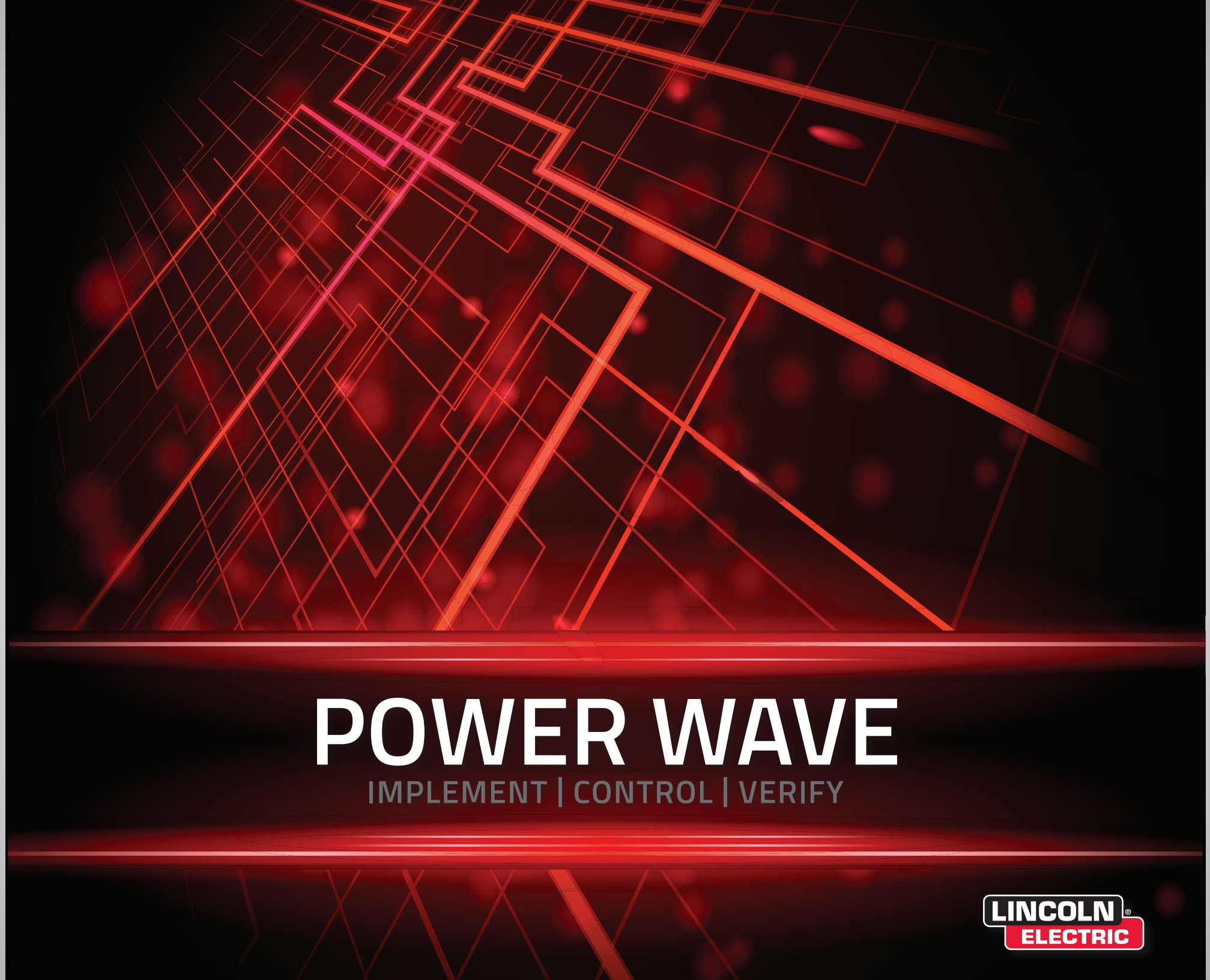
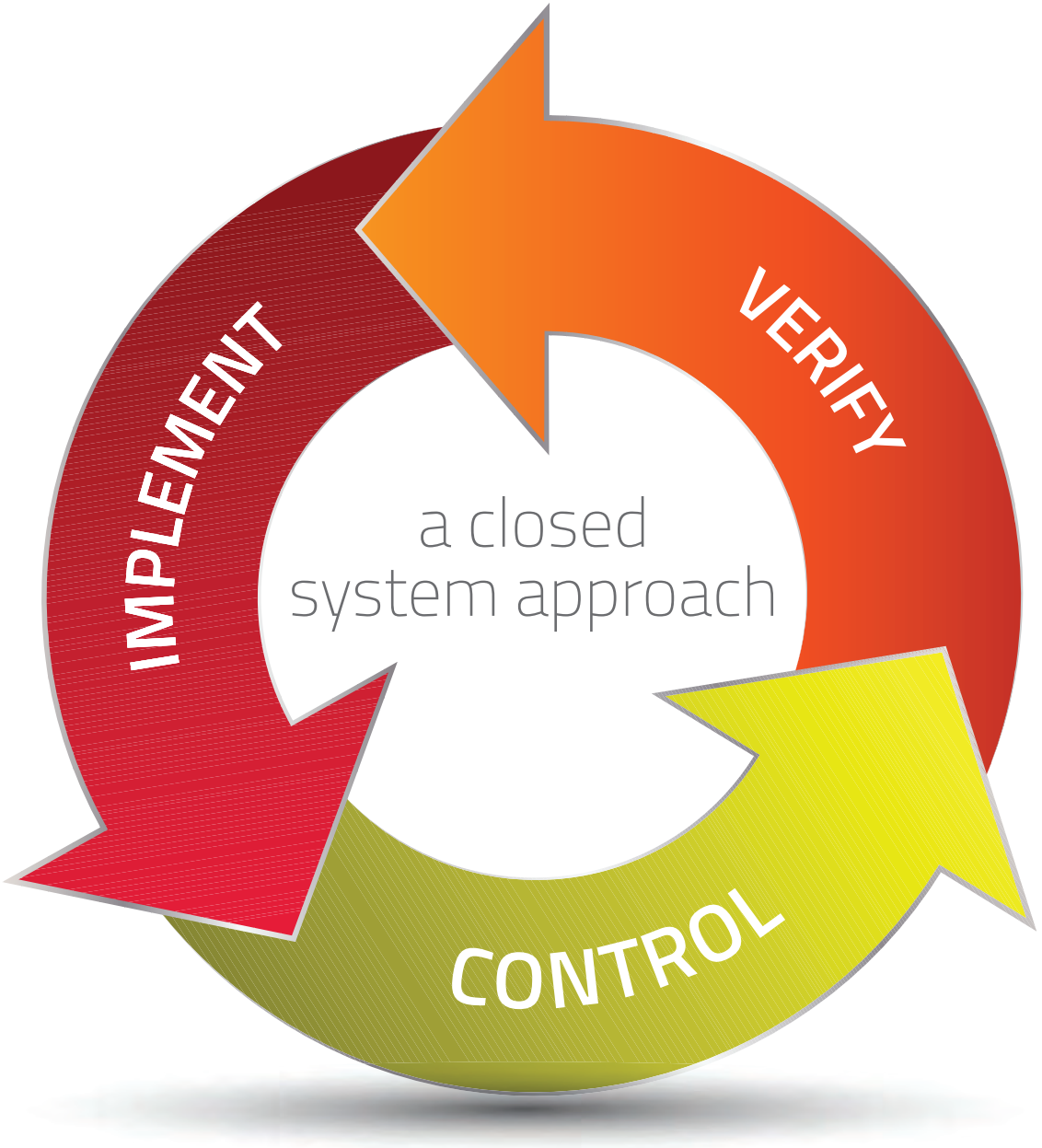

