HOW IT WORKS

IN CASE OF FIRE

Across the country, you can find hydrants made in Anniston by M&H Valve

- By Ben Nunnally, Star Staff Writer, bnunnally@annistonstar.com
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Adrian Luna assembles a yellow fire hydrant during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

Photo by Stephen Gross / The Anniston Star

When M&H Valve was founded in 1854, water mains were still made of wood. Today, the fire hydrants made by the Anniston-based company can connect to the internet.

Every year, the M&H Valve factory on 23rd Street produces about 17,000 fire hydrants and 60,000 gate valves, made by roughly 250 workers at the plant.

The finished fire hydrants can be found all over the country — prominently stamped with the words “M&H Valve & Fitting Co., ANNISTON, ALABAMA.”

“We’ll go out on a family vacation and find one of our products,” saidGeorgia Vinson, inside sales representative for M&H Valve. “We’ll have people send back photos of one of our hydrants they found. We take a lot of pride in serving these communities.”

The company began in 1854 as the McNab-Carr Company, a New York City venture producing products for the water and steam industries.

Back then, water pipes were crafted out of wood, explained M&H sales manager Griffin Herb. When a building caught fire, first responders would dig beneath the streets, cut a hole in the wooden main and hook in their pumps and hoses. Afterward they’d seal it up with a removable fire plug, making the next fire easier to fight.

An online company history states that M&H began producing hydrants in 1862, the same year one owner retired and the company was renamed M&H Valve, for partners James McNab and John Harlin. Hydrants made fire plugs obsolete for the most part, and the company has had the same basic design — the 129 — for more than 80 years.

Today, some of those 129s connect to the internet, but that’s progress.

“They really make you more aware,” Herb said, explaining the company’s iHydrant, which offers real-time pressure and temperature monitoring. “It’s easy; there are multiple hydrants on a map, and a green light means ‘good.’”

The electronics for those units aren’t fabricated at M&H, but everything else — the hydrants, the gate and butterfly and check valves — are all manufactured in Anniston.

Herb recently gave a tour of the company’s 146,000-square-foot factory. Here’s the way it works:

1. Iron is melted down in the foundry, from sources like used engines and brake drums, during the night shift. Meanwhile, sand is compacted into the proper shapes to make molds by using patterns — or models — of the products to be cast. M&H produces several kinds of valves. Some, like the butterfly valve, can be up to 77 inches in diameter — almost 6.5 feet.

2. Once the molds are made, the iron is poured and takes on the shape of the original pattern. After it cools, Herb said, there’s still a coat of compacted sand to remove. But iron is tough, so rather than scrub the sand off, the newborn parts are put in the gigantic equivalent of a rock tumbler, a huge, trough-shaped container that shakes them around and knocks off most of the sand. Later, the parts will get more attention and smoothing in the machine shop.

As much sand as can be saved is recycled to use again, but the process demands more than can be reused. Trucks arrive regularly with sand shipments, filling the tallest building at the site, a multi-story tower that serves as a silo for the grainy stuff.

3. Finished parts diverge here. Most go directly to the machine shop for assembly and testing. A few, the iron wedges, are taken to another area where

they're injection-molded with rubber, Herb said. The process was once done off-site, he said, but the company was able to bring rubberizing into the facility.

4. Parts are assembled in the machine shop. There's more to a fire hydrant than what's visible on the sidewalk. They stretch down a few feet to reach water mains. They're often custom-built to the requirements of each client.

"A lot of cities use standard hydrants but some need different nozzles and hookups," Herb said, for compatibility with equipment like fire engine pumps and hoses.

Between their roots and their iron bodies, the hydrants are sturdy, but they're also built with safety in mind. Part of a hydrant's structure is a breakable rod, Herb said, designed to give way in the event of a vehicle collision. This allows the hydrant to come unmoored from the ground, creating a less dangerous impact for the driver of the vehicle.

5. After assembly, workers test every hydrant and its seals and valves, Herb said. Workers at the factory fasten the hydrants to their testing equipment and check them the only way that counts: Filling them with water.

