

Model 55SSO Pit Mounted Low Profile Turntable
Operation and Maintenance Manual

Ver. 1 7/13/2023

**MANUFACTURER'S LIMITED WARRANTY FOR
CAROUSEL USA MODEL 55SSV**

The limited warranty set forth below is given by Carousel USA with respect to new merchandise purchased and used in the United States, its territories and possessions, and Canada.

"Carousel USA" warrants this product (excluding its *Normal Wear Parts* as described below) against defects in material and workmanship for a period of two (2) years commencing on the date of delivery to user and will, at its option, repair or replace, free of charge, any part found to be defective in materials or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water, or damage because of other peril or natural disaster. Damage resulting from the installation or use of any part, accessory or attachment not approved by Carousel USA for use with the product(s) covered by this manual will void your warranty as to any resulting damage.

Normal Wear Parts are warranted to be free from defects in material and workmanship for a period of (1) one year from the date of delivery to user. Normal wear parts include, but are not limited to items including: support wheels, and pinion gears.

HOW TO OBTAIN SERVICE: Warranty service is available, WITH PROOF OF PURCHASE, through Carousel USA.

Carousel USA
15206 Ceres Avenue
Fontana, CA 92335
626-334-7190
www.carousel-usa.com

This limited warranty does not provide coverage in the following cases:

Routine maintenance items such as lubricants, drive adjustments, deck adjustments, running gear cleaning, and normal deterioration of the exterior finish due to use or exposure.

- a. Service completed by someone other than an authorized service dealer.
- b. Carousel USA does not extend any warranty for products sold or exported outside of the United States and/or Canada, and their respective possessions and territories, except those sold through Carousel USA's authorized channels of export distribution.
- c. Replacement parts that are not genuine Carousel USA parts.
- d. Transportation charges and service calls.

No implied warranty, including any implied warranty of merchantability or fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty, whether written or oral, except as mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product, shall bind Carousel USA. During the period of the warranty, the exclusive remedy is repair or replacement of the product as set forth above.

The provisions as set forth in this warranty provide the sole and exclusive remedy arising from the sale. Carousel USA shall not be liable for incidental or consequential loss or damage including, without limitation, expenses incurred for substitute or replacement turntable services or for rental expenses to temporarily replace a warranted product.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. **Alteration of safety features of the product shall void this warranty.** You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser.

HOW STATE LAW RELATES TO THIS WARRANTY: This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

IMPORTANT: Owner must present Original Proof of Purchase to obtain warranty coverage.

Proprietary Information

Carousel USA has proprietary rights on the information in this document. It is forbidden to copy, duplicate or disclose the information herein, in whole or in part, or make use of the information, unless permission has been previously obtained, in writing, from Carousel USA.

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Scope

This manual provides a technical description and instructional operation for the general safety, and maintenance of the *55SSO Turntable*. Electronics, controls, and operation are located on the “SCB_User Manual Rev.2” document.

Introduction

This turntable is designed with special features to fulfill system operation requirements as follows:

- Pin-gear drive system, providing accurate and consistent torque without slippage
- Turntable drive system capable of maintaining constant velocity under load
- Slewing style, High-capacity main center bearing
- Roller bearing support wheels manufactured by CUSA and made from extruded Nylon 6/6 containing finely divided particles of MoS₂ offering enhanced load bearing capabilities and increased wear and friction resistance.
- 1.5 HP, commercial quality, Nord motor and helical-worm gearbox

Technical Description

A. Mechanical Operation

The rigid steel topped turntable is supported by and rotates on a large central slewing bearing and 30 support wheels. The turntable is powered by a 1.5 HP Nord gearmotor. The Gearbox output shaft is connected to a pinion gear. The pinion gear meshes with the pins which span the perimeter of the turntable and rotates the turntable in either direction.

B. Table of Specifications

Turntable Diameter	216.5” [5500 mm]
Turntable Height	3.25”
Load Capacity	7,000 LB operating capacity
Top Surface	3/16” Steel (Standard), or 3/16” Stainless Steel or ¼” Aluminum (optional)
Rotation Speed (CW &CCW)	0.2 to 1 RPM
Hardware	Grade 8.8 or equivalent

Installation

A. General

The turntable components should be unloaded from the packing crate. Make note of any damage that may have occurred during transit and contact Carousel USA immediately if the damage appears significant enough to have affected the contents.

