▪ HEATING FOR THE PULP AND PAPER INDUSTRY

The pulp and paper industry consumes a substantial amount of energy. The most significant energy users in the sector are the procedures required to make pulp and dry paper. To retain their properties, most varieties of paper are kept at a temperature of 22°C (72°F) with a relative humidity of 45-55%. In colder areas with dedicated outdoor air systems (DOAS) and **make-up air units**, proper preheating and reheating of incoming air enhances product quality.

In addition to using indirect steam generators, tank & suction heating, and plant utility heating, all facilities must be equipped with dryers and kilns for drying biomass in the safest, most dependable manner possible. For example, the heating of calendar rolls, one of the significant industrial operations, depends critically on pressure, temperature, and duration for uniformity and quality.

Mining heating systems can account for up to 50% of ventilation expenses and nearly 40% of overall energy expenditures. Ventilation helps to minimize toxic diesel fumes and other unpleasant organic and inorganic gases and particles emitted by mining operations and equipment.

Process heaters offer constant heat provision, participating in work process completion to ensure quality paper that does not curl or expand with high moisture or unstable temperature.

Better pressure and temperature are required when temperature demand rises, or more sheets of higher grade are produced.

Neptronic can help you select the ideal process heater for your needs with capacities up to 40 kW/sq. Ft. and leaving air temperatures that can reach up to 648°C (1200°F) to match your requirements with minimal installed space. This is available in a fully modulating package for precise, energy-efficient control.

Benefits of an electric duct heater:

- Contributes to temperature control
- Prevents paper curling and expansion
- Enhances process and personnel productivity
- Mitigates product loss due to inadequate conditions
- BACnet MS/TP or Modbus compatible
- Works with a range of in-house controllers and sensors

neptronic®

We also offer stainless steel construction with SS316L or Incoloy 840 elements to withstand the most demanding process environments.

Our reliable **controllers, thermostats, and sensors** can help monitor your ambient conditions accurately and avoid temperature fluctuations.