



**CARBONTECH**

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## **Thin Spray Liner Pumps**

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## **TSL PUMPS**

Carbontech developed a range of TSL (Thin Spray Liner) pumps to accommodate most of our client needs and suitable for most working environments in the mining industry.

We have two base models, and these models can be configured to suit most of the spraying scenarios we may encounter.

- **IN-STOPE TSL PUMPS:**

Our in-stope TSL pumps are compact, lightweight and durable machines, designed for spraying in stopes and confined spaces. It comprise a single mixing bowl, and a mixing spiral. All stope pumps are equipped with 32mm Wilden T4 double diaphragm pumps.



*Please note that above pumps are older models and for visual purposes only. Recent updates have been made to improve safety and effectiveness.*

- **CONTINUOUS PUMPS**

- ✓ The continuous pump is designed with a mixing bowl where the product is mixed
- ✓ The mixed slurry is then dumped into the hopper, from which it is pumped from the hopper, into the Wilden T4 Pump, and out the nozzle.
- ✓ The second mix can commence as the first mix is separate from the mixing bowl, therefore making it a continuous process.



## MODELS & DESCRIPTIONS:

### CONTINUOUS RANGE

- **CHA 32**  
Continuous, Hand mixed, Air pump equipped with a 32mm double diaphragm pump

#### DESCRIPTION:

- The CHA 32 is the base model of the continuous pump range.
- This model is designed to apply TSL (Thin spray liner) in the mining industry.
- The mixer is powered by hand.

#### COMPONENTS:

- Mixing bin (Hand operated)
- 40L Hopper bin
- Double diaphragm pump with 32mm outlet, for pumping the mixed TSL out of the hopper bin, and spray via the spray nozzle onto the desired surface.
- 5m x 25mm orange mining hose for both air and product flow.
- Mixing/spray nozzle



- **CAA 32**  
Continuous, Air mixed, Air pump with a 32mm double diaphragm pump

**DESCRIPTION:**

- The mixer is powered by a 7HP pneumatic motor.

**COMPONENTS:**

- Mixing bin (driven by pneumatic motor)
- Pneumatic motor + gearbox
- Lubricator
- 40L hopper bin
- Double diaphragm pump with 32mm outlet, for pumping the mixed TSL out of the hopper bin, and onto the desired surface.
- 5m x 25mm orange mining hose for both air and product flow.
- Mixing/spray nozzle



- **CHE-RS**  
Continuous, Hand mixed, Electrically powered Rotor Stator pump

#### DESCRIPTION:

- This pump is designed to accommodate a rotor stator pump in combination with the continuous mixing system. The rotor stator pump is driven by a 2,2kw motor and the mixer is operated by hand.

#### COMPONENTS:

- Mixing bin (hand operated)
- 2.2kw Motor + gearbox
- Electrical circuit control panel
- 40L Hopper bin
- Rotor and stator for pumping the mixed TSL out of the hopper bin, and onto the desired surface.
- 5m x 25mm orange mining hose for both air and product flow.
- Mixing/spray nozzle



- **CEE-RS**  
Continuous, Electrically mixed, Electrically powered Rotor Stator pump

#### DESCRIPTION:

- This pump is designed to accommodate a rotor stator pump in combination with the continuous mixing system.
- The rotor stator pump is driven by a 2,2kw motor and the mixer powered by a 0.75Kw Motor.

#### COMPONENTS:

- Mixing bin (Electrically driven by 0.75kw Motor)
- 0.75kw motor + gearbox
- 2.2kw Motor + gearbox
- Electrical Circuit Control Panel
- 40L Hopper bin
- Rotor and stator for pumping the mixed TSL out of the Hopper bin, and onto the desired surface.
- 5m x 25mm orange mining hose for both air and product flow.
- Mixing/spray nozzle



- **CAE-RS**  
Continuous, Air Mixed, Electronically driven Rotor Stator Pump

**DESCRIPTION:**

- This pump is designed to accommodate a rotor stator pump in combination with the continuous mixing system.
- The rotor stator pump is driven by a 2,2kw motor and the mixer is driven by a pneumatic motor.

**COMPONENTS:**

- Mixing bin (Driven by a pneumatic air motor)
- Pneumatic motor + gearbox
- Lubricator
- 2.2kw Motor + gearbox
- Electrical circuit control panel
- 40L hopper bin
- Rotor and Stator for pumping the mixed TSL out of the hopper bin, and onto the desired surface.
- 5m x 25mm orange mining hose for both air and product flow.
- Mixing/spray nozzle



## **STOPE PUMP RANGE:**



- **SHA 32**  
Stope TSL pump, Hand mixing, and double diaphragm Air pump with 32mm Outlet

### **DESCRIPTION:**

- The stope pump is the smallest Pump in the range. Equipped with a single mixing bin, designed to mix the product, and to pump directly out of the mixing bin onto the desired spraying surface via the spraying arrangement.

### **COMPONENTS:**

- Mixing bin (hand operated)
- Double diaphragm pump with 32mm outlet, for pumping the mixed TSL out of the mixing bin, and onto the desired surface.
- 5m x 25mm orange mining hose for both air and product flow.
- Mining/spray nozzle

- **SAA 32**  
Stope TSL pump, Air mixed, Double diaphragm Air pump with 32mm outlet

### **DESCRIPTION:**

- A stope TSL pump, with a mixer driven by a pneumatic motor.

### **COMPONENTS:**

- Mixing bin (driven by a pneumatic motor)
- Pneumatic motor + gearbox
- Lubricator
- Double diaphragm pump with 32mm outlet, for pumping the mixed TSL out of the mixing bin, and onto the desired surface via the spraying arrangement.
- 5m Orange mining hose for both air and product flow.

- o Nozzle

## TECHNICAL DATA

MODEL	OVERALL LENGTH	OVERALL HEIGHT	OVERALL WEIGHT	WHEELS	POWER SOURCE MIXER	POWER SOURCE PUMP	PUMPING RATE	AIR CONSUMPTION
							TSL	
CHA 32	1240mm	1100mm	115kg	YES	Hand Mixer	Air (Wilden T4)	15 LPM	4 BAR & 125CFM
CAA 32	1240mm	1100mm	135kg	YES	7HP Pneumatic Motor	Air (Wilden T4)	15 LPM	4 BAR & 125CFM
CHE-RS	1240mm	1250mm	185kg	YES	Hand Mixer	2.2Kw 525V	800L P/H OR 13 LPM	4 BAR MINIMUM ON NOZZLE
CEE-RS	1240mm	1250mm	210kg	YES	0.75Kw 525V	2.2Kw 525V	800L P/H OR 13 LPM	4 BAR MINIMUM ON NOZZLE
CAE-RS	1240mm	1250mm	200kg	YES	7HP Pneumatic Motor	2.2Kw 525V	800L P/H OR 13 LPM	4 BAR MINIMUM ON NOZZLE
SHA 32	1300mm	650mm	98kg	OPTIONAL	Hand Mixer	Air (Wilden T4)	15 LPM	4 BAR & 125CFM
SAA 32	1300mm	650mm	128kg	OPTIONAL	7HP Pneumatic Motor	Air (Wilden T4)	15 LPM	4 BAR & 125CFM