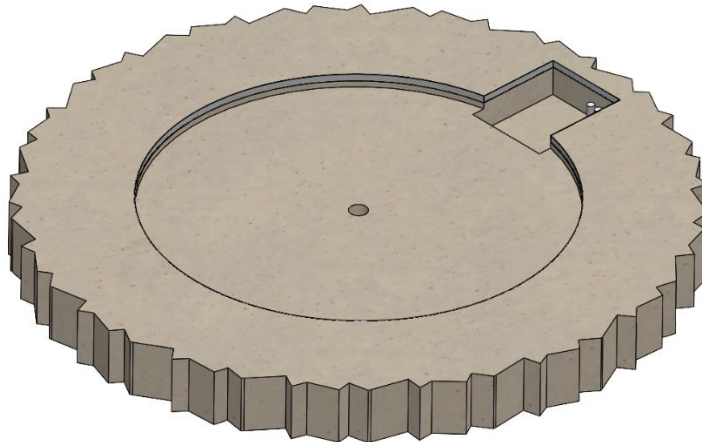
B. General Installation Regimen Overview

1. Prepare installation site by clearing any debris that may interfere with the rotating assembly.
2. Locate the center point of installation area and position pre-assembled central bearing and slip ring assembly in this location.
3. Lay out peripheral wheel track and alignment spokes in their approximate locations.
4. Install hatch support angles.
5. Position motor assembly in motor pit.
6. Apply grease to track.
7. Layout pie sections.
8. Layout Top panels.
9. Adjust motor backlash.
10. Install motor hatch.

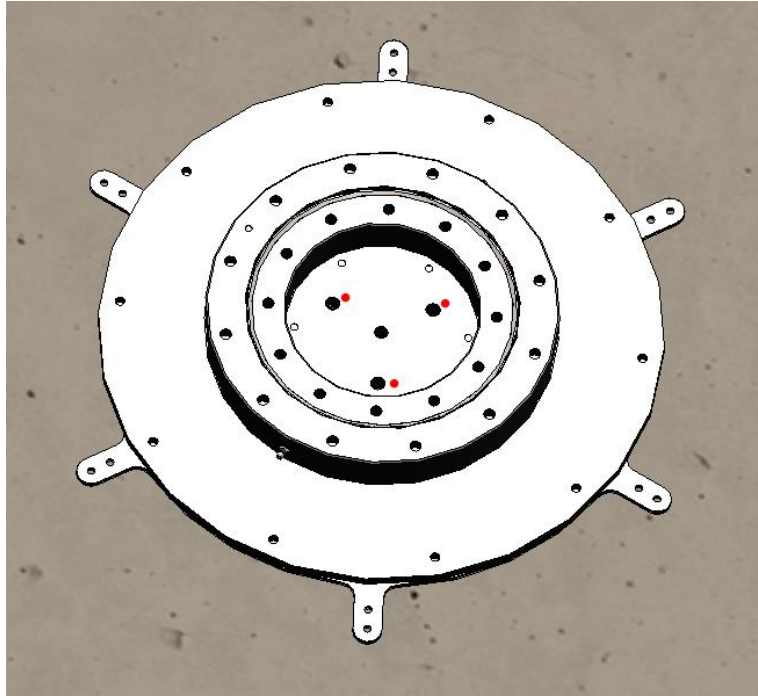
C. Detailed installation

1. Prepare installation site by ensuring the area is clean, smooth, level, and able to support the loaded weight without any soft spots or voids.
 - a. **Floor Flatness height deviation shall be no more than $\pm 3/16''$**
 - b. Recommended diameter of smooth and flat surface to be in excess of $\varnothing 270''$.
Sloped floors are acceptable up to 10%.

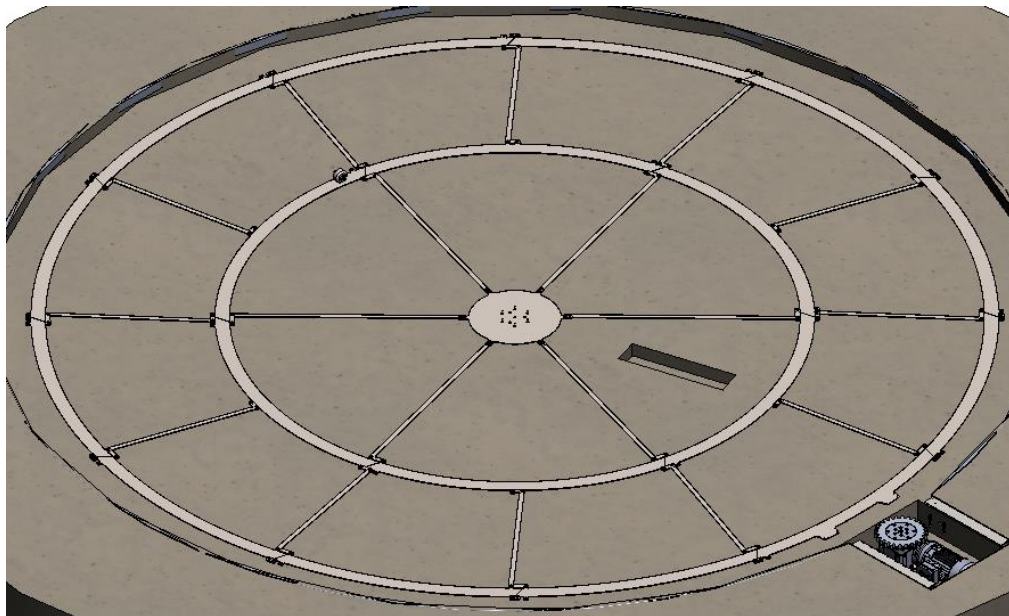
SEE "55SSV INSTALLATION SITE FLATNESS" DOCUMENT FOR MORE INFORMATION AND FLOOR MEASUREMENT GUIDE



