

Jones Sign Saves Up to Five Hours Per Sign With Extended Reach Wire Feeder



At Jones Sign, the welding power source stays in one place and the operator just moves the Millermatic Reach feeder to the work location.

Sometimes, you can have too much of a good thing. Such was the case when Jones Sign Company of De Pere, Wis., needed to expand its fleet of welding equipment. After examining current needs and future growth plans, team leader Don Benoit determined that using the industry's premier multiprocess inverter paired with benchtop or push-pull feeders was overkill.

"With the majority of our welding being MIG or flux cored, we only need multiprocess machines at about six welding stations. Otherwise, we're not using their full capacity," says Benoit.

For the eight welding operators who would man four new welding areas, Benoit recommended a combination of Millermatic 252 MIG and Millermatic 350P MIG/pulsed MIG welders, which have welding outputs of 250 amps at 40 percent duty cycle and 350 amps at 60 percent duty cycle, respectively. When paired with the right wire feeding system for the task (spool guns and/or push-pull guns for aluminum and Millermatic Reach wire feeders for extended work areas), these systems provide Jones Sign with an optimal solution.

"We want to cut costs, and we want to save fabrication time. The Millermatic 252 paired with a Reach feeder costs about \$2,000 less than a multiprocess inverter with a benchtop feeder, so there is a savings right there," says Benoit. "Second, the Millermatic Reach saves us time because it is lighter and more convenient to move inside a large sign frame. It eliminates the need to reposition the welding power source, which saves us about 150 minutes per frame."

Jones Can Make It

Jones Sign Company is a sign manufacturer, service and installation specialist that provides services for all phases of a sign project: design assistance, permitting and variances, surveys, traffic and feasibility studies, leasing and financing, manufacturing and installation. It has customers throughout North America.

The company works with some of the top retail developers and environmental graphic consultants in the country. It manufactures all types of interior and exterior signage, such as way finding signs, electric signs, electronic message signs, pylon signs, neon signs, channel letters, monument signs, wall signs, awnings and billboard structures. Jones Sign also manufactures specialty architectural items such as benches, water fountains, pavilions, hurricane shutters, décor, trellises, fire pits, ornamental metals, play areas and exterior lighting. As the company's Web site says, "Tell us what you need—we can make it!"



Weighing just 41 lbs. when loaded with a fresh, 12-lb. spool of wire, the Millermatic Reach is easy to move around the job or up on scaffolding.

While the recession has hit newspaper, magazine and TV advertising extremely hard, Jones Sign has not only remained busy, they have expanded. The theory is that most advertising, except out-of-home media (a.k.a. billboards and other signs), has become completely avoidable. Conversely, out-of-home can't be turned off, deleted or tossed in the recycling bin, which makes it more effective and more resistant to economic variables.

As a result, Jones Sign recently completed a 105,338 sq. ft. expansion of its manufacturing space, giving the company a total of 213,000 sq. ft. The addition will allow increased manufacturing of custom lighted signs and in-house LED-sign assembly. It also will be used for grand-format digital printing operations that will allow them to print signs 20 feet wide. Employment increased as well, including welders.

New Welding Areas

Jones Sign's recent expansion included four new welding areas. About 90 percent of the company's welding involves wire welding processes (MIG, pulsed MIG or flux cored) on carbon steel and aluminum, with the balance being MIG and TIG welding on stainless steel and the occasional need for Stick welding in outdoor applications. Filler material used ranges from .035-in. solid wire to .045-in. E71-T1 gas-shielded flux cored wire to 3/64th-in. aluminum wire. Metal thicknesses range from 1/8-in. sheet metal to 2-in. structural steel, with the majority of work on material 1/4- to 3/4-in. thick. Thicker structures are made with multiple pass welds.

