



Metso steps up production

Since the beginning of April 2011, Metso's Flow Control business unit has started the move to the new premises in Finland, Metso Valve Technology Center Helsinki. The office building and new purpose-built factory will be the home base for more than 800 automation professionals. The official opening ceremony will take place this autumn. Valve World was invited to be the first magazine ever to have an exclusive tour of the new facility. We spoke to Mr Markku Simula, President Flow Control business unit, and Mr Mika Nissinen, Vice President Neles product line, and talked to them about the new facility, the reasons for the move and other important changes that have taken place since our last year's visit to Finland.

However, before diving into the story about the new facility, Mr Simula took us back two years, right to the centre of the credit crunch period. "Despite the uncertain market situation we went ahead with our factory investments in Finland and China which has proved to be an excellent decision. The Shanghai factory for example has been operating for more than one year and we are already getting full benefit from it. In fact, the capacity ramp-up has gone faster than originally planned as the factory is located in the middle of the fastest growing valve market. We are so glad that we decided to continue," he smiles. The move to the new facility has not been finalised yet, but first products are already leaving the factory and shipped all over the world. Mr Simula: "In last year's Valve World magazine cover story we announced the Helsinki investment that had been decided on, and some construction work had just started. We had a good idea then of what we wanted to achieve but the plans were still at the preliminary stage. The project proceeded according to plans and today the factory has partially moved. Currently we are still operating in the old location with plenty of activity there

but about half of the activity has been moved here, to the new facility." "There are two main reasons to build a new factory. Firstly, it gives us better production efficiency through the new manufacturing layout in the modern facilities, improved lead times and a new way of operating. Secondly, our strategic target is to become the best in class for product quality, on-time performance, and customer satisfaction. With our new factory I am convinced we will meet this target." In addition to the new factory and Flow Control headquarters in Finland and last year's start up of the Metso Technology Center in Shanghai, Metso's automation business also pushes forward with their other global premises. Says Mr Simula: "In North America we are also planning production improvement, similar to what we did here. We will expand our existing manufacturing and office facilities in Shrewsbury, Massachusetts. We can also say that we are already planning to build new facilities after North America. Currently we are increasing capacity in India – albeit on a smaller scale, but it's growing. The point is that we have carried out several major plans in the last couple

By Christian Borrmann

Metso in short

Metso is a global supplier of technology and services for the mining, construction, power generation, oil and gas, recycling, and pulp and paper industries. The company has engineering, production, procurements, services business, sales and other operations in over 300 units with about 28,500 employees in more than 50 countries.

Metso's automation business line specializes in process industry flow control solutions, automation and information management application networks and systems as well as life cycle performance services. Its main customers are energy, power and oil and gas industries as well as the pulp and paper industry. Automation business line is a part of Metso Corporation's Energy and Environmental Technology Segment. Metso's other business segments are Paper and Fiber Technology and Mining and Construction Technology.



(from left to right) Mr Markku Simula, President Flow Control, and Mr Mika Nissinen, VP Neles and Mapag product line

Metso Valve Technology Center, Helsinki

of years, and there are more to come. The message that we want to give out to our customers is that we are here to stay!" says Mr Simula.

Continuous development

However, apart from moving to the new factory and the advantage of

having almost everything modernised, like the new cryogenic testing facility for LNG industry, Metso is also heavily focusing on product development. "When we met last year, we talked about the intelligent emergency shut-down programme, Metso iESD. Since then we have significantly increased our coverage of SIL certified products." Mr Nissinen points out: "We have also extended our valve selection and sizing program Nelprof with new calculation modules. It can now be used to select Metso's automated metal- and soft-seated on/off and emergency valves with advanced actuator sizing. Special safety requirements, such as a complete valve-assembly safety-integrity level, can now be evaluated

with the SIL calculation module of the program. When our customers select a component, the software automatically calculates the SIL level of the valve package. It is easy-to-use, reliable and accurate," summarizes Mr. Nissinen. Having earned a good reputation in the area of Smart technology over the past 10-15 years, Metso has not ceased developing these products. For example, the company is just about to launch stainless steel versions of all their Smart products for safety and automated on/off duty. "Stainless steel products are targeted to oil & gas industry, which is an important market for us. So far we have received very positive feedback from our customers and there has obviously been a need especially for



The recently opened Metso Service Center in UK has the capacity and latest technology needed to handle large-scale shutdown turnarounds, general repairs, spare parts, training programs, Valve Management Solution, field support and diagnostic services. As in all Metso Service Centers, all repair and overhaul work is carried out according to Metso defined service procedures, and leaves the service center with certification and a standard warranty. The service center follows the quality and environmental procedures according to ISO9001 and ISO14000.

Wide range of services to support maintenance and turnarounds

The key element in successful and economical valve maintenance is planning. Metso has created a set of services to support valve maintenance and turnaround planning.

Metso offers support in **Criticality Analysis** and **Intelligent Field Survey** to help in defining the **Maintenance Plan** or scope for the turnaround. In Criticality Analysis, the valves are divided into criticality categories according to their effect on production, quality, safety and environment. A Criticality Analysis is made by combining maintenance and process knowledge.

