



Company News

CDE unveils a new Generation of Filter Press at Hillhead 2024

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Co. Tyrone, United Kingdom -

CDE, a leader in the design and engineering of sand and aggregate wet processing solutions for the waste recycling and natural minerals processing sectors, has unveiled its new ProPress high-performance filter press at Hillhead, adding to its state-of-the-art water management and recycling systems.



(Pictures: ©CDE Group)

Developed to meet the evolving needs of the construction and demolition (C&D) waste recycling, quarrying, and mining sectors, the ProPress integrates the latest technological advancements to deliver exceptional operational efficiency and maximum water recovery.

Benefits of the ProPress

CDE's ProPress, which features patent-pending technology, benefits from a flexible design and variable throughput that can be scaled to fit the processing volume of any operation.

Unlike traditional filter presses, the system is dual feed, meaning sludge is fed from both sides of the ProPress for improved efficiency and faster cycle times. Optimised sludge feed pressure also allows for faster dewatering to increase overall throughput. This is further supported by an overhead beam design that ensures reliability by reducing stress on the unit and improving its durability.

The ProPress features plates that are 25% larger (2.5m x 2m). Greater chamber volume and overall fewer plates serve to provide maximum capacity on a smaller footprint and improve mechanical cycle times.

Safe and efficient maintenance is made possible by integrated plate-shaking technology which addresses filter cake build-up within chambers to help reduce the need for manual intervention. An access walkway provides clear and unobstructed means to carry out maintenance safely and efficiently, and flush mounted drip trays reduce material entrapment and lock in place to provide a secure maintenance platform for operators.

The smart design is supported by an innovative, multifunctional robot, which serves as the main workhorse for the ProPress, controlling plate opening, plate shaking, cloth washing, plate winch, and the maintenance platform.

The CDE ProPress is available in a range of different sizes to suit all markets and applications. Available globally, the ProPress is also largely pre-assembled to expedite commissioning, allowing operators to get up and running quickly to help achieve fast return on investment.

ProPress Process



As materials are washed and graded, the water from that process accumulates silt and other residues to form a sludge. A challenging material to process, that sludge is pumped under high pressure into the CDE ProPress, which consists of a sequence of plates, the composition of which forms a series of chambers.

As sludge is pumped under high pressure through the press, solid materials build within the chambers to form a filter cake which is dewatered to maximise water recycling and recover a by-product with multiple applications.

With the CDE ProPress, owners and operators can recycle up to 95% of process water for immediate reuse in their wash plant while simultaneously cutting waste disposal fees by recovering a filter cake product that can be used for pipe bedding and landfill capping. This eliminates the need for settling ponds which typically require extensive maintenance, consume labour resources, and incur significant costs.

Engineering Excellence



CDE's business development director, Darren Eastwood, said: "Tackling the most challenging of materials is our expertise. We've poured over 30 years of engineering excellence into the development of the ProPress. We've listened to and worked alongside our customers around the globe to design a solution that is adaptable to their needs, be they in the waste recycling or natural minerals processing sectors.

"Those needs were clear: sustainable water management was key to minimise fresh water dependency and maximise water recycling, all while improving processing capacity, reducing operating costs, and minimising maintenance downtime. The ProPress is our response to all of this and more and it is already delivering for our customers. By the end of the year, the ProPress will be found on eight plants across three regions, processing around 1000tph of material.

"Our most significant product launch in recent years, the ProPress really encapsulates CDE's purpose: to create our best world, a ton at a time. It represents a constant push for improvement to make our equipment, our customers' operations, and the sectors we operate in more efficient and less wasteful. We're very pleased to finally bring this latest innovation to the wider market to help maximise the availability of our natural resources and reduce the industry's waste burden."

Once the ProPress is commissioned, every customer is introduced to the CDE CustomCare team which provides aftersales support to help achieve maximum performance from their equipment. On any given day, the UK and Ireland team has eight service vans and six pick-ups on the road supporting customers to meet their production targets.