

end to end steam solution



# Utility Services



The Success of many production facilities depends on the trustworthy energy provided by steam and condensate recovery. VOLFRAM is dedicated to play a role in this success, using innovative technology and experienced personnel to improve steam and condensate systems.

Today's competitive marketplace demands that steam and condensate systems perform at world-class standards or above. We work directly with your in house team to ensure the achievement of these essential goals sustaining the same.

## Steam Audits

Steam Audits will address the following key points:

- Auditing the whole steam & condensate system to establish the current specific fuel (SFC) & Steam (SSC) consumptions & identify the gaps.
- Bench marking the SFC and SSC with respect to the industries standards and recommend modern Steam and Condensate System design to reduce the gaps in the same.
- Eliminating issues like higher batch timings due to higher back pressure drops etc. commonly prevalent across most plants and which can impact the production and rejection rate.
- Suggesting proper utility monitoring systems so as to keep track of utility consumption patterns and take corrective action if required.
- Monitor the implementation work closely so as to ensure the technically correct installations.

## Projects Consultancy:

- Studying the project requirements and proposed process utility consumption patterns.
- Selection of optimized capacity Boiler and other utility equipments as per the process requirements.
- Designing and optimum steam and condensate system which is energy efficient, safe, easy to operate and reliable.
- We take care of following utilities for the designing: Steam, Thermic Fluid (Hot Oil), Chilled Water, Compressed Air, Condensate, Flash Steam, Water.

Steam

# Generation

Offering Highly Efficient **Volfram Systems** Steam Boiler



## Solid Fired Package Integral Furnace Boilers

**Range:** Capacity 500 kg/hr to 5000 kg/hr  
Pressure maximum up to 21 kg/cm<sup>2</sup>



## Oil / Gas Fired Package Boilers

**Range:** Capacity 500 kg/hr to 10000 kg/hr  
Pressure maximum up to 21 kg/cm<sup>2</sup>



## Solid Fired EXTERNAL Furnace Boilers

**Range:** Capacity 1000 kg/hr to 16000 kg/hr  
Pressure maximum up to 21 kg/cm<sup>2</sup>



## Non IBR Boiler

**Range:** Capacity 1100 kg/hr  
Pressure maximum up to 21 kg/cm<sup>2</sup>



## Small Industrial Boilers - SIB

**Range:** Capacity 500 kg/hr  
Pressure maximum up to 7 kg/cm<sup>2</sup>

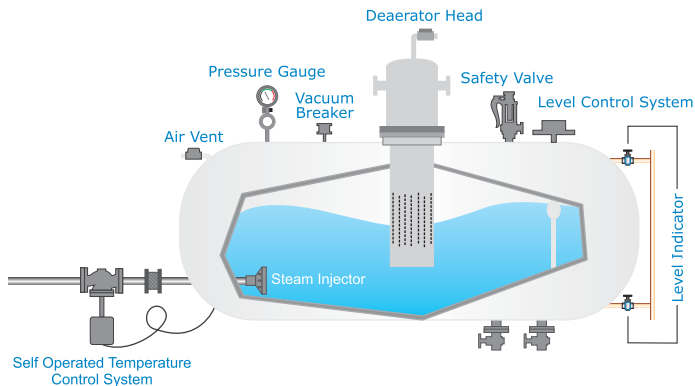
**We offer a turnkey solution for Steam Generation, comprising of:**

- Pollution control equipments
- Water treatment plants
- Feed Water Tank with accessories
- Chimney
- Piping ( IBR / Non-IBR)
- On Site IBR Formalities

Boiler House

# Accessories

## Boiler Feed water Management System:



## Thermal Deaerator

Deaerators are mechanical devices that remove dissolved gases from boiler feedwater. Deaeration protects the steam system from the effects of corrosive gases. It accomplishes this by reducing the concentration of dioxide to a level where corrosion is minimized.



We provide complete solution for pressurized and atmospheric boiler feed water tank with accessories and automation.

