

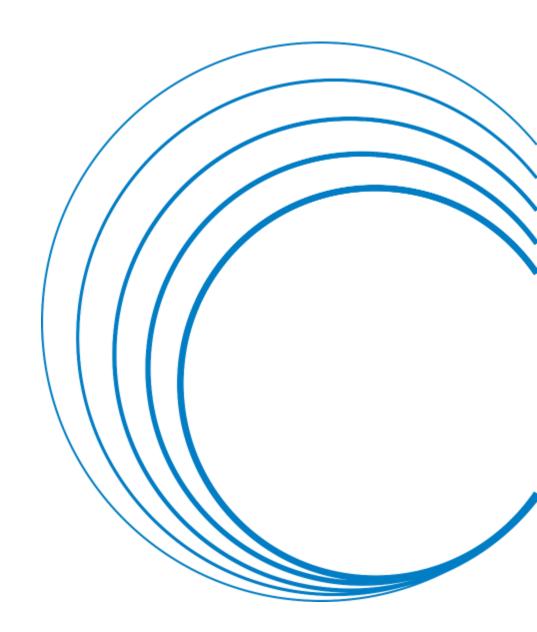
# Ruttle Group

**C&D** Plant

**Customer Details:** Ruttle Plant

Project Ref: 4476

**Date: 14 NOV 2019** 





We view the world with optimism.

With the vision and belief to solve some of the world's most complex problems.

We listen closely, look further and always create better.

Our purpose is huge. To make a real impact on our planet in a way no one else can.

We are passionate about our work and our world and this is reflected in everything we do.

Together, we are unlocking a New World of Resource.

We are CDE.



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## **Project Outline**

#### **Feed Material**

Material	C&D Waste
Size (mm)	% Passing
40mm	90 %
20mm	80%
4 mm	60%
<0.075mm	20%
	100%

#### **Plant Capacity**

Feed Capacity	80 tph
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Approximate Site Requirement
Proposed plant can be easily accommodated in your available area.

As per attached drawing

## **Approximate Water Requirement** 17m³ per hour (Top Up)

#### **Approximate Power Requirement**

409 kW



## Proposal

Ref.Q01: 4476-2-T1-PB1-Q01-14.11.19 80TPH







#### Item 1: R SERIES

Model: R1500



#### **Belt Feeder**

- Bonfiglioili helical bevel gear unit 5.5kW IE3 WEG motor controlled by VSD in control panel
- Crowned and lagged drive drum
- Tensioned spoke tail drum
- High specification rubber belt 1200mm
- Tungsten tip belt scraper
- Impact bars and rollers
- Disc return rollers and guide rollers

#### **Integrated Feed Hopper**

- Mild steel hopper with replaceable Hardox wear liners around base of hopper
- Adjustable PU skirting between bin and feeder
- Bridge and hanging weights for material flow control onto screen

#### Screen

#### Model Infinity P1-36

- Vibro-centric drive shaft
  - $\circ \quad \text{SKF Explorer bearings used as standard on the ProGrade}^{\text{\tiny{TM}}} \, \text{screen range}$
  - $\circ \quad \ \ \, \text{Isenmann polyurethane liner}$
- 11kW WEG IE3 motor including drive pulleys, taper locks, mounts and guards
- Pre-wired from motor to isolator
- Rosta motor base for efficient power transmission to shaft
- AB HD 50–2 Rosta suspension units 4 per screen
- Galvanised patented Trilogy side wall design bolted construction
- All structural connections Huck bolted
- Patented U-span cross members
- Standard screen media of Hardox punched plate impact area, high tensile mesh media with rubber wear liners



- Rubber side wall liners
- Rubber-lined discharge chute liners

#### Chassis

- Modular mild steel construction
- Designed for optimised maintenance access and wash through points

#### **Collection Conveyor**

- 4kW Rulmeca drive pulley
- Tensioned spoke tail drum
- High specification rubber belt 1200mm
- Troughing rollers
- Tungsten tip belt scraper
- Disc return rollers and guide rollers

#### **Oversize Conveyor**

- Bonfiglioili helical bevel gear unit 4kW IE3 WEG motor
- Crowned and lagged drive drum
- Tensioned spoke tail drum
- High specification chevron rubber belt 1000mm
- Thumper roller
- Impact bars and Impact rollers
- Disc return rollers and guide rollers

