STEAM EXPRESS

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EXPERTISE | SOLUTIONS | SUSTAINABILITY

Yong Chee Kong, EHS Manager

Let's talk about **SAFETY**

Warehouse is a busy place with different operations and people doing different tasks simultaneously. There are potentially many hazards and possible risks. If you are looking for ways to keep your warehouse employees safe while being productive then we have some warehouse safety tips for you.

1. Housekeeping. Good housekeeping can help to prevent slips, trips and falls. Disorder and untidiness cause many accidents, material damages and fires as well as make the place less pleasant to work in. Good housekeeping means that there is an assigned place for everything and that items are returned in their place after use. Set a specific time before the end of your day to do housekeeping.

2. Manual Handling. Consider the workflow to improve efficiency. Use mechanical lifting to minimise manual handling. Adopt proper manual handling techniques. Use gloves to improve your grip and place heavier items on lower racks and lighter items on higher racks.

3. Segregation of zones. Create designated pathway for humans and vehicles. Demarcate clearly your PPE Zone, Staging Area, Inbound, Outbound, Forklift Charging Area.

4. Rack Safety. Display your rack loading limits clearly. Protect your rack with Rack Guards. Install fence in between racks to prevent push-through. Distribute your loads evenly. Use pallets of good condition.

5. PPE. Use PPE such as hi-visibility vest and safety shoes to protect yourself and to make yourself conspicuous to forklift operators.

6. Safety Signage. Use signage to remind warehouse employees of Dos and Donts, Warehouse Regulations, Speed Limit etc.

7. Emergency Response. It is recommended to have First Aid Kit and trained First Aiders. Emergency eye wash. Spillage kit. Fire protection system and fire-fighting equipment. Do appoint Fire Wardens and carry out fire evacuation drills.

Distribution Centre Team
(L-R) Chow Boon Lee, Tan Phui Ling, Woon Wei Ying, Cathy Dai, Martin Beh, Fanny Fan, Koh Wei Liang, Lu Tiong Yong, Kang Hong Da, Sally Ng, Derrell Ng, Max Ong

Spirax Sarco Opens Distribution Centre

Spirax Sarco Asia Pacific unveiled a new Distribution Centre located at Changi South Ave 2, Singapore. The 1,500-sqm facility is designed to drive efficiency and support company's growing business.

It currently service countries primarily from SEA (Malaysia, Singapore, Thailand, Vietnam, Indonesia, Philippines, Myanmar, Cambodia), Australia, New Zealand, and Taiwan.

With the new storage and distribution centre that has a capacity of 847 pallets, the warehouse can now support overall demand of operating companies. The DC service level for On Time To Request (OTTR) is 99% (average YTD 2019). Delivering to the OTTR date ensures that our customer receives their product as per their plan and requirements and as a result our customers receives a better overall service.

Moving forward, the team led by Fanny Fan, Distribution & Logistics Manager aims to continue to ensure that overall customer satifaction is met. If you would like to visit our Distribution Centre email us at spirax.singapore@sg.spiraxsarco.com to make an appointment.

ASK OUR STEAM EXPERTS

What are the advantages of steam-powered condensate pump over the electric pump?

Steam-powered pumps offer numerous advantages with the following key benefits:

1. There is no requirement for electric motors, level switches and electrical panel - thus simplifying installation.

2. Mounted on a skid, a steam-powered pump package has very few connections to make; hence it is almost like "plug-and-play"

3. Cavitation problems are associated with electric pumps which can impact negatively on start-up as well as operating cost and down-time. Whereas steam-powered pump does not suffer cavitation as it is a positive displacement pump.

4. Steam-powered pumps have no mechanical seals or packing glands to leak - ensuring virtually trouble-free operation.

5. A flow counter can be easily incorporated to provide an economical way of metering the amount of condensate returned.

6. Steam-powered pumps are compact in size resulting in space-saving.

7. As electrical power is not required to operate the pump, steam-powered condensate units are ideal for hazardous areas.

Do you have a question for our steam experts?
Email us at spirax.singapore@sg.spiraxsarco.com and you could be featured in our next issue.

The Importance of Steam Boiler Efficiency

by: Paul Doherty, Divisional Energy Engineer & Martin Corkery, Senior Energy Engineer

In today's energy-conscious world, it has never been of more importance to operate your boiler at maximum efficiency.

Did you know that up to 20% of your boiler fuel input energy maybe lost in the generation of steam? Monitoring your boiler efficiency is very important for efficient and sustainable plant operation.

Various term are used to describe boiler efficiency e.g. combustion efficiency, thermal efficiency etc., which can lead to misunderstanding and confusion.

