ALIVA PRODUCT CATALOG 2019

SHOTCRETE MACHINES, SYSTEMS AND ACCESSORIES
From highly mechanized concrete spraying systems with high spraying output and large working radii to all-purpose rotor spraying machines, Aliva Equipment provides a complete line of machines for processing wet and dry mix for shotcrete.
PRODUCT CATALOGUE 2019

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With our modern machinery, steel construction and assembling we can take over complex and demanding tasks. Our many years of experience as a machine manufacturer for construction and industry enable us to cover your needs professionally.

Qualified employees advise, plan, procure materials or parts, produce in steel construction and mechanical manufacturing. We also mount assemblies and complete systems.

Professional competence, flexibility and adherence to delivery dates guarantee you a flawless fulfillment of your order. From simple to demanding parts, we process for you with modern CNC processing machines, in individual and series production.

**MECHANICAL PRODUCTION**

Our qualification in metal working is your benefit:
- CNC turning
- CNC-milling
- Conventional turning and milling
- Surface grinding and Drilling

**LOCKSMITHERY**

Our strengths lie in the processing of steel and stainless steel with welding processes from TIG, MIG, MAG, electrodes and circular welding system. The manufacturing qualification is based on the EN 287 standard. The flexibly designed workstations can be individually adapted to your design requirements at any time. Hall cranes up to 12 tons are also available.

**ASSEMBLY**

We assemble individual components into assemblies or complete systems. Gearboxes, drives, conveyor units, complete machines, electronic controls and control cabinets. We specialise in mechanical, electrical, pneumatic and hydraulic units. All our processes are monitored by quality controls and also ensure optimum customer satisfaction. Have your technical systems installed by specialists.

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GLOBAL AND LOCAL PARTNERSHIP

We have a well-developed dealer network worldwide for the sale and advice of our products. We maintain close contact with our dealers and exclusive representatives and are always in an open exchange of information. We attach great importance to constructive and goal-oriented relationships with suppliers and agents. Our dealers are regularly trained in our new machine technologies to ensure that they always receive high-quality advice. A competent Aliva Partner is therefore always close to you.

Put your trust in Sika, Aliva Equipment!
ALIVA®-520 DURABLE, AGILE AND POWERFUL

The chassis is built with two long end to end steel plates making it very sturdy. Due to this design the largest possible wheel angle is achieved, enabling an extraordinary short turning radius. The rugged Aliva®-304 spraying arm allows a spraying height of 10 m. The spraying arm and the concrete pump Aliva®-272 are powered by a 55 kW drive. A built-in 75 kW compressor guarantees enough capacity as it supplies an air flow of 12 m³/min.

ALIVA® CONVERTO REPRO DN25 (JOINT RENOVATIONS)

With the special construction of the Aliva® Rotor Repro for small flow rates and the Aliva® Converto Repro nozzle, joint renovation and small concrete repairs are made easy! For joint repairs, the mortar can be applied precisely into the joints. The Aliva®-237 rotor machine can be retrofitted quickly and easily using the Aliva conversion kits..

ALIVA®-201 SHOTCRETE UNIT FOR PRESSURE SILO

The especially compact Aliva®-201, which has been developed for pressure silos is convincing! The quick and easy mounting is done directly on the silo gate. Due to the robust frame construction, the Aliva®-201 can easily be transported and placed under the silo with a forklift. Depending on the pressure silo, various components such as pneumatic gate, level sensor, a vibrator or signal horn can be connected to the control unit. The horn for silo „full“ is already integrated in the Aliva®-201. High-quality materials ensuring the well-known long and reliable quality of Aliva® machines.

ALIVA®-101 DYNAMO, WITHOUT EXTERNAL POWER SUPPLY

The Aliva-101 Quick Connect spray head with a dynamo is the latest clever idea from Aliva! With the integrated dynamo no external power supply for operation is needed any longer. The Quick Connect spray head offers an extremely large and flexible range of applications due to its simple and rapid assembly on various machines, such as diggers, excavators, etc.. No matter whether you are working on slope stabilisations, excavations or tunnelling, with the Aliva Quick Connect spray head you will always be prepared to apply shotcrete with your own equipment.
ACCESSORIES

Aliva®-Protective clothing
Special protective equipment for shotcrete work.

