LINCOLN® ELECTRIC

INCREASE DEPOSITION RATES UP TO 50%

HYPERFILL®

TWIN WIRE FCAW SOLUTION

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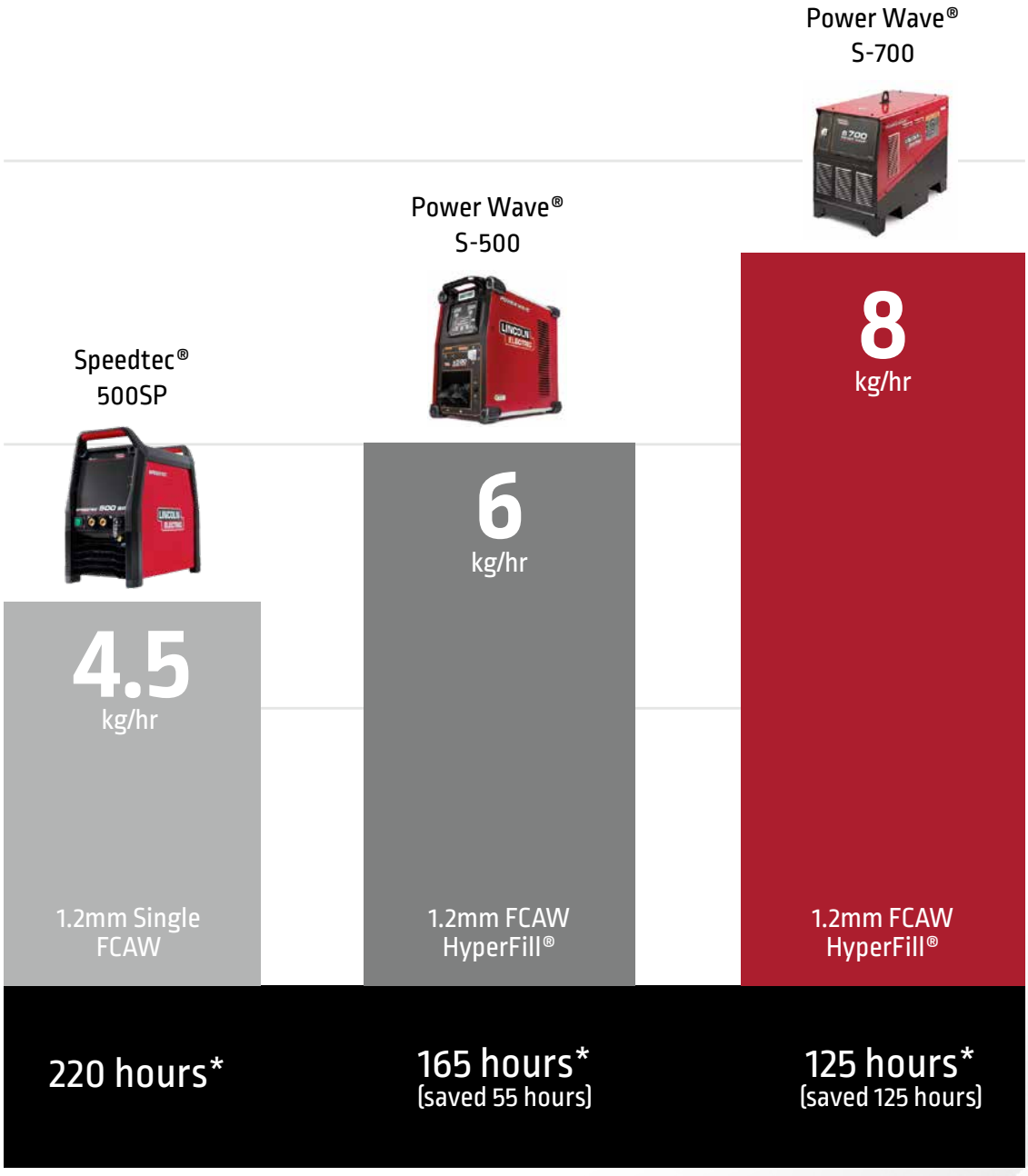
Introducing the HyperFill®

The HyperFill® twin-wire MIG solution was developed to revolutionize heavy fabrication productivity. Designed for semiautomatic and robotic applications, HyperFill® redefines high deposition welding – allowing you to make **larger welds, faster** and **more easily.**
With its innovative twin-wire design, HyperFill® allows for deposition rates above 6 kgs/hr (8+ kgs/hr robotically) with Gas Shielded Flux Cored Wires without compromising weld quality or operator ease-of-use.

- **Maximize productivity** – Increases deposition rates over single wire applications
- **Improve weld quality** – Stable arc for easy control of large weld puddles
- **Low system complexity** – Powered by a single power source. Fed through a single wire feeder and single contact tip

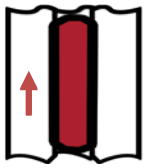
Deposition Rates Comparison



* Welding Time Study:
Arc time to deposit 1000kg of weld metal at 100% operating factor

Cost Analysis

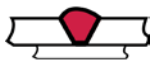
	Welding Process	1.2mm Single FCAW	1.2mm FCAW HyperFill®	
			Semi-Automatic with Power Wave® S500	Automatic with Power Wave® S700
PA Position 	Deposition Rate (kg/hr) @ 100%	4.3	6	8
	% Difference	-	33% ↑	60% ↑
	Labour & OH Cost per item	155000	111000	83300
	% Difference	-	33% ↓	60% ↓
	Potential Savings	-	**44K€**	**74K€**

	Welding Process	1.2mm Single FCAW	1.2mm FCAW HYPERFILL
			Semi-Automatic with Power Wave® S500
PF Position 	Deposition Rate (kg/hr)	2.6	3.6
	% Difference	-	32% ↑
	Labour & OH Cost per item	256000	185000
	% Difference	-	33% ↓
	Potential Annual Savings	-	**64K€**

Cost analysis above are done with the following assumptions:

- *Weld metal to be deposited: 5000Kg*
- *Operating factor - 30% in semi-automatic*
  60% in automatic
- *Labour & overhead cost – 40€ per operator/hour in semi-automatic*
  –80€ per operator/hour in automatic
- *Weld metal to be deposited: 1000Kg*
- *Downhand position*

Typical welding parameters

Welding Procedure								
	Process	Shielding Gas	Wire type	Amps / Wire Feed Speed	Volts	Travel Speed (cm/min)	Heat input (kJ/mm)	Dep. Rate (Kg/hr)
PA Position 	HyperFill	M21	Fluxofil 1.2mm	350-360A 8-9m/min	29-30V	22-30	2-2.5	6
PF Position 				240-270A 4-4.5m/min	24-25V	22-27	1.0-1.5	3.6

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.

MINIMAL COMPLEXITY :

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

HYPERFILL® & THE REVEAL™ PLATFORM

The REVEAL Platform is an embedded software package that is integrated into all Lincoln Electric® Advanced Process Welding equipment. Using a simple scanning function, the REVEAL Platform allows users to activate certain process-optimized solutions that use multiple Lincoln Electric components – such as a power source, specific weld mode, and consumable – in order to maximize welding performance and deliver the true value of the solution.

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