#### Walkways

Galvanised GRP access platform and access steps on one side of machine

#### **Electrics**

Pre-wired and tested in CDE factory



#### Item 2: FEED CONVEYOR

Model: \$2310



- 23m static conveyor
- 1000mm belt
- Self-supporting on stanchions
- Extended feed boot to receive material
- Adjustable skirting rubbers
- All necessary troughing rollers
- All necessary return rollers
- SNL series bearings fitted on belt feeder to suit heavy duty application with exception of gearbox side of the head drum which is fitted with a Cooper split bearing unit to allow replacement without need of gearbox removal
- Direct coupled motor and gearbox
- P Type tungsten tipped belt scraper
- Guarded to CDE standards
- Lagged head drum
- Crowned tail and head drums to assist belt track
- Overband magnet
- Beltweigher



Item 3: AGGMAX

Model: 83SR



#### **Pre-Screen**

Model: D1-63

- Patented trilogy side wall construction
- Galvanised finish
- Huck bolted structural connections
- CDE VibroSync technology:
  - o Designed to transfer energy direct to side walls
  - Linear motion drive
  - o Access to eccentric weights through end guards
  - o 2 off 2.5kW Motors 50Hz
  - o Quiet & cool in operation
- Patented U-Span cross members
- Excellent access for changing modules
- Isenmann polyurethane modulesIsenmann polyurethane side wall liners
- 4 off Firestone marshmallow supports
- Spray bars fitted to screen

#### Sump

- Mild steel rubber lined sump
- Integrated into AggMax chassis

#### RotoMax Log Washer Model: RX80

- Supplied fitted with a full set of heavy-duty blades
- Blades are cast from chrome–molybdenum
- Twin shaft design
- Single gearbox and motor driving both shafts



- Electric motor with VSD
- Synchronized drive mechanism for maximum efficiency
- GRP flooring over top of RotoMax to provide safe access to key areas
- Mild steel body; electro welded steel
- Main (heavy-duty) bearings mounted on outside of machine for straightforward maintenance
- Central feed point
- Retention time adjusted via rotation speed
- Low 'transmitted vibration' allows fitting over a screen where required
- · Side and rear discharge points for removal of water and sand / silt so that minimal fines reach the main discharge point
- Single point water connection
- Valve fitted as standard to control water requirement as per customers material needs
- Unique under-spray system injects water through the floor of the machine to fluidise the material bed thus reducing power requirement and improving efficiency

#### Sizing Screen

Model: Infinity H2-60 (1.5m x 4m)

- Patented trilogy side wall construction
- Galvanised finish
- 2 decks
- Huck bolted structural connections
- CDE VibroSync technology:
  - o Designed to transfer energy direct to side walls
    - o Linear motion drive
  - Access to eccentric weights through end guards
  - o 2 off 7.6kW Motors 50Hz
  - o Quiet & cool in operation
- Patented U-Span cross members
- Excellent access for changing modules
- Isenmann polyurethane modules
- Isenmann polyurethane liners on discharge plate
- Isenmann polyurethane impact mats on feed plate 30mm thick
- Isenmann polyurethane side wall liners
- Access panels at rear of screen for quick, safe inspection of screen decks; rubber covers are in place to contain material within the screen
- Rosta AB-HD50-2 suspension units 4 per screen
- Discharge chutes (wear liner specific to application)
- Water manifold and spray bar kit fitted to screen

#### Sump

- Mild steel sump
- Integrated into AggMax chassis

#### **Additional Specifications**

- Hardox lined front product chute
- All necessary internal pipework and fittings

#### Trash Screen

Model: D1-43

- Patented trilogy side wall construction
- Galvanised finish
- Huck bolted structural connections
- CDE VibroSync technology:
  - o Designed to transfer energy direct to side walls



- Linear motion drive
- Access to eccentric weights through end guards
- o 2 off 2.5kW Motors 50Hz
- Quiet & cool in operation
- Patented U-Span cross members
- Excellent access for changing modules
- Isenmann polyurethane modules
- Isenmann polyurethane side wall liners
- 4 off Firestone marshmallow supports

