



*Think of Solutions. Think of us.*



*Klinger AG, Responsible for Three path-breaking inventions: First ever Reflex Gauge Glass [1886]. First ever Klingerit Compressed Asbestos Gasket Sheet [1899]. First Seatless Glandless Piston Valve [1922].*

*KlingerAG, inventor of the **Glandless and Seatless Piston Valves**, is responsible for giving UKL the solid foundation to build on these valves having bubble tight shut-off, zero-leak Class VI leakage.*



**Piston valves:** Today UKL has the complete range of Piston valves in Cast steel, Forged steel and Stainless steel materials. These valves are ideally recommended for critical media and utility applications like Steam, Hot water, Heat transfer fluid and many more applications.



**Bellow Sealed** valves are recommended for the Heat transfer fluids and other process applications which are critical, super-critical and hazardous, with zero fugitive emissions and in line with the strict environment pollution laws. Bellow sealed valves also available for Nuclear applications on request.



**High pressure Gate and Globe valves** in #1500 and #2500 pressure class, with pressure seal bonnet for extra safety, for the Power, Refinery, Fertilizer and Steel industries to name a few.



With complete range of all kind of Steam Traps, UKL is firmly committed to serve the industry in all their important tasks of Energy Conservation & Condensate management Measures.

**Thermodynamic Traps:** UKL is having the wide range of these kind of traps in Casted and Forged body construction for varied pressure range up to 250 bar(g)



**Inverted Bucket Traps:** Built on Robust design, corrosion and erosion resistant materials, UKL inverted bucket trap is an ideal selection for almost all applications.



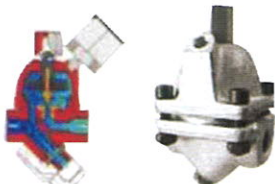
**Balanced Pressure Thermostatic Traps:** Ensures effective tracing and utilization of sensible heat for demanding processes, using enthalpy/temperature difference.



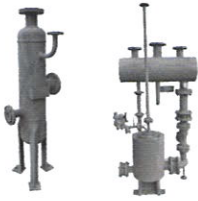
**Ball Float Traps:** These traps are able to handle very high amount of condensate discharge capacities by using Buoyancy / Density difference principle.



**Sanitary Traps:** Are designed to remove condensate from clean and pure steam applications. Manufactured with SS316L body & cover and ensures complete draining of condensate.



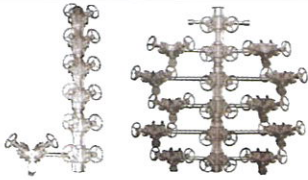
**Bi-metallic Trap:** Bi-thermostatic bi-metallic steam traps, with corrosion resistant regulator, suitable for saturated as well as superheated steam. Salient features include balanced pressure valve, independent seat and cone valve, external adjustment device for on-line adjustment of temperature and flow discharge, very high sub-cooling capacity up to 40 degrees, bi-directional use and very long life as compared to conventional traps.



**Condensate Recovery System:** : The importance of Energy conservation and its recycling / recovery cannot be over-emphasized, in the current industrial scenario. UKL has the complete range of Flash vessels and Condensate Recovery Pumps, for maximizing the use of thermal energy in steam circuits very simple but effective recycling equipments.



**Automatic Pumping Trap:** Ideal choice for stalling conditions (applications involving very low pressure condensate discharge), UKL offers Compact condensate recovery system which can be installed almost anywhere inside or outside the plant, having no constraint of space and location. Comparatively it requires negligible motive, as needed only while working in pumping mode.



**Manifolds:** Steam distribution and condensate collection are effectively and aesthetically improved by the use of Pre-fabricated sturdy Condensate recovery and Steam distribution manifolds, especially developed and hugely and successfully accepted by the refineries and petroleum sectors



**The Compact Intelligent Trap valve station,[ITVS],** sturdy, utilitarian product, providing all the functions and more of the Fabricated Modules. The ITVS can be fitted with a Universal Thermodynamic or Thermostatic or a Inverted Bucket Trap as per the process requirements. Option of 1/2/3/4/5 Valves, in the form of Piston valves, having only two connecting joints and very low installation time. This ITVS with Manifolds is a big acknowledged success.



**The De Aerator Head:** For elimination of Oxygen and non-condensable gasses from the Feed Water which other wise will cause oxidation and damage the Boiler Drum leading to potential hazard. Also the mixing of Condensate, Flash and Makeup water ensures pre heating of the Feed water, which helps save Fuel, Water and reduce consumption of Treatment chemicals.

Pipeline accessories: UKL also manufactures and supplies a wide range of Pipeline accessories.



**Complete range of Y and T type Strainers** to protect the Process equipment and Pipelines from Dirt and depositions that lead to choking, blockages, high Pressure drops and damage.



**The Multi Baffle type Moisture Separators** for effectively draining the carried over Moisture from Steam and Gasses, to ensure effective heat transfer.



**Double view Sight Glasses** for viewing the media flow in the pipes, help avoid potential mishaps and affect proper process control.

