



### Pressure regulation applications



In 2008, Idiada built a 1.56 km wet, automotive testing-track, which is the largest facility of its kind in Europe. To conduct these tests, a film of water of constant depth needs to be maintained on top of the road pavement. This film must be adjustable in each segment of the loop. To accomplish this, the track's water distribution network uses over 50 **Dorot 300 Series** valves, each equipped with a **Condor controller**. These valves control the input pressure to a grid of sprayer nozzles. Extremely accurate pressure regulation is required to keep the film of water at the correct and constant thickness. The pressure is controlled through a centralized SCADA unit that sends a remote signal to each Condor controller.



**HIDROGLOBAL**, Dorot's representative in Spain, has been the supplier for this equipment – 300 Series valves and Condor controllers – and has been in-charge of technical advising and fine-tuning the system.

This system has been chosen for its stable regulation capabilities, including near-zero flows (LTP® standard feature of the Series 300 valves), its ease of integration with the

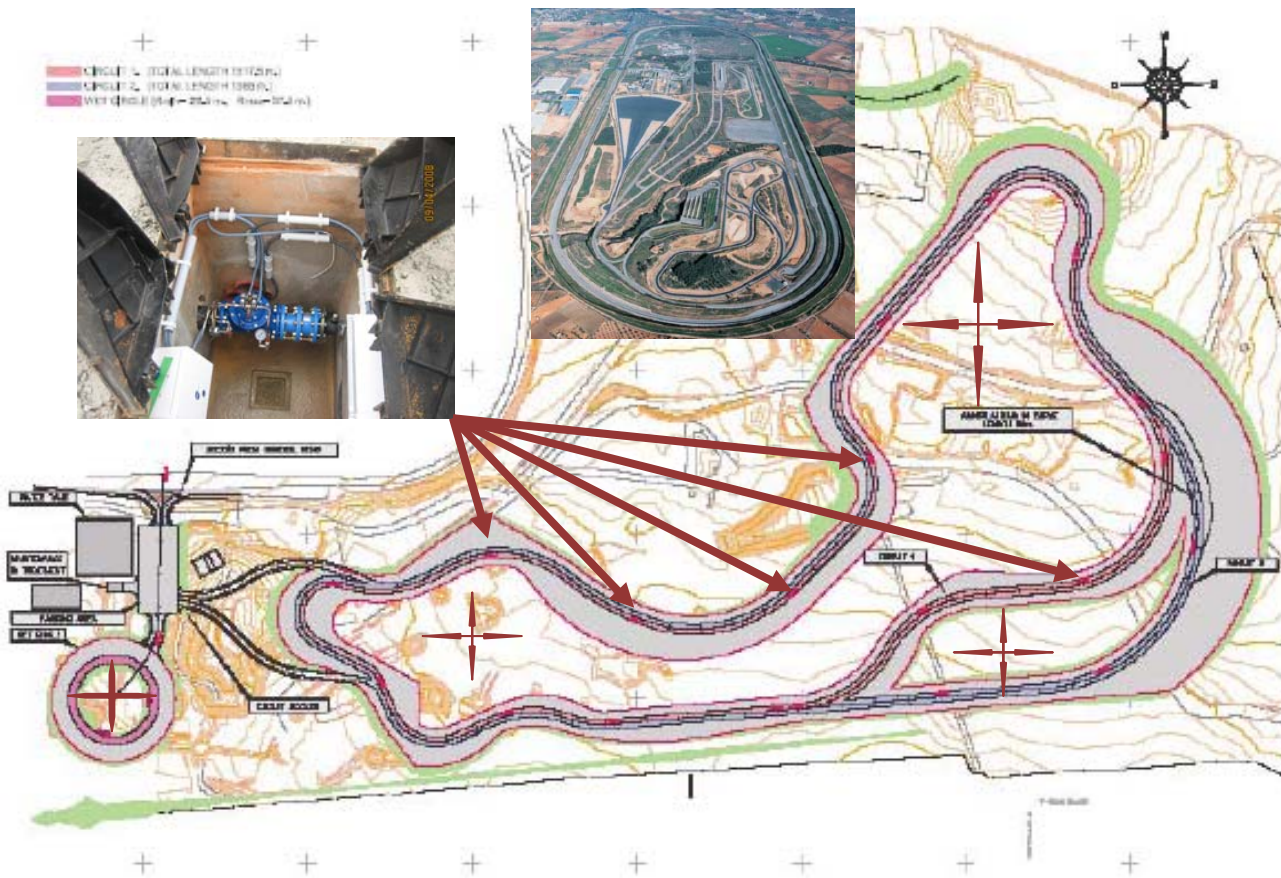
SCADA system, and its high regulation precision.

**Testing on some of the sections of the Wet Handling Track, and valve-chamber detail:**

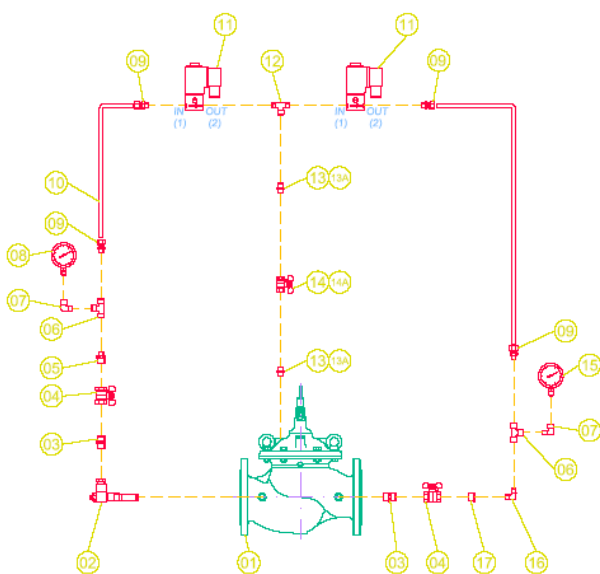




General layout of the track, with regulation points:



Exploded diagram of control system:



### Advantages:

- Precise regulation at any flow.
- Low pressure losses.
- Integratable through remote control (SCADA).
- Very flexible sensitivity settings.