Welding & cutting

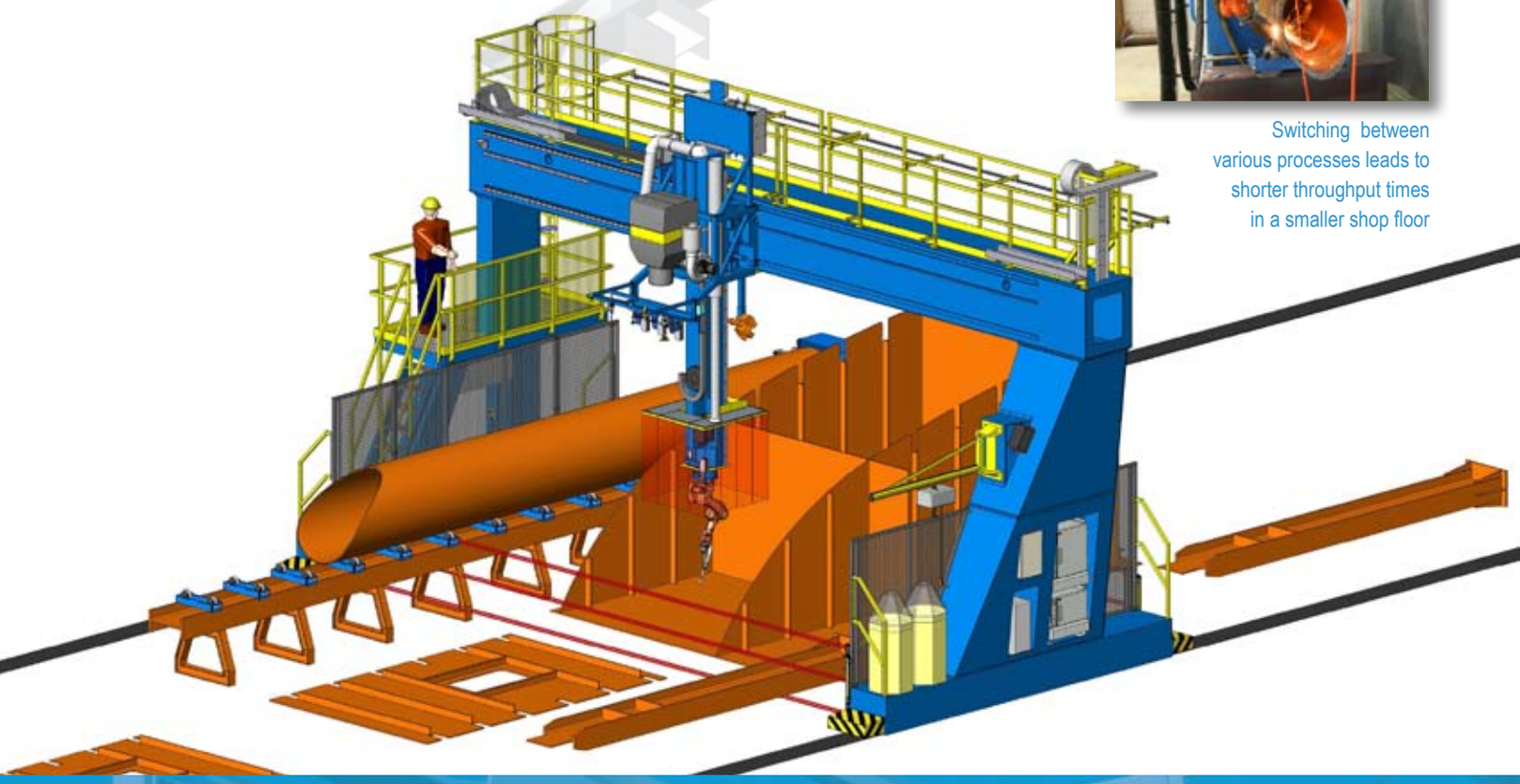
Flexible production, higher quality and throughput

Automatic welding of panels, H-beams and double hull sections

Welding & Cutting system

Over the years Kranendonk has supplied many production systems and with this experience we have developed a Multi-functional Production System suitable for welding and cutting of various products. For example: welding of H-beams, webs, panels and double bottom hull sections, cutting/ coping of h-beams, tubes and plates. The actual welding or cutting is performed by an industrial robot suspended from a gantry. The work range of the robot is enlarged by using a 3.000 mm hoist, 8.500 mm transversal travel and a longitudinal travel of 40.000 mm by rail. Almost no product is too large to be cut or weld by the system in this large work area. This Multi-functional Production System is a must for every company active in the field of construction, offshore and shipbuilding, who is seeking for process leadership due to shorter throughput times in a smaller shop floor.

