

Driven Equipment Service Factor

Application	Load Service Factors
Sewage Disposal Equipment	
Aerators	1.50
Bar Screens	1.50
Chemical Feeders	1.25
Collectors (Circuline/Straightline)	1.25
Dewatering Screws	1.50
Grit Collectors	1.40
Scum Breakers	1.50
Slow or Rapid Mixers	1.50
Sludge Collectors	1.40
Thickeners	1.50
Vacuum Filters	1.50
Screens	
Air Washing	1.25
Rotary (Stone or Gravel)	1.50
Traveling Water Intake	1.25
Skip Hoists	—
Slab Pushers	
Steering Gear	1.50
Stokers	1.50
Slitters	—
Steel Industry	1.50
Soaking Pit/Cover Drive:	
Lift	1.00
Coilers (Up or Down) Cold Mills Only	1.50
Coilers (Up or Down) Hot Mills Only	2.00
Travel	2.00
Stokers	1.25
Sugar Industry	
Cane Carrier & Leveller	1.75
Cane Knife & Crusher	2.00
Mill Stands Turbine Driven-Helical/Herringbone Gears	1.50
Electric Drive or Steam Driven with all Helical/Herringbone or Spur gears with any prime mover	1.75

Application	Load Service Factors
Textile Industry	
Batcher	1.50
Dyeing Machinery	1.50
Calender	1.50
Cards	1.50
Card Machine	2.00
Dry Can	1.50
Dryers	1.50
Loom	1.50
Mangles	1.50
Nappers	1.50
Pads	1.50
Range Drives	—
Slashers	1.40
Soapers	1.50
Spinners	1.50
Tenner Frames	1.50
Washers	1.50
Winders	1.50
Tobacco & Cigarette Machinery	1.50
Tumbling Barrels	2.00
Waste Water Treatment	
Chain & Flight Systems	1.50
Aerators	1.50
Screw Pumps	1.50
Screens	1.50
Windlass	1.50
Wood Working Machinery	
Trimmers	2.00
Haulage	2.00
Barkers	2.00
Planes	2.00
Saws	2.00

Example:

$$T = \frac{\text{DC Drive HP} \times 5,252 \times 2 \text{ Service Factor}}{\text{RPM}} = \text{Minimum Torque Setting (lb-in)}$$

$$T = \text{NORM} = \frac{\text{Hp} \times 63025}{\text{Rpm}}$$

$$T_{\text{MAX}} = T_{\text{NORM}} (F_p + F_m)$$

$$T_{\text{MAX}} = T_{\text{NORM}} (0 + 2)$$

$$= \frac{\text{Hp} \times 63025 \times 2}{\text{Rpm}}$$