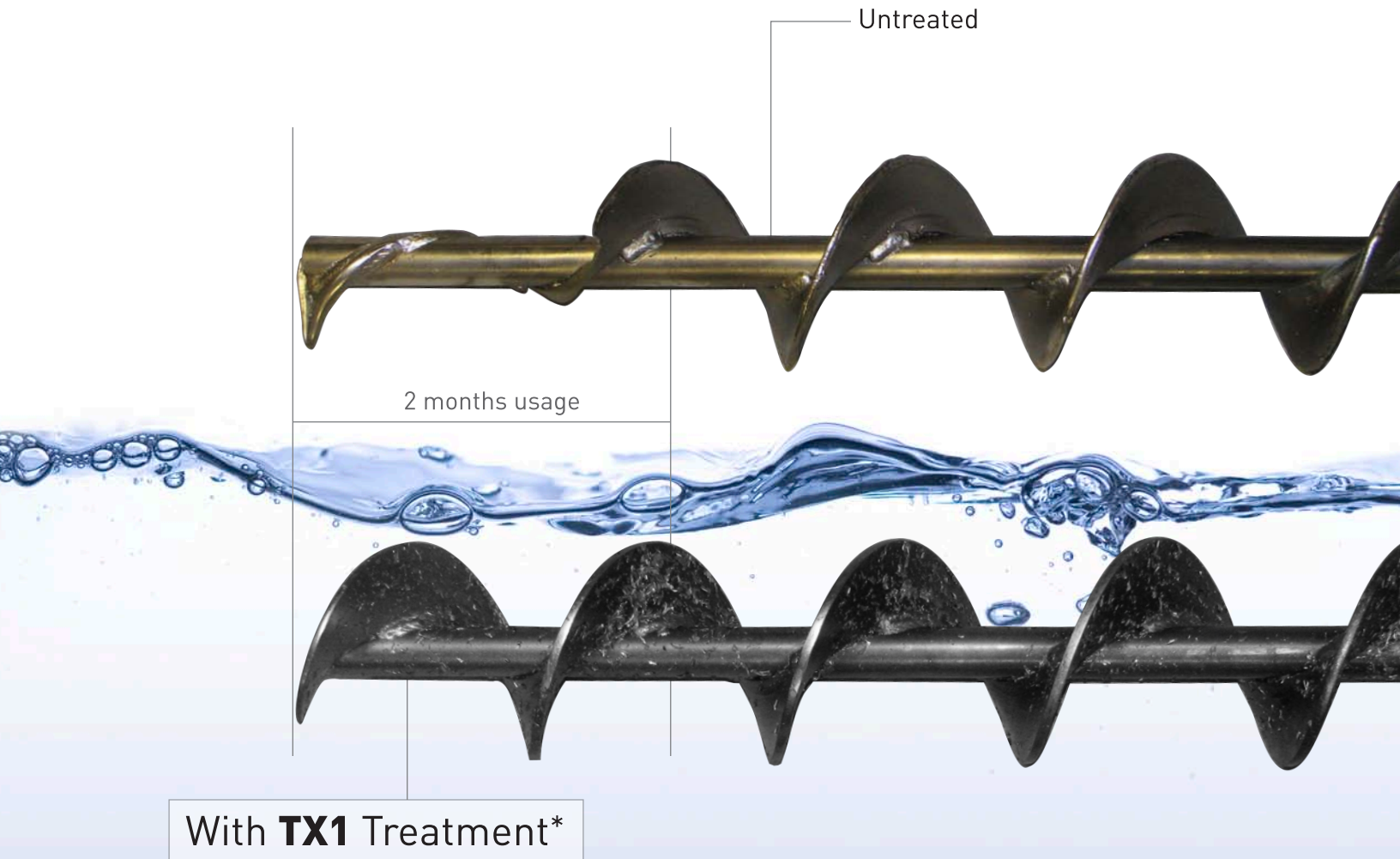


Why Accept Failure



When You Require Performance

The Ultimate In
Wear Resistance **TX1**

* Picture of actual auger after 4 months pushing titanium chips

TX1 makes machinery last longer in harsh environments by providing...

- Outstanding wear resistance
- High surface lubricity without oils
- Anti-galling without adding brittleness
- Dimensionally stable finished parts
- Bulk mass transformation to resist spalling
- Applicability to either new parts or parts in service

What TX1 Is

The TX1 process is a unique diffusion-conversion based technology which improves both the chemical and physical characteristics of steel. These improved characteristics transform lower cost materials so that they either match or outperform more costly exotic alloys in high wear applications.

TX1 is not a coating. Instead of traditional surface coating methods which are prone to brittle fractures and spalling, TX1 is a treatment that works through both diffusion and crystal lattice transformation.

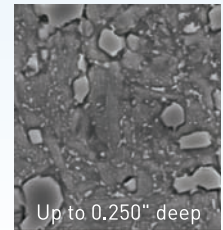
How TX1 Works

TX1 has taken a different approach to the problem of wear. By altering the crystalline lattice of the steel TX1 eliminates wear at the nano level. When an abrasive particle or opposing surface strikes TX1 treated steels, the wear energy is adsorbed and dissipated throughout the surrounding steel. TX1 overcomes wear by transforming the surface chemistry of steel to work in conjunction with changes in the bulk matrix. This is accomplished without increasing hardness.

Untreated



TX1 Treated



TX1 dramatically increases the wear resistance properties for steel alloys in most applications...

Market Sector	Benefits
Mining/Construction	
Cutter Heads	Lowers tool consumption
Wheel Bearings	Lengthens life in gritty conditions
Pulleys	Reduces downtime
Vehicle Drive Trains	Increases fuel efficiency
Material Belt Movers	Reduces power consumption
Sludge Pumps	Reduces blade wear
Bulldozer Buckets	Lowers material cost
Industrial	
Die-Cast Molds	Prevents operator damage
Sand Blasting Equip.	Reduces equipment costs
Hammer Mills	Maintains equipment tolerances
Shredders	Improves product quality
Rollers	Reduces frictional heat
Plastic injection	Handles abrasive materials
Manifolds	Reduces soot buildup

Market Sector	Benefits
Agricultural	
Screw Augers	Reduces operation costs
Cutter Heads	Reduces equipment downtime
Grain Elevators	Reduce power consumption
Milling Operations	Eliminates costly super-alloys
Conveyors	Reduces noise level
Performance Sports	
Auto Racing	Increases engine life
Snow Machines	Increases level of endurance
Military & U.S. Army Corps of Engineers	
Wheel Bearings	Reduces Maintenance
Vehicle Drive Trains	Protects after sudden lubricant loss

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