Konica Minolta Printheads
Konica Minolta UV-curing Printers

Precision Printed Bright Color Test Prints on Konica Minolta printers at SGIA 2018

Nicholas Hellmuth
Konica Minolta is a respected brand of Printheads

Konica Minolta printheads are known worldwide for two reasons: first, KM has experience engineering and manufacturing precision printheads for many years. Second, the knowledgeable and hospitable team from KM printheads are visible at almost every major international printer and signage expo around the world.

At SGIA 2018
Konica Minolta had a nice booth

We visited the Konica Minolta booth at SGIA 2018. They also have a booth at this year’s expo, rebranded PRINTING United 2019 (Oct. 23, 24, and 25, 2019, in Dallas, Texas).

The overhead booth logo design is also well done. Many companies try to put too much text into these overhead booth rectangular logo areas. The KM design team did a good job: their logo and their corporate name. This is the best way to design your overhead booth banner.
Two Konica Minolta printers were in the booth in 2018

When a printer has a combo transport belt you can fasten a moveable table at the front and at the back to handle flat materials. And if you want to print roll-fed media, you can do this easily also. We call these a combo transport belt system. Most printer manufacturers call these a hybrid printer (because they can be adapted to print on a wide range of signage and décor materials).

<table>
<thead>
<tr>
<th>Brand</th>
<th>Model</th>
<th>Structure</th>
<th>Print head</th>
<th>Drop size used</th>
<th>Drop options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Konica Minolta</td>
<td>AccurioWide 160UV</td>
<td>Transport belt structure</td>
<td>Konica Minolta 1024i</td>
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The droplet size from the KM 1024i MHE-D print head is variable 6-18. However, in the AccurioWide printers for color printing, the printers in the SGIA booth are only using 12 picoliter droplets, so binary printing for color. The white channels use the KM 1024i LHE-30 print head, which use a 30 picoliter droplet size for white inks. So it definitely helps to have the actual print head manufacturer select which print head and which settings are optimal.

These particular printers can print both on rigid and on roll-fed media.

Here is the transport belt with roll-fed media.
Put on the tables and you can print thick flat materials. This is the Konica Minolta AccurioWide 200.

We at FLAAR-REPORTS also have images to print on thick flat materials, but these then require a flatbed cutter to cut each image so we can take them back to our office in a suitcase.

Rear and front view of the Konica Minolta AccurioWide 160 UV-curing combo printer. These models come with LED UV-curing lamps.
Konica Minolta had a nice booth with helpful managers and printer operators.

Dino Pagliarello, Vice President of Product Management and Planning at Konica Minolta introducing the new UV-curing printers to a group of analysts and journalists writing for printing industry magazines.

Maria Renee Ayau (FLAAR-REPORTS) is in the foreground.
The toucans at the left are for an infographic poster for schools to show different measurement terms in cultures around the world: we show Mayan measurements, metric measurements, and feet-and-inches measurement.

The photographs of the white waterbird is from our field work in Parque Nacional Yaxha Nakum Naranjo, Peten, Guatemala. FLAAR was created in 1969 to do the map of the pyramids, temples, palaces, ballcourts, and causeways of this ancient Maya city. In 2018 the park administration asked us back to help them prepare lists of the flora and fauna in the park and to help prepare material for 14 local schools around the outside of this park.

We use special cameras with high ISO to allow photographing at 1/2000th of a second to “freeze” the wings-in-flight so you can see the individual features without them being blurred (from how fast they are flapping as the bird flies).
The numbers we name in Q’eqchi’ Mayan language (of the local villagers), Spanish, and English. These are the languages both the school kids and their teachers ask us for.
Konica Minolta printheads are also used in textile printers

I would like to do test prints on Konica Minolta printheads in a textile printer in the future. UV-curing inks tend to feature certain printhead brands and models. Inks for textiles tend to be water-based and thus these printheads are sometimes engineered with special features to handle water-based inks.

