0.67	1.04	1.62
	1-5/16									
	1-3/8									
	1-7/16									
	35mm	16.5	61.2	20.6	46.7	89.93/89.15	106.7	17.0	26.4	41.1

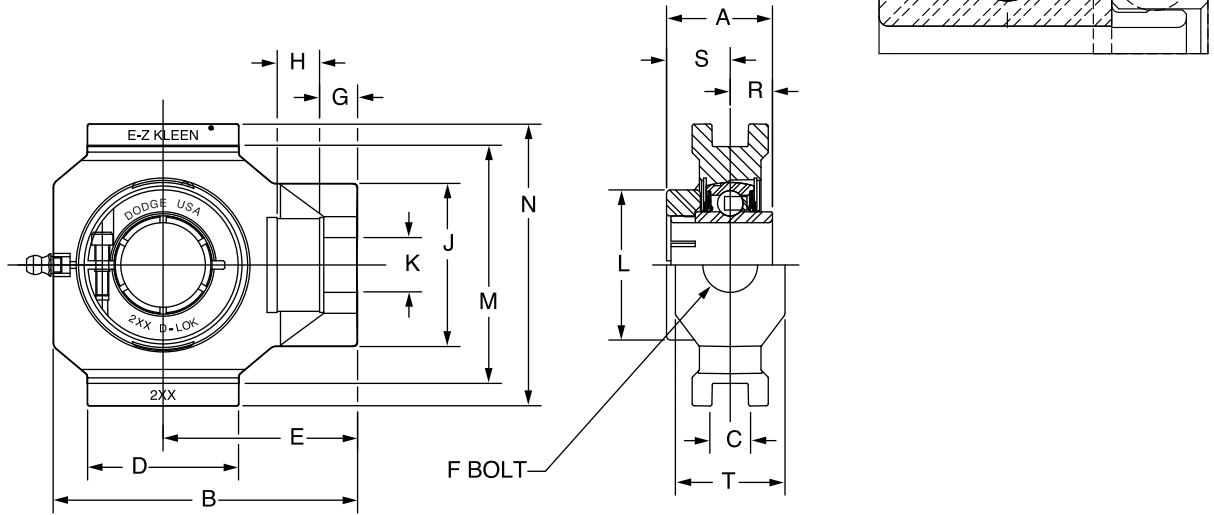
@ Assembled to order * 20 piece minimum

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings DLEZ NORMAL DUTY POLYMER HOUSED WIDE SLOT TAKE-UP BEARINGS



Series	Shaft Size	With Corrosion Resistant Insert		Standard Insert With Flingers		Weight lbs kg	Take-Up Frame No. Ref.	A	B	C	D	E
		Part No.	Description	Part No.	Description							
204	3/4 20mm	127617	WSTU-DLEZ-012-PCR	@	WSTU-DLEZ-012-P	0.66	WS300	1.28	3.81	0.530	2.10	2.50
		127652	WSTU-DLEZ-20M-PCR	@	WSTU-DLEZ-20M-P	0.31		32.5	96.8	13.46	53.3	63.5
205	7/8 15/16 1 25mm	@	WSTU-DLEZ-014-PCR*	@	WSTU-DLEZ-014-P	0.92	WS300	1.44	3.97	0.530	2.20	2.56
		@	WSTU-DLEZ-015-PCR*	@	WSTU-DLEZ-015-P	0.82						
		127618	WSTU-DLEZ-100-PCR	@	WSTU-DLEZ-100-P	0.72						
		127653	WSTU-DLEZ-25M-PCR	@	WSTU-DLEZ-25M-P	0.34						
206	1-1/8 1-3/16 1-1/4 30mm	@	WSTU-DLEZ-102-PCR*	@	WSTU-DLEZ-102-P	1.11	WS308	1.56	4.49	0.530	2.29	2.86
		127619	WSTU-DLEZ-103-PCR	@	WSTU-DLEZ-103-P	1.09						
		127620	WSTU-DLEZ-104S-PCR	@	WSTU-DLEZ-104S-P	1.07						
		127654	WSTU-DLEZ-30M-PCR	@	WSTU-DLEZ-30M-P	0.49						
207	1-1/4 1-3/8 1-7/16 35mm	127621	WSTU-DLEZ-104-PCR	@	WSTU-DLEZ-104-P	1.58	WS308	1.75	4.99	0.530	2.25	3.10
		@	WSTU-DLEZ-106-PCR*	@	WSTU-DLEZ-106-P	1.47						
		127622	WSTU-DLEZ-107-PCR	@	WSTU-DLEZ-107-P	1.42						
		127655	WSTU-DLEZ-35M-PCR	@	WSTU-DLEZ-35M-P	0.69						

