

CONEXUS AUDIO TOUR
TIM'S CUTDOWN – AS PRODUCED V4
SEPT 29, 2023

(Opening Music Under)

RYAN: Hello and welcome to The Art of Modern Manufacturing, a view through a different lens. It's a collection of 16 photos captured state-wide from Indiana-based photographer Michael Durr. I'm Ryan Henderson, Director of Innovation and Digital Transformation with Conexus Indiana.

SANDRA: Hello, I'm Sandra Cline, independent writer and journalist working with Conexus Indiana.

MICHAEL Hi, I'm Michael Durr, freelance photographer. Been working with Conexus now for going on three years. I captured all the images you're about to see.

RYAN All of these companies have undergone significant transformation through new and innovative technologies. You can follow along with us by starting at the very left side of our gallery and walking the red carpet as we discuss each photo.

Let's begin...

TAKE 4 - RYAN

00:00:01.56

The first pair of photos starts with this image at PWR North America. They manufacture advanced cooling technologies for racing. So, Michael, what is it we're seeing here

TAKE 27 MICHAEL

00:01:55.20

Well, this is a good example-- of a little bit more of an abstract image.

00:02:16.20

So I shot this one, you know, with the light kinda coming through. A lot of chrome, lot of metal. You could see as you go through this gallery, all of these photos are printed on metal. And that was, like, an intentional thing that I thought would work-- really well to help showcase-- what these images look like.

TAKE 28 SANDRA

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00:01:06.28

It's really a great place to start, because it's so artistic and so-- you don't think of-- of a factory looking like that. So it draws you in immediately.

TAKE 28 SANDRA

00:03:07.36

The photo under PWR comes from Wolf Corporation, makers of mattresses and other fabric products.

TAKE 28 MICHAEL

00:00:51.08

Yeah, this particular image is-- is a fun one because-- it's showing the integration between the human element and-- and these machines.

00:01:13.20

If you remember what happened a few years ago with COVID-19, this was a company that adapted--when the government was kinda asking for help-- they transitioned from making mattresses to gowns for hospitals,

TAKE 5 MICHAEL

00:00:57.48

and I was hooked immediately (LAUGH) wa-- on these shoots, once I-- I started realizing, you know, the kind of-- kind of things that are happening with these manufacturers in our state.

TAKE 29 RYAN

00:00:11.99

Moving along our red carpet. We're gonna take a look at the next two images. On top Michael lets us look into the manufacturing process of Poolguard, makers of safety equipment for home pools.

TAKE 29 MICHAEL

00:00:32.99

Yeah, I think you-- you saying "looking into--" it makes a good-- a good example, because-- this is the circuit board that's inside the-- the Poolguard-- machine.

TAKE 6 MICHAEL

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00:00:32;18 ... I think this a great example of-- just-- just kind of the-- the whole concept of these-- of these images and-- as that behind the scenes, right? So, like, this is the thing that's inside of the-- the Poolguard-- you know, machine, that you never see.

TAKE 29 RYAN

00:01:25;00 Yeah, it's-- from the technology standpoint it's-- it's quite innovative. A lot of small to mid-size manufacturers won't be-- manufacturing the printed circuit boards in house, so-- this project was-- was a very big step for them.

TAKE 7 SANDRA

00:00:08.28

(PICK UP FROM WILD LINES: IN OUR NEXT PHOTO...)

The laser work Michael shows us here is from CIT. They make precision parts for the automotive and aerospace industries in Indiana.

TAKE 30 MICHAEL

00:00:31.40

Yeah, these two images actually go well together-- 'cause they're very advanced in the technology that they're using, and

00:00:41.84 So you can see in this one you have the hand-- where he's kind of wearing this-- this mechanism (LAUGH) as a glove that's scanning the piece that's off in the background there being hit by, like, kinda the blue laser light.

TAKE 7 MICHAEL

Again, it has this kind of like abstract, you know, nature to it, where I'm hoping that people walk up and-- and they see this image. And they just wonder, "What is going on here?" (LAUGH)

TAKE 30 RYAN

00:01:28.12

Next up, if we move along the red carpet, we have Primex Design & Fabrication, who specialize in plastic sheet extruding. Michael, tell us what you like-- so much about the color yellow.

TAKE 30 MICHAEL

00:01:42.80

Yeah, there's a few things I like about-- about this image. Having seen these images get printed-- I actually saw this one come off the printer, and it kinda blew my mind on how-- what-- how much that yellow interacted with, like, kinda the

metal underneath.