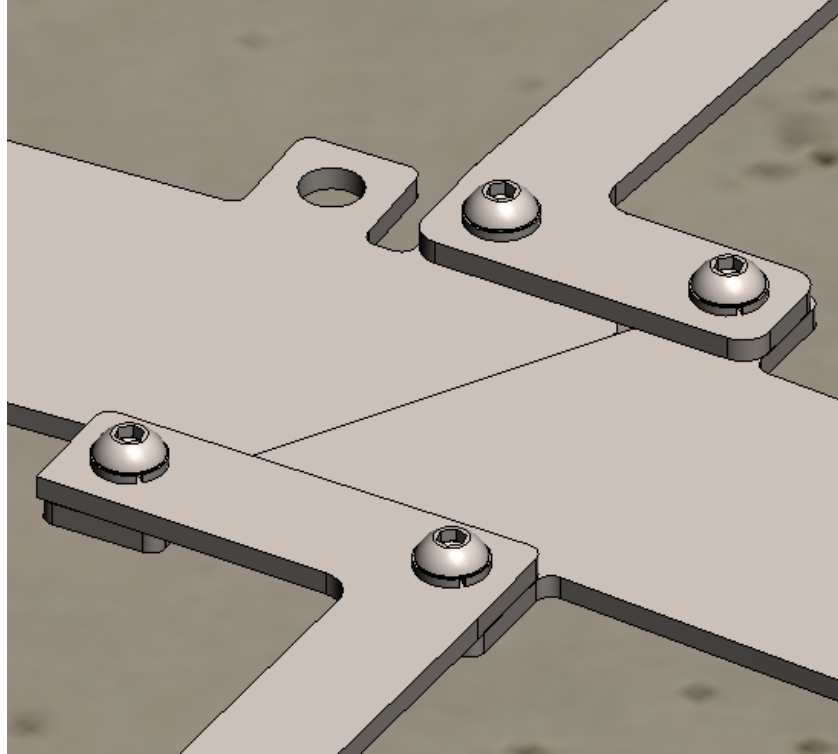
2. Position slew bearing in the center point of the turntable pit and anchor in place with (3) 3/8" x 3.75" concrete wedge anchors marked with red dots below. Cut off exposed threads above nut (if any) to allow clearance of paneling above.



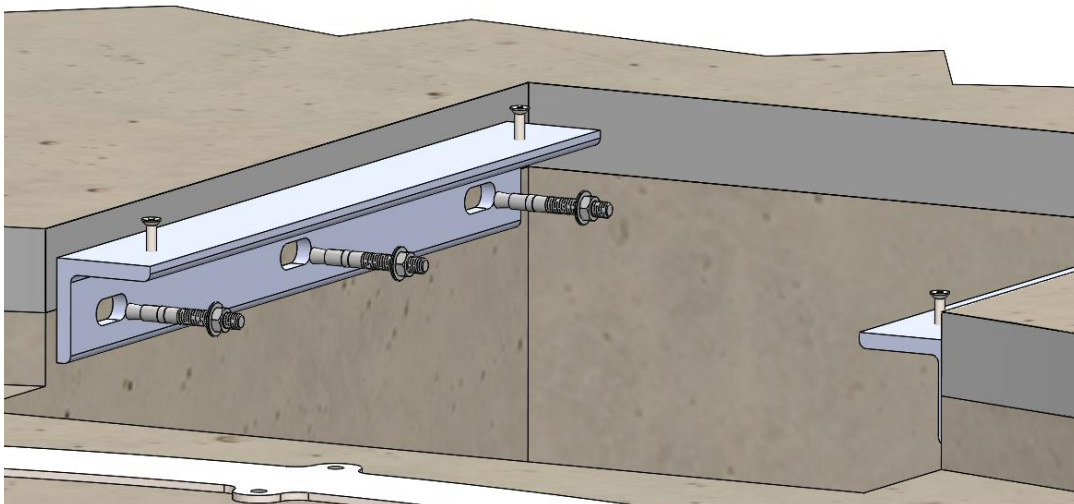
3. Layout wheel track sections along with alignment spokes and fasten everything together with M8x12mm BHCS and M8 Lock Washers.



