

### BOLT TIGHTENING

Extreme care should be taken to see that locking devices are properly installed and to see that bolts are properly tightened. It is recommended that all in-tank fastenings be rechecked for tightness after the first 1500 hours of operation and subsequently at each scheduled shutdown. It is imperative for proper bolt operation that all agitator shaft and impeller bolts be torqued to values shown in the **Torque Value Table**, below:

**Torque Value Table**

| <b>Bolt Size<br/>(dia. - threads)</b> | <b>Tightening Torque*<br/>(Foot-pounds)</b> |
|---------------------------------------|---|
| M10 – 1.25                            | 24  |
| M12 – 1.25                            | 42  |
| 1/2" - 13                             | 50  |
| 5/8" - 11                             | 90  |
| 3/4" - 10                             | 160   |
| 7/8" - 9                              | 140   |
| 1" - 8                                | 220   |
| 1 1/8" - 7                            | 300   |
| 1 1/4" - 7                            | 420   |
| 1 1/2" - 6                            | 740   |
| 1 3/4" - 5                            | 1100  |
| 2" - 4                                | 1500  |
| 2 1/4" - 4 1/2                        | 2300  |
| 2 1/2" - 4                            | 3100  |

\* Values shown are for low carbon steel and stainless steel fastenings only. Adjust values for alloys of lower tensile strength.