

PANDJIRIS,[®] INC.

PIPP PARTNERS IN
PROFITS &
PROGRESS

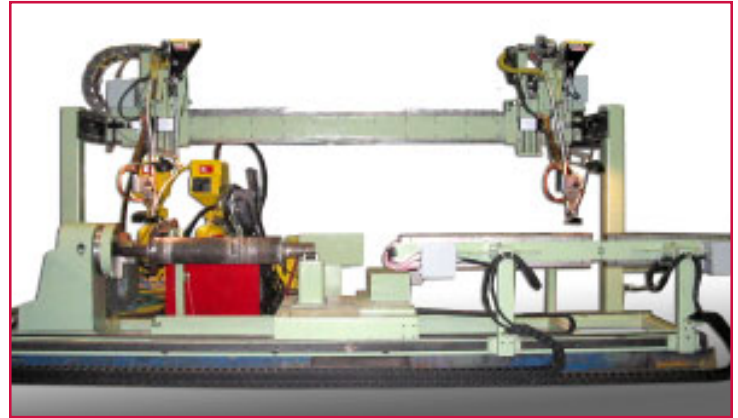
PRODUCT BULLETIN FOR LINCOLN PARTNERS

SPRING 2005

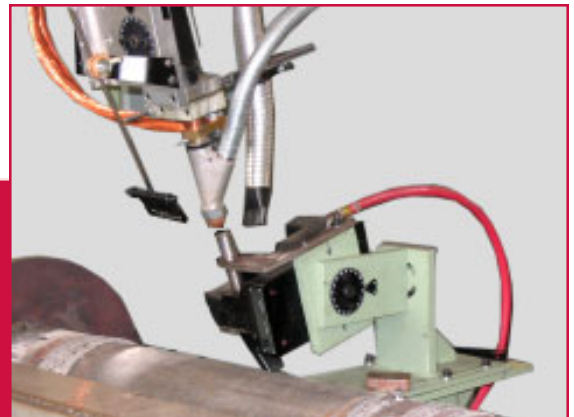
FOR OVERLAY OF STEEL MILL CASTER ROLLS

Recently, representatives of both Lincoln Electric and Pandjiris began work with Bao Steel, one of the largest steel producers in China, to develop a specification for a weld lathe. The weld lathe was to perform overlay work on casters for Bao Steel's upcoming state of the art casting line. Bao Steel's basic request was to apply the same state of the art requirement to the weld lathe for the overlay process.

Basic requirements included multiple layers of welding on one or possibly two casters using the submerged arc welding process with two heads operating in conjunction with each other. Bao Steel has a long, successful history with both Lincoln Electric and Pandjiris, so it was natural for them to return to what they knew had worked in the past. After several months of working in partnership, a system was developed which satisfied the requirements of the customer. The outcome of this partnership is what we believe to be the most advanced overlay lathe in use today. From the operator touch screen interface through the eight axes of programmable servo drives to the Lincoln single wire submerged arc packages and the Weld Engineering flux recovery and feed systems all combined to produce a smooth and efficient welding operation. The system even includes an automatic wire trimming function thus eliminating any need for operator intervention throughout multiple layers of welding.



A close working relationship between the customer, Lincoln Electric and Pandjiris has produced yet one more success story. The lathe, based on Bao Steel's acceptance at the commissioning, has met or exceeded all expectations. Pandjiris continues to work with Lincoln Electric to find Automation Solutions for customers throughout the world.



OVERLAY LATHE WITH LINCOLN SUBARC

FEATURES OF THE SYSTEM INCLUDE:

- Eight axes of programmable servo motion, including:
 - Rotation via headstock
 - Linear travel on two independent carriages
 - Over center positioning through side beam positioning
 - Vertical positioning by way of two independent slides
 - Oscillation and cross seam adjustment through two independent slides
- Touch screen interface for operator
- PLC and PC controls
- Data acquisition
- Programmable weld parameters
- Program storage and recall capability
- Two Lincoln single wire submerged arc welding packages
- Two Weld Engineering flux recovery/feed systems
- Two automatic welding wire cutters (Allows multiple automatic passes without operator intervention.)
- Radiant heat panels to aid in maintaining pre-heat and interpass temperatures.
- Weight capacity of 12,000 pounds
- Length capacity of approximately 15'
- Accommodates up to a 14" diameter range