#### Sump

- Mild steel sump
- Integrated into AggMax chassis

#### **Additional Specifications**

- Fully integrated modular chassis and pipework to offer fully customisable plant. Galvanised walkways with GRP flooring provide access to all key maintenance areas.
- Auto bom door

#### **Heavy-Duty Centrifugal Sand Slurry Pump**

- Heavy-duty rubber lined centrifugal slurry pump
  - o 1 no. 4/3 15kW pump
  - o 1 no. 6/4 30kW pump
- Complete with motor and drive



#### Item 4: EVOWASH

Model: Bs.50.40.100.22



#### **Dewatering screen**

- Dewatering screen for sand products
  - o 1 no. B-Series split screen
- 18 no. Isenmann modular hard-wearing polyurethane panels non-bolted
- 2 no. adjustable offset 3.6kW vibrating motors
- Replaceable Isenmann polyurethane liners along screen sides for easy future maintenance
- Splash protection cover over rear of dewatering screens
- Isenmann replaceable modular back splash panels
- 4 no. High-efficiency 'Marsh Mallow' rubber screen mounts
- Spray bars fitted to dewatering screen

#### Hydrocyclone

- Mild steel cyclone frame
- Natural rubber lined modular cyclone c/w overflow discharge chamber
  - o 1 no. 500mm dia. Cyclone
  - o 1 no. 400mm dia. Cyclone

#### Sump

- Mild steel sand slurry sump
- Automatic sump level controls (stainless steel)
- Feed / overflow points either side
- Steel backed rubber pump protection mats



• Skid mounted with integrated base for pump and motor

#### **Heavy Duty Centrifugal Sand Slurry Pump**

- Heavy-duty rubber lined centrifugal slurry pump
  - o 1 no. 6/4 22kW pump
- CDE high-abrasion hose and hot vulcanised rubber lined pipework between pump and cyclone
- Complete prewired motor drive unit for quick installation

#### **Additional specifications**

- Rubber lined front split product chute
- Rubber lined diverter feed box
- All necessary internal pipe-work and fittings
- Galvanised walkway & handrails with GRP flooring and steps, for easy access and maintenance
- Prewired and tested in CDE factory

#### Item 5: STOCKPILE CONVEYORS

Model:

M1565

Quantity: x5



- 15m mobile stockpile conveyor
- Feed boot to receive material
- 650mm wide EP multi-ply fabric rubber conveyor belt
- Adjustable skirting rubbers
- Vari-Angle PU Troughing rollers as standard
- Motorised head drum
- Tungsten tipped belt scraper
- Guarded to CDE specification
- Lagged head drum
- Crowned tail and head drums to assist belt tracking



#### **Item 6: AQUACYCLE WITH FLOCSTATION**

Model: A400



- Mild steel Thickener Tank
- 400m³/hr Capacity
- Galvanized steel support structure
- Scraper mechanism for conditioning of sludge
- Motor, gearbox and heavy-duty transmission shaft
- Peripheral weir for collection and discharge of recycled water
- Central diffusion drum for receiving pre-dosed effluent
- De-aeration chamber for primary poly dosing treatment
- Conical bottom section complete with flushing valves and pipe-work
- Centrifugal pump with gland seal kit to discharge thickened sludge to Filter Press
- Pneumatic and electrically operated valves for control of sludge discharge
- Compressor fitted into cabin for pneumatics
- Control panel fitted into cabin
- Scraper support bridge and galvanized walkway
- Access stairs and handrails
- Automatic operation
- Multiple dosing points for polyelectrolyte
- Automatic flushing of sludge pipe-work after de-sludging cycle
- Thickener requires constant uninterrupted power supply of 400 V



#### **Complete with Polyelectrolyte Dosing Station (P40)**

- Loading hopper for (powder based) polyelectrolyte complete with screw-feeder
- Powder eductor system with cone to transfer powder to make-up tank
- Mixing tank with lid incorporating:
  - o Stirrer unit twin propellers
  - o Level electrodes
- Transfer pump to convey matured polyelectrolyte to storage tank
- Storage tank incorporating level electrodes
- Dosing pump complete with:
  - o In line dilution facility
  - o Variable speed drive
- Plant will require a potable water supply for polyelectrolyte make-up
- Plant installed and pre-tested in Thickener control station (below)

#### **Control Station**

- 12m insulated control station
- Secure and vandal proof complete with lights
- FlocStation pre-installed into control station



