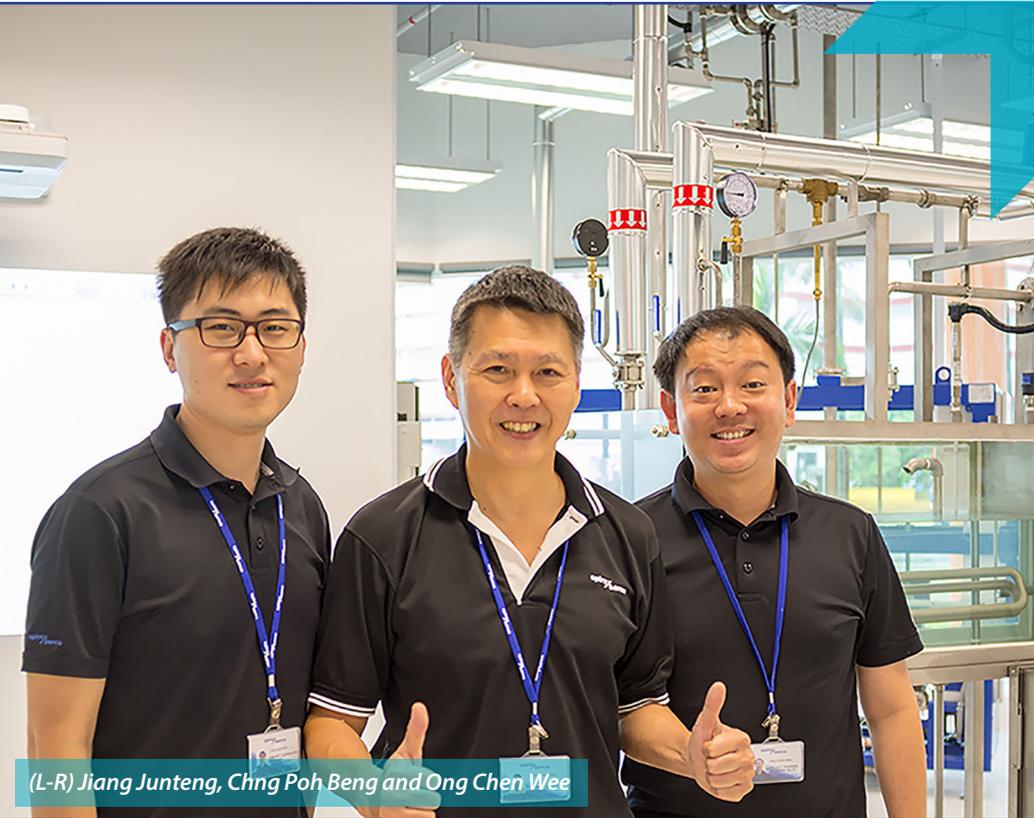


# Steam Express



(L-R) Jiang Junteng, Chng Poh Beng and Ong Chen Wee

## Spirax Sarco Singapore New Steam Technology Centre

Located at Spirax Sarco Asia Pacific headquarters at Changi South, the Steam Technology Centre will support company's growth in the region with the commitment to impart knowledge to our valuable customers.

Nicholas Anderson, Chief Executive Officer of Spirax Sarco Engineering PLC graced the Singapore offices 40th Anniversary event and witnessed a "live" demonstration in the Steam Technology Centre.

Spirax Sarco invested S\$250,000 to build the Steam Technology Centre. Our Technical and Training Manager, Chng Poh Beng has contributed most of his time for the Tech Centre design, Project Management, and Installation Supervision. This project won't be successful without the help from his capable team.

A number of Spirax operating companies contributed in this success. Spirax Sarco Korea, China and Malaysia shared their experiences in setting up their local Technology Centre. Spirax Sarco Singapore Technology Centre is now open to the public. If you would like to experience "live" demonstration of our products, come and visit us or email us at [spirax.singapore@sg.spiraxsarco.com](mailto:spirax.singapore@sg.spiraxsarco.com) for an appointment!

## Safety First!

Safety in the workplace is our top priority. Like any industrial or building services plant, a properly designed, installed and maintained steam system will provide safe and effective service throughout its life.

Here are tips in keeping your steam system safe:

### In the Boiler House

- Ensure your boilerhouse is properly supervised by competent personnel. If high integrity self-monitoring systems are fitted, a trained person must always be available to respond to an alarm.
- Ensure boiler level controls and alarms are being tested daily or weekly as required.
- When sampling boiler water, use a sample cooler to avoid scalding.

### Around the Pipework

- Ensure that lagging is fitted securely to prevent hot surfaces being exposed.
- Loud knocking noise in the pipework typifies water hammering, investigate the cause immediately.
- Ensure that all mechanical pipe supports are in good condition.

### Valves and Ancillaries

- Regularly check safety valves for correct operation by lifting the easing lever.
- Check that hot water systems are protected against overheating by installing high limit controls.
- Conduct regular steam trap surveys to ensure all traps are in good working condition.

**Need assistance in ensuring that you have a safe system?**

**Do contact us at +65 6349 0480 to talk to our friendly Steam Engineers.**

# Cool Tips for Hot Issues

## HEAT TRANSFER - The Reality

Water is an extremely effective barrier to heat transfer in steam systems. Whilst careful drainage and trapping will remove much of the water, it will not deal with water particles in suspension.

Wet steam can, and will cause one or more of the following problems:

- Reduction in the heat transfer efficiency.
- Increased erosion and possible corrosion within steam system.
- Increased scaling of pipework and heating surfaces from impurities in the water particles.
- Failed loads in sterilisers due to poor quality, wet steam.

## The Solution

Spirax Sarco offers solutions to the above problems. The S-Series separators are offered for general purpose and process applications. Designed for simplicity, they are relatively compact yet efficient for low pressure applications.

The 1808 series of High Efficiency Separator is specifically designed to maintain separation efficiency over a wide range of pipeline velocities and pressures up to 25 barg. This product is available in both steel and stainless steel for specialised process systems.

The Spirax Sarco separator provides total solution for all pipelines carrying steam, air or gas where water particles are in suspension.



## Training

# Steam and Condensate System Training

## Who will benefit?

Designer, Plant Engineers, Senior Technicians and those involved in the day to day running of the Steam and Condensate Services.

## Objective

To give a good understanding of the purpose and operation of steam and condensate systems and factors affecting their performance and plant output.

**Date:** 27 & 28 June 2019  
**Time:** 09:00 - 17:00  
**Venue:** Spirax Sarco Singapore

## COMPANY INFO

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Alvin Tan - Service Team Leader

## Ask our Steam Experts

### What are some of the main causes of water hammer?

- \* Failure to remove condensate from the path of high velocity steam in the pipework.
- \* From an application which is temperature controlled and where condensate has to lift to a return line, or return to a pressurized system.
- \* The inability of condensate to properly enter or travel along an undersized return line, due to either (a) flooding, or (b) overpressurisation with the throttling effects of flash steam.

### Is it true that using check valves can reduce water hammer?

Check valve can help to reduce the effect of water hammering but it cannot be used to totally eliminate water hammer issues.

It is important that the pipework is designed and installed correctly. This will help to maintain thermal performance of the system throughout its service life.

*Do you have a question for our steam experts?*  
Email us at [spirax.singapore@sg.spiraxsarco.com](mailto:spirax.singapore@sg.spiraxsarco.com) and you could be featured in our next issue.