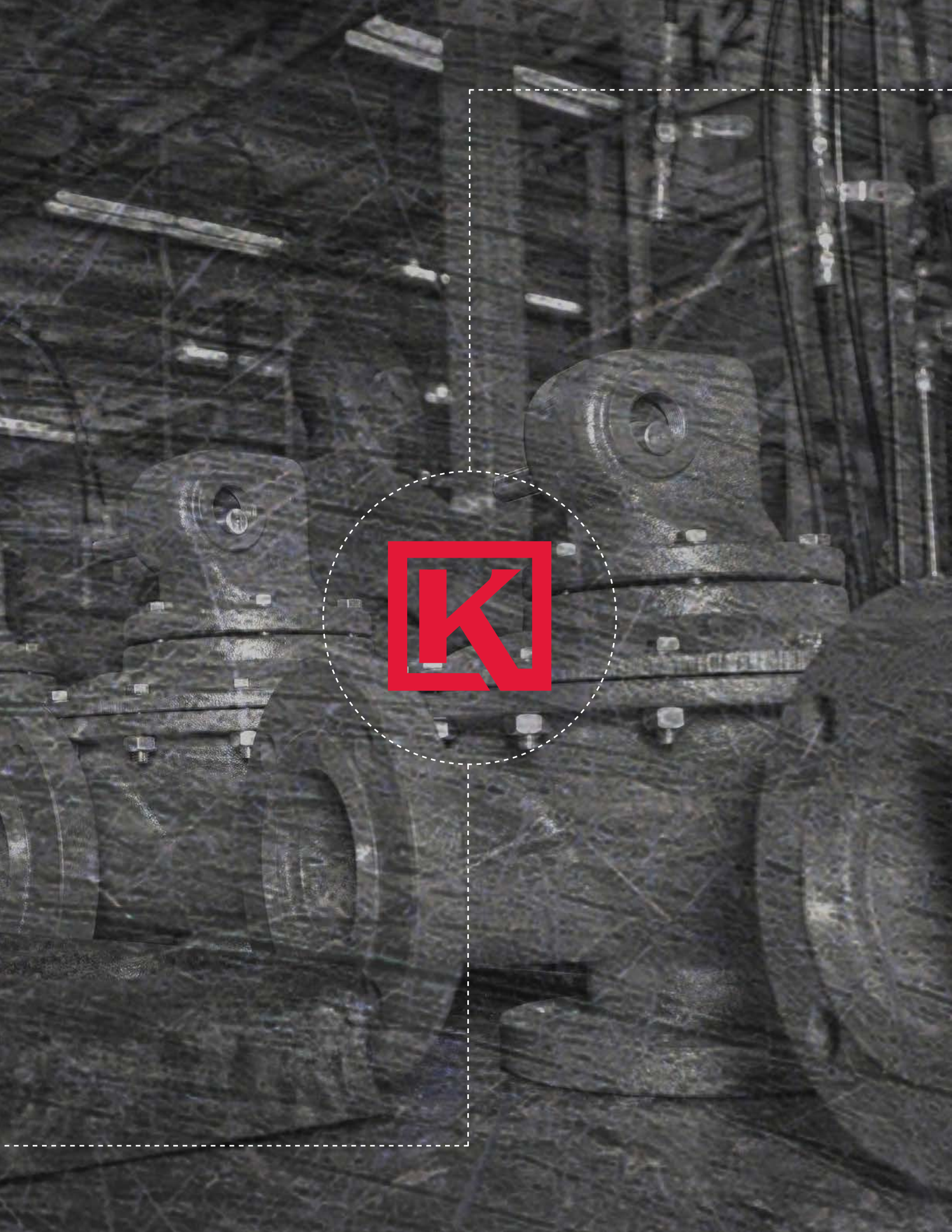
KIMRAY SOLUTIONS

PRESSURE REGULATORS | LIQUID LEVEL CONTROLS | CONTROL VALVES
GLYCOL PUMPS | TEMPERATURE CONTROLS | PRESSURE PILOTS & RELAYS

KIMRAY INC®



PRESSURE REGULATORS

PILOT OPERATED REGULATOR

+ 300 psi maximum W.P.
+ Single adjustment
+ Control from ounces to 300 psi
+ Available as backpressure, pressure reducing, and pressure differential
+ Non-venting options available for emissions free operation

SPRING LOADED BACK PRESSURE REGULATOR

+ Single adjustment
+ Single soft seat
+ Removable valve seat
+ 1-1/2" or 2" inner valve
+ 2" NPT, flanged, grooved
+ 125 psi maximum
+ 6 Spring ranges for tighter control

