

OAO UVADREV: Excellent performance under extreme conditions, or: Attempting the impossible to achieve the possible

→ By Joachim Galinski

"Attempting the impossible to achieve the possible" is the motto of Vyacheslav Nikolayevich Serov, owner of the Uvadrev company and an institution in the Russian wood-based materials industry. The Russian wood-based materials industry has only a few players. Vyacheslav Serov is one of them – a bold entrepreneur with great vision and a heart just as big.

**The swampy terrain
had to be made
loadbearing with
almost 3,000
concrete piles.**

In a place where the summers are short and the winters indefinitely long and very cold exactly such people are needed. In precisely such a place a large and ambitious investment project was to be implemented. Vyacheslav Serov decided in late 2012 to significantly expand the capacity of its particleboard plant. To do so, he ordered from Siempelkamp a completely new particleboard plant with a yearly capacity of more than 300,000 m³.

The Uvadrev company is located approximately 1,000 km (621 miles) east of Moscow between the rivers Kama and Vyatka in the Russian Republic of Udmurtia. The city of Ufa, situated in the Volga Federal District of the

Russian Federation, has just under 20,000 inhabitants. In 1922 the first forest base was established here which was connected to civilization in the 1930s by a railway link. For the economic development of the area this was of enormous importance.

Today Ufa is a center for the forest and wood-processing industries, including several European companies who settled here several years ago. In winter temperatures of -40°C (-40 F) are measured in this area. With -31°C (-23.8 F) it was altogether 9 °C warmer when the construction and installation works for the new particleboard plant were already in full swing in winter of 2013/14. Normally, under

Installation works for die-hard people – in the depths of the Russian winter





Installation works on the Büttner drum dryer

such climatic conditions, all outside work is discontinued and postponed until temperatures warm up. This was not the case at OAO Uvadrev because the date for the start-up of the new particleboard plant was fixed in the calendar at contract conclusion.

The new production was scheduled to run at full capacity in spring 2015. In 2015 the company was to celebrate its 80th anniversary and this event was supposed to be crowned by doubling the existing production capacity to 500,000 m³ annually.

So everything was being subordinated to this objective. The tight time schedule was ambitious, there was no room for planning errors. "Attempting the impossible to achieve the possible" Vyacheslav Serov was personally involved. He demands everything from his team; even the suppliers are asked to commit to the company's objective. Vyacheslav Serov shows personal commitment, he is present at the construction site every day. Even though his team is experienced and dedicated, he is an example to his employees and his advice is welcome.

The swampy terrain had to be made load-bearing with almost 3,000 concrete piles. Factory halls with an area of more than 10,000 m² as well as almost 3 km of support structures for mechanical and pneumatic conveyors had to be built. A highly motivated team performed this task with ease. When the machines and equipment arrived, everything was ready; a well-coordinated team was available for the Siempelkamp installation

specialists waiting for the next challenge. These conditions were a good foundation and indispensable prerequisite for the successful installation and start-up of the new equipment.

Since the new equipment had to be integrated into the existing infrastructure of the old plant, continuing the ongoing production and utilizing the existing production machines in a trouble-free manner during the installation represented a special challenge. Each planning error would be twice as bad. Not only could

Thermometer at the head office at Uvadrev:
-31°C (-23.8 F)



the production capacity of the old plant be jeopardized but also the installation of the new production line could fall behind, or even worse, both could happen at the same time.

Professional 3D planning – the optimal foundation

Wie gut, dass sich Siempelkamp auf seine belgische Tochter Sicoplan als kompetente Instanz für solche Planungsszenarien verlassen kann. Durch die gewohnt professionelle 3 D-

Fortunately, Siempelkamp can trust in its Belgium subsidiary Sicoplan as a competent entity when it comes to such planning scenarios. Through the usual professional 3D planning of the project, the team was aware of all local conditions ahead of time. Existing production facilities and other buildings were considered and served as a planning basis. In this way, planning errors were eliminated in principle, possible conflicts with existing building components were recognized and resolved.

possible" Vyacheslav Serov personally looked after this project and has once again reached his objective.

The Generation 8 ContiRoll® press with a length of 30.4 m and a production width of 6' is the heart of the plant. This high-tech press alone with its innovative pressure distribution plate concept not only saves up to 15% in material and energy but also guarantees a top quality of the produced particleboards including



30.4 m long ContiRoll® press line inside the production hall



Vyacheslav Serov (3rd from left) and his team visit the new production line

The future of the location is on a solid foundation.

The dictum "The best was intended but everything turned out differently", which is often used in Russia, should therefore never be said in Ufa.

As always, spring once again arrived late in Ufa in 2014, however, the new plant was installed and ready to be started up. The new ContiRoll® had its big day on March 25, 2014. After just seven month of construction, the press was officially started up and named Jaroslav after the grandson of the owner. "Attempting the impossible to achieve the

unparalleled mechanical properties and enormous capacity reserves.

Together with the Russian installation teams, the Krefeld specialists installed a complete production plant for particleboard in record time. And best of all, ranging from the log-yard to the sanding line, chipper, flaker, silos, sifters and screens, to the particle dryer, the resin kitchen and resin blending system, to the forming and press line, and to the finishing line – everything was supplied from a single source!

Multi-cyclone of the chip dryer



Next, the performance checks and the start-up first without and then with material followed. The goal was in sight. Just as planned, the ramping up of the production took place. Early hiccups were quickly overcome and the 80th company anniversary could be celebrated. The future of the location is built on a solid foundation.

"Attempting the impossible to achieve the possible." – his plan succeeded. Today Vyacheslav Serov has a plant that produces 30% above the guaranteed production capacity every day – and all that while offering highest plant availability and best board quality. Almost the complete scope of supply for the new plant was supplied by companies from the Siem-

pelkamp Group. It includes components which were not only developed to save resources and energy but, most of all, to supply high quality wood-based products which provide high competitive advantage in their markets.

The Siempelkamp team is proud about the successful implementation of this order. It became possible through the constructive cooperation of all areas of the company. Siempelkamp can be counted on even when it comes to very complex and sophisticated projects, even at -31 °C, in the middle of the Russian winter, not far from the Ural Mountains.



The Ecoformer SL had its premiere. For the first time, this system is integrated in a production plant at Uvadrev. This innovative surface layer wind former provides for homogeneous distribution of the surface layer particles while, at the same time, reducing material and energy consumption. The absolutely smooth surface now makes the use of especially light papers with delicate colors and intricate designs possible.

The completed installation of the ContiRoll® is celebrated

