

ESD[®] ACTUATOR APPLICATION DATA SHEET



Flow-Quip Solar Powered type SE Gate Valve System protects critical Pipelines in Northern Peru.

Children from a local village play outside of this crude oil pipeline river crossing valve site. It's over 75 miles from the nearest road. Access to this site is only by helicopter or by small boat. During the rainy season river levels rise to flood the site under up to 4 feet of water. Pipeline breaks from river currents and sabotage have made this Flow-Quip type SE system a critical part of the pipeline safety system.

Solar panels provide all site power; they can be seen extending above the walk-in Power Module. An INMARSAT satellite antenna is utilized for communication with the pipeline dispatcher (over 100 miles away). The Flow-Quip hydraulic actuator was field mounted on the buried pipeline gate valve when the system was installed in 1994. Pipeline pressure is monitored along with a linebreak sensor, which monitors rate of pressure drop. Loss of pressure or rapid depressurization will trigger the system to close automatically.

Type: SE-Solar - LINEAR

ADS No. 7205A

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Flow-Quip Power Module is the Power and Command Center for this Remote Valve Site

This skid mounted fiberglass walk-in enclosure houses the hydraulic power unit, the control system, the communication system and the solar power system with batteries for site electrical power.

Hydraulic energy is stored to enable the system to close the 16" gate valve in under 45 seconds and sufficient volume is stored for 5 complete strokes of the valve without recharge.

High pressure hydraulic stainless steel braided hose connect the Power Module to the cylinder actuator on the valve.

Type: SE- Solar - LINEAR

ADS No. 7205B

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