

**UNIKLINGER PRESSURE REDUCING STATION:-**

Steam has more latent heat of evaporation at lower pressure and for a given process, it is ideal to use steam at lowest possible pressure when the transfer is of indirect type. The advantage of using steam as a heat transfer media in processes apart from it being cheap and reusable is that controlling of one parameter allows other parameters to be controlled automatically. When water is heated it leads to an increase in its temperature, corresponding increase in steam pressure. Its sensible heat and its total heat also increases but a reduction in latent heat and its specific volume. However for efficient steam distribution network it is recommended to distribute steam at high pressure, reduce steam pressure near the equipment and use it at lowest permissible pressure. Steam should be distributed at high pressure as it has low volume and impacts the inventory cost. At the same time steam has higher specific volume at low pressure. Steam should be used at lowest possible pressure that depends on the process temperature to be achieved. This reduction of pressure is achieved by the assembly of different products, known as Pressure Reducing Station. The UKL UPRS are designed to provide consistent source of low pressure steam from available high pressure pipeline.



All the components, valves, moisture separators, its drain trap modules, strainer etc are manufactured by UKL and provided as a complete Pressure Reducing Station to give optimum results for effective steam utilization.

The UKL has developed unique software for correct and accurate sizing of PRS valves and components, giving the precise desired pressure reduction within the specified flow parameters.

The UKL pressure reducing station is optimally sized to ensure a balanced techno-economic design . Use of Klinger Piston Valves for isolation will eliminate valve passing and leaking problems

**MAIN FEATURES :-**

The UKL UPRS is optimally sized to ensure a balanced techno-economic design and to give desired flow rate despite variations in inlet conditions.

Moisture Separator at the inlet of UPRS removes any traces of moisture and condensation in incoming fluid. A steam trap unit is provided with this to prevent loss of live steam.

A strainer before the UPRS removes dirt particles that are likely to damage the valve seat and plug area causing UPRS malfunction.

**SIZES RANGES AVAILABLE :-**

- Inlet from 1”
- Outlet 1” to 8”
- Higher Size UPRS Consult Factory.

**MATERIAL OF CONSTRUCTION:**

Carbon Steel

**END CONNECTIONS:**

Flanged End Class #150/#300 as per ASME B16.5

**OPTIONAL:-**

- IBR/ Non-IBR
- Drain trap modules

## PARAMETERS FOR DESIGN OF UPRS

Inlet Pressure (Max.) in psig  
Inlet Pressure (Min.) in psig  
Outlet Pressure (Max.) in psig  
Outlet Pressure (Min) in psig  
Steam Flow Rate (Max.) in psig  
Steam Flow Rate (Min.) in psig

## HOW TO ORDER:-

Always specify Inlet size, Control Valve size and outlet size.

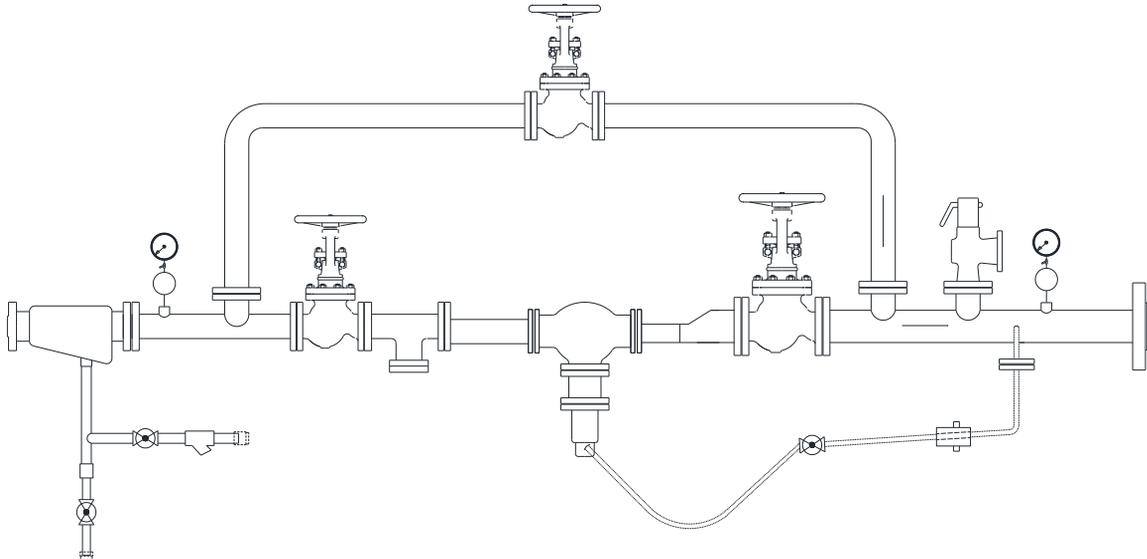
For Example :-

**UKL UPRS 2" x 1½" x 4"**

## The Saving Potential in UKL UPRS :-

Suppose saturation steam is used at 10 bar in a radiator coil where air is heated to 90° C. If steam at 3 bar is used in this coil using UKL UPRS, the saving potential are-

Latent Heat at 10 bar(g)	2013.6 KJ/Kg
Latent Heat at 3 bar(g)	2163.2 KJ/Kg
Possible savings	Over 7 % in steam consumption
Possible payback of	under 6 months.



**Other Products :** 

Cast / Forged Steel Piston Valves, Bellow Seal Valves, High Pressure valves (Gate/Globe) , Strainers – "Y" Type, Flash Vessel, Steam Traps (Thermodynamic, Thermostatic, Ball Float Traps, Inverted Bucket), Pressure Reducing Station, Condensate Recovery Products, Level Gauges (Reflex, Transparent, Bicolor), Sight Glass, Hot Water Generation System, Safety and Relief Valves.  
**FSD Products :** Compressed Asbestos / Non Asbestos Fiber Sheetting / Cut Gaskets, Spiral Wound Gaskets.

*In view of technical progress design and dimensions are subjected to change without notice.*

# UKL®

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A joint venture of the Neterwala group of companies and KLINGER AG, Switzerland.

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