Hydrants generally pass muster, Herb said, but if one isn't up to code, it's melted down and recycled.

6. Once the hydrants are inspected and sufficiently pressure-proof, they pass on to the painting portion of the factory. Near the end of their trip, the hydrants are powder-coated in various colors.

Some are just meant to look nice — bright red hydrant bodies with brass fittings, sure to be among the shiniest of municipal properties — and others are color coded. According to Herb, some cities use color to indicate the size of

the pipes and fittings, saving firefighters the time of measuring or looking up the information.

7. The hydrants are ready to roll out into the world, cropping up all over the United States.

Photos: How It Works / M&H Valve Fire Hydrants

Photos of how M&H Valve manufactures fire hydrants.

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M & H Valve

The famous "Pipe Man" stands guard at M & H Valve on West 23rd St. in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

An employee pulls off slag from a hopper full of molten iron that feeds into fire hydrant sand molds at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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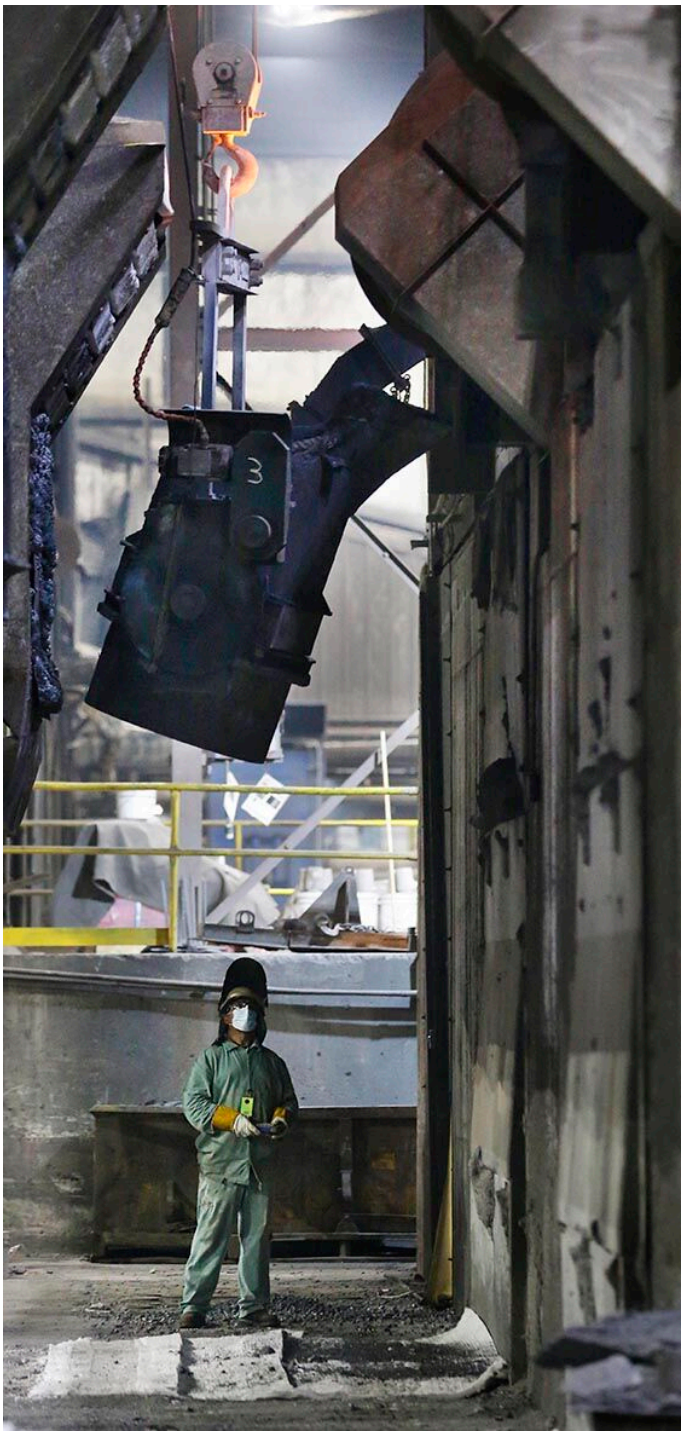