Metso's **Valve HealthCheck** helps to analyze the valve diagnostics. With Valve HealthCheck, the valve diagnostics are analyzed regularly by a Metso Service Technician, and the condition of the valve is recorded and monitored to help reduce the risk of unplanned downtime.



One way to secure spare part availability is Metso's **Valve Spare Container**. A customized and pre-planned selection of spare parts is available for the turnaround, against a service fee. Any unused parts can be returned according to the contract, and charges are only made according to spare parts consumption.

Metso's **Valve Management Solution** is a systematic standardization of the installed valve base in cooperation with the customer. Currently, there are many customers relying on Metso's Valve Management Solution globally, and all of them have chosen to extend the agreement to a longer period with increased scope after having seen the positive impact on maintenance costs, and particularly, the positive impact on capital tied to the valve inventories.



Metso iESD - intelligent safety valves from a single manufacturer

the safety product in that area," says Mr Nissinen proudly.

"Next we want to take it all back to basics and set our goals high", he explains. "We want to get back to fundamentals on fugitive emissions, leakage technology and low noise technology –where we have ongoing development at the moment and

we expect to have new products for our customers in the coming time. We are looking to expand our product coverage especially for the oil & gas industry, so our company is now investing more into technology development." And Mr Simula adds: "Operating pressures are getting higher and applications are getting tougher.

This is basically good news for us because we are traditionally a valve provider for tough conditions. At the moment, we have three focus areas in our development. We have oil & gas, where we are putting more R&D effort, then we have emerging markets where the products that are needed are slightly different and the third is the

"The transfer of information and knowledge was the trickiest part."

During our sneak preview tour through the new facility, Valve World was able to talk to Ms Taina Rajala, Project Manager Flow Control. We spoke to her about the move and also some advantages of the new facility.



What is the advantage of the new facility?

Ms Rajala: The location of Metso Valve Technology Center Helsinki is logistically ideal. It is close to the Port of Helsinki, Helsinki-Vantaa Airport and two main highways. We moved first operations from the Rauhupelto area in Helsinki where they had been located for nearly 50 years. The layout of the new factory is based on a Lean manufacturing model. The idea was to improve production efficiency as well as make it possible to further develop quality, project management and delivery capabilities.

Do you have some figures for our readers?

Ms Rajala: The new factory covers an area of 23,000m² and an adjoining office building of 12,300m² houses domestic sales, project management, R&D, global service development, sales support as well as management and administration of Metso's Flow Control business unit.

What role does the new facility play for Metso?

Ms Rajala: The new factory plays a globally important role in Metso's network of high-class industrial valve factories. Others are located in Sorocaba, Brazil; Shanghai, China; Shrewsbury, North America; and Horgau, Germany. We have a strong know-how in product development and manufacturing special valves for demanding applications in the oil and gas, pulp and paper, refining and chemical industries as well as in power generation and bringing all this together under one roof in this new location, will help to increase our production and reduce lead times in order to better service our clients.

What was/is the most challenging part of the move?

Ms Rajala: For me the most challenging part of the move was the transfer of knowledge and information. But we solved this and were able to organize a smooth transition. Moving offices, was probably the easiest part. Unplug the computer at the old location and plug it in at the new.



Metso Technology Center in Shanghai

filling of the gaps in the current offered range. Metso is a technology company and will continue to develop products as technology advances."

The importance of service

Last year, Metso talked about their expansion of sales offices and, perhaps even more important, the expansion of their service centres. Asked how this worked out for the company, Mr Simula answers: "Our target is to triple our service head count in the next four years. In practice this means that we are setting up new service centres, the latest ones in South-Africa, France and in the UK, and we are setting up long term service agreements with customers. One example of this is a significant agreement we have set up with Petrobras covering 11 of their 13 sites, which obviously is an important breakthrough for us." Says Mika Nissinen: "In the beginning, our primary focus has been on servicing our own products but we are more and more getting into servicing non-

Metso products as well. We are setting the content of the provided services according to customers' needs. We can take care of all the services in the plant or, if the customer wants to handle the maintenance activities themselves, we help them by providing consulting services." "But service is service and we try to help our customer wherever and however we can," adds Mr Simula, "and our customers like that. That is also the reason why we have so many long term service agreements with companies from all over the world, similar to the Petrobras agreement. We always say that it should be a 'win-win' situation and with the service offering that we have built with our customers, it is truly the case which is why they stay with us." The important role of serving customers becomes visible when you look at it from a global angle. "We see service as a way of increasing market share in mature markets in North-America and Europe where not so many new investments are being made. In Asia project business is extremely

active at the moment but also services are developing rapidly. We will be there to support locally our customers wherever they need the help, be it our own products or products from other companies," Mr Nissinen explains and Mr Simula adds: "Basically, I guess you can say overall that service varies from country to country, and the same is true from customer to customer. However, strategically service is extremely important for our business."

A look ahead

"All in all, I believe we are set for the coming years. We still have some interesting and strong cards up our sleeves regarding future developments in order to complete our product range, be it valves or software, expanding our services, and improve our production even more. The new factory here in Finland, last year's opening of the Chinese factory, and our plans with North America, enable us to concentrate us even more on the most important part of our business: our customers," concludes Mr Simula.