

## Application Profile



## Application

## Highlights

- Series 62 spindle gear main current limit switch
- HEG Series limit switch, consisting of a two-stage spur gear
- Custom assembly with mounting plate



## Custom Series 62 & HEG Limit Switch Assembly Dam Flap Gates

Reliable limit switches were needed for a hydroelectric power dam renovation project in Northern France. Positioned on the Moselle river, the dam features four flip gates that control the flow of the water. The heavy, reinforced steel gates are positioned vertically when fully closed. While the gates are designed to restrict flow, water can continue to stream over the top of the gates in a controlled fashion. When fully opened, the gates are lowered to the bottom of the structure allowing unrestricted water flow. The gates are operated by large electric motors.

Stromag met with the electric company at the dam to review the installation. The customer wanted a complete limit switch solution to protect the entire gate operation. Since a single limit switch could not handle the multiple application requirements, Stromag engineers designed a custom single-piece assembly that featured two different limit switches mounted to either side of a gearbox.

A Series 62 spindle gear main current limit switch was utilized to cut off power to the gate's drive motor in an emergency. An HEG Series limit switch, consisting of a two-stage spur gear, was installed as a "dead man" switch to prevent unwanted opening of the gate when an operator is not present. The switch works with a rotary encoder that passes through all 20 segmented gate stops to ensure precise gate positioning. All components were assembled onto a custom mounting plate for easy installation.

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