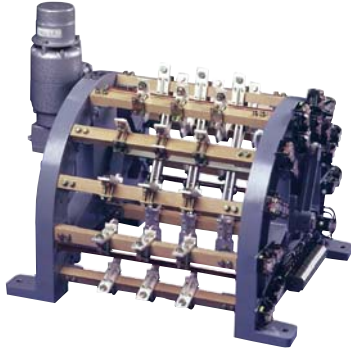


High power switches application

When industry-leading companies worldwide have a special challenge, they call Ferraz Shawmut.

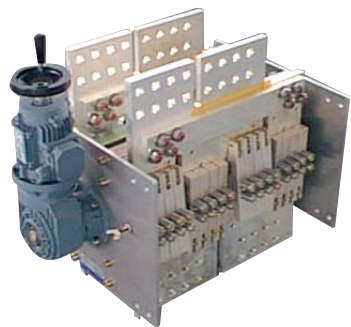
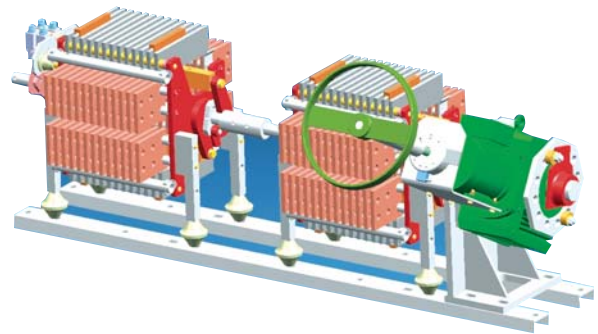
Why? Because we've pioneered more technological advances in high-power switches than all of our competitors combined with three Ferraz Shawmut brands: Fouilleret, Berg, Soulé



DC and AC switch designs to handle high current/low voltage and high voltage/low current applications, include

- Rectifier output disconnect switches.
- Change-over disconnect switches.
- Change-over grounding disconnect switches.
- Polarity-reversing disconnect switches.
- Distribution panel disconnect switches.
- Low-voltage disconnect switches.
- Medium-voltage disconnect switches.
- Grounding switches.
- Mobile and stationary shorting switches.

- A deformable disconnect switch that can move on three axes to allow for bus bar expansion, eliminating the need for expensive flexible connections.
- A proven air-cooled switch for aluminium smelting - the first of its kind.
- The first input loadbreak disconnect switch for "choppers" - DC-to-DC converters used in chlor-alkali applications.
- The first loadbreak switch and rotating current transfer unit for copper foil process.
- The first dual-shell switching system for DC arc furnaces.



- Pure silver-to-silver contacts for the best connection.
- A visible disconnect that eliminates guesswork and increases safety.
- Self-cleaning contacts for minimal maintenance.
- Aluminium or copper, bolted or welded connection.
- Various methods of operation - manual, electric or pneumatic.
- Mechanical or electrical open-switch locks.
- Multiple contacts, with spring-loaded arc-quenching chambers independent from the main contacts on load break switches.
- Outdoor enclosures resistant to corrosive environments

Chemical, metal process

A range of switches, from transformer to cell

High-power chemical processes, like electroplating and the electrolysis of chlorine, fluorine and magnesium, require disconnect switches that can handle 300 kA plus.

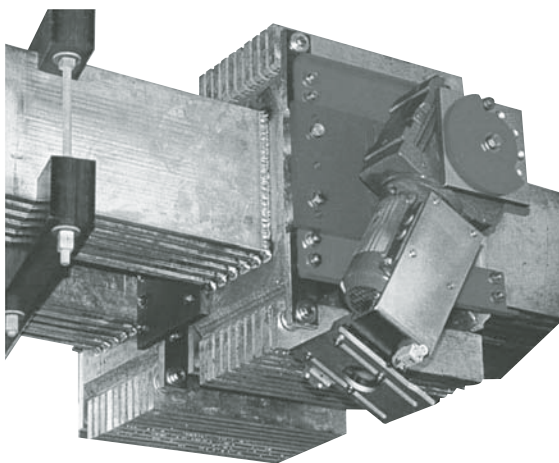
Ferraz Shawmut offers these as well as a range of other types of switches, to cover the entire line from transformer to cell. In fact, we were the first to create multiple products for specific applications.

Switches are available for flexible or fixed connections - copper or aluminium, bolted or welded.

