

# TECHTALK DESIGN ADVICE SERIES

## 3 WAYS TO DRIVE A SLEWING RING BEARING



The word drive is the act of setting or keeping something in motion or operation. Whether it is a car, the sales numbers at your company, or even a herd of cattle, there is usually a crucial component that drives success. In rotating and turntable applications using a slewing ring bearing, the same holds true – success can directly correlate to the component used to drive the

system; so it's important to know the different options.

If you have this type of application, below are three different ways to drive a slewing ring bearing.

- [1. External Gear](#)
- [2. External Belt](#)
- [3. Drive-plate Coupling](#)

### External Gear



Most slewing ring manufacturers offer a geared option. For example, igus® offers a spur-gear solution, which complies with DIN3967.

The mating gear for any slewing ring should be made of a material that is softer than the actual gear itself. For instance, a slewing ring that uses a gear made from anodized aluminum would ideally have a mating gear made of a POM. The POM material is softer than the



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anodized aluminum and the combination also makes the system completely dry-running.

In comparison, a slewing ring that uses both a gear and mating gear made of aluminum, or any other metal, is ideal for intermittent movements, but requires constant lubrication. Having to continually re-lubricate the slewing ring is messy, time-consuming and can also be very costly.

If a slewing ring uses a mating gear made from steel, the gear should be made of the same material in order to avoid damaging the slewing ring.

## External Belt

igus® offers three different belt options:

1. T10 is the most cost-effective belt and available in a variety of widths. This belt (10mm width) can handle up to 175 pounds of tension.
2. AT10 is slightly more expensive, but capable of handling higher tensions than the T10. This belt (10mm width) can handle up to 290 pounds of tension.
3. HTD8M is the most expensive of the three options, but offers additional features such as lower clearance and extremely low noise. This belt (10mm width) can handle up to 85 pounds of tension.



## Drive-plate Coupling



A drive-plate coupling connects to a motor assembled directly to the slewing ring. igus® offers a drive-plate accessory, which mounts to the motor without using a gear or a belt, to make coupling the drive system even easier.

For sizes up to 100 millimeters, igus® offers the drive plate in aluminum. For sizes larger than 150 millimeters, the drive plate comes in stainless steel so it can handle the higher amounts of force permissible for these sizes.

### Useful links

[Learn more about iglide® PRT slewing ring bearings](#)

[E-mail the product expert](#)