For Steam system energy management, the most important efficiency reference is the boiler "fuel-to-steam efficiency". Fuel-to-steam efficiency includes all efficiency terms previously mentioned and also includes boiler radiation and convection losses, and blowdown losses. As prescribed by the American Society of Mechanical Engineers (ASME) Power Test Code PTC 4.1, the fuel-to-steam efficiency can be detemined by two methods;

1. Input-output method (or direct method) which is calculated by dividing the boiler output energy (water to steam energy) by the boiler fuel input energy and multiplying by 100.

2. Heat loss method (or indirect method) which subtracts from 100 all the boiler losses (fuel gas losses, radiation and convection losses and blowdown losses).

Each method has its advantages and disadvantages. For example, the direct method, typically real time, allows for monitoring of the fuel to steam eficiency at various loads.

It goes without saying that the determination of efficiency must be based on accurate fuel, water and steam flow metering and determination of the energy content of each flow stream.

While the indirect method provides understanding to where the inefficiencies lie, it often includes assumptions, and the determined efficiency is only based on the conditions of operation at the time of assessment.

Incorrect boiler efficiency calculations, or worse, boiler efficiency assumptions, can lead to inaccurate cost of steam calculation which in turn may result in the over or underestimation of potential energy efficiency improvement projects.

Included in our standard steam and thermal energy survey offering, Spirax Sarco can provide accurate boiler efficiency calculation supporting you to improve your steam systems efficiency, reduce your costs and CO2 emissions and help in the specification and supply of the flowmeters and pressure and temperature measurement instrumentation and energy monitoring devices necessary.

For more information on Spirax Sarco steam and thermal energy survey offering.
Email us at spirax.singapore@sg.spiraxsarco.com

(L-R) Teeny Parwongphol - GM SXS Thailand, Andy Wells - Head of Marketing & Business Development, Neil Daws - Managing Director, Steam Specialities, Paul Lee - Divisional Director, APAC, Richard Yu - SEA Regional GM

SPIRAX SARCO THAILAND GRAND OPENING

We are proud to share the official Grand Opening of Spirax Sarco Thailand new office last 15th March 2019.

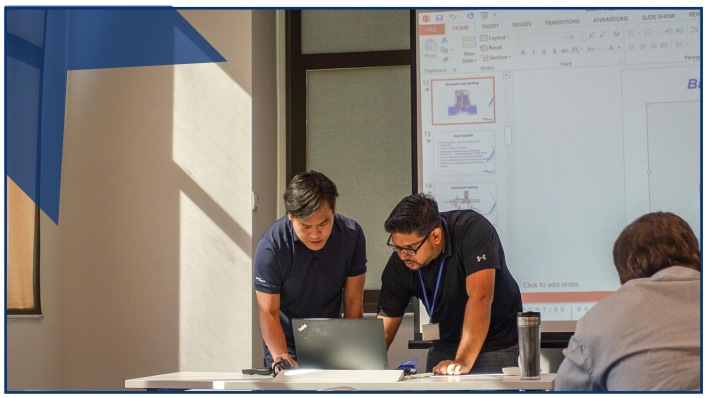
To officially open the office with warehouse located at Krungthepkreeta Road, 7km from Suwarnabhumi Airport. The team invited Mr. Neil Daws (Managing Director Steam Specialties, Spirax Sarco Ltd), Mr. Paul Lee (Divisional Director, APAC), Mr. Richard Yu (SEA Regional General Manager) and private guest list from APAC Leadership Conference (ALC) to attend the "ribbon-cutting" ceremony.

PRODUCT MAINTENANCE PRACTICAL TRAINING

WHO IS IT FOR?

Contractors, maintenance staff and facilities/operations personnel responsible for installation, operation, troubleshooting and maintenance of steam traps, condensate pumps, pressure and temperature control systems.

- Introduction to steam traps
- How steam traps work and Spirax Sarco steam trap range
- Hands-on study on different types of steam traps and condensate pumps (Installation, operation, troubleshooting and repair)
- Introduction to control valves & safety valves
- A hands-on study of control valves & safety valves (Installation, setting, operation, troubleshooting and repair)



STEAM AND CONDENSATE SYSTEM TRAINING

Who will benefit?

Designers, plant engineers, senior technicians and those involved in the day to day running of the steam & condensate services.

Objectives

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

Participants will learn about

- The fundamentals of steam
- Steam Distribution
- Steam Trapping
- Steam trap sizing & selection
- Estimating steam load
- Effective condensate removal
- Condensate Recovery
- Pressure Reduction

Date: 7 & 8 November 2019
Time: 09:00 - 17:00
Venue: Spirax Sarco Singapore

Scan Me to view more about training

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