

AMOC 100

Moisture Control Systems

Moisture Control Systems
for Flour Mills & Foundries

**Neural Automation
& Control Systems**

Introduction

Neural Automation & Control System (NAACS) is a tech startup that specializes in manufacturing of Process Automation Systems (PAS) for various industries like Food Processing, Foundry etc.

PAS is concoction of interconnect sensors , PLCs , operational terminals and actuators that are governed by software engineering to help the plants and factories to eradicate/remove operational inefficiency.

Factory owners, nowadays, want their equipments to deliver high output of good quality at minimum input cost.

NAACS simplifies this by measuring/monitoring critical data/reading of the product to determine true/correct value ,thus delivering high output with minimal errors at minimum input costs.

One such product is AMOC 100.

AMOC 100 is basically a Automatic Moisture Control System that form an important part of any manufacturing process of industries as diverse as food processing , foundries etc.

AMOC 100 G – Moisture Control Systems for Flour Mill

AMOC 100 G has been created keeping in mind the flour mill industry wherein moisture addition becomes an integral part in the process of making various types of flour from wheat grain.

AMOC is a state-of-the-art unit that is available today for automatically determining the grain moisture and achieving accurate water addition to the wheat grain to achieve the desired moisture content in cereals

AMOC does its Math on the basis of three factors.

- Initial Moisture Content in the wheat grain **(IMC)**
- Measured Throughput Rate **(MTR)**
- Target Moisture **(TM)**

AMOC's electronic Control Panel continuously calculates the required dampening of water into the grain with the help of these above mentioned factors i.e. IMC , MTR ,TM. After calculating the required water to be added to the wheat to achieve the desired moisture content, AMOC's water flow controller allows the accurately measured water to be added to the grain.

AMOC's state of art water flow controller is also equipped with auto cut feature wherein the water supply automatically shuts off if there is no grain flow detected. By virtue of Auto Cut, the product enjoys perfect consistency in achieving correct moisture content without overflow of water.

This process can be seen in form of numbers on our digital display located at Electronic Panel.

Benefits:

Highly stable Moisture Content

Accurate Measuring of original moisture present in the product

Highly accurate water dampening

Low Maintenance

Highly Flexible, Easy to operate

AMOC's Moisture Control- A diagrammatic Interaction

1. Grain flows through AMOC's Impact flowmeter to measure



— Impact flowmeter to measure flow rate of Wheat in Q/H



Moisture & Temperature Sensor

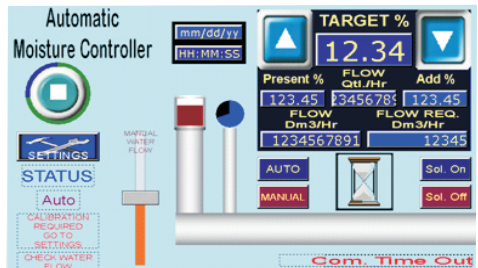
Original Moisture Content is measured accurately with the help of Moisture Sensor.

This moisture content is also displayed on the electronic Control System's digital screen. Our unique Impact flowmeter measures the weight of the product to ascertain the Original Moisture Content thereby giving highly accurate data.

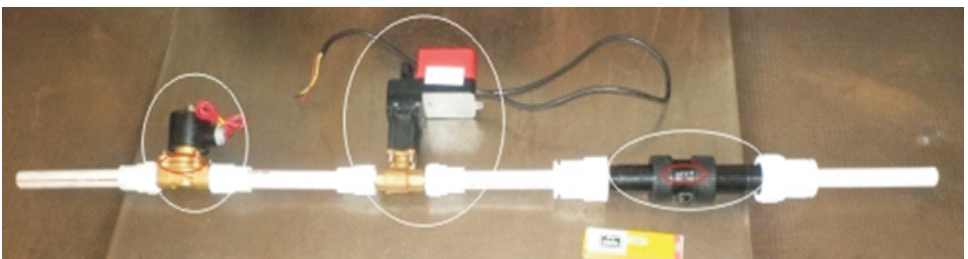
2. On the basis of Original Moisture content, throughput rate of product and desired moisture content, AMOC Electronic Control Unit calculates the amount of water to be added to the product. This is further displayed on HMID located on the Control Unit.

AMOC HMID screen displays :

- Target Moisture
- Moisture Measurement
- Flow of wheat
- Water Metering
- Water flow



3. After determining the exact percentage of water to be added to the product, our AMOC ECU sync with our Water Flow Controller (WFC) and directs it to meter the flow and initiate the water addition process. Our state of the art WFC is located with technologically advanced water flow meter in order to measure the exact flow of water. It is also equipped with Auto Start/Stop function



AMOC 100 S - Moisture Control Systems for Foundries

AMOC 100 S has been successfully installed at foundry that uses sand casting process for manufacturing of various products.

In foundry industry, the quality of the product relies a lot on the sand mould that is made using dry sand with water and additives/binding agents.

AMOC 100S system hence measures critical data that is required to achieve the desired True Target Moisture that needs to be added in form of water to get that perfect sand mould/compatibility

AMOC 100 S takes into account the following factors:

- Initial Moisture Content of Dry Sand (IMC)
- Initial Temperature of Dry Sand (IT)
- Measured Throughput Rate (MTR)
- Target Moisture (TM)

AMOC's electronic Control Panel continuously calculates the required dampening of water into the sand with the help of these above mentioned factors i.e. IMC, IT, MTR, TM.

Initial Moisture Content and Temperature of dry sand becomes very critical in determining the target moisture since both of them vary quite frequently depending on the recycling process of sand and different atmospheric temperature during the day.

After calculating the required water to be added to the sand to achieve the desired moisture content, AMOC's water flow controller allows the accurately measured water to be added to the sand.

This process can be seen in form of numbers on our digital display located at Electronic Panel.

Benefits:

Highly stable Moisture Content

Accurate Measuring of original moisture present in the product

Accurate Measuring of initial temperature of dry sand

Highly accurate water addition

Low Maintenance

Highly Flexible, Easy to operate

Through AMOC, Neural Automations and Control Systems offer its client a world class Process Automation System with a fully customizable option as per the convenience of its existing and prospective clients. It basically has sub units wherein, sensor, water flow meter and electronic control unit can be accommodated separately as per client need.

AMOC equipped with latest, class leading sub-parts offers you the opportunity to have that consistent, exact recipe that you always wanted.



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