M & H Valve

An employees remotely guides a bucket into place for refilling 6 tons of molten iron to pour into fire hydrant sand molds at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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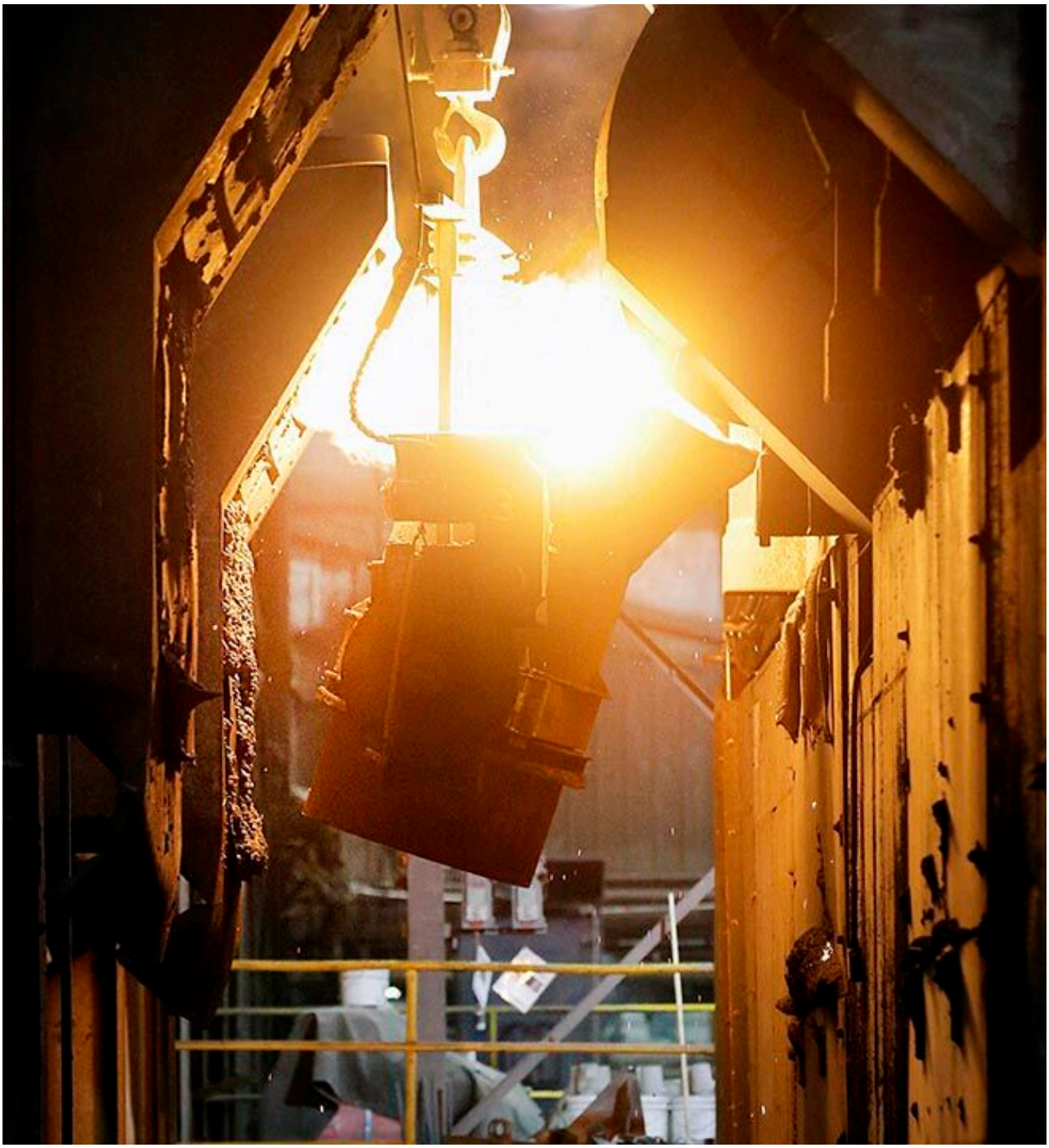

