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 all position spray head with two totally enclosed Rota actuators for swing/tilt
- Aliva AL-263 wet/dry shotcreting machine with AL-403.4 liquid 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 tramming, 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)

OVERAL 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 263 shotcrete spraying machine, includes reinforcement 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

The DUX S1-Shotcreter with remote controlled robotic knuckle boom and piston pump
**TECHNICAL SPECIFICATIONS**

**Engine**
- Make and model: Cummins QSB 4.5 with Electronic Management System
- Derated power: 110 kW (148 HP) @ 2300 RPM
- Cylinders: 4
- 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 1 in reverse

**Axles**
- Make and model: Dana SOH 176 planetary with internal multiple wet-type 4-wheel disc brakes

**Tires**
- Bridgestone 12.00-20, 18 Ply Tube-Type E-3 mining tires

**Brakes**
- Service: 4-wheel power multi-internal wet disc, dual hydraulic power control with accumulator back-up
- Emergency/parking: Fail-safe back-up Spring Applied Hydraulic Released (SAHR) multi-internal wet 4 wheel brakes
- Automatic Brake: Applies brake in case of engine failure or Applicator (ABA): pressure drop in torque converter

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

**Oscillation**
- ±10º center of oscillation for a total of 20º
- 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 bi-directional operation
- Heavy-duty adjustable suspension seat with arm rests and seat belt
- Shock mounted compartment floor for maximum comfort
- All controls and gauges located 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 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: 303 L (80 US gallons)

**Electrical System**
- 24-volt negative ground
- 70 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 (Electric Driven) Telescoping Spraying Arm**
- Max. tunnel height: 8.0 m (with 1 m spraying distance), min. height: 3.5 m
- 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 -240º field of traverse (injection arch)
- 360º 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-263 Shotcrete Spraying Machine for Wet or Dry Mix**
- 25 L with trapezoidal rotor chamber
- Capacity: Speed I: 5 kW at 985 RPM, Speed II: 7.5 kW at 1465 RPM
- Good for maximum 20 mm particle size
- Wet mix spraying attachment with vulcollane type nozzle and integrated additive. Skid mounted on lifting device on front of S1-Carrier

**Aliva AL-403.4 Liquid Dozing Accelerator**
- 24-240 L/H dosage, 0.7 kW electric motor, 460 V / 3 phase / 60 Hz
- Comes with liter/hour digital display
- Conveying capacity infinitely adjustable with potentiometer
- Parallel connection with AL-263

**Options**
- Different engine • Certified FOPS/ROPS canopy or cab • Automatic lubrication system • Fire suppression system • On board compressor • High pressure water washer • Piston pump • OTHER OPTIONS ON REQUEST

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* Specifications subject to change without notice.