

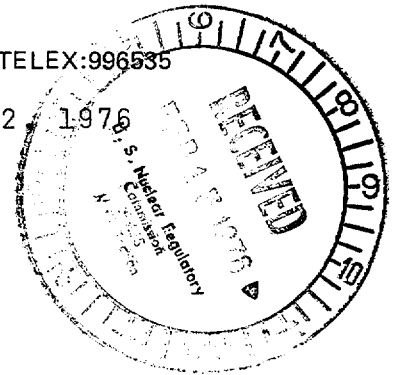


EO #1750  
JO # 999

PARK MALL, PEEKSKILL, NEW YORK 10566 TEL: 914-739-9000 TELEX:996535

February 2, 1976

REGULATORY FILE CY



Charles E. MacDonald, Chief  
Transportation Branch  
Division of Fuel Cycle & Material Safety  
United States Nuclear Regulatory Commission  
Washington, D.C. 20555

71-5805

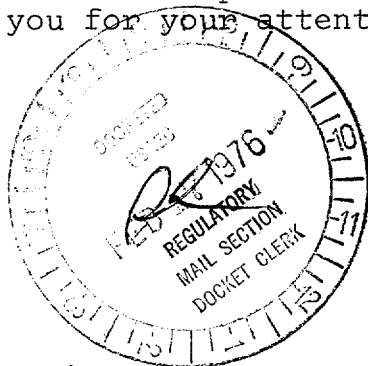
Dear Mr. MacDonald:

Certificate of Compliance No. 5805, Revision No. 1, page 5, 7.(a) calls for the use of a Teledyne Republic Manufacturing vent valve number 684-2-3/4-SS. While originally available this valve is no longer supplied and is not available on special order. It is requested that the herein described alternate, or equivalent, be authorized as a replacement for the discontinued vent valve.

Attached are some catalog sheets which described the currently proposed relief valve manufactured by Circle Seal Products. Model D520T-6M-25 is a most suitable replacement. It is constructed of stainless steel and has similar use and characteristics as the approved valve. It will likewise be set at 25 psig.

The Circle Seal relief valve is an exact working replacement for the original Teledyne Republic valve. All safety considerations and analysis presented in the Safety Analysis will apply for the proposed replacement relief valve.

We would appreciate your earliest response if the proposed replacement is acceptable so that we may proceed with procurement. Thank you for your attention to this matter.



Very Truly Yours,

Lawrence Rutland  
Vice-President for Engineering

LR/lm

Attachment

0522

**PDN**



## SERVICE RECOMMENDATIONS

MODEL NUMBER	O-RING MATERIAL	OPERATING TEMPERATURE	SUITABLE FOR
559	Buna N	-40° to +250°F	General Purpose, Air, Acetylene, Ammonia, Freon 12, Hydrogen, Inert Gases.
533	Neoprene	-40° to +250°F	Oxygen, Helium, Air, Hydrogen Carbon Dioxide, Nitrogen, Acetylene
562	Ethylene Propylene	-65° to +300°F	Skydrol, Air, Steam
532	Viton	-20° to +400°F	Aromatic Fuels, Synthetic Oils, Solvents, Carbon Tetrachloride, Toluene, Trichloroethylene. Steam.
524	Silicone	-70° to +450°F	Air, Chlorinated Transformer Oil, Oxygen.
520	Teflon	-100° to +450°F	Chemically inert, suitable for nearly all fluids. Not available for cracking pressures below 2.5 PSI.

### TECHNICAL DATA

**MATERIAL:** Body and internal parts — bar stock

**SPRING:** Stainless steel 302 or 17-7PH

**RESILIENT SEAL:** See service recommendations

**OPERATING PRESSURE:** 0-200 PSI

**CRACKING PRESSURE:** .5-150 PSI  
Higher cracking pressures available — please check with factory.

**ADJUSTMENT:**  $\pm 50\%$  of nominal.  
Adjustment is on inlet side, and cannot be tampered with after valve is installed.

**CRACKING PRESSURE ACCURACY:**  
Operating tolerance for cracking pressure is 5%. Initial crack may be slightly higher than cracking pressure tolerance.

**RESEAT AND RESEAL:** See Cracking Pressure-Reseat Chart for characteristics of each seal.

### MATERIAL

- A Aluminum
- B Brass
- T Stainless, 303
- T<sub>1</sub> Stainless, 316

### CONNECTIONS

- (size in 1/8")
- M Male pipe
  - P Female pipe

D Prefix Model Number denotes DEFLECTOR CAP. These models are supplied with a cap which diverts high pressure blasts from personnel and instruments. Serves as a rain and dust shield. Increases flow capacity and facilitates manual override.

THE D500 MODEL WITH DEFLECTOR CAP IS AVAILABLE ONLY IN THE DISCHARGE TO ATMOSPHERE VERSION OF THE VALVE. NOT RECOMMENDED FOR CRACKING PRESSURES BELOW 2 PSI.

