



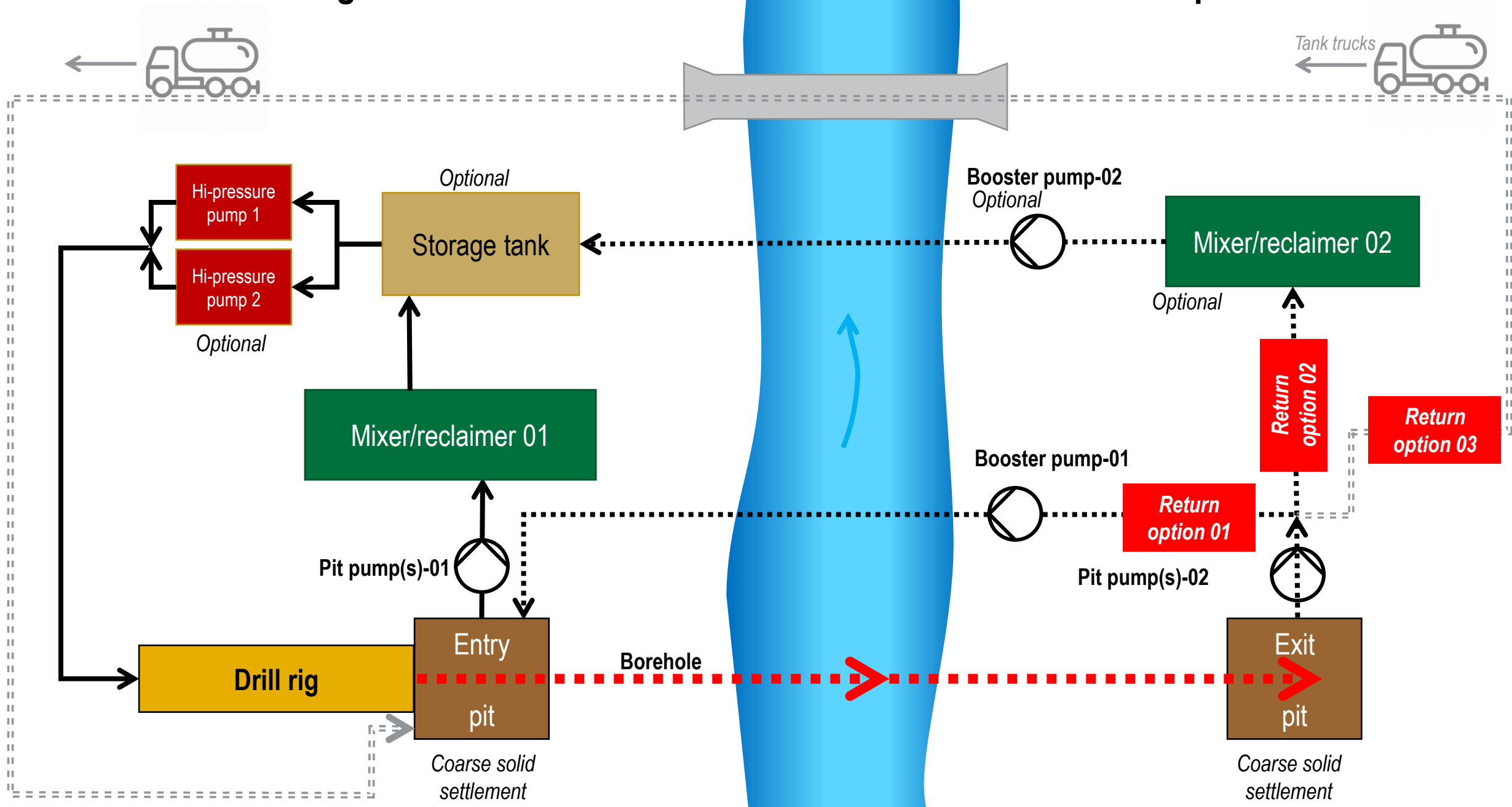
The fully electric HDD jobsite

Renzo Chirulli – Senior applications engineer, pipeline – Vermeer EMEA, The Netherlands

Electric direct-driven equipment for an efficient HDD jobsite at low environmental impact

Rig side

Pipe side





The fully electric HDD jobsite

The fully electric HDD jobsite

The Vermeer E-HDD product range uses the electric direct-drive of the D120E electric horizontal directional drill, SA2500 high-pressure pump and MR1000/MR2000 mixers/reclaimers to bring three environmentally focused advantages to HDD jobsites:



Depictions shown



Environmentally focused advantages



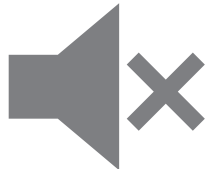
Minimal environmental footprint

The drill itself produces zero engine emissions and the electric direct drive results in high efficiency of the entire system, minimizing energy consumption.



