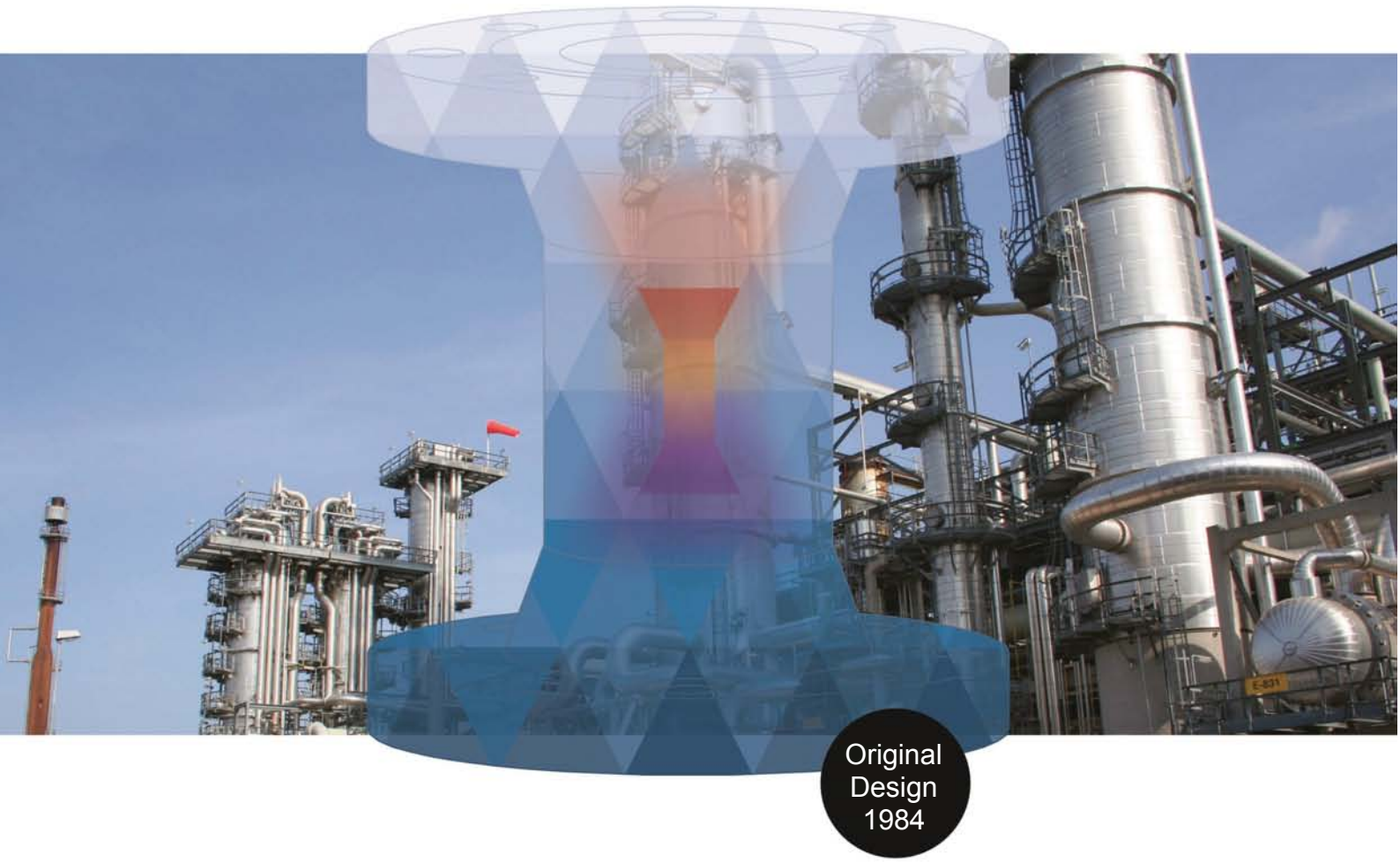
STEAMLOC®

international

THE RIGHT CONDENSATE REMOVAL



Original Design 1984

Venturi steam traps

100% Reliability Energy friendly Maintenance free

INTRO

Together we reduce the life-cycle cost of your steam installations.

Traditional mechanical steam traps are designed to remove condensate from steam equipment. Their working principle and generally accepted failure rates will inevitably force you into frequent check-ups, unpredictable energy losses, intensive maintenance and downtime of your production. They definitely cause returning costs, every year again.

