FEATURES

- For maximum reach and coverage, the DUX S1-Shotcreter is equipped with remote controlled robotic knuckle boom with extendable spray arm, all position spray head and liquid accelerator dosage pump (dry or wet) shotcrete system.

- Standard S1-Shotcreter can spray concrete on drifts up to 40-feet (12.2 meters) high, optional booms with greater reach available.

- Spray boom equipped with Aliva AL-302-1 all position spray head with two totally enclosed Rota actuators for swing/tilt.

- Aliva AL-267 wet/dry concrete spraying machine with AL-403.6 liquid dosing accelerator.

- For maximum safety, reliability and low maintenance cost, the S1-Shotcreter is equipped with heavy-duty transmission and planetary axles.

- Spacious operator compartment is ergonomically designed for maximum visibility and bidirectional trammimg, operator can safely control and monitor machine functions at a glance.

- Centralized service points and modular design for easy service access and fast component exchange.

- Excellent service and parts back-up worldwide.

WEIGHTS

Machine weight, approx. ........... 16.3 tonne ............. 17.8 ton (with optional compressor)

OVERALL DIMENSIONS

Length ........................................ 11 355 mm ........... 37’ 3”

Width with optional compressor ........... 2 210 mm ........... 7’ 3”

Tramming height .................................... 2 590 mm ........... 8’ 6”

TURNING RADIUS

Inside ................................................. 3 860 mm ........... 12’ 8”

Outside arm straight ...................... 7 315 mm ........... 24’ 0”

Angle ........................................................ 45°

ADDITIONAL FEATURES

- Lifting device with two (2) totally enclosed built in stabilizers and controls for Aliva AL-267 shotcrete spraying machine, includes reinforcemnt of front engine side frame.

- Two (2) boom side stabilizers with horizontal spread (manual) on both sides plus controls.

- Two (2) enclosed storage boxes with hinged covers
**TECHNICAL SPECIFICATIONS**

### Engine
- Make and model: Cummins QSB4.5 electronic
- Derated power: 110 kW (148 HP) @ 2300 RPM
- Cylinders: 4
- Aspiration: Turbocharged and charge air cooled
- Displacement: 4.5 L = 275 in³
- Starter: 24-volt
- Air intake cleaner: Donaldson 2-stage dry type with service gauge
- Exhaust system: Catalytic purifier with integrated silencer
- Cooling: Liquid
- Emission standard: Meets EPA Tier 3, Euro Stage IIIA

### Transmission with Integrated Torque Converter
- Make and model: Dana SOH HR24000 series with integrated torque converter and flex plate drive
- Speeds: 3 in forward and reverse

### Axles
- Make and model: Dana SOH 113 planetary type with totally enclosed internal wet multi-disc brakes for each wheel

### Brakes
- Service: 4-wheel power internal wet multi-disc brakes, dual hydraulic power control with accumulator back-up
- Emergency/parking: Fail safe back-up spring applied hydraulically
- Automatic Brake: Applies brake in case of engine failure or pressure

### Steering
- Articulated frame hydraulic power steering
- Orbitrol valve-type with steering wheel and cushion valve
- Double acting steering cylinders (2)
- ± 45° steering angle each way for a total of 90°

### Oscillation
- ±10° center of oscillation for a total of 20°
- Large sized, heavy-duty roller bearing for minimum maintenance and a smooth ride, 4-wheel ground contact guaranteed

### Frames and Pins
- Articulated heavy-duty frames made to withstand the high impact and torsional stress associated with mining application
- Frames come with five-year unlimited hour guarantee
- Large high tensile alloy steel pins in replaceable anchor bushings

### Operator Compartment
- Side seated for maximum visibility and bidirectional operation
- Heavy-duty adjustable suspension seat with arm rests and seat belt
- Co-driver seat with arm rests and retractable seat belt
- Shock mounted compartment floor for maximum comfort
- All controls and gauges are within easy reach and view of operator

### Hydraulic System
- Heavy-duty double acting protected steering cylinders (2) with hard chrome plated stems
- Heavy-duty PTO driven gear-type pumps driven from torque converter
- Suction filter
- Inline high pressure filter with service gauge
- ¾" inside diameter and over hoses that are four-spiral wire braid and have crimped hose end swivel fittings. Hose bulk-head located mid-ship

### Tank Capacities
- Fuel: 170 L = 45 US gallons
- Hydraulic oil: 383 L = 80 US gallons

### Electrical System
- 24-volt negative ground
- 75 amp alternator with integrated sealed voltage regulator
- Main electric cut-off switch
- Heat resistant, waterproof, sealed electric PMA wire harness
- Sealed junction box and stainless steel instrument panel box with multi-stem connectors
- Semi-automatic circuit breakers
- Front (2), rear (4), and all-directional (1) LED high-intensity lights
- Heavy-duty batteries (2)
- Signal horn and audible, adjustable back-up alarm

### Aliva AL-302-1 (Electric Driven) Telescopic Spraying Arm
- Max. tunnel height: 8.0 m (with 1 m spraying distance), min. height: 3.5 m
- 4-wheel power internal wet multi-disc brakes, dual hydraulic power control with accumulator back-up
- 3-point telescopic arm, 0-3 m range of telescopic movement
- Hose and nozzle holders can be infinitely adjusted from vertical to horizontal position. Spraying head -240° field of traverse (injection arch)
- 360° field of rotation
- Electric proportional remote control for the boom movements
- Oil tank 75 L. Hydraulic double pump. Control cabinet
- Remote electric controls with 8 m long umbilical cord to allow maximum operator visibility and safe position whilst shotcreting
- Stabilizers (2) with manual side spread on boom side

### Aliva AL-267 Shotcrete Spraying Machine for Wet or Dry Mix
- Rotor: 26.5 L, 2 speeds
- Capacity: 26-16 m³/h
- Easy handling and cleaning of the components and exhaust
- Wet mix spraying attachment with vulcollane type nozzle and integrated additive. Skid mounted on lifting device on front of S1-Carrier

### Aliva AL-403.6 Liquid Dozing Accelerator
- 30-700 l/h dosage, 0.75 kW electric motor, 460 V/3 phase/60 Hz
- Comes with liter/hour digital display. Synchronized with AL-267
- Manometer and pressure switch are mounted separately

### Options
- Different engine • Diesel particulate filter • Certified FOPS/ROPS canopy
- Fully equipped certified FOPS/ROPS noise suppression cab • Automatic lubrication system • Fire suppression system • Video system • Spare rim assembly • Cold weather package • On board compressor • High pressure water washer • Piston pump • OTHER OPTIONS ON REQUEST

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*Specifications subject to change without notice.*