Fewer chances for contamination

The D120E electric drill is fully water-cooled (instead of oil-cooled), and the drill has a minimum amount of hydraulic fluid on board. The SA2500 high-pressure pump and MR1000/MR2000 reclaimers have electric motors that directly drive the pumps to process and circulate the drilling fluids, so no hydraulic oil is used.

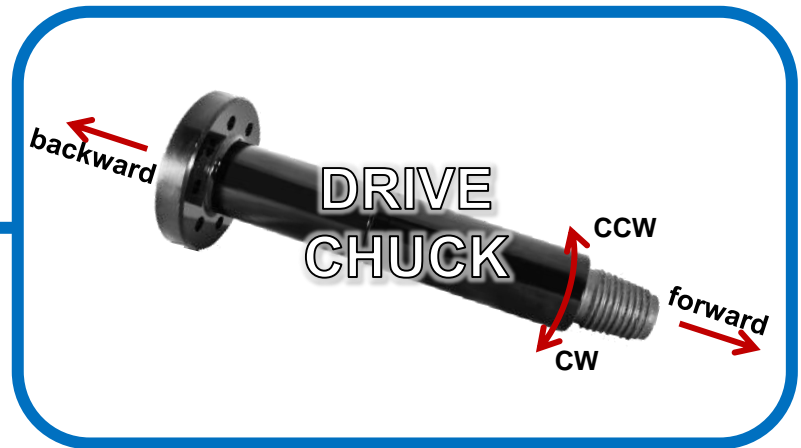
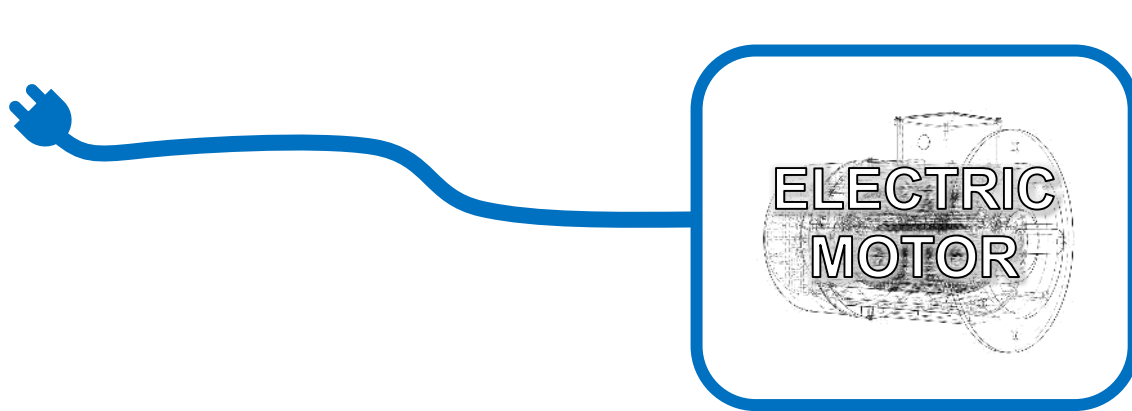
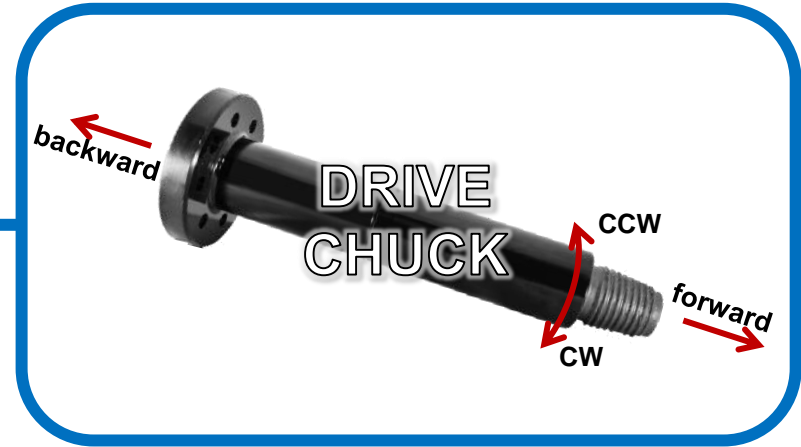
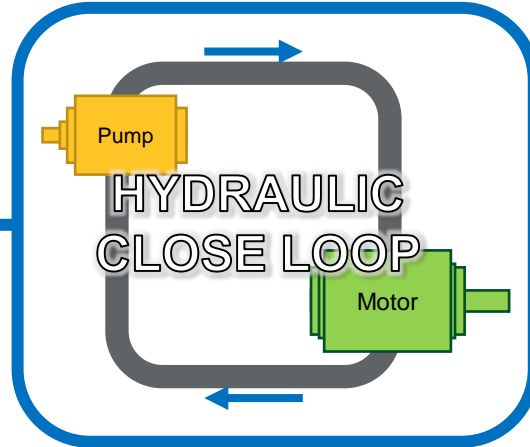
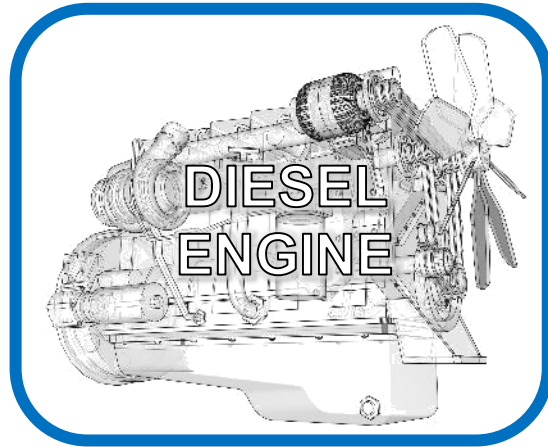