PILOT OPERATED REGULATOR - HIGH PRESSURE

1000 to 6000 psi W.P.; liquid or gas service

+ Easily reversed from pressure opening to pressure closing
+ Inner valves are easily replaced
+ 30 psi actuation pressure, optional 10 psi and 20 psi

End Connections:

+ 1" through 10" R.F. or R.T.J. flanges, 1" and 2" NPT

Inner Valve Sizes:

+ 1" line size - $^{1}/_{8}$" to $^{1}/_{2}$"
+ 2" line size - $^{1}/_{4}$" to 1"
+ 2" piston balanced - 1 $^{1}/_{2}$" & 2"
+ 3" piston balanced - 2" & 3"
+ 4" piston balanced - 3" & 4 $^{3}/_{8}$"
+ 6" piston balanced - 4 $^{3}/_{8}$" & 6 $^{3}/_{4}$"
+ 8" and 10" piston balanced - 6" & 8"

LIQUID LEVEL CONTROL

METHODS

+ Mechanical Float Valve
+ Pneumatic Float Pilot
+ Electric Pilot
+ Weight Operated Valve
+ Pneumatic Floatless Pilot

GEN 2 LIQUID LEVEL CONTROL

+ Minimum specific gravity: .33
+ Adjustable liquid level
+ Direct or indirect output
+ Built-in supply filter
+ Vertical or horizontal displacer
+ Intermittent bleed pilot
+ Single pilot for snap or throttle

TREATER VALVE

Level control in oil and water legs of flow treaters or salt water disposal system tanks.

+ Soft seat for tight shut-off
+ Balanced against upstream pressure
+ Balanced against downstream pressure
+ Rotary stuffing box with Teflon packing

MECHANICAL OIL VALVES

125, 250 or 500 psi W.P.

+ Float operated
+ Single balanced seat
+ Rotary stuffing box with Teflon packing

TRUNNION ASSEMBLIES

125, 250 or 500 psi W.P.

+ SA106 Grade B/C Pipe
+ 8" Acme thread hammer union
+ Rotary stuffing box with Teflon packing
+ ASME Code acceptable
+ Uses 7" x 12" float
+ Hammer union, weld, or 6", 8", or 10" flange connections
+ Uses 7" x 12" float

HORIZONTAL LEVEL SWITCH

+ 316 SS Wetted Parts
+ Sealed hermetic reed switch
+ SPDT reed switch (50 Vdc, 2 A/120Vac, .83A
+ CSA Certificate #1662451, USA & Canada
+ Explosion proof
+ Temperature range: -40°F to 400°F
+ Specific gravity to 0.4

Connections

+ 1 $^{1}/_{2}$" NPT
+ 2" NPT
+ Available with manual override for testing

ELECTRIC GEN II

+ Compact design for tight installations
+ Conditional NACE MR0175 wetted parts
+ Multiple displacer options for harsh conditions
+ Easy-to-operate adjustment for setting the snap range (patent pending)

UNIVERSAL LEVEL CONTROLLER

+ + Up to 1500 psi W.P.
+ + Simple installation
+ + Easy to use
+ + Polyethylene displacement float
+ + .65 specific gravity or higher
+ + No adjustment required

CONTROL VALVES

CONTROL VALVES - HIGH PRESSURE

1000 to 6000 psi W.P.; liquid or gas service

+ Easily reversed from pressure opening to pressure closing
+ Inner valves are easily replaced
+ 30 psi actuator diaphragm pressure, optional 10 psi and 20 psi

End Connections:

+ 1" through 10" R.F. or R.T.J. flanges, 1" and 2" NPT

Inner Valve Sizes:

+ 1" line size - $^{1}/_{8}$" to $^{1}/_{2}$"
+ 2" line size - $^{1}/_{4}$" to 1"
+ 2" piston balanced - 1 $^{1}/_{2}$" & 2"
+ 3" piston balanced - 2" & 3"
+ 4" piston balanced - 3" & 4 $^{3}/_{8}$"
+ 6" piston balanced - 4 $^{3}/_{8}$" & 6 $^{3}/_{4}$"
+ 8" and 10" piston balanced - 6" & 8"

NON-FREEZE HIGH PRESSURE DUMP VALVES

*Maximum Working Pressure: 4000 psi

Liquid dump valve

+ 15 to 30 psi minimum requirement
+ The non-freeze dump valve places the trim inside the vessel in direct contact with the process liquid, preventing freezing within the valve.

Valve connection

+ 1" Inlet & Outlet, 2" Vessel Mounting

CONTROL VALVES - LOW PRESSURE

Use for liquid dump or burner valves

+ Equal percentage trim
+ Single seat
+ Soft seat for bubble tight shut-off
+ Pressure opening or pressure closing

BALANCED CONTROL VALVES - LOW PRESSURE

Diaphragm Balanced: 125 psi W.P.
Piston Balanced: 125 to 500 psi W.P.

