

INCREASE YOUR
DEPOSITION RATE
BY UP TO

50%

HYPERFILL[®]

**BIGGER WELDS, FASTER WELDS IN SEMI-AUTOMATIC
GMAW WELDING**

**LINCOLN[®]
ELECTRIC**

www.lincolnelectriceurope.com

INNOVATIVE TWIN-WIRE DESIGN

HyperFill® is a patented twin-wire GMAW-P solution that utilizes two electrically conductive wires, energized by a single power source and fed through a single wire feeder, single gun liner and a single tip.

USER ADVANTAGES

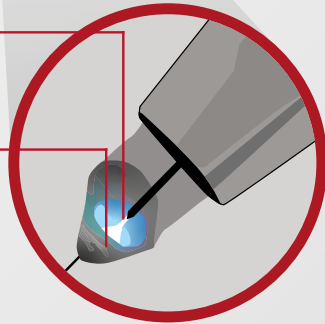
- Single power source
- Single feeder
- Single gun liner
- Single contact tip
- Single electrical arc

Single Wire

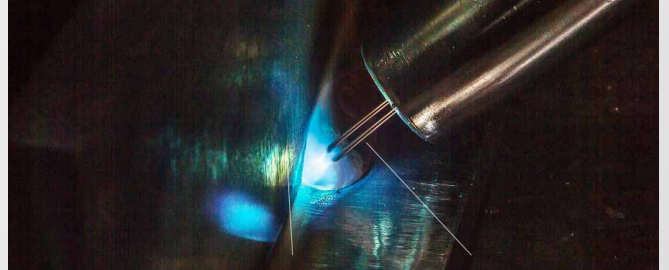


Generates a deep, narrow arc cone

Arc stability deteriorates at higher wire feed speeds making process more difficult to use

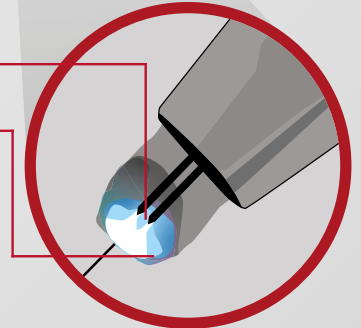


HYPERFILL®



Generates a wide, evenly-distributed arc cone

Smooth, stable puddle is more favorable and makes process easy to use at higher deposition rates



UNIQUE GMAW PROCESS, TWO WIRES A SINGLE ARC

Due to its innovative twin-wire design, HyperFill® is able to utilize two smaller diameter wires to produce a larger weld droplet and arc cone. In return, this generates a large weld puddle that is easy to manage and control, allowing operators to increase deposition by an average of 50% over traditional single-wire processes.

USER ADVANTAGES

- Higher deposition rate
- Easy molten puddle control
- Comfortable for the welder
- Large beads achievable



WIRE ORIENTATION DOES NOT AFFECT ARC CHARACTERISTICS IN CONTRARY TO CONVENTIONAL TANDEM SOLUTIONS WITH TWO ARCS



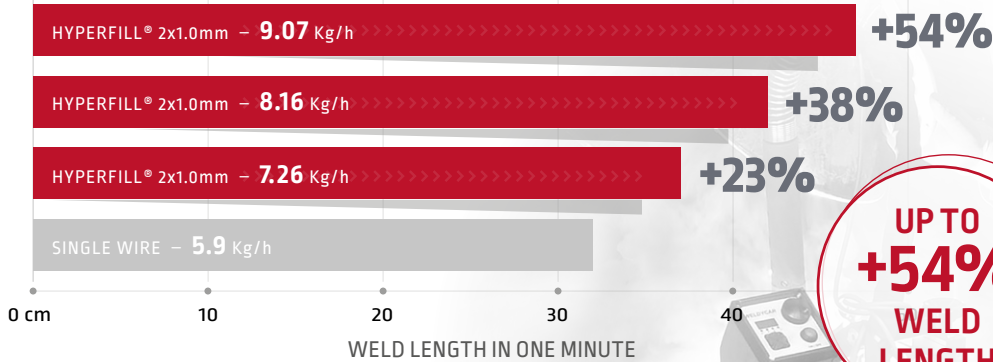
INCREASE YOUR EFFICIENCY BY IMPROVING WELDING SPEED OR INCREASING BEAD SIZE

Weld length achievable with HyperFill® compared to single wire.