## Feed Water / Condensate contamination monitoring system Boiler Automatic TDS base Blow-down System



We offer the most advance boiler controller for maintaining TDS (Blow-down) and other boiler parameters. The system is available with IBR certification and installation support provided at site.

### Overview

- Data monitoring enables water treatment professionals to deliver more effective service to their customers
- The Boiler Controllers and Condensate Monitors have the ability to store conductivity and temperature values, water usage, relay status, and user settings
- A USB memory stick is used to download the data from controller



## Steam Injector

Steam Injector ensures complete mixing of steam with other media

- Completely mechanical
- Steam Injector has complete SS316 construction
- Highly robust & maintenance free



## Control valves

- Design as per ANSI class 150/300
- Available CS, WCB, SS-CF8M and Cf8
- Pressure temperature rating as per ASME B16.34
- Gland Packing Carbon filled for temperature upto 220°C
- Leakage as per ANSI-FCI-70-2 CL.IV
- Suitable: Air, Water, Steam, Oil and Preece Media



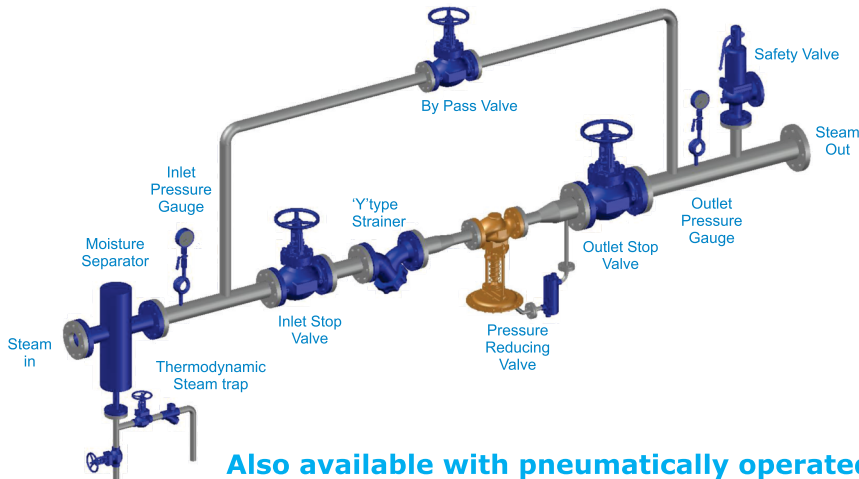
## Flow Meters

We offer various types of highly accurate flow meters for steam, water, compressed air and process media

- Vortex steam flow meters
- Magnetic water flow meter
- Orifice type steam flow meters

# Steam Distribution

## Pressure Reducing Station:



**Also available with pneumatically operated pressure control valve**

Assured, accurate & consistent downstream pressure is a result velocity based design.

Direct acting Pressure Reducing Valve assures faster response & steady downstream pressure.

## Pressure Gauge

VOLFRAM offers high quality Bourdon tube pressure gauges with complete Stainless steel body & internals for accurate measurement of pressures, suitable for various media applications

- All stainless steel (SS316) construction
- Highly Robust & Accurate
- Cost-effective and reliable
- Design as per EN 837-1



## Strainers

We offer wide range of strainers for various applications like Steam, water, condensate etc.

The types of strainer are:

- Y type Strainers
- Bucket Strainers
- In line Conical Strainers



## Isolation Valves

We offer various types of Isolation Valves for media like steam, hot oil, water, compressed air, etc.

- Gate valve
- Globe Valve
- SS Ball Valve
- Piston Valve



## SS Safety Valve

- Complete SS316 construction
- Suitable for various medias
- Highly Robust
- Suitable for the chemical industries where there is corrosive atmosphere
- Easy to install
- Compact Design
- High Discharge Capacity

**Available sizes 15NB, 20NB, 25NB**

[www.volfram.in](http://www.volfram.in)

# Steam Distribution

## Float Trap



We offer Float controlled steam traps which operate based on rotary slide valve principle which are suitable for the process equipment application where there is continuous & high loads of condensate.