WIRE MESH GLASSES
- Protects eyes from rebound without fogging up. Always a clear view for good quality work.

RESPIRATOR MASK
- Protects the vital respiratory organs from possible dust formation. The FFP3 mask offers high protection.

PROTECTIVE HOOD
- No cement dust in the hair, the fabric protective hood offers comfortable protection during concrete spraying work. It is worn under the required safety helmet.

For further accessories such as conveying hoses/pipes, couplings, Converto systems, additive/air hoses, etc. see Aliva® Converto spare parts catalogues, thin/ dense stream.

Pressure booster pump Aliva®-225.1
Pump to increase the water pressure during dry spraying.

DESCRIPTION
In order to ensure the moistening of the dry sprayed material, we recommend using the Aliva®-225.1 when the water pressure is below 6 bar.
- Reduction of rebound
- Reduction of dust

<table>
<thead>
<tr>
<th>Drive</th>
<th>Voltages*</th>
<th>Drive power</th>
<th>Max. pressure</th>
<th>Max. flow rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric</td>
<td>400V 50 Hz, 440V 60 Hz, 220V 50 Hz</td>
<td>1.1 kW</td>
<td>10 bar</td>
<td>80 Liter/min</td>
</tr>
</tbody>
</table>

* Other voltages on request.
**Rotors Machines**

### Shotcrete machine Aliva®-237 for dry spraying

**The small.**

**Description**
- Universally applicable concrete spraying machine.
- For smaller outputs.
- Also available with 0.6 litre rotor repro for the smallest quantities in concrete renovation or for joint fillings.

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Drive</th>
<th>Rotor sizes in liters</th>
<th>Output* in m³/h (STANDARD)</th>
<th>Output* in m³/h (TOP / AIR)</th>
<th>Max. grain sizes ** in mm</th>
<th>Recommended hose sizes</th>
<th>Max. conveying distance in m horizontal/vertical***</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANDARD</td>
<td>Electric</td>
<td>0.6</td>
<td>0.35</td>
<td>0.2–0.45</td>
<td>4</td>
<td>DN 25</td>
<td>DRY: 200/100</td>
</tr>
<tr>
<td>TOP</td>
<td>Electric</td>
<td>2.0</td>
<td>1.1</td>
<td>0.2–0.5</td>
<td>12</td>
<td>DN 32</td>
<td></td>
</tr>
<tr>
<td>AIR</td>
<td>Air</td>
<td>5.6</td>
<td>3.5</td>
<td>1.1–2.5</td>
<td>12</td>
<td>DN 38</td>
<td></td>
</tr>
</tbody>
</table>

* With a theoretical filling level of 100%. ** Aliva recommendation for grain size: max. 8 mm. *** Depending on various influencing variables; longer conveying distances possible; For conveying distances over 80 m, we recommend the use of steel pipes.

### Shotcrete machine Aliva®-257 for dry and wet spraying

**The All-rounder.**

**Description**
- Concrete spraying machine for small working spaces
- For medium outputs
- Optional available with rubber sealing plates for dry mix spraying
- All variants also available on skids

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Drive</th>
<th>Rotor sizes in liters</th>
<th>Output* in m³/h (TOP/AIR)</th>
<th>Max. grain sizes ** in mm</th>
<th>Recommended hose sizes</th>
<th>Max. conveying distance in m horizontal/vertical***</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP</td>
<td>Electric</td>
<td>2.5</td>
<td>0.7–2.0</td>
<td>12</td>
<td>DN 38</td>
<td>DRY: 300/100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
<td>1.9–5.0</td>
<td>16</td>
<td>DN 50</td>
<td></td>
</tr>
</tbody>
</table>

* With a theoretical filling level of 100%. ** Aliva recommendation for grain size: max. 8 mm. *** Depending on various influencing variables; longer conveying distances possible; For conveying distances over 80 m, we recommend the use of steel pipes.
**Shotcrete machine Aliva®-264 for dry and wet spraying**

The User-friendly.

