

## CASE STUDY CHEMICAL (FIBRE) INDUSTRY

ENERGY SAVING  
BY PROPER STEAM  
DISTRIBUTION AND  
UTILISATION IN  
DRYERS.

INDUSTRY  
SECTOR  
CHEMICAL

**Client Details:**  
One of the leading manufacturer of Fibres in India

YEAR OF  
EXECUTION  
2016-17

**Certifications & Approvals**



**Website:** [www.uniklinger.com](http://www.uniklinger.com)  
**Corporate Sales Office Address:**

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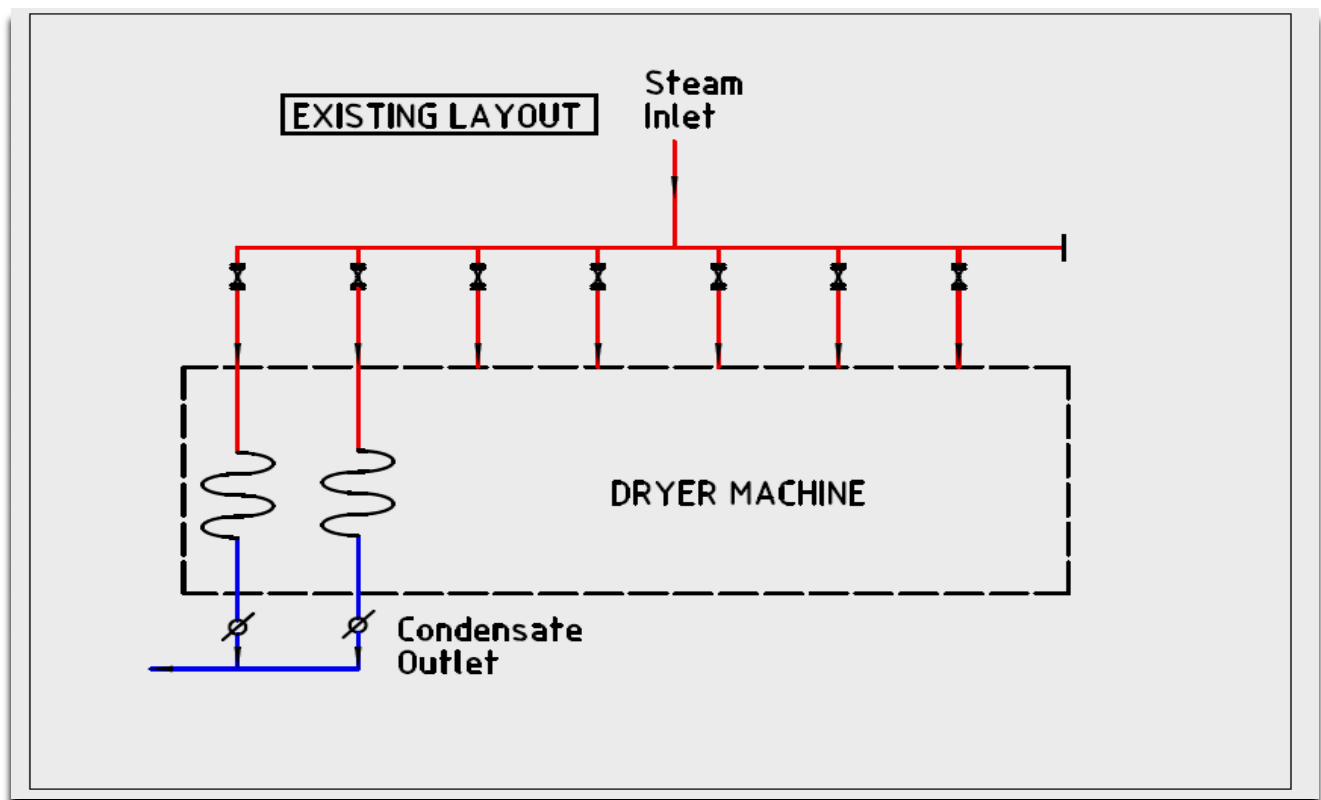
**Case Study for Chemical Industry to Reduce Steam Consumption of continuous dryer.**

