



LINCOLN ELECTRIC

HYPERFILL®

ON PIPE 1G-R

HyperFill® is an industry changing twin wire welding process that provides significantly higher pipe welding productivity with the simplicity that any pipe welder can learn to use. The HyperFill® process runs off of the latest generation Power Wave® or PIPEFAB™ machine, the root pass is completed with STT® and fill and cap passes with HyperFill®. The use of HyperFill in 1G-Rotated process piping applications has been proven to show dramatic increases in diameter inches per day production.

Solution Requirements:
HyperFill® is a patented and licensed twin-wire solution that is designed to perform specifically with select Lincoln Electric welding wire. To access this licensed solution, activation is required through the Lincoln Electric REVEAL™ Activation Platform. [For more details, reference document MC20-106](#)



HYPERFILL® PRODUCTIVITY



DEPOSITION RATE

(lbs | Kgs/hr)

5X vs. TIG
3X vs. STICK
2X vs. GMAW



DIAMETER INCHES

per day

300+% vs. TIG
200% vs. Conventional GMAW or SMAW



TRAVEL SPEED

150% TO 450%



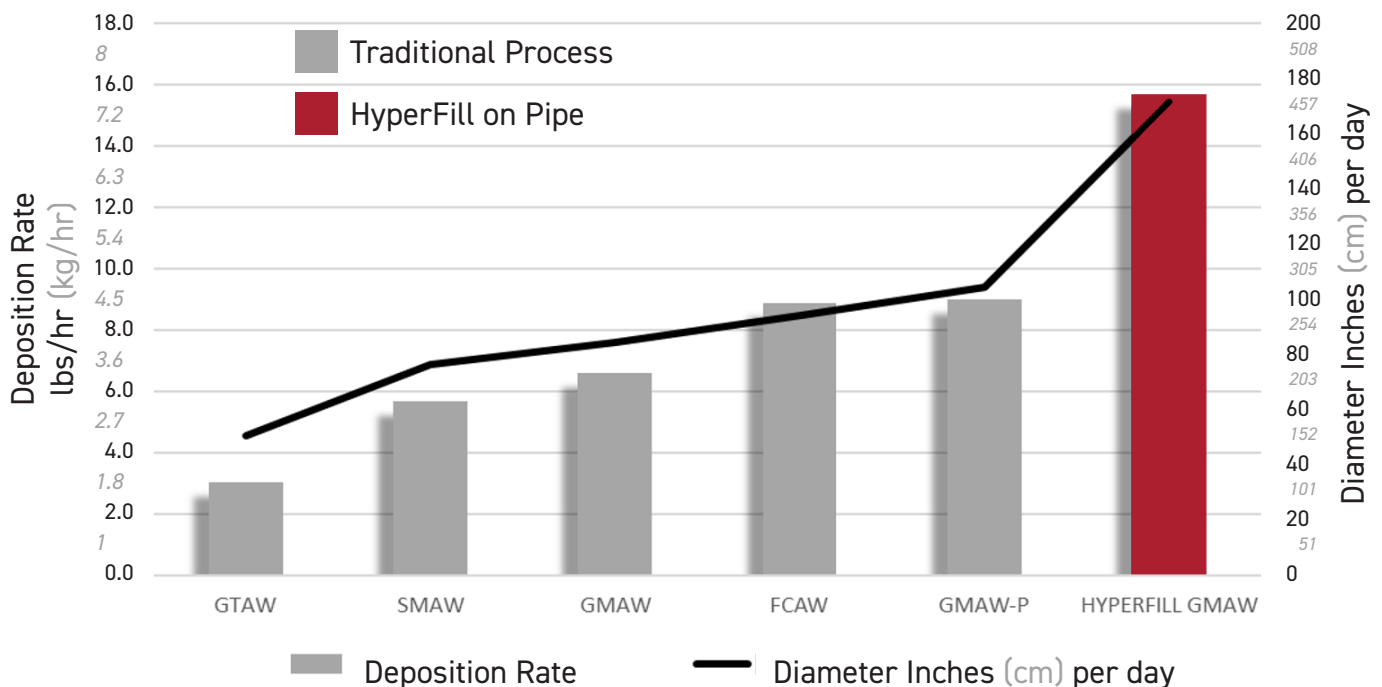
HEAT INPUT

AS MUCH AS

15%

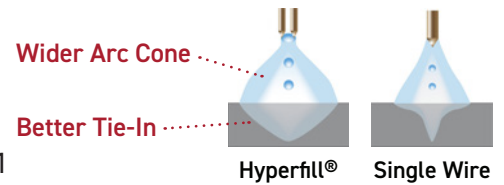
COMPARING PIPE JOINING PROCESSES

NPS 12 | 323.8 MM OD, SCH80 | 17.5 MM WT, V-GROOVE, 1G-R



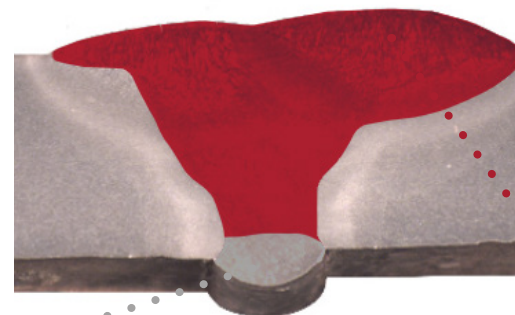
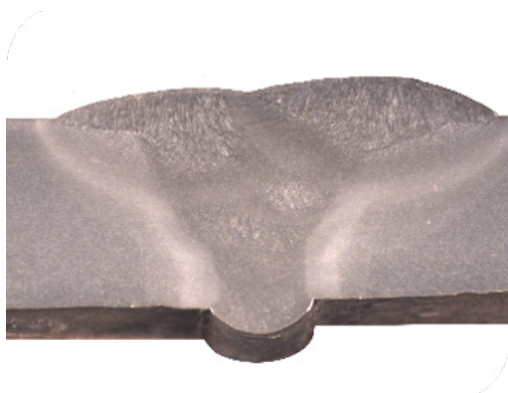
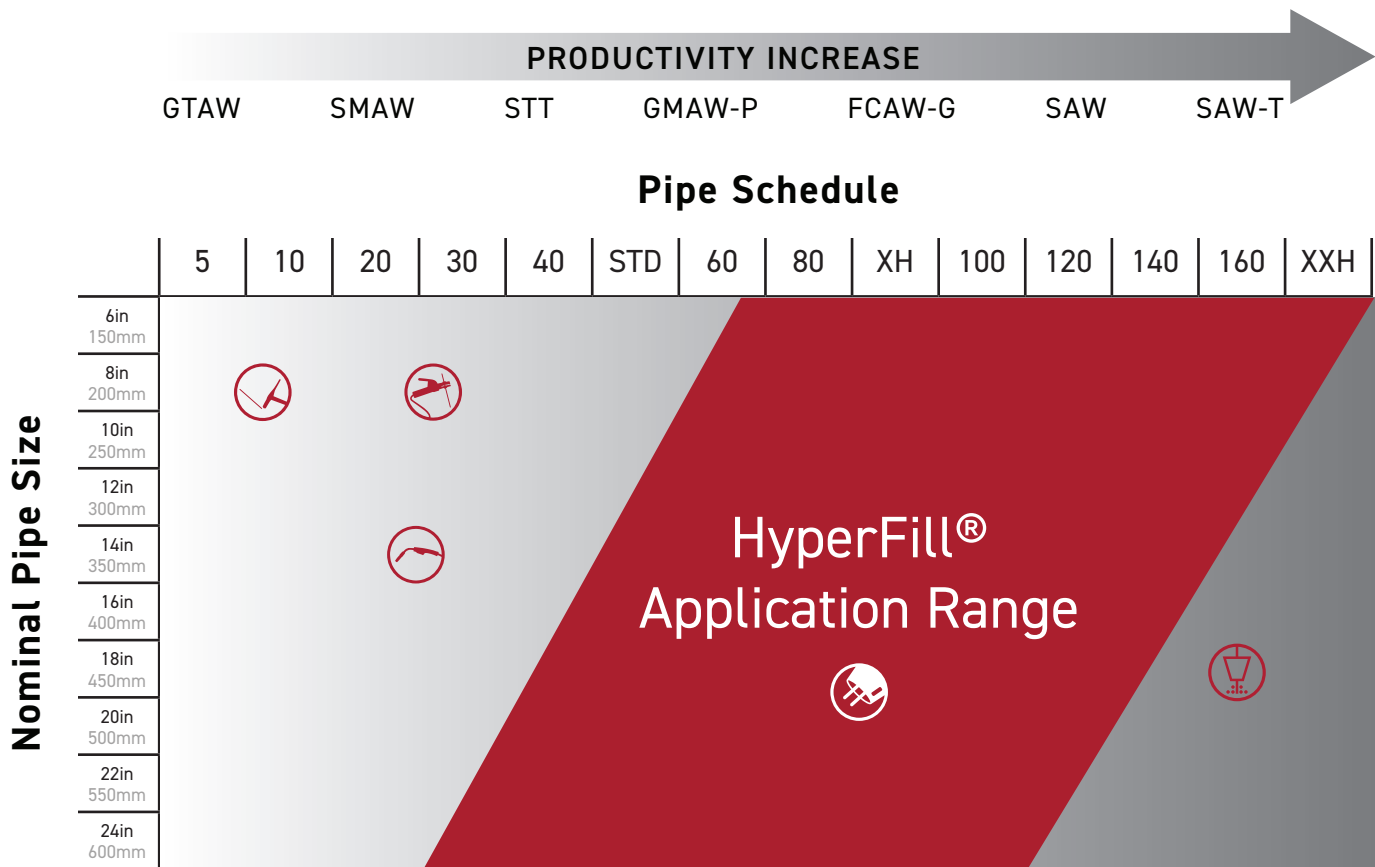
KEY SOLUTION ATTRIBUTES

