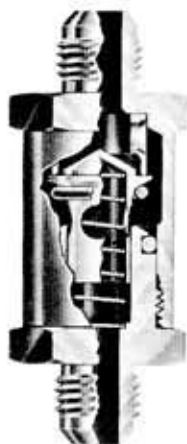


Wherever perfect sealing is required,
the proven reliability of Circle Seal precision valves
provides the one complete answer —
a combination of absolute leakproof sealing when closed
and virtually maintenance-free operation.



CIRCLE SEAL

CONTROLS

Automatic Drain Valves

TYPICAL TECHNICAL CHARACTERISTICS

Part Number	Service	Operating Temperature	End Connections	Close - Open		Weight Lbs.
				Psi - Max.	Psi. - Min.	
P4-526	Air, fuel	-65 to 165°F	AND 10056-3	85±40	5	.04
P7-526	Air, fuel	-65 to 500°F	AND 10056-6	4	1	.07
P10-526	Fuel, LOx	-300 to 450°F	AND 10056-6	50±15	5	.07
P11-526	Nitrogen	-65 to 200°F	Cartridge	350	100	.024
P12-526	Air, water	-65 to 500°F	MS33514-6	4	1	.07
P19-526	Air, fuel	-65 to 350°F	MS33514-4	4	2	.03
P20-526	Air, fuel	-65 to 350°F	MS33514-6	4	2	.033
P21-526	Air, fuel	-65 to 400°F	MS33656-8/10	4	1	.26
P25-526	Air, fuel	-65 to 250°F	MS33656-6	3	0.5	.07
P31-526	Air, fuel	-65 to 450°F	MS33656-4	1	—	.06
P18-392	Fuel	-65 to 300°F	MS33656-5/6	155±10	180±20	.08

MATERIALS

Body — Aluminum (2024 T4) or stainless steel (303)

Seals — Teflon or Viton A.

SERVICE

Fuel, air, nitrogen, liquid oxygen, alcohol, etc., depending on system requirements and materials of construction.

TYPICAL APPLICATIONS

Drain on main fuel line of missile fuel system to drain any leakage past fuel valve when missile is fueled ready for firing (valve closed automatically by fuel pressure when missile fired).

"Drip and drain" valve in fuel cell or tip tank pressurizing line.

TYPE OF VALVE

Normally open check valve which closes automatically when pressure or flow exceeds a predetermined value and opens automatically at lower pressure.

PURPOSE

To drain or bleed fuel or other fluid automatically when system is at non-operating pressure and to seal drain port when system is pressurized.

OPERATING CHARACTERISTICS

Operating pressures: Up to 3000 psi.

Drain flow: Virtually unrestricted.

Sealing: typical characteristics (aluminum valve, Teflon "O" Ring, 4 psi max. closing pressure):

4-5 psi	2 scfm max. w/air
5-15 psi	1 scfm max. w/air
15-30 psi	7 cc/min max. w/air
30-100 psi	4 cc/min max. w/air
100-up psi	1 cc/min max. w/air

Leakage with liquid is 0 in higher pressure range, minor in lower pressure range.

QUALIFICATION STATUS

P7, P12, P19, and P20-526 have been qualified for specific airborne systems; qualification test reports are on file. Others qualified as part of overall system or by similarity.



CIRCLE SEAL CONTROLS, INC.

A CIRCOR International company

2301 WARDLOW CIRCLE

CORONA, CALIFORNIA 92880

TEL (951) 270-6200 • FAX (951) 270-6201

AUTOMATIC DRAIN VALVES

TYPE OF VALVE

Automatic Drain (or Drip & Drain)

PURPOSE

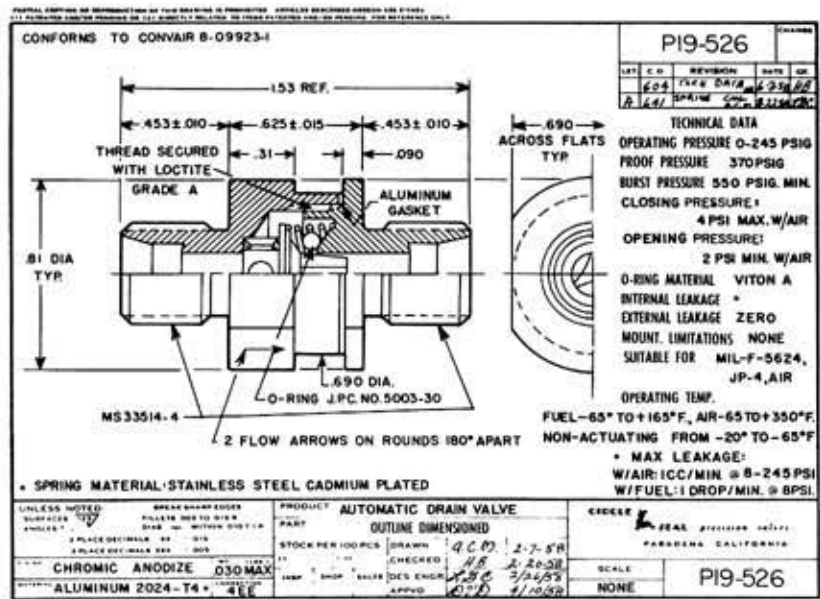
To bleed a line or system of entrapped or casual liquid when the system is non-operating.