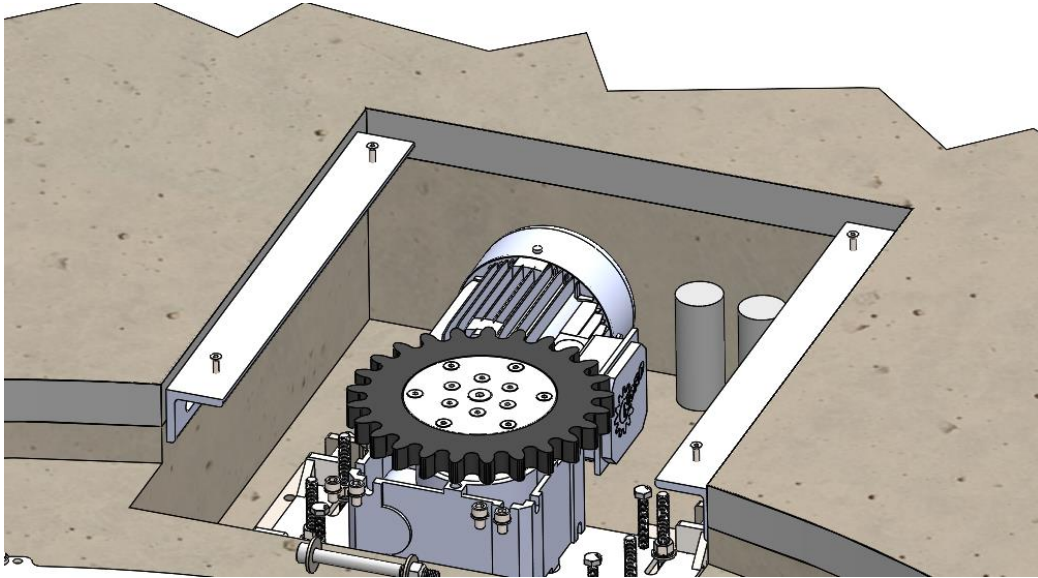
4. Once all track screws have been tightened. Install a concrete wedge anchor at each track joint and cut off remaining threads above nut to allow clearance of tube structure. Then apply the supplied grease to the track to lubricate the wheel contact area.



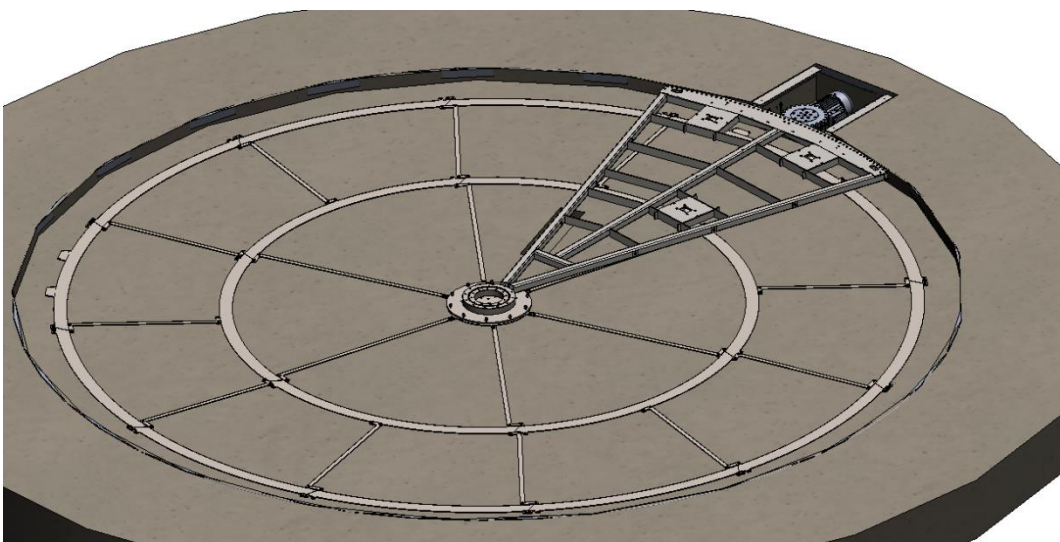
5. Install/Anchor hatch support angles to the walls of the motor pit using supplied concrete wedge anchors. Anchor the angle support 3/16-1/4" below the finished floor (depending on top surface option) and parallel so that the hatch panel sits flush once installed.