### HOW TO ORDER

#### Part Number Designation

VARIATION IDENTIFICATION

BASIC MODEL NUMBER

MATERIAL

END CONNECTIONS — INLET/OUTLET

CRACKING PRESSURE

D559A-6MP-10

D520T-6M-25

(cracking pressure is defined as 5 cc/min. with gas)

Note: Valves are preset at factory. Pressure at which valves will crack in normal service, nominal cracking pressure  $\pm 5\%$ . SEE CRACKING PRESSURE-RESEAL CHART.

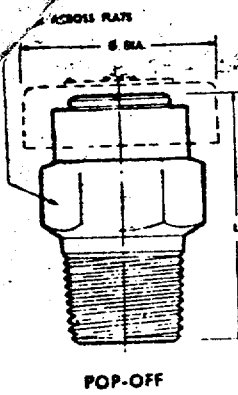
### NOMINAL CRACKING PRESSURE INFORMATION

NOMINAL C.P.	RANGE	RESEAL DEAD TIGHT % OF C.P. @ ROOM TEMP.
1	0.5-2.4	50-70%
4	2.5-5.9	70-85%
10	6.0-13.9	88%
20	14-28	90%
50	29-72	92%
100	73-150	94%

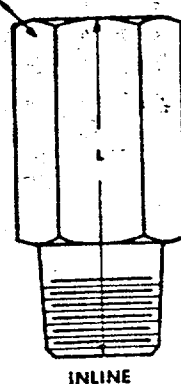
Std NOMINAL or EXACT PRESSURE of 25 psi can be preset

# **DIMENSIONS**

HEX ACROSS FLATS



PIPE SIZE MALE	L	HEX	D DIA.
1/8	1	1/2	.62
1/4	1 1/4	3/4	.89
3/8	1 1/4	3/4	1.20
1/2	1 3/4	1	1.44
3/4	2 1/4	1 1/8	1.87
1	1 1/2	2 1/16	1.87



PIPE SIZE MALE & FEMALE	L	HEX
1/4	1 3/8	3/4
3/8	2 1/8	7/8
1/2	2 1/2	1 1/8
3/4	2 1/2	1 1/4
1	3 3/8	1 1/2
1 1/4	4 1/16	1 7/8

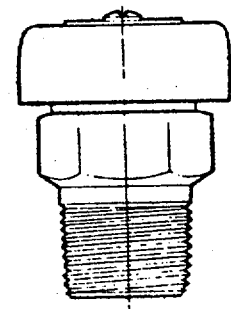
# **RELIEF VALVES** **500 Series** **Popoff inline** **5-150 PSI**

Complete part number must include Cracking Pressure — denoted by \*\* below. If exact presetting not required, use appropriate Nominal C.P. followed by word (Nominal).