Steamloc® is a better concept

Since 1984, we have been re-engineering venturi technology for highly effective liquid/gas separation in general. Our Steamloc® 'active' element is a well designed venturi construction based on simple principles without any moving parts. It provides excellent, complete and lifetime condensate removal.

For over 30 years we have generated successful results with a primary focus on heavy process applications. However, also small utility applications perfectly qualify for this technology.

The driving force behind this success is the simple combination of three goals.

100% reliability	to avoid downtime and creates process stability.
Energy-friendly	to contribute to lower energy costs and fewer emissions.
Maintenance-free	to optimise daily plant operation.

Dimensions and standards

ANSI , ASA & DIN / EN
Custom made size : DN15 - ½" to DN250 - 10"

Materials

Stainless steel or special alloys.

Process conditions

Loads : 1 kg/h to +100.000 kg/h
Pressures : 0,01 barg to +100 barg

References

Steamloc® is a perfect 'install and forget' for small utility applications (drip, tracing, …) but also for your heavy steam users like reboilers, air heaters, autoclaves, boiling vessels, rotary dryers, … In addition, many different chemical processes profit from this way of liquid/gas separation.

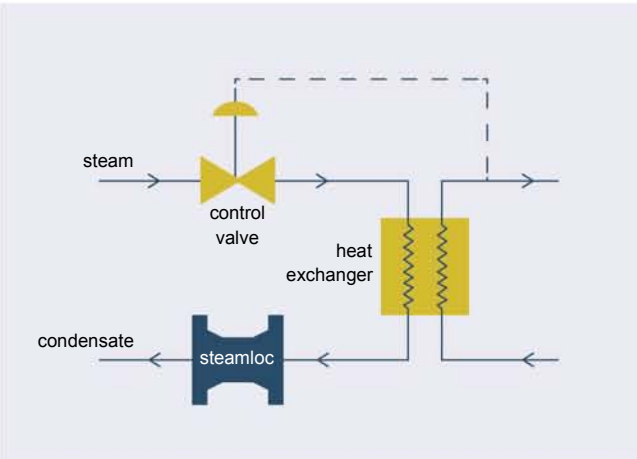
Word of mouth is the leading thread that pushes the increase of installations worldwide.
Whether you are in chemical, petrochemical, waste treatment, food, pharmacy, … you can save lots of energy and limit the exhaust of unnecessary green house gasses.
We thank all our valued clients for contributing to this.

New technologies always require the understanding that progress does not come without efforts, setbacks, determination and focus of people, engineers in particular.

HOW STEAMLOC® WORKS (EXTRACT)

Steamloc® venturi principles are based on differences in physical properties of gas and liquid which enable the removal of all condensate, at the same time inhibiting loss of live steam. Difference in density and velocity, laminar to turbulent flow and compression versus expanding are the basis of the principles.

Often thought as being the opposite, a well dimensioned venturi has a wide active range to allow changes in condensate loads such as for batch processes. Since the capacity through the venturi is pressure dependent, the device is also self-regulating in case of a control valve present on the steam side. Even non condensable gases will be removed without any additional mechanical element.



More on www.steamloc.org

FAQ & A

1. Is Steamloc® limited in capacity and pressure?

There are no process limitations.
A positive pressure differential is required to remove condensate, which is the same for mechanical traps.
At very low pressure differentials Steamloc® has the advantage of not having any buoyancy losses, where steam traps do. Meaning they do not need a minimum pressure differential in order to function.

2. Will Steamloc® be subject to erosion after years of operation?

Erosion requires the combination of:
- High velocity.
- Two-phase flow with primarily steam and additional few small particles of condensate.

A steam leak is a good example to demonstrate how a high velocity wet steam flow blasts the opening to bigger size in a relatively short time span.

Steamloc® designs only allow low velocity flows which do not show any erosion, even after 30 years. The continuous condensate flow keeps the velocity relatively low, while the water itself does not cause erosion as a function of time.

3. How can Steamloc® handle pressure and condensate load variations?

Variations are initiated by the process itself. Steam flow rates and therefore condensate flows can vary depending on required production capacity. This is normal.
Such processes usually have control valves at the steam inlet. Demand for increased heat transfer results in higher steam temperature and therefore higher pressure. Since Steamloc® capacity is pressure dependent, it can follow these variations very well.
In fact Steamloc® operates perfectly in conjunction with the control valve.
For process applications that work with other types of controls and variations in steam/condensate flow, like batch processes, the wide condensate range of the Steamloc® at constant pressure will allow to operate also at these extreme conditions.
Summary: Steamloc® is designed to handle your start-up as well as your normal and minimum conditions in a most economical way.
For more details we suggest you to contact us.