They include:

- Medium-voltage transformer disconnect switches.
- Rectifier output disconnect switches.
- Mobile and stationary shorting switches.
- Polarity-reversing disconnect switches for electroplating.

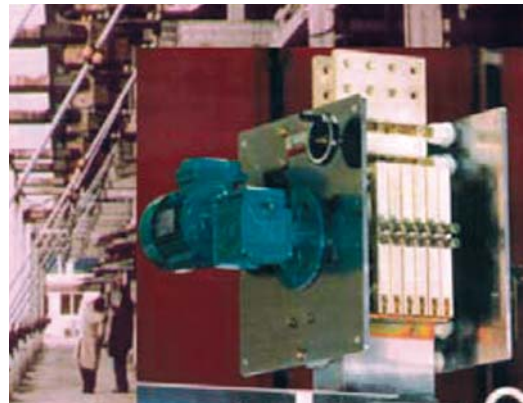
Very High Power Disconnectors
PBD (Plain Bars Disconnectors) Type
2000 V DC - 20 kA to 160 kA
Single pole / Double pole / Change-over
Aluminum Terminals



Few applications are as extreme as metals processing.

Whether it involves arc furnaces or induction ovens that reach over 300 kA, rolling mills or the electrically charged drums used to create foils, metals processing poses formidable challenges to circuit protection.

High-Current Disconnectors
NORD Type
1500 V DC - 14 kA to 140 kA
Single pole / Double pole / Change-over
Aluminum or Copper Terminals



High-Current Disconnectors
MBD (Multi-Blade Disconnectors) Type
2000 V DC - 5kA to 60 kA
Single pole / Double pole / Change-over
Aluminum or Copper Terminals



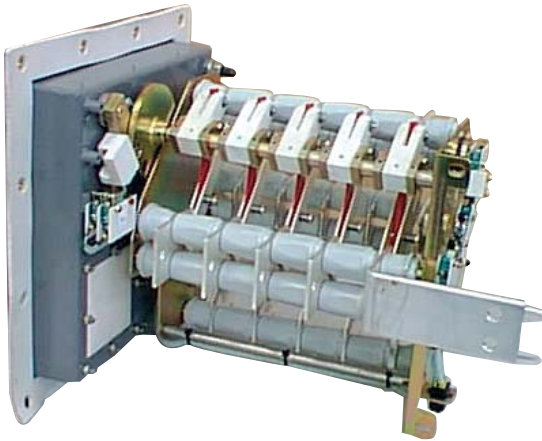
Electrical traction application

If you've traveled by train anywhere in the world, chances are Ferraz Shawmut's high-power switches were part of trip.

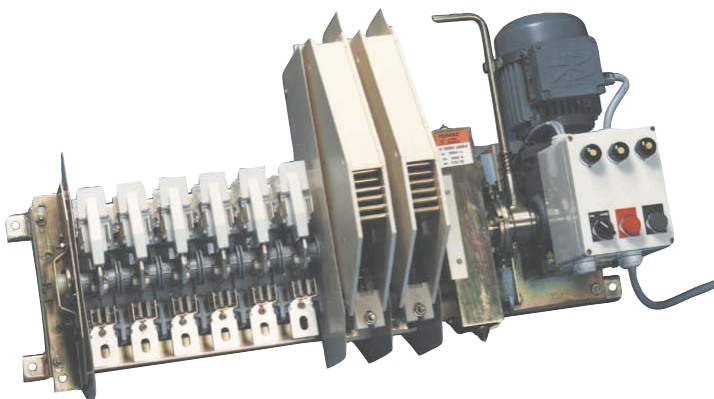
Built to take the vibration and constant punishment of traction applications, our AC and DC switches are found everywhere - from light rail and subway trains to locomotives, from substations and rolling stock to third rails.

Customers rely on us for:

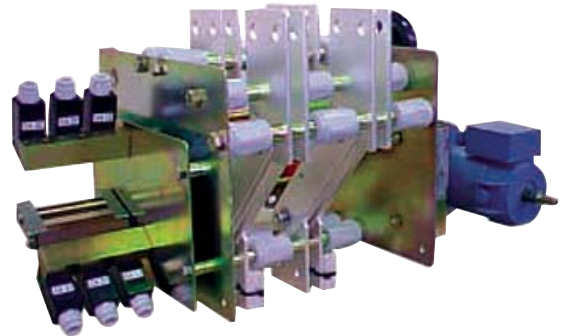
Change-over disconnectors on board
FA Type



The switches can be operated manually, or they can be motorized and operated locally or remotely, increasing safety and reliability. Another safety feature is a built-in interlock that ensures the position of the switch.