MATERIAL AND STYLE		SIZE	MODEL NUMBER			
			559	533	532	524
ALUMINUM	POPOFF	1/8	559A-1M.**	533A-1M.**	532A-1M.**	524A-1M.**
		1/4	559A-2M.**	533A-2M.**	532A-2M.**	524A-2M.**
		3/8	559A-3M.**	533A-3M.**	532A-3M.**	524A-3M.**
		1/2	559A-4M.**	533A-4M.**	532A-4M.**	524A-4M.**
		3/4	559A-6M.**	533A-6M.**	532A-6M.**	524A-6M.**
		1	559A-8M.**	533A-8M.**	532A-8M.**	524A-8M.**
		1 1/4	559A-10M.**	533A-10M.**	532A-10M.**	524A-10M.**
BRASS	POPOFF	1/8	559B-1M.**	533B-1M.**	532B-1M.**	524B-1M.**
		1/4	559B-2M.**	533B-2M.**	532B-2M.**	524B-2M.**
		3/8	559B-3M.**	533B-3M.**	532B-3M.**	524B-3M.**
		1/2	559B-4M.**	533B-4M.**	532B-4M.**	524B-4M.**
		3/4	559B-6M.**	533B-6M.**	532B-6M.**	524B-6M.**
		1	559B-8M.**	533B-8M.**	532B-8M.**	524B-8M.**
		1 1/4	559B-10M.**	533B-10M.**	532B-10M.**	524B-10M.**
	INLINE	1/4	559B-2MP.**	533B-2MP.**	532B-2MP.**	524B-2MP.**
		3/8	559B-3MP.**	533B-3MP.**	532B-3MP.**	524B-3MP.**
		1/2	559B-4MP.**	533B-4MP.**	532B-4MP.**	524B-4MP.**
		3/4	559B-6MP.**	533B-6MP.**	532B-6MP.**	524B-6MP.**
		1	559B-8MP.**	533B-8MP.**	532B-8MP.**	524B-8MP.**
		1 1/4	559B-10MP.**	533B-10MP.**	532B-10MP.**	524B-10MP.**
		1 1/2	559B-12MP.**	533B-12MP.**	532B-12MP.**	524B-12MP.**
303 S.S.	POPOFF	1/8	559T-1M.**	533T-1M.**	532T-1M.**	524T-1M.**
		1/4	559T-2M.**	533T-2M.**	532T-2M.**	524T-2M.**
		3/8	559T-3M.**	533T-3M.**	532T-3M.**	524T-3M.**
		1/2	559T-4M.**	533T-4M.**	532T-4M.**	524T-4M.**
		3/4	559T-6M.**	533T-6M.**	532T-6M.**	524T-6M.**
		1	559T-8M.**	533T-8M.**	532T-8M.**	524T-8M.**
		1 1/4	559T-10M.**	533T-10M.**	532T-10M.**	524T-10M.**
	INLINE	1/4	559T-2MP.**	533T-2MP.**	532T-2MP.**	524T-2MP.**
		3/8	559T-3MP.**	533T-3MP.**	532T-3MP.**	524T-3MP.**
		1/2	559T-4MP.**	533T-4MP.**	532T-4MP.**	524T-4MP.**
		3/4	559T-6MP.**	533T-6MP.**	532T-6MP.**	524T-6MP.**
		1	559T-8MP.**	533T-8MP.**	532T-8MP.**	524T-8MP.**
		1 1/4	559T-10MP.**	533T-10MP.**	532T-10MP.**	524T-10MP.**
		1 1/2	559T-12MP.**	533T-12MP.**	532T-12MP.**	524T-12MP.**
316 S.S.	POPOFF	1/4	559T1-2M.**	533T1-2M.**	532T1-2M.**	524T1-2M.**
		1/2	559T1-4M.**	533T1-4M.**	532T1-4M.**	524T1-4M.**
		3/4	559T1-6M.**	533T1-6M.**	532T1-6M.**	524T1-6M.**
		1	559T1-8M.**	533T1-8M.**	532T1-8M.**	524T1-8M.**
		1 1/4	559T1-10M.**	533T1-10M.**	532T1-10M.**	524T1-10M.**
		1 1/2	559T1-12M.**	533T1-12M.**	532T1-12M.**	524T1-12M.**
		1 3/4	559T1-14M.**	533T1-14M.**	532T1-14M.**	524T1-14M.**

MODEL NUMBER	
D559	D532
D559A-1M.**	D532A-1M.**
D559A-2M.**	D532A-2M.**
D559A-3M.**	D532A-3M.**
D559A-4M.**	D532A-4M.**
D559A-6M.**	D532A-6M.**
D559B-1M.**	D532B-1M.**
D559B-2M.**	D532B-2M.**
D559B-3M.**	D532B-3M.**
D559B-4M.**	D532B-4M.**
D559B-6M.**	D532B-6M.**

For ASME code valve currently available in 1/4 inch size in either aluminum or brass, add ASME after valve number.



Deflector Cap

## **REPLACEMENT SPRINGS\***

RANGE	1M/2MP	2M/3MP	3M/4MP	4M/6MP	6M
0.5-2.5	10182-1	10262-1	10362-1	10462-1	10662-1
2.0-6.0	10182-4	10262-4	10362-4	10462-4	10662-4
5.0-15.0	10182-10	10262-10	10362-10	10462-10	10662-10
10-30	10182-20	10262-20	10362-20	10462-20	10662-20
25-75	10182-50	10262-50	10362-50	10462-50	10662-50
60-150	10182-100PH	10262-100PH	10362-100PH	10462-100PH	10662-100PH

\* Springs for each valve size are interchangeable. The Cracking Pressure range can be changed by replacing the spring with one covering the desired range.

## **CIRCLE SEAL PRODUCTS**

10000 Circle Seal Corporation  
 POST OFFICE BOX 900  
 ANAHEIM, CALIFORNIA 92808

Printed in U.S.A.

Representatives in Principal Cities

FROM:		DATE OF DOCUMENT		DATE RECEIVED		NO.	
PARK MALL Peekskill, New York 10566		2-2-76		2-1-76		0232	
		LTR.	MEMO:	REPORT:	OTHER:		
		X					
TO:		ORIG.:	CC:	OTHER:			
Mr. MacDonald		X					
		ACTION NECESSARY <input type="checkbox"/>	CONCURRENCE <input type="checkbox"/>	DATE ANSWERED			
		NO ACTION NECESSARY <input type="checkbox"/>	COMMENT <input type="checkbox"/>	BY:			
CLASSIF.:	POST OFFICE	FILE CODE:					
U	REG. NO:	71-5805					
DESCRIPTION: (Must Be Unclassified)		REFERRED TO	DATE	RECEIVED BY		DATE	
Request that the described equivalent MacDonal							
be authorized as a replacement for							
the vent valve.							
ENCLOSURES:		Reg File Cy					
		PDR					
		I&E (2)					
REMARKS							
						0232 sdh	