
Standard Heavy Duty Turntables

Installation in Concrete Pit – Best Practice

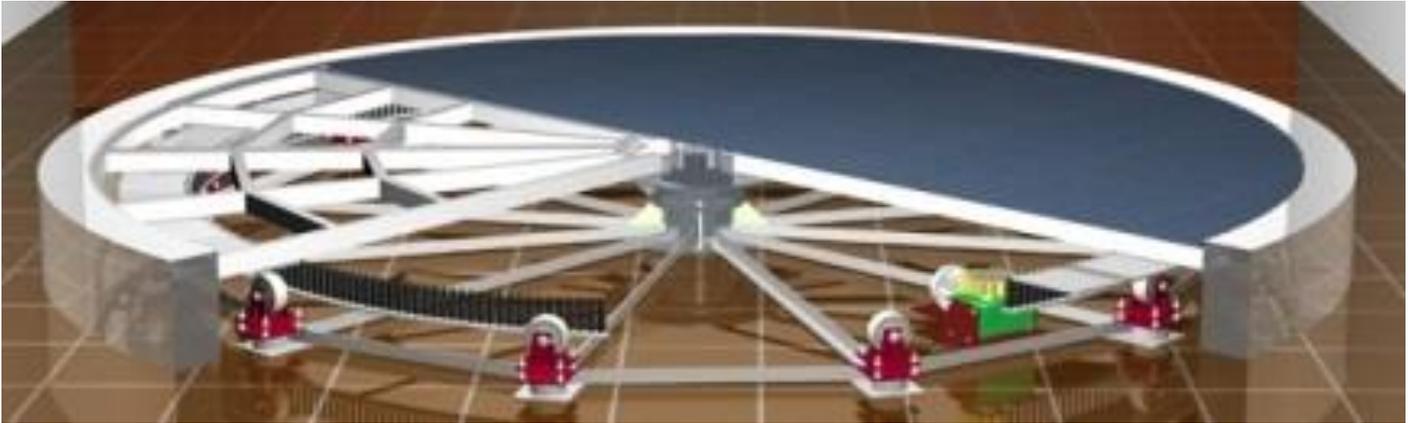


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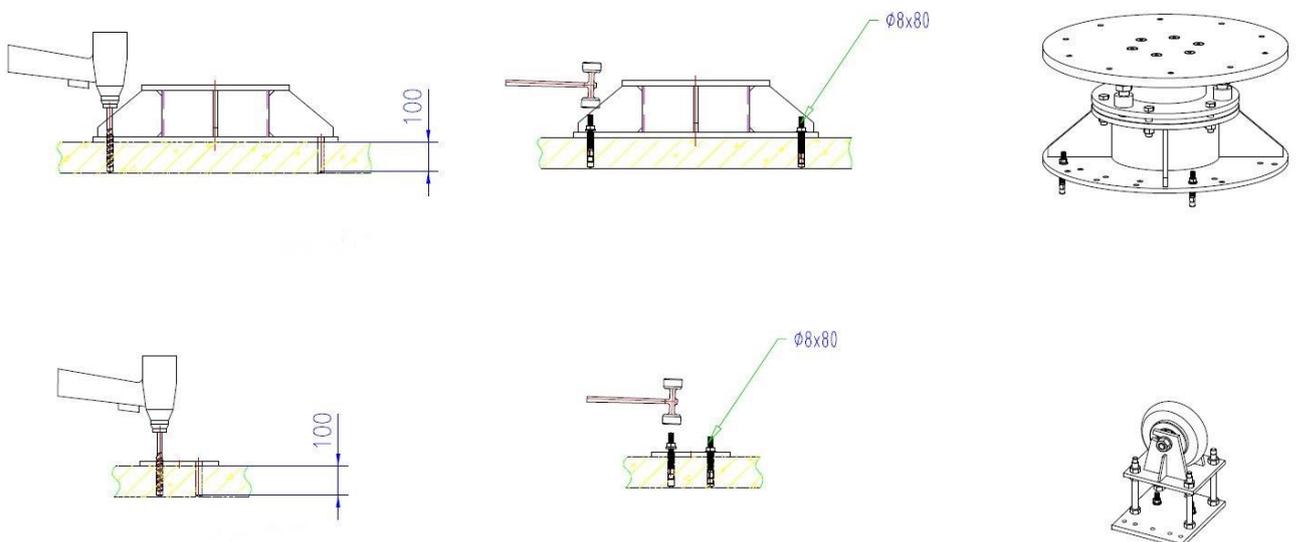
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1. Introduction

This is a general information how to prepare the installation environment for the heavy duty turntable in a concrete pit. It may not be understood as a detailed description of your turntable.