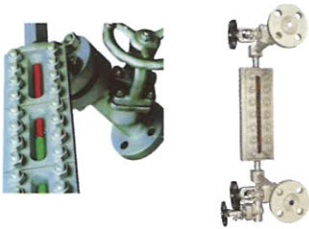


**Disc Check Valves:** For ensuring the flow in the desired direction only and avoiding back flow. Also can be used as a vacuum Breaker in specific steam circuits.

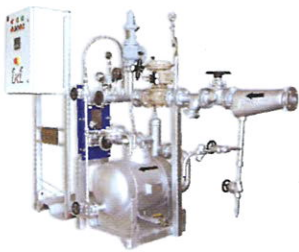


**Air Eliminators:** A variation in the application of the Ball Float Trap, to purge air from Liquid lines.

**Automatic Air vent:** Thermostatic Trap assembly to remove Air from Steam and Gases.



**UKL Liquid Level Gauges[LLG]:**UKL manufacture all types, Reflex, Transparent and Bo Color type Level gauges, using the original Klingner Toughened Borosilicate Glasses which are trusted, proven, Shatter proof and pioneered by Klingner. UKL LLG are used for Pressures up to 180 bar Boiler Drum installations too, apart from other applications, are Sturdy, Reliable and accurate.



**The UKL Hot Water Generation System:** A complete skid mounted assembly, consisting of Valves, Piping, Temp control valve, Plate heat exchanger and condensate recovery pump, for creating instant Hot water for processes. Loads upto 12KL and temperature gains of 60DegC this system helps effective utilization of Flash steam for Heating purpose. HWG is presently the most preferred heating method to be adopted by Industry, as it ensures uniform heating, No temp stratification, No Hot spots, No scalding and damage to process media.

The current trend in the industry is to have a single point accountability. UKL has custom built packages to meet this demand.



**Pressure Reducing Stations[PRS]:** Designed for Steam and Compressed air, providing a simple solution to Maximise the use of Latent heat in steam. The software developed for sizing the PRS provides an accurate sizing of the Stations and individual components, to come up with a optimum size and design.



**Fabricated Trap Modules** are designed to simplify Trap operation. It also takes care of the tools required to protect traps from excessive back-pressure and Trap stalling condition. All accessories required to protect the traps from clogging and erosion are included in the Module.

Available in T type [open] and D type [closed] module variations, with TD / BFT Traps.



#### **Technical Consultancy & Training:**

UKL provides **Technical consultancy** in all Steam related issues in the existing as well as proposed steam circuits.

UKL provides **Training** to Engineers and Plant operators with Modular courses to suit individual needs.



UKL carries out **Energy Audits**[esp Steam w.r.t. Steam Circuit]. UKL not only does the initial Audit, but also carry out **Rectification, Sustenance and Maintenance** of the Audit findings as a follow through.



UKL undertake **AMC** of process plants w.r.t Steam circuit and Traps on a long term basis.



UKL Audit is done with the help of **Leaktector** [apart from other equipment] A hand held device, with wrist mounted display. This device is Contact as well as Non-contact type for Traps as well as other piping equipment. A special feature is its adaptability to analyze Thermodynamic Traps performance.



**The Bitherm Smartwatch web:** Is a equipment that is mounted on Traps and Valves and piping equipments. This monitors 24 x 7 the Pressure/Diff Pressure/Temp and sound of all the related equipments and audits them. The findings are displayed which give information of the source and nature of the problem if any. Immediate resolving of the problem leads to saving in energy, Steam and reduction in emissions and increase in efficiency of the Boiler. A number of such devices are interconnected through Internet and Intranet and the entire Plant can be monitored and controlled remotely.



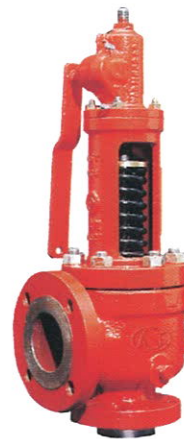


## A Variety of Valve Solutions. One Trusted Provider.

To meet the growing market demand of API & ASME requirements in Safety Valves and Control Valves we have established state-of-the-art manufacturing facilities near to Pune (MS) under license of AST S.p.A. Italy.

Making a move forward Uni Klinger Limited has now taken its commitment, to the next level by associating with equally committed company, M/s. AST S.p.A., Italy to manufacture and marketing safety relief and control valves for Industries worldwide.

Founded in 1951, AST S.p.A. is one of the first Italian manufacturers of spring loaded safety relief valves and change-over valves. Since the very early days, it distinguished for the technology and the degree of customization of its products