HYPERFILL® EFFECT ON TRAVEL SPEED

Based on 8x8 mm legs size, realized with Power Wave® S500



- Extendable to robotic and automatic applications
- Usable with both drums and spools
- Extendable to mechanisation thanks to **WELDYCAR**

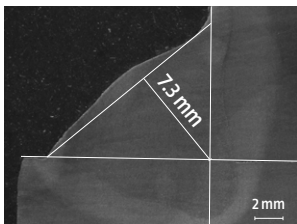
UP TO +54% WELD LENGTH

USER ADVANTAGES

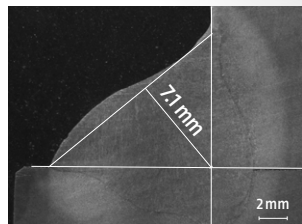
- Reduce number of passes
- Higher productivity
- Reduced downtime

HYPERFILL® AGAINST THE GRAVITY

PRODUCE LARGER BEADS AT HIGHER SPEED, KEEPING SYMETRIC WELD GEOMETRY IN PB POSITION



HyperFill®
390 A, 33.5 V, Gas: 82%Ar-18%CO₂
30 cm/min, 2.6 kJ/mm



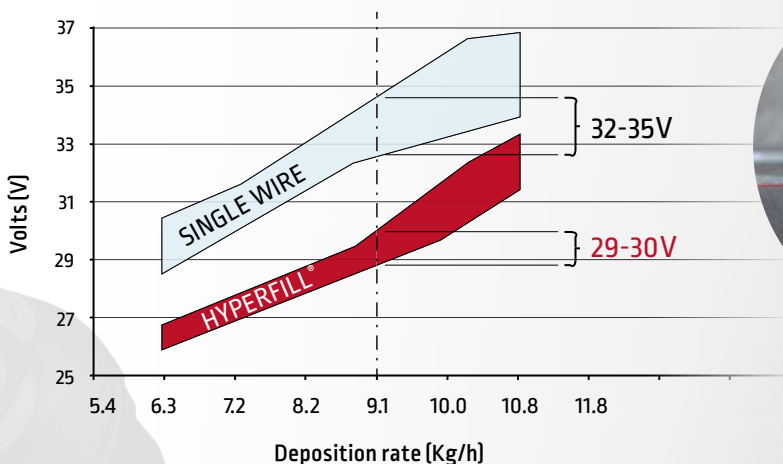
Single wire 1.2 mm CV
320 A, 31.7 V, Gas: 82%Ar-18%CO₂
22 cm/min, 2.7kJ/mm

MORE THAN 7mm THROAT IN SINGLE PASS

UP TO +35% IN WELDING SPEED SAME HEAT INPUT & PENETRATION

REDUCED TENDENCY FOR UNDERCUT

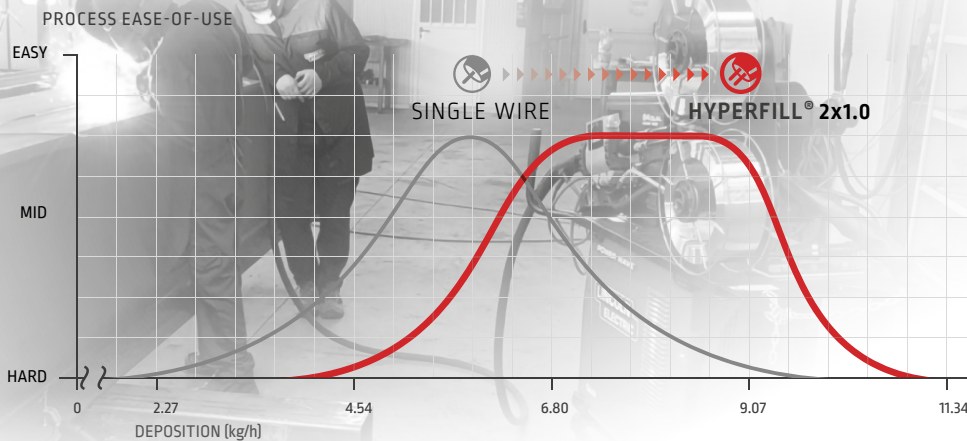
LOWER VOLTAGE ENABLES THE USE OF HIGHER DEPOSITION RATES AND CAN REDUCE UNDERCUT