#### **Item 7: WATER TANK ANCILLARIES**

Model: 150m³ Concrete Water Tank in Civils by Client

• 150m³ Concrete water tank in Civils by Client

- 200/200 water recycle pump and 55kW motor
- Ultra-sonic probe for measuring water level

Model: CDE Static Screen (3 Panel)



- Static Screen for removal of lightweights
- Inlet chamber to distribute evenly over width of screen
- Horizontally slotted apertures
- Gravity Solids discharge
- Galvanised Access Stairs & Platform for Static Screen

#### Item 8: BUFFER TANK ANCILLARIES

Model: 200m³ Concrete in Civils by Client

- 200m³ Concrete buffer tank in Civils by Client
- Agitator x1 15kW
- Bridge and access
- Ultrasonic probe



**Item 9: FILTER PRESS** 

Model: 1500



\*Image for illustrative purposes only

#### **DESIGN CALCULATION DATA**

NB. All data used to allow this quotation to be produced, is for reference only and is subject to testing.

Data / values specified are assumed design calculation data for which we cannot accept any guarantees.

Client responsible for sampling, testing and provision of a wholly representative raw material feed analysis and final products specification requirements; any information provided by CDE is for indicative purposes only.

#### **TECHNICAL CHARACTERISTICS**

Filter plate size 1500 x 1500mm

Cake/chamber quality: 182 Pcs

• Total filter press volume: 8080.80 l

Total filtering surface: 623.71 m<sup>2</sup>

#### **OPERATION PRESSURE**

Filtration pressure:
 15 bar (jack with oversized section)

Acoustic emission
 <75 Db(A)</li>

#### FILTERING PLATE PACK

Installed recessed plate quantity 183 end plates
 Chamber thickness 25mm

Slurry feed position top central hole

Filtrate discharge positions
 4 angle holes (Embodied closed manifold)



#### **FILTER CLOTHS**

Recessed plates: Polypropylene

No. of cloths: 183 Pcs

CLOSURE OF FILTER PACK Hydraulic jack

15kW motor

PLATE SHIFTING DEVICE Static Frequency Inverter

1.5kW motor

**ACCESSORIES** 

Double feeding piping: Carbon Steel

CORE BLOW Automatic core blow function

#### Description of the machine:

Filter press with upper beam, fixed and mobile header, embodied filtrate manifold, automatic plates shifting device controlled by inverter, automatic filtering pack closing system made by means of 4 hydraulic pull closing jacks, cake discharge by gravity.

Structural frame composed of a fixed header holding the jacks, a sliding mobile header, a support header, an upper oversized beam composed of "I profile beams where filtering plates are hanging and sliding. Four double effect type jacks, acted by a self-controlled hydraulic unit with low and high pressure pump, move the mobile header and assure the plate pack closure.

The automatic plate shifting is housed in the upper beam and is controlled by frequency inverter. Double feeding on the header holding the jacks and on the mobile header, four connections for filtrate discharge on the fix header holding the jack. The machine is sandblasted and painted according to specifications.

#### Operation

The filter press with automatic cycle of closure, feeding, compacting and filtration end will be adjusted and controlled by a PLC inside the electric control panel.

#### Plate pack closing and opening device

Opening and closing strokes of the mobile header and the closing force of the plate pack, to compensate the operation pressure during filtration, is obtained with four hydraulic jacks. These jacks are automatically kept under pressure by an hydraulic unit.

#### Plate shifting device

The plate shifting device for cake discharge clasps the plate handles by means of a trolley place on the upper bearing beam and moved by a gear reducer by means of pinions and rails and adjusted by a static frequency inverter.

#### High pressure cloth washing system

Trolley with sensors, electric motor and electric fittings.

**CLOTH WASH PUMP**: High pressure cloth washing pump

Installed power: 30kW

#### **FEED PUMP:**

-VFD and starter for feeding pump

-55 kW motor



#### DRIP TRAY - for draining off the dripping filtrate as well as the filter cloth washing water.

With upwards opening and trays in carbon steel

#### **ELECTRIC CONTROL PANEL - for operating the chamber filter press**

Electrical control panel with Siemens PLC and colour display screen.

