



Vogt Valves

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*The Connection Bulletin for
Zero Leakage Forged Steel Check Valves
Class 800*

CB 03

Zero Leakage, Forged Steel CHECK VALVES: Class 800

ZERO LEAKAGE, FORGED STEEL CHECK VALVES

- Customized to meet ZERO LEAKAGE service requirements.
- Choice of four different elastomeric "ZL" ring materials.
- Check valves with "ZL" rings are the logical selection for dry gas, low back-pressure liquids and other difficult applications.

The Connection for ZERO LEAKAGE FORGED STEEL CHECK VALVES

Vogt check valves... world famous for performance... are now available with "ZL" rings designed to provide zero leakage* even under low back-pressure conditions.



"ZL" FEATURES

- Resilient "ZL" ring seals even with small sized foreign particles in the media.
- "ZL" ring cushions the closing shock while compensating for normal wear of seating surfaces.
- Precision machined ring recess effectively retains the "ZL" ring and reduces the possibility of premature damage or blow-out.
- Metal-to-metal backup seat closure is ready in case of ring malfunction.
- "ZL" ring feature may be added to other Vogt piston check valves on special order. The Class 800 Series 701 ZL Check Valve is stocked with threaded ends for your immediate requirements.

"ZL" MAINTENANCE

- Top entry bolted bonnet design for in-line repair.
- Color coded "ZL" rings for quick identification and replacement when necessary.

"ZL" DEPENDABILITY

- Over 1,000,000 test cycles have verified zero leakage in low and high back-pressure applications.
- Service life expectancy far exceeds traditional metal-to-metal seating.
- Hard-faced integral seats never need replacement.



Vogt Series 701 ZL Check Valve Internal Detail

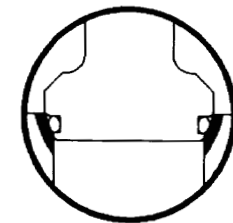
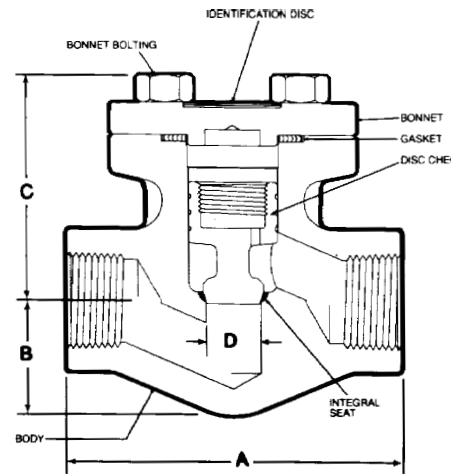
"ZL RING SOFT INSERT COMPOUNDS"		
COMPOUND MATERIAL	TEMPERATURE RANGE	MAXIMUM PRESSURE
Buna N	-20°F to 250°F	2000 psig
Viton	-20°F to 400°F	2000 psig
Ethylene Propylene (EPR)	-20°F to 300°F	2000 psig
Neoprene	-20°F to 240°F	2000 psig
See page 3 for Compound Selection Guide		

*"Zero Leakage" is defined as a bubble-tight closure when pressurized with 100 psig back-pressure air- underwater.

Zero Leakage, Forged Steel CHECK VALVES: Class 800

VOGT "ZL" CHECK VALVE SPECIFICATIONS

- Round Bolted Bonnet
- Spiral Wound Gasket
- Horizontal Type
- Piston Check
- Soft Insert "ZL" Ring
- Integral Hard Faced Seat
- ASME B16.34



**Soft Insert "ZL" Ring
Zero Leakage**

Order by Size and these Series Numbers

Dimensions are in inches.

CLASS 800 CONVENTIONAL PORT				2000 PSI @ 100°F SEE PAGE 1 FOR "ZL" RING LIMITATIONS				VALVE SIZE	WEIGHT in Pounds	A End to End	B Center to Bottom	C Center to Top	D Seat Diameter
SERIES NUMBER	MATERIAL			1/2	3/4	1	1-1/4	1-1/2	2				
THREADED ENDS	Body/Bonnet	Trim	"ZL" Rings										
701ZLB	Carbon Steel	13% Cr*	Buna N										
701ZL	Carbon Steel	13% Cr*	Viton										
701ZLE	Carbon Steel	13% Cr*	Ethylene Propylene										
701ZLN	Carbon Steel	13% Cr*	Neoprene										

Carbon steel material conforms to ASTM A105.