@ Assembled to order

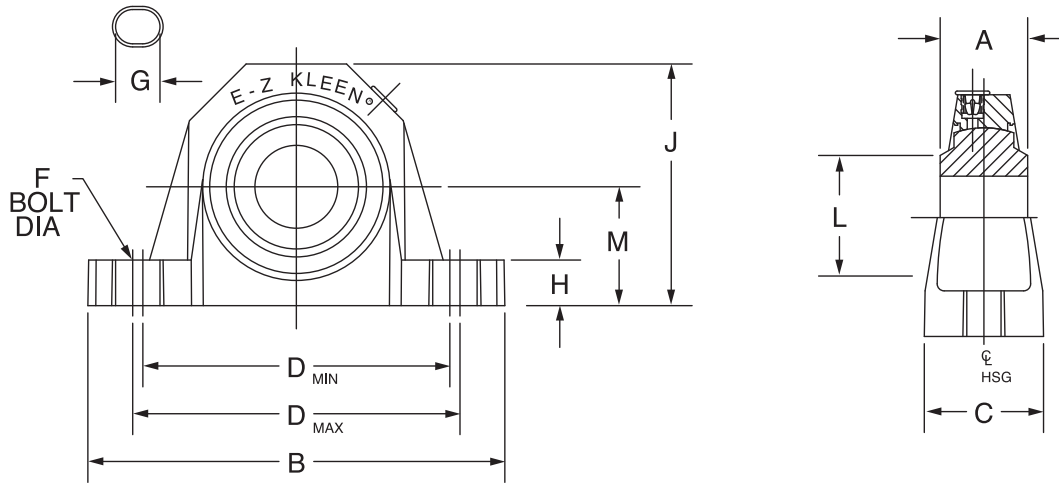
Series	Shaft Size	F Thd Shaft	G	H	J	K	L	M	N	R	S	T
204	3/4 20mm	5/8	0.56	0.65	2.10	0.71	1.71	3.015/2.985	3.63	0.50	0.78	1.38
		15.9	14.2	16.5	53.3	18.0	43.4	76.58/75.82	92.2	12.7	19.8	35.1
205	7/8 15/16 1 25mm	5/8	0.56	0.65	2.12	0.71	1.99	3.030/3.000	3.63	0.56	0.88	1.38
		15.9	14.2	16.5	53.8	18.0	50.5	76.96/76.20	92.2	14.2	22.4	35.1
206	1-1/8 1-3/16 1-1/4 30mm	3/4	0.56	0.65	2.41	0.81	2.22	3.525/3.495	4.20	0.58	0.98	1.62
		19.1	14.2	16.5	61.2	20.6	56.4	89.54/88.77	106.7	14.7	24.9	41.1
		3/4	0.56	0.65	2.41	0.81	2.69	3.540/3.510	4.20	0.67	1.08	1.62
207	1-1/4 1-3/8 1-7/16 35mm	3/4	0.56	0.65	2.41	0.81	2.69	3.540/3.510	4.20	0.67	1.08	1.62
		19.1	14.2	16.5	61.2	20.6	68.3	89.93/89.15	106.7	17.0	27.4	41.1

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings PSEZ POLYMER SLEEVE, POLYMER HOUSED PILLOW BLOCKS



Series	Shaft Size	Part No.	Description
204	3/4	034700	P2B-PSEZ-012-P
	20mm	034748	P2B-PSEZ-20M-P
205	1	034701	P2B-PSEZ-100-P
	25mm	034749	P2B-PSEZ-25M-P
206 (PSU)	1-3/16	034702	P2B-PSUEZ-103-P
	1-1/4	034703	P2B-PSUEZ-104S-P
	30mm	034750	P2B-PSUEZ-30M-P
207	1-1/4	034704	P2B-PSEZ-104-P
	1-7/16	034705	P2B-PSEZ-107-P
	35mm	034751	P2B-PSEZ-35M-P
208 (PSB)	1-1/2	034706	P2B-PSBEZ-108-P
	40mm	034752	P2B-PSBEZ-40M-P
210	1-15/16	034709	P2B-PSEZ-115-P
	50mm	034754	P2B-PSEZ-50M-P