M & H Valve

A bucket refills with 6 tons of molten iron to pour into fire hydrant sand molds at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

- Photo by Stephen Gross / The Anniston Star

M & H Valve

An employee guides a bucket holding 6 tons of molten iron into a hopper that feeds into fire hydrant sand molds at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

A bucket holding 6 tons of molten iron pours off slag before filling a hopper that feeds into fire hydrant sand molds at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

A bucket holding 6 tons of molten iron fills a hopper that feeds into fire hydrant sand molds at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

Freshly poured fire hydrant parts rest in a bin after an initial cleaning at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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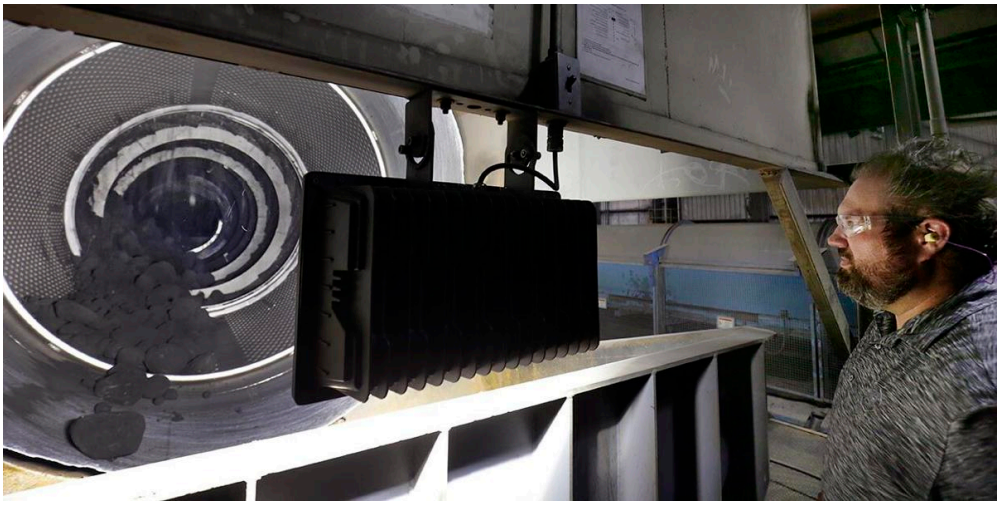

M & H Valve

Griffin Herb watches as freshly poured parts, still covered in casting sand tumble through a chute to remove the black sand before being machined at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

William Taylor surfaces a gate valve during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

A forklift operator looks over stock to transport during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

Josh Gunning looks over fire hydrants during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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A forklift operator looks over stock to transport during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

Fire hydrants ready fro the next step in processing during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