<b>Product Name</b>	UKL-AST Type SMU-7000 Pressure Relief Valve	UKL-AST Type SMF-7000 Pressure Relief Valve	UKL-AST Type SU-7000 Pressure Relief Valve	AST SMS-7100 Safety Valve For Steam Boiler ASME Section I Approved
<b>End Connection</b>	Flange End as per ASME B16.5	BSP/NPT (MXF)	Flange End as per ASME B16.5	Flange End as per ASME B16.5
<b>Inlet Sizes</b>	From NPS 1 to NPS 8	From NPS 1/2 to NPS 1	From NPS 1/2 to NPS 1	From NPS 1.5 to NPS 8
<b>Inlet Ratings</b>	Up to ASME 2500. Special solution ASME 4500 and up to API 10k available.	Up to API 6000 or ASME 2500	Up to API 6000 or ASME 2500	Up to ASME 1500
<b>Outlet Sizes</b>	From NPS 2 to NPS 12.	From NPS 1 to NPS 1 1/2	From NPS 1 to NPS 1 1/2	From NPS 2 to NPS 10
<b>Outlet Ratings</b>	ANSI Class 150 and 300	-----	-----	ANSI Class 150 and 300
<b>Orifice Sizes</b>	D" to "T" acc. to API 526; intermediate orifices (K2, P2, Q2, R2) and orifices up to 183.281 cm <sup>2</sup> available	From "b" to "f"	From "b" to "f"	D" to "T" acc. to API 526
<b>Set Pressure Range</b>	From 0.4 bar to 414 bar	From 0.8 bar to 400 bar (for gas), up to 1500 bar for liquid	From 0.8 bar to 400 bar (for gas), up to 1500 bar for liquid	Up to 153 Bar G
<b>Temperature Range</b>	From -267 °C to 750 °C.	From -200 °C to 400 °C	From -200 °C to 400 °C	Up to 566 °C
<b>Materials</b>	Carbon steel, alloy steel, hastelloy, monel and other materials upon request.	Carbon steel, alloy steel, hastelloy, monel and other materials upon request.	Carbon steel, alloy steel, hastelloy, monel and other materials upon request.	Carbon steel, alloy steel and other
<b>Special Feature</b>	Full Nozzle / Full Lift with Adjusting Blowdown Ring	Full Nozzle / Full Lift with Adjusting Blowdown Ring. Balance bellow design for screwed design also	Full Nozzle / Full Lift with Adjusting Blowdown Ring	Comply stringent requirement of ASME section I for power boilers. Overpressure 3% and Blowdown 2.5 to 4 % with the help of precise two ring design

Other products of AST SpA like Pilot Operated Safety Valve shall be imported with specialised Control Valve for Urea/Melamine application.

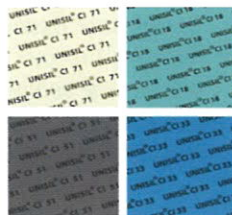


Pilot Operated Valve

Control Valve



**Compressed Asbestos Gasket Sheets**  
 Sheets are made as per IS 2712 : 1998. UKL has a BIS 2712: 1998 (ISI mark) approval for all grades. Covers pressure upto 200bar & temp upto 550 deg C. Sheets are available in sizes of 1.5m x 2m, 1.5m x 4m, 1.5m x 6 m & in thickness from 0.5 mm to 6 mm



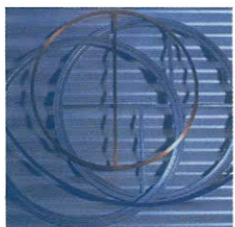
**Compressed Non Asbestos & Graphite Gasket Sheets**  
 Entire range of Non asbestos sheets that cover general applications to corrosive media. Grade X & Grade Y as per BS 7531. Standard sheet size 1.5m x 2 m, and 1.5m x 4 m in thickness from 0.5 mm to 6 mm.



**Cut Gaskets CAF / CNAF/ PTFE & Teflon / Jacketed Gaskets**  
 Cut Gaskets of all shapes and sizes are available. UKL stocks a wide range of standard pipe flange gaskets to IS, ANSI & DIN standards. These are available in both flat & raised face.



**Spiral Wound Gaskets**  
 Gaskets ranging from 15 mm-3500 mm ID are manufactured to international standards like API601, ASME B16.20 ASME 16.47A&B series. DIN, BS, JIS etc. Fillers used are Graphite, Asbestos & PTFE. Approved by all major consultants.



**Metal Jacketed Gaskets**  
 Custom built gaskets with or without ribs widely used in heat exchangers, autoclaves columns, pressure vessels, flue stacks, boilers, valve bonnets and similar services



**Kammprofile Gaskets**  
 A composite gasket, which utilises a serrated metal core with a soft facing material. The gasket combines the benefit of soft cut material with the advantages of seal integrity associated with metallic gaskets. Manufactured as per ASME B16.20 and API



**Ring Type Joints (RTJ)**  
 Metallic ring joint gaskets are heavy duty, high-pressure gaskets largely used in offshore petrochemical applications. All our ring joints are manufactured according to ASME B16.20 and API 6A.



**Non Asbestos Gland Packings**  
 Complete range of non-asbestos gland packing in Graphite, Teflon, Carbon, Aramid & Glass Fibre. Enabling UKL to cater to pump, valve and other process equipment users and Original Equipment Manufacturers

**Our Semi-Mettalic/Metallic Gaskets are recommended as per the chemical compatibility with process fluids, we offer following MOC: Soft Iron, Stainless Steel 304, 316, 316L, 321, 420, Soft Steel, Monel, Inconel, Incoloy, Brass, copper, Aluminum, Titanium, Nickel. Other Materials are available on request.**

**...Sealing with Security**