9201 Independence Ave., Chatsworth, CA 91311 USA • (818) 407-3400 • Fax: (818) 407-3428 • Email: sales@hiipumps.com

# HIGH PRESSURE COMPONENTS

# PRESSURE RELIEF VALVES

#### **High Pressure, Low Flow**

These valves are direct operated, differential poppet, dry spring chamber design. All ports can accept full working pressure permitting their use also as a sequence valve or back pressure controller regulator (BPR). Wetted alloys are stainless steel. Dynamic seals are UHMWPE. Static seals are Buna. Optional: Viton add-<u>V</u>. EPR add-<u>E</u>. Wrench flats are standard on adjusting screws.\*



Model No.	Service		Seat	Adjustable Range	Orifice	Port	Remarks	Symbols
Woder No.	Relief	BPR	Seat	(PSI)	Dia (in.)	1011	Remarks	Symbols
*RVL-60	Liquid	Liquid or Gas	Stainless	100 thru 6,000		1/4 NPT	Not bubble tight	
*RVG-60	Gas	Gas	Nylon	100 tilla 0,000		bubble tight	ŗ1	
*RVL-100	11.1		Stainless	1,000 thru 10,000		1/4 NPT		Not bubble tight
*RVG-100			Nylon					Bubble tight
*RVLS-60	Liquid	Liquid or Gas	Stainless 200 thru 6,00		.070	.070 1/4 Super		Not bubble tight
*RVGS-60	Gas	Gas	Nylon	200 1111 0,000		Pressure	Bubble tight	
*RVLS-100	<u>'</u>		Stainless	1,000 thru 10,000		1/4 Super	Not bubble tight	<b>*</b>
*RVGS-100			Nylon			Pressure	Bubble tight	
*RV-300	- Liquid or Gas		Stainless	3,000 thru 30,000		1/4 Super	Not bubble tight	
*RV-600			10,000 thru 60,000		Pressure	Not bubble tight		
*RV-30K Double Seal	Liquid or Gas		Stainless	3,000 thru 30,000		1/4 Super Pressure	Not bubble tight	

<sup>\*</sup>Plastic knob optional at extra cost on RVL or RVG models only. Specify with suffix "H" (e.g. RVL-100H).

### **PILOT CUTOFF VALVES**

#### Sense Liquid or Gas Pressures. Provide Air Signal.

These valves perform a function similar to a pressure switch. The sensing piston or plunger movement is spring or air adjusted. When the sensed pressure is reached, a small, integral air valve shifts position cutting off, or providing, a pilot air signal. Useful for start/stop control of various pneumatically piloted devices such as HII pumps, valves and boosters. Maximum air valve pressure is 120 PSI. Sensing section alloys are stainless steel. Buna static seal standard, optional: Viton add-V, EPR add -E. (e.g. PCV-E002E).



Model No.	A dissert of Dec	Sensing			Air Valve		Symbols
Model No.	Adjusted By	Nominal-Range(PSI)	Port	Max. PSI	Configuration	Ports	Symbols
PCV-002	INTERNAL SPRING	50-200	1/4	600	2 WAY, Three ports convertible to		NC ▼₩Î 17/131
PCV-020	LOADED BOLT	200-2000	NPT	11,000	convertible to <u>NC</u> or <u>NO</u> with plug provided		1
PCV-100	LOADED BOLI	1500-10,000	INII	11,000			NO ▼₩ Ť ブョ
PCV-E002		50-200		600	·	1/8	
PCV-E020	EXTERNAL SPANNER NUT	200-2000	1/4	11,000	2 2 2 2 2	NPT	
PCV-E100	(UNDERNEATH THE NAME PLATE)	1500-10,000	NPT [	11,000		141 1	<b>*</b> M <sub>+</sub> <b>\</b>
PCV-E250		5,000-25,000	1/4" Super Pressure	26,000	3 WAY Three ports useable		11
PCV-R025	REMOTE AIR PRESSURE	500-2500	1/4	11,000	for either <u>NC</u> or <u>NO</u>		
PCV-R100	REGULATOR	2000-10,000	NPT	11,000	applications		
PCV-R250	20-100 PSI	5000-25,000	1/4" Super Pressure	26,000			

# **INLINE CHECK VALVES, 316 STAINLESS STEEL BODIES**

**High Pressure.** These valves are 316 S.S. ball type and soft seat (PTFE ring) in the 1/4 NPT, 1/2 NPT, 3/4 NPT, and 1 NPT sizes; Brass poppet on S.S. seat in the 2 NPT size. Control springs hold approximately 3 PSI. Optional higher pressure springs are available in the 2" NPT unit only.



