

A win-win tie-up for baby wipes

While small and medium-sized enterprises (SMEs) may often view multinationals as unrelenting heavyweight competitors, collaborations between the two may well benefit both companies. Consumer goods giant Kimberly-Clark's vice-president of product supply in the Asia-Pacific, Mr Peter D'Silva, and the managing director of local SME Essential Engineering and Construction (EEC), Mr Lee Kwok Kuen, tell **Samuel Chan** how a recent partnership enabled the development of the manufacturing capability to make baby wipes.

Q What was the collaboration about and when did it start?

Mr D'Silva: This collaboration involved putting in a new production line for baby wipe products, or wet wipes, in Kimberly-Clark's mill in Tuas.

The partnership spanned the installation of the overall facility to the ongoing maintenance and servicing of the manufacturing process – an end-to-end partnership.

This collaboration started in August 2014 and we completed the project at the end of 2015. We were able to start our new line for baby wipes in 2016.

Mr Lee: Kimberly-Clark wanted to produce baby wipes which adhered to specific standards without problems in efficiency or design.

For this collaboration, we focused on the "wet" side of the manufacturing process.

We designed a system which purifies and sterilises water, before the correct chemicals are added.

The mix is blended and then applied to the baby wipes efficiently and in line with high hygiene standards.

At the same time, this process would be integrated with the other machines and operations at the Tuas mill, including the production of the dry materials for the wet wipes.

Q What did each party contribute to the collaboration?

Mr D'Silva: On Kimberly-Clark's end, we contributed the infrastruc-

ture required for the processes and also provided our uniquely patented material which is cut up and added with purified solutions to create the baby wipes.

We also shared openly on existing processes and problems our other plants are facing so EEC would know exactly what needs to cater to.

Mr Lee: For wet processes, bacteria and hygiene can easily become problems. We had the required expertise to develop a purified water system to maintain the necessary hygiene standards for the wet wipes.

Together with Kimberly-Clark, we looked at the newest technology in the market and evaluated options for the hardware and software that would be most appropriate for the manufacturing processes.

After accounting for factors such as cost and user-friendliness, we brought new components into the plant – for instance, the tankages which are needed in the purification processes.

We also customised the software and programmed it to suit the specific operations of the Tuas mill.

Our experience in the pharmaceutical and food and beverage industries also allowed us to maximise the quality of Kimberly-Clark's workflow.

For example, we provided input on technical details, such as tweaking the angles of the pipes to minimise the possibility of stagnant water and bacteria growth.

Q How did each party benefit from this collaboration?

Mr D'Silva: Since we started working with EEC, there have been many practical benefits.

This solution has helped to reduce production costs, in terms of material resources and manpower, by 21 per cent. Also, 25 per cent of man-hours have been saved as a result.

We wanted a cost-effective solution that was consistent with the operations in our other overseas plants so that any innovative practices developed could be transferred and scaled up at the other facilities.

In terms of the processes and the system, the solution that EEC has helped us develop is in line with what our other plants have done.

What is different, however, is that EEC delivered an upgrade in the level of automation, making it easy to maintain the system.

The manufacturing process for wet wipes is almost fully automated now, with a minimal number of production workers needed to run the entire production line.

By making our products more affordable, it increases our reach to



EEC managing director Lee Kwok Kuen and Kimberly-Clark's Asia-Pacific vice-president of product supply Peter D'Silva in front of the water purification system that EEC developed for Kimberly-Clark's new baby wipes production line. ST PHOTO: CHEW SENG KIM

more mothers and babies and makes us more competitive.

Mr Lee: This was our first job in the consumer product goods market so we managed to learn a lot about the stringent industry standards required.

Each industry has its own requirements so we had to adjust to suit the industry's documentation and regulation standards.

There was also successful skill upgrading for our employees involved in this project as well.

For instance, our employees underwent training in orbital welding for this project. This experience

can be leveraged for future projects and clients.

Also, with this project as a reference point, we expect new potential business opportunities in this area.

In fact, a particular supplier has approached us to work on its projects after it saw the good job we did on this one.

Q Why did Kimberly-Clark decide to work with EEC instead of a bigger firm?

Mr D'Silva: It was the flexibility of working with a local operator which was able to gather learning points from our existing plants and build them into its own process and create something customised and unique for our Singapore facility.

We realised the systems and processes multinationals offer would be very different from those we have at our other plants.

While the standard solutions they offer may be cost-effective, a lot of engineering, time and cost would be required for them to integrate a solution to our specific requirements and plant.

In addition, the specific specialisations that we needed from a partner, providing water purification technology and integrating entire workflow processes, were offered by EEC, making it a good fit to provide a flexible and cost-effective

solution for us.

Q What was the main challenge in this collaboration?

Mr D'Silva: The key challenge was making sure that EEC understood our requirements because the design and systems were very specific. Also, it had to understand our validation, inspection and documentation procedures.

We had to make sure that it was clear on what was required and what our needs were.

We overcame this problem by sending a team of experts down from the United States, which included engineers experienced in setting up new manufacturing lines, to provide training on inspection and documentation needs in order to meet our requirements.

One of the hardest problems of any project is getting alignment – once that is achieved, things become much easier.

Mr Lee: The main challenge was aligning ourselves to Kimberly-Clark's procedures, which took us some time because the volume of documentation and requirements was very large.

It helped that our team was adaptable and willing to listen and learn and see what they could do for Kimberly-Clark.

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21%

CUT IN PRODUCTION COSTS
AS A RESULT OF THE
COLLABORATION

25%

MAN-HOURS SAVED