**DESCRIPTION**
- User-friendly concrete spraying machine for use in excavation pits and for slope stabilization
- Recommended for dry mix and large output
- HPO (Hopper Power Opener): With gas pressure spring for easy opening of the hopper

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Drive</th>
<th>Rotor sizes in liters</th>
<th>Output* in m³/h</th>
<th>Max. grain sizes ** in mm</th>
<th>Recommended hose sizes</th>
<th>Max. conveying distance in m horizontal/vertical***</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASIC</td>
<td>Electric</td>
<td>18</td>
<td>Speed 1: 7.1</td>
<td>20</td>
<td>DN 65 (DN 60)</td>
<td>Dry: 300/100 Wet: 40/15</td>
</tr>
</tbody>
</table>

* With a theoretical filling level of 100%. ** Aliva recommendation for grain size: max. 8 mm. *** Depending on various influencing variables; longer conveying distances possible. For conveying distances over 80 m, we recommend the use of steel pipes.

**Shotcrete machine Aliva®-267 for dry and wet spraying**

The Powerful.

**DESCRIPTION**
- For large outputs
- Recommended for wet mix spraying
- with rubber sealing plates for dry mix spraying
- All variants also available on skids

**OPTIONS**
- RLC (Rotor lifting crane): For easily replacing the gasket plates
- Also available on skids

**VARIANTS**
- STANDARD: 1-step electric drive
- ADVANCED: 2-step electric drive
- ADVANCED PLUS: 2-step electric drive with liquid dosing unit
- TOP PLUS: Infinitely variable electric drive with liquid dosing unit

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Drive</th>
<th>Rotor sizes in liters</th>
<th>Output* in m³/h</th>
<th>Max. grain sizes ** in mm</th>
<th>Recommended hose sizes</th>
<th>Max. conveying distance in m horizontal/vertical***</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANDARD</td>
<td>Electric (1-step)</td>
<td>15.5, 26.5</td>
<td>3.0</td>
<td>16.0</td>
<td>DN 65 (DN 60)</td>
<td>Trocken: 300/100 Nass: 40/15</td>
</tr>
<tr>
<td>ADVANCED</td>
<td>Electric (2-step)</td>
<td>15.5, 26.5</td>
<td>Stufe 1: 6.0</td>
<td>20</td>
<td>Stufe 1: 10.0</td>
<td></td>
</tr>
<tr>
<td>ADVANCED PLUS</td>
<td>incl. Aliva®-403.6</td>
<td>Electric (2-step)</td>
<td>Stufe 1: 6.0</td>
<td>20</td>
<td>Stufe 1: 10.0</td>
<td></td>
</tr>
<tr>
<td>TOP PLUS</td>
<td>incl. Aliva®-403.6</td>
<td>Electric (infinitely variable)</td>
<td>15.5, 26.5</td>
<td>20</td>
<td>Stufe 1: 10.0</td>
<td></td>
</tr>
</tbody>
</table>

* With a theoretical filling level of 100%. ** Aliva recommendation for grain size: max. 8 mm. *** Depending on various influencing variables; longer conveying distances possible. For conveying distances over 80 m, we recommend the use of steel pipes.
CONCRETE PUMP AND SHOTCRETE UNIT FOR PRESSURE SILO

Shotcrete pump Aliva®-272 for wet spraying (dense stream)

The reliable and powerful one.

**DESCRIPTION**
- Compact shotcrete pump
- Low pulsation
- Powerful concrete pump for conveying of concrete with up to 32 mm grain size
- Easy handling, Maintenance and cleaning
- Integrated liquid dosing unit Aliva®-403 & Synchro
- Cable or radio remote control as accessory

**VARIANTS**
- Electric or diesel, both can be synchronized with liquid dosing unit
- Street legal trailer
- Forklift suitable skids
- With two-axle trailer incl. accelerator tank
- Concrete pump Aliva®-270 (without dosing unit)

**OPTIONAL**
- Particle filter (Diesel)
- Set of reductions DN125-DN65/180°

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Voltage / emission standard</th>
<th>Current in A</th>
<th>Power</th>
<th>Weight in kg</th>
<th>Theoretical output* in m³/h</th>
<th>Max. grain sizes in mm</th>
<th>Recommended Pump hose size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric</td>
<td>3x400-480V 50/60Hz</td>
<td>~ 80A</td>
<td>37 kW</td>
<td>2’200 kg</td>
<td>3.0-20.0</td>
<td>Spraying: 16 mm</td>
<td>DN 65</td>
</tr>
<tr>
<td>Diesel</td>
<td>EU Stage IIIA US EPA Tier 3</td>
<td></td>
<td>34.5 kW / 47 PS</td>
<td></td>
<td></td>
<td>Pumping: 32 mm</td>
<td></td>
</tr>
</tbody>
</table>

* With a theoretical filling level of 100%

Shotcrete machine Aliva®-201 for dry spraying (thin stream)

The comfortable spraying unit for high pressure silos (6 bar).

