



Joskin juggernaut

Words and images by Jaiden Drought



A 20,000L Quadra tanker gets a final check over



A trans-space dump trailer makes a big impression in the showroom



The two-storey showroom has an example of each type of machine Joskin makes and the flag of every country it exports to

Jaiden Drought was lucky enough to be sent overseas recently, to give readers a behind-the-scenes look at a manufacturing giant.

On a glorious day in May, five of New Zealand's finest ruffraff, assembled by FarmChief, left for Europe on the trip of a lifetime — and if it's true that laughter is music for the soul, we had some outstanding vinyl on the wireless.

Making up the group were Raymond 'Razor' Copland, Graeme 'Elvis' McRobbie, Matt 'Euroliner' Lovett, Eddie 'Dark Horse' Rabbit, and myself, Jaiden 'the Sharp-dressed Man' Drought.

The trip

We ventured into Belgium with our tour guide, Christophe Bultot (export manager for Joskin), who also ended up being our translator. As Belgium is nestled in between Germany, France, and the Netherlands, so English is well down the list on the translation card!

Joskin's company motto is 'quality without compromise' and having tested a bit of its gear, I am confident this is not just marketing spiel — and to witness this in motion at the factory was something all of us thoroughly enjoyed.

There are three things about the Joskin factory that were particularly impressive. Firstly, everything is made in house. This has come at a massive expense to the company, although this allows it to keep the quality all the way through the build, so it can offer such buying incentives as three-year warranties on machines.

Secondly, the parts and component storage in the facility is really impressive. The majority of the components and all of the parts are in massive computer-controlled racks, which does away with forklifts, ladders, and looking along the aisles with a hand-held computer and a confused look on your face. Just type what part you want into the computer and the computer will bring the shelf to you, and you simply take as many pieces as you need. There are 900 racks. Each rack has three tonnes of storage and is fully automated. The steel is also stacked using this system.

Thirdly, there is a high level of attention to detail. Every machine is checked twice before it goes out of the factory. This happens at two separate stations, which include the machine being hooked onto two different tractors to ensure everything is perfect, which allows Joskin to offer a three-year warranty. If the machine is being exported in a roll-on/roll-off situation, it stays as one piece. If not, it's completely disassembled and placed in containers.



A jumbo filling arm equipped with turbo filler is assembled



The drawbar is attached to a Modulo 2 machine



Tank rolling in progress



The rear four-point linkage and mounting points at the top of the tank are pre-equipment for a rear attachment, such as a dribble bar



A Modulo 2 machine equipped with silo-disc injector fitted is ready for delivery

History

Not many people know this but Victor Joskin set up a machinery dealership in 1973 and it still remains the dealership for Fendt, Massey Ferguson, JCB, and Yamaha motorbikes. After 10 years in business, Joskin started producing machinery with the first Joskin Slurry tanker in 1984, a 5500-litre model delivered to the Netherlands.

Joskin recently celebrated 40 years in business and 30 years manufacturing. The local community has supported the business over the years, helping it grow to where it is today.

In an effort to repay the community, Joskin offers local school children welding tutorials in the factory, teaching them practical skills so that one day they can work in the Joskin factory.

Joskin also imports and distributes machinery under DistriTECH, a company-owned business which includes Hardi, Quicke, Krone, Monosen, Sulki, and Strautmann.

The factory went through a large expansion, with a massive covered logistics and distribution area added for both Joskin and DistriTECH spare parts, which again is equipped with the automated rack system.

