



LIMITED WARRANTY

Align Production Systems (APS) warrants all of its products to be free of defects in material and workmanship for a period of one (1) year from date of shipment to the original purchaser or 2,000 operating hours, whichever comes first, provided purchaser gives APS prompt notice of the alleged defect(s) and, if requested by APS, returns the defective items, freight prepaid (F.O.B. APS's plant in Decatur, Illinois).

THE WARRANTIES SET FORTH HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY, ALL OF WHICH ARE EXPRESSLY DISCLAIMED.

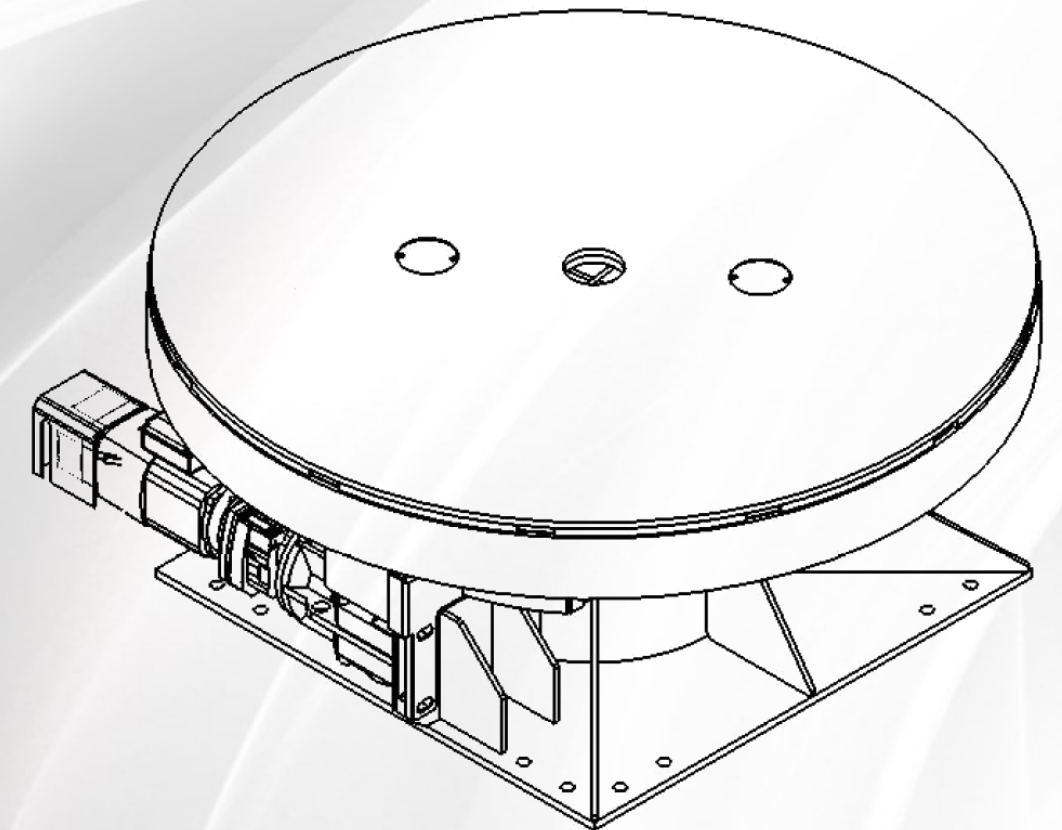
For any claim under warranty, APS may elect to repair or replace the defective component or components. All claims for warranty must be accompanied by a Return Goods Authorization number, which may be obtained from APS. This warranty does not cover, and APS is not responsible for, any labor or other expense for inspections, removal or reinstallation of components or products.

This warranty does not cover, among other things, damages resulting from foreign matter or water, negligence, accident, unreasonable use, abuse or misuse, alterations not authorized by APS, failure to provide reasonable and necessary maintenance or failure to follow operating instructions or load limits.

IN ADDITION, IN NO EVENT SHALL APS BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES, WHETHER OR NOT IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

APS makes no representation that the product complies with local, state or federal safety/product standards codes. If the product fails to comply in any way with those codes, it shall not be considered a defect in materials or workmanship, and APS shall not be liable for any damages resulting from noncompliance. This limited warranty is provided to the original purchaser (meaning the original end user) and is nontransferable. This limited warranty constitutes the complete and final agreement regarding APS warranty obligations for the product.

