

Computerised dosing system makes road marking easy

As a road marking machine operator, Per Trinderup found that variations in paint viscosity or machine speed made road markings uneven. So when his employer, Viborg municipality in central Jutland, Denmark needed a new road marking machine, equipment from Danish company Borum was high on Per's wish list.

Summer is a busy period for road maintenance in Denmark, especially for road markers. Before the road marking machinery can be rolled out, the roads have to be dry and the surface temperature above 5 degrees Celsius or the paint will not dry. And with temperatures rising up into the high twenties during the day, the viscosity of the paint changes from thick to thin, which makes applying a uniform layer of paint difficult. So when the time came to buy new road marking machinery, Per contacted Borum.

Borum's road marking machines have a computerised dosing system, the BM Uni Auto Feed. This ensures an even paint dosage – regardless of temperature, speed, or road surface. And the air pressure system that operates the pumps doesn't involve any mechanical parts, so the equipment has a long working life.



Picture 1: Per Trinderup working on his Borum machine.

Exact dosage every time

The dosing control feature had Per sold. “The dosing system is much more exact than on our old machine. Variations in temperature are no longer a problem because the flow is adjusted according to the viscosity of the paint, which gets thinner as humidity and temperature rises. So it’s incredibly easy to use.”

And with the air pressure system, the pressure on the dosing system adjusts according to the machine’s speed. This makes Per’s job much simpler. “If you slow down when you’re going past a driveway, the pressure eases off the dosing system so that the same amount of paint is applied,” says Per. This also makes it easier to train new machine operators. Per adds, “When you’re starting out, you can drive slowly to begin with, which makes it much easier to learn to use the machine. This is a big advantage.”



Picture 2:

The pump mechanism includes neither pistons nor gears. It is an air pump, driven by air pressure without involving any mechanical parts at all – a simple construction which gives the BM Uni Auto Feed a very long working life.

In addition the know-how acquired from job to job remains stored in the computer, making the system easy to use – even for less experienced operators.

A computerised calibration programme also makes it easy for Per to change paint type or supplier. When activated, a calibration test applies the paint at different pressures. This information is measured on a curve and can be stored in the computer’s memory. When the new paint is used, the computer knows exactly how much pressure to apply to give the perfect road marking.

Cuts paint consumption

Per recommends Borum road marking machines to others. “Without the BM Uni Auto Feed, you’ve got no chance of knowing how much paint you use. And there is no better way to control the paint dosage. It may cost a bit more, but this is soon earned back in paint savings,” says Per.

Both Per and his team of machine operators in Viborg municipality are very pleased with the Borum machines. So next time you find yourself in Viborg, check out the uniformity of the road markings.