Switching between various processes leads to shorter throughput times in a smaller shop floor



Multi-functional Production System

KRANENDONK

ARAC software

The Multi-functional Production Systems is supplied with Kranendonk ARAC software. The advanced ARAC software combines easy macro-based programming of the robots with simple graphical online cell and process control. ARAC is able to:

- Display the geometrical information by use of simulation in Excel.
- Interactively add the necessary processing information (CAM data) such as: which contours to process, processing speeds, process parameters, tool angles (e.g. torch angle) to create bevels.
- Convert the data into such a form, that the ARAC compiler can generate a robot program from these data.

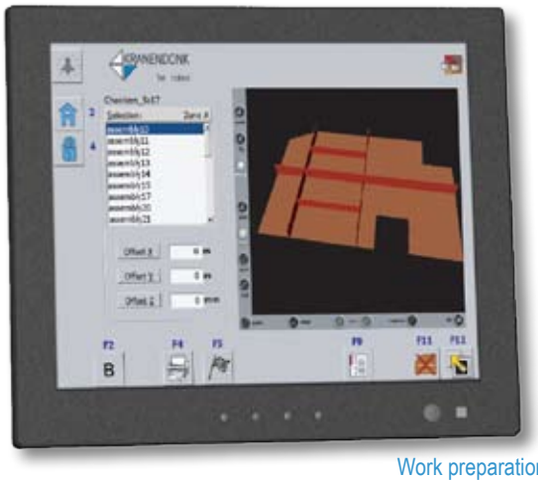
Integration with various CAD-systems is optionally.

Our systems are designed to be user friendly

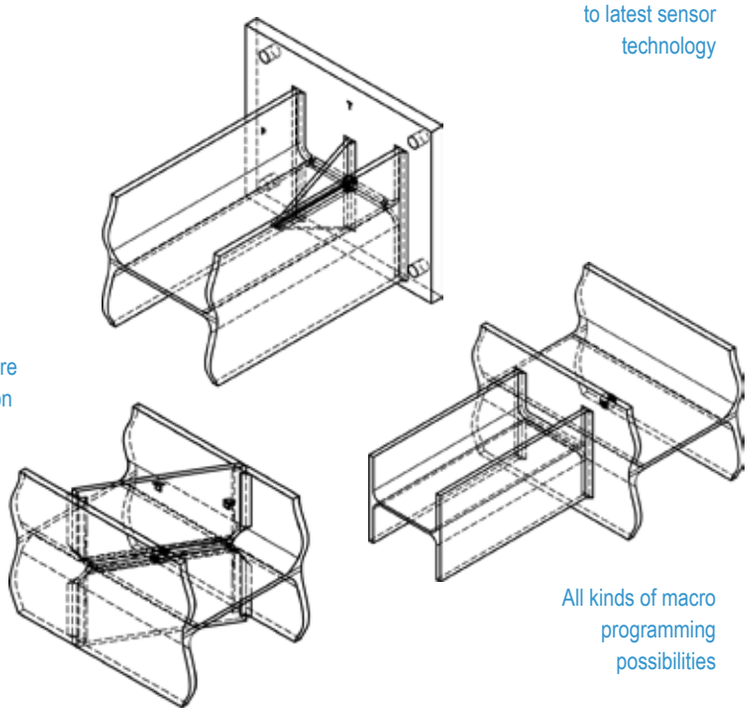
Operation

Production with the Multi-functional Production Systems is automatic. Products are placed on the work floor and product parameters are entered into the system. The system will then automatically generate and execute the welding or cutting programs for that unique product. The robot will locate and weld the products automatically. During processing the operators are aloud to pick and place products at the work floor due to the unique dynamic safety system.

Accurate weld preparation due to latest sensor technology



Work preparation in the office with ARAC software for continuous production



All kinds of macro programming possibilities

Main features

- Automatic welding and cutting
- Accessible work floor for the operators during processing
- Various products can be processed
- Automatic weld seam location and tracking
- Easy operation by only one supervisor
- CAD/CAM data integration
- Accurate weld preparation due to latest technology

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