

Interview with Dr. Erhard Reichel – Outsourcing leads to decisive cost and machine-availability benefits

# A Win-Win Option

Dr. Erhard Reichel has been with the Metallurgical Services Department of Siemens VAI since 1984. He is responsible for the global development of maintenance-services projects and has negotiated many projects of this type with customers worldwide. In the following interview he describes the advantages for producers to outsource their caster maintenance and also outlines a performance-based payment model.

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Dr. Erhard Reichel in a caster workshop

*For nearly 25 years now, Siemens VAI has served as a reliable outsourcing partner for producers with respect to the refurbishing of molds and slab-caster segments. Is outsourcing still a reasonable option for producers in times of economic downturn?*

**Dr. Reichel:** The slab caster is the single most maintenance-cost-intensive machine in the entire steel-making and rolling process. Maintenance costs account for approximately 50 percent to 60 percent of the total expenditures necessary for steel-plant maintenance. However, during times of low-capacity plant utilization, two matters are very important: low costs in general and low fixed costs in particular. Both criteria can be ideally fulfilled by Siemens VAI as an outsourcing partner.

*If this is so, why doesn't everybody decide to outsource slab-caster maintenance work? What are the main objections from potential customers?*

**Dr. Reichel:** Their arguments are both rational and emotional. For example, we sometimes hear, "If we outsource offline caster maintenance to Siemens VAI, they may take away our bread-and-butter business and leave me with the 'crumbs.'" Or, "Siemens VAI wants to make a profit, so how are they be able to provide the required services at lower costs than we can as an internal service provider?" And you also may hear, "If Siemens VAI provides the services that we are responsible for, we could get blamed if something goes wrong, or we may even be accused of incompetence!"

*What do your customers mean by “bread-and-butter business”?*

**Dr. Reichel:** The repair work of caster molds and segments is an ongoing and continuous activity. A number of maintenance craftsmen are always busy with the same repetitive repairs. Most of the other repairs within a steel plant occur at a far lower frequency. Such repairs cannot be regularly scheduled and are therefore not part of a normal mid-term maintenance program. For a plant maintenance manager who has to “sell” his services to operations, it’s understandable that he prefers an assured capacity utilization.

*I see your point, but are the managers right or wrong from an economic viewpoint?*

**Dr. Reichel:** Generally, and especially in times of an economic downturn when production rates are down to between 50 percent and 80 percent of capacity, producers have to minimize fixed costs and convert as many costs as possible to variable costs. To keep a high utilization of personnel capacity would be an outdated approach.

*O.K., that sounds logical, but how can Siemens VAI provide services at lower costs being that Siemens VAI needs to make a profit as well?*

**Dr. Reichel:** The more often one does a job, the more efficient one gets at it. Sixteen Siemens VAI offline-maintenance workshops look after slab casters, which together cast a total of around 60 million tons of steel per year. This means that in a typical year we partially or completely refurbish around 600 caster molds and 120 benders – or “segment zeros” as our competitors call them – and so on. This know-how allows us to identify the ideal solution even where the smallest improvement potential exists. Our business objective is to provide services at a lower cost per ton of cast steel than our customers can achieve themselves.

*How are you able to do this?*

**Dr. Reichel:** You get your cost-per-ton figure by dividing the offline maintenance costs by the tons cast on a slab caster. How can you improve this calculation? By reducing the numerator. This means that the most efficient way to reduce maintenance costs is to reduce the number of mold and segment repairs required. We achieve this by applying special repair technologies and by using spare parts and materials with an increased service life.

*But doesn’t this mean that these components are much more expensive? How can you reduce costs this way?*

**Dr. Reichel:** Every mold or segment includes a particular component or part with the shortest service life.

This then defines the service life of the entire mold or segment. We therefore focus on finding solutions that extend the lifetime of that part. This can include, for example, choosing a different part or redesigning the part, or by applying wear-resistance coatings that can extend the service life of the unit. These solutions are then tested several times before being applied on a standard basis by our workshops. And of course, each solution must ultimately withstand the test of whether it reduces the cost per ton or not.

*Isn’t this type of continuous improvement done by the maintenance department of every producer?*

**Dr. Reichel:** If every maintenance department had the same resources that we deploy for developing solutions, they could theoretically do this. But in actual practice, it is a question of costs and the availability of qualified internal and external personnel resources, which is usually problematic for steel producers. Furthermore, time-consuming approval procedures are necessary in large enterprises, which hinder maintenance engineers from pursuing all interesting improvement possibilities. Siemens VAI has structured its maintenance services as a network of small- and middle-sized enterprises, which regularly exchange experience and know-how, and which closely work together with the design offices of our caster competence center.

*The logic of the outsourcing concept is quite clear, but how do you convince the responsible personnel when emotional reasons are involved?*

**Dr. Reichel:** Well, we present our win-win business model and then we invite the customer to talk to other customers of ours who have outsourced. This normally removes any remaining doubts. The win-win model is based on a compensation scheme for our services, where payment is almost entirely based on the actual tons cast by their slab caster. If the customer produces more, then he pays more. If fewer tons are cast, he pays less. A fixed amount is paid for each ton of cast product. So our payment and success is fully dependent on the results. In this way, our customers are assured that we do everything possible service-wise to assure maximum caster performance.

Interview with Dr. L. Gould on March 25, 2009. ■

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