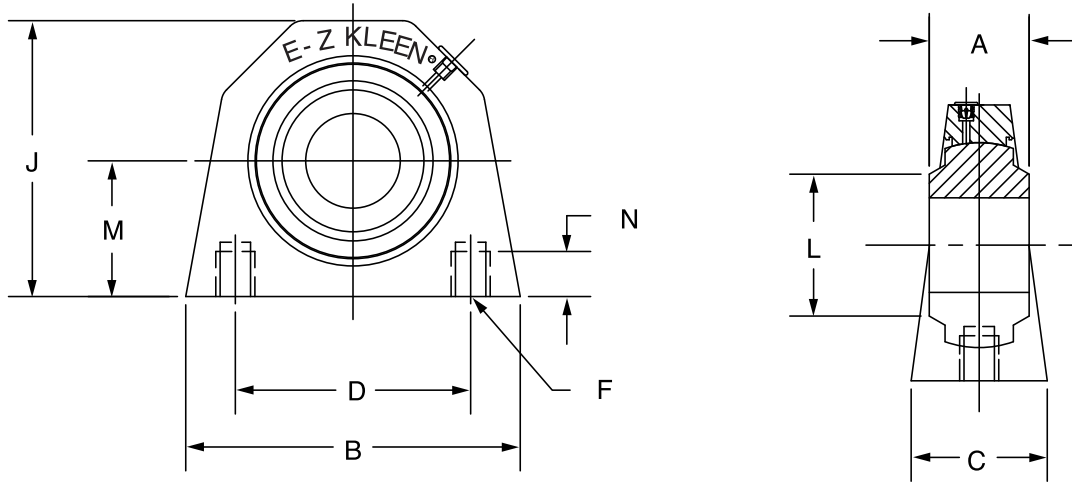
Series	Shaft Size	Weight lb. kg	A	B	C	D		F Bolt Dia	G	H	J	L	M
						Min	Max						
204	3/4	0.57	1	5-1/32	1-31/64	3-31/64	3-59/64	3/8	19/32	39/64	2-5/8	1-5/16	1-5/16
	20mm	0.26	25.4	127.8	37.7	93.3	99.6	M10	15.1	15.5	66.7	33.3	33.3
205	1	0.57	1-1/16	5-1/2	1-31/64	3-31/32	4-13/64	3/8	19/32	39/64	2-55/64	1-7/16	1-7/16
	25mm	0.26	27.0	139.7	37.7	100.8	106.8	M10	15.1	15.5	72.6	36.5	36.5
206 (PSU)	1-3/16	0.89	1-3/16	6-5/16	1-25/32	4-39/64	4-57/64	1/2	23/32	45/64	3-11/32	1-11/16	1-11/16
	1-1/4	0.88											
	30mm	0.4	30.2	160.3	45.2	116.9	124.2	M12	18.3	17.9	84.9	42.9	42.9
207	1-1/4	1.06	1-5/16	6-35/64	1-7/8	4-13/16	5-1/8	1/2	23/32	23/32	3-57/64	2	1-7/8
	1-7/16	1.01											
	35mm	0.48	33.3	166.3	47.8	122.2	130.2	M12	18.3	18.3	98.8	50.8	47.6
208 (PSB)	1-1/2	1.27	1-1/2	7-13/64	2-7/64	5-7/64	5-41/64	1/2	7/8	49/64	4-11/64	2	1-15/16
	40mm	0.58	38.1	183.0	53.6	129.6	143.3	M12	22.2	19.4	106.0	50.8	49.2
210	1-15/16	1.67	1-5/8	8-1/16	2-23/64	6	6-9/16	5/8	1.00	59/64	4-9/16	2-9/16	2-1/4
	50mm	0.76	41.3	204.8	59.9	152.4	166.7	M16	25.4	23.4	115.9	65.1	57.2

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings PSEZ POLYMER SLEEVE POLYMER HOUSED TAPPED BASE PILLOW BLOCKS



Series	Shaft Size	Part No.	Description
204	3/4	034710	TB-PSEZ-012-P
	20mm	034755	TB-PSEZ-20M-P*
205	1	034711	TB-PSEZ-100-P
	25mm	034756	TB-PSEZ-25M-P*
206	1-3/16	034712	TB-PSEZ-103-P
	1-1/4	034713	TB-PSEZ-104S-P
	30mm	034757	TB-PSEZ-30M-P*
207	1-1/4	034714	TB-PSEZ-104-P
	1-7/16	034715	TB-PSEZ-107-P
	35mm	034758	TB-PSEZ-35M-P*

* Made to Order

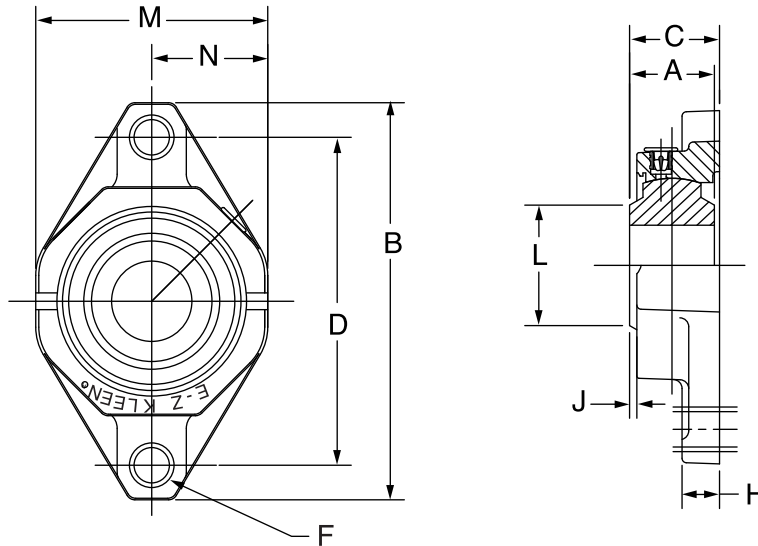
Series	Shaft Size	Weight lbs kg	A	B	C	D	J	L	M	N Thread Depth	R Bolt Hole Threads
204	3/4	0.53	1	3-1/4	1-31/64	2	2-21/32	1-5/16	1-5/16	13/32	3/8-16
	20mm	0.24	25.4	82.6	37.7	50.8	67.6	33.3	33.3	10.2	M10x1.5
205	1	0.46	1-1/16	3-1/4	1-1/2	2	2-57/64	1-7/16	1-7/16	13/32	3/8-16
	25mm	0.21	27.0	82.6	38.1	50.8	73.3	36.5	36.5	10.2	M10x1.5
206	1-3/16	0.85	1-3/16	4-3/8	1-37/64	3	3-3/8	1-11/16	1-11/16	29/64	7/16-14
	1-1/4	0.84									
	30mm	0.39	30.2	111.1	40.1	76.2	85.9	42.9	42.9	11.4	M10x1.5
207	1-1/4	1.02	1-5/16	4-5/8	1-57/64	3-1/4	3-13/16	2	1-7/8	35/64	1/2-13
	1-7/16	0.97									
	35mm	0.46	33.3	117.5	48	82.6	96.8	50.8	47.6	14.0	M12x1.75