A robotic machine picks up and surfaces parts during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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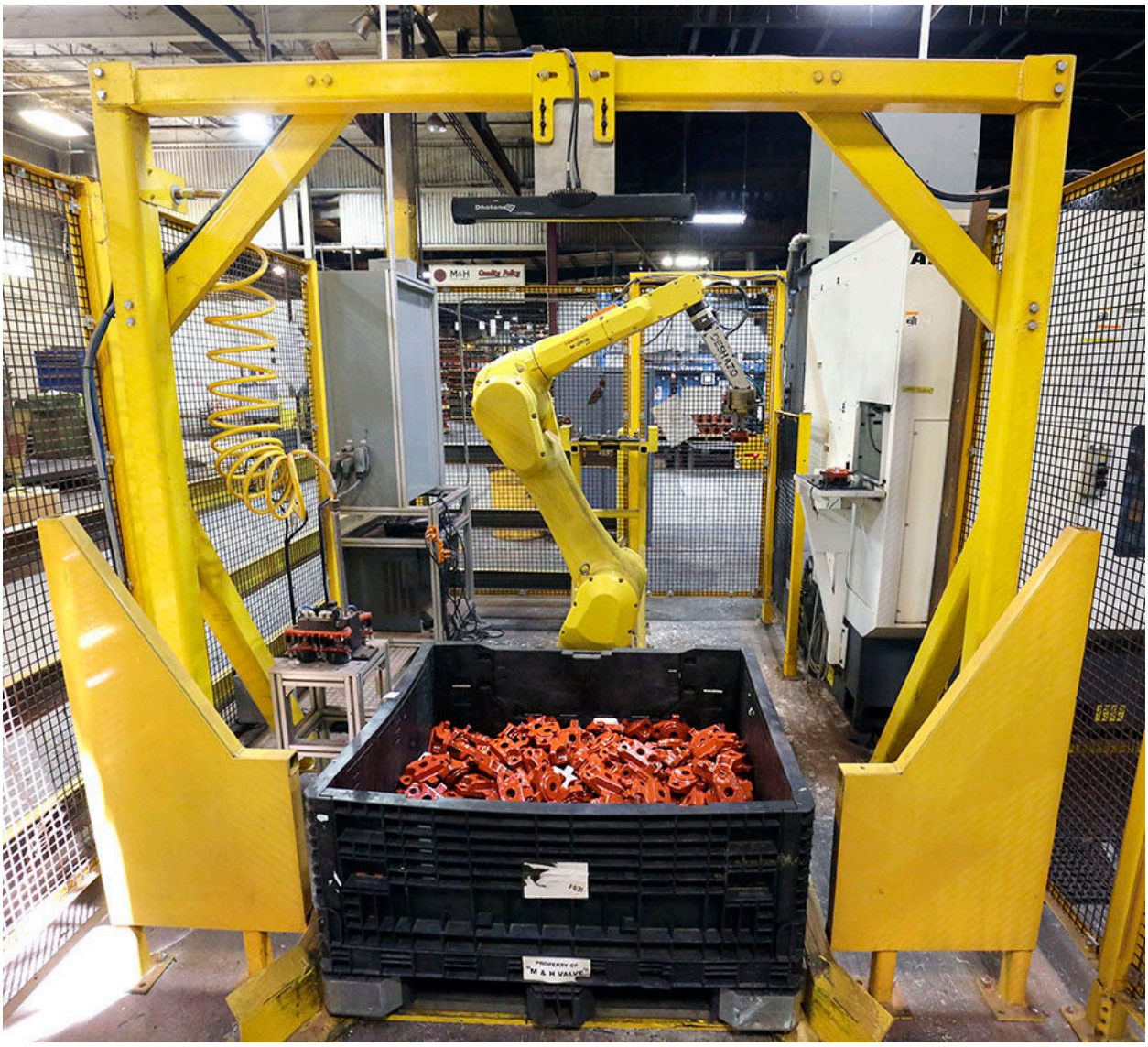

M & H Valve

A robotic machine picks up and surfaces parts during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

Adrian Luna assembles a yellow fire hydrant during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

Compleated fire hydrants of all colors and sizes are ready to ship after a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

Takisha Swain assembles a bright red fire hydrant during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

