

ARGOS CEMENT

Martinsburg (West Virginia) | USA

ALTERNATIVE FUEL FEED SYSTEM FOR CEMENT KILNS



A DOUBLE IMPORTANT PROJECT THAT CREATED WITH ARGOS CEMENT, WHICH TESTIMONIES **THE PROJECT FINANCING** CAPACITY OF ENTSORGA.

ARGOS CEMENT USE **ENTSORGA PELICAN™ FEED LINE** FOR THE CONTINUOUS FEEDING AT ITS CEMENT KILNS WITH **ENTSORGA PROMETHEUS™**, THE ALTERNATIVE FUEL PRODUCED IN THE **ENTSORGA WEST VIRGINIA PLANT**, NEAR THE CEMENT PLANT.

AT THE SAME TIME, THIS CONTRACT HAS GUARANTEED ARGOS A MORE SUSTAINABLE PRODUCTION PROCESS WHILE OUR PLANT IN MARTINSBURG HAS FINDED A NATURAL MAKET FOR HIS SRF.

DATI IMPIANTO

Company	Argos Cement
Capacity	about 60.000 t/y of SRF Prometheus™
Start up	March 2019
Plant	Alternative fuel feed system for cement kilns

COMPANY

For over 70 years now, Argos has been a part of Colombia's progress. Throughout its history, Cementos Argos has been taking on a more and more significant leading role in the cement and concrete industry, becoming the fifth largest cement producer in Latin America and making history in countries such as Colombia, the Dominican Republic, Haiti, Honduras, Panama, Suriname, French Guiana, Puerto Rico and the Antilles.

ENTSORGA SOLUTION

Entsorga's Pelican™ feed system, is a **high performance, low energy consumption solution** that guarantees a direct and automated feed of alternative fuels, with a constant flow that can be easily adjusted according to the different needs of the user. The feed station, with a nameplate capacity of around 60,000 t/y, is similar to a feed station already delivered in 2016 in **Nazareth PA**.

Entsorga's Pelican™ system consists of:

- receiving station with auger
- Chain conveyor
- Weighing and feeding dosage system
- Pneumatic injection system.

HOW THE SYSTEM WORKS

The **Pelican™ system** is designed to receive the alternative fuel **Prometheus™** and **directly feed it to the pre heater through a pneumatic line**, with **variable flow** controlled according to process needs.

The material arrives at the plant and is unloaded from the moving bed trailers on augers within the **docking station(1)**; an hydraulic unit allows to unloading without the need of the tractor.

Once operations are started, the whole system can be managed in **automatic mode**.

Through the auger bed, alternative fuel is conveyed to a **chain conveyor**, which transfers it to a **dosing system (2)**. The dosing system, is managed through a software developed by Entsorga, that allows **seamlessly and automatically controlling feed volumes** throughout the feeding line.

To prevent the airflow within the pneumatic line to affect the precision of the feeding in the rest of the system, the pneumatic section is insulated with a special **star valve**.

DOCKING STATION



STRENGTH

- **continuity of fuel supply**, thanks to the **two docking stations** that avoid interruptions due to the replacement of the unloading truck.
- **complete automation**
- possibility to manage and maintain **constant the flow of the power supply** according to the requirements of the plant

ADVANTAGES OF SUSTAINABLE ALTERNATIVE FUELS FOR CEMENT PRODUCERS

This contract for the supply of an alternative fuel supply station follows the long-term agreement entered into with Argos for the supply of alternative fuel and allows Entsorga West Virginia, the fuel supplier alternatively, to complete a new profitability circular model for landfill diversion.

Use of **renewable alternative fuel Prometheus™** in cement plants is a viable alternative to fossil fuels (mainly coke and petroleum derivatives), and allows:

- **decreasing the costs** of cement production
- **reducing greenhouse gas emissions** addressing the goals set by international policies on climate change and in line with **general principles of energy efficiency and circular economy** by limiting the consumption of non-renewable resources



USED TECHNOLOGIES

The plant uses the Entsorga proprietary technology **Pelican™** and feeds cement kilns with **Prometheus® SRF**.