TipTrak Bucket Conveyors

For Explosive Applications

TipTrak™ bucket conveyors provide the gentlest handling, least spillage, lowest maintenance, and quietest operation of any bucket conveyor system.

In certain conveying applications, the risk of a dust explosion is a real and present danger. For an explosion to occur, three conditions need to be present: fuel (the product being handled or dust from the product); ignition; and oxygen.

To mitigate the risk of an explosion in these applications, it is critical to use conveyors that are especially designed to address the conditions which can lead to a dust explosion.

UniTrak has been providing equipment for use in explosive applications for more than 45 years. Our first explosive application project took place in 1971 at the Volunteer Ammunition Plant in Chattanooga, Tennessee, USA. In that project, a highly *customerized* TipTrak™ was supplied for the handling of TNT.

Since then, UniTrak's experience in handling explosives has grown over the years.

UniTrak Corporation Limited Box 330, 299 Ward Street Port Hope, ON L1A 3W4 905-885-8168 www.unitrak.com

UNITRAK

Explosive materials handled:

Aluminum powder
Alkyl ketene dimer pastilles
Ammonium nitrate
Black powder
Carbon black
Carbon flake
Energetic Materials
Fungicide
Naphthalene dicarboxylate
PETN powder
Phenolic resin
Pesticide surfactant
Phosphonium
Propellant
Sodium azide

Stearic acid
Sugar
Sulphomium
Sulfonamide accelerator
Sulfur bentonite mix
Sulphur prills
Sulphur granules
Sulphur pellets
Sulphur powder
Sulphur pastilles
TOW grain & fuel rod
Tributyl phosphate (wetted TBP)
Trinitrotoluene (TNT)
Wood flour
Zinc stearate flakes

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TipTrak[™] bucket conveyors can be supplied to service explosive applications, including those with ATEX requirements. Here are some of the features of the TipTrak bucket conveyors for explosive environments.

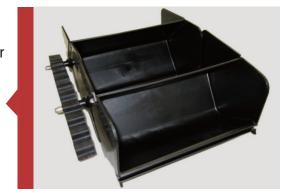


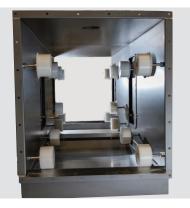
Ground studs and grounding wire. The entire TipTrak[™] is grounded via welded grounding studs and ground straps on each panel of the entire frame to ensure a fully conductive path to ground, or "earthing".

Ability to operate under a nitrogen purge. The frame of a TipTrak[™] conveyor is reinforced with custom-designed ribs and factory-installed nozzles to enable operation with a nitrogen purge to virtually eliminate the accumulation of any explosive atmosphere within the machine.

Conductive bucket assemblies. All TipTrak™ bucket conveyors designed for explosive applications are supplied with fully conductive bucket assemblies, which includes the buckets, joint strips and the TipTrak™ rubber beltchain. Our rubber chains can never create anything sparking, and our specially formulated plastic buckets and joint strips never accumulate any static charge.

Explosion proof electrical components. TipTrak™ bucket conveyors designed for explosive environments are equipped with explosion proof motors, and all other aspects of the electrical system, including speed sensors and ionizer assemblies.





No interior ledges. The interior of a TipTrak[™] conveyor is free of ledges and crossbar supports where explosive dust could accumulate.

Options available. All TipTraks[™] can be *customerized* to suit your requirements, options such as rupture panels, explosion venting, dust collection connections and easily removable clean out drawers can be added.

TipTrakTM bucket conveyors are designed to service a wide variety of bulk material conveying applications. With over 45 years of proven performance in facilities the world over, TipTrakTM bucket conveyors provide unmatched reliability in even the most demanding applications. TipTrakTM bucket conveyors are available in a wide range of constructions, sizes, and configurations, and every unit can be precisely customized for your application.