Blake Owen pressure tests a completed fire hydrant during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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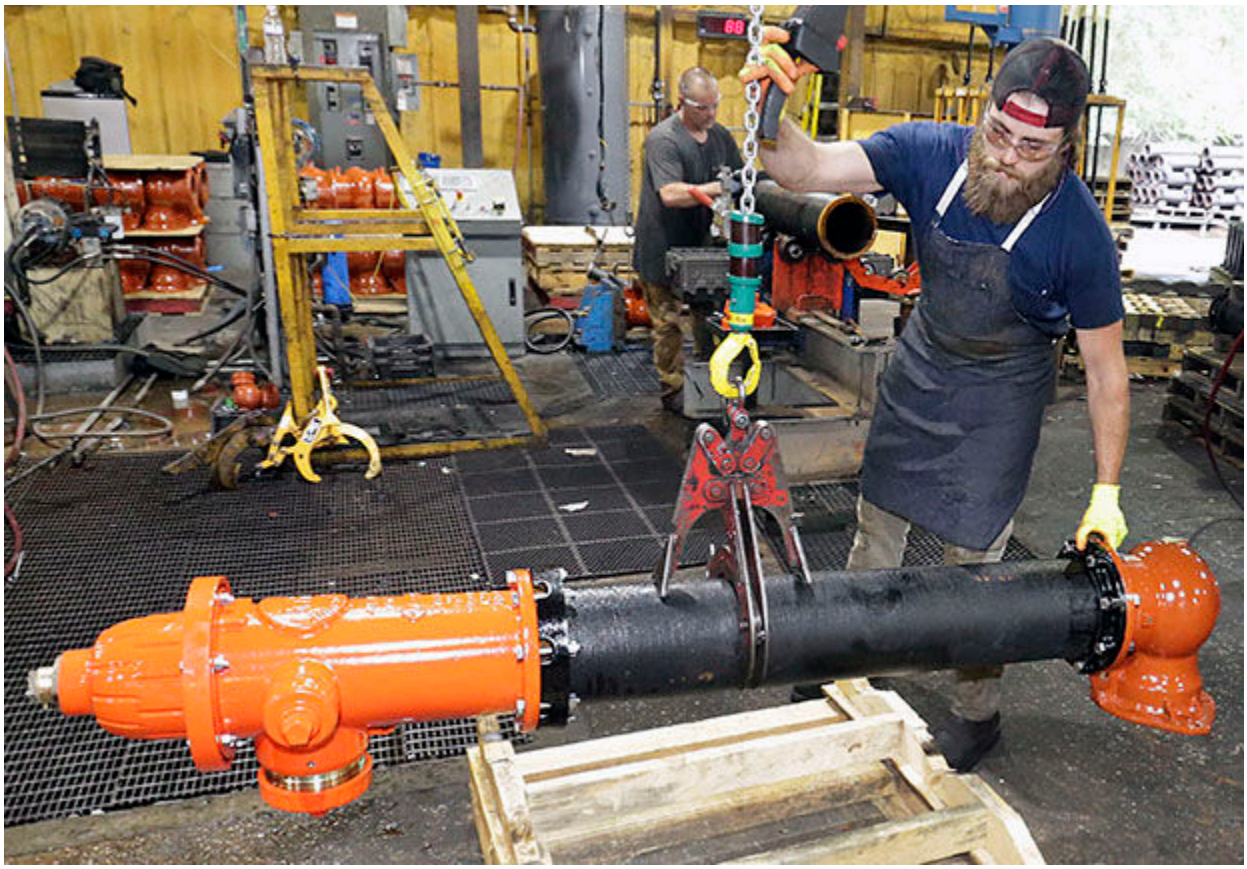

M & H Valve

Jonah Crawford tests a completed fire hydrant during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

Christian Stanley gets gate valves ready for cleaning during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

Josh Gunning and Griffin Herb check completed gate valves during a typical work day at M & H Valve in Anniston. Photo by Stephen Gross/The Anniston Star

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M & H Valve

Jacksonville Fire Department Engineer/Paramedic Chris Storey performs an annual pressure test of an M&H Valve fire hydrant that was manufactured in Anniston. Photo by Stephen Gross/The Anniston Star

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A fire hydrant stands guard at the corner of 10th and Noble St. in downtown Anniston that was manufactured at M & H Valve in Anniston in 2001. Photo by Stephen Gross/The Anniston Star

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M & H Valve

A fire hydrant stands guard at the corner of 10th and Noble St. in downtown Anniston that was manufactured at M & H Valve in Anniston in 2001. Photo by Stephen Gross/The Anniston Star

