



LOW-GRADE RAW MATERIALS

- + Low P_2O_5
- + High organics content
- + High heavy metals content
- + High Al/Fe/Mg content



MODULAR TECHNOLOGY

- + Modular equipment
- + Small to Large size capacity
- + High flexibility in term of raw materials (HCl , H_2SO_4) and products



HIGH QUALITY PRODUCTS

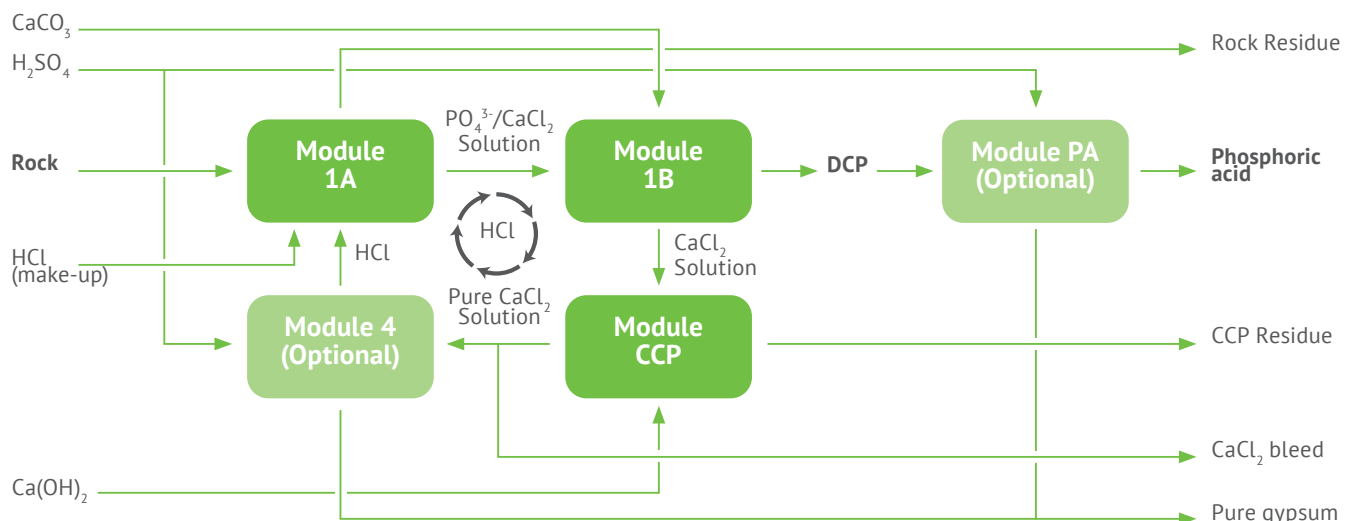
- + Pure DCP that can be converted into various phosphate products (phosphoric acid and derivates) for different fields of application: animal feed, fertilizer, technical...



ENVIRONMENTAL FRIENDLY PROCESS

- + No gypsum or pure gypsum
- + Limited waste quantity
- + Limited effluent quantity or pure effluents
- + Limited energy consumption

PHOSPHATE PRODUCTION PROCESS



Calcium phosphate and/or phosphoric acid production through HCl route



LOW-GRADE RAW MATERIALS

- + Low P_2O_5
- + High organics content
- + High heavy metals content
- + High Al/Fe/Mg content
- + High Fluorine



ECONOMICAL PROCESS

- + Flexible capacity
- + Use of H_2SO_4 waste stream
- + Replace an existing rock beneficiation plant (to improve the efficiency and reduce the operation costs)