POWER WAVE
IMPLEMENT | CONTROL | VERIFY
LINCOLN ELECTRIC

a philosophy of weld process control

Rethink your fabrication operation by looking at a **closed system approach** to meet today's following challenges:

- Complex material requirements
- Demanding customers
- Changing industry regulations

Lincoln Electric's advanced process Power Wave® equipment is designed to embody **A Philosophy of Weld Process Control**. With a view of the entire welding operation as a system, it provides you with the tools required for complete weld quality control.



The system operates on three principles:

1. **IMPLEMENT**
   Waveform Control Technology®
   Optimize arc performance for a specific welding application, and dial in the best waveform for the job.

2. **CONTROL**
   User Interface Point of Use
   Ensure quality and enhance part-to-part consistency with equipment and operator metrics, along with procedure range lockouts.

3. **VERIFY**
   Software Solutions
   Make smart business decisions by having a dashboard view of your welding operation and pinpoint areas needing improvement.

implement

ADVANCED WAVEFORM CONTROL TECHNOLOGY

Competition can be fierce, so relying on past methods may not be the best course of action. Operating with a 'one-size-fits-all' mentality can be costly and usually leads to more post-weld cleaning and scrap.

Power Wave technology provides manufacturers with maximum flexibility and process customization for any part profile. Using advanced processes designed for a specific application, such as wire diameter, alloy composition and welding position, allows you to push productivity to new levels. There's also reduced operator training because advanced processes and modern equipment with fast arc response are easier to optimize. The result is less complex system set-up for experienced and new operators.

control

USER INTERFACE POINT OF USE CONTROLS

Welding can be the most complex part of any manufacturing operation. Operators are faced with the combination of all up-stream tolerances, and improper settings can lead to costly rework, or worse, in-field failures. With the stakes so high, running the system with little to no controls in place is a risky move. With few controls in place, fabricators are open to recurring quality issues that make it difficult to pinpoint or verify implemented corrections.

The user interface on the Power Wave platform is designed with the operator, foreman and engineer in mind. Presenting the necessary information to the operator helps eliminate the guess work, and system controls provide management with the tools necessary to establish appropriate boundaries. The Power Wave approach helps initiate quality behaviors in operators by locking in procedure variables that lead to sound weldments, such as run-in and crater fill. A well-controlled system helps guide operators through the decision-making process and assists quality assurance initiatives.

verify

SOFTWARE SOLUTIONS

With the costs to manufacture so high, there is no room for waste in the process stream. Although welding is a core part of many manufacturing operations, it is often the least understood. Costs associated with welding are typically arrived at indirectly, or are only generally captured, and traceability is another issue in and of itself. More and more manufacturers, as well as their customers or qualifying agencies, are demanding proof that procedures are followed and performed by qualified operators. In most cases, this verification is performed manually, if at all, or requires the support of multiple vendors to produce results.

Through the Power Wave platform, Lincoln Electric can provide you with an in-depth view into your welding operations – both locally and globally. The Power Wave platform includes many standard software options that allow you to gain productivity metrics, verify weld quality and supply traceability reports to your customers. Advanced solutions are also available to assist operators with weld location and process settings.

Monitor operations at your plants all over the world in real time.


mobile Phone
mini note
touch pad
personal computer
Cloud Network
remote server
database
notebook computer

Publication E5.101 | Issue Date 10/13

THE LINCOLN ELECTRIC COMPANY
22801 St. Clair Avenue ▪ Cleveland, OH U.S.A. ▪ 44117-1199
Phone: +1.216.481.8100 ▪ www.lincolnelectric.com

LINCOLN® ELECTRIC