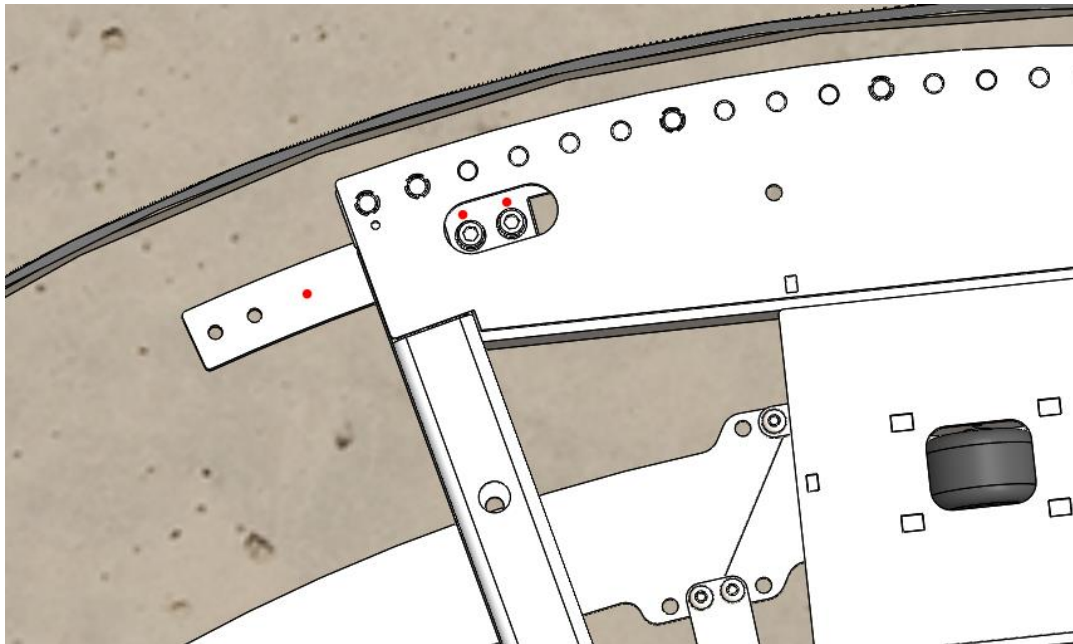
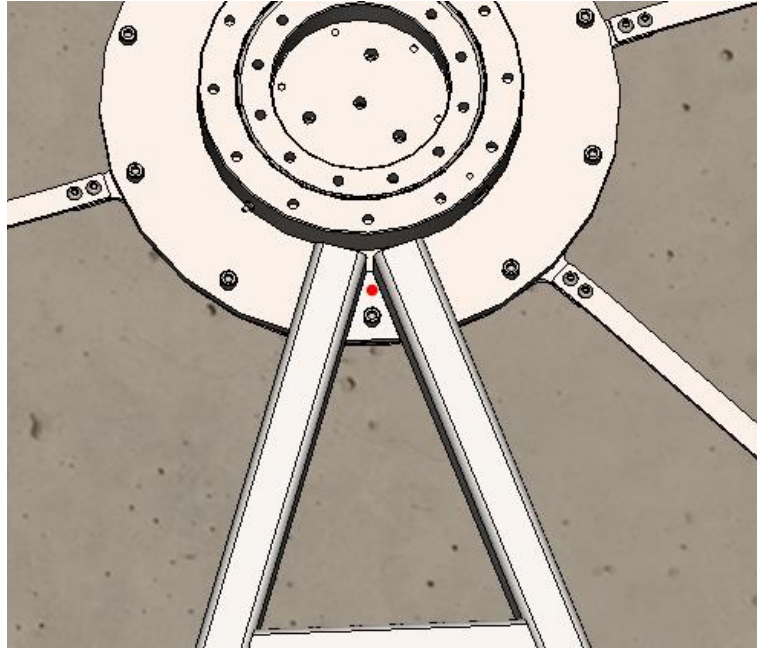