APPLICATIONS

- Reboilers
- Heat exchangers
- Autoclaves
- Drying technologies
- Air heaters
- Cookers
- Sterilization
- Drips
- Tracing
- ...

INDUSTRIES

- Petrochemical
- Chemical
- Food
- Waste treatment
- Pharmaceutical
- Textile
- Contractors
- Engineering companies
- ...

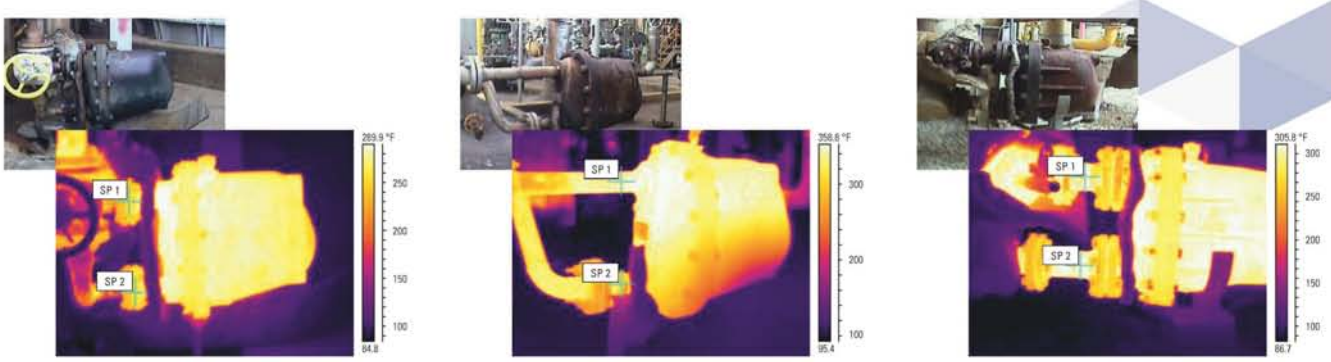
CASE STUDY

INITIAL CHOICES DO MATTER

A prospect with 18 important process steam traps called us in to replace a leaking trap into Steamloc®. Looking at the eroded external leak, this trap obviously had been blowing internally for quite some time. So we wondered about the condition of their 17 other process traps. ''Guess they are OK'' he said, ''since Operations do not complain, not about temperatures, not about output'' he said.

But a 'thermal camera check' on the other traps created some disbelief: 3 more traps clearly showed internal blow through, although all 3 looked excellent on the outside!

STEAMLOC® international THE RIGHT CONDENSATE REMOVAL



What happened?

This is exactly what we often see:

- There is very good effort to check and limit energy losses from small utility traps, because of the big numbers and because there is no direct production feed-back.
- The few large process traps are often treated separately because their importance is linked to feed-back from Operations. But can one rightly assume the condensate removal is correct, only because production output is OK?

What do we learn?

When you design a new project, steam traps certainly are not the hottest item. However we all know traps fail every 4 to 6 years on the average. This means, in your 20-year scope capital investment, each process application needs 3 to 5 new traps – if you notice their failure in time of course.

Purchasing and replacing steam traps is a little annoying but is acceptable. Yet, as in the above case, who would notice a 150 kg leak at a condensate flow of 20.000 kg/h? It's exactly this loss that represents the real substantial cost. Each one of them.

'If we know all this, why do we still design based on old technologies? Why do we burden our plant people with a future operational cost? Why in fact sign a blank cheque for trap suppliers for easy future sales, while in fact you can bear all the costs of this old design?'
It almost looks as traps are designed to fail, perhaps to ensure the automatic replacement market?

Perhaps old habits and time shortage prevent you from a closer look on new techniques?

A proven one-time solution is a far better choice for maximum reliability, from the beginning.

Impressions often mislead us
while final solutions are not necessarily far away.

More on www.steamloc.org

千涵國際股份有限公司
張曙光 / 總經理
手機 0927120778 ,E-mail: kflow@seed.net.tw

For our local agent in your area, see our website www.steamloc.org

Contact us: info@steamloc.org

Always near for a local service - Thank you for contacting us!