2. Preparing the Concrete Pit

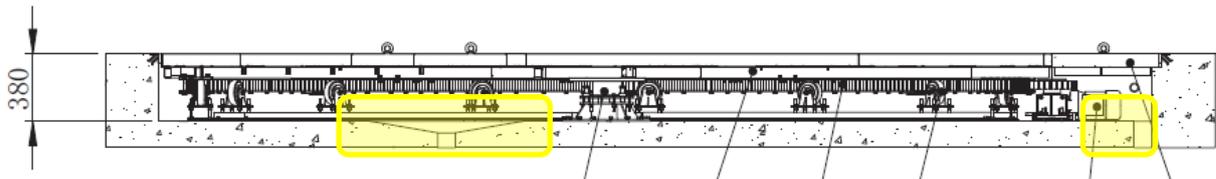
- The construction of the required pit is not part of the service provision of MTE. This craft has to be provided from customer side and should be done by a specialized company. It has to be finished before turntable installation.
- The support wheels and the center pivot bearing will be anchored to the concrete floor (the wedge anchors are not included in the shipment). Please take care that plastic pipes, cables or similar objects are laid 100 mm at least below the bore holes. Even better would be to avoid laying them near those bore holes.



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- The leveling of the turntables can be done by height-adjustable support wheels and center bearing. The pit floor should be kept +/- 1 cm within the specified pit depth. However as a result, the concrete pit need not be perfectly flat. **Drainages** against entered water should be arranged as shown in the drawing below.

Example where to arrange the drainages:



- The final look of the installation is highly dependent on the consistency of the gap and elevation between the turntable and the adjacent non-rotating floor. From our experience, we have found that forming a perfect circle to a precise diameter and then pouring that it is perfectly flat around that circle is quite ambitious. Very few concrete sub-contractors succeed in doing so on a consistent basis.

3. Electrical Requirements

- A sufficiently dimensioned conduit is recommended to be run from the motor location of the supplied control box. If Motion Controls are to be installed, 2 conduits will be required.
- Most of the motor failures are caused by entering water into the motor through the conduits. Furthermore entering water may cause short circuits at the motor. Please ensure that the conduits are dry and water tight.
- The control box requires a 220-240 V AC / 50 Hz single phase input (although the drive motor is a three phase one). The voltage complies with a standard power outlet at home. Inside the control box is a Variable Frequency Drive (VFD). Part of its purpose is to convert the single phase power supply into a three phase power to supply the drive motor.

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- The control box is designed to be sited that the electrical connections are 1.2 meters in length or less. Longer runs are possible but not recommended without using a shielded VFD power cable or other compensating factors.

4. Shipping

- Equipment will be delivered by commercial carriers. Prior to shipment, you will receive tracking information about the expected delivery day.
- The turntable equipment will be shipped in large and heavy boxes (up to 1,000 kg per box). On delivery day you will need appropriate lifting device to unload the truck.
- Place the equipment adjacent to the turntable pit ensuring that if subject to water/rain the boxes are covered with plastic at a secure location.

5. Before Turntable Installation

- We strongly recommend submitting photos of your pit and the surrounding prior to the arrival of our installation crew. If there are any critical issues that will affect your installation, we will be able to point them out prior to our arrival.
- We also recommend taking the time to verify that the pit is completely flat and poured to the correct depth, diameter, drainage and conduits are checked again. This will avoid delay and waste of money.

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6. Day of Installation

- Installation normally is completed within one or two working days. To ensure a smooth installation and to be ready for our installation crew please prepare the pit as follows:
 - a. Please be sure that the pit is clean and free of concrete remains.
 - b. The turntable equipment should be placed as close to the pit as possible. This will save time and avoid unnecessary physical strain of the crew.
 - c. If the turntable is to be installed flush with a flooring treatment such as wood or tile which is not yet installed, please let us know this detail.
- On the installation day, please have your electrician on site to mount the control box and to make the final connections to the drive motor and control box, as early as possible. The motor does not need to be anchored for connections to be made. All connections can be made before turntable installation. This allows for testing and adjustments to take place earlier in the day, assuring that all issues can be sorted out immediately and a proper operation will be guaranteed.
- The installation of all electrical components have to be connected according to the valid regulations and they have to be appropriate for outdoor use.
- Permanent power is required for operation of the turntable. Temporary power from generators will not work due to the presence of a VFD in the control box.
- After completion the installation crew will ask for sign off and approval of our work by authorized personnel. Please coordinate the availability of the authorized person with the projected completion time. At that time we will also demonstrate proper operation and maintenance of the equipment and answer any questions.