#### PRESS ENCLOSURE

Ruttle Group Scope of Supply

#### **PRESS ACCESS STAIRS**

Ruttle Group Scope of Supply

#### **MISCELLANEOUS ITEMS (included within CDE supply)**

- 6" flow meter
- Compressor
- Air receiver tank
- Grindex Major core wash pump with 5.6kW motor
- Gland seal kit

SCOPE OF SUPPLY:

Complete filter press as specified above, starting from the sludge inlet flange and ending with the filtrate discharge flange/s.



#### **Additional Services**

#### **Health & Safety**

CDE undertakes rigorous checks to ensure its products comply with UK health and safety standards. However, given the differences in opinion amongst CDE's customer base regarding health and safety compliance, the Customer must satisfy itself that the Products meet its own health and safety standards. In this regard, CDE will make available, upon request, the relevant manuals, pictures and site visits to demonstrate current standards adhered to prior to signature of this Order Acknowledgement. Any requests after the Order Acknowledgement is signed for amendments to the Products to comply with the Customer's health and safety standards will be subject to execution of a variation agreement and a mutually agreed upon fee.

#### **Operator Training**

- Training on plant operation
- It is preferred that the operator will be present for installation.
- It is essential that the operator is present for Commissioning.

#### **Delivery Process**

Analysed, Assembled, Tested, Quality checked, Dismantled and packaged before leaving CDE headquarters. (F.A.T. if required)

- Delivery to Chorley of all listed items
- Incoterm 2010 (DAP)

#### **Other Services**

- CDE ProMan (World Class Project Management)
- Pipe-work within proposed washing system (no pipework to or from CDE system)
- Operation and maintenance manuals
- Painted to standard CDE colours, RAL 5015 & RAL 9016



## **Scope of Supply**

DESCRIPTION	RESPONSIBILITY			
	CDE Customer		Other	N/A
Product layout design and drawings	✓	-	-	-
Site layout drawings	-	✓	-	-
Outline civil drawings – detailing concrete loading and service details. Site assembly and transport drawings	✓	-	-	-
Concrete and rebar design	-	✓	-	-
All necessary civil works including ducting and pipework where applicable	-	<b>√</b>	-	-
Mechanical Installation Team	✓	-	-	-
Commissioning Engineer	✓	-	-	-
All necessary cranage, elevated working platforms, telehandlers and other working at height equipment for erection and commissioning (as indicated by CDE)  (Where CDE is responsible for provision of cranage etc., the Customer shall ensure there is sufficient access to, and egress from, the Site for such cranage, etc. and that the ground conditions of the Site are suitable for the safe set-up and operation of the cranage etc.)	<b>,</b>	-	-	-
Fresh water supply / pipe-work / connection	-	✓	-	-
Top-up water supply / pump / pipe-work / connection	-	✓	-	-
Waste water / emergency overflow pipe-work / connection / supply	-	✓	-	-
Poly dilution water supply / pump / pipe-work / connection (following commissioning)	-	<b>√</b>	-	-
Bespoke control panel form 2 for washing plant	✓	-	-	-
3 Phase, 400V, 50Hz, neutral and earth supply	-	✓	-	-
Mains supply (T-N-CS required) / connection to control panel(s) (cable and labour)	-	<b>√</b>	-	-
Power factor correction unit	-	✓	-	-
Standard pre-wiring of CDE plant to UK/European standard, internal cable cores brown, black, grey and earth (yellow/green) (outside of UK/Europe the colour identification on internal cables will be sleeved to suit regional legislation)	<b>√</b>	-	-	-
Site wiring (supply and connection of all site cables that cannot be pre- wired at CDE factory)	✓	-	-	-
Electrical commissioning	✓	-	-	-
Site lighting	-	<b>√</b>	-	-
Site CCTV cameras	-	✓	-	-
Any disconnections (existing plant items on Site)	-	✓	-	-
Polyelectrolyte / Coagulant / Antifoam supply	-	<b>✓</b>	-	-
Support walls for filter press / cladding labour requirement for press housing	-	<b>✓</b>	-	-
Water storage tank for cloth washing system		<b>√</b>	_	_



DESCRIPTION	RESPONSIBILITY			
		Customer	Other	N/A
Sludge Buffer Tank in civils	-	✓	-	-
Air conditioning unit to maintain safe working temperature of control unit	-	<b>√</b>	-	-
Modifications / Adjustments to existing plant items	-	<b>✓</b>	-	-
Legalization / Certification of documents	-	✓	-	-
Any item or service not specifically mentioned	-	✓	-	-
Sample of raw feed material that is representative of all material available on Site for processing, including an analysis of such sample	-	~	-	



