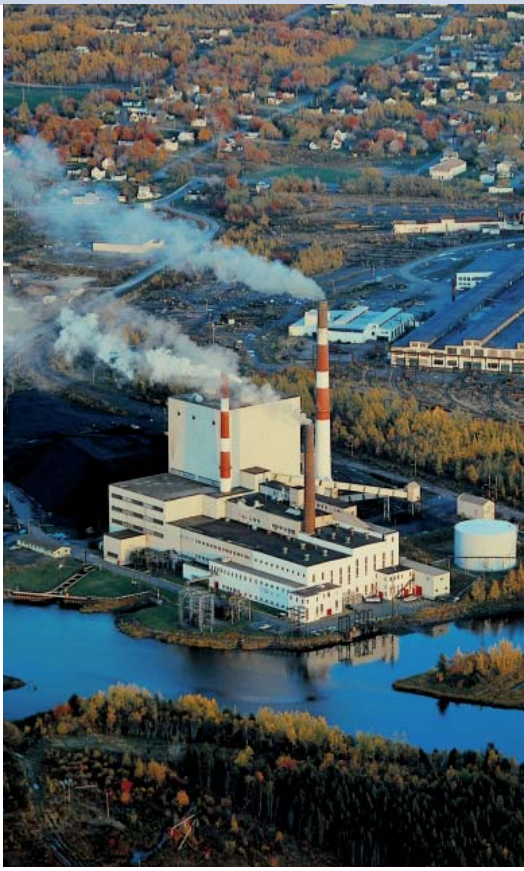
BRAN+LUEBBE
An SPX Process Equipment Operation

SPX Process Equipment

Application Notes

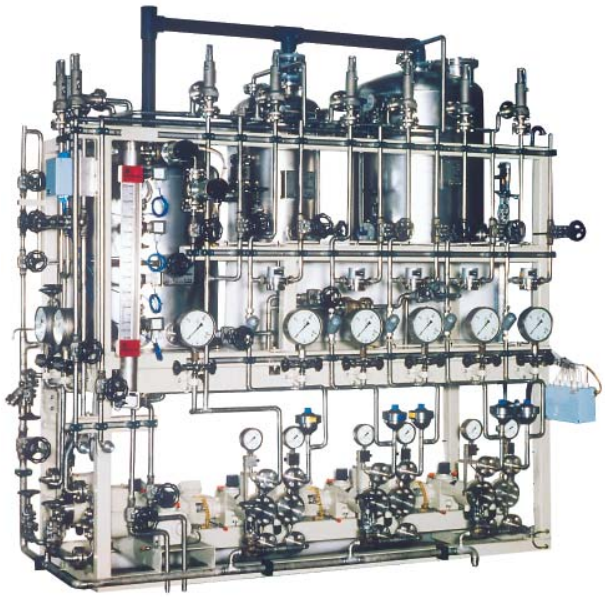
AutoBlend Systems

System for Water Treatment



Advantages

- Cost saving by automatically adjusted treatment to the water analysis
- Optimal safety and protection for operators and surroundings against hazardous chemical



Metering unit for ammonia and Levoxine in the treatment of boiler feed water and preservation in a nuclear power plant

Applications

Compact metering sations for water treatment are available in a variety of designs and for a variety of applications.

One important application is e.g. the treatment of boiler feed water in power plants, heating power plants and nuclear power plants. Here metering systems are needed for the following chemicals and tasks:

- **Hydrazine/Levoxine/Helamine**
  for chemical deaeration and absorption of residual oxygen
- **Phosphates**
  for stabilizing carbonate hardness and protection against corrosion
- **Ammonia solution**
  for stabilizing carbonate hardness and alkalinization
- **Hydrogen peroxide**
  for protecting against corrosion by forming a protective layer
- **Caustic soda solution, hydro- chloric acid and sulphuric acid**
  for regenerating exhangers
- **Cloride of lime**
  for combating algae in coolant circuits

