



Gas Insulated Bus

**Reliable, cost-effective
long-distance power
transmission.**



Gas Insulated Bus

Flexible. Powerful. Efficient.

In today's environment, grid designers increasingly encounter situations where overhead lines or buried cables are not suitable for high voltage transmission. AZZ Gas Insulated Bus (GIB) solutions help meet modern electrical system demands with leading options that can transport bulk power with maximum reliability and minimal losses.



Designed to accommodate any installation constraint

Gas Insulated Bus (GIB) installations have been utilized in every feasible layout while carrying high power ratings without requiring multiple circuits. GIB systems offer high transmission capacity, superior electromagnetic compatibility, low losses, high safety, reduced maintenance and flexible installation options.

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- 1 Transmission Line Crossings
 - 2 Hydro Power Plants
 - 3 Power Plant Optimization
 - 4 Below Grade Transmission
 - 5 Buried Underground Installation
 - 6 Elevated Installations
 - 7 Substation Extensions and Retrofits
 - 8 Low Profile Substations

AZZ delivers a powerful solution

AZZ GIB systems provide a compact, reliable and economical alternative to conventional cable systems and overhead lines for power transmission. With a design that minimizes right-of-way requirements, these installations provide safer operating conditions than air insulated equipment or conventional cable systems. Standard AZZ systems are suitable for transmission voltages from 115 kV to 1200 kV, with continuous current ratings as high as 8000 amperes.

Simple and inexpensive interfaces are available for almost all types of high voltage equipment, including gas insulated switchgear (GIS), transformers, oil cables and XLPE cables. AZZ designs and supplies the interface to any substation equipment, regardless of whether the substation interface equipment is supplied by AZZ or by others. Connections to air insulated substations and transmission lines are easily accomplished through the use of SF₆ to air bushings.

Applications:

- Transmission/Utility line crossings
- Hydro power plants
- Power plant optimization
- Below grade transmission for underground installation
- Elevated installations
- Substation extensions and retrofits
- Low profile substations

AZZ GIB System Advantages:

- Low profile design
- Section lengths of up to 60 ft., minimizing production and installation costs
- Tri-Trap® design reduces in-service failures
- Compatible with any gas insulated switchgear (GIS) manufacturer

Advantages over Cable Systems:

- Higher current-carrying capacity than fluid-filled or XLPE cable systems
- Versatile routing options
- Fabricated elbow design enables 90° turns and changes in direction at any angle
- Specifically designed for long distance power transmission
- 50-year operating life with high reliability



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