STANDARD OPERATING MANUAL AX010 SERIES TURNABLES



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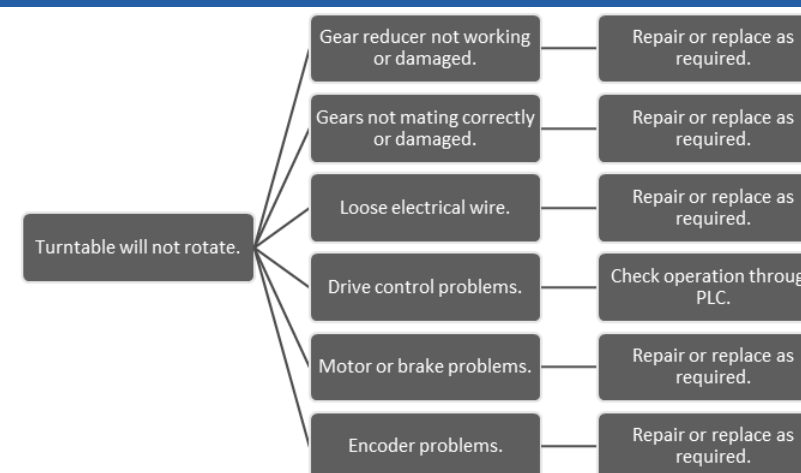
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VI. MAINTENANCE

Interval	Inspection	Corrective Action
Every 3 months	Lubricate main drive gear and pinion with gear lube.	Grease with EP1 by brushing or wiping onto gear.
	Inspect drive gear for wear or looseness.	Repair as required.
	Inspect base lag-down bolts for tightness.	Repair as required.
	Inspect turntable for cracks.	Repair as required.
	Check gear reducer oil level.	Fill as required.
Every 6 months	Lubricate center bearing with EP grease.	Grease zerks are accessible from the outside.

VII. TROUBLESHOOTING



VIII. RECOMMENDED SPARE PARTS

Quantity	Description	Part Number
1	Gear reducer and motor	SRDSW0020
1	Drive pinion	REW1045
1	Bearing with external gear	BRG0018

To reorder a part, please call **1-800-888-0018** and ask for the Parts Department. If possible, please have your Align serial number handy for reference.

IV. DESCRIPTION OF EQUIPMENT

This equipment consists of a 48" - 120" diameter (depending on model number) mechanical turntable for 360° rotation. The turntable rotates on a mechanical center bearing with an external gear. A positional encoder is mounted on the end of the motor after the motor brake.

REFERENCE DRAWINGS

<u>Align Drawing Number</u>	<u>Description</u>
B07-0144 Sht 1 & 2	Turntable Assembly
ASY0143	Mechanical Turntable Assembly
EMDL0004	Electrical Controls

V. OPERATING INSTRUCTIONS

Operation:

Control of rotation is by customer-supplied PLC and program. Manual operation can be done without the PLC by the following:

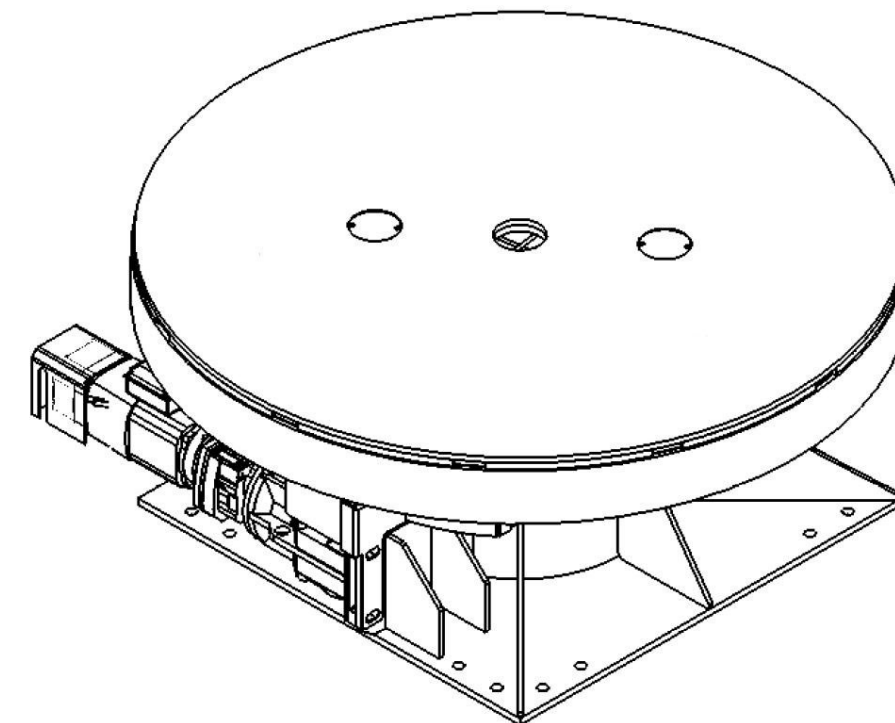
Operating system:

1. Brake
 - a. Auto – brake will be engaged only by the customer’s control system.
 - b. Off – manual brake is disengaged.
 - c. ON – engage brake.