So you have this kind of like plastic material that looks really cool on a metal print. I like it for that reason.

TAKE 31 SANDRA

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the next photograph reveals the human touch in manufacturing at True Essence Foods.

TAKE 31 RYAN

00:01:28.76

Yeah, we-- what we're lookin' at here is a PLC, or-- also called a programmable logic controller. And it is standard in the industry, but it's really what's happening behind it.

TAKE 31 MICHAEL

00:01:13.54

You know, a lotta these machines have, you know, (NOISE) panels, or computer screens that you're working with. So I felt like we had to have that-- in some capacity. And I really liked this as-- a visual representation of that.

TAKE 31 RYAN

00:01:28.76

True Essence Food is really innovating the process in food manufacturing, and-- really changing the way things are done in the industry.

TAKE 32 SANDRA

00:00:41.99

Moving down the red carpet, in this photo, Michael gives us a closeup of the intricacies at Ikelite, makers of underwater photography equipment.

TAKE 32 MICHAEL

00:00:51.24

Yeah, as you can imagine, this one was a fun one for me.

00:01:26.68

And, you know, the machine that they installed, you know, helped with creating some of these elements.

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But really, these things are kinda put together by hand.

00:01:52.99\

But I also liked how they had these blue mats (LAUGH) that they were working on, which kinda resembled the water, really popped the-- the logo out there as well. So I like this image for a lot of reasons-

TAKE 32 RYAN

00:03:44.71

The image below Ikelite is at a company called POLARIS Laboratories, and they specialize in fluid analytics for their global manufacturing customer base.-

TAKE 32 MICHAEL

00:04:22.88

So this one was, you know, zippin' around, and doing these different samples. So I had to kinda think about, "Okay, where do-- what do I want this image to look like?" I framed up the image that I wanted, focused on that particular jar of liquid, and then-- waited for the machine to get to where I needed to, almost like you were posing it.

TAKE 32 SANDRA

00:05:13.99

The reason for these little jars are the liquids that POLARIS tests from its customers around the world. And they're used in predictive maintenance for customers, And it's much easier to be able to find out early that you need to change the oil in some part of that machine than to replace the entire machine down the line.

TAKE 33 SANDRA

00:00:28.56

The next photograph is a scene Michael captured depicting one way Telamon Corporation supports advanced manufacturing and logistics.

TAKE 33 MICHAEL

00:00:38.84

I really like this image-- from that harmony piece, right? You have the employee working in conjunction with this robotic arm. And it's really doing the heavy lifting,

if you will.

TAKE 15 RYAN

00:01:58.24

Yeah. The-- the technology in this image is a collaborative robot. And as Michael said, the-- the kind of groundbreaking piece of this is that it can work right next to a human worker.

TAKE 34 RYAN

00:01:51.88

The image below Telamon Corporation is at a company called Wood-Mizer, and they manufacture machines that can be used by small operators as a basis for sawmilling enterprises, or by wood crafters and hobbyists. So Michael, talk to us a little bit about this image.

TAKE 34 MICHAEL

00:02:20.34

I like shooting-- the-- the welding process, just because it's such-- it's so visual, right? I mean, you can see-- you can this blue and orange kind of lighting.

TAKE 34 MICHAEL

00:02:48.33

it makes your eye kinda look at the whole image.

TAKE 34 SANDRA

00:03:50.36

Wood-Mizer is kind of the quintessential entrepreneurial story, that it actually began with an idea scra-- sketched on a piece of scrap paper, then went to a prototype, and now is just, what, 40 years later, 100,000 customers in 120 countries.

TAKE 17 SANDRA

00:01:16.32

As we go down the red carpet, we're coming to the final six images. And the one on top here is from Circle Bev. They're makers of Circle kombucha.

TAKE 17 MICHAEL

00:01:29.99

Yeah, this particular image, again, looking at that this is a series, right?-

TAKE 17 MICHAEL

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00:01:43.92

We were kinda missing that wider shot. And I liked this one in particular because of the steam that's coming up-- and the light, the way it kinda, like, plays with it and interacts with it.

00:02:00.52

It's funny that this company is-- you know, makes incredibly colorful products. (LAUGH) So the cans are, you know, just super bright--

TAKE 17 RYAN

00:02:22.76

Yeah. So the technology here is a robotic sleeving process-- that the company implemented. And while some of the bigger beverage manufacturers use this technology, it's very innovative-- for this size of company.