**DESCRIPTION**
- Infinitely variable dosage
- No manual filling
- Flexible use
- Durable and compact design
- Low maintenance
- Reliable operation

**STANDARD EQUIPMENT**
- Air maintenance unit with filter, drain water separator and pressure regulator
- Pressure gauge for system-, silo- and conveying air pressure
- Control cabinet with display
- Pneumatic control of the silo slide and the ball valves for compressed air and conveying pipe

**VARIANTS**
- Electric or diesel, both can be synchronized with liquid dosing unit
- Street legal trailer
- Forklift suitable skids
- With two-axle trailer incl. accelerator tank
- Concrete pump Aliva®-270 (without dosing unit)

**OPTIONAL**
- Particle filter (Diesel)
- Set of reductions DN125-DN65/180°

<table>
<thead>
<tr>
<th>Drive</th>
<th>Voltage / emission standard</th>
<th>Current in A / fuse</th>
<th>Power Motor Protection class</th>
<th>Control voltage</th>
<th>Weight in kg</th>
<th>Theoretical output* in m³/h</th>
<th>Max. grain sizes in mm</th>
<th>Recommended Conveying hose size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Motor</td>
<td>380-480V 50/60Hz</td>
<td>16 +/-10% g510</td>
<td>2.0 kW</td>
<td>IP65</td>
<td>650</td>
<td>2.0-5.0</td>
<td>8</td>
<td>DN 65</td>
</tr>
</tbody>
</table>

* With a theoretical filling level of 100%
LIQUID DOSING UNITS

Liquid dosing unit Aliva®-403.3 und Aliva®-403.6 Manual

The simple.

DESCRIPTION

- Liquid dosing unit for additives
- Precise dosing (factory set)
- Infinite regulation
- Withstands a dry run

OPTIONAL

- Chassis
- Backflow preventer, for drinking water protection
- Overvoltage diverter

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Drive</th>
<th>Power Motor</th>
<th>Pumping output* in Liter/h</th>
<th>Max. Pump pressure in bar</th>
<th>Weight in kg</th>
<th>Max. Conveying distance in m horizontal**</th>
</tr>
</thead>
<tbody>
<tr>
<td>403.3 Manual</td>
<td>Electric</td>
<td>0.75 kW</td>
<td>24–240</td>
<td>7</td>
<td>70</td>
<td>60m</td>
</tr>
<tr>
<td>403.6 Manual</td>
<td>Electric</td>
<td>30–700</td>
<td>10</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Theoretical 1 meter conveyor hose. ** Depends on various factors; Longer conveying distances are possible. Aliva suggests the use of stainless steel pipes over 60 m conveying distance.

Liquid dosing unit Aliva®-403.6 Synchro und Air

For advanced demands.

DESCRIPTION

- Liquid dosing unit for additives
- The Aliva®-403.6 Synchro can be ordered with synchronization inputs of 0-10V or 4-24 mA.
- Withstands a dry run

OPTIONS

- Backflow preventer, for drinking water protection
- Overvoltage diverter (Synchro)

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Drive</th>
<th>Power Motor</th>
<th>Pumping output* in Liter/h</th>
<th>Max. Pump pressure in bar</th>
<th>Weight in kg</th>
<th>Max. Conveying distance in m horizontal**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synchro</td>
<td>Electric</td>
<td>0.75 kW</td>
<td>30–700</td>
<td>10</td>
<td>130</td>
<td>60m</td>
</tr>
<tr>
<td>Air DL10</td>
<td>Air</td>
<td>Max. 7 bar 3 Nm3/min</td>
<td>4–240</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air DL18</td>
<td>Air</td>
<td>4.0 kW</td>
<td>150–700</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Theoretical 1 meter conveyor hose. ** Depends on various factors; Longer conveying distances are possible. Aliva suggests the use of stainless steel pipes over 60 m conveying distance.
CONCRETE SPRAYING NOZZLES
THIN STREAM

For detailed information see Aliva® Converto spare parts catalogue thin stream.

