Disc Brakes vs Drum Brakes
SIME-Stromag DISC BRAKES...

DISCS vs. DRUMS: a question of PERFORMANCE!

- **Energy dissipation**
  
  Disc brakes provide larger cooling air volume and more effective radiating surfaces. Ventilated discs are available.

  - Disc brakes require fewer adjustments (no drum dilatation → less lining wear)

- **External dimensions**

  Disc brakes need less physical room and clearance for maintenance.

  - Smaller motors, trolleys, couplings...

Service and Emergency brakes

SIME-Stromag provides spring applied fail to safe Service and Emergency brakes.

**Service brakes** must withstand heavy day-to-day duty. SIME-Stromag service calipers feature:

- short response time, low inertia
- ventilated discs for even better energy dissipation
- large and symmetrical lining/disc clearance
- automatic wear compensator
- constant braking torque over lining life
- easy and cost saving maintenance

**Emergency brakes** protect personnel and equipments in case of drive-line failure. SIME-Stromag emergency calipers feature:

- short response time
- constant braking torque over lining life
- world's most powerful electromagnetic caliper (2SA)
- option: manual or controlled lowering; after an emergency braking, the operator can let down slowly the load to safety
### THE RIGHT CHOICE!

#### Inertia - response time

<table>
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<tr>
<th></th>
<th>Disc brake</th>
<th>Drum brake</th>
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<tbody>
<tr>
<td><strong>Disc brake inertia</strong></td>
<td>lower than</td>
<td>drum brake’s (60% less)</td>
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- **Shorter response time, no need to oversize brakes**

#### Stopping distance (same braking torque)

- Disc brake: + 30%
- Drum brake: + 50%

#### Generated energy (same braking torque)

- Disc brake: + 36%
- Drum brake: + 50%

#### Braking torque (same stopping distance)

- Disc brake: + 30%
- Drum brake: + 50%

### and also..

#### Automatic wear compensation

- Service disc brakes torque is steady over lining life

#### 12 times faster lining replacement

- No need to dismount SIME-Stromag disc brakes: replacing pads takes only 5mn. (60mn. for drum brakes)

#### Standardization

- Spare parts reference list may be halved

### Electromecanical or hydraulical release?

Choose release technology keeping in mind that SIME-Stromag masters both technologies: our disc brakes are the safest on the market!

#### Electromecanical disc brakes

Electromanical disc brakes have a long lasting history of reliability and immunity from on-site conditions.

#### Hydraulic disc brakes

Hydraulic disc brakes allow greater braking torques while equipment remains relatively compact.

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**Left**: trolley of a 30 tons coil handling crane; electromecanical brakes - 3CA /service caliper - 2SA /emergency caliper

**Up/right**: 350 tons ladle crane fitted with hydraulic brake - SH15 hydraulic emergency caliper + C210 power unit
SIME-Stromag, industrial disc brakes world leader, has developed, installed and maintained worldwide tens of thousands of safe, performant and complete braking solutions for:

- Port cranes
- Coal and Nuclear power plants
- Windmills
- Steel works cranes
- Pedestrian transport equipments
- Belt conveyors

SIME-Stromag is ISO 9001 certified

Service disc brakes

Emergency disc brakes