Because a typical steel frame for a billboard or sign for a big box retail store can measure 10 ft. x 45 ft. or larger, two welding operators work in each area and, with previous systems, worked around the perimeter of the sign. Because a standard MIG gun has a length of 12 or 15 ft., operators using multiprocess inverters/benchtop feeders need to unplug and reposition the welding equipment up to 15 times during the course of fabrication. While carts that hold all components make moving easier, moving adds at least 75 minutes per operator, or 150 minutes for a team of two welders, to an 80-hour project. Two—and perhaps as much as five—hours might not seem like much to the average person, but it is to Benoit.

"I wouldn't want to be our scheduler today because time is really tight," he says. "Projects get held up in the front office waiting for signatures, permits and customer sign-offs. Then, once the work order gets to the shop, scheduling is really hectic. We have to complete the job in a week or two to stay on track."

If needed, Benoit can assign more than one team to a job, but then other jobs suffer for attention.

"I really appreciate anywhere we can save time," he says. As added pressure, "We make our money if we complete projects within the hours allotted. If we beat the time, that's even more of a profit margin."

The Premier Sign Welder

While the previous leader in Benoit's position favored multiprocess inverters, Benoit, at a former company, preferred the simplicity, lower cost and shop maneuverability of all-in-one MIG/flux cored welders.

"I have 25 years of sign welding experience, and the Millermatic 250 has always been the premier welder in the sign business," he says. It had been a few years since Benoit ordered equipment, "but when we needed more welders, I figured why change something that's not broke? I asked our distributor to bring out whatever the successor to the 250 was, and he brought out the Millermatic 252 and Millermatic 350P for pulsed MIG aluminum."

Benoit says that, for sign welding, he can detect no difference in weld integrity between the welds made with all-in-one systems and multiprocess inverters. As for power and duty cycle, both of these machines have more than enough power to weld with a .045-in. E71-T1 flux cored wire, which carries a maximum amperage of 235 amps.

Today's all-in-one MIG welders also incorporate an "Auto-Gun Detect" feature that let's welders instantly switch between the machine's primary MIG gun and any gun connected via the 10-pin connector for running a second wire.

"Our new area is going to be the mass production area. We're going to be framing up a lot of stuff," says Benoit, "and I like that we can go from aluminum to steel and we don't even have to waste a second to change the wire feed speed setting" because the welder automatically recalls the voltage and wire feed speed used for the active gun"

Extend Reach

In addition to new welders, Benoit also had the opportunity to field test a new equipment category developed specifically for the sign industry: extended reach feeders.

The Millermatic Reach feeder is an "oversized spool gun" that holds up to 12-in.-diameter spools, runs .023- to 3/64th-in. diameter wire and has a duty cycle of 60 percent at 300 amps. It connects to Millermatic 212 with Auto-Set, 251, 252 or 350P welders via a 10-pin connector and welding output circuit. It also uses features the same wire feeder motor used in the 350P and drive motor assembly from the 252, so the technology is proven and reliable.

Most importantly for Benoit, the Millermatic Reach can expand the work area up to 40 ft. when paired with a 15-ft. gun and 25-ft. cable option (a 6-ft. cable is also available for benchtop/dual wire applications).

"The Millermatic Reach has greatly affected the way we work," he says. "We position the Reach inside or outside the frame and move it around the perimeter. With our old system, the operator had to climb out of the frame, unhook the ground clamp, unplug the welder and move the whole system around the frame. With the Reach, the welder stays in one place."



While welding system on carts with gas cylinders hooked up to them can't be repositioned inside a sign frame, that's no problem for an extended reach feeder.

While using an extended reach feeder is a simple concept, this workflow change saves two-and-a-half hours or more on a large sign. Given an average sign shop overhead rate of \$40/hour (or more), this amounts to a \$100 savings on every frame. And given the high production rates at Jones Sign, where a two-man team often fabricates one large sign every 80 hours, the savings adds up quickly. With a list price of approximately \$1,000, a Millermatic Reach feeder would provide a payback in a matter of months.

"Carts with both welders and wire feeders on them are not as easy to maneuver around compared to a [30 lb.] Reach feeder on a cart," says Benoit. "It's a time savings and cost convenience, and I'd like to congratulate Miller on coming up with new, innovative machines for us to use in our process."