6. Position drive motor inside pit for anchoring in step 9.



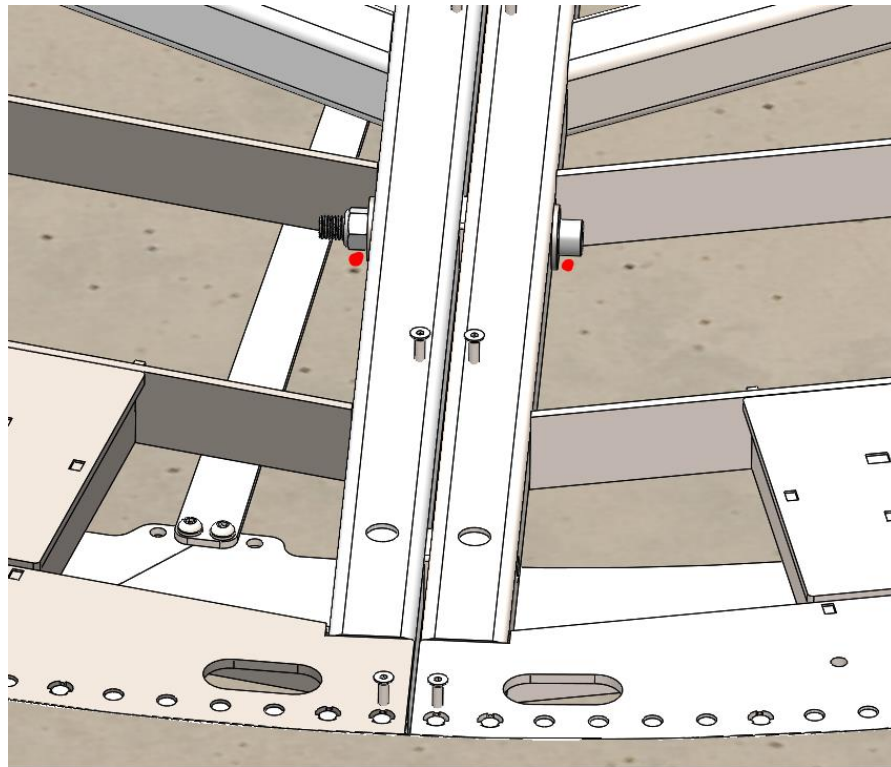
7. Install pie section #1 at any location on the center bearing flange and loosely fasten with M10x20mm SHCS and M10 Lock Washer marked with red dot below. Fasten pie section connector plates at outer circumference and loosely fasten with M10x16mm SHCS and M10 Lock Washers



