



Time this mark-  
At 33 1/3 RPM it takes  
180 sec for 100 revolutions.  
Use  $(1 - (\text{actual}/\text{target})) * 100$   
for percentage error.

33 1/3 RPM - 50 HZ - 180 BARS  
45 RPM - 50 HZ - 133 BARS  
(must drift CCW 5 bars per 20sec)