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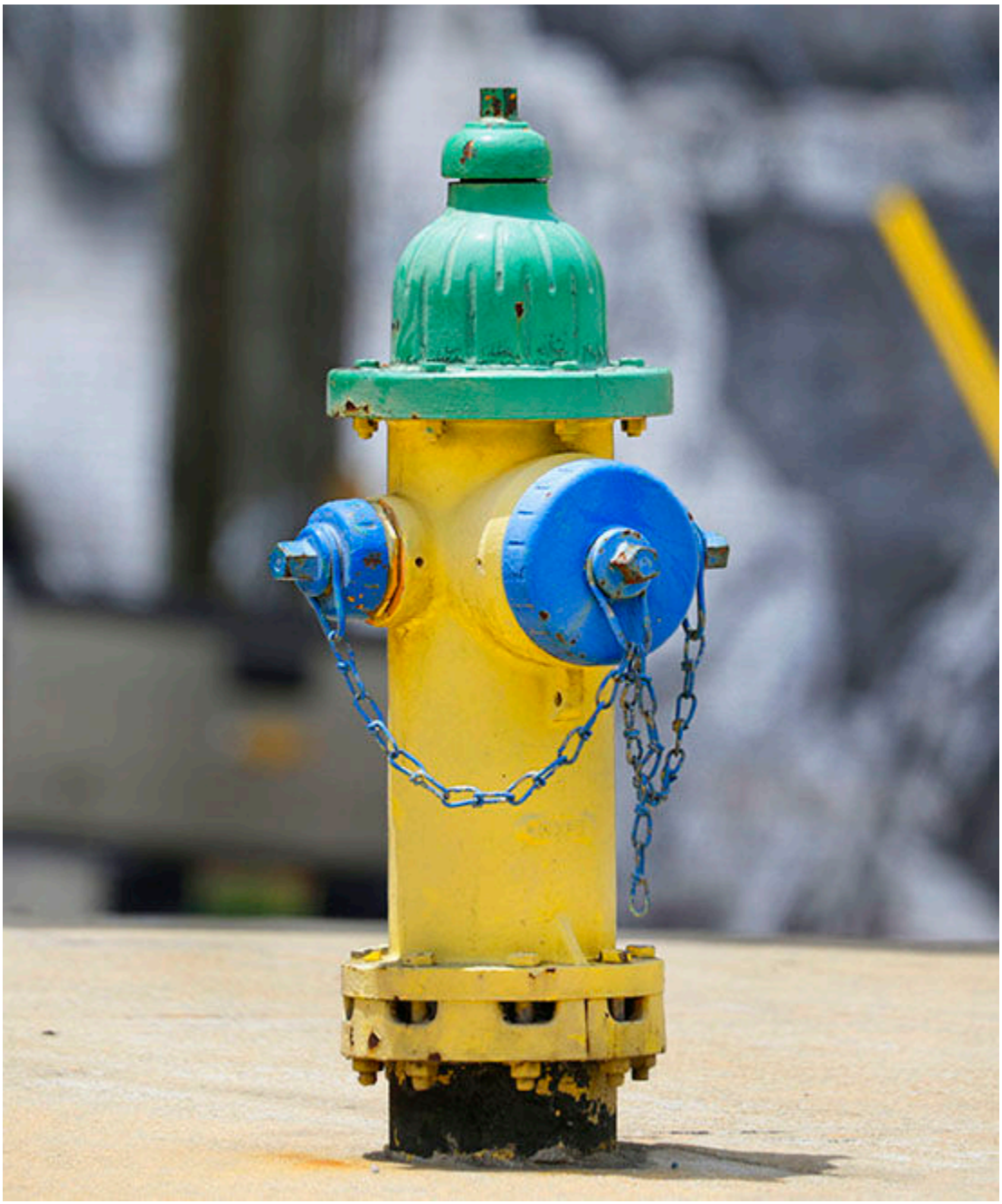

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A fire hydrant stands guard at the corner of 10th and Noble St. in downtown Anniston that was manufactured at M & H Valve in Anniston in 2001. Photo by Stephen Gross/The Anniston Star

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M & H Valve

A fire hydrant at the corner of 18th and Noble St. in downtown Anniston that was manufactured at M & H Valve in Anniston in 1955. Photo by Stephen Gross/The Anniston Star

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M & H Valve

A fire hydrant at the corner of 18th and Noble St. in downtown Anniston that was manufactured at M & H Valve in Anniston in 1955. All of M&H Valve fire hydrants have their name and Anniston, Alabama embossed on it. Photo by Stephen Gross/The Anniston Star

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