HIGH QUALITY PRODUCTS

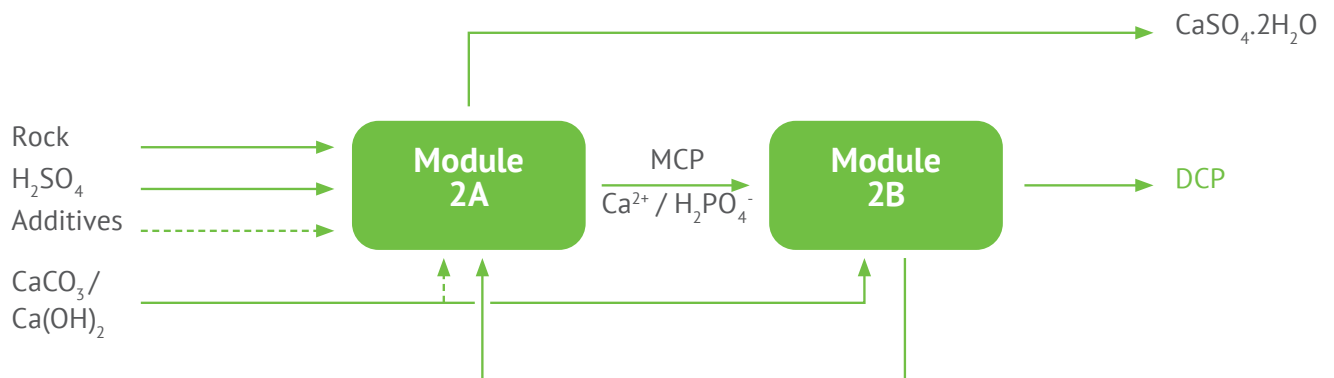
- + High quality of the DCP product (P_2O_5 content, low impurities level)
- + Wide area of application for DCP-based products (animal feed, fertilizer, technical)



RECOMMENDED FOR LOCATIONS

- + Where low grade rock is available
- + Where H_2SO_4 is available (especially low-cost)
- + Where gypsum quality of an existing phosphoric acid plant must be improved (heavy metals and radioactive elements removal)
- + To boost the capacity and reduce maintenance costs of an existing phosphoric acid plant with a pure DCP product

GetMoreP PROCESS





PHOSPHORUS IS ESSENTIAL FOR LIFE

- + Phosphates play a crucial role in many metabolic functions in animals and humans.
- + Phosphate is one of the main components found in animal bones.
- + Phosphate has a key role in the DNA stability, integrity and cell functionality in animals.



DIFFERENT TYPES OF ANIMAL FEED PHOSPHATE

- + Dicalcium phosphate – Di-Hydrate or anhydrous (DCP)
- + Mono-dicalcium phosphate (MDCP)
- + Monocalcium phosphate (MCP)



OUR ANIMAL FEED PHOSPHATE TECHNOLOGIES

- + Ecophos DCP process
- + MCP/MDCP processes



ADVANTAGES OF THE ECOPHOS PROCESS:

- + **Quality**
 - High biodigestibility
 - Highest DCP purity
- + **Sustainability**
 - No or pure gypsum
 - Reduced water & energy consumption
 - Reduced P losses
- + **Flexibility**
 - Low sensitivity to rock quality (from low grade to high grade P rock)
 - Different sources of acid usable

“ Phosphates produced using Prayon technologies not only contribute to the well-being of animals but also mitigate phosphorus losses in the environment, providing economic and ecological solutions ”



PRAYON TECHNOLOGIES PROCESSES & SERVICES RANGE

PHOSPHORIC ACID PRODUCTION

- + Dihydrate Process (DH)
- + Hemihydrate Process (HH)
- + Di-Attack-Hemihydrate-Filtration Process (DA-HF)
- + Central-Prayon Process (CPP)
- + Hemihydrate - Dihydrate Process (HDH)

ANIMAL FEED

- + DCP/MDCP/MCP HCl based Ecophos Process
- + MCP/MDCP from Pre-Treated Phosphoric Acid

SUSTAINABILITY

- + Secondary P-Sources
- + Spent Acids Recycling

PHOSPHORIC ACID TREATMENT

- + Ion Exchange Demetallization
- + Desulfation (SO₂)
- + Desarseniation (As)
- + Decadmiation (Cd)
- + Defluoration (F)

TECHNOLOGIES ASSOCIATED TO PHOSPHORIC ACID PRODUCTION

- + Concentration Process
- + Gas Scrubbing Process
- + Fluorine Recovery Process

CHEMICAL BENEFICIATION

- + GetMoreP Upgraded Rock
- + Ecophos Upgraded Rock
- + Mg Leaching

SERVICES

- + Licensing
- + Lab & Pilot Tests
- + Semi Industrial Validation
- + Training
- + Site Services
- + P2Gether Plant Performance Optimization
- + Technical Surveys



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