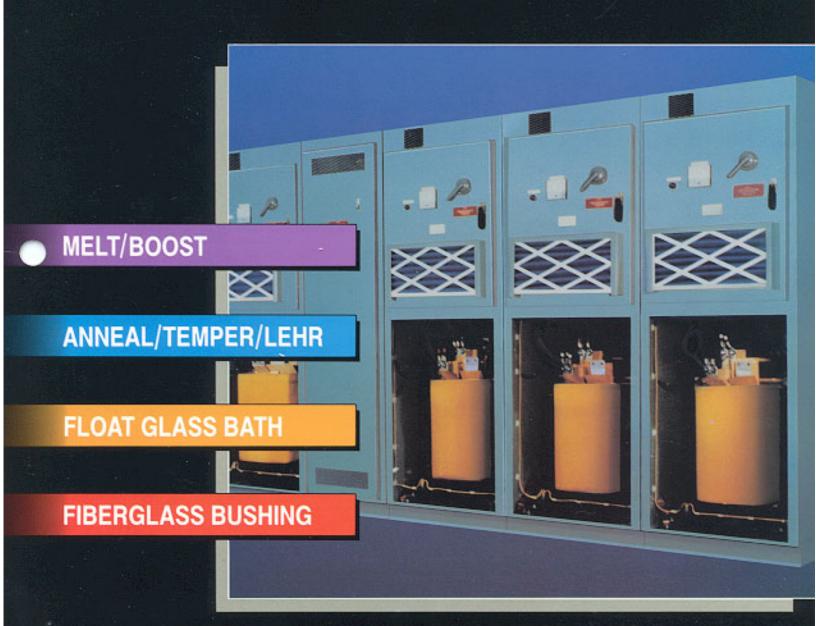
# CUSTOM ENGINEERED POWER CONTROLS FOR THE GLASS INDUSTRY



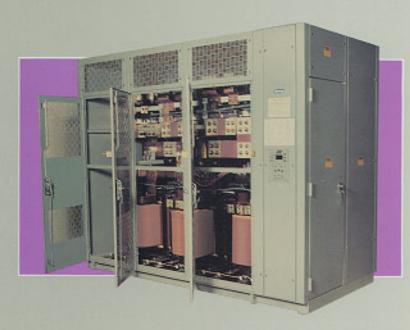
Spang Power Electronics

# Spang: Three Decades of Leadership in Glass Industry Power Control Technology

A 35 year reputation synonymous with superior quality custom engineered 'power modulation equipment, has maintained Spang Power Control on the forefront of glass melt technology. This dedication has led to new developments for controlling power in all aspects of the glass production industry.

## **GLASS MELT POWER SUPPLIES**

These power supplies feature the exclusive Automatic Power Factor Control System to reduce operating costs by optimizing power factor over the entire output range.







# MELT/BOOST TRANSFORMERS

Designed specifically for direct heating, Spang liquid-cooled and dry type transformers provide impedance matching, isolation, and stepped power modulation for glass melting and boosting applications. Ratings available through 10,000 KVA in 15KV, 5KV and 600 volt class.

Spang also designs and manufactures current balancing transformers, saturable reactors, and other custom magnetics for glass melting and processing.

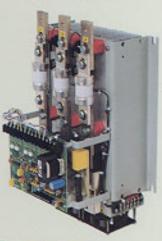
### ANNEAL/TEMPER/LEHR



Multi-zone SCR power center for lehr heating element control.

# POWER CONTROL CENTERS

Spang offers a complete line of single and multi-zone power centers for precise, efficient control of power to resistance heating elements in forming and post forming equipment.



SCR power controller.

#### FLOAT GLASS BATH



Remote multi-tapped transformer for voltage matching between the SCR power center and float bath heating elements.

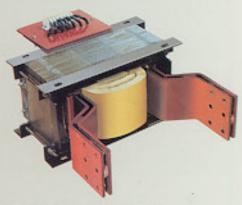


SCR power center for multi-zone control of float glass tin bath heating elements.



Multi-zone Automatic Power Factor Control power center for control of platinum bushings.

#### **FIBERGLASS BUSHING**

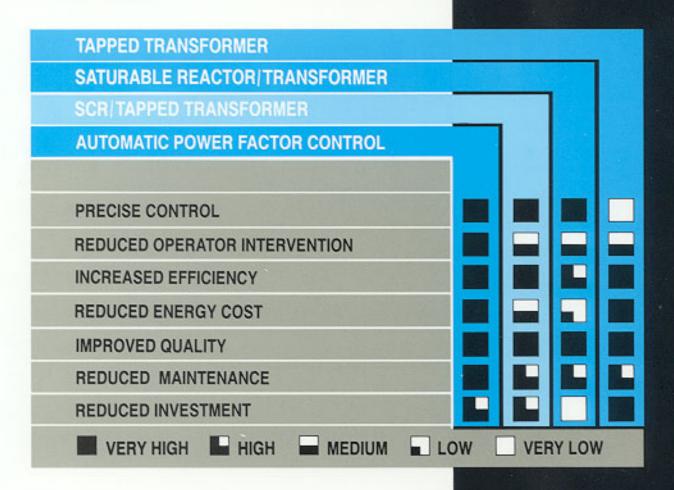


Remote mounted step-down bushing transformer.



## A COMPLETE RANGE OF CONTROL TECHNOLOGY

Spang offers a complete line of power modulation systems equipped with the level of control technology to meet your requirements. Each differs in cost, operating efficiency and precision. The matrix below gives a comparison of these important features and benefits.





# Spang Power Electronics

#### Location

Spang Power Control is located in Sandy Lake, Pennsylvania, 65 miles north of Pittsburgh and close to the intersection of Interstate Routes 80 (E-W) and 79 (N-S). Airports within 100 miles include Pittsburgh and Erie, Pennsylvania, Youngstown and Cleveland, Ohio.

