

## 80% OF THE MARKET FOR THICKER PLATES HAS CHOSEN A “DAVI” PLATE ROLL

FABRICATION INDUSTRIES for OIL & GAS and POWER GENERATION are always looking for alloys that allow them to build high pressure vessels, heat exchangers and boilers with very thick high resistance plates. Over the years this industry has gone from the use of minimal resistance to extremely resistant steel.

For this reason, the fabrication industry requires plate rollers with rolling power in the thousands of tons, i.e. up to 6-7,000 tons.

The plate roll suitable for this use is without a doubt the DAVI MAV with variable axis. DAVI has built this model for many years and with continued technological innovation. DAVI set up to design and build a machine from scratch, without leaning on old technologies and came up with a completely new design to address this specialized market.

Today, DAVI plate rolls are absolutely the most modern and innovative machines, built using the most modern technologies such as the ROLL by WIRE (digital wiring and control), based on FIELD BUS, eliminating 80% of the use of electric wires and hydraulic tubes, and replacing them with thin electronic signal wires, connecting electrovalves, encoders, transducers and easy to use sockets. All the signals are digital and the transmission is high speed, assuring faster control and more precise readings.



The new MAV (2009 Design) has extensive improvements in the steel frames and the movement of the rolls. The frames have been designed to resist the highest loads to help eliminate the PRE-TENSIONING systems, used in older designed machines to resist the high loads involved.

The top roll is controlled by two hydraulic cylinders that work in “pull-mode”, pulling down the top roll when rolling. For this reason the cylinders have been designed to be of adequate size with optimal load allocation.

The frames are now connected with an “H system” while other machines still use a reversed C system, which doesn’t guarantee suitable rigidity. As well, the new design allows the use of a smaller pit. (An approx. 30% reduction).

Another big innovation is related to the rotation of the rolls. DAVI is the only manufacturer to utilize ALL 3 SIDE ROLLS to roll these very thick plates, which require a higher torque divided by all three rolls. DAVI adopted the innovative MULTI-GEAR system, using multiple reducers applied to the rolls to assure the right amount of rotation power in the most difficult rolling conditions.

The DAVI MAV with variable geometry is further used to build the very thick “Monopile” used in OFFSHORE PLATFORM construction. DAVI has a large number of these machines already installed all over the world for this specific use.

In the last 24 months (during the global economic crisis) DAVI has been able to sell 80% of the plate rolls to the OIL & GAS industries and OFFSHORE drilling. To roll plates of a thickness of more than 150 mm, is a significant achievement for the DAVI team.