

GP 10-11-01	Sizing of Drivers and Transmissions for Compressors, Fans, and Pumps	July 2001
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Sizing of Drivers and Transmissions for Compressors, Fans, and Pumps

GP 10-11-01

Scope

[I] This Global Practice (GP) covers the sizing of drivers and transmissions for compressors, fans, and pumps and requirements for coupling guards.

[I] An asterisk (*) indicates that a decision by Purchaser is required or that additional information is furnished by Purchaser.

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1. Additional Requirements

* [I] The following Standards shall be used with this Practice as specified by Purchaser.

1.1. API–American Petroleum Institute

API STD 671	Special-Purpose Couplings for Petroleum, Chemical, and Gas Industry Services
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1.2. RMA–Rubber Manufacturer's Association

RMA IP-3-3	Static Conductive Test Method for Power Transmission Belts
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2. Definitions

Term	[I] Description
Normal operating conditions	Pressure, specific gravity, capacity, and other conditions for which a single item of driven equipment is guaranteed. When a service is shared by several units of equipment, the total capacity for the service is the sum of the normal capacities of each unit.
Normal power	Power required by the driven equipment at normal operating conditions and includes all mechanical losses within the driven equipment, except power transmission losses.
Driver power rating	
Electric motors	The nameplate power at 1.0 service factor or the nameplate power times a continuous overload capability/service factor multiplier for those standards of manufacture that recognize continuous overload capability/service factor ratings.
Internal combustion engines	The power available at the engine coupling after any derating for type of service, altitude, summer ambient temperature, fuel quality, and after subtracting engine power absorbed by auxiliary equipment driven from the engine shaft.
Steam turbines	The power available at minimum steam conditions (minimum temperature and pressure and maximum backpressure) at the turbine coupling after deducting power absorbed by auxiliary equipment driven from the turbine shaft. However, turbine efficiency shall be optimized for delivering normal power and speed with normal steam conditions.