Hand spraying devices Aliva® Converto

For manual dry or wet spraying.

DESCRIPTION
- Quick, easy and multifunctional to use
- Innovative water ring system:
  For the change from wet to dry spraying only the water ring has to be changed.
- Simplified nozzle guidance thanks to handy all-round handle
- Simple and comfortable operation

VARIANTS
- Water rings for dry and wet spraying
- Standard: For fast reacting accelerators
- Backinlet: For slow reacting accelerators
- Conveying hose sizes: DN 25/32/38/50/60/65

Aliva® Converto Standard (thin stream)

INNOVATIVE WATER RING SYSTEM
- Yellow waterring: dry spraying
- Red Waterring: wet spraying

Aliva® Converto RoboSpray

For dry or wet spraying with a manipulator

DESCRIPTION
- Quick, easy and multifunctional to use
- Innovative water ring system (see above)
- Robust parts and easy cleaning
- Suitable for Aliva®-101/302.1/304/503.3 and all others common manipulators

VARIANTS
- Water rings for dry and wet spraying
- Standard: For fast reacting accelerators
- Backinlet: For slow reacting accelerators
- Conveying hose sizes: DN 50/60/65
- With anti-kink spring and nozzle holder suitable for Aliva®-spray heads

For detailed information see Aliva® Converto spare parts catalogue thin stream.
CONCRETE SPRAYING NOZZLES
DENSE STREAM

For detailed information see Aliva® Converto spare parts catalogue dense stream.

Hand spraying devices Aliva® Converto

For manual wet spraying.

DESCRIPTION
- Quick, easy and multifunctional to use
- Suitable for the dense stream process, for example concrete spraying with Aliva®-272
- Simplified nozzle guidance thanks to handy all-round handle
- Simple and comfortable working thanks to pump hose DN50 after the current transformer: Conversion of dense stream too thin stream
- Reduced weight for nozzle guidance

VARIANTS
- Concrete pump hose size: DN 65
- Standard: For fast reacting accelerators
- Backinlet: For slow reacting accelerators

Aliva® Converto Backinlet (Dense stream)

Aliva® Converto RoboSpray

For wet spraying with a manipulator

DESCRIPTION
- Quick, easy and multifunctional to use
- For wet mix spraying with a manipulator and a concrete spraying pump, for example Aliva®-272
- Optimized current transformer made of wear-resistant, hardened steel
- Suitable for Aliva®-101/301.1/304/503.3/520 and all others common manipulators

VARIANTS
- With anti-kink spring and nozzle holder suitable for Aliva®-Spray heads
- Concrete pump hose size: DN 65 and DN 80

For detailed information see Aliva® Converto spare parts catalogue dense stream.
**Spraying arm Aliva®-302.1 and Aliva®-304**

**DESCRIPTION**
- Spraying arm for small to medium-sized tunnels
- Suitable for mounting on various carrier vehicles
- Easy maintenance
- Up to 15 m³/h (DN65) with Aliva®-302.1
- Up to 20 m³/h (DN80) with Aliva®-304

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Drive</th>
<th>Power in kW</th>
<th>Hydraulic oil flow</th>
<th>Max. oil pressure</th>
<th>Theoretical output* in m³/h</th>
<th>Spray area in m</th>
<th>Remote control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliva®-302.1</td>
<td>Electric</td>
<td>9.0</td>
<td>28.0 l/min</td>
<td>210 bar ± 5 bar</td>
<td>depending on Conveying Machine (rotor machine or concrete pump)</td>
<td>2–8</td>
<td>Electric (15 m cable) optional: radio</td>
</tr>
<tr>
<td>Aliva®-304</td>
<td>Electric</td>
<td>11.0</td>
<td>36.0 l/min</td>
<td></td>
<td></td>
<td>4–10</td>
<td></td>
</tr>
</tbody>
</table>

* For the operation of the concrete spraying system a conveying machine is additionally required.