## **Pricing Summary**

Item #	Description	Price	
	Proposal		
1 - 9	CDE complete washing system with water treatment plant and filter press		
TOTAL (i	including additional services) GBP	£ 1,823,000	



#### **Terms and Conditions**

#### **Approximate Dispatch Date**

- Design work shall commence when the last of the following is received: (i) signed Order Acknowledgement; (ii) Deposit in full; and (iii) any agreed security (if applicable).
- The Dispatch Period shall commence upon sign-off of the Layout by CDE and the Customer.
- With CDE's programme of works as at the OA Issue Date set out above, it is anticipated that dispatch will occur within an approximate period of 14 15 working weeks following commencement of the Dispatch Period.
- The Dispatch Period shall be reviewed and confirmed by the CDE ProMan immediately following commencement of design work and sign-off of the Layout to ensure validity.
- The Contract shall be deemed complete once all concerns from the "Punch List" (being the register compiled by the Customer to be agreed with CDE one week after Commissioning, irrespective of any performance criteria) are satisfactorily resolved. In the event that the Punch List is not presented by the Customer at the end of this one-week period, CDE will compile the Punch List and it will be deemed accepted as final by the parties.

#### **Commercial Terms**

- Our quotation is valid for acceptance within a period of 30 days
- All prices quoted are Sterling and exclude VAT and any other relevant taxes or import duties
- This quotation is subject to CDE General Terms & Conditions of Sale (Capital Equipment); a copy of which is available
  on request

#### **Payment Terms**

- 30% Deposit on signature of this Order Acknowledgement
- 20% To Facilitate Start of Final Assembly and Testing of products (on a phased basis if more practical)
- 30% Goods Readiness Notification (on a phased basis if more practical)
- 17.5% upon the sooner of: (i) completion of mechanical installation; or (ii) 45 days from the date the Products are ready for dispatch as specified on the GRN;
- 2.5% upon the sooner of: (i) completion of the Contract; or (ii) 75 days from the date the Products are ready for dispatch as specified on the GRN. The Contract shall be deemed complete once all concerns from the "Punch List" (being the register compiled by the Customer to be agreed with CDE one week after Commissioning, irrespective of any performance criteria) are satisfactorily resolved. In the event that the Punch List is not presented by the Customer at the end of this one week period, CDE will compile the Punch List and it will be deemed accepted as final by the parties.

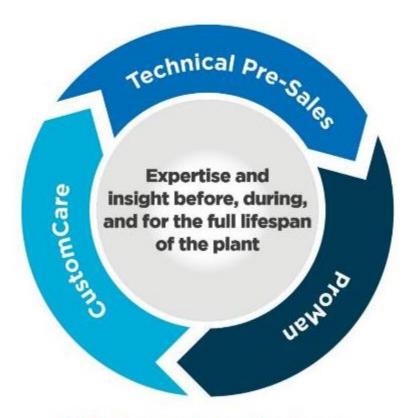
#### Warranty

- CDE provides warranty cover for the Products as detailed in the CDE Warranty Terms and Conditions, available at <a href="https://www.cdeglobal.com/media/8415/cde-wtcs-february-2018.pdf">https://www.cdeglobal.com/media/8415/cde-wtcs-february-2018.pdf</a>
- The Warranty Period is the earlier of: (i) 12 months or 2000 hours (whichever is sooner) from the date of Commissioning, or delivery of the Products where CDE is not responsible for Commissioning; or (ii) 18 months from receipt of Goods Readiness Notification.

CDE equipment complies with rigorous Health & Safety Standards based on our experience with global aggregate producers over many years. Given the differences in opinion amongst our Customer base regarding H&S compliance, the Customer must satisfy himself at the outset that the Equipment supplied satisfies their own Company H&S Standards. In this regard, CDE will make available, upon request, the relevant manuals; pictures and site visits to demonstrate current standards adhered to prior to confirmation of the Order. Any requests, after the Order is agreed and signed, for amendments to equipment regarding compliance to individual company standards will be charged on a mutually agreeable fee.



