

DUO provide very successful contract processing at Hanson's Coln Quarry operation.

Situated near Lechlade, Gloucestershire, Coln Quarry is owned and operated by Hanson Aggregates. A very successful sand and gravel operation for many years the reserves will finally expire in February 2017 with the land being sold to Coln Country Park for a development of holiday homes.

12 months ago, with the termination of processing in sight Hanson removed the existing plant to take over the yard area and then searched for a contractor who could process the remaining reserves.

Having successfully tendered for the contract the Minerals Processing Division of DUO Europe subsequently installed a fixed price-per-tonne totally managed operation with a Terex® Aggwash 60 modular wash plant at the hub of the processing.

Colin White – Unit Manager, commented, “Since the plant was installed 12 months ago, it has been very reliable and has processed high quality saleable materials. Bob who manages the plant on a daily-basis has been first class and easy to work with; I have been very happy with the whole operation.”

The Sand & Gravel Plant:

As the England and Welsh dealer for Terex Washing Systems (TWS), DUO can provide cohesive solutions utilising innovative wash plants for all material and mineral washing needs. With this outstanding range of products, DUO can choose from either TWS modular, mobile or static wash plants with the confidence and ability to work in many applications which are focused solely on providing solutions to the quarry, aggregate, mining and C&D recycling industries.

Operating at 70tph the main elements of the plant at Coln is the innovative Terex®Aggwash 60 2-deck modular wash plant which is fed with ‘as dug’ material via a 6m³ hopper feeder. This material is then conveyed onto the 8 x 4 single deck rinsing screen which is fitted with an impact protection deck to wash the oversize and sand, with all oversize being fed via a chute onto a mobile conveyor to stockpile. Any remaining material then feeds into the twin shaft PowerScrub™ Logwasher where the material is scrubbed, with the clay and contaminants removed.

The PowerScrub™ Logwasher consists of a 6.5m angle adjustable hull fitted with twin rotating shafts fitted with 30mm abrasion resistant blades. The blades convey the material from the feed end of the scrub to the 8 x 4 double-deck rinsing/sizing screen which splits the required products of 10mm and 20mm aggregate which are then stockpiled via integral conveyors.

As the material travels through the hull the abrasive action of the aggregate as it collides with other aggregate (stone on stone) scrubs it clean and breaks up any clay conglomerates which are then floated off through the back of the PowerScrub™. Any organics such as roots or plastics are also floated off to be dewatered over the

PowerScrub™ 6 x 2 trash screen. Underflow from the trash screen is received in a catch box under the screen and then gravity fed to the sump tank under the hull.

Scrubbed aggregate exits the main discharge of the PowerScrub™ Logwasher onto a high-energy 8 x 4 part-rinsing sand screen which is capable of de-watering up to 70tph.

The initial section of this screen is fitted with spray bars to rinse off any sand or grit residues produced during scrubbing. The rinsed grit is captured in a partial catch box under the screen and is piped to the sump tank below the hull to join the trash screen underflows. This sump tank is fitted with a 100/100 centrifugal pump which pumps this dirty water back to the AggWash™ 60 sand plant to recover any sand and make maximum use of internal water. Sand is then delivered by conveyor to stockpile.

Colin, further commented, “We have had a good steady demand and have been selling an average of 3,000 tons/week, of which 600 tons go to our bagging plant. Approximately 1,400 tons for our two concrete plants, with the 10-20mm also going to our bagging plant and a local company, with all our rejects sold to the Coln Park development for hardcore for piling.”

The Terex® Aggwash 60:

Dedicated to providing reliable, high quality and very productive equipment to meet today's stringent specifications of clean material.

the award-winning Terex® Aggwash 60 is a new modular wash plant from the TWS portfolio that brings together for the first time, rinsing, screening, scrubbing and sand washing capabilities on a single transportable chassis. Primarily designed for the processing of construction and demolition waste, but equally suited to virgin material applications; the Aggwash 60 can produce four grades of aggregate and up to two grades of sand at up to 70tph.

John Bracken – Group Operations Director, commented, “The Terex® Aggwash 60 is an ideal plant for this type of operation at Coln and offers a reliable, fully modular, pre-wired and pre-plumbed electric powered wash plant that will fit in a relatively small footprint. With a heavy-duty robust build, it is ideal for rugged operating environments and with a fast on-site installation (approximately 1 day) it offers an environmentally friendly operation with zero exhaust emissions.”

DUO Minerals Processing:

DUO Minerals Processing are unit-cost material processing providers for full aggregate production and offer knowledge, ability, flexibility alongside an enviable market reputation. A comprehensive and tailored unit cost processing operation with either the option of the supply of a processing plant, with or without an operating team. Backed by a world class service division and a portfolio of innovative TWS wash plants and water management solutions that have revolutionized the washing market on a global level, DUO Minerals Processing are dedicated to minimising your downtime and maximising your turnover.

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