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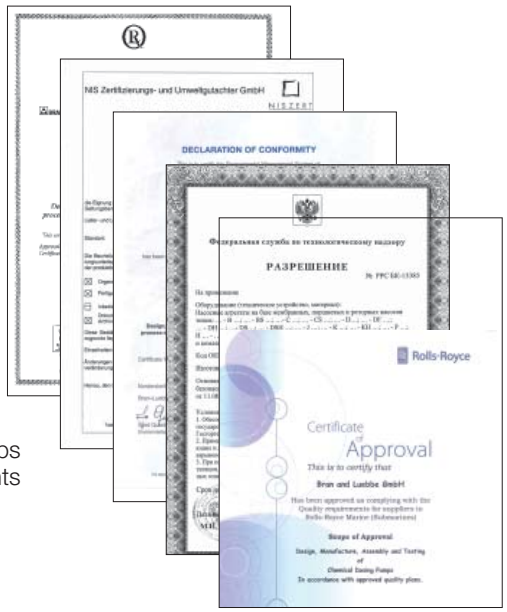
However Bran+Luebbe metering stations can also be used in the treatment of waste water, whereby a variety of chemicals are metered as flocculation agents and for controlling the pH value. Devices for measuring and controlling the pH value are an integral part of the Bran+Luebbe range, as is the control equipment in proportional metering. In the area of water treatment Bran+Luebbe also supply systems for the decanting, diluting and metering of chemicals hazardous to health (e.g. hydrazine) under strict observation of the valid safety regulations. And many other special metering stations, which are designed on th basis of the technical requirements in each particular case.

Components

- 8 horizontally combined metering pumps type P with manual adjustment, 8 double-diaphragm heads
- 8 pressure switches for double-diaphragm monitoring
- pH-analyzer
- Heating jacket for 2 pump heads and 1 suction-side pipe
- Oxygen analyzer
- 8 flow meters
- 5 pressure vessels
- Various shut off valves
- 8 safety valves
- 4 variable-speed drive motors

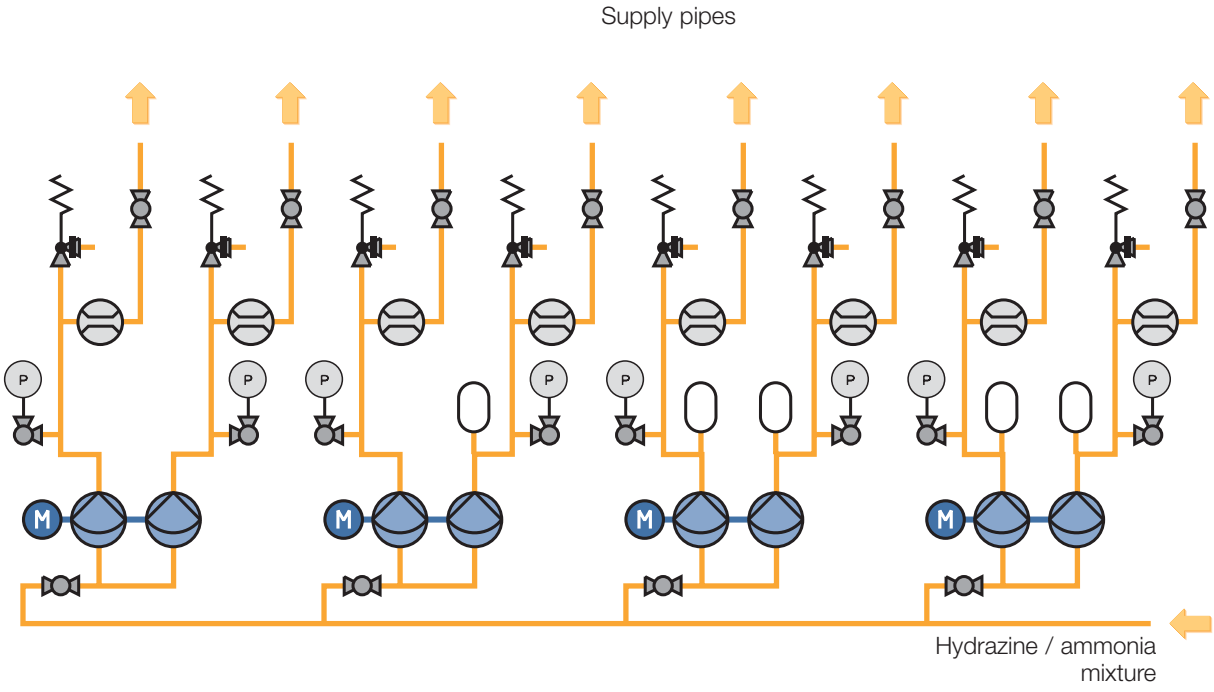
Automation

- Automatic preparation of hydrazine/ammonia mixture
- Speed control according to water analysis and volume
- Automatic shut down if pump diaphragm ruptures



Certificates for B+L Metering pumps and Systems used in power plants

Simplified process diagram



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