



*Flowserve – Anchor Darling
Air-Actuated Double-Disc Gate Valves*

Air Actuated Double Disc Gate Valves

Problem

1. Provide an isolation gate valve (for Non-throttling Service) with fail open or fail close capability and without thermal binding.
2. Eliminate the possibility of variable thrust due to tampering or maladjustment of torque and limit switches (as used on electric motor actuators).

Solution

Flowserve Anchor/Darling Valves has manufactured cylinder-actuated double-disc gate valves in sizes ½" through 20", pressures through 4500 class, and temperatures to 1200°F, with closing times less than one second without jamming or sealing-surface damage.

Abstract

A proven double-disc gate valve design is coupled with an industrial-rated cylinder to offer the highest gate valve flow coefficient with both low and high-pressure sealing capability. This eliminates the potential for thermal binding commonly found in flex wedge or solid wedge gate valves (when used in higher temperature service), and provides for longer valve life.

The plant air supply provides the cylinder force to operate the valve. On large valves or high-pressure service, an air booster can be added to reduce the size of the cylinder, or a high-pressure air system may be used. Rapid operation provides greater longevity and repeatability not afforded by electric motor actuators.

Optional Features

- Limit switches – open/close position indicators
- Double-acting cylinders
- Fail open
- Fail close
- Filter/Regulator/Solenoid
- Remote operating stations – electric pushbutton, or manual actuator on solenoid
- Manual selector valve for non-electric operation – intrinsic safety
- Handwheel actuator

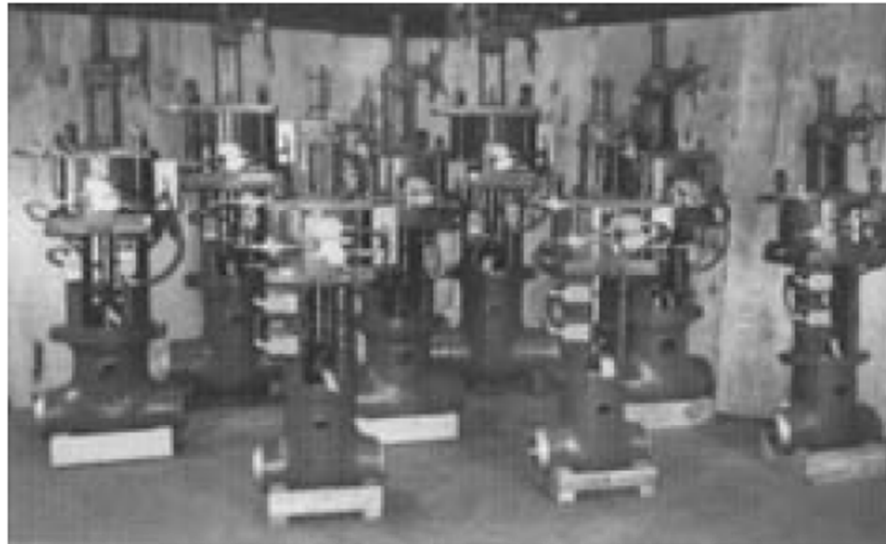
Utility Applications

Fossil

- Vent and drain valves ½"–3"
- Pressures through 4000 psig and 1050°F
- Spray block valves through 4" (as per ASME TDP-1-1980)
- P.R.V. block valves – Once-through boilers
- 10" 2500# (4400 psig @ 850°F) less than 10-second operation
- P.R.V. block valves – Bypass valves
- 2" 4500# (4400 psig @ 850°F) less than five-second operation

Nuclear

- Steam generator blowdown valves (PWR)
- Main Steam Isolation
- Main Feedwater Isolation
- Reactor vent and drain valves



Consider a proven valve and actuator for your critical fossil and nuclear applications. Contact your regional Anchor/Darling Valves representative.



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