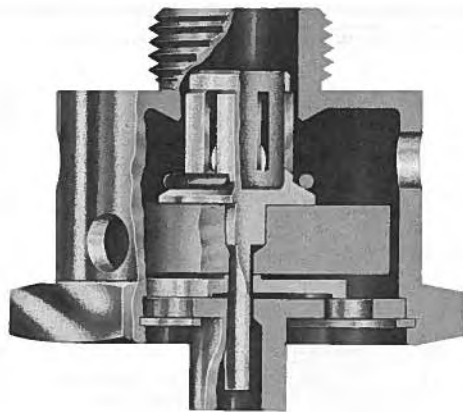


Wherever perfect sealing is required,  
the proven reliability of Circle Seal precision valves  
provides the one complete answer —  
a combination of absolute leakproof sealing when closed  
and virtually maintenance-free operation.



**CIRCLE SEAL**  
  
**CONTROLS**

**Vent  
Valves,  
Float  
Actuated**

**TYPICAL TECHNICAL CHARACTERISTICS**

Part Number	P-401	P1-401	P5-401	P11-401
Material	Aluminum	Aluminum	Aluminum	Aluminum
Connections, In*	—	—	AND 10050-10	AND 10050-10
Out*	1-1/16-12	AND 10050-12	AND 10056-10	AND 33656-10
Mounting	Special fitting	Flange	Line	Line
Operating Press.	0-100 psi	0-100 psi	0-10 psi	0-150 psi
Operating Temp.	-65 to 180°F	-65 to 180°F	-65 to 160°F	-65 to 160°F
Service	Fuel	Fuel	Fuel	Fuel
Special Features	1	1	1, 2	1, 2

1. Design incorporates weight to close valve during inverted flight.

2. Valve is held open by spring during vertical flight.

\* Inlet/outlet is fuel cell/overboard.

**TYPICAL APPLICATIONS**

Venting fuel cell. Venting vapor developed during boost pump operation.

**QUALIFICATION STATUS**

Basic valve design has been qualified to applicable portions of MIL-V-7899. Specific valves have been qualified for system requirements. Qualification test reports are on file.

**TYPE OF VALVE**

A float actuated, poppet type check valve held normally open by gravity and, where necessary, light spring pressure. Fuel resistant float material closes valve when fuel level reaches inlet opening of valve. Where required, a weight overrides the float to hold valve closed during inverted flight.

**PURPOSE**

To permit escape of air from fuel cell during filling and entrance of air into fuel cell during withdrawal; to shut off vent line to prevent fuel flowing overboard (1) during filling (2) during inverted flight (3) as a result of sloshing encountered in taxiing or in turbulent flight conditions (4) as a result of thermal expansion of fuel in the fuel cell.

**OPERATING CHARACTERISTICS**

Dead tight shutoff when closed.

Float is in line with poppet—not offset as is necessary with flapper type—insuring that valve will shut off instantly if fuel reaches vent outlet.

Over-ride weight seals valve during inverted flight.

 **CIRCLE SEAL CONTROLS, INC.**

2301 WARDLOW CIRCLE  
P. O. BOX 3300  
CORONA, CALIFORNIA 91718  
PHONE (909) 270-6200 • FAX (909) 270-6201

# VENT VALVES, FLOAT ACTUATED

## TYPE OF VALVE

Vent Valve, Float Actuated.

## PURPOSE

To vent displaced air to permit free flow into a reservoir or fuel cell; to block vent line when liquid level rises to vent inlet.