### Features

- Only one moving part
- Proportional control
- Modulating action
- Exact, impact free & silent condensate discharge
- Independent of pressure & temperature variation
- Long working life
- Low maintenance
- Simple mechanism

### Unique Feature

**VOLFRAM** offers highest capacity Ball Float Trap which can discharge 20000 kg/hr condensate



## Thermodynamic steam Trap

- Thermodynamic traps can operate across their entire working range without any adjustment or change of internals
- They are compact, simple, light-weight and have a large condensate capacity for their size
- As the disc is the only moving part, maintenance can easily be carried out without removing the trap from the line

## Non Return Valve

We offer complete range of non return valves to suit various applications in the plant

- The disc check valve can be mounted in vertical or horizontal lines between the flanges
- Can be used in variety of applications like hot & cold water lines, steam lines, oil lines, process lines etc.

## Temperature control system

We offer wide range of temperature control solutions for your process requirements

Self Operated Temperature Control System - Completely mechanical & robust system, maintains temp in the band of  $\pm 2$  Deg C

## Sight Glass



Available in cast iron and carbon steel.

## Piston Actuated on-off Valve



- Build in Complete SS 304
- Very economical
- Reliable System
- Maintain the process temperatures within a band of +3-5°C.
- Easy to Install
- Available upto 50 NB Size

## Venturi Trap



- It has no moving parts
- No Wear and Tear
- Zero Failure
- Suitable for variable loads
- Best Suited to remove condensate from steam lines
- MOC: SS
- Sizes available 15NB, 20NB

Condensate

# Recovery

We offer widest range of condensate recovery system with Flash Separator & steam operated condensate recovery pump available to handle condensate load from 500 kg/hr to 25000 kg/hr

## Steam Operated Condensate Recovery Pump

- Uses inexpensive steam, air or gas to pump the condensate
- Negligible steam consumption
- Zero Maintenance as there is no cavitations, no leaking seals, no impeller wear or motor problems
- Very less parts ensures increased reliability
- Superior build quality and rugged construction
- Pre-wired, pre-piped packaged Skid Mounted for easy installation
- Widest capacity range available in steam-operated pumps
- Comes with inbuilt Condensate flow totalizer



Mechanical Condensate Pump with flow totalizer

## Condensate Flow Totalizer

- Shows Totalized Mass Flow rate in Kg
- Password Protection
- Enclosure, W Proof IP-65
- Compatibility: Suitable to use with all kind of Steam / Air operated pumps (various makes)\*\*

## Automatic Pumping Trap



- Steam systems are designed to discharge condensate using differential positive pressure through steam traps, various factors can interfere with this phenomena.
- If the use of an inlet temperature control valve can lead to a vacuum, reversed in the trap operating pressure causes Stall. Leads to delay in process or difficult to maintain constant temperature.

**V-APT a combination of trap with Pump design to overcome stall effect and help to operate systems with precision.**

## Flash Steam Separator

- Customized design
- Supplied with rotating plug modulating ball float trap
- Designed as per ANSI standards
- Available with IBR certification
- Unique customized design with two separate inlets to flash vessel
- Best suitable for the application where the condensate is at two different pressures
- Help in reducing back pressure on steam traps due to connection of different pressure condensate in same header
- Flash Steam Separator with Inbuilt Float Trap also available for higher condensate flow rate
- Accessories : Rotating Plug Modulating Ball Float Trap, Pressure Gauge, SS Safety Valve, Strainer, Sight Glass



Flash Steam Separator with Inbuilt Float Trap

We serve following industries



## Volfram Systems India Pvt. Ltd.

Office: Sr. No. 18, Rutuvihar, 402,  
Waranasi Soc., Warje, Pune - 411058,  
Maharashtra, India  
Tel. +91 9309534688 | GPS: 18°29'9"N,73°47'29"E  
www.volfram.in | Email: steam@volfram.in

[www.volfram.in](http://www.volfram.in)