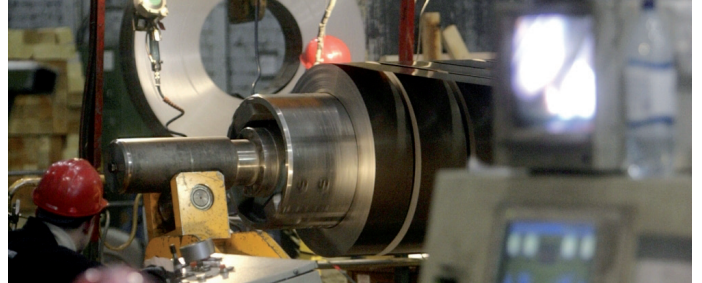


## Improve productivity through maintenance revolution Implementing sustainable maintenance culture and systematical methodology

ABB Full Service® improves plant and financial performance.

“Our cooperation with ABB has turned into a fruitful partnership with one common target – to produce our product in the most cost-effective way! We are satisfied with the cooperation with ABB and hope that this partnership will continue in the future as well.” Andrey Alexeyev, Board Chairman, JSC Severstallat



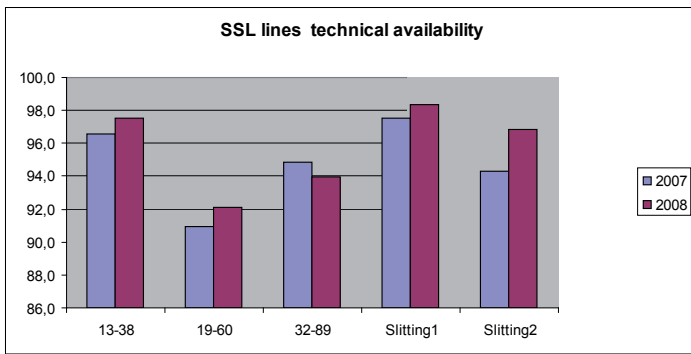
Technical availability improvements are visible at Severstallat production.

Severstallat SSC, a metal products manufacturer in Riga, Latvia, realized that a dramatic increase in the plant's productivity is crucial to meet the market needs. The core of the problem was the poor condition of the production machinery, a result of the lack of maintenance. In 2006 Severstallat decided to lean on ABB Full Service® in order to meet the industry standards.

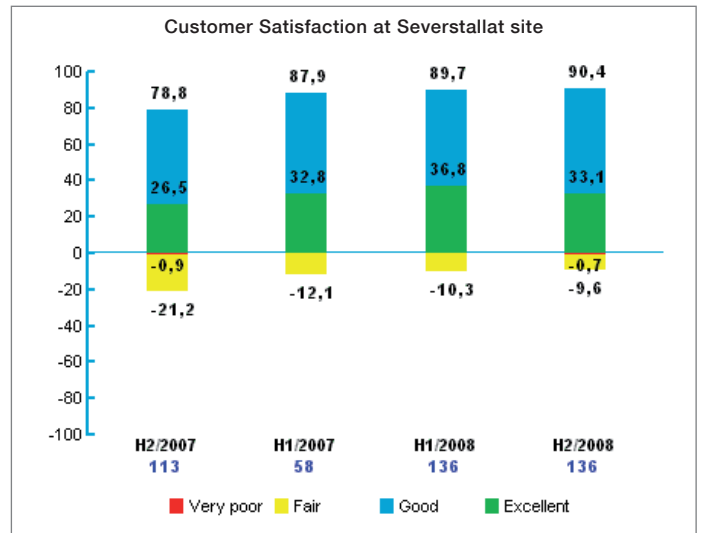
### Tackling low production efficiency by choosing ABB Full Service®

Since starting the production operations, Severstallat soon experienced that low production efficiency was causing weak performance, and actions had to be taken to improve the situation dramatically. The main problem was identified to be the poor condition of the production machinery. As a result of this, an immediate decision was made to take the level of maintenance to meet the industry standards and above, if possible. The maintenance evaluation process resulted as a decision to form a maintenance partnership with ABB in 2005. One year later, in 2006, the Full Service agreement was signed, and ABB immediately took over the maintenance management and personnel.

In 2006, the ABB Full Service® concept was introduced at the plant. The first step before taking over the maintenance responsibility was to analyze and map the competencies and skills of the maintenance personnel against the required levels. This kicked off the training program to fill the missing gaps in competencies. Consequently the competence gap analysis resulted in transformation processes, which lead to hiring



SSL lines technical availability		
	2007	2008
13-38	96,6	97,6
19-60	91,0	92,1
32-89	94,8	93,9
Slitting1	97,5	98,4
Slitting2	94,3	96,9



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new people to meet required site competence levels. Eventually, 40% of the original maintenance crew remained also in the new maintenance personnel. The second step was to bring in capabilities to carry out the concrete maintenance activities. New hand tools and programming software together with various other maintenance methodologies, such as root cause analysis (RCA), preventive maintenance program, and spare parts management, were introduced and implemented at the site.

#### Achieving good results through maintenance partnership

The new maintenance concept introduced results already during the first year. As can be seen in the graphs below, the key performance indicators, such as employee satisfaction, customer satisfaction and technical availability, have been rising constantly, and can be considered good after 2 years from the start.

ABB Full Service® team of 16 people executes the predictive, preventive and corrective maintenance in close co-operation with the Severstallat operators. Monthly follow-up meetings concentrate on analyzing the KPIs, root causes of failures, and planning of the maintenance activities for the coming weeks based on the production requirements. The concrete driver for mutual targets for Severstallat and ABB is the common bonus system, and well performed maintenance resulting in customer success benefits ABB and the maintenance crew in the form

of transparent bonus. The results of previous periods and main targets based on Severstallat development plans are discussed and agreed during the annual maintenance strategy meetings with Severstallat management. ABB's maintenance crew and the management are continuously training themselves not only in specific technologies, but also in maintenance and maintenance management technologies and concepts.

#### Excellent results

- Reduction in maintenance cost per ton
- Increased technical availability
- Improved maintenance personnel competencies
- Arranged proper spare part stock, Critical spare part analysis
- Improved customer satisfaction

#### Delivering high-quality service

- Maintenance of production plant
- Spare parts management
- Engineering for production improvements

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