

conMICO Colloidal SD4 / SD6

SINGLE DRUM COLLOIDAL GROUT MIXER

This machine is a single drum high speed, high shear unit designed for the efficient production of cement based grouts.

The finished product exhibits colloidal properties and is nearly immiscible in water.

The machine can handle cement/sand ratios up to 1:3 by weight and produce pumpable mixtures. It will mix a wide range of materials such as Cement / P.F.A. Preblends, Bentonite, Lime or Chemicals.

The machine illustrated is a skid mounted unit for tunnel or mining applications.

The unit can be supplied on a site mobile chassis if required.

SD4 and SD6 mixers are designed and constructed to withstand any arduous site condition.



Colloidal Mixer with Agitator

TECHNICAL SPECIFICATIONS

Dimensions

Length: 1.3 m
Width: 0.85 m
Height: 1.25 m

Power Unit

20 H.P. Air motor
11 KW Electric Motor
15 HP Diesel Engine

Output

2.5 cu.m / hour
Pressure 2.0 bar

Batch Capacity

The mixing tank capacity is 120 / 150 litres

Colloidal Mixing Process

Pressure Discharge

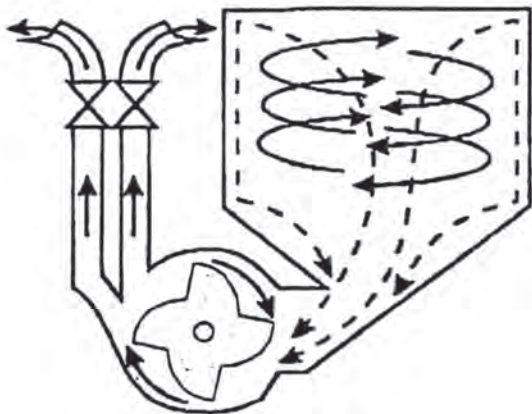
The pumping action of the mixer enables rapid transfer of mixed materials out of the mixer into a storage tank or directly to the point of use.

Proven Design

High shear mixers are now accepted as an industry standard.

Reliability

The combination of robust design and ready availability of spare parts ensures long life and reliability.



High Strength Grouts

The high shear mixing action is capable of mixing grouts of lower water/cement ratios, resulting in high strength grouts.

Cost Savings

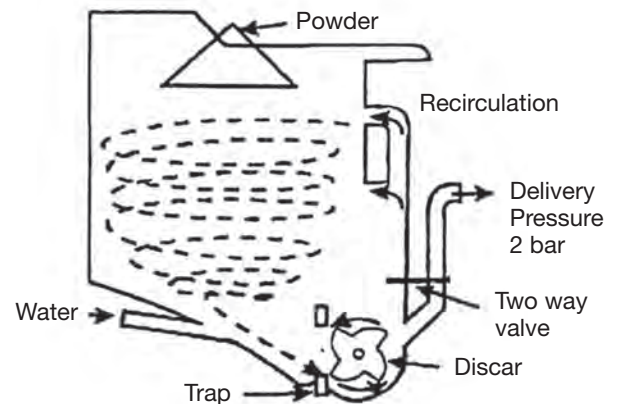
The combined effect of the highly efficient mixing action and the ability to mix low water/solids ratios permit a reduction in the cement content for a given strength requirement. The cement is replaced by a less costly filler such as sand or PFA.

Optimum Mixing

The unmixed grout is repeatedly recirculated through a high shear zone within the mixer. This technique breaks down the cluster of dry particles (agglomerates) and ensures maximum interdispersion of fluids and solids.

Minimal Bleed

The combination of low water/cement ratios and efficient mixing ensures that more of the water is absorbed by hydration thus minimizing bleed.



Immiscible with Water

The colloidal properties of the mixed grout render it virtually immiscible with water and ideal for underwater grouting.

Minimal Dilution by Groundwater

BS8081 recommends the use of high shear mixing for the grouting of anchors in water bearing ground conditions because dilution is minimized.

Speed

The vortex action inside the mixing tank rapidly assimilates the powder materials into the high shear mixer. This results in very rapid mixing of a batch, in as little as 15 seconds.