

Smartronic Pro: the control system that evolves alongside CIFA pumps

CIFA's control system evolution enhances safety, precision and operational efficiency, with new operator assistance features that build on the platform's established functions.

In the construction sector, innovation is no longer solely about machine design, but also about the ability of machines to evolve over time. With **Smartronic Pro**, CIFA continues to develop its control system for truck-mounted concrete pumps: an **aided operations** platform in which sensors and software work alongside the operator to prevent the most common errors during the most complex phases, reducing stress, fatigue and execution times. The system is progressively updated through software releases that introduce new features designed to enhance jobsite safety and improve operational efficiency.

The growing digitalisation of the construction sector is transforming the way machines are used and maintained. **Smartronic Pro** fits into this context as more than a simple control system: a constantly evolving software platform capable of integrating new features that improve machine performance and the operator experience.

Thanks to an intuitive interface and intelligent assistance functions, the system simplifies every phase of machine positioning and concrete pouring, making operations more precise and safe. Reducing the complexity of manoeuvres also means lowering operator stress, enabling smoother activity management and better operational performance. An upgradeable architecture also allows faster response to the demands of modern jobsites, where safety, productivity and ease of use are determining factors.

New features introduced in the latest update

Virtual Span

The Virtual Span function introduces a new level of safety and precision by allowing operators to **set virtual height limits** to protect the pump from potential collisions with the surrounding environment. The system automatically recognises the set height value and **automatically prevents** incorrect manoeuvres.

Operational benefits: maximum operator safety, greater flexibility for working in confined spaces, extreme ease of use.

Boom Locking

Informazioni su CIFA

CIFA è un produttore di macchinari e attrezzature per il calcestruzzo, leader nel mercato italiano e uno dei principali attori a livello globale. Parte del gruppo industriale cinese Zoomlion dal 2008, CIFA è un'azienda altamente internazionale con reti di vendita e supporto in tutti i continenti e in grado di offrire ai clienti non solo una gamma di prodotti affidabili e di qualità, ma anche un supporto finanziario tramite Zoomlion Capital Financial Services. Per ulteriori informazioni, consultare il sito web all'indirizzo www.cifa.com

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Boom Locking introduces a new level of flexibility in boom control, allowing operators to **lock the slewing ring — and therefore boom rotation — or one or more consecutive boom sections**, starting from the first. The system uses sensors positioned on the sections that continuously monitor their position and inhibit unauthorised movements.

Operational benefits: greater safety even in very confined spaces, improved boom stability even in strong wind conditions.

Angle Fence

Angle Fence allows operators to **define virtual angular limits** for boom sections, preventing manoeuvres that exceed the ranges set by the operator. This function is particularly useful on jobsites with fixed obstacles nearby or with limited manoeuvring space.

Operational benefits: reduced risk of collisions, greater control in the most complex work areas.

Constant Height

The Constant Height function **automatically maintains the height of the boom tip** during horizontal manoeuvres. The operator can move the pouring point without having to manually manage vertical movements, making concrete pouring operations smoother and more precise.

Operational benefits: greater precision during pouring, reduced manual interventions, lower operator fatigue.

Established platform features

The following features were already available with **Smartronic Advanced**, the previous version of the platform, and remain an integral part of Smartronic Pro, continuing to make a decisive contribution to jobsite safety and efficiency.

Automatic boom opening and closing

The system **automatically manages the sequence of movements** for opening and closing the boom via a dedicated command, simplifying one of the most critical phases of daily operations.

Operational benefits: reduces setup times, limits manual interventions and helps decrease operator fatigue.

ASC 2.0 – Advanced Stability Control

The advanced stability management system **guides the operator during manoeuvres close to the tipping limit**, enabling pouring points that are difficult to reach to be accessed without compromising vehicle safety. Dangerous manoeuvres are automatically inhibited, while the permitted manoeuvres are displayed in real time on the remote control monitor. The system

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continuously monitors the machine configuration and adapts the boom working area based on the available outrigger spread.

Operational benefits: greater flexibility on jobsites with limited space, better machine utilisation even in complex operating conditions, consistently guaranteed safety.

Antibouncing System

During pumping, especially with long booms, oscillations may occur that make it more difficult to control the boom tip. The Antibouncing System **intervenes automatically** to dampen these movements, making the boom more stable.

Operational benefits: greater precision during pouring, improved operator comfort and increased safety during pumping operations.

Availability and upgrades

Smartronic Pro is available on compatible CIFA truck-mounted concrete pumps and continues to evolve through software updates that introduce new features and improvements. Depending on the model and machine configuration, some pumps already in service may be upgradeable through specific software or hardware upgrades. To verify compatibility and upgrade options, it is advisable to contact the CIFA authorised service and dealer network.

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