COMBINED AUTOMATIC PRINTING AND ASSEMBLY MACHINE ONE OF ITS KIND

GRAUEL: 100% OEM, 100% AAE

With Grauel, AAE has a pure OEM in house. ‘A gem of an OEM,’ stresses William Pijnenburg, Director and Owner of the Helmond Group. ‘We take care of the head and tail, while the rest is outsourced. It’s an ultra-innovative club that develops printing and assembly machines, puts them together, and markets and services them worldwide in two markets: medical and pharmaceutical. And this is complementary to our two other business units, all of which reinforce one another.’

BY PIM CAMPMAN

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AE took over the German printing machine company Grauel in 1995. A small department was kept in Berlin that focuses on improving and selling inks, printing plates, etc., while assembly was moved from Berlin to Helmond, where AAE’s knowledge and expertise in the development and building of high-tech machines and modules (Proto/Mass Production business unit) and components (High Precision Parts business unit) are located.

GRAUEL OPENS DOORS

Since then, Grauel has formed a separate BU within the AAE Group, with Ruud Schenning as BU Manager. In 2000, he was assigned the task of ensuring a smooth move and integration – and of ‘making it work’. A name change was never an option. ‘The name Grauel has been a major and trustworthy name in printing machines, both in Germany and abroad, for more than 130 years,’ he says. ‘We export to more than forty countries under the Grauel name. It’s an asset that opens doors and which we therefore cherish.’

The cross-pollination that occurred after the move to Helmond has resulted in something that makes the AAE Group unique in the world, namely machines that combine two functionalities. They assemble disposables for the medical and pharmaceutical sector, such as syringes, blood bags, pipettes and blood collection tubes, and print them – in a single process flow and, if desired by customers, at high speeds of 450 or more items per minute.

SPIN-OFF IN AGRO-FOOD

AAE has for some time now applied the know-how acquired also in the agro-food sector. Schenning continues, ‘The common denominator is that we’re talking about customers that produce in bulk 24/7 and market segments with high regulatory and other demands in terms of process reliability, product safety and so on.’ To which Pijnenburg adds, ‘It’s the agro-food sector all right, but no living products. No hot dogs or croquettes – no herring either. We once developed a roll-mops machine. The whole place smelled like herring. We won’t be doing that again.’

A more interesting – and odourless – project currently underway is a machine to make ‘glass stoppers’ for wine, olive oil and any other types of bottle. Pijnenburg continues, ‘Cork is being phased out, plastic corks are a no-no because they contain plasticisers, and wine with a screw cap needs to be consumed within a year. So there is definitely a market for ‘glass’ corks made of ‘green’ materials. Around 35 billion wine bottles are bottled each year…’

STEPPING STONE TO GROWTH

Back to the Grauel portfolio. Schenning continues, ‘Our unique selling point is that we are genuine experts in both printing and assembly. Go looking for an assembly machine in Germany and you’ll discover ten companies that can make one. But if you look for a printing machine, the pickings are a lot slimmer. You’ll end up with a Grauel in no time. And what else will you discover? That Grauel also supplies combis, i.e. machines combining both functions, with all the advantages these provide: 24/7 production, faster production rate, less chance of errors, less space usage, and so on. It’s been tremendously successful. And this results in business relationships in which the customer is open to all the other things that we have to offer: prototype and mass production, laser welding and cutting, 3D printing and a cleanroom (ISO class 7, ed.) where we can make proofs under virtually the same conditions as they do, something our competitors cannot do. So Grauel is a stepping to new customers for the group, one that prevents us from solely fishing in the Eindhoven high-tech pond.’

CUSTOMER-SPECIFIC MACHINES

An added advantage is that AAE/Grauel not only knows what it takes to meet the guidelines for the medical/pharmaceutical industry, particularly the requirements of the American Food and Drug Administration (FDA), but has also developed a routine for this. Schenning explains, ‘It’s an enormous hassle. This FDA validation process takes a huge amount of time – and it easily accounts for ten or even twenty per cent of the cost price of
your machine. But companies that offer this are few and far between. This gives us an edge and a good position in the American market.’ But that alone is not enough to stay ahead in the world, says Schenning. ‘The machines we currently produce are all customer-specific. Almost no two machines are alike. In many of the Grauel machines, we use basic principles already applied in the past. The software, for instance, is modular, which simplifies assembly. All the same, we often need to carry out between 500 and 1,500 hours of engineering for each project.’

ENGINEERING AT YOUR OWN RISK
In addition to customer-driven engineering, the AAE Group devotes considerable time and energy to trend-driven development.

‘The Grauel name is an asset that opens doors and which we therefore cherish’

Schenning explains, ‘It’s based on market trends and customer needs, but not without risk. Our horizon is that, if we do it right, we have an edge – and that will pay off.’ An example is the short inking system developed in-house. What it boils down to is that two printing techniques – dry offset and flexo – are integrated into a hybrid machine that applies the right layer of ink to ensure a more attractive result with greater contrast. ‘We’ve already got that far; the next step is to get it to print 450 or 600 products a minute.’ Another challenge was to develop a machine that could print round objects, such as prefilled medicine syringes, 360 degrees around and in several colours and with information on the filling date, expiry date, necessary codes and so on. ‘And at a rate of 200 or 250 syringes a minute and with a camera that checks to make sure everything is readable. That, too, has been accomplished, so that we could then focus on the next challenge: image recognition/inspection, 360 degrees in continuous motion with a rate of 450 items per minute.’ This, too, has been accomplished with success. Parties that need, say, 50 million items a year can improve their efficiency considerably with this type of advanced flow machine – and lower their costs significantly. For customers who require smaller quantities, Grauel offers other solutions, like robots (slower and highly flexible) and tacking, indexed solutions (products a minute).

INTERNAL AND EXTERNAL SUPPLIERS
What it all comes down to is that Grauel is a genuine OEM: all engineering, assembly/testing and sales & service are done in-house, while the rest is outsourced. Schenning continues, ‘On the parts level, we outsource to selected suppliers whom we trust and can measure, and who can deliver within four weeks with all associated measurement data.’ These suppliers could be in Asia or ‘around the corner’ in the Helmond region. We also ‘insource’ to AAE sister business unit High Precision Parts. ‘Especially when it comes to complex components or if we need something right away.’ But, he adds, this is anything but a truck system. ‘That would be fouling our own nest. No, their price must be competitive, too.’ Pijnenburg concludes, ‘Grauel is countercyclical with our other activities. If Grauel is up to its ears in work and our other BUs aren’t, we can take care of things in-house – and then that price will be all right.’

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