Designed to revolutionize heavy fabrication productivity, the patent-pending HyperFill twin wire MIG solution allows for increased deposition rates without compromising puddle stability or weld quality. Utilizing a single power source, a single wire feeder, and a single tip, this innovative twin wire design delivers a wide, smooth arc cone that allows for deposition rates above 18lbs/hr | 8 kg/hr. (24+ lbs/hr. | 10.8 kg/hr robotic) without added system or operator complexity.

**PROCESS COMPARISON** - 3/8 IN | 9.5 MM FILLAT 18 LBS | 8.2 KG / HR

**Single Wire**
E70C-6M .052 IN (1.4 MM)

Generates a deep, narrow arc cone

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

Narrow arc cone, narrow penetration profile. Increased risk of weld defects at higher deposition rates.

**HYPERFILL**
SuperArc® .040 IN (1.0 MM)

Generates a wide, evenly-distributed arc cone

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

Wide arc cone leads to favorable, robust penetration profile and helps to improve weld quality at high deposition rates.

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PRODUCTIVITY INCREASE - SINGLE WIRE VS. HYPERFILL

<table>
<thead>
<tr>
<th>DEPOSITION LBS</th>
<th>KG / HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 lbs</td>
<td>10.89 kg / HR</td>
</tr>
<tr>
<td>22 lbs</td>
<td>9.98 kg / HR</td>
</tr>
<tr>
<td>20 lbs</td>
<td>9.07 kg / HR</td>
</tr>
<tr>
<td>18 lbs</td>
<td>8.16 kg / HR</td>
</tr>
<tr>
<td>16 lbs</td>
<td>7.26 kg / HR</td>
</tr>
<tr>
<td>13 lbs</td>
<td>5.9 kg / HR</td>
</tr>
</tbody>
</table>

POWER WAVE® S700

POWER WAVE® R450 / S500

DISTANCE TRAVELED

BASELINE PARAMETERS
5/16” Miter weld with single-wire at 13lbs/hr. (13in/min. travel speed).

PROCESS COMPARISON - DEPOSITION RANGE

INCREASED DEPOSITION RATES
On average, usable deposition rates increase up to 50% while maintaining process ease-of-use.

SOLUTION COMPONENTS

Power Source
- Power Wave® S500
- Power Wave® R450 / S700 (Robotic)
- HyperFill™ Waveform
- Cool Arc® 55 or 55S

Gun / Torch
- Magnum® PRO 500A Water Cooled Gun
- Magnum® PRO 500A Water Cooled (Robotic)
- HyperFill™ Tip (contact tip, diffuser)

Wire Feeder
- Power Feed® 84
- AutoDrive® 4R 220 (Robotic)
- HyperFill™ Drive Rolls [0.35 - 0.45]
- HyperFill™ Inlet Bushing

Test Results Disclaimer
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 consumables and procedure before use in the intended application.

Customer Assistance Policy
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.