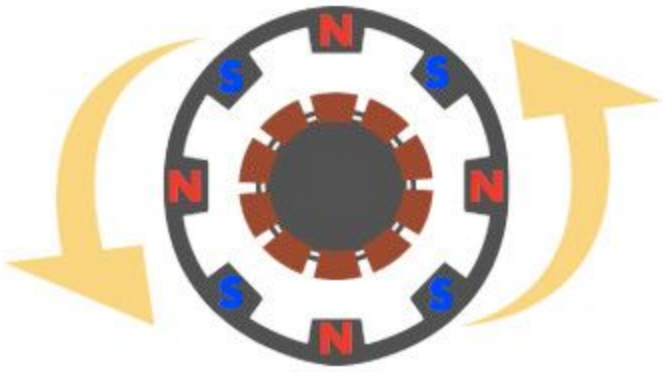
Reducing Defective Product

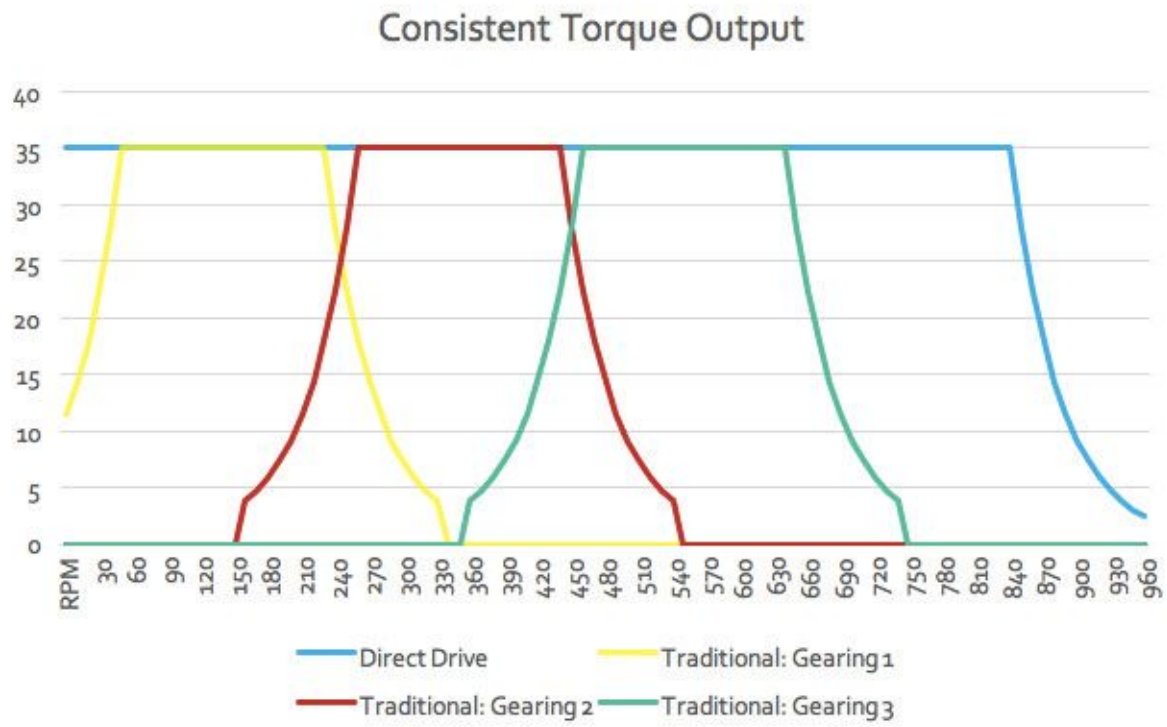
Traditional belt drive systems involve a lot of moving parts. A motor powers a gearbox which often drives a chain connected to a belt roller. Each of these components requires lubrication which can potentially get into your product. They also create countless harborage points where bacteria and other contaminants can build up over time, creating further risk to your product. There are other “Power Rollers” on the market, but these still utilize the motor and gearbox combination, just contained within the roller. In fact, these pose an even greater risk in terms of product contamination because the rollers themselves are FULL of oil. The best way to avoid a shark attack is to stay out of the water. Likewise, there is only one way to 100% guarantee zero oil contamination and that is to use a drive solution that doesn’t use oil!

Lower Down Times



In rock climbing, one of the 1st things they teach you is to avoid tying multiple ropes or clips together inline if you don't absolutely need to. The reason is very simple, each new link in the chain adds another potential point of failure. This same principle can be applied to moving a conveyor. With direct drive powered rollers there is an elegant simplicity to the entire system. Copper coils produce magnetic fields that push permanent magnets which directly propels the conveyor. The only points of physical contact in the entire system are sealed and contained steel ball bearings.

Decrease Spare Parts Inventory



One of the oldest and most profound concepts in modern industrial management is the push toward standardization and simplification. Henry Ford could standardize on a common type of screw or fastener, lower his cost and make repairs easier for his customers later on. Direct drive systems give

you the freedom to achieve a similar degree of standardization in your belt drives.

With traditional motor and gearbox combinations, if you had three conveyors that regularly ran at three different speed ranges, you would need to keep a separate set of spare parts in stock for each, since they would each have a unique gear ratio that could not be used on the other conveyors. Direct drive motors offer a substantially wider range of speed at which they can achieve their targeted torque output. This superior “Turn Down Ratio” means that, in many cases, a single motor can be implemented in a much wider range of applications. When you apply this simplification and standardization across your plant, the result is fewer spare parts held in inventory.

Reduce Energy Consumption

Even a well built, well lubricated traditional embedded gearbox roller runs hot to the touch. That heat is the result of friction and it is energy that is not being used to move your belts. Often times, between the gearbox and the motor itself, less then 60% of the energy going into your drive system as electricity is translated into mechanical motion. Direct drive systems dramatically reduce the amount of energy lost to heat and friction and can therefore translate upwards of 90% efficiency.