# LONG TERM VALUABLE PARTNERSHIPS



## 3 distinct partnership phases

Provide specialist expert support throughout, to ensure that you get the most from your investment.

## 1 - Technical Pre-Sales

We co-create your system, designed specifically for your materials.

## 2 - ProMan™

A dedicated project team that delivers and commissions your equipment.

#### 3 - CustomCare

Tailored CustomCare contracts that ensure maximum plant efficiency and profitability.



## **CDE Technical Pre Sales**

# **YOUR JOURNEY WITH US** STARTS HERE...

#### WE USE EXISTING PLANT & **EQUIPMENT AUDITS TO EXPLORE** AREAS WHERE EFFICIENCIES CAN BE INTRODUCED.

We conduct a detailed analysis of your feed available at any time and material to establish the CDE is always excited to volume of commercial sand partake in further analysis can be processed.

use their expertise in the solution is proposed for range of material analysis tests, where we simulate the processes using our own bespoke equipment, both in lab and real world scale analysis.

Our lab facilities are and aggregate material that of materials that enable the development of existing On receipt of your material
CDE laboratory technicians
CDE laboratory technicians
suitable and optimised each scenario.

WHERE **OPPORTUNITIES** ARE DISCOVERED.





## We hold design workshops with our engineering team so you are at the heart of the design and decision making process.



The systems we employ for the personal and professional development of our engineering teams are critical for our ongoing success.



We offer all our engineers a route to chartered status and have the highest volume of professionally registered engineers in our industry.



We have 100+ engineers across our technical, project design, product development, research & development and electrical departments with a combined experience of 1000+ years.



Combining our experience with our customers' experience ensures we create and deliver a world class, bespoke solution for your business which will maximise product yield and minimise waste from your operations.



## CDE ProMan™

# DEDICATED ON TIME.

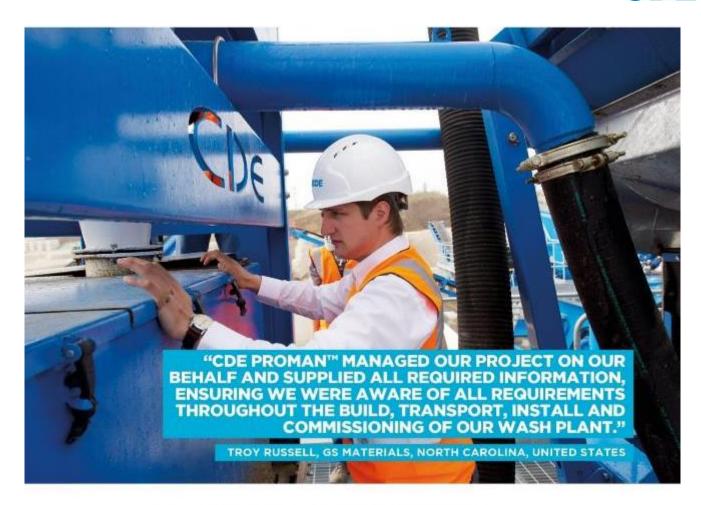
Our experience in the design of large turnkey mineral processing projects the project sits at any ensures your project will be designed and delivered to the highest possible standards. CDE's ProMan™ system is proven to deliver highly efficient and productive plants through a process which ensures that lines of communication are clear and everyone involved

from both your side and ours knows exactly where given time.

This system has been

implemented effectively on numerous worldwide projects from the UK and Ireland to India, the Middle East, Africa, North America and Australasia. CDE CDE





#### A dedicated project team is appointed as soon as the project goes live. It contains all the major disciplines required to deliver a truly world class project.

Through this process you are allocated a dedicated Single Point Of Contact (SPOC) who is ultimately responsible for the delivery of your project in its entirety.

Our wish and yours is for a project that is delivered on time, on budget and

performs to the highest possible standards. ProMan<sup>re</sup> characteristics of the site, is the methodology that has been proven to consistently deliver this outcome. The key to success here is the same as with our design philosophy - each project must be constructed individually to take into

account the individual the material, the deadline and the requirements of the process.





## How we work

We understand your business objectives and the operation of your plant We create a CustomCare package to help you meet your objectives

We maximise uptime for optimal throughput

We make it easy to work with CDE CustomCare and are at your service 24/7

