A quiet jobsite

During operations, the equipment emits low sound decibels, with most sound coming from the rack-and-pinion gearboxes, pumps and suction.



Evolution from diesel-hydraulic to direct electric drills

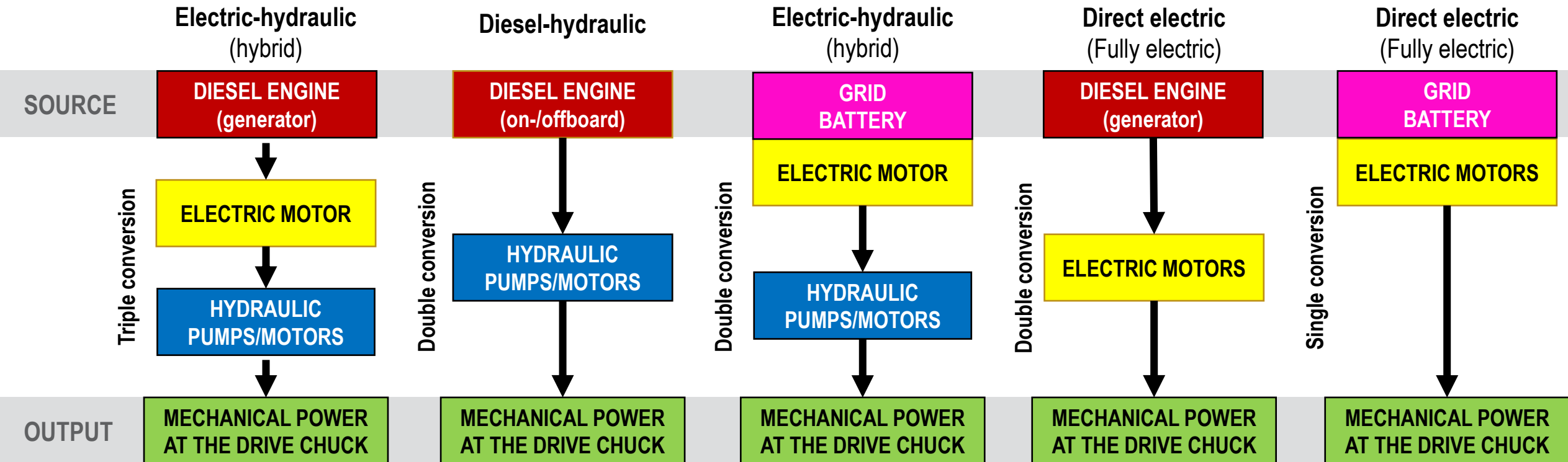




Evolution from diesel-hydraulic to direct electric drills

EFFICIENCY

+





Benefits of the direct electric drive

1. Efficiency
2. Multiple options for a power source
3. Minimal maintenance
4. High availability
5. Ease of service on the jobsite
6. Torque
7. Minimizes contaminant spills
8. Data logging
9. Sound emission



