

# Spanish stranding machine manufacturer standardises on Control Techniques



The Spanish market leader in stranding machines has standardised across the board on drives from Control Techniques. The company, Construcciones Mecánicas Caballé S.A. of Barcelona designs and manufactures innovative rotating machinery for the production of power, telecom, optical fibre, data, control and steel cables and conductors.

In particular, the company favours the unique Unidrive SP 'solutions platform' drive, which they use to its full capabilities,

in torque and speed control modes, open and closed loop, and for servo control, using Unimotor FM servo-motors from Control Techniques Dynamics. Many applications require localised control in addition to the overall PLC controller and Caballé frequently use the drives option module slots to provide the extra functionality required. The SM Applications Module, a favourite with Caballé gives extra programming and fast dynamic response, for digitally locking drives or monitoring position in real time.

In one very demanding application for large cable winding in a planetary strander, the drive is mounted within the rotating cage, at the centre-of-gravity of the machine to minimise centrifugal forces, with its commutator power supply pick up. "Few drives would be able to work with such a 'dirty' power supply or be able to withstand the mechanical stresses," comments Director of Operations, Carlos Dunjó, "let alone provide a highly dynamic performance and absolute reliability in the field. The Unidrive SP is remarkable!"

## KEY BENEFITS

- ONBOARD PROGRAMMING FACILITY
- LOCALISED CONTROL
- FAST DYNAMIC RESPONSE
- ABSOLUTE RELIABILITY
- ELIMINATES NEED FOR ENCODER



# CONSIDER IT SOLVED™



“We like the facility to be able to implement functions within the drive,” he says. “For example, for dancer control, the Unidrive SP works perfectly without the need for an encoder. Others have to have the additional costs of an encoder to match this performance.”

In tubular stranders, used for making steel cables, the selected tension is set on the PLC controller and is communicated via Profibus to the SM-Applications module fitted to the Unidrive SP. The tension control is calculated within the module, using line speed, diameter of the drum and taking losses into account.

“We found that, in this instance, it was simpler to use the localised intelligence in the drive, rather than feed all the parameters back to the PLC,” adds Mr Dunjó.

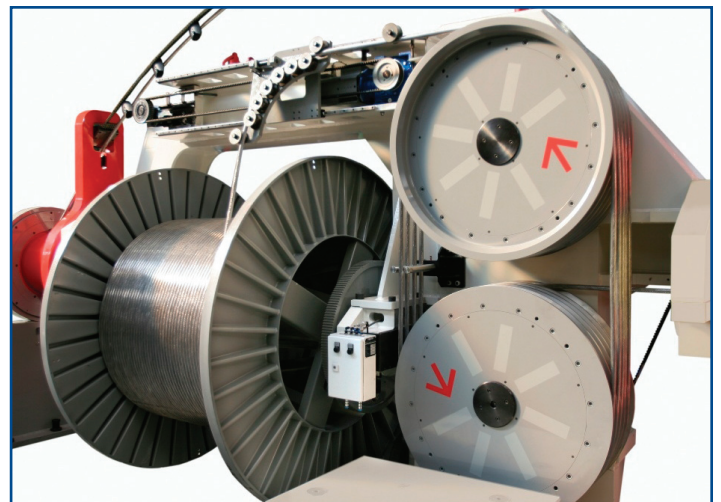
Caballé uses the rugged, Unimotor FM, with its high shaft strength and stiffness for a range of servo applications such as in bobbin traverser units. The new low inertia (fast acceleration) design of the FM servomotor is ideal for the fast response applications required by Caballé. It gives low ‘cogging’ for low-speed applications and performance has

been enhanced with state-of-the-art computer modelling techniques, with an enhanced peak torque range that means that a smaller motor can sometimes be fitted, giving cost advantages over other motors. In addition, the company also uses Commander SK AC drives for more straightforward applications and MD motors from Control Techniques’ sister company Leroy Somer for instances where very fast reversal of speed is required.

The Unidrive SP is uniquely suited to meet Caballé’s wide range of applications, being software configurable for different operating modes and for a wide range of motors, feedback devices and communications. Above all, the facility for on-board programming of its SM Applications module gives the drive a versatility that no others can match.

“We have standardised on Control Techniques because we find the drives very user-friendly to set up and program, extremely reliable and because of the worldwide support network,” concludes Carlos Dunjó, “and we really appreciate the support that we get from the local Control Techniques team at the drive centre here in Barcelona.”

Construcciones Mecánicas Caballé S.A. has specialised in the design and construction of stranding machines for over 60 years and is currently run by the third generation of the family since Francisco Caballé set up the company in 1944. The company has flourished by being flexible, adapting its products to the market’s and the customer’s particular demands and producing new and innovative solutions to new developments. With service centres in Germany, Russia and Asia, some 90% of the company’s output is now exported.



For further information please visit  
[www.controltechniques.com](http://www.controltechniques.com)



# CONSIDER IT SOLVED™

Network Power • Process Management • Climate Technologies • Storage Solutions • Industrial Automation • Motor Technologies • Appliance Solutions • Professional Tools