

Cloos is back at the Hannover Messe 2015

# The perfect solution for every requirement

Haiger/Hanover – The world's most important industry trade show will take place from 13 to 17 April 2015 in Hanover. After many years of absence Carl Cloos Schweisstechnik GmbH will again participate with a big exhibition booth. In hall 17 – this year completely under the banner of automation technology – Cloos will present a wide range of manual and automated welding at booth no. C 04. The exhibition visitors can expect a wide range of welding processes for different materials and components.

The focus of the exhibition booth is on an automated robot system which is equipped with an automated torch changing system. No matter if thick or thin, steel or aluminium – here you find the right welding process for every product requirement.

#### **Tandem Weld: Powerful welding times two**

The welding specialists will present the new Tandem Weld generation for process-safe and very quick and comfortable welding. In the case of Tandem Weld two separate welding wires are fed and melted simultaneously in one molten pool. The advantages of the Tandem Weld process are a high deposition rate, a high welding speed and thus a low heat input. Since 1996 Cloos has been the global market leader in Tandem Welding and has continuously developed this process. They offer new process combinations for the most different requirements in thin and thick plate welding. The new ZMW 950 Tandem torch is equipped with a powerful cooling integrated in the torch neck and integrated gas nozzle sensor cables. This results in a higher deposition rate, a longer service life and a simple maintenance of the torch.

#### Cold Weld: Welding with minimum heat input

With the Cold Weld process an alternating current produces a very special pulse form, which brings about an extremely low heat input. Due to this type of heat-reduced kind of arc welding the welding process can be optimally controlled. The increased deposition rate can either be used for more filling volume or higher welding speed. The material is only subjected to minimum heat and the original material properties remain to a large extent unchanged.



## Laser Hybrid Weld: High welding speed and optimum weld quality

Also in the field of laser welding Cloos sets new standards. The laser MIG/MAG Hybrid process is the combination of a laser beam with a MIG/MAG welding process in one common process zone thus using the advantages of both processes. Considerable savings in production time and filler material are possible. Full-depth welds can be welded without preparation. Moreover a high weld speed can be reached when welding either thin plates or thick plates. Due to the combination of the two processes many additional parameters can be set. Thus the process is perfectly matched to the respective task.

#### Narrow gap welding: Revolution for thick plate welding

The MIG/MAG Narrow gap technology offers a particular economic efficiency for welding thick-walled component parts. The basis of the narrow gap technology is the rectangular narrow gap blade with a length of up to 400 mm which guides the wire electrode, the shielding gas and the cooling water. Due to the very small opening angle there is no extensive weld preparation and the quantity of filler material and shielded gas can be reduced. The relatively low energy supply during narrow gap welding provides special advantages even for steel and for high-strength fine grained structural steel.

### Avoid production downtime by an automated change of consumables

Another highlight is the new fully automated current tip and gas nozzle changer SpareMatic which allows non-stop welding with operative components. When the welding robot needs new nozzles, the automatic current tip and gas nozzle changer comes into play. The changer takes the torch consumables and replaces them for new ones. Due to its compact, modular design, the SpareMatic can be integrated into both new and existing systems.

## Compact welding robot with new gas nozzle sensor accelerates the production processes

Besides, Cloos presents the new QRH-280 welding robot. This small, light and highly dynamic robot is perfectly suitable for the CLOOS cell solutions. The compact design saves production area and guarantees a very good accessibility to fixtures. The robot is equipped with a new tactile gas nozzle sensor which works with a considerably higher tracking speed. This results in a significant acceleration of the production process and at the same time to an increase of quality.





**Photo 1:** In the case of Tandem Weld two separate welding wires are fed and melted simultaneously in one molten pool.

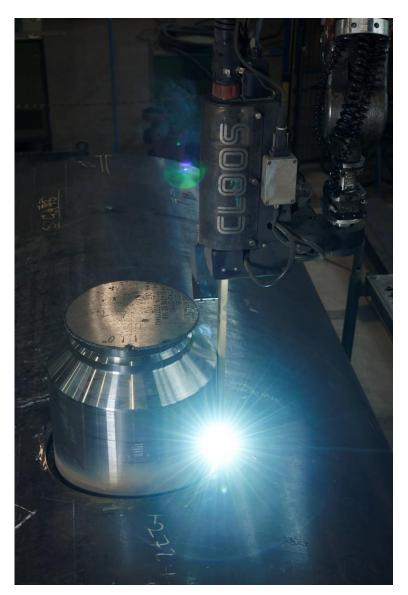


**Photo 2:** The increased deposition rate of the Cold Weld process results in enormous welding speeds particularly in the case of thin plates.



**Photo 3:** The main advantages of Laser Hybrid Weld are a high welding speed and an optimum weld quality.





**Photo 4:** Shorter production times, considerably less material consumption and a high quality are the main characteristics of the narrow gap technology.

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