DO NOT ENGAGE BRAKE when motor is running. This why it is a key switch.
2. Drive
 - a. Plug display in to external port and connect Ethernet cable to drive.
 - b. Turn on.
 - c. Put drive in to local control mode.
 - d. Operate according to manual.

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I. IMPORTANT PRECAUTIONS

Read the following safety precautions before operating or servicing your industrial turntable:

- Lockout the electrical BEFORE any service or maintenance is performed to this equipment.
- Prevent personnel from leaning on equipment and containers or placement of arms, hands, legs or any bodily member in pinch point areas throughout the system.
- Instruct personnel in the proper placement of product on the turntable. Failure to place containers or loads in the engineered locations may hinder the operation of the turntable or cause structural damage.
- Place stop barriers at the fork truck loading area(s) to prevent damage to turntable.
- Never operate the turntable without the provided covers and guards properly installed.
- Never walk or climb into or onto the turntable while it is in motion.
- Never operate system sensors by hand.
- Never restore power or air pressure to the control system without first clearing the turntable of personnel, tools or other obstructions.
- Never alter the equipment in any way unless authorized by a qualified Align Production Systems employee.

II. INSTALLATION AND START-UP

1. Review the specifications section to become familiar with the features of this equipment.
2. Inspect the equipment for possible damage in shipment or unpacking. Please contact Align Production Systems if there is any damage to the unit that may hinder the operation.
3. Before lifting the turntable, ensure that the shipping bolts are in place and tightened down.
4. Lift the turntable ONLY using the $\frac{3}{4}$ -10 UNC lifting holes provided utilizing a 4-point sling or chain arrangement and suitable lifting eyes, sized for the load.

INSTALLATION AND START-UP (CONT.)

5. Place the unit in the desired location on a clean, level, flat floor.
 - a. Sweep the floor area to remove dirt and debris.
 - b. The floor must be level and flat within $\pm 1/8$ " over a 10' span. Floor undulations outside this specification may impact the operation of the turntable and should be remedied. The turntable base needs to be fully supported underneath to transfer the loading.
 - c. The floor must be a concrete surface or equivalent that is capable of supporting the load of the turntable plus the load of the product.
6. Drill the floor at the hole locations on the outer edge of the turntable base plate.
7. Install 1" diameter concrete anchors (epoxy stud anchors are preferred in concrete) or suitable equivalent to secure the turntable base to the floor. There are 16 holes.
8. If equipped, position the control stand in the desired location and lag to the floor using suitable anchors.
9. Install electrical control lines to motor, brake, and encoder. Connections are all located on the drive motor.
10. Connect the 480 volt electrical supply line to the control stand enclosure.

III. SPECIFICATIONS

Model	Diameter	Capacity (lbs.)	Height	Speed	Shipping	Electrical
AX010-048	48 in.	150,000	30 $\frac{3}{8}$ in.	0 – 1 RPM	2,500 lbs.	480 V, 3 phase
AX010-060	60 in.	150,000	30 $\frac{3}{8}$ in.	0 – 1 RPM	3,500 lbs.	480 V, 3 phase
AX010-072	72 in.	150,000	30 $\frac{3}{8}$ in.	0 – 1 RPM	4,200 lbs.	480 V, 3 phase
AX010-084	84 in.	150,000	30 $\frac{3}{8}$ in.	0 – 1 RPM	5,000 lbs.	480 V, 3 phase
AX010-096	96 in.	125,000	30 $\frac{3}{8}$ in.	0 – 1 RPM	5,800 lbs.	480 V, 3 phase
AX010-108	108 in.	100,000	30 $\frac{3}{8}$ in.	0 – 1 RPM	6,600 lbs.	480 V, 3 phase
AX010-120	120 in.	100,000	30 $\frac{3}{8}$ in.	0 – 1 RPM	7,400 lbs.	480 V, 3 phase