$M := 0.7375hp \qquad n := 1445rpm \qquad Torq := \frac{M}{n}$

$d_w := 1.00in$

$U := \frac{2 \cdot Torq}{d_w} \qquad U = 286.171\,N$

Assume pitch: $P := 0.25in$ And coefficient of friction: $\mu := 0.35$

$F_a := \frac{U \cdot \left(\pi \cdot d_w + \mu \cdot P\right)}{\pi \cdot \mu \cdot d_w + \mu \cdot P} \qquad F_a = 778.457\,N$