Model No.	Port	Maximum Pressure-PSI	Flow Orifice Min. Dia. (Inches)	Static Seal
CVH-025N2	1/4 NPT	15 000 Limited / 11 250 Con	456	DIINA(1)
CVH-025S2	1/4 Super Pressure	15,000 Liquid / 11,250 Gas	.156	BUNA <sup>(1)</sup>
CVH-050N2	1/2 NPT	20,000 Liquid / 15,000 Gas	.344	PTFE
CVM-200N2	2 NPT	5,000 Liquid / 3,750 Gas	1.750	NONE



### **UNLOADING VALVES**

#### Normally Open, Normally Closed, Air Pilot Actuated.

These valves open or close high pressure oil or plain water back to tank or to another line or high pressure gas to another line. High pressure section alloys are stainless steel with stainless steel ball or poppet design.



	Basic	Nominal	Port/Max. P	ressure PSI	Reverse	Flow Orifice	
Model No.	Configuration	Area Ratios	Inlet	Outlet	Flow	Dia. (in.)	Symbols
UV-9	Normally Close Air Pilot to Open Single Stage	9:1	1/4 NPTF 1000	4000	Free Flow	.344	w <b>‡</b> • •
UV-50	Normally Open Air Pilot to Close, Single Stage	50:1	1/4 NPT 5000	1/4 NPT 4000		.213	
UV-80		80:1	1/4 NPT 8000			.172	
UV-120		120:1	1/4 NPT 12000			.135	
UV-200		200:1	1/4 Super Pressure 20000			.100	
UV-250		250:1	1/4 Super Pressure 25000			.086	
UV-150-2	Normally Closed Air Pilot to Open, Two Stage	2nd Stage 9:1 1st Stage 250:1	1/2 NPT 15000	1/2 NPT 10000	Free Flow	.334 Nom. 2 Stage	

NOTES: (1) Based on 100 PSI air pilot. Maximum inlet pressure will be increased proportionally with increase in air pilot pressure up to 150 PSI maximum.

- (2) To open against 15,000 PSI, 60 PSI minimum air pilot required.
- (3) Maximum outlet port pressure for gas service is 1500 PSI.
- (4) May also be used as a relief valve. Adjust with air pressure regulator on air pilot line.

### **AIR OPERATED ON / OFF VALVES**

This air operated valve opens and closes high pressure liquid or gas connection. Balanced poppet, piston actuated, normally open, bubble tight design assures high reliability. Minimum actuation is a 30-PSI and Maximum is a 150-PSI. Constructed of 316-SS with a Cv = 0.75

Model No. Basic Configuration Nominal Area Ratio Maximum Pressure - PSI Inlet / Outlet Pilot	
\ \tag{\dagger}	
AOV-100 Normally Open 100 10,000	
ACV-100 Normally Closed 100 10,000 1/4" NPT 1/8" NPT	w † † d



# **GAS RECEIVERS**

**High Pressure.** These units are normally used at the outlet of an HII Gas Booster or system to store a volume of gas for smooth, intermittent release through a pressure reducing valve.

$\overline{}$	$\overline{}$
_	_

Model No.	Max. Working	Volume Displacement (Cu. ln.)	Outside Diameter (Inch)	<b>Length</b> (Inch)
PR-020		20	4	9 1/2"
PR-040		40	4	14"
PR-080	10,000 PSI	80	5	14 1/2"
PR-134		134	5	20 1/2"
PR-200		200	5	27 3/4"
PR-450		450	5	55 1/8"
PR2-040		40	5 1/2	14 1/2
PR2-235		235	9	27 3/4
PR2-300	20,000 PSI	300	8	31 1/2
PR2-450		450	8	44 1/8
PR2-900		900	8	81 1/4