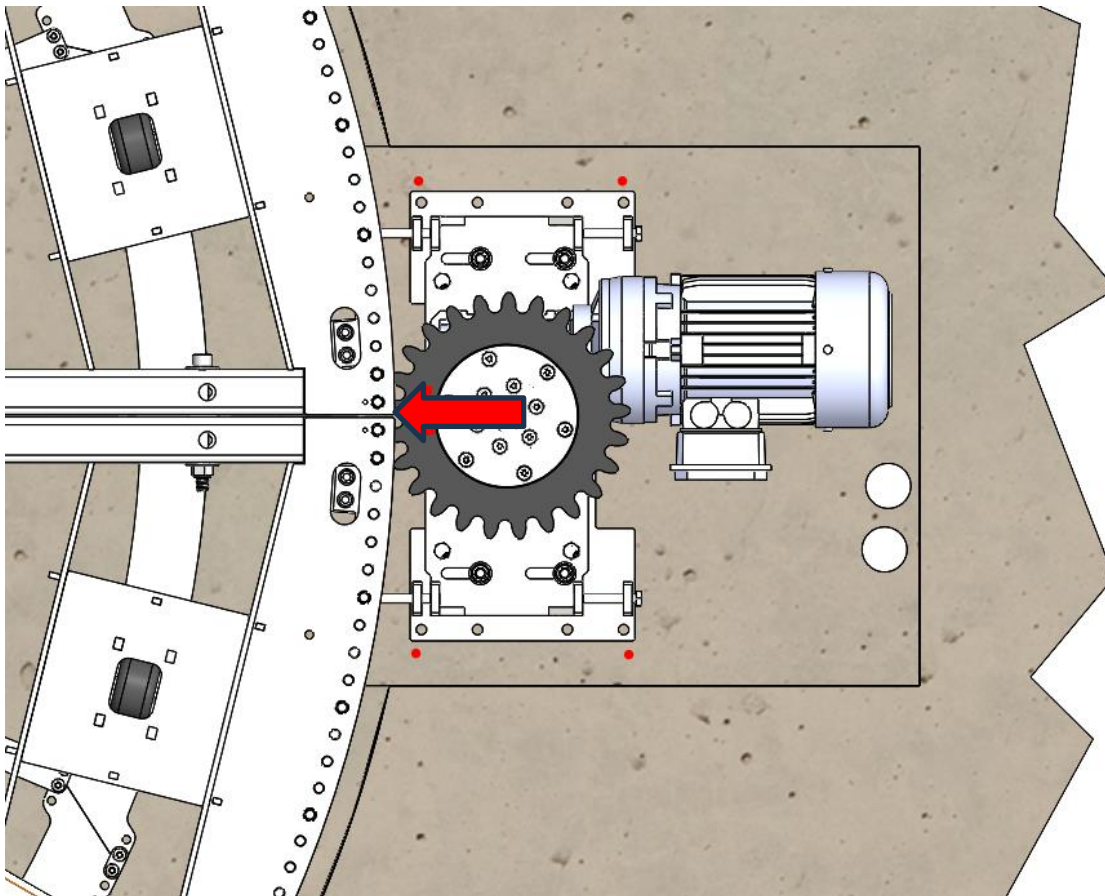


8. Repeat step 5 with consecutively numbered pie sections in a counterclockwise direction. Be sure to leave all hardware loosely fastened.

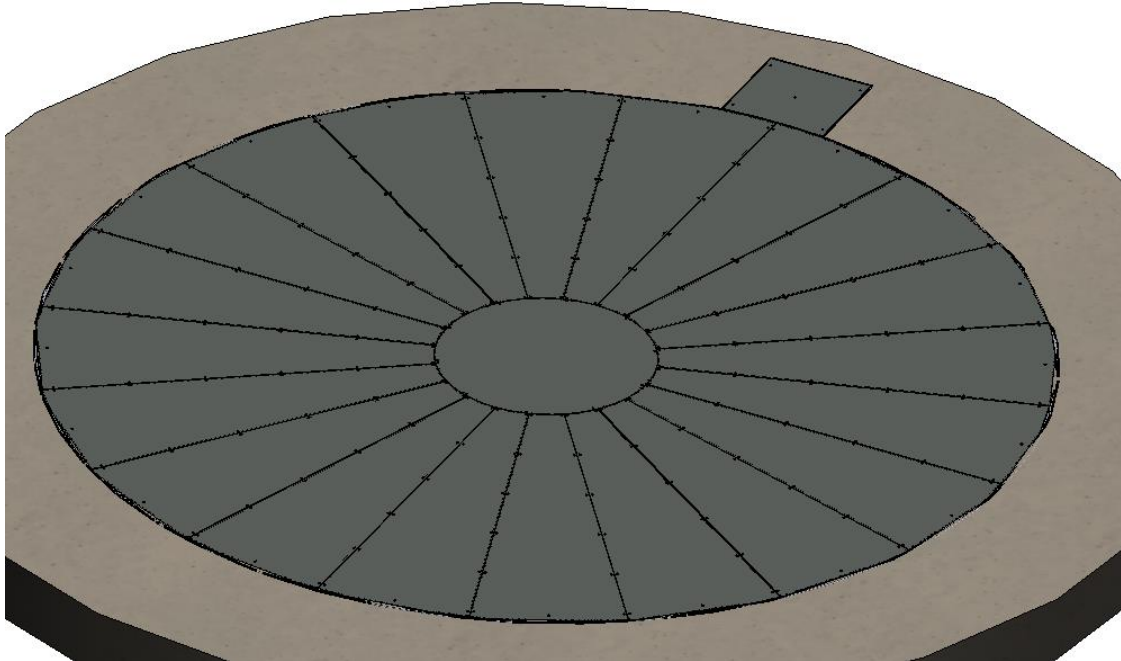
9. Once all pies have been laid out with hardware loosely installed, insert all M14x140mm crossbolts, oversized washers, and nylock nuts through pie tubes, shown below, to join pies together. Once all crossbolts are equally snug, go through and fully tighten all M10 screws on center flange and outer pie connectors.