Interesting factory facts

- When Joskin has a prototype idea or machine, it goes through three stages before it is ready for mass production. This is to ensure enough time has been spent in both the factory and during field trials to find any potential weak points in the machine, or to explore any further enhancements so when it does hit the market, both Joskin and the customer are satisfied with the machine.
- All final welding is done by robotic welders on all Joskin machinery for quality assurance. The robots use 250kg rolls of welding wire and will weld a 100mm-200mm strip (depending on the complexity of the machine) on both ends one after the other. This is done so the heat doesn't warp the metal. Additional robots are used for welding some small precision parts. The robot automatically cleans its welding tip after a certain time period to stop the build up of welding debris and compromise the welding quality.
- A computer on the profile cutters models each sheet to get the maximum amount of parts from a single sheet.
- A six-hundred-and-fifty-tonne CNC brake press is used for pressing the shaped bodies, such as on the KTP tip trailer where the top and bottom move to create the shape from a single sheet, maintaining rigidity.
- Steel flattening machines are also used on critical pieces of equipment, such as macerator bodies and tail doors to ensure they are perfectly flat.
- Chassis and filling arms are manually welded. For this, Joskin uses 360-degree



An 18m travelling shoe application ready for attachment to a waiting tanker



Win Pack stock machines lined up



A Quadra tanker nears completion

A Tornado 3 muck spreader before painting



A Euroliner chassis is fitted out before the tank goes on



A Drakkar trailer on display in the showroom



“ Joskin slurry spreaders are available in 73 basic types and can be fitted with more than 700 options...”

welding jigs that allow workers to place the machine in the optimum position for the best quality weld, increasing productivity.

- The Soumagne factory we visited aims for 2500 per year to roll off the production line to keep up with worldwide demand.

Paint

All the steel is 1800kg, shot blasted with steel pallets to remove any impurities, followed by two coats of paint, and then oven-baked to ensure a quality finish.

Moving parts, such as axles, are not shot blasted due to the water and pallets being able to get stuck inside the moving components, rendering them useless, so these are two-pack painted to create a nice finish without damaging the components.

Tanker assembly line

The assembly line is split into two sides for increased productivity as components can be placed closer to the machines during the various stages of assembly.

The left-hand side of the building is the more basic tanker, called the Win Pack, which Joskin continues to manufacture. Even if demand isn't as strong as supply, these tankers will be kept as stock machines. These machines are either single or tandem axle, from 6000 litres to 18,000 litres, and are what Joskin calls a 'basic spec' with mudguards and pre-equipment for a jumbo filling arm. These machines can easily have additional equipment added, such as a filling arm, and if it has the rear buttress, a dribble bar or injectors can be added later, making them very versatile as stock machines.



The new building was so big, even seven tractors and a Big X chopper don't even take up one bay

On the right-hand side of the building are the more sophisticated tankers, which have usually been spec'd by the customer in a particular fashion. Joskin slurry spreaders are available in 73 basic types and can be fitted with more than 700 options, which equates to tens of thousands of possible combinations. All triple-axle Euroliners, dorsal booms, articulated arms, turbo fillers (just about anything you could dream up), which require electro hydraulic valves to control the various tankers function, are assembled on this side of the building.



Strautmann machines lined up for delivery



JCB machines await their PD inspection

Some things worth mentioning

Some very complicated and interesting flow meters were being placed on a tanker, with the contractor charging out per metre cubed, rather than an hourly rate. The six-inch electronic flow meter on the rear ensures accurate flow at any time, regardless of speed. The spreading remains uniform, thanks to the device that adjusts the flow in proportion to the forward speed. This works by the flow meter constantly measuring the slurry injection flow while sensors, located at the wheels, measure the driving speed. By interpreting this data, a computer will work out the slurry volume for charge out.

Joskin is now offering a 250mm-diameter filling arm to reduce tanker filling times. The new, larger diameter arm is compatible with Joskin's contractor spec slurry tankers, which are often fitted with high flow vacuum pumps. As well as being larger in size, the arm has the ability to be double articulation and features a telescopic extension so it can reach depths of up to four metres for above-ground tanks.

Summary

It really is almost impossible to describe the size of some of these buildings and how impressive both the build quality of the machines and the intelligence of the automated parts system really is. I have tried to give examples of advancement in the slurry technology that's helping keep Joskin one step ahead of its competitors, and honestly, there isn't much the company hasn't thought of – and the size is simply awe-inspiring. I'll let the pictures tell a thousand words and you can draw your own conclusions. ■



A 22,500L green-with-grey chassis machine sits on the second floor of the showroom



A 10" articulated arm on a Green Euroliner machine packed with all the goodies

