

HygroV

# system for the control of the mixture water

## INTRODUCTION AT THE SYSTEM

The principal demand of the enterprises that produce concretes is the CONSTANT QUALITY of the mixture, especially if the concretes are used for the realization of cementitious manufactured.

To such intention a control of the RESISTANCE and of the CONSISTENCE asks for the use of automatic tools that can provide in rapid and incisive way on the phases of packaging and analysis, compensating and correcting all the changeable aspects of the productive trial as: waters drained by the inert, errors of survey of the moisture of the inert, errors of the batchers of the water, etc. The system of hygrometrical measurement type HYGROV7 introduces an innovative development derived by searches already experimented in the time and to guarantee of functionality and technology in the forefront. It can check and correct the water of the CONCRETE interfacing itself through special microwaves drills applicable on any type of mixer. The system has been anticipated to be interfaced with the systems of automation as absolute guarantee of a perfect management of the raw materials of the mixture. The interfacing of the HYGROV7 can be done in all the GENYX or PICOV7 lines both they are use as the management of the centrals for the prefabrication and for the pre-packed concrete.









HygroV

### PERFORMANCES OF THE SYSTEM



The system HYGROV7 guards and it intervenes on the whole cycle of the concrete production where there are waters to check, governing all the dosing of the water on the escort of the different behaviours that characterize the mixture.

It memorizes, for every mixture, a drawn and self-learned hygrometric curve from the reactions produced by the concrete from predefined additions of water and through an automated procedure.

This procedure consists of loading the mixer of the correct quantities of the basic components of the concrete and to activate an automatic procedure that understands the immission of a first quantity of water precalculated from the same system, beginning so a phase of small additions at different occasions, memorizing of time in time the variation of the signal read by the drills.

So an hygrometric and behavioural curve will be created and used for the attainment of the ideal mixture that could be corrected typing in on the computer the lacking or surplus quantities of water to the final result, if is not reached or on the escort of the verifications effectuated on the real relationship A/C of laboratory.

When the procedures of memorization are finished the automatic load of the mixer can be executed in which will begin to be introduced the inert, the cement and a first quantity of water corrected of the moistures and that can get near to the final result, allowing not the mixer of bear an effort caused by a mixture too much dry.

It will be performed a mixing time up to the attainment of the homogeneity of the mixture with a following reading of the hygrometric drills.

To this point, comparing the curve previously memorized, we can check and dose with an only immission the quantity of necessary water to arrive to a final mixture.

Finished these phases it will be executed a final time of mixing and if all the controls will allow it, we can proceed to the unload. STANDARD DRILL



#### DRILL FOR PLANETARY MIXER



#### PRECISION OF CORRECTION: +/- 2% ON FORMULA WATER

#### **CONFIGURATION HDW**

#### TERMINAL UNIT

- Monochromatic touch screen 5,7" SNT LCD
- USB Door
- Serial door for PLC
- Serial door for the printer
- Feeding: 24 Vdc +/- 10% 15 VA
- Work temperature: 0-50° C
- Protection: frontal IP65, back IP20
- Weight: about 0,7 kg

#### PLC OMRON

- CPU Module
- Feeder module
- Analogical input module
- Modules of 16 relay output
- Serial cable for KEYBOARD and PLC connection (L=10mt)