* Made to order

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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E-Z KLEEN Mounted Bearings PSEZ POLYMER SLEEVE POLYMER HOUSED 2-BOLT FLANGE BEARINGS



Series	Shaft Size	Part No.	Description
204	3/4	034726	F2B-PSEZ-012-P
	20mm	034766	F2B-PSEZ-20M-P
205	1	034727	F2B-PSEZ-100-P
	25mm	034767	F2B-PSEZ-25M-P
206	1-3/6	034728	F2B-PSEZ-103-P
	1-1/4	034729	F2B-PSEZ-104S-P
	30mm	034768	F2B-PSEZ-30M-P
207	1-1/4	034730	F2B-PSEZ-104-P
	1-7/16	034731	F2B-PSEZ-107-P
	35mm	034769	F2B-PSEZ-35M-P
208	1-1/2	034732	F2B-PSEZ-108-P
	40mm	034770	F2B-PSEZ-40M-P
210	1-15/16	034735	F2B-PSEZ-115-P
	50mm	034772	F2B-PSEZ-50M-P

Series	Shaft Size	Weight lb. kg	A	B	C	D	F Bolt Dia	H	J	L	M
204	3/4	0.42	1	4-29/64	1-3/16	3-17/32	3/8	17/32	5/64	1-5/16	2-23/64
	20mm	0.19	25.4	113.0	30.4	90.0	M10	13.5	1.9	33.3	59.9
205	1	0.46	1-1/16	4-59/64	1-1/4	3-57/64	3/8	35/64	1/8	1-7/16	2-23/64
	25mm	0.21	27.0	125.0	31.5	99.0	M10	13.9	2.6	36.5	69.1
206	1-3/6	0.62	1-3/16	5-19/32	1-11/32	4-19/32	3/8	35/64	7/64	1-11/16	3-13/64
	1-1/4	0.61									
	30mm	0.28	30.2	142.1	34.1	116.5	M10	13.9	2.6	42.9	81.4
207	1-1/4	0.78	1-5/16	6-5/16	1-27/64	5-1/8	1/2	5/8	9/64	2	3-45/64
	1-7/16	0.73									
	35mm	0.36	33.3	160.3	36.2	130.0	M12	15.9	3.7	50.8	94.1
208	1-1/2	1.01	1-1/2	6-25/32	1-5/8	5-21/32	1/2	43/64	1/4	2	4-1/16
	40mm	0.46	38.1	172.0	41.4	143.5	M12	17.1	4.6	50.8	103.1
210	1-15/16	1.14	1-5/8	7-31/64	1-53/64	6-3/16	5/8	49/64	1/4	2-9/16	4-1/2
	50mm	0.52	41.3	19.1	46.5	157.0	M16	19.4	6.2	65.1	114.3

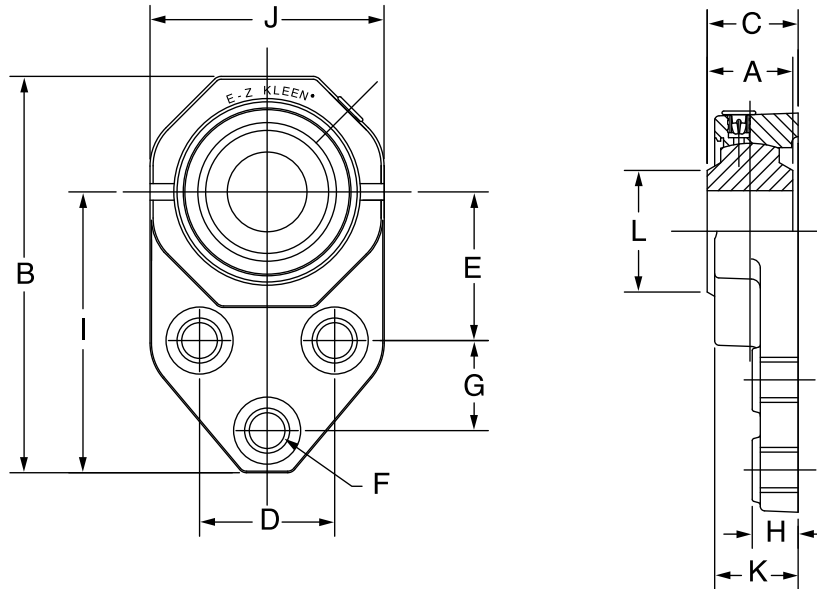
FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings

PSEZ POLYMER SLEEVE POLYMER HOUSED 3-BOLT FLANGE BRACKET



Series	Shaft Size	Part No.	Description
204	3/4	034736	FB-PSEZ-012-P
	20mm	034773	FB-PSEZ-20M-P
205	1	034737	FB-PSEZ-100-P
	25mm	034774	FB-PSEZ-25M-P
206	1-3/16	034738	FB-PSEZ-103-P
	1-1/4	034739	FB-PSEZ-104S-P
	30mm	034775	FB-PSEZ-30M-P
207	1-1/4	034740	FB-PSEZ-104-P
	1-7/16	034741	FB-PSEZ-107-P
	35mm	034776	FB-PSEZ-35M-P

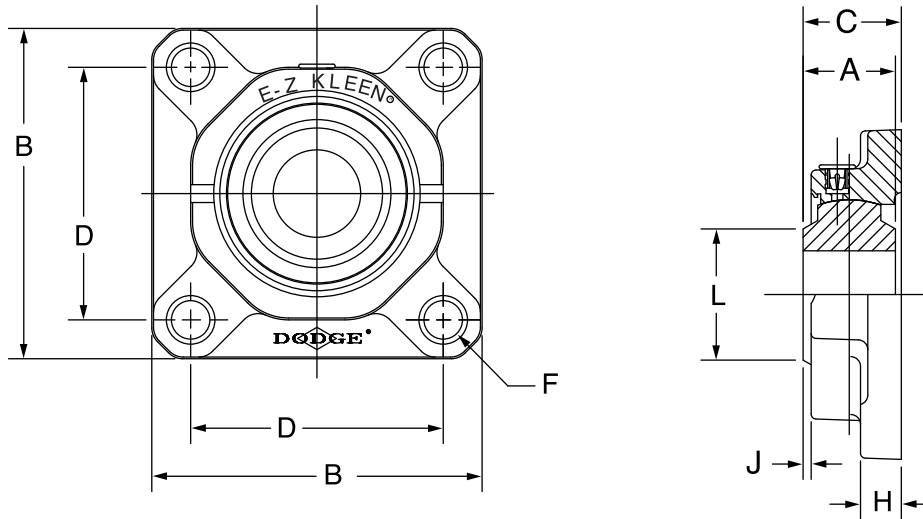
Series	Shaft Size	Weight lbs kg	A	B	C	D	E	F	G	H	I	J	K	L
204	3/4	0.4	1	4-25/64	1-3/16	1-1/2	1-11/16	3/8	7/8	17/32	3-3/16	2-11/32	1-1/8	1-5/16
	20mm	0.18	25.4	111.5	12.7	38.1	42.9	M10	22.2	13.5	81.1	59.4	28.4	33.3
205	1	0.57	1-1/16	4-29/32	1-1/4	1-5/8	1-13/16	3/8	1-1/8	35/64	3-17/32	2-45/64	1-9/64	1-7/16
	25mm	0.23	27	124.7	31.5	41.3	46.1	M10	28.6	13.9	89.8	68.8	29	36.5
206	1-3/16	0.83	1-3/16	5-31/64	1-11/32	1-7/8	2-1/16	3/8	1-1/4	39/64	3-57/64	3-13/64	1-1/4	1-11/16
	1-1/4	0.82												
	30mm	0.38	30.2	139.2	34.1	47.6	52.4	M10	31.7	15.5	98.6	81.3	31.8	42.9
207	1-1/4	1.25	1-5/16	6-7/64	1-27/64	2	2-3/8	1/2	1-1/4	5/8	4-15/64	3-45/64	1-9/32	2
	1-7/16	1.2												
	35mm	0.57	33.3	155.2	36.2	50.8	60.3	M12	31.7	15.9	107.6	94.1	32.5	50.8

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings PSEZ POLYMER SLEEVE POLYMER HOUSED 4-BOLT FLANGE BEARINGS



Series	Shaft Size	Part No.	Description
204	3/4	034716	F4B-PSEZ-012-P
	20mm	034759	F4B-PSEZ-20M-P
205	1	034717	F4B-PSEZ-100-P
	25mm	034760	F4B-PSEZ-25M-P
206	1-3/16	034718	F4B-PSEZ-103-P
	1-1/4	034719	F4B-PSEZ-104S-P
207	30mm	034761	F4B-PSEZ-30M-P
	1-1/4	034720	F4B-PSEZ-104-P
208	1-7/16	034721	F4B-PSEZ-107-P
	35mm	034762	F4B-PSEZ-35M-P
210	1-1/2	034722	F4B-PSEZ-108-P
	40mm	034763	F4B-PSEZ-40M-P
210	1-15/16	034725	F4B-PSEZ-115-P
	50mm	034765	F4B-PSEZ-50M-P

