

# Pressure Relief Valves

**Spring-loaded relief valves** should be viewed as a supplement to and not a substitute for a safety rupture disc. The rupture disc is the primary means for protection of the operator and the vessel in case of accidental over-pressure. Spring-loaded relief valves can be added to a reactor or vessel to:

- Relieve pressures near the maximum operating pressure.
- Reseal once excess pressure has been relieved.
- Protect low pressure components at pressures below available rupture disc ranges.

The relief valves listed below can be installed on any Parr vessel. The relief valves are constructed of stainless steel and have FKM O-rings. Other valve and O-ring materials are available on special order. Relief valves with CE Certification are also available.



**A175VB Relief Valve**



**A140VB2 Relief Valve**

Pressure Relief Valves for Low Pressures				
Part No.	Preset psi	Adjustable psi	Bar	Discharge Connection
A140VB2PA	100	50-150	3.45-10.3	1/4" NPT (M)
A140VB2P1	150	50-150	3.45-10.3	1/4" NPT (M)
A140VB2P2	145	50-150	3.45-10.3	1/4" NPT (M)
A140VB2PB	200	150-350	10.3-24.1	1/4" NPT (M)
A140VB2PC	600	350-600	24.1-41.4	1/4" NPT (M)
A140VB2PD	300	150-350	10.3-24.1	1/4" NPT (M)

Pressure Relief Valves for High Pressures			
Part No.	Pressure Relief Range, psi	Bar	Discharge Connection
A175VB	750-1500	52-103	1/4" NPT (F)
A175VB2	1500-2250	103-155	1/4" NPT (F)
A175VB3	2250-3000	155-207	1/4" NPT (F)
A175VB4	3000-4000	207-276	1/4" NPT (F)
A175VB5	4000-5000	276-345	1/4" NPT (F)
A175VB7	350-750	24-52	1/4" NPT (F)
A175VB8	50-350	3.4-24.1	1/4" NPT (F)

\* Note: When ordering any of the above relief valves, the user may specify a desired set pressure.

# Gages



**593HCPF Gage 3-1/2" Dia.**



**56HCPF Gage 4-1/2" Dia.**



**2633HCP10AD 3-1/2" Back Mount Gage**

### Gages for Parr pressure vessels

can be furnished with either 3-1/2" or 4-1/2" dials in any of the ranges shown in the table below. All have stainless steel Bourdon tubes and 1/4" NPT male connections.

Alloy 400 gages are available on special order. Accuracy is 1.0 percent of full scale for the 4-1/2" size and 1 percent for the 3-1/2" gages. All standard gages include dual scales, with graduations in both pounds per

square inch (psi) and bar. Gages in Pascal units are available on special order. Compound gages which show vacuum to 30 inches of Mercury and positive pressures to 300 psi (20 bar) are also available.

When ordering a special gage, specify the gage diameter, the desired range and scale units.

The gage on a pressure vessel should be 150 percent of the maximum operating pressure. This allows the gage to operate in the most accurate pressure range and prevents the gage from being stressed repeatedly to its full range, which will effect the calibration.

Gages				
Pressure, psi	Range, bar	4-1/2" Dia. Gage No.	3-1/2" Dia. Gage No.	3-1/2" Dia. Back Mount Gage No.
0-100	0-7	56HCPA	593HCP1AD	2633HCP1AD
0-200	0-14	56HCPB	593HCP2AD	2633HCP2AD
0-600	0-40	56HCPC	593HCP6AD	2633HCP6AD
0-1000	0-69	56HCPD	593HCPD	2633HCP10AD
0-2000	0-138	56HCPF	593HCPF	2633HCP20AD
0-3000	0-207	56HCG	593HCPG	2633HCP30AD
0-4000	0-275	N/A	593HCP40AD	N/A
0-5000	0-345	56HCPH	593HCP50AD	2633HCP50AD
0-7500	0-517	56HCP75AD	N/A	2633HCP75AD
0-10000	0-690	56HCPK	593HCPK	N/A
30" Hg Vac/300 psi		56HCP3YB	593HCP3YB	2633HCP3YB

Parr's standard stainless steel reactor gages are typically manufactured to meet ASME/ANSI B40.1 Grade A accuracy specifications.