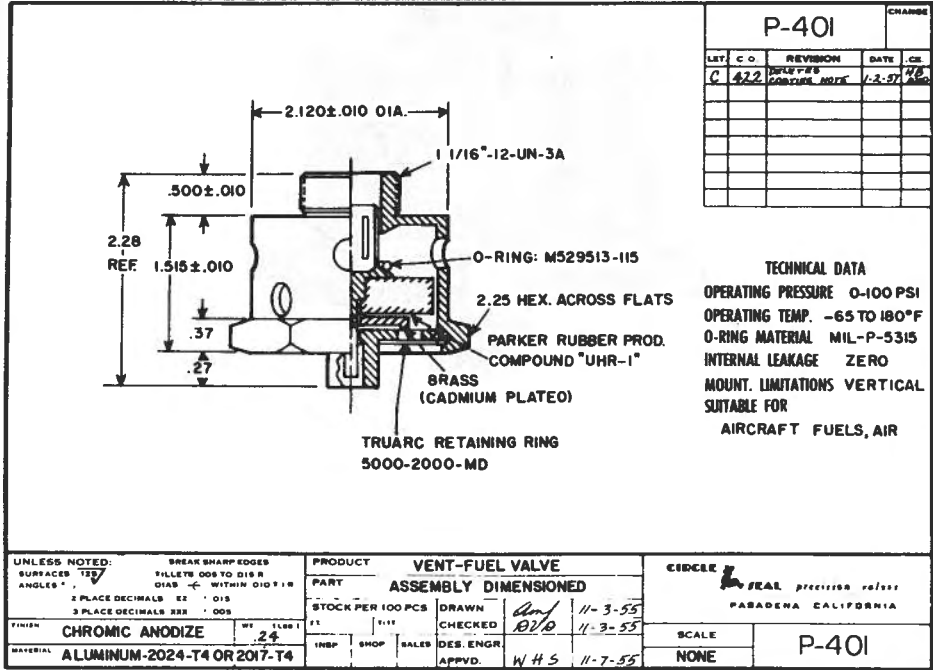
## OPERATING CHARACTERISTICS

Weight of poppet holds valve normally open. As fuel level rises to vent inlet, float overrides weight of poppet. Circle Seal principle provides dead tight shut-off. As float and poppet are on same centerline, fuel cannot seep past poppet. Weight overrides float in inverted flight.

## TYPICAL APPLICATIONS

Vent for fuel cells of small aircraft. Qualified for fuel service.

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REV.	DATE	BY
C 422	1-2-57	WHS

**TECHNICAL DATA**  
 OPERATING PRESSURE 0-100 PSI  
 OPERATING TEMP. -65 TO 180°F  
 O-RING MATERIAL MIL-P-5315  
 INTERNAL LEAKAGE ZERO  
 MOUNT. LIMITATIONS VERTICAL  
 SUITABLE FOR AIRCRAFT FUELS, AIR

## TYPE OF VALVE

Vent Valve, Float Actuated.

## PURPOSE

To vent displaced air to permit free flow into reservoir or fuel cell; to block vent line when liquid level rises to vent inlet.

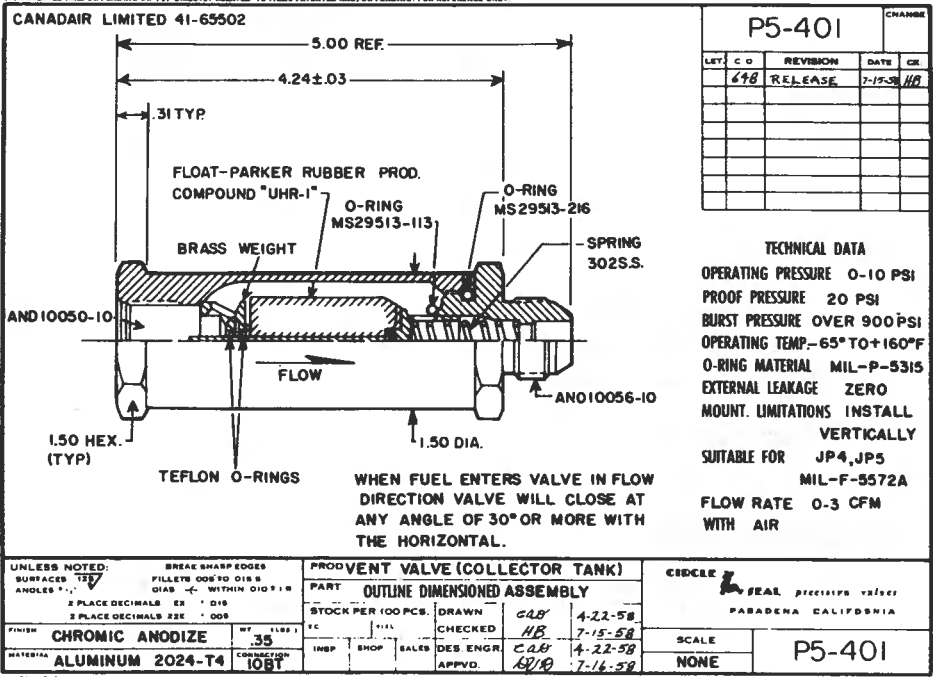
## OPERATING CHARACTERISTICS

Weight of poppet holds valve normally open in vertical flight. As fuel level rises float overrides weight of poppet, closing valve. As float and poppet are on same center-line, valve can be line mounted.

## TYPICAL APPLICATIONS

Vent for fuel cells of small aircraft. Qualified for fuel service.

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REV.	DATE	BY
678	7-15-58	WHS

**TECHNICAL DATA**  
 OPERATING PRESSURE 0-10 PSI  
 PROOF PRESSURE 20 PSI  
 BURST PRESSURE OVER 900 PSI  
 OPERATING TEMP. -65° TO +160°F  
 O-RING MATERIAL MIL-P-5315  
 EXTERNAL LEAKAGE ZERO  
 MOUNT. LIMITATIONS INSTALL VERTICALLY  
 SUITABLE FOR JP4, JP5 MIL-F-5572A  
 FLOW RATE 0-3 CFM WITH AIR