**OPTIONS**
- Radio remote control
- Headlights
- Without hydraulic unit
- Reduced height for tight spaces

**Mini Shotcrete system Aliva®-503.3**

**DESCRIPTION**
- Specially reinforced concrete spraying system on tracked vehicle with hydraulic stabilizers
- Ideal for mines in narrow tunnels and construction pits

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Drive</th>
<th>Weight vehicle in kg</th>
<th>Theoretical output* in m³/h</th>
<th>Spraying arm Aliva®-302.1</th>
<th>Spray area in m</th>
<th>Remote control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel/electric</td>
<td>Vehicle diesel</td>
<td>1500</td>
<td>depending on Conveying Machine (rotor machine or concrete pump)</td>
<td>Telescope Spraying arm Aliva®-302.1 with hydraulic unit and control cabinet</td>
<td>2–8</td>
<td>Electric (15 m cable) optional: radio</td>
</tr>
</tbody>
</table>

* For the operation of the concrete spraying system a conveying machine is additionally required.

**OPTIONS**
- Two additional sideways (hydraulic) stabilizers for up to 200° spray range
- Light package:
  - Headlights
  - Running light
  - Flashing light
- Radio remote control
**MANIPULATORS**

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### Aliva®-101 Quick Connect Spritzkopf

The independent system solution for use on excavators with quick-change system.

**DESCRIPTION**

- Designed for the quick and easy attachment via quick coupler system on the excavator
- Mechanically connected with an adapter plate on the quick coupler system of the excavator
- Hydraulic and electric connection with excavator

**ADVANTAGES AND BENEFITS**

- Suitable for a wide range of excavators
- Compatible with any quick-release system
- Connection to excavator hydraulics

**VARIANTS**

- With dynamo, no external power supply needed
- 12 VDC (5A) or 24 VDC (5A), without dynamo

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Weight in kg</th>
<th>Hose size</th>
<th>Dimensions L x B x H in mm</th>
<th>Hydraulic connection</th>
<th>Hydraulic pressure</th>
<th>Hydraulic oil flow</th>
<th>Remote control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>210</td>
<td>max. DN 65</td>
<td>LxWxH: 1370x355x490</td>
<td>G 1” IG oder SAE 04-06-044</td>
<td>min. 210 bar</td>
<td>max. 350 bar</td>
<td>Radio</td>
</tr>
<tr>
<td>Large</td>
<td>230</td>
<td>max. DN 80</td>
<td>LxWxH: 1440x355x540</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* For the operation of the concrete spraying system a conveying machine is additionally required.

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### Shotcrete system Aliva-520

Ideal for mines and tunnels.

**DESCRIPTION**

- Electric or diesel drive
- Concrete pump Aliva®-272
  - 3...20m³/h*
- Dosing unit Aliva®-403.6 Synchro
  - 30...700 liter/h (max. 10 bar)**
- Short turning radius
- Compact design yet big performance
- Integrated 12m³/min compressor
- 10 m Spraying arm

**OPTIONS**

- High-pressure cleaner
  - For cleanliness
- Fire extinguishing system:
  - For safety

**VARIANTS**

- Electric
- Diesel

<table>
<thead>
<tr>
<th>Machine type</th>
<th>Drive / Engine / Vehicle</th>
<th>Power motor</th>
<th>Weight in kg</th>
<th>Dimensions L x B x H in mm</th>
<th>Turning radius Inside / Outside in m</th>
<th>Max. Slope</th>
<th>Max. Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% electric</td>
<td>Electric with battery</td>
<td>2 x 1150 Nm / 2 x 90 kW</td>
<td>10'920 kg</td>
<td>7100 x 2200 x 2500</td>
<td>1.8m / 5.2m</td>
<td>30%</td>
<td>20 km/h</td>
</tr>
<tr>
<td>Diesel/Elektrisch</td>
<td>Tier 3/4/Stage V</td>
<td>ca. 85 kW / 117 PS</td>
<td>11'220 kg</td>
<td>7100 x 2200 x 2500</td>
<td>1.8m / 5.2m</td>
<td>30%</td>
<td>20 km/h</td>
</tr>
</tbody>
</table>

* With a theoretical filling level of 100%.
** Theoretical 1 meter conveyor hose.
SYSTEMS FOR TUNNEL BORING MACHINES (TBM)

Aliva® Systems for TBM
Innovative and customized solutions for tunnel boring machines (TBM).