High Current Disconnectors
Change-over disconnectors
FA Type
3000 V ~ / = 500-8000 A 0-175 HZ



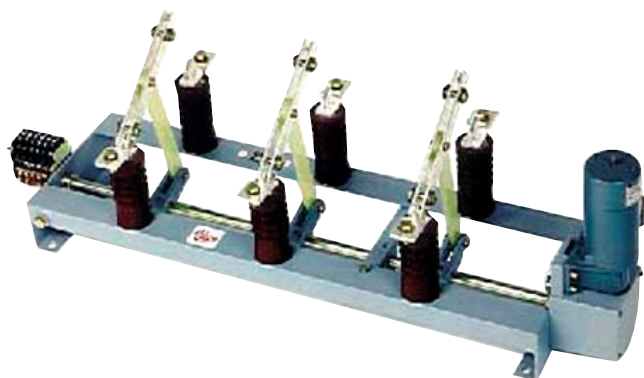
- Substation switches:
 - DC change-over switches.
 - DC grounding switches.
 - AC medium-voltage disconnect switches.
- Rolling stock switches:
 - AC and DC disconnect switches.
 - AC and DC change-over switches with several poles and several positions, to handle main, shop, auxiliary and other sources of power.
- Track and main yard switches:
 - Catenary and third-rail switches.
 - Loadbreak disconnect switches to sectionalize track.

DC Loadbreak Switches
IF Type
1000 V DC - 800 to 6300 A

Medium voltage

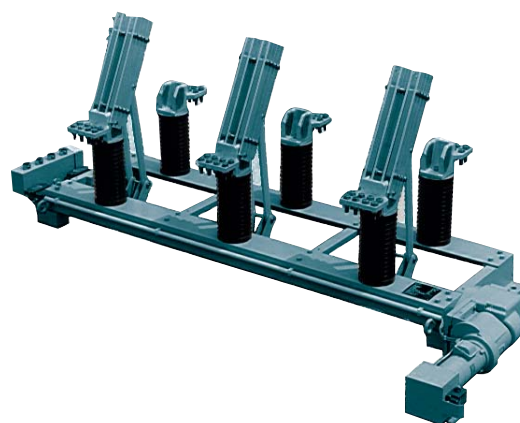
So whether your needs are simple or complex, you can rely on Ferraz Shawmut to deliver the best solution. To learn more, call us. We'll show you all the ways we're your circuit protection resource.

HAS Type
12 kV, 24 kV, 36 kV
400 A to 1 000 A - up to 175 Hz
Number of poles : 1, 2, 3, ...



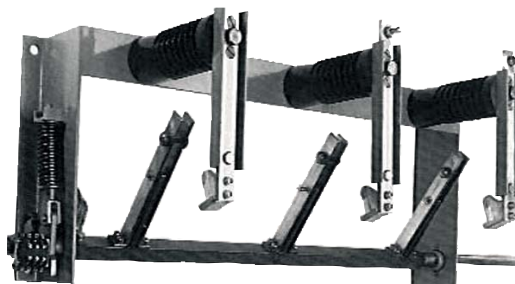
- Distribution panel disconnect switches.
- Low-voltage disconnect switches.
- Medium-voltage disconnect switches.
- Grounding switches.
- Mobile and statinary shorting switches.

HAS Type
1.6 kA to 6.3 kA - up to 175 Hz
Number of poles: 1, 2, 3, ...



Equally important, we possess the ability to listen. An ability that enables us to truly understand your operation and your needs, so we can create a high-power switch solution that's both effective and cost-effective.

HAS Type
12 kV, 24 kV, 36 kV
400 A to 1 000 A - up to 175 Hz
Number of poles : 1, 2, 3, ...



- Large isolation air and creepage path
- Self-cleaning blade contacts
- True opening and visible break
- Rugged anti-torsion construction
- Large customisation with :
 - Manual, motor, pneumatic drives
 - Auxiliary switches, solenoid interlocks
- According to IEC 62 271
- Dimensions Adaptable

HAS Type
1.6 kA to 6.3 kA - up to 175 Hz
Number of poles: 1, 2, 3, ...

