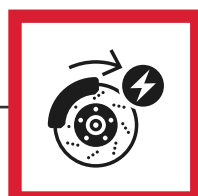


BRAKE SELECTION AND APPLICATION CHECKLIST

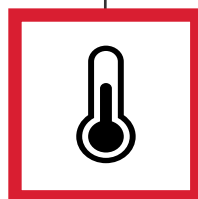
Information and guidelines provided in this checklist are intended for general selection and application of spring set brakes. Unusual operating environments, loading or other undefined factors may require Stearns application services to assist in proper selection or to review applications where the specifier may have questions.



Torque Requirements

Determine the brake torque requirements for assurance that the brake will efficiently stop and/or hold the load. *Check list items may not apply to every application

- Calculate Full Load Motor Torque
- Calculate Overhauling Dynamic Torque
- Calculate Total System Inertia
- Calculate Average Dynamic Braking Torque
- Calculate Static Torque Rating



Thermal Capacity

When applicable ensure the unit can dissipate heat properly. Determine the thermal capacity required for rotational or linear moving loads (TC), hp-sec/min.

- Calculate Thermal Capacity



Marine, Maritime, Navy

Brakes used in marine applications require levels of corrosion resistance. Determine if the brake needs to be designed with water-ingress protection in mind.

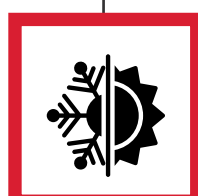
- Determine Compliance standard
- Establish IP Enclosure Rating
- Inquire modifications for severe environments (brass pressure plate, space heater, coatings...)



Corrosive Environments

Corrosive elements such as salt vapors and caustic gases, can cause irreversible damage to brake components. Determine if the brake needs to be specified for corrosive environments.

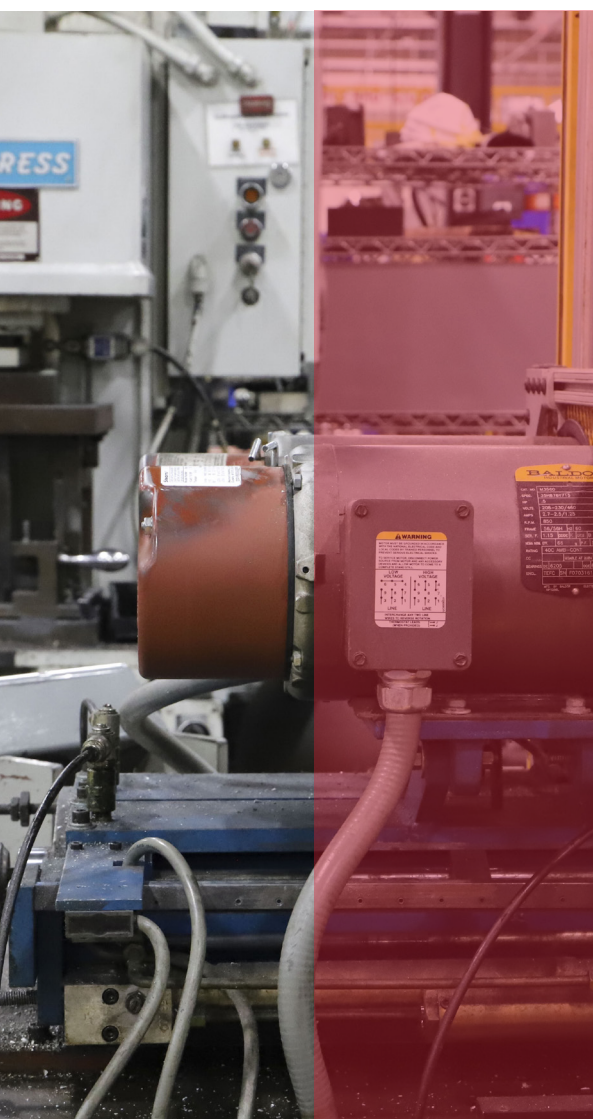
- Determine corrosive or caustic elements the brake could be exposed to in your application
- Specify suitable modifications



Ambient Temperatures

Determine if modifications are required for systems exposed to ambient temperature extremes.

- Determine Insulation Class of the Coils
- Inquire about special friction disc options

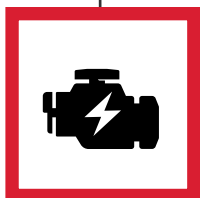




Hazardous Location

Not having the properly rated product for a hazardous environment can have catastrophic consequences. Determine if the brake should be rated for hazardous conditions in the environment.

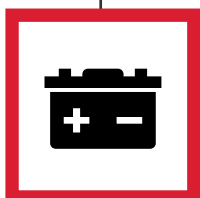
- Determine types of combustible gases or dusts the brake could be exposed to
- Rate the brake by Division, Class and Group



Power Supply

Determine if the power supply is sufficient for the brake.

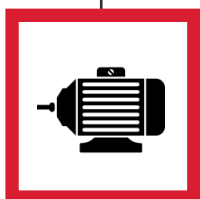
- Measure voltage at the brake connection
- Determine if power supply has adequate current
- Determine if voltage has the proper frequency



AC vs. DC Brakes

Determine current and frequency requirements for the system.

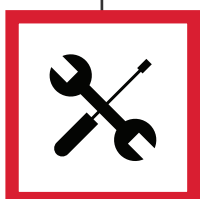
- Check with manufacturer's instruction manual to confirm how to properly wire the brake coil.



Motor & Brake Compatibility

A motor needs to have a free mounting face to accept a brake or a free shaft to engage a brake.

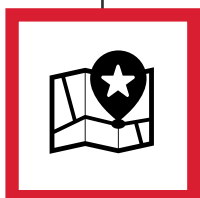
- Determine if motor can accept a brake (C-Face on Non-Drive or Drive End)
- Determine what mounting style of brake (Accessory End Mount, Double C-Face Coupler...)



Brake Maintenance

Lack of a standardized maintenance program can result in costly down time and damage to the brake and other components.

- Check with the brake manufacturer for advice on preventive maintenance



Special Applications

Determine if your application requires control system feedback reporting.

- Consider modifications that will help the brake's performance in a given application



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Tel: (414) 272-1100 - 5150 S. International Dr. Cudahy, WI 53110