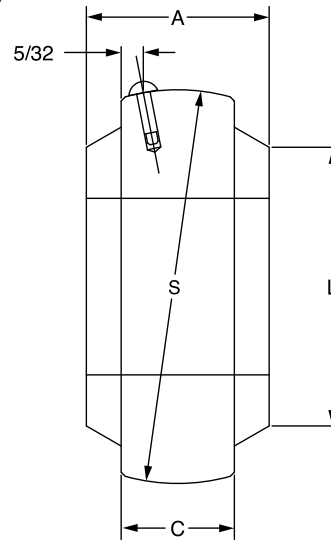
Series	Shaft Size	Weight lbs kg	A	B	C	D	F Bolt Dia	H	J	L
204	3/4	0.48	1	3-3/8	1-7/32	2-1/2	3/8	17/32	5/64	1-5/16
	20mm	0.22	25.4	85.9	31.1	63.5	M10	13.5	1.9	33.3
205	1	0.55	1-1/16	3-3/4	1-17/64	2-3/4	3/8	35/64	1/8	1-7/16
	25mm	0.25	27	95.3	32.3	70.0	M10	13.9	2.6	36.5
206	1-3/16	0.89	1-3/16	4-1/4	1-3/8	3-1/4	3/8	39/64	7/64	1-11/16
	1-1/4	0.88	30.2	108.0	34.9	82.5	M10	15.5	2.6	42.9
207	1-1/4	0.97	1-5/16	4-21/32	1-29/64	3-5/8	1/2	5/8	9/64	2.0
	1-7/16	0.92	33.3	118.1	37.0	92.0	M12	15.9	3.7	50.8
208	35mm	0.44	33.3	118.1	37.0	92.0	M12	15.9	3.7	50.8
	1-1/2	1.23	1-1/2	5-1/8	1-21/32	4.0	1/2	43/64	1/4	2.0
210	40mm	0.56	38.1	130.0	42.2	101.5	M12	16.9	4.6	50.8
	1-15/16	1.35	1-5/8	5-5/8	1-55/64	4-3/8	5/8	49/64	1/4	2-9/16
	50mm	0.61	41.3	142.7	47.3	111.0	M16	19.3	6.4	65.1

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	SELECTION/DIMENSIONS PAGE B2-24	ACCESSORIES PAGE B2-77
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SELECTION/DIMENSIONS



E-Z KLEEN Mounted Bearings PSEZ POLYMER SLEEVE BEARING INSERTS



Series	Shaft Size	Part No.	Description
204	3/4	032867	INS-PS-012
	20mm	032868	INS-PS-20M
205	1	032872	INS-PS-100
	25mm	032871	INS-PS-25M
206	1-3/16	032875	INS-PS-103
	1-1/4	032876	INS-PS-104S
	30mm	032874	INS-PS-30M
207	1-1/4	032877	INS-PS-104
	1-7/16	032879	INS-PS-107
	35mm	032878	INS-PS-35M
208	1-1/2	032881	INS-PS-108
	40mm	032882	INS-PS-40M
210	1-15/16	032886	INS-PS-115
	50mm	032887	INS-PS-50M

Series	Shaft Size	Weight lbs kg	A	C	L	S
204	3/4	0.25	1	11/16	1-5/16	1.8465/1.8395
	20mm	0.14	25.4	17.5	33.3	46.9011/46.7233
205	1	0.25	1-1/16	11/16	1-7/16	2.0435/2.0365
	25mm	0.15	27	17.5	36.5	51.9049/51.7271
206	1-3/16	0.36	1-3/16	13/16	1-11/16	2.437/2.428
	1-1/4	0.35				
	30mm	0.16	30.2	20.6	42.9	61.8988/61.6712
207	1-1/4	0.40	1-5/16	13/16	2	2.829/2.820
	1-7/16	0.35				
	35mm	0.18	33.3	20.6	50.8	71.8566/71.6280
208	1-1/2	0.46	1-1/2	7/8	2	3.144/3.135
	40mm	0.21	38.1	22.2	50.8	79.8576/79.6790
210	1-15/16	0.50	1-5/8	15/16	2-9/16	3.5375/3.5275
	50mm	0.23	41.3	23.8	65.1	89.8525/89.5985