Liquid dump valve

+ No more than 15 to 30 psi supply is required
+ Single seat
+ Pressure opening or pressure closing

ELECTRO-HYDRAULIC ACTUATOR

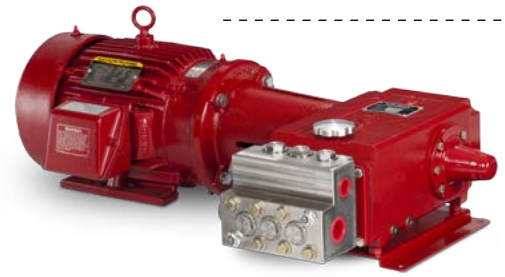
+ Patent-pending design
+ Optional solar panel operation
+ Retrofittable
+ Low-cost conversion
+ Class 1 Division 1 explosion-proof enclosure
+ Impact-resistant polycarbonate reservoir

GLYCOL PUMPS

GLYCOL PUMPS

8 to 450 GPH; 100 to 2000 psi

+ Applications: Gas dehydration and desulphurizer
+ Utilizes the energy of gas and glycol at absorber pressure as its source of power
+ No auxiliary power required
+ Eliminates need for level control and dump valve at absorber
+ Low gas consumption
+ Completely sealed system prevents glycol loss
+ Only two moving assemblies



ELECTRIC GLYCOL PUMP

+ Applications: Gas dehydration and desulphurizers
+ No gas emissions
+ No packing
+ Balanced diaphragms
+ Double-ended shaft
+ Pulse-free flow
+ Direct or belt driven

TEMPERATURE CONTROLS

THERMOSTAT

-30°F to 750°F variation

Indirect control of burner valves, mixing valves, air shutters

+ Intermittent bleed pilot
+ High accuracy 3°F to 5°F variation
+ Use with low pressure control valve

HIGH TEMPERATURE PILOT GUARD

+ Pilot safety shutdown or as a high temperature shutdown

HIGH TEMPERATURE SHUTDOWN

-30°F to 750°F; 500, 4000 & 7000 psi W.P.

+ Temperature controlled system shutdown until manually reset

AIR MOTOR

Operates shutters on air cooled heat exchangers. Can be used wherever a linear movement produced by a changing pneumatic signal is required.

+ Aluminum housing
+ 5 $^{1}/_{2}$" stroke
+ Operates in any position
+ Stainless steel stem and pins

PILOTS & RELAYS

PNEUMATIC PRESSURE CONTROL PILOT

Control Range: 5 to 300 psig

Produces a proportional pneumatic output signal when the monitored pressure falls below the set pressure

+ Single adjustment
+ Filtered gas supply
+ Intermittent bleed construction

PNEUMATIC PRESSURE CONTROL PILOT

Control Range: 50 to 750 psi or 125 to 1500 psi

Produces a proportional pneumatic output signal when the monitored pressure deviates from the set pressure. Pilot is field convertible between direct and indirect acting.

+ Single adjustment
+ Intermittent bleed construction
+ Bellows options: 75 to 500 psig, 75 to 750 psig, 125 to 1500 psig and 200 to 2500 psig

PNEUMATIC PRESSURE CONTROL PILOT: PRESSURE DIFFERENTIAL CONTROLLER

1000, 2000, 4000 psi W.P.

Maintains constant differential across a meter run. Adjusts flow rate by positioning a pressure opening control valve.

+ Intermittent bleed pilot
+ 1 to 260 inches of water differential pressure

RELAYS

A pneumatic control system required various relays for:

+ Reversed output
+ Multiplied output
+ Volume boosted output
+ On/Off snap output or throttle

SUPPLY GAS REGULATOR

Provides a supply of constant reduced pressure for pneumatic instruments and pilot operated controllers

+ Internally relieving
+ Available in aluminum and stainless steel
+ Body: Aluminum or 316 stainless steel
+ 1/4" NPT inlet and outlet connections
+ 4000 psi maximum inlet pressure
+ 0 to 125 outlet pressure

Kimray is an innovative designer and manufacturer

of control equipment used extensively in oil and gas production around the globe. Founded in 1948, Kimray operates a 360,000 square-foot facility and employs more than 800 people to serve an expanding customer base. Kimray machines iron, steel, and aluminum, as well as thermoplastic materials, to build our comprehensive line of control valves, thermostats, energy-exchange glycol pumps, gas-operated pilots and other control devices. Our products are used to control vessel and lead line temperatures, liquid level inside pressurized vessels, pressure drops, and liquid and gas flow.

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