SYSTEM VARIANTS

- **Shotcrete:**
  - Ring mechanism
  - Bridge system (8m)
  - Telescopic spraying arm (2, 3 and 4m)
  - Concrete pump Aliva®-272
  - Liquid dosing unit Aliva®-403.6
  - Additive tank
  - Control cabinet
  - Spraying device /-head
  - Remote control (cable/radio)
  - Output up to 21 m³/h

- **Pea Gravel Backfilling:**
  - Rotary machine Aliva®-257 or Aliva®-267BF
  - Backfilling lances
  - Conveying systems
  - Level sensors
  - Control cabinet
  - Pea Gravel bins
  - Conveyor belts
  - Innovative PLC system (for connecting with TBM control desk)
  - Output up to 16 m³/h

* With a theoretical filling level of 100%

EXPERTISE COMBINED WITH INNOVATION

Customized solutions, job-specific and customer-specific machines as well as flexible manufacturing on short notice provide a significant contribution to facilitating the financially feasible construction of tunnels. The development of such machines is supported by the combination of machine technology and concrete technology as well as highly qualified and experienced designers, engineers and development teams. Their many years of extensive experience and constant engagement with innovative technologies form the backbone of our development team’s expertise, which is needed for implementing their projects in a user-friendly way.
SHOTCRETE SYSTEM FOR VERTICAL SHAFTS

**Aliva® Shotcrete system for vertical shafts**

Customized solutions for robotic shotcrete applications in vertical shafts.

**DESCRIPTION**

- For vertical shaft construction in conventional shaft-sinking process or raise-boring process
- Suitable for thin- or dense stream process
- Shaft diameter: 5.5 - 9.5 m
- Spraying coverage area 3 m (stroke)
- Dimensions 730 x 1150 mm
  Height: 6 - 8 m

**VARIANTS / OPTIONS**

- Optional with integrated equipment for concrete conveying
- Positioning outside or in the shaft center
- Additional rotary drives for nozzle positioning

Shotcrete application 3m stroke, 360° spraying angle

Safe position in the galloway during blasting

Nozzle maintenance during shotcrete application
EQUIPMENT FOR REFRACTORY MATERIALS

**Aliva®-237 / -257 with silo**
For use in the steel industry, foundries, power plants and cement plants.

**DESCRIPTION**
Spraying systems for repair of refractory materials like refractory lining of converters, electric arc furnaces, ladles, submerged nozzles, etc.

**CONVERTO REFRACTORY**
Spraying nozzle Converto Refractory made of steel is the solution for hot work of refractory linings, which are sprayed by hand. The lance is available in various lengths.

**Aliva®-621 Pressure silo**
For use in the steel industry, foundries, power plants and cement plants.

**DESCRIPTION**
The pressure conveying vessel was developed for the continuous conveying of refractory materials
Conveying capacity from 0.4...4.0 m³/h

**VARIANTS**
- 1 m³ or 1.5 m³
- 2.0 liter rotor (DN38)
- 3.2 liter rotor (DN38/50)
- 5.2 liter rotor (DN50)

**CONVERTO REFRACTORY**
Mixing of refractory material with water.
EQUIPMENT FOR REFRACTORY MATERIALS

**Aliva®-572**
For use in the steel industry, foundries, power plants and cement plants.

**DESCRIPTION**
For an economical, hot or cold refractory repair of the degassing pipes inside / outside of vacuum tanks in steel production.

**ADVANTAGES AND BENEFITS**
- It is sprayed simultaneously once inside and outside
- Platform can be rotated 180°
- Automatic program sequence
- Different program settings possible

**Aliva®-555**
For use in the steel industry, foundries, power plants and cement plants.

**ADVANTAGES AND BENEFITS**
- 11m long telescopic lance, ideal for large converters
- Easy to use functions, tilt, swivel, rotate
- Lance can rotate 400°
- Mounted on forklift truck with solid rubber tyres and heat shield

**DESCRIPTION**
Compact and easy to use spraying manipulator for refractory materials. Ideal for hot or cold repairs of converter linings.
ABOUT US

OUR SERVICES

WORLDWIDE
Aliva Equipment is known for the outstanding quality and functionality of its concrete spraying machines and systems, which are sold worldwide. Over 70 representatives advise and support our global customers.