OPERATING CHARACTERISTICS

Valve is held normally open by a light spring permitting free flow or drainage. When system or line is pressurized, valve closes automatically preventing further flow or excessive leakage and loss of pressure.

TYPICAL APPLICATIONS

Automatic bleeding of tip tank pressurizing line at low pressure to drain off possible fuel leakage. Qualified for hot air-fuel service.



TYPE OF VALVE

Automatic Drain (or Drip & Drain)

PURPOSE

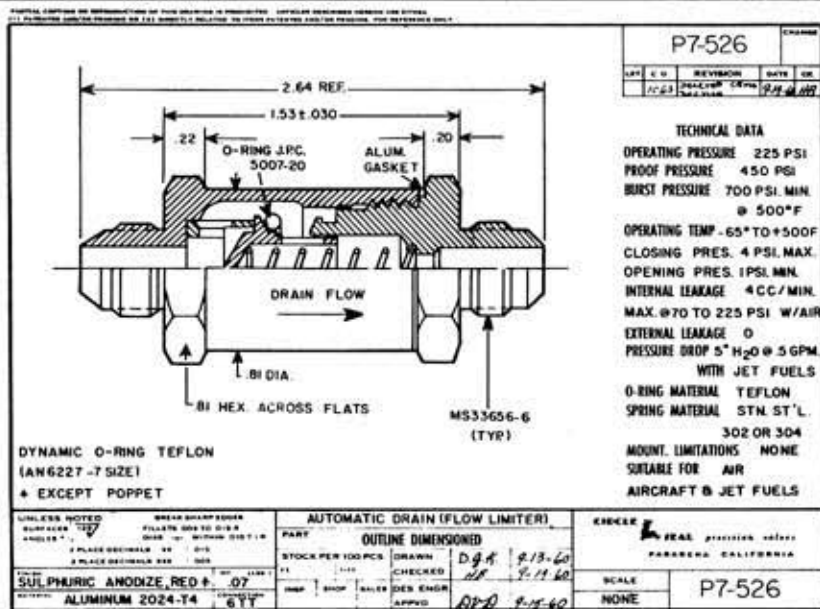
To bleed a line or system of entrapped or casual liquid when the system is non-operating.

OPERATING CHARACTERISTICS

Valve is held normally open by a light spring permitting free flow or drainage. When system or line is pressurized, valve closes automatically preventing further flow or excessive leakage and loss of pressure.

TYPICAL APPLICATIONS

Automatic bleeding of pylon tank pressurizing line at low pressure to drain off possible fuel leakage. Qualified for hot air-fuel service.



TYPE OF VALVE

Automatic Drain

PURPOSE

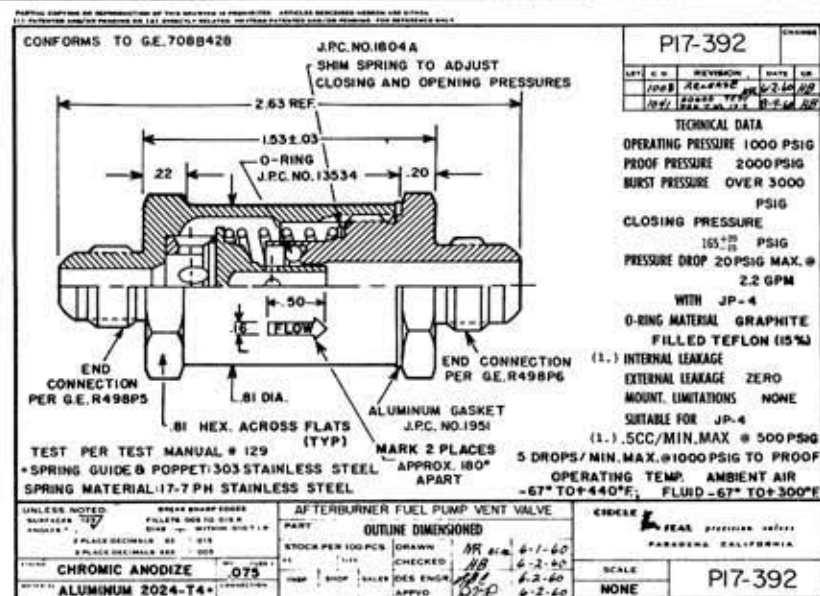
To maintain system pressure, to bleed or drain at low pressure.

OPERATING CHARACTERISTICS

Valve is normally open. Pressure buildup in the system forces the poppet to close and seal with virtually no leakage. When system pressure decays, valve opens automatically to bleed pressure to zero or drain system.

TYPICAL APPLICATIONS

Pressure control and automatic drain of afterburner pump system.



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