The fully electric HDD jobsite

MR1000

combo mixer/reclaimer
1000 L/min processing capacity



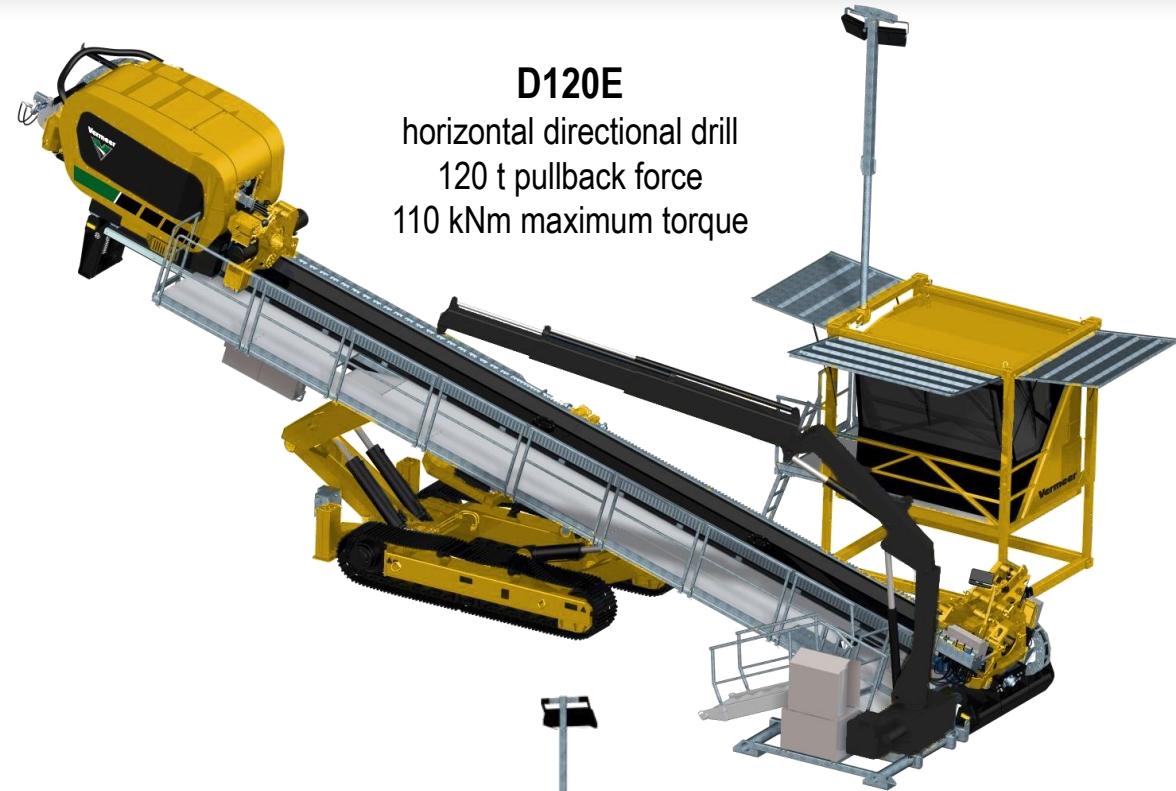
SA2500

high-pressure pump
2200 L/min at 80 bar with 7 in liners



D120E

horizontal directional drill
120 t pullback force
110 kNm maximum torque



MR2000

combo mixer/reclaimer
2000 L/min processing capacity



R500

reclaimer
500 L/min processing capacity



Depictions shown



D120E

Horizontal directional drill

- 120 t pullback force
- 110 kNm max torque
- Range 2 drill pipe length

MR2000

Combined mixer/reclaimer

- 2000 L/min processing capacity
- Two 10 in desander hydrocyclones
- Twelve 4 in long body desilter hydrocyclones
- Double shaker deck
- Three processing centrifugal pump
- Compact transport dimensions



MR1000

Combined mixer/reclaimer

- 1000 L/min processing capacity
- Twelve 4 in long body desilter hydrocyclones
- Double shaker deck
- Two processing centrifugal pump
- Compact transport dimensions



SA2500

High-pressure mud pump

- 2300 L/min at 80 bar with 7 in liners





R500 Reclaimer

- 500 L/min processing capacity
- Six 4 in long body desilter hydrocyclones
- Double shaker deck
- One processing centrifugal pump
- Compact transport dimensions



The fully electric HDD jobsite

Conclusions:

- The electric HDD system is highly efficient.
- Speed of operations and responsiveness of the drill, of the combo mixer/reclaimer and high-pressure pump together with the automatization of almost all the operations of the drill, result in maximized productivity.
- The compactness of the systems minimizes transportation costs and logistic problems.
- Direct electric-driven machines are resilient to change (regulations, power source, risk of contamination, etc.)
- High efficiency registered over more than 10k hours of continuous functioning confirm the high reliability of Vermeer electric technology.

Vermeer®



**EQUIPPED TO
DO MORE.®**

VERMEER.COM

Vermeer Manufacturing International Goes and Vermeer Corporation reserve the right to make changes in engineering, design and specifications; add improvements; or discontinue manufacturing at any time without notice or obligation. Equipment and depictions shown are for illustrative purposes only and may display optional accessories or components specific to their global region. Please contact your local Vermeer dealer for more information on machine specifications.

Vermeer, the Vermeer logo and Equipped to do More are trademarks of Vermeer Manufacturing Company in the U.S. and/or other countries.

© 2022 Vermeer Corporation. All Rights Reserved.