

- Requirements
 - Support motor weight and torque loads
 - Adjustable installation to accommodate variation in plumbing/valve installation location
 - Ability to transverse along valve stem during opening and closing

Analysis done in Ansys Workbench (V 14.5.7)

- Moment applied to motor flange
- Motor and gearbox weight applied to motor flange
- Fixed supports at linear slide mounts
- Bolt pretensions at support plate

- Material: 6061-T6 aluminum plate
 - 42 KSI Ultimate, 35 KSI Yield

- Results:
 - Majority of part well over F.O.S. of 2 (17.5 KSI)
 - Max stress exceeds F.O.S. of 2 allowable but is in compression
 - Mostly caused by bolt pretension and not component loading