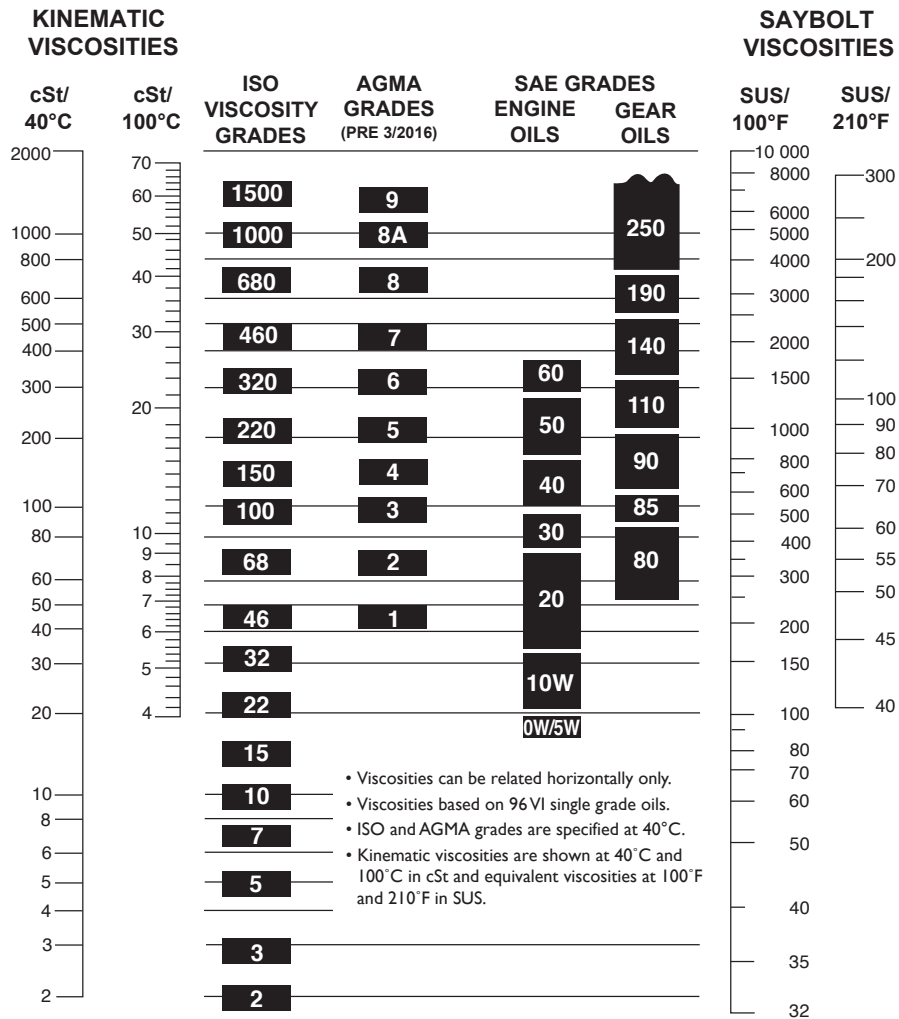




# Viscosity Grading System



**Rule-of-Thumb:** The comparable ISO grade of a given product whose viscosity is greater than 100 SUS at 100°F, if known, can be determined by using the following conversion formula:

$$\text{SUS @ 100°F} \div 5 = \text{cSt @ 40°C}$$



## ISO 4406:1999 Particle Concentration and Range Number

| Range Number | Number of Particles per ml Greater Than | Number of Particles per ml Up to and Including |
|--------------|---|--|
| 30           | 5,000,000                               | 10,000,000                                     |
| 29           | 2,500,000                               | 5,000,000                                      |
| 28           | 1,300,000                               | 2,500,000                                      |
| 27           | 640,000                                 | 1,300,000                                      |
| 26           | 320,000                                 | 640,000  |
| 25           | 160,000                                 | 320,000  |
| 24           | 80,000                                  | 160,000  |
| 23           | 40,000                                  | 80,000   |
| 22           | 20,000                                  | 40,000   |
| 21           | 10,000                                  | 20,000   |
| 20           | 5,000                                   | 10,000   |
| 19           | 2,500                                   | 5,000  |
| 18           | 1,300                                   | 2,500  |
| 17           | 640                                     | 1,300  |
| 16           | 320                                     | 640  |
| 15           | 160                                     | 320  |
| 14           | 80                                      | 160  |
| 13           | 40                                      | 80   |
| 12           | 20                                      | 40   |
| 11           | 10                                      | 20   |
| 10           | 5                                       | 10   |
| 9            | 2.5                                     | 5  |
| 8            | 1.3                                     | 2.5  |
| 7            | 0.64                                    | 1.3  |
| 6            | 0.32                                    | 0.64   |

The ISO 4406:1999 Cleanliness Code references the number of particles greater than 4, 6 and 14 microns in each milliliter of fluid. A corresponding cleanliness code, such as 18/15/13, is then given to the fluid. For particle concentrations that fall between two adjacent particle concentrations, the higher range is used.