

HENCON
HIGH PROFILE SHOTCRETER

WET CONCRETE SPRAYING VEHICLE



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The Hencon High Profile Shotcreter has been designed to spray wet concrete mixture onto the walls of underground tunnels for reinforcement.

It features an articulated frame, with a joint that enables frame articulation and oscillation. Easy access is provided to all components that need to be serviced and maintained. On the front are the cabin, motor compartment, fuel tank, hydraulic oil tank, hydraulic outriggers and Shotcrete boom, while the rear has the following equipment mounted: concrete pump, air compressor, high pressure washer, electrohydraulic power pack, form oil system, accelerator pump with the tank and a cable reel.

The vehicle can be safely used in underground tunnels with aggressive environments, significant water content, humidity of between 75 to 100%, high concentrations of conductive dust, and ambient temperatures of between -35°C to +35°C.

Functional details and full specifications are available on request.

ENGINE

Diesel engine Deutz TCD2013 L04 2V, water cooled with turbocharger

Max power output: 126 kW

HYDROSTATIC DRIVE SYSTEM

- Hydrostatic transmission.
- Vehicle is driven with hydraulic pumps mounted on the engine reductor. Hydraulic pumps drive hydraulic motors mounted on the drive axles.

TRAVEL PUMPS

- Drive pumps
- Equipment pump

BRAKE SYSTEM

- Park brake
- Service brake
- Hydrostatic braking allows slowing down the vehicle with the engine by releasing the accelerator pedal.
- Hydraulic retarder assists with driving downhill .

STEERING

Hydraulic steering (Orbitrol)

ELECTRICAL EQUIPMENT

Multi CAN-bus control system based on Hydac controllers.

Voltage: 24V

AXLES

Model: Kessler D71
2-drive

FUNCTIONAL EQUIPMENT

1. Shotcrete boom
2. Concrete pump
3. Accelerator system
4. Compressor
5. Water hose reel
6. Electrohydraulic power pack
7. Cable reel
8. Form oil system
9. High pressure washer

DIMENSIONS AND MANOEUVRABILITY

DIMENSIONS AND OPERATING PARAMETERS			
Length	11 700 mm	Ground clearance	405 mm
Width	2 000 mm	Approach angle	16°
Height	2 900 mm	Departure angle	14°
Wheel base	4 000 mm	Turning radius, outer inner radius	6 300 mm 3 000mm
Full weight	20 000 kg	Gradient	15°
Max speed	20 km/h	Fuel tank capacity	240L

OPERATOR'S CABIN

- The vehicle has a closed, one-seat cabin with tempered glass windows on all sides allowing good visibility.
- The driver's seat is adjustable, with suspension and a retractable lap safety belt.
- The cabin is fitted with an interior light, and heater with EU7 air filter on the intake.
- Standard features include: Window and lights protection, left or right hand controls, washer, wiper and ROPS/FOPS certification.
- Controls mounted in cabin include: Adjustable steering column with steering wheel; drive pedal; service brake pedal; drive direction switch with a horn button; turn signal switch; ignition switch; emergency stop button; keypad for various vehicle functions with LED lighting; digital display; heater speed switch; fire suppression system control panel.
- Digital display
- Engine start button

The Shotcrete procedure can be performed either with controls in the cabin, or by means of a remote control unit to ensure good visibility of the work area.

Functional equipment can be driven either with the engine of the vehicle or with the electrical power pack.

- Engine drive – requires compressed air supply from the mine;
- Power pack drive – requires electrical power supply from the mine for the motor and compressor, and can be used in areas with poor ventilation.

Remote control unit cable length: 10 m

SHOTCRETE BOOM

Boom rotation angle	:	270°
Boom lifting angle	:	from -20° to +75°
Boom folding angle	:	from -60° to +162°
Extension	:	2 200 mm
Nozzle rotation angle	:	420°
Nozzle lifting angle	:	105°

CONCRETE PUMP

Pumping capacity	:	20 m ³ /h
Pumping pressure	:	60 bar

ACCELERATOR SYSTEM

Dozing rate	:	700 L/h
Tank capacity	:	500 L

COMPRESSOR

Flow	:	10m ³ /h
Pressure	:	7 bar

WATER HOSE REEL

Hose length	:	30 m
Hose size	:	3/4"

ELECTROHYDRAULIC POWER PACK

Power	:	55 kW
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CABLE REEL

Cable length	:	100 m
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FORM OIL SYSTEM

Capacity	:	30 L
Hose length	:	20 m
Pressure	:	7 bar

HIGH PRESSURE WASHER

Flow	:	30 L/min
Pressure	:	180 bar



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