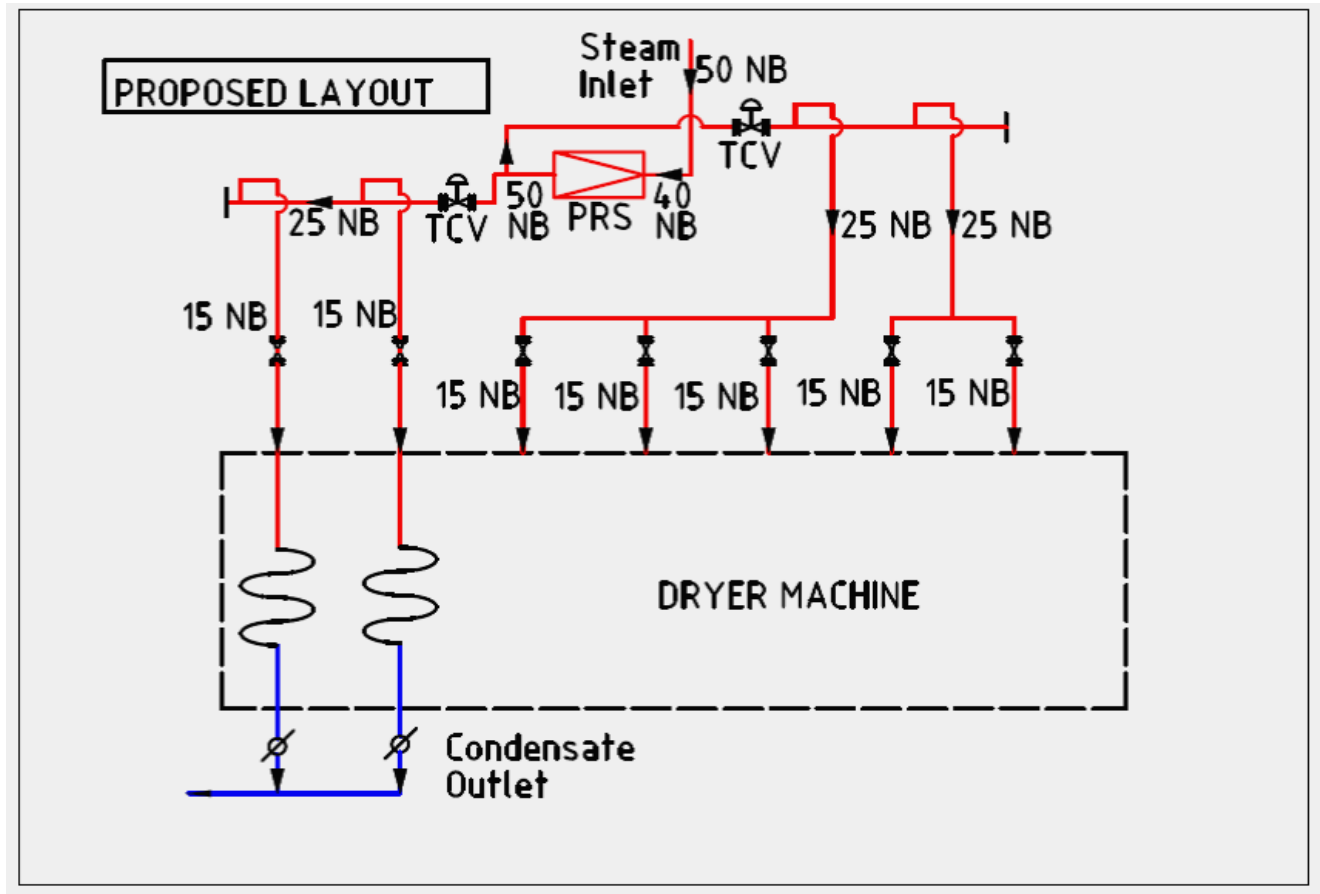
**Typical application of steam in Dryer:**

Mostly the steam is used as indirect heating media in the dryer. The moisture present in the chemical fibre is evaporated by using the convection and radiation heat received from the steam.

Initially the Steam is used at 12-14 Bar(g) pressure, which is very high for this application. We recommend reducing this steam pressure to 7 – 8 bar(g) which is enough for this application.

Also all the Steam inlet valves are manual, we recommended to install temperature control valves which will be closed after achieving the set temperature in each zone.





After the modifications suggested, there was 5 % reduction in the steam consumption for the dryer. It was 33kg/hr steam saving, the **yearly savings in INR is Rs. 4,56,192/- per year.**

Also for the individual steam inlet, we recommend to install control valve based temperature control instead of present manual valves. This will further reduce the present steam losses in the dryer.