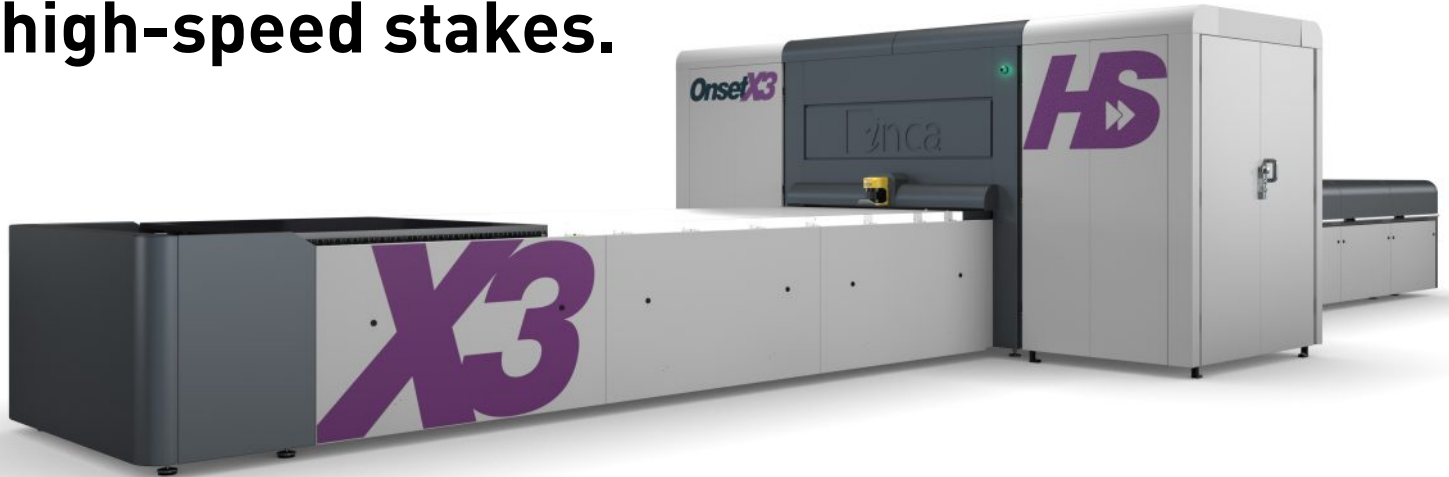


## The Inca Onset X3 HS, with new OX ink from Fujifilm, looks like being a winner in the high-speed stakes.



New UV inkjet flatbed machine offers a 50% increase in print speed, full automation and '30 second' job set up. Combine with the new Uvijet OX ink from Fujifilm and you've got a flatbed printing powerhouse on your hands.

Marc Burnett of Large Format Review was recently invited to attend the launch of the new Inca Onset X3 HS, and a brand new OX ink from Fujifilm, here's what he found...

So Cambridge, the birthplace of flatbed printing they say, where Inca was founded in 2000 and in combination with market leading screen-print ink manufacturer, Sericol, promptly set to inventing and refining the process of printing digitally and directly on to uncoated rigid media in a manner that swiftly rendered screen-print all but redundant for one-offs and short runs.

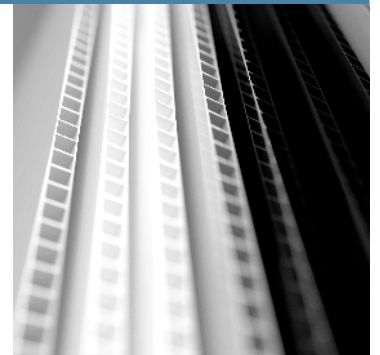
Fast forward to 2019, Inca still remain in Cambridge, a city with a steady annual pool of scientific talent to recruit from, many of them clutching Masters degrees and doctorates. That's not a lazy cliché either, I've been in the Inca facility for under an hour, and I've already met two guys in commercial roles - who appear normal and not at all like mad-scientists

- both of them had at least one PhD each.

As for Sericol, well they were purchased by Fujifilm in 2005, but continued to develop some of the digital worlds most advanced inks. Today the Fujifilm ownership has allowed them the luxury of 70 dedicated R&D chemists working on just UV inks alone, supported by a further 600 chemists in Tokyo Japan, who together share in a Fujifilm R&D spend of \$7 million daily - no typo, that does indeed and quite correctly say daily. That R&D spend results in groundbreaking new products like the Uvijet OX ink you'll be hearing more about shortly.

You thought this article was about the new printer? Get on with it? Bear with me, there's a reason for the waffle, what I'm trying to do here is establish the reason why Inca and Fujifilm regularly claim that they make the fastest, most reliable and effective flatbed digital printers in the world.

## Oversell and underdeliver is nowhere in the Inca thought process – they're too busy thinking “What do we make next and how is it going to be better?”



Point being, it's a claim made on the back of proven and peerless technical excellence, this is not marketing exuberance and unsubstantiated bravado. Oversell and underdeliver is nowhere in the Inca thought process – they're too busy thinking “What do we make next and how is it going to be better?”.

### There you have it, thanks for your patience, now let's talk printers...

First we'll be clear here, a print business doesn't buy an Inca on a whim, purchases typically follow an extended period of forensic grade analysis and due diligence, and when that level of pre-purchase investigation is carried out then Inca regularly comes out at the top – particularly when reliable and repeatable production speed is the goal.

