Q: We have been asked to galvanize a large shaft which is part of a drive mechanism. Now the design engineer has stated that in order to properly size the motors, he needs to know the coefficient of friction of the zinc coating. Where can I find this information?

A: Coefficient of friction? You got that question out of your kid's high school physics book just to try and fool Dr. Galv, didn't you? Nice try. I can't give you information on the coefficient of friction, but I can give a value for the slip factor, which should satisfy the engineer's need. The information is from the W.H. Munse paper on "High Strength Bolting of Galvanized Connections"; which states the slip factor for a conventional galvanized coating is about 0.14, as compared to 0.35 for clean as-rolled steel. This means that the galvanized surface is more slippery than bare steel. However, as the galvanized surface weathers, or is roughened, the slip factor increases:

	Average Slip Factor
As-galvanized	0.14
Weathered galvanized	0.20
Galvanized-wire brushed	0.31
Galvanized-grit blasted	0.31
Bare steel, as-rolled	0.35