*Integral seats are hard faced.

Compound Selection Guide*
for fluids commonly used with Vogt "ZL" check valves

- Indicates the ZL ring material suggested for use in a given fluid or service application.
- * Because of the influence of contaminants in corrosive chemical solutions, this table is intended only as a general guide and does not constitute a recommendation nor guarantee.

FLUID					FLUID					FLUID				
	BUNA N	VITON	ETHYLENE PROPYLENE (EP)	NEOPRENE		BUNA N	VITON	ETHYLENE PROPYLENE (EP)	NEOPRENE		BUNA N	VITON	ETHYLENE PROPYLENE (EP)	NEOPRENE
Acetone			•		Glucose	•	•	•	•	Potassium Cyanide	•	•	•	•
Acetylene	•	•	•		Glue	•	•	•	•	Potassium Hydroxide	•	•		
Air	•	•	•	•	Glycerin	•	•	•	•	Potassium Nitrate	•	•	•	•
Alcohols	•	•			Hydraulic Oil	•	•			Potassium Permanganate	•	•		
Amines—Mixed			•	•	Hydrocarbons	•	•			Potassium Phosphate	•	•		•
Ammonia (Anhydrous)			•	•	Hydrogen Gas (Cold)	•	•	•	•	Potassium Sulfate	•	•	•	•
Ammonia (Aqueous)	•	•			Hydrogen Sulfide (Dry)			•		Potassium Sulfide	•	•		•
Ammonium Phosphate	•		•	•	Jet Fuel	•	•			Potassium Sulfite	•	•	•	•
Asphalt		•			Kerosene	•	•			Propane	•	•		
Barium Carbonate	•	•		•	Linseed Oil	•	•			Pyrogallic Acid		•		
Beet Sugar Liquors	•	•	•		Lubricating Oil	•	•			Shellac (Bleached)	•			
Benzene (Beneol)		•			Magnesium Hydroxide	•	•	•	•	Shellac (Orange)	•			
Butane	•	•		•	Magnesium Hydrox. (Hot)	•	•	•	•	Soap Solutions (Stearates)	•	•	•	
Cane Sugar Liquors	•	•	•	•	Magnesium Sulfate	•	•	•	•	Sodium Carbonate	•	•	•	•
Carbon Bisulfide		•			Maleic Acid		•			Sodium Chromate	•	•		
Castor Oil	•	•		•	Mercury	•	•	•	•	Sodium Cyanide	•		•	•
Caustic Soda	•	•	•	•	Methane	•	•			Sodium Hydroxide	•	•	•	•
Crude Oil	•	•			Methyl Alcohol	•		•	•	Sodium Metaphosphate	•	•	•	
Diesel Oils	•	•			Mineral Oil	•	•			Sodium Nitrate			•	
Dowtherms		•			Mustard	•				Sodium Perborate		•	•	
Ethyl Alcohol	•		•	•	Naphtha		•			Sodium Silicate	•	•	•	•
Ethyl Chloride (Dry)	•	•			Naphthalene		•			Sodium Sulfate	•	•	•	•
Ethylene Glycol	•	•	•	•	Natural Gas	•	•		•	Sodium Sulfide	•	•	•	•
Fish Oils	•				Nitrogen	•	•	•	•	Sodium Sulfite	•	•	•	•
Freon 12, 13, 22				•	Oils, Animal	•	•			Sodium Thiosulfat (Hypo)	•	•	•	•
Fuel Oil	•	•			Oils, Fuel	•	•			Steam (212° F)			•	
Furfural			•		Oils, Mineral	•	•			Sulfur Dioxide (Dry)			•	
Gas, Manufactured	•				Oils, Petroleum (Refined)	•	•			Tar & Tar Oil		•		
Gas, Natural	•	•		•	Oils, Petroleum (Sour)	•	•			Toluene		•		
Gasoline, Leaded	•	•			Oxygen (Cold)		•	•	•	Vegetable Oils	•	•		
Gasoline, Refined	•	•			Palmitic Acid	•	•			Xylene		•		
Gasoline, Sour	•	•			Pentane	•	•			Zinc Hydrosulfite	•	•	•	•
Gasoline, Unleaded			•	•	Potassium Carbonate	•	•		•					



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