

Hard to believe

Using ceramic grease saves lubricants and money

By using ceramic grease, the Swiss BVG AG pledges to bring lubricant consumption in pellet presses down by 95%. Hearing that message for the first time one might think of charlatany rather than of a reputable business model. Pellet maker Tschopp Holzindustrie, Buttisholz/CH, was among the first to venture new grounds. The results are impressive.

 Günther Jauk

For more than a year, Rüdiger Heller of the BVG AG had to wait for an appointment with Tschopp operations manager Stefan Zimmermann. In retrospect, Zimmermann is glad that Heller was so persevering. Again and again, the entrepreneur hit a "stone wall" when trying to place his product - rejection that to a certain extent he can understand. „I would be more than sceptical myself if someone promised to me the sheer unimaginable. Thankfully, there are courageous entrepreneurs such as Tschopp out there who are not afraid of innovation.“

The secret of Bathan KF7/60M, as the type designation of the ceramic grease reads, is easily explained: Ceramic particles fill up microscopic asperities of the metal surface which brings about a smoothing effect. Smoother surfaces in the bearings bring down both temperature and lubricant consumption and also prolong service life.

Service life quadrupled

Founded in 2010, the BVG AG originally sold ceramic oil additives to the construction industry. One day, a customer asked Heller if there was such a thing as a greasy bearing lubrication in his product range. Heller had to turn him down, but immediately began to develop the desired ceramic grease. Bathan KF7/60M has been on the market since 2012 and is gaining attention among potential customers.

Switzerland's largest pellet producer Tschopp Holzindustrie ideally showcases the advantages of the ceramic lubrication. Previously, the time elapsing between two grease injections in the roller bearings of the press was 335 seconds - today it is as much as 6720 seconds. In terms of kilograms of grease, this means a monthly reduction from 180 kg to 9 kg per press. At the same time, the service life of the roller bearings increased from an average of 1,000 to 4,000 hours. „And even after 4,000 hours, the bearings were not worn out, but only the shells bent“, Zimmermann noted with great satisfaction. Yet not

every operator will reach that kind of a prolonged tool life. „It depends on the quality of the bearings you use and many other factors“, says Heller. Hasslacher, Preding/AT, has found his roller bearing service life to increase from 2000 to 3000 hours.

Longer service life means more operation hours and fewer workshop hours. More output with less revision also brings economic advantages. Even though with €90/kg, Bathan KF7/60M costs several times the amount of conventional lubricants, but at the end of the day it still brings considerable financial benefits, according to Heller and Zimmermann. „All in all, we are saving a sum in the higher five digits, if not in the lower six digits“, says Zimmermann. With his three presses, Tschopp currently produces 60,000 t/yr of pellets - in a plant with a capacity of 90,000 t/yr. Apart from the low lubricant consumption and longer service life, Zimmermann's calculation also takes into account reduced repair and maintenance costs and higher reliability.

Another advantage Heller sees in his product is its improved ecological footprint: „Especially with an eco-friendly product such as wood pellets, environmental awareness plays an important role.“ After all, 171 kg less average consumption of lubricant at one press per month will come to 6.2 tons less over the stretch of a year. //



The ceramic grease KF7/60M can be used in every pellet press without modifications to the equipment



The service life of such a roller bearing was quadrupled in Tschopp's plant

Happy faces: Tschopp employees Hansruedi Jordi, Tschopp operations manager Stefan Zimmermann, BVG CEO Rüdiger Heller and Tschopp deputy operations manager Silvan Gerber (from left)

