DOUBLE BLADE FLYING CUT-OFF DB10

UNIVERSAL CLAMP
THE EVOLUTION OF THE SPECIES

When Adda Fer, 10 years ago, designed its first double-bladed flying shear the idea was to market a machine that, ahead of its time, would use the best available technology, meeting the demand of pipe producers for a shear that cut slow with extreme accuracy, no burr on the cut, high performance, versatility and ease of use.

Over the years, there have been several upgrade steps applied on of flying shear created by Adda Fer that have allowed us to optimize the initial design with significant modifications in all its parts with components keeping up with the technological evolution of the moment, up till today.

The current configuration of the double blade flying shear DB10 in fact has the following characteristics:

- Cutting heads mounted on two columns with brushless motors on the X and Y axes, independently controlled, which optimized cutting tracks. This allows to cut any type of profile (round, square, rectangle, irregular shapes);

- Clamps arrangement extremely close to the cutting area to ensure a closure of the tube which minimizes deformation;

- Blade AC motors with vector control to ensure the optimum torque under any condition, capable of cutting from the more common to high-resistance steel grades with HSS blades or with TCT inserts. Top class cutting times, thanks to the possibility to use the blades to the top of their performance;

- The sliding carriage moves on linear guides and sliding blocks, driven by a pinion / rack rectified and a brushless motor dimensioned so as to ensure high levels of torque able to accelerate the carriage in each cycle for an unlimited time without overheating;

- A control software easy to comprehend and use, which allows to optimize the parameters and the cutting paths for each measure; also able to capture all useful working data.
THE EVOLUTION OF THE SPECIES

SIEMENS SINAMICS DRIVES

It should be emphasized that Siemens SINAMICS drives is mounted of flying cut-off, the control logic of the board is managed by a SIMOTION with Profinet cabling.

The software is developed on 2 levels: the first. PLC. made by tool "SIMOTION Scout" while the second, the supervisor’s touch screen, made with the new development environment Siemens Simatic TIA Wincc Comfort.

The operator’s interface graphic pages will be designed to allow operators a rapid takeover of the machine after the start up. Interactive diagnostics allow the operator to immediately identify the cause of any operational stop or anomaly of the system.

The alarm/failure signals follow its logical sequence, avoiding irregular indications and the operator will be timely in helping to solve functional problems, the alarms will also be saved in data base for diagnostics and maintenance.

Pages with trend graphs of the main parameters measured by the machine will be instantly available and data based.
THE EVOLUTION OF THE SPECIES

By working in close daily contact with users we have adapted their growing needs to have a more flexible high performance and universal machine thus developing version 2.0 of machine with the following innovations:

- A system of universal clamps that allows to block virtually any profile, thus eliminating tooling times of the shear for the gearbox and also the cost of a set of equipment for each size;

- Possibility to cut either with the traditional system with emulsified water or oil system and cooling with “cool spray” oil mist;

- Reduction of changeover times thanks to the new design of the blade housing and the use of pneumatic screwdrivers;

- Optimization of the chip discharge and guides protection;

- Implementation of control software to provide the user with all the information needed to increase durability and prevent blades breakage.
Recently, Adda Fer has supplied a Double Blade Flying Cut-Off DB10 as upgrading for a tube production line of a prestigious Indian pipes manufacturer.

Following the customer requirements, Adda Fer cut-off is able to cut:
- round pipes from 63.30 up to 175.0 mm. diameter.
- square pipes from 50 x 50 up to 140 x 140 mm.
- rectangular pipes from 60 x 40 up to 172 x 92 mm.
- range thickness from 1.4 up to 8.0 mm.
- the length range is from 6.0 up to 12.00 m.
- max working speed is about 60 m./min.
ADDA FER WILL SHOW THE LATEST FLYING CUT-OFF DB10 AT NEXT TUBE DUSSELDORF 2016 HALL 6 - BOOTH D02

join the best: 4-8 April 2016
Düsseldorf, Germany