UV-curing printers tend to be exhibited at a signage expo. Textile printers tend to be featured at a textile or décor expo.

We hope to find a Konica Minolta printhead booth or KM team at Printing United 2019 in Dallas

I will be at Printing United 2019 (SGIA 2019 rebranded as Printing United 2019) from the second day onward (so Oct 24 and Oct 25).

FLAAR Mesoamerica is the name of our non-profit research and educational institute in Guatemala. We do studies of what edible plants in the jungles were usable as food for the Classic Maya for thousands of years in the past. Many of the ancient plants native to these rain forests are definitely more healthy than modern junk food. So to avoid the common disease of Diabetes 2, it helps to find every edible species and then to assist local people to learn about these edible and healthy plants. We are also working with primary and secondary schools surrounding the Yaxha Nakum Naranjo national park. Ironically FLAAR was founded in 1969 to map the 2nd to 9th century pyramids, temples, palaces, and rubber ballgame ballcourts of the Yaxha and Nakum sectors of this park. Last year we were asked to return to this park to help make lists of all the plants and wild fauna in this park. The park administrators also asked us if we could help develop and provide educational material to the 14 schools in the areas near the park.

To encourage local families to not burn down the forests and not to harm the endangered birds, mammals, pollinators, and rain forest plants, we have a team of illustrators who prepare banners with educational material for the schools. We print these banners at signage trade shows around the world as test prints and then fly them back to Guatemala to donate to schools in rural areas.

There are 14 schools surrounding Parque Nacional Yaxha Nakum Naranjo, so we look forward to printing more banners at Printing United 2019 in Dallas.
FLAAR also donates books to primary schools in rural areas

Nicholas prepares the storyboards for books on jungle birds, felines, monkeys, and plants of Central America. The team at FLAAR Mesoamerica then do the nice illustrations. We then translate the text into one of the 22 local Mayan languages. The professors and school teams ask to have our books in three languages for their students: Spanish, local Mayan language, and English. They say that no other entity makes books available in all three languages.

Snag is that we have no funding for printing the books. But since Konica Minolta makes nice short-run digital presses, it would be nice in the future if some of our books could be printed so we can donate them to help Mayan children in rural areas.

Our books feature endangered species, so the kids can learn to protect these. Our books focus on pollinators, since without pollinators plants can’t reproduce. We have done research and found that in addition to the obvious bees, butterflies, and hummingbirds, that pollination is also accomplished in the rain forests by beetles, ants, dozens of birds (in addition to the obvious hummingbirds), lots of bats, and also nocturnal mammals (who love the sugar-rich nectar that flowers offer them).

And of course since Dr Hellmuth has archaeological training as an undergraduate student at Harvard and in three Post Graduate Research Fellowships at Yale University, our books help local children learn about their cultural heritage. His PhD was from Karl-Franzens Universitaet, Graz, Austria, on plants and animals of Mexico, Belize, Guatemala, and Honduras related to rivers, lakes, and the coral reefs facing the east side of Mesoamerica. So our background on flora, fauna, and archaeology is put into these books for children.
Here we show students in rural schools our print samples of books so we can learn from both students and teachers what subjects they prefer that we prepare for them.

Here is Dr Nicholas showing the banners to the school teacher (at the left) and the students in front. These banners are kindly printed at trade shows around the world and then FLAAR flies them back to Guatemala, then drives 1000 km round trip to the remote areas, and then hikes the final distance on foot to reach the schools to donate the educational material.
Here we are visiting a Mayan family to speak with the parents and their children, to get feedback on our MayanToons books, prepared by FLAAR Mesoamerica. These are test prints; we do not yet have a source that prints enough to donate the books to all the schools and students.
Here are the students of the school hiking back to their homes far away. There are no school buses because there is no road to the school. We hiked down to the school, and after visiting the school, we hiked back up the hills to our 4-wheel drive vehicle. Good exercise.