 FEATURES/BENEFITS
PAGE B2-3

 HOW TO ORDER/NOMENCLATURE
PAGE B2-8

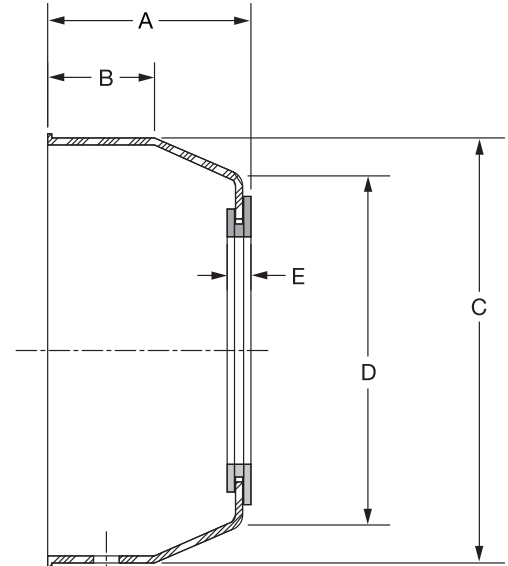
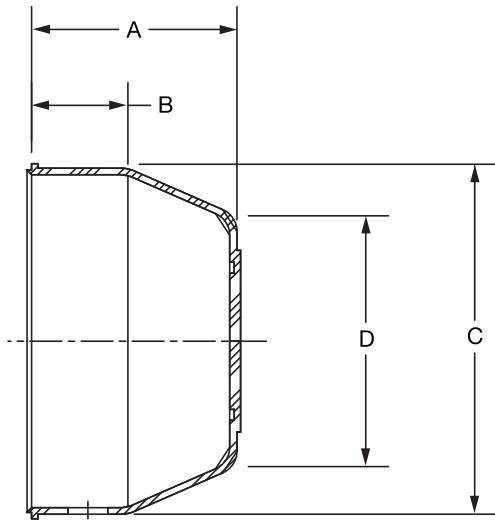
 SELECTION/DIMENSIONS
PAGE B2-24

 ACCESSORIES
PAGE B2-77



ACCESSORIES

E-Z KLEEN/ULTRA KLEEN Mounted Bearings Polymer and Stainless Steel Housed End Closures



Series	For Shaft Size	Closed End Closure Part Number	Description	A	B	C	D	Open End Closure Part Number	Description	A	B	C	D	E
204	3/4	128960	ECC-EZ-204	1-1/8	17/32	1-29/32	1-3/8	128974	ECO-EZ-012	1-3/16	17/32	1-29/32	1-3/8	3/16
	20mm			28.7	13.5	48.4	35.1	128991	ECO-EZ-20M	30.2	13.5	48.4	35.1	4.9
205	1	128961	ECC-EZ-205	3/16	17/32	2-11/64	1-39/64	128975	ECO-EZ-100	1-1/4	17/32	2-11/64	1-39/64	3/16
	25mm			30.2	13.5	55.1	40.9	128992	ECO-EZ-25M	31.8	13.5	55.1	40.9	4.9
206	1-3/16	128962	ECC-EZ-206	1-21/64	9/16	2-1/2	31/32	128976	ECO-EZ-103	1-25/64	9/16	2-1/2	31/32	3/16
	1-1/4			33.8	14.2	63.5	50.0	128989	ECO-EZ-104S					
	30mm			35.3	14.2	63.5	50.0	128993	ECO-EZ-30M	35.3	14.2	63.5	50.0	4.9
207	1-1/4	128963	ECC-EZ-207	1-15/32	11/16	2-29/32	2-5/16	128977	ECO-EZ-104	1-17/32	11/16	2-29/32	2-5/16	3/16
	1-7/16			37.3	17.5	73.9	58.9	128990	ECO-EZ-107					
	35mm			38.9	17.5	73.9	58.9	128994	ECO-EZ-35M	38.9	17.5	73.9	58.9	4.9
208	1-1/2	128964	ECC-EZ-208	1-35/64	11/16	3-5/16	2-49/64	128978	ECO-EZ-108	1-19/32	11/16	3-5/16	2-49/64	13/64
	40mm			39.1	17.5	84.1	70.1	128996	ECO-EZ-40M	40.6	17.5	84.1	70.1	5.1
209	1-11/16	128965	ECC-EZ-209	1-19/32	23/32	3-1/2	2-7/8	@	ECO-EZ-111	1-21/32	23/32	3-1/2	2-7/8	13/64
	45mm			40.4	18.3	88.9	72.9	@	ECO-EZ-45M	41.9	18.3	88.9	72.9	5.1
210	1-15/16	128966	ECC-EZ-210	1-21/32	29/32	3-5/8	3	128980	ECO-EZ-115	1-23/32	29/32	3-5/8	3	13/64
	50mm			42.2	23.1	91.4	76.2	128997	ECO-EZ-50M	43.7	23.1	91.4	76.2	5.1

@ Assembled to order

FEATURES/BENEFITS PAGE B2-3	HOW TO ORDER/NOMENCLATURE PAGE B2-8	EASY SELECTION PAGE B2-12	SELECTION/DIMENSIONS PAGE 2-24
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NOTES