TAKE 18 RYAN

00:00:43.24

~~Okay. Okay.~~ Below the Circle Bev image, we are looking at a photo of sparkling precision parts at Cimtech, specialist in precision machine parts and fabrication. Michael, what are we-- what are we lookin' at here?

TAKE 35 MICHAEL

00:02:15.68

These items were just, you know, in the lobby-- of their facility. And, you know, I kind of noticed that, you know, that they're very intricate, like show a lot of the detail of-- of what they're able to do-- as a company.

00:02:33;12

And I kinda looked off behind me, and there was-- (LAUGH) a red round table in, like, a break room. And I-- I asked if I can move some of the pieces around and-- and use-- it's like direct sunlight that's coming through one of the windows... it really kinda serves as almost like a still-life image-- which I thought was-- like, a cool addition to-- to the series.

TAKE 19 SANDRA

00:01:17.84

In the next group of photos, the top one is a field of blue that's actually part of a shipping process. Michael saw this at California Closets Indianapolis.

TAKE 19 MICHAEL

00:01:49.08

This single employee was working with this machine that was essentially cutting out the closet pieces.

TAKE 19 MICHAEL

00:02:11.36

So you can tell, like, just one guy r-- kinda, like, running this enormous machine. And kind of-- seeing him just, like, work in harmony, again, with-- with h-- with this machine was-- was pretty impressive.

TAKE 19 RYAN

00:02:26.20

Yeah, what was-- really exciting about this project from a technology-- view is it was a combination of software, hardware, and material handling equipment.

TAKE 36 RYAN

00:01:20.48

So it really gives you a appreciation for just how much investment is needed to make this stuff happen.

TAKE 36 RYAN

00:01:42.52

Moving on, below the image is PHOTON AUTOMATION, and they specialize in laser welding applications for battery and electric vehicle markets. We're actually looking at a fiber laser welding machine,-

TAKE 36 MICHAEL

00:02:25.84

I'm actually, like, inside the machine. I kinda asked if I could go behind. I knew it would look cool to kinda see him from that perspective.

00:03:06.69

And again, these aren't really staged images. So I was-- it was good timing-- that he was kind of doing this process while I-- while I was there.

TAKE 20 SANDRA

00:02:30.00

It's a proprietary system that is a multi-function, user-friendly machine. You can

run it from your desk, from an iPad, from your phone. One of the-- owners said, "It makes the laser play nicely with the robots."

TAKE 37 SANDRA

00:01:43.44

The next photograph is of robotic welding that Michael shows us from Soil-Max, manufacturers of agricultural water management systems.

TAKE 22 MICHAEL

00:00:29.60

Well, as I mentioned, you know, I love shooting welds. (LAUGH) This one in particular was fun.)

TAKE 37 MICHAEL

00:02:25.84

A lot of layers to it. The weld's happening in the foreground, kind of blurred out. You're focused on these guys kind of, you know, watching over-- the quality and-- and process. And then, you know, you even have their-- (LAUGH) their logo there, you know, is-- which-- which sometimes happens-- which is great (LAUGH)-- 'cause it kinda-- kinda tells us a story in a single image.

TAKE 23 RYAN

00:00:40.76

So in the-- in the very last image here, the monster seen posed for Michael at Creative Works, fabricators of three-dimensional entertainment installations. And that's the perfect-- photo to end on. We really can make everything here in Indiana

TAKE 37 MICHAEL

00:03:26.99

Yeah, you can imagine walking in, this is in their lobby. It's the first thing I saw, and I was immediately very excited about what-- what I was about to see (LAUGH). You know, just the-- the detail-- of which the-- these machines are able to do, not just in-- in kind of the texture of it, but also the color.

00:01:17.96

And I was, like, fresh off seeing the Mario Kart movie, so seeing Bowser here, I was-- mainly took this picture to show my kids (LAUGH). But it really is a great one to end on, I think-- because it does kinda showcase, like, the range-- of

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things that are being made here throughout the state this and much more basically. So I thought this was a fun one to end on.

CLOSING

RYAN: Well now that we've come to the end of our journey on the red carpet, Michael, thank you so much for sharing your work with us. .

SANDRA: It's wonderful that you've created this exhibit that introduces our listeners to what Indiana manufacturers are doing in advanced manufacturing and smart technology.

MICHAEL Oh yeah, it's my pleasure. This have been a very fun project to be a part of over the past few years. Really a collaborative effort. It's been great.

RYAN And thank you to all of our listeners for following along with us at The Art of Modern Manufacturing, a view through a different lens.