

Digital printing mix for Gruppo ASA in San Marino

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Innovative canmaker Gruppo ASA is pioneering a newly-developed digital printing system to complement the high-speed Metalstar 3 decorator recently commissioned at its San Marino plant.

Gruppo ASA has been working with Intesa, part of Italy's Sacmi group, on the digital printing line for almost three years. Due to be launched last May, its unveiling was delayed because of the coronavirus lockdowns in Europe.

Francesco Amati, general manager of Gruppo ASA, told *The Canmaker* that the digital printer will be a "game changer", enabling the canmaker to more cost-effectively offer batches of general line cans as small as a pallet load.

Until now, limited print runs have been accommodated by planning composite labels on sheets printed on one of Gruppo ASA's three conventional presses at San Marino. Simplification of the logistics involved with separating the blanks from the sheets and shipping them to its satellite canmaking plants – it has four in Italy, one each in Switzerland and the UK – will provide savings according to Amati.

"We started looking for alternatives to this process three or four years ago," he says. "But none of the proposals at the time were suitable, and not the best for us."

It was then that Gruppo ASA management had a chance meeting with people from a division of Sacmi – best known in the canmaking industry for its crown cork and closure presses – that had developed a digital printer for ceramic tiles – Sacmi's biggest business sector is making huge presses for tiles.

"We saw good potential in this for printing sheets in a single pass," says Amati. A pilot digital line for printing metal sheets was subsequently set up at Sacmi's Imola laboratory.

"But we realised that we were developing the process too slowly," he adds. "So we offered to have the machine transferred to San Marino." After many months of trials, the press has since been brought to commercial levels of use for the production of printed sheets for general line cans.

"We have started with printing blanks for cans used for chemicals because things like migration from the coating and set off have to be considered, before we move to food products such as olive oil."

The inks use specially-formulated solvent-based chemistry and as with all digital systems are UV cured. Amati wasn't able to say what the resolution was of the print heads but he is happy with the quality, and especially the productivity of the line.

"The design capacity is said to be about 45 metres per minute, but we are running it at a stable 25 metres per minute, which is about 30 sheets a minute, or 2,000 sheets an hour," he explains. This he thinks is as good as anything available in the canmaking business.

Development of the digital printer has been carried out in parallel with the commissioning of one of the world's most sophisticated metal lithography presses, a MetalStar 3 supplied by Germany's Koenig & Bauer with a number

of special features that significantly improve productivity in one of Gruppo ASA's key product sectors.



Since acquiring Swiss canmaker Sauter, Gruppo ASA had been increasing its volumes of infant formula cans, a premium high-value sector, but quality and output was constrained by the need to decorate the cans with strong white lacquers.

Two presses installed over the years – a MetalStar 1 and a MetalStar 2 complemented by Miotto and Mailänder coaters – would be unable to meet the combination of a single-pass without significant modification, so it was decided in 2018 to construct an adjacent press building to house the latest technology.

The MetalStar 3 press arrived in the late summer of 2019 but installation and commissioning was delayed by this year's coronavirus lockdowns, which prevented Koenig & Bauer technicians from getting to San Marino.

The machine is one of only two in the world – the other is in Indonesia – to boast such a complex configuration, which is necessary to enable the sheets for making infant formula cans in a single pass.

“Previously we would use a white coating, which can only be replicated with two or three passes with a white ink,” says Amati. “Consumers – new mothers with new babies – want to buy infant formula in packaging that looks really clean and white.” This is a really demanding sector, he says, so much so that he visited Jamestrong Packaging’s plant in Australia with the Koenig & Bauer technicians to see how another MetalStar 3 press was being used for printing infant formula cans destined for markets in China.

Gruppo ASA’s press, measuring 45 metres long, is described as having a nine-colour set up, but it’s bigger than that. “Four of the units are for CMYK process colours, two for spot colours, two are for the white and one is spare,” says Amati. But there are two additional units, one UV curing tower and a final lacquering unit with an IST UV curing unit.

Although the design speed is up to 9,000 sheets per hour, the press is run at about 6,000 to 6,500 per hour with turnaround between jobs being about one hour.

But that’s nothing compared with the halving of the time it takes to print a run of infant formula cans. And combined with the Intesa digital printer, Gruppo ASA has the ideal combination of strengths in metal deco.

“The digital printer is ready for the market and will be shown at Metpack [hopefully in February 2021], says Amati. “We would be happy that it succeeds because we want to have a winning horse in our stable.”

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