Changeover Active Control

for Smartconvey loading systems

CAC   what's about

- ➢ **C.A.C.** is an option available on conveying systems **Smart-Convey**

- ➢ **C.A.C.** is designed:
    - ➢ to meter the material loaded in the dosing system
    - ➢ to calculate the required material needed for each dosing station
    - ➢ to calculate the number of loading cycles which has been duly completed

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CAC   scope of supply

C.A.C. has the scope:

➢ to *inform the operator* when the material loaded in each single dosing station is enough to complete the set-up job order

➢ to get the job order completed leaving the *lowest quantity of residual material in the hoppers*

➢ to *reduce extremely the time* needed for material changeover and blenders cleaning

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CAC   how does it works

the **operator** has to set-up:
- Job order amount or production batch for each extruder (if gravimetric extrusion control is not supplied)
- the percentage of each component
- the bulk density of each component

the **C.A.C.** software then is capable to meter:
- the actual quantity of material inside any hopper
- the actual quantity of material being used in each loading cycle

For gravimetric hoppers, metering is performed in a gravimetric way. For non-gravimetric hoppers and receivers, calculation is performed on a volumetric way

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CAC   how does it works

the **operator** must switch from *"scrap mode"* into *"production mode"*

the **C.A.C.** software then:
- starts metering the quantity of material needed to be loaded to complete the job order
- when the total quantity of material has been reached, gives a *warning to the operator*

The operator is just alerted ! … then he is free to take any suitable action

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CAC   how does it works

The operator can choose which individual component has to be metered by the C.A.C system

During the production process, the operator can freely change the layers percentage or layers density or layers receipt.
The C.A.C. software will calculate accordingly and just-in-time the up-to-date quantities of each component to be loaded.
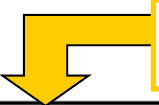
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CAC   HMI

− **Production Batch (Kg)** (calculated by the software but suitable to be modifyed by the operator to compensate any eventual inaccuracy of the bulk density or any mistake on switching into the "production mode"), if gravimetric extrusion control is not supplied input is Set (Kg) for each extruder

− **Material already loaded (kg)** (monitoring)
− **Material to be loaded (kg)** (monitoring)

− **Loading cycles already done** (monitoring)
− **Loading cycles to be done** (monitoring)

− **Bulk densities** (amendable)

− Loaded material **reset**

CAC

HMI

CAC   example of performances

material left in the blending system (blender + loaders)
at the end of a job order

17,5 Kg = 3 min

1,5 Kg = 13 sec
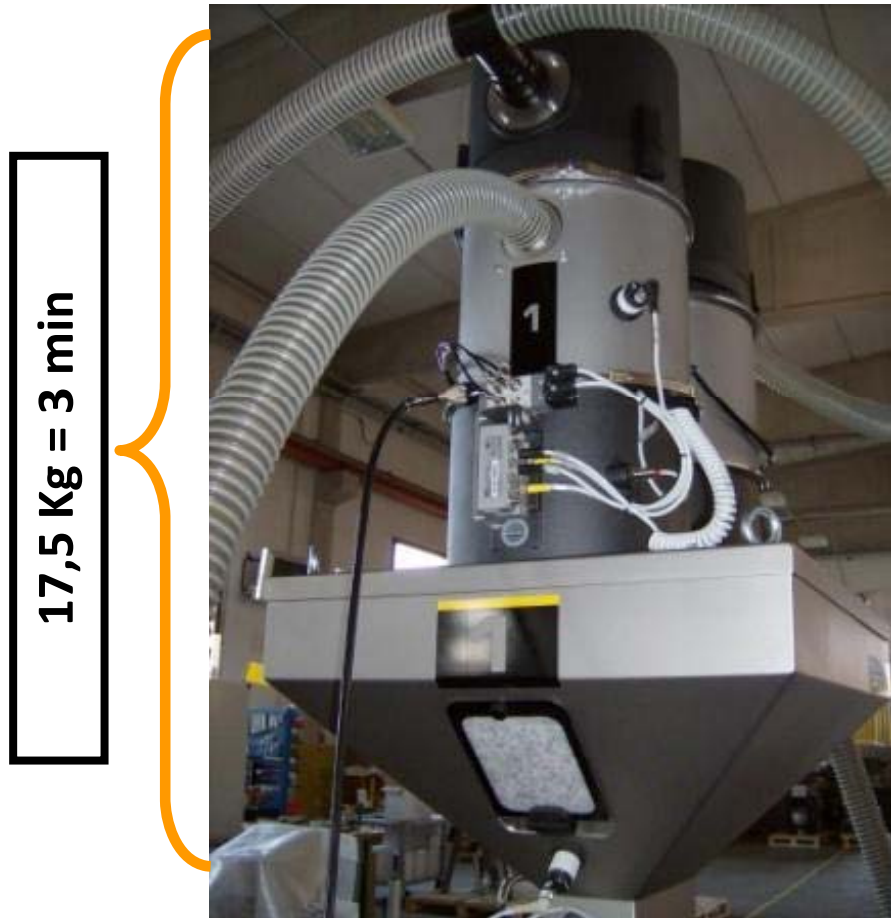
witout C.A.C.   **with C.A.C.**

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tested and certified quality

the **100%** of Doteco systems are tested in the factory for a minimum of 24 h, in their operating conditions

for each system released, a test report is filled-up and filed, being always available