Bearing Reference Guide

ULTRA KLEEN

E-Z KLEEN

Extreme Duty

Setscrew Ball Bearing

GRIP TIGHT

D-LOK Ball Bearing

Section 12: Supplemental Manuals

12-5: Bimba Cylinders



Double-Wall® Air Cylinder

General Repair Instructions

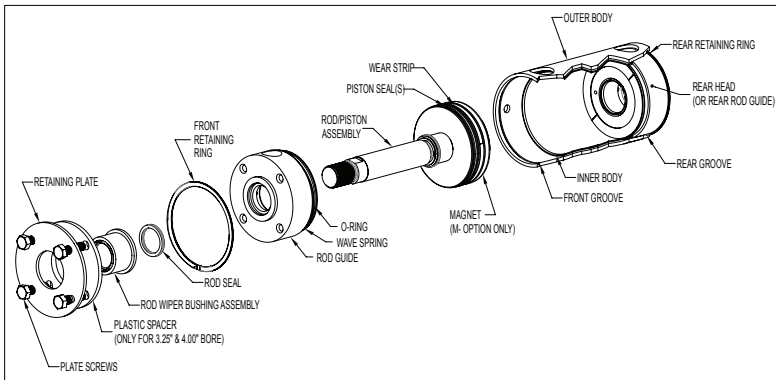
K-B-□, K-D-□, K-P-M-□

Disassembly

- 1) Remove 4 plate screws, retaining plate, rod wiper bushing assembly, plastic spacer, and rod seal from the front of the cylinder.
- 2) Using a screw driver, remove the front retaining ring and discard.
- 3) Pull rod out of assembly. This will also remove the rod guide and possibly the inner body.
- 4) For DWD versions; repeat steps 1-2 on the rear of the cylinder.
- 5) Using a screw driver, remove the rear retaining ring and discard.
- 6) Remove rear head. If the inner body was not removed in step 3, it will be removed now.
- 7) Remove O-rings from the rod guide(s) and/or rear head and discard.
- 8) Remove wave spring(s) from rod guide(s) and discard.
- 9) Remove piston seal(s), piston wear strip, and magnet (M options only) from the piston and discard.

Repair

- 1) Install piston seal(s) after they are lightly lubed, piston wear strip, and magnet (M options only) onto the piston.
- 2) Install wave spring(s) onto rod guide(s).
- 3) Install O-rings onto the rod guide(s) and/or rear head.
- 4) Install the rear head (or rear rod guide) into rear end of outer body with the body hole and port threads inline.
- 5) Install a new retaining ring back into the rear groove in the outer body.
- 6) Install the rod guide onto the inner body.
- 7) Insert the piston and rod assembly approximately midway into the inner body with the rod sticking through the rod guide.
- 8) Insert the rod guide and sub-assembly into the front of outer body with the body hole and port threads inline.
- 9) Press in rod guide to compress the wave spring, then install a new retaining ring back into the front groove in the outer body.
- 10) Install rod seal, rod wiper bushing assembly, plastic spacer, and retaining plate back onto front of cylinder.
- 11) Install 4 plate screws to finish the re-build.



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Form: BMS-1003
 rev. 1: EC-37790



To learn more about this product, scan this QR code with your mobile device.

Section 12: Supplemental Manuals

12-5: Bimba Cylinders

See information below



LINEAR THRUSTER

SERVICE AND MAINTENANCE INSTRUCTIONS

Linear Thrusters are precise linear actuators that use air pressure up to 250 psi. Air cylinders are pre-lubricated at the factory and should be used with a filter-lubricator combination for best results. Otherwise, introduce a few drops of 10 weight oil into the cylinder every 500 hours of operation.

Two spring loaded oiler ports are located on the face of the Linear Thruster housings. Introduce several drops of 10 weight oil into each port for every 100 hours of normal operation, more often if rapid cycling is necessary.

CAUTION: When removing or replacing the air cylinder, be sure that the cylinder mounting nut is not over-tightened. This nut should be tightened down and then backed off approximately 1/8 turn so that the air cylinder floats. This is to prevent binding of the cylinder rod and undue wear on the cylinder rod bearing or seal.

REPLACEMENT OF BEARINGS AND SEALS

For T Series Thrusters, worn or damaged linear bearings can be pressed out of the housing after first removing the seals from both ends of the bores. The seals are pressed into the bores and can easily be pried out with a screwdriver or similar tool. Use a mandrel slightly smaller than the bore to press out the bearing and proceed carefully to prevent damage to the I.D. Any traces of Loctite remaining within the bore should be carefully removed by scraping.

Replacement bearings should easily slide into the bore with moderate finger pressure. Spread two to four drops of Loctite RC/680 around the bearing case, insert into the bore and rotate while pressing flush with the top of the housing. Set the seal atop the bearing and immediately force it into the bore using a mechanical or hydraulic press. Repeat this procedure for the other bearings and allow about 30 to 40 minutes setup time before returning the housing to service.

For the maintenance of the TE units, the bearings can be replaced in the field. The bearings can be pressed out and then replaced with a new bearing plus a small amount of RC 680 Loctite (1 drop wiped around leading edge of bearing).

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Form LTSI-809

Section 12: Supplemental Manuals

12-1: Intralox Belting



Intralox Belt Manual



Intralox Series 400

12-2: Demag Brakemotor



Demag Brake Motor

12-3: Dodge Reducers



Dodge Tigear 2



Dodge Instructions



Dodge Tigear 2
Lubricants

12-4: Dodge Bearings



Dodge EZ Kleen
Bearings

12-5: Bimba Cylinders



BIMBA Double Wall
Cylinder General Rep



BIMBA Linear
Thruster Service