SHOTCRETE

ENGINEERING
For customized solutions and developments of individual spraying systems for vehicles, TBM etc. The technical department will be happy to help you with any technical questions you may have about machines and equipment or with any adjustments you may require.

CUSTOMER SERVICE
Initial commissioning, maintenance work, repairs and revisions. Our customer service is available for you during office hours.
Phone: +41 58 436 32 22

RENTAL
Aliva Equipment offers you the possibility to rent equipment for a certain period of time. Dosing units, rotor machines or spraying systems. For the regions D/A/CH we provide a large rental machine park from Widen. We are also happy to serve other countries on request.

WAREHOUSE
Fast availability from large central warehouse in Widen. Quality tested spare and wear parts. Furthermore wear-tested conveying hoses in Aliva quality.

SIKA SCHWEIZ AG
Aliva Equipment
Bellikeronstrasse 218
CH-8967 Widen
Switzerland

CONTACT
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Fax     +41 58 436 41 40
www.aliva-equipment.com
aliva.equipment@ch.sika.com
For Germany, Austria and Switzerland we offer a wide range of rental machines. We serve other countries upon request. Please contact us.

**FLEXIBILITY WITHOUT EXCEPTION**

- **Long and short term rentals possible**
  No matter whether you need short-term capacity for production peaks or simply want to be flexible in your construction projects, we offer you the optimal solution. For example with a hire-purchase option.

- **Wide range of machines**
  Our modern rental machine park covers machines in top condition for almost all applications in the shotcrete field. Ask us and we will find the optimal machine for your specific application.

- **Best service**
  Our qualified service team supports you in the commissioning and selection of additional equipment. For further information, do not hesitate to contact us. We advise you personally and professionally.

### MACHINE EQUIPMENT

<table>
<thead>
<tr>
<th>Dosing units</th>
<th>Rotor machines</th>
<th>Concrete pump</th>
<th>Manipulators:</th>
<th>Accessories in rental price included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliva-403.3</td>
<td>Aliva-237 Top</td>
<td>Aliva-272</td>
<td>Aliva-101 Spray head</td>
<td>Spraying unit with 40 m transport hose and with dosing unit additional 40 m water-/chemical hose</td>
</tr>
<tr>
<td>Aliva-403.4</td>
<td>Aliva-257 Top</td>
<td>Aliva-270</td>
<td>Aliva-503.3 Mini-shotcrete system</td>
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<tr>
<td>Aliva-403.6</td>
<td>Aliva-264 HPD &amp; RLC</td>
<td>Aliva-520 Shotcrete system</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Aliva-267 TopPlus</td>
<td>Aliva-500-PC</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Aliva-267 AdvancedPlus</td>
<td></td>
<td></td>
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</tbody>
</table>
ABOUT US
Aliva Equipment is a subsidiary of SIKA, located in Widen, Switzerland. For more than half a century, Aliva Equipment has been active in the field of shotcrete as a specialist for designing and manufacturing rotor machines, concrete and dosing pumps, telescopic spraying arms and special construction systems for tunnel boring machines (TBMs). Aliva Equipment is known for the outstanding quality and function of its concrete spraying machines and systems, which are sold and supported by over 70 representatives throughout the world. Aliva Equipment has also gained a leading position in the steel industry market in the area of refractory systems due to its technical expertise and customer-oriented solutions. Our global network of dealers and efficient order processing department allow us to serve our regional and world-wide customers quickly and reliably.

FOR MORE INFORMATION ON ALIVA EQUIPMENT:

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Aliva Equipment
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CH-8048 Zürich
Switzerland

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Phone +41 58 436 32 22
Fax +41 58 436 41 40
aliva.equipment@ch.sika.com
www.aliva-equipment.com

GLOBAL AND LOCAL PARTNERSHIP

Prior to use or processing, always consult the current instruction manual of the products used.
The current version of our respective General Terms and Conditions applies.

SALES UND SUPPORT
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