- » Pipe Range: 6" (168.3mm) SCH80 to 24" (610mm) XH pipe sizes
- » Deposition rates approaching SAW
- » Designed for solid, metal cored, and flux cored wires
- » Achieves low temperature impacts (20ft-lbs+ @ -50F | 27J @ -46C)
- » Tested and Qualified results when compared to ASME Section IX, B31.3, B31.1



HYPERFILL APPLICATION 1-G ROTATED

Maximize Fill & Cap Productivity on 1G Rotated Pipe. The STT® process is the recommended root pass method prior to applying HyperFill Fill & Cap



STT® Root

HyperFill Fill & Cap

SOLUTION COMPONENTS



Power Source / Feeder

PIPEFAB™ READY-PAK®

Power Wave® S500

Power Wave® S700

Power Feed® 84



Torch & Accessories

Magnum® Pro 500 WC (Manual or Mechanized)

HyperFill® Contact Tip, Diffuser

HyperFill® Drive Rolls

HyperFill® Reel Stand



Lincoln Electric Premium Wire

SuperArc® L-56®

SuperArc® L-59®

SupraMig® HD

SupraMig®



Automation Options Available

Mini-Pantheon®

*For other automation options contact
Lincoln Rep

Test Results Disclaimer

Test results for mechanical properties, deposit, fume generation, or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards. Actual results will vary depending on many factors, including, but not limited to: the base material or substrate being welded, the welding procedure and welding process, and the unique conditions present in the workplace or welding environment. Users and employers have the sole responsibility for and control over workplace conditions, including the manner in which work is performed and the safety measures taken. Always read and follow applicable OSHA regulations as well as all information on product labeling and safety data sheets when using Lincoln Electric products. Safety data sheets for Lincoln Electric products can be found at <http://www.lincolnelectric.com/en-us/support/msds/Pages/sds-search.aspx>. Users and employers should have an industrial hygienist check worker exposure levels to be certain that they are within applicable OSHA PEL and ACGIH TLV limits for the particular application or weldment.

HyperFill™ Waveform Activation Capability with Power Wave® and PIPEFAB™ Systems

Your purchase of a Lincoln Electric Power Wave welding system comes with (i) a license to use Lincoln Electric standard Power Wave waveforms, and (ii) HyperFill waveform capability, which requires a separate license. Without the separate license, the HyperFill waveform is not available for use on these machines, and only the standard Power Wave waveforms are usable.

For more information, please see the REVEAL/HyperFill Supplemental Terms and Conditions [here](#)

Customer Assistance Policy

The business of The Lincoln Electric Company® is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.