EXCELLENT WELD PROFILE AND PENETRATION

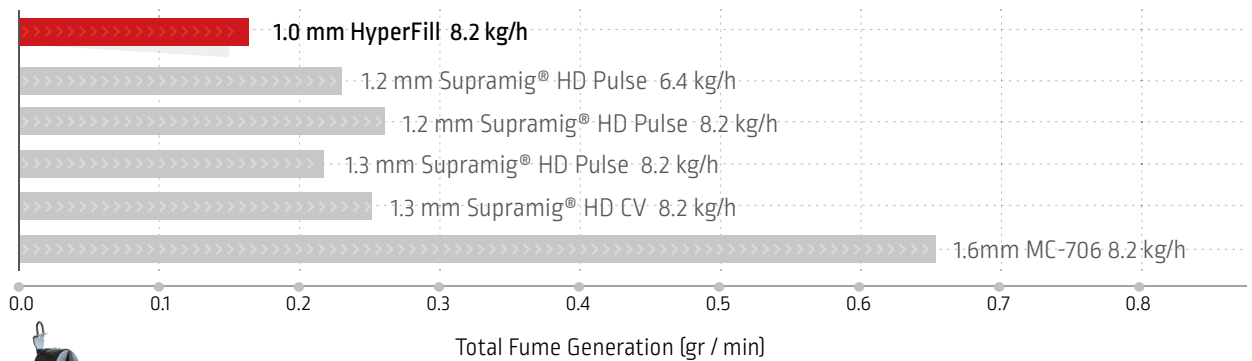
HIGHER DEPOSITION RATE

PROCESS COMPARISON – DEPOSITION RANGE IN SEMI-AUTOMATIC WELDING



WITH EASIER PUDDLE CONTROL UP TO 9 kg/h

REDUCED FUME GENERATION



EASY IMPLEMENTATION

SINGLE POWER + SINGLE FEEDER + SINGLE GUN LINER + SINGLE CONTACT TIP + SINGLE ELECTRICAL ARC

= LOW SYSTEM COMPLEXITY + EASY IMPLEMENTATION + LOW INVESTMENT



THE SOLUTION COMPONENTS



Power Source

Power Wave® S500
with Reel stand
conversion kit
+ Cool Arc® 50



Wire Feeder

Power Feed® 84
HyperFill® Drive Rolls
HyperFill® Inlet Bushing



Dual Wire Reels Stand /
Cart Mounting Kit / Trolley / Accessories



Consumables for mild steel*

Supramig® HD / HF
AWS 5.18: ER70S-6
ISO 14341-A: G 46 4 M 3Si1
/ G 42 3 C 3Si1

Supramig Ultra® HD / HF
AWS 5.18: ER70S-6
ISO 14341-A: 14341-A G46 3
C 4Si1 / G50 5 M 4Si1

Gun / Torch

Magnum®PRO 500W
Water Cooled Gun
Patented HyperFill® Tip



* Contact our local representative for Derlikon wires.

HYPERFILL® CAN INCREASE YOUR PRODUCTIVITY BECAUSE:

HyperFill® will provide all users with the opportunity to achieve higher deposition rates, faster travel speeds, and make bigger welds with greater ease.

Solution Requirements:
HyperFill® is a patented and licensed twin-wire MIG 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® takes your high deposition welding to the next level

LET US PROVE IT.

BOOK AN APPOINTMENT NOW!

BEING PRESENT LOCALLY MAKES US MORE AWARE GLOBALLY

125
YEARS OF EXPERIENCE

325+
GLOBAL R&D TEAM



3.0
BILLION USD REVENUE

38
SOLUTION CENTERS

11 000
EMPLOYEES WORLDWIDE

- Global Headquarters
- Solution Centers

HYPERFILL® WAVEFORM ACTIVATION CAPABILITY WITH POWER WAVE® AND PIPEFAB™ SYSTEMS

Your purchase of a Lincoln Power Wave or PIPEFAB Welding System comes with (i) a license to use Lincoln Electric standard Power Wave / PIPEFAB waveforms, and (ii) HyperFill waveform capability, which requires the purchase of premium Lincoln Electric wire or purchase of a separate license. Unless one of these is purchased, the HyperFill waveform will not be available for use on these machines, and only the standard Power Wave / PIPEFAB waveforms are usable.

HYPERFILL® COST SAVING ESTIMATES

The cost and savings estimates provided in this document are for reference purposes only. They are an estimate and not a guarantee of savings. Actual results may vary. The [PRICE] used as part of this calculation does not imply that the [PRICE] is guaranteed. Actual [PRICE] may vary and is determined at the time the product is shipped.

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications 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, or to provide engineering advice in relation to a specific situation. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the definition of specifications, and 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.



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