The preceding Inca Onset X3 was already a fast machine, 922 square metres of digital print every hour to be precise – achievable too, these are burst rate print speeds that actually deliver on those spec-sheet claims.

The X3 HS (High Speed) does three new things in essence; it goes faster still, it has less downtime between media changes, and it prints effectively on more materials.

When a printer prints at that sort of speed, then every 10 minutes of lost productivity during media changeover is more than 150 square metres of print that didn't get printed. With media changes averaging out at maybe 8 a day, that's over 1200 metres daily of lost productivity. Extrapolate that out over a year and it's a sizeable and significant hole in the reasoning for buying a “need it to be as fast as you can make it” printer.

The new Inca Onset X3 HS negates that lost production time by replacing a manual media changeover process that can take as much as 20 minutes when you factor in media change and subsequent machine setup, to a new

automated process that can complete a media changeover in 30 seconds.

Add further automations and engineering improvements and you'll find the Onset X3 HS is capable of printing at a production speed of 1450 square metres of print every single hour of the day.

Of course to maintain that speed you're going to need an automated robot to load and unload, but if you want the fastest flatbed printer in the world to print at the fastest speeds in the world, you need to automate, streamline and make efficient every aspect of getting the media to the printer, printed and out the door. The X3 HS does that.

So it's fast, and Inca has a proven record of reliability, but how does it stack up in terms of media versatility.

Step forward Fujifilm - now you'll hopefully see my reasoning for the lengthy intro at the start of this review – when you are printing at that speed then curing a UV ink becomes an issue, after all the print is under the curing lamps for mere seconds.

What you need is a new ink, one that is formulated to cure properly at that sort of production speed, it also needs to be versatile enough to print at that speed on alternative materials like Polypropylene or Polystyrene, because PVC is fast going out of fashion as more and more retail brands are now making loud and public promises to go “PVC Free” sooner rather than later.

The difficulty here is that a Polyprop material doesn't allow the substrate penetration that a PVC does, so the ink cannot become “a part of the vinyl” in the same way. So other solutions have to be found, and many of those solutions have historically meant that adhesion wasn't as good.

Fujifilm's new Uvijet OX ink fixes that, it will print to Polypropylene at a significantly higher rate of adhesion than the previous multi-purpose Uvijet OW ink could muster.

## **“We believe the combination of Uvijet OX ink set and the Onset X HS platform represents the most powerful, high performance, wide-format inkjet system in the industry”**

It's not that OW ink was bad, it wasn't and isn't – it's still the 'go to' and industry proven Onset ink - it's just that the new Uvijet OX ink is a fairly huge leap forward, indeed the accepted industry adhesion test typically used on UV inks proved useless as OX ink maxed them all out, so they instead used a newer and sterner ISO2409 adhesion test - which the OX ink again maxed out in all but one of the material categories. In summary then, it sticks, like the proverbial to the blanket, on substrates that you previously hated printing because you had to slow the printer down to allow suitable cure time.

That's the tech gubbins out of the way, next up was a demonstration of this theoretical hardware and ink brilliance in action, and that's a little more easily summarised. One word will do it in fact “Blimey!”, or for non-English readers, you can have an even shorter “Wow!”.

It's just about that simple. Go see it for yourself, they have the X3 HS machine permanently set up in Cambridge, so it's easily accessible – if you want the fastest, most versatile, properly supported, with a team of, frankly and sorry guys 'print nerds' at your disposal, then the Inca X3 HS should absolutely be on your shortlist. Buy something else without at least seeing the Inca up close and personal, and you're a bit daft by my reckoning.

### **We'll close by letting the chaps at Inca and Fujifilm have a say on the matter...**

Stephen Tunnicliffe-Wilson, CEO, Inca Digital, says “We believe the launch of this new generation of Onset X machines positions Inca Digital firmly at the forefront of the high-end inkjet market. Inca Digital has always been focused on pushing the boundaries of what is possible in print. The dramatic increases in overall productivity, made possible by the further integration of robotics and great advances in printing speeds, print quality and substrate compatibility, all mean print businesses and entrepreneurs have the capability and capacity to grow market share and confidently move into new markets.”

David Burton, Commercial Director, Fujifilm Specialty Ink Systems, says “The launch of the new Uvijet OX ink set marks what we at Fujifilm believe to be a milestone in ink development for the inkjet industry – a high performance specialist ink with the strongest adhesion to the widest range of challenging rigid plastic substrates. This adhesion is achievable even at the highest speeds of the new Onset X HS, without an impact on the quality of the finished print.”

Concludes Mr Burton: “We believe the combination of the Uvijet OX ink set and the Onset X HS platform represents the most powerful, high performance, wide format inkjet system in the industry and once again sets a new standard in terms of quality, productivity and versatility.

“The print industry continues to evolve at pace and our challenge at Fujifilm Speciality Ink Systems is to continue to play a key role in defining where the industry is going and help printing companies to diversify and expand their offering to meet all the challenges and opportunities the market presents. The launch of the Uvijet OX ink set and Onset X HS is a great example of what is possible when two industry leaders work together as trusted partners with a clear, coherent and consistent vision for the future of print.”

So there you have it, sorry for the lack of resolution, head counts and picolitre numbers, but really this isn't that kind of review – at this level all you want to know is “Should I be looking at this printer?”, the answer is an unequivocal “Absolutely you should”.

