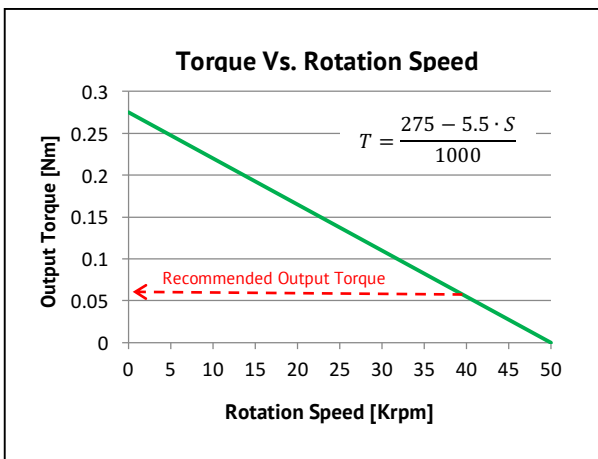


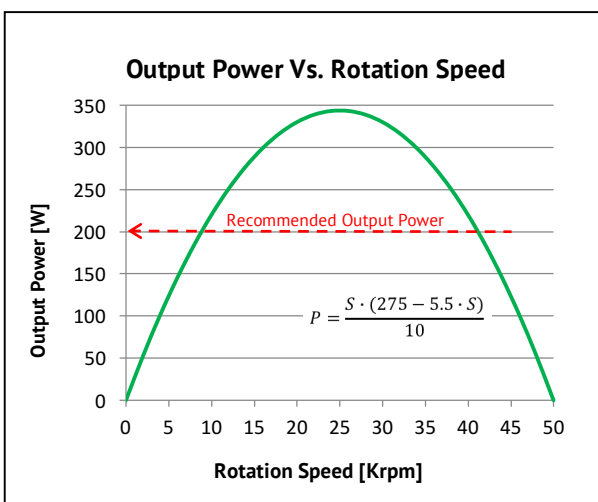
Rotation Speed Vs. Air Pressure

- This chart illustrates the logarithmic nature of the rotation speeds measured at different pressure levels.
- The formula displayed within the chart can be used to calculate the rotation speed at any pressure level.
- The curve is relates to average values. The actual results lie within a small variance from the curve.
- The rotation speed levels shown here are the no-load speeds (i.e. no torque acting upon the shaft).



Torque Vs. Rotation Speed

- This chart illustrates the relationship between the torque and the actual rotation speed.
- Notice that by definition, maximum torque occurs at zero rotation speed resulting in no power. Likewise, at maximum rotation speed there is no available torque, therefore producing zero power.



Power Vs. Rotation Speed

- This chart illustrates the parabolic relationship between output power and rotation speed at different pressure levels. Notice that there is no power available at zero and at maximum rotation speeds.
- This chart illustrates that any external load will cause a reduction in speed; the more power demanded, the greater the speed reduction. To the right of the peak lies the working area of the spindle, the peak being its limit. The Toodle will stop rotating should the power exceed "Max Power".