

### Calculation Vertical Lift Speed 3000 & 4000

$$10 \text{ inch pulley} \times 2 \text{ inch motor pulley} = 5:1$$

$$1725 \text{ Motor RPM} \div 5 = 345 \text{ worm revolutions per minute}$$

$$345 \text{ worm RPM} \div 96 \text{ Ratio / or number of teeth on bull gear} = 3.59 \text{ (RPM Big Gear)}$$

$$2.375 \text{ (winder)} + .25 \text{ (cable)} = 2.625 \text{ (Diameter of winding surface---this can be variable)}$$

$$2.625 \times 3.1416 \text{ (}\pi\text{)} = 8.247 \text{ inches one revolution of cable around pipe}$$

$$3.59 \text{ RPM Big Gear} \times 8.247 \text{ inches} = 29.6 \text{ inches} \div 12 = 2.47 \text{ vertical feet per minute}$$