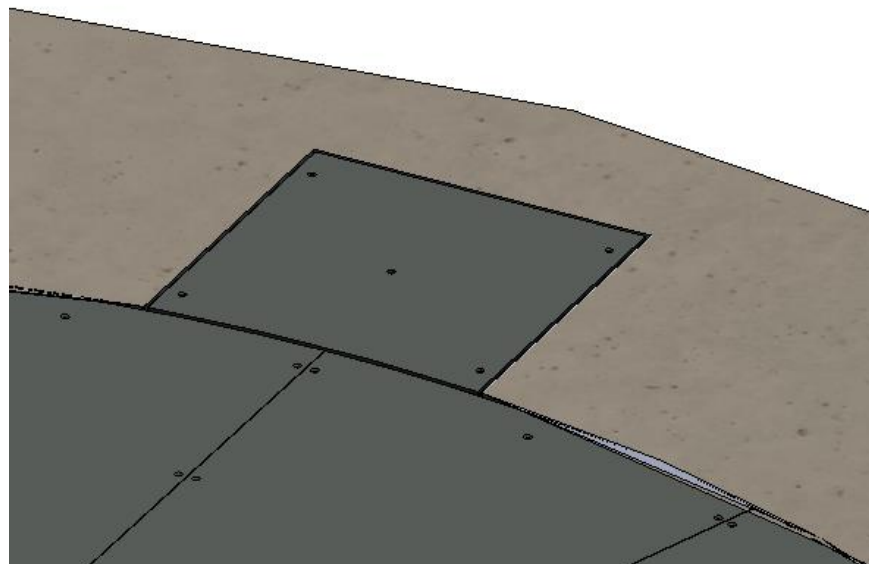
10. At this time, before installing top panels, get motor assembly positioned with urethane pinion gear teeth meshed with drive pins on turntable. Set motor assembly where there is 1/8" of spacing/backlash between pinion gear teeth and drive pins and anchor motor down with (4) concrete wedge anchors in holes shown below. The motor backlash is also adjustable using jack screw and lock down nuts on motor mount plate.



11. Layout panels starting with the center panel then panel #1 attaching to pie section #1 and loosely installing M6x16mm FHCS and moving in a counterclockwise pattern until all twenty panels are positioned in place. Tighten screws once all panels have been positioned in place.



12. Install hatch panel using a drill to match drill and tap holes in angle in place for a best fit to turntable edge. Use M6x16mm FHCS to fasten and the installation is completed.



General Operation Instructions

CAUTION: Prior to any Operation of the Turntable, make sure that the Controls enclosure is fully closed and latched.

Cautions exist regarding operating the turntable.

1. Ensure the items on the turntable will not shift or lose balance upon start of rotation.
2. Ensure that people and mobile equipment are clear of interference with the items loaded on the turntable surfaces.
3. Ensure all pinch points along the rotating platform are clear. The turntable drive can produce a large amount of torque and any items caught on a pinch point can be potentially sheared. Take extreme caution while the turntable is rotating.

Never allow riders while testing!

Turntable controller information found on “SCB_User Manual Rev.2”

WARNING

TO PREVENT INJURY TO MAINTENANCE PERSONNEL OR DAMAGE TO EQUIPMENT, ALWAYS VERIFY THAT NO EXTERNAL VOLTAGE IS SUPPLIED TO THE TURNTABLE AND THAT THE SAFE/OPERATE SWITCH IS IN THE SAFE POSITION PRIOR TO PERFORMING ANY MAINTENANCE WORK.

IF POWER MUST BE APPLIED FOR TEST PURPOSES, TAKE ALL THE STEPS THAT ARE NECESSARY IN ORDER TO AVOID INJURIES AS A RESULT OF ELECTRICAL SHOCKS AND MOVEMENT OF MECHANICAL UNITS.

A. Summary of Maintenance Schedule

CAUTION: Eye and lung protection is essential when using aerosol lubricants. Extreme caution must be exercised when working under and around rotating equipment. Do not place hands or feet inside or near the mechanical components of the turntable while the equipment is in motion. Disconnect the electrical power when working underneath the turntable's top surface.

	<i>Type of Maintenance</i>	<i>Recommended Time Period</i>
<i>B</i>	Visual/Audible Inspection	Weekly
<i>C</i>	Cleaning Program	As required
<i>D</i>	Running Rail Lubrication	6 months

B. Visual/Audible Inspection

Inspect the motor, drive gear, electrical components, wiring and wire connections for signs of damage or wear. Continued monitoring of equipment appearance, noise, roughness, and vibration during operation can assist in early detection of poor or unsafe components, structural failure, or poor bearing performance. The operator should be very familiar with the typical operating conditions generated by the equipment. Investigate and resolve any noted changes.

C. Cleaning Program

The turntable should be cleaned as often as operating conditions require. All outside/exterior surfaces of the turntable require no maintenance, other than what is cosmetically necessary. Compressed air should not be used to clean out particulate matter that may become trapped as airborne particles will adhere to the lubricated surfaces if blown toward the inside. Do not expose the center bearing and support wheel seal areas to pressurized cleaning.

D. Running Rail Lubrication

Apply grease to the running rail where the wheels contact the upper platform upon installation and during recommended intervals.

Maintenance Log

<i>Date</i>	<i>Maintenance Description</i>	<i>Notes</i>	<i>Initials</i>