

# GENERAL Valve Solutions for Aviation and Military Fueling

## GENERAL Twin Seal double block-and-bleed plug valves

### APPLICATIONS

- Aviation
- Military fueling

### ADVANTAGES

- Verifiable, bubble-tight, fire-safe seal
- Improved flexibility through wide range of sizes, materials, models, and port configurations
- Capability of inline repair
- Plug and seal slips that rotate freely for minimized abrasion and wear
- Positive mechanical shutoff of each valve port independent of springs, system pressure, or flow
- Secondary metal-to-metal seal for reinforcement
- Versatility to adapt to electric or pneumatic actuators and various speeds

Cameron GENERAL Twin Seal\* double block-and-bleed plug valves established the standard specifications for high-integrity, positive shutoff valves. For both inline testing and simple field maintenance and repair, aviation fuel facility managers, engineers, and contractors rely on GENERAL Twin Seal valves for fuel delivery with positive, provable segregation.

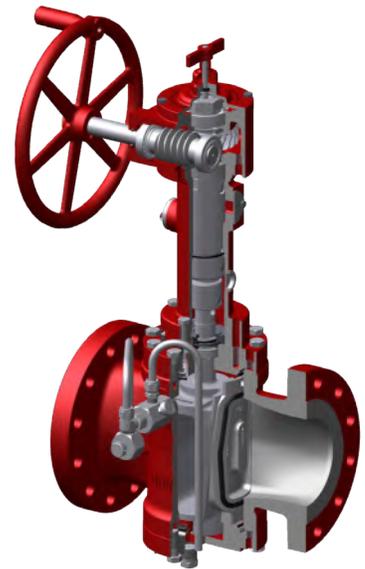
The GENERAL Twin Seal valve helped establish the rigid requirements of double block-and-bleed service. The valve is a nonlubricated, resilient-seal, expanding plug-type valve that has a mechanical means of freeing the plug before it is rotated from the closed to open position. The plug and seal slips rotate freely with no seal-to-body contact, eliminating seal abrasion and wear.

The unique dove-tailed design plug is operated inward between the slips, mechanically wedging out the seal slips for a positive upstream and downstream shutoff. This creates a positive, mechanical shutoff of each valve port independent of springs, system pressure, or flow.

In addition, the primary seals are reinforced by a secondary metal-to-metal seal, resulting in a fire-safe design. Seals can be repaired with common tools while the valve is in line, after the line has been depressurized and drained.

Cameron offers the GENERAL Twin Seal valve in a range of configurations—regular port, full port, seat and reseat, and four-way diverter valves.

All GENERAL\* valves can be easily adapted to accept electric or pneumatic actuators. Actuators can be set to operate at various speeds with low torque requirements. For high-speed applications, Cameron offers in-house-designed and -manufactured hydraulic actuators and supporting power units. All GENERAL valves are supported by Cameron global parts, repair, and aftermarket services.



*GENERAL Twin Seal valves set the standard for rigorous double block-and-bleed service requirements.*



*GENERAL Twin Seal valves are versatile and rugged enough to handle a wide range of operating conditions.*

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## Seat and reseal valves

The GENERAL Twin Seal seat and reseal valve has all of the features of the standard GENERAL Twin Seal valve with an additional capability—it can be repaired or maintained using common hand tools without draining fuel out of the lines in critical airside locations.

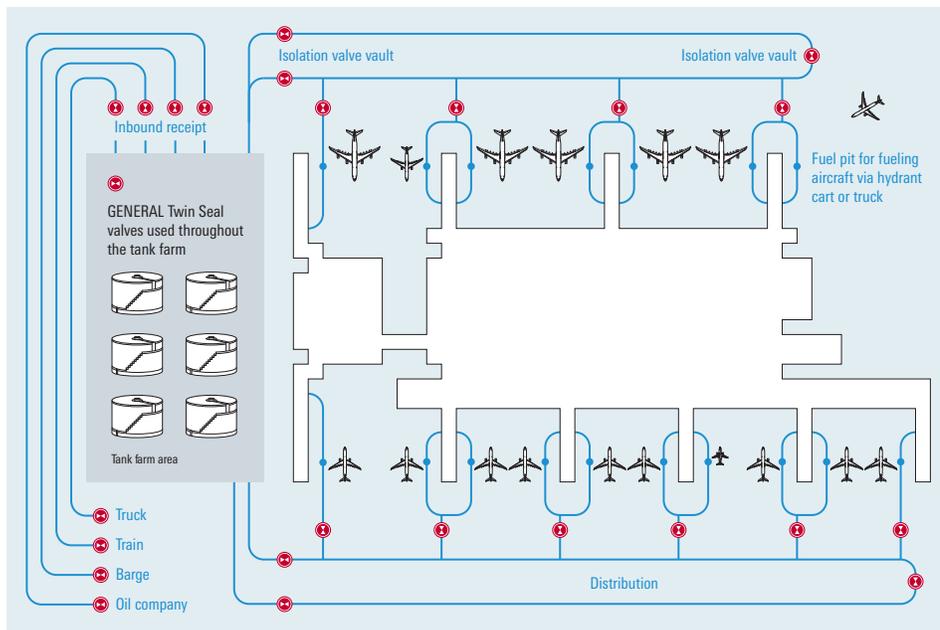
## Manufacturing

GENERAL valves are API 6D Q1 monogramable, PED/CE certified, and ISO 9001 compliant. Our 255,000-ft<sup>2</sup> manufacturing facility located in Little Rock, Arkansas, USA, is staffed with experts who provide complete customer service and product support.

## Service

Cameron has a business development manager appointed exclusively for commercial aviation and military customers.

- Valve commissioning
- Valve conversions
- Hydrotesting
- Workshop site trailers and containers
- Actuator repair and service
- Inline machining



*